

Clean Water Council Meeting Agenda

Monday, June 3, 2024

9:00 a.m. to 2 p.m.

IN PERSON with Webex Available (Hybrid Meeting)

9:00 Regular Clean Water Council Business

- **(INFORMATION ITEM)** Introductions
- **(ACTION ITEM)** Agenda - comments/additions and approve agenda
- **(ACTION ITEM)** Meeting Minutes - comments/additions and approve meeting minutes
- **(INFORMATION ITEM)** Chair and Council Staff update
 - Policy & Budget and Outcomes Committee Updates
 - Staff update: Status of Supplemental Clean Water Fund Recommendations

9:30 Quick Review on FY26-27 Clean Water Fund Recommendations

- What's the Council's role in the recommendations process? (Statute attached.)
- What's the timeline? (Calendar attached)
- How do all the programs fit together into a cohesive strategy and with the strategic plan?

9:45 Agency Presentations for FY26-27 Clean Water Fund Recommendations

- Aquifer Monitoring for Water Supply Planning (DNR)
- Buffer Map Maintenance (DNR)
- Stream Flow Monitoring (DNR)
- Private Well Initiative (MDH)
- River and Lake Monitoring and Assessment (MPCA)
- Groundwater Assessment (MPCA)

10:45 BREAK

11:00 Agency Presentations: Watershed & Groundwater Restoration/Protection Strategies

- Watershed Restoration and Protection Strategies (MPCA)
- Watershed Restoration and Protection Strategies (DNR)
- Source Water Protection (MDH)
- Groundwater Restoration and Protection Strategies (MDH)

12:00 Lunch

12:30 Agency Presentations Continued

- One Watershed One Plan
- County Geologic Atlases Part A (UMN)
- County Geologic Atlases Part B (DNR)
- Research Inventory Database (MDA)
- Forever Green Initiative (UMN)
- Agricultural Research and Evaluation (MDA)
- Recreational Water Quality Online Portal (MDH)
- Stormwater BMP Performance Evaluation and Technology Transfer (UMN)
- Clean Water Council budget (MPCA)
- Legislative Citizen Commission (LCC) website maintenance

1:45 Public Comments

2:00 Adjourn

Immediately after: Steering Committee

Clean Water Council
May 20, 2024 Meeting Summary

Members present: John Barten (Chair), Steve Besser, Rich Biske (Vice Chair), Dick Brainerd, Gary Burdorf, Gail Cederberg, Tannie Eshenaur, Warren Formo, Brad Gausman, Justin Hanson, Holly Hatlewick, Annie Knight, Trista Martinson, Jason Moeckel, Ole Olmanson, Jeff Peterson, Peter Schwagerl, Glenn Skuta, Marcie Weinandt, Jessica Wilson, Peter Schwagerl

Members absent: Steve Christenson, Kelly Gribauval-Hite, Sen. Nicole Mitchell, Rep. Josh Heintzeman, Peter Kjeseth, Rep. Kristi Pursell, Rep. Josh Heintzeman

Others present: Kris Klos (MDH), Jen Kader (Met Council), Julie Westerland (BWSR), Margaret Wagner (MDA), Frieda VonQualen (MDH), Judy Sventek (Met Council), Anne Nelson (MDH), Jan Voit (MN Watersheds), Jim Stark (LCC), Annie Felix-Gerth (BWSR), Jen Kostrzewski (Met Council), Brooke Asleson (MPCA), Stefan Saravia (MDH), Trevor Russell (Friends of the Mississippi River), Jeff Anderson (Voyageurs Project), Paul Pestano (MPCA), Jeff Freeman (PFA), Suzanne Bauman (MPCA), Ryan Anderson (MPCA), Nicole Blasing (MPCA), Lynn Boysen (MDH), Karin Berkholz (PFA), Joy Loughry (DNR), Stephanie Drier (MDH), Erik Smith, Isaiah Tolo (DNR), Jacquelyn Bacigalupi (DNR)

To watch the Webex video recording of this meeting, please go to <https://www.pca.state.mn.us/clean-water-council/meetings>, or contact [Brianna Frisch](#).

Regular Clean Water Council Business

- **(INFORMATION ITEM)** Introductions
 - Tannie Eshenaur: Southeast Minnesota Response are planning three in person community meetings and one virtual meeting. There are forms on the website that can be filled out if they have had water tests from an accredited lab in the past 5 years that they are at or above 10 they can apply for bottled water. If they want a test, they can rest a free well testing kit. After one week they have had three requests for well tests and no requests for bottled water.
 - Margaret Wagner: Working through our plan to the EPA in response to the petition in southeast. One idea was to develop a collaborative work group that would come together in southeast to get a better understanding and advise agencies on our current approach. Application period closed May 10 and they are in the processes of selecting participants to be in the work group. The meeting will be in June or July. There were 38 applicants and they are looking for a team of 15 members.
 - Glenn Skuta: There is a position posted for the North Watershed Section Manager. It oversees three units in northern Minnesota. It would be out of Detroit Lakes, Brainard or Duluth offices. It is posted for about three weeks.
 - Jason Moeckel: Public Waters Inventory update. \$8 million dollars over 8 years, relates to wetlands and public waters. Not sure what it all entails but it developed last week. The second is what it would take to have real time water quality data availability on our website. That's DNR/PCA IT coordinated work. Third, the Judge ruled on the contested case hearings for the cities with their amendments to their permits related to White Bear Lake. There were four items that the cities contested in their permits. The changes they implemented were required by court order – the judge upheld three of the four. The one that was not upheld was the residential irrigation ban, saying it was too narrow and limited.
- **(ACTION ITEM)** Agenda - comments/additions and approve agenda – Approved. (*Webex 15:21*)
- **(ACTION ITEM)** Meeting Minutes - comments/additions and approve meeting minutes - Approved.
- **(INFORMATION ITEM)** Chair and Council Staff update (*Webex 17:00*)
 - Policy & Budget and Outcomes Committee Updates
 - Policy met Friday May 17th. Began the process of scoping what a groundwater protection policy statement might be. We'll need time to put a couple of draft proposals in front of

the committee. One of the interests is to look at what the body of work is in terms of programs ground water protection and mitigation. What do we have now and what is the goal to achieve clean drinking water for all Minnesotans? (*Webex 17:16*)

- BOC met on Friday, May 3rd. They asked various questions from the April 15th Council Meeting. Easements were covered as was the Upper Mississippi Basin. The response is we've got 51,000 acres protected out of 100,000 so far but that doesn't include other lands, state refuges, scenic easements, science and natural areas, so we're doing pretty good there. The ag BMP loan program has a \$20 million dollar backlog so that is something that will need to be looked into. (*Webex 18:50*)
- Staff update: Status of Supplemental Clean Water Fund Recommendations (*Webex 21:49*)
 - Trish Martinson is a new member as the metro county representative. She is on the Ramsey County Board of Commissioners.
 - Dan Sparks is stepping off the council as the rural county representative. The opening for this position closed last week and there are four qualified candidates.
 - Legislature Updates: (*Webex 23:29*) The legacy finance bill was passed and was signed by the governor on Friday and included Clean Water Fund recommendations of \$25,426,000. The bill included 99.8% of your recommendations.

Agency Presentations for FY26-27 Clean Water Fund Recommendations

- Expand Weather Station Network (MDA) (*Webex 37:49*)
 - Margaret Wagner.
 - There are 38 weather stations in the state. There is additional funding for 40 more. (*Webex 46:40*)
 - How do you determine where they are placed?
 - There is a grid created for the state and as they get been placed that grid is updated. We wouldn't add another station in that radius.
 - Is anyone else doing weather stations?
 - Yes, but we are not competing and are working together.
 - How are you tracking the user, number and sector they represent?
 - We track up front the number of users. We can see people log in and access the information. We don't know who they are. They can see it by county.
 - What are they using it for? Is it for economic purposes or something else?
 - It is used primarily for ag use and a big driver is irrigation management so we see that water use. Cities can use it for flood forecasting.

GROUNDWATER/DRINKING WATER IMPLEMENTATION

- Irrigation Water Quality Protection (MDA) (*Webex 55:38*)
 - 150,000 acres have been impacted by the program. Have we tracked if there has been a reduction in water usage over time? (*Webex 1:00:05*)
 - It's very difficult, it's really weather dependent. It varies from year to year. I don't have that answer but have a research scientist that I'm sure could.
- Nitrate in Groundwater (MDA) (*Webex 1:04:22*)
 - How well did nitrates match up to computer projections given the reduction in or the increase in perennial cover? Did it match up fairly well? (*Webex 1:22:17*)
 - It did and they did use some of that to calibrate the model.
 - Is there thought about expanding this program beyond just southeast Minnesota.
 - We are really working statewide. We have equal emphasis for the 14-county Central Sands region.
 - Have you seen in the data a reduction in the amount of nitrogen being sold and or applied cumulatively or is it just all going out in the spring now? (*Webex 1:26:07*)
 - It's a complaint driven process, so we have made formal investigations to complaints where nitrogen was applied in areas where it's restricted.
 - We get a lot of phone calls from people asking if they are in the restricted area.

- It's a little hard to use the sales data to parse between a fall and spring application. But applications have been reduced and we have a few areas of concern where we continue to see violations in the far southeast. We have an outreach plan this summer to work with individual retailers.
- Future of Drinking Water (MDH) (*Webex 1:32:17*)
 - Share with us highlights (*Webex 1:44:34*)
 - People are not concerned that they are paying too much for clean water and would be willing to pay more to have safer water.
 - People would like the government to provide private drinking water system/wells testing.
- Metropolitan Area Water Sustainability Support (Met Council) (*Webex 1:59:57*)
 - Does the Met Council have a policy on lawn watering? (*Webex 2:07:25*)
 - We don't have a specific policy at this time. But we do have an Efficiency Grant Program, which stresses at least having a smart irrigation system so it's watering at the right time. We do have education that we'll be working on once the policy plans are adopted February of next year.

Agency Presentations Continued: POINT SOURCE IMPLEMENTATION

- Chloride Reduction Efforts (MPCA) (*Webex 2:17:52*)
 - As you move forward, is there an opportunity to update and work with the plumber's association or other interested groups to update the plumbing code for water softeners in addition to education? (*Webex 2:32:02*)
 - We are in agreement that there needs to be changes in plumbing code. There are no restrictions on water softeners currently in Minnesota. (*Webex 2:33:00*)
- Wastewater/Stormwater TMDL Implementation (MPCA) (*Webex 2:40:12*)
- Point Source Implementation Grant (PSIG) Program (PFA) (*Webex 2:54:29*)
- Small Community Wastewater Treatment Program (PFA) (*Webex 3:05:22*)

Agency Presentations Continued: MONITORING, CHARACTERIZATION, AND ASSESSMENT

- Aquifer Monitoring for Water Supply Planning (DNR) (*Webex 4:28:59*)
- Fish Contamination Assessment (DNR) (*Webex 4:39:52*)
- Lake IBI Assessment (DNR) (*Webex 4:42:00*)
- Monitoring for Pesticides in Surface Water and Groundwater (MDA) (*Webex 4:49:34*)
- Pesticide Testing of Private Wells (MDA) (*Webex 4:55:47*)
- Drinking Water Contaminants of Emerging Concern (MDH) (*Webex 3:58:27*)
 - Can PFAS fall in the rain? (*Webex 4:27:39*)
 - It can be found everywhere.
- Private Well Initiative (MDH) (*Webex 4:53:41*)

Public Comments

- No public comments

Adjourn (*Webex 5:05:22*)

Presentations pushed to next meeting: River and Lake Monitoring and Assessment (MPCA), Groundwater Assessment (MPCA), Buffer Map Maintenance (DNR), Stream Flow Monitoring (DNR). In addition, Council members can email presenters with further questions on programs or projects that were not asked during the meeting.

CLEAN WATER COUNCIL		
2024 Clean Water Fund Proposal Schedules at Clean Water Council for FY26-27		
Blue items denote non-Council actions that affect timing of Council actions		
Scoping process with stakeholders (including agencies & legislators) begins	1-Nov-23	Review strategic plan, get high-level input
State revenue forecast released	4-Dec-23	Approximate
Scoping process with stakeholders ends	31-Jan-24	
CWC provides strategic direction/priorities to agencies	2-Feb-24	BOC meeting date
State revenue forecast released	29-Feb-24	
Agencies & BOC discuss strategic direction/priorities	1-Mar-24	BOC meeting date
Brief overview of 1st set of proposals at full Council	18-Mar-24	Full Council meeting date
BOC discusses 1st set of proposals	5-Apr-24	BOC meeting date
Brief overview of 2nd set of proposals at full Council	15-Apr-24	Full Council meeting date
BOC discusses 2nd set of proposals	3-May-24	BOC meeting date
Brief overview of 3rd set of proposals at full Council	20-May-24	Full Council meeting date
Brief overview of 4th set of proposals at full Council	3-Jun-24	EXTRA Full Council meeting date
BOC discusses 3rd & 4th set of proposals	7-Jun-24	BOC meeting date
Draft BOC recommendations reviewed, discussed; final input provided to ICT	12-Jul-24	BOC meeting date; moved due to 7/4 holiday
Public meeting for stakeholder input	15-Jul-24	Full Council meeting date
ICT budget numbers sent to BOC	19-Jul-24	
Final BOC recommendations approved	2-Aug-24	BOC meeting date
Full CW Council approval	19-Aug-24	Full Council meeting date
CW Council submits non-agency requests to MPCA/Agencies send budget	31-Aug-24	not sure if this step will be needed?
Final deadline to send agency budgets to Governor's office???	15-Oct-24	date used in past years is 10/15 (not sure if this step will be needed?)
General Election	5-Nov-24	
November state revenue forecast released	25-Nov-24	Approximate
Council adjusts recommendations in light of November forecast	16-Dec-24	Full Council meeting date
New Legislature meets	7-Jan-25	
Final Council Recommendations to Legislature	15-Jan-25	
February state revenue forecast released, leads to final CWF budget target	24-Feb-25	Approximate
New Legislature adjourns	19-May-25	
FY26 fiscal year begins	1-Jul-25	

Office of the Revisor of Statutes

Office of the Revisor of Statutes

2023 Minnesota Statutes

[Authenticate](#)  [PDF](#)

114D.30 CLEAN WATER COUNCIL.

Subdivision 1. **Creation; duties.** A Clean Water Council is created to advise on the administration and implementation of this chapter, and foster coordination and cooperation as described in section [114D.20, subdivision 1](#). The council may also advise on the development of appropriate processes for expert scientific review as described in section [114D.35](#), subdivision 2. The Pollution Control Agency shall provide administrative support for the council with the support of other member agencies. The members of the council shall elect a chair from the voting members of the council.

Subd. 2. **Membership; appointment.** (a) The commissioners of natural resources, agriculture, health, and the Pollution Control Agency, the executive director of the Board of Water and Soil Resources, the Board of Regents of the University of Minnesota, and the Metropolitan Council shall each appoint one person from their respective entity to serve as a nonvoting member of the council. Two members of the house of representatives, including one member from the majority party and one member from the minority party, appointed by the speaker and two senators, including one member from the majority party and one member from the minority party, appointed according to the rules of the senate shall serve at the pleasure of the appointing authority as nonvoting members of the council. Members appointed under this paragraph serve as nonvoting members of the council.

(b) Seventeen voting members of the council shall be appointed by the governor as follows:

- (1) two members representing statewide farm organizations;
- (2) two members representing business organizations;
- (3) two members representing environmental organizations;
- (4) one member representing soil and water conservation districts;
- (5) one member representing watershed districts;
- (6) one member representing nonprofit organizations focused on improvement of Minnesota lakes or streams;
- (7) two members representing organizations of county governments, one member representing the interests of rural counties and one member representing the interests of counties in the seven-county metropolitan area;
- (8) two members representing organizations of city governments;
- (9) one member representing township officers;
- (10) one member representing the interests of tribal governments;
- (11) one member representing statewide hunting organizations; and
- (12) one member representing statewide fishing organizations.

Members appointed under this paragraph must not be registered lobbyists or legislators. In making appointments, the governor must attempt to provide for geographic balance. The members of the council appointed by the governor are subject to the advice and consent of the senate.

Subd. 3. **Conflict of interest.** A Clean Water Council member may not participate in or vote on a decision of the council relating to an organization in which the member has either a direct or indirect personal financial interest. While serving on the Clean Water Council, a member shall avoid any potential conflict of interest.

Subd. 4. **Terms; compensation; removal.** The terms of members representing the state agencies and the Metropolitan Council are four years and are coterminous with the governor. The terms of other nonlegislative members of the council shall be as provided in section [15.059](#), subdivision 2. Members may serve until their successors are appointed and qualify. Compensation and removal of nonlegislative council members is as provided in section [15.059](#), subdivisions 3 and 4, except that a nonlegislative member may be compensated at the rate of up to \$125 a day. Compensation of legislative members is as determined by the appointing authority. The

Pollution Control Agency may reimburse legislative members for expenses. A vacancy on the council may be filled by the appointing authority provided in subdivision 1 for the remainder of the unexpired term.

Subd. 5. **Implementation plan.** The Clean Water Council shall recommend a plan for implementation of this chapter and the provisions of article XI, section 15, of the Minnesota Constitution relating to clean water. The recommended plan shall address general procedures and time frames for implementing this chapter, and shall include a more specific implementation work plan for the next fiscal biennium and a framework for setting priorities to address impaired waters consistent with section 114D.20, subdivisions 2 to 7. The council shall issue a revised plan by December 1 of each even-numbered year.

Subd. 6. **Recommended appropriations.** (a) The Clean Water Council must submit recommendations to the governor and the legislature on how money from the clean water fund should be appropriated for the purposes stated in article XI, section 15, of the Minnesota Constitution and section 114D.50.

(b) The council's recommendations must:

(1) be to protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation and ensure that at least five percent of the clean water fund is spent only to protect drinking water sources;

(2) be consistent with the purposes, policies, goals, and priorities in this chapter; and

(3) allocate adequate support and resources to identify degraded groundwater and impaired waters, develop TMDLs, implement restoration of groundwater and impaired waters, and provide assistance and incentives to prevent groundwater and surface waters from becoming degraded or impaired and improve the quality of surface waters which are listed as impaired but have no approved TMDL.

(c) The council must recommend methods of ensuring that awards of grants, loans, or other funds from the clean water fund specify the outcomes to be achieved as a result of the funding and specify standards to hold the recipient accountable for achieving the desired outcomes. Expenditures from the fund must be appropriated by law.

Subd. 7. **Reports to legislature.** By January 15 each odd-numbered year, the council must submit a report to the legislature that includes:

(1) a summary of the activities for which money has been or will be spent in the current biennium;

(2) the recommendations required under subdivision 6 for how money in the clean water fund should be spent in the next biennium, including recommended legislative bill language; and

(3) the impact on economic development of the implementation of efforts to protect and restore groundwater and the impaired waters program.

[See Note.]

History: 2006 c 251 s 7; 2006 c 282 art 10 s 7; 1Sp2011 c 6 art 2 s 19; 2012 c 264 art 2 s 1; 1Sp2015 c 2 art 2 s 16; 2022 c 77 art 2 s 1; 2023 c 40 art 2 s 13-15

NOTE: The amendment to subdivision 7 by Laws 2023, chapter 40, article 2, section 15, is effective January 1, 2025, and applies to recommendations for fiscal year 2026 and beyond. Laws 2023, chapter 40, article 2, section 15, the effective date.

Official Publication of the State of Minnesota
Revisor of Statutes

Office of the Revisor of Statutes

Office of the Revisor of Statutes

2023 Minnesota Statutes

Authenticate  PDF

114D.50 CLEAN WATER FUND.

Subdivision 1. **Establishment.** The clean water fund is established in the Minnesota Constitution, article XI, section 15. All money earned by the fund must be credited to the fund.

Subd. 2. **Sustainable drinking water account.** The sustainable drinking water account is established as an account in the clean water fund.

Subd. 3. **Purpose.** (a) The clean water fund may be spent only to protect, enhance, and restore water quality in lakes, rivers, and streams, to protect groundwater from degradation, and to protect drinking water sources by:

(1) providing grants, loans, and technical assistance to public agencies and others testing waters, identifying impaired waters, developing total maximum daily loads, implementing restoration plans for impaired waters, and evaluating the effectiveness of restoration;

(2) supporting measures to prevent surface waters from becoming impaired and to improve the quality of waters that are listed as impaired, but do not have an approved total maximum daily load addressing the impairment;

(3) providing grants and loans for wastewater and stormwater treatment projects through the Public Facilities Authority;

(4) supporting measures to prevent the degradation of groundwater in accordance with the groundwater degradation prevention goal under section [103H.001](#); and

(5) providing funds to state agencies to carry out their responsibilities, including enhanced compliance and enforcement.

(b) Funds from the clean water fund must supplement traditional sources of funding for these purposes and may not be used as a substitute.

Subd. 3a. **Nonpoint priority funding plan.** (a) Beginning July 1, 2014, and every other year thereafter, the Board of Water and Soil Resources shall prepare and post on its website a priority funding plan to prioritize potential nonpoint restoration and protection actions based on available WRAPs, TMDLs, and local water plans. The plan must take into account the following factors: water quality outcomes, cost-effectiveness, landowner financial need, and leverage of nonstate funding sources. The plan shall include an estimated range of costs for the prioritized actions.

(b) Consistent with the priorities listed in section [114D.20](#), state agencies allocating money from the clean water fund for nonpoint restoration and protection strategies shall target the money according to the priorities identified on the nonpoint priority funding plan. The allocation of money from the clean water fund to projects eligible for financial assistance under section [116.182](#) is not governed by the nonpoint priority funding plan.

Subd. 4. **Expenditures; accountability.** (a) A project receiving funding from the clean water fund must meet or exceed the constitutional requirements to protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater and drinking water from degradation. Priority may be given to projects that meet more than one of these requirements. A project receiving funding from the clean water fund shall include measurable outcomes, as defined in section [3.303, subdivision 10](#); a plan for measuring and evaluating the results; and an assessment of whether the funding celebrates cultural diversity or reaches diverse communities in Minnesota, including reaching low- and moderate-income households. A project must be consistent with current science and incorporate state-of-the-art technology.

(b) Money from the clean water fund shall be expended to balance the benefits across all regions and residents of the state.

(c) A state agency or other recipient of a direct appropriation from the clean water fund must compile and submit all information for proposed and funded projects or programs, including the proposed measurable outcomes and all other items required under section [3.303, subdivision 10](#), to the Legislative Coordinating Commission as soon as practicable or by January 15 of the applicable fiscal

year, whichever comes first. The Legislative Coordinating Commission must post submitted information on the website required under section 3.303, subdivision 10, as soon as it becomes available. Information classified as not public under section 13D.05, subdivision 3, paragraph (d), is not required to be placed on the website.

(d) Grants funded by the clean water fund must be implemented according to section 16B.98 and must account for all expenditures. Proposals must specify a process for any regranting envisioned. Priority for grant proposals must be given to proposals involving grants that will be competitively awarded.

(e) Money from the clean water fund may only be spent on projects that benefit Minnesota waters.

(f) When practicable, a direct recipient of an appropriation from the clean water fund shall prominently display on the recipient's website home page the legacy logo required under Laws 2009, chapter 172, article 5, section 10, as amended by Laws 2010, chapter 361, article 3, section 5, accompanied by the phrase "Click here for more information." When a person clicks on the legacy logo image, the website must direct the person to a web page that includes both the contact information that a person may use to obtain additional information, as well as a link to the Legislative Coordinating Commission website required under section 3.303, subdivision 10.

(g) Future eligibility for money from the clean water fund is contingent upon a state agency or other recipient satisfying all applicable requirements in this section, as well as any additional requirements contained in applicable session law. If the Office of the Legislative Auditor, in the course of an audit or investigation, publicly reports that a recipient of money from the clean water fund has not complied with the laws, rules, or regulations in this section or other laws applicable to the recipient, the recipient must be listed in an annual report to the legislative committees with jurisdiction over the legacy funds. The list must be publicly available. The legislative auditor shall remove a recipient from the list upon determination that the recipient is in compliance. A recipient on the list is not eligible for future funding from the clean water fund until the recipient demonstrates compliance to the legislative auditor.

(h) Money from the clean water fund may be used to leverage federal funds through execution of formal project partnership agreements with federal agencies consistent with respective federal agency partnership agreement requirements.

(i) Any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.

Subd. 4a. [Repealed, 1Sp2015 c 4 art 4 s 150]

Subd. 5. **Data availability.** Data collected by the projects funded with money from the clean water fund that have value for planning and management of natural resources, emergency preparedness, and infrastructure investments must conform to the enterprise information architecture developed by the Department of Information Technology Services. Spatial data must conform to geographic information system guidelines and standards outlined in that architecture and adopted by the Minnesota Geographic Data Clearinghouse at the Minnesota Geospatial Information Office. A description of these data that adheres to the Department of Information Technology Services geographic metadata standards must be submitted to the Minnesota Geospatial Information Office to be made available online through the clearinghouse and the data must be accessible and free to the public unless made private under chapter 13. To the extent practicable, summary data and results of projects funded with money from the clean water fund should be readily accessible on the Internet and identified as a clean water fund project.

Subd. 6. **Restoration evaluations.** (a) The Board of Water and Soil Resources may convene a technical evaluation panel comprised of five members, including one technical representative from the Board of Water and Soil Resources, one technical representative from the Department of Natural Resources, one technical expert from the University of Minnesota or the Minnesota State Colleges and Universities, and two representatives with expertise related to the project being evaluated. The board may add a technical representative from a unit of federal or local government.

(b) The members of the technical evaluation panel may not be associated with the restoration, may vary depending upon the projects being reviewed, and shall avoid any potential conflicts of interest.

(c) Each year, the board may assign a coordinator to identify a sample of habitat restoration projects completed with clean water funding. The coordinator shall secure the restoration plans for the projects specified and direct the technical evaluation panel to evaluate the restorations relative to the law, current science, and the stated goals and standards in the restoration plan and, when applicable, to the Board of Water and Soil Resources' Native Vegetation Establishment and Enhancement Guidelines.

(d) The coordinator shall summarize the findings of the panel and provide a report to the chairs of the respective house of representatives and senate policy and finance committees with jurisdiction over natural resources and spending from the clean water fund. The report shall determine if the restorations are meeting planned goals, any problems with the implementation of restorations, and, if necessary, recommendations on improving restorations. The report shall be focused on improving future restorations.

(e) Up to one-tenth of one percent of forecasted receipts from the clean water fund may be used for restoration evaluations under this section.

Subd. 7. **Reserve requirement.** In any fiscal year, at least five percent of that year's projected tax receipts determined by the most recent forecast for the clean water fund must not be appropriated.

History: 2008 c 363 art 5 s 23; 2009 c 101 art 2 s 107; 2009 c 172 art 5 s 7; 2010 c 361 art 1 s 9; 1Sp2011 c 6 art 2 s 21; art 5 s 4; 2013 c 114 art 4 s 75; 2013 c 134 s 30; 2013 c 137 art 2 s 14-16; 2013 c 142 art 3 s 36; 1Sp2015 c 2 art 5 s 4; 2017 c 91 art 2 s 12,13; 2021 c 31 art 2 s 16; 2023 c 40 art 2 s 16

Official Publication of the State of Minnesota
Revisor of Statutes

2024 Final Legislative Summary FOR REFERENCE ONLY

(Passed, Signed) Legacy Finance Bill (HF4124)

The Governor signed this bill and it is now [2024 Session Laws Chapter 106](#). The Clean Water Council's supplemental budget recommendations are included. The \$25 million in Clean Water Fund appropriations include 99.8% of the Council's recommendations with the exception of adding \$50,000 for River Watch of the Minnesota Valley for an education program. There is also \$500,000 under the Watershed Partners Legacy grant program that would be dedicated to stormwater best management practices.

(Passed, Signed) House Agricultural Omnibus Finance Bill (SF4942)

The Governor signed this bill and it is now [2024 Session Laws Chapter 126](#). The ag bill was combined with several other omnibus appropriations bills as [SF4942](#) in both houses:

- \$2.8 million for nitrate home water treatment in eight SE MN counties with a focus on vulnerable private well users and potentially education and technical assistance
- \$495,000 for additional soil health grants focused on eight SE MN counties
- The House position of shifting revenue from a 40 cent per ton fee on fertilizer to a drinking water mitigation account was not adopted. The fee will continue to fund the Agricultural Fertilizer Research and Education Council (AFREC) but the council overseeing it will include four new members who have expertise in sustainable agriculture, soil health, public health, and water quality. It also makes regenerative agriculture and clean water projects eligible for AFREC funds. The bill also requires AFREC to develop or update research priorities and guidance on manure management and fertilizer use that affects water quality.

Environment & Natural Resources Omnibus Finance Bill (HF3911)

The Governor signed this bill and it is now [2024 Session Laws Chapter 116](#). The bill language is [here](#) and a summary article is [here](#). Key water-related elements include:

- \$850,000 in manure management grants
- Requires State Nitrogen Fertilizer Purchase Report and Reduction Goal
- Requires State Salt Purchase Report and Reduction Goal
- Requires Analysis of Sewage Sludge for Land Application for PFAS
- Requires PFAS Removal Report
- Requires Water Quality Monitoring at State Fish Hatcheries
- Creates higher penalties for violations of the buffer law
- Requires soil health appropriations report
- \$300,000 for adaptive management in the Red River Basin
- Items that were dropped from the final agreement include a requirement for an environmental impact statement for large feedlots; funding for a drain tile disclosure system and drain tile seller disclosure requirement; and funding for Keep It Clean grants to keep human waste off of lakes in the winter.

FY26-27 CLEAN WATER FUND PROPOSAL

Aquifer Monitoring for Water Supply Planning	
DNR	Program Number: 18
Program Contact Name: Jason Moeckel	Phone: 651-259-5240
Contact E-mail Address: jason.moeckel@state.mn.us	
Person filling out form: Jason Moeckel	Phone: 651-259-5240
Person filling out form e-mail address Jason.moeckel@state.mn.us	

Purpose

The DNR is developing and maintaining a statewide network of groundwater level observation wells. Work includes data collection and management, analysis, modeling, and work with stakeholders to ensure groundwater is managed sustainably, including small communities to develop water supply plans and developing Groundwater Restoration and Protection Strategies (GRAPS).

Webpage

[Cooperative Groundwater Monitoring Program | Minnesota DNR \(state.mn.us\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The DNR manages Minnesota's observation well network to collect critical aquifer level data and flow dynamics needed to protect drinking water, water supplies, and natural resources that depend on groundwater. Includes analysis, modeling, and work with stakeholders to address sustainability management and planning. In Minnesota, growth in demand for water resources is outpacing population growth. As water use increases, planning for adequate water supply is crucial to preventing water shortages and protecting lakes, streams, and wetlands - especially sensitive groundwater dependent trout streams and calcareous fens.

Because groundwater is below the ground surface, we need long-term data collection from groundwater observation wells to understand trends in groundwater levels. We then relate the trend data to precipitation, land use changes, groundwater use, to evaluate if that use is sustainable over time. Long-term data sets are essential to understanding and properly managing this valuable resource.

The DNR's network of 1,254 groundwater level observation wells provides critical information on aquifer levels, flow, and surface water/groundwater interactions that is essential for protecting drinking water, water supplies and water resources that are fed by groundwater.

In addition to maintaining the observation well network, we work with state and local partners to cooperatively manage and share groundwater level data through a new cooperative groundwater monitoring website. We also do modeling, aquifer tests, and other technical analysis to better understand how aquifers are depleted and replenished in response to human use and climate. The DNR has recently been analyzing groundwater/surface water interactions and developing groundwater sustainability thresholds to ensure groundwater pumping does not negatively impact water resources that depend on groundwater.

PRIOR APPROPRIATIONS	
FY10-11	\$1,100,000
FY12-13	\$3,000,000
FY14-15	\$2,750,000
FY16-17	\$2,750,000
FY18-19	\$2,750,000
FY20-21	\$4,150,000
FY22-23	\$3,700,000
FY24-25	\$4,000,000
TOTAL APPROPRIATED TO DATE	\$24,200,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST
TBD	TBD	TBD

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Outcome: Sustainable water supply that meets the needs of current and future generations.

Outputs: Installing about 50 new monitoring wells annually. Maintaining high quality water level data for the entire network available through the DNR website. Completion of GRAPS in support One Watershed One Plan. Completion of groundwater models.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

These efforts are also supported by state general fund and the water management account.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	3.0
FY12-13	9.0
FY14-15	12.0
FY16-17	11.3
FY18-19	11.5
FY20-21	11.0
FY22-23	11.0
FY24-25	11.0
FY26-27	11.0

FY26-27 CLEAN WATER FUND PROPOSAL

Buffer Map Maintenance	
DNR	Program Number: 76
Program Contact Name: Jenifer Sorensen	Phone: 651-259-5725
Contact E-mail Address: jenifer.sorensen@state.mn.us	
Person filling out form: Jason Moeckel	Phone: 651-259-5240
Person filling out form e-mail address Jason.moeckel@state.mn.us	

Purpose

Develop, maintain and update a buffer protection map that identifies where 50 ft. (avg. width) buffers adjacent to public waters and 16.5 ft. buffers adjacent to public ditches as required in MS 103F.48.

Webpage

[Buffer Mapping Project | Minnesota DNR \(state.mn.us\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The DNR's role in Minnesota's new buffer law is to produce maps of public waters and ditch systems that require permanent vegetation buffers. The DNR produced the initial buffer protection map in July 2016 and has produced 3 updates reflecting over 2,500 changes that resulted from over 4,000 comments from DNR staff, SWCDs and local governments.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	
FY16-17	\$650,000
FY18-19	\$200,000
FY20-21	\$200,000
FY22-23	\$50,000
FY24-25	\$50,000
TOTAL APPROPRIATED TO DATE	\$1,150,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

The buffer protection map is part of a statewide program to protect and restore surface waters and aligns with Goal 3 under the Surface Water Protection and Restoration Vision in the Clean Water Council's 2024 – 2028 Strategic Plan.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

An updated buffer protection map identifying where buffers are required.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

General fund, Water Management Account and Water Recreation Account.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	

FY16-17	1.2
FY18-19	0.5
FY20-21	0.2
FY22-23	0.2
FY24-25	0.2
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Stream Flow Monitoring	
DNR	Program Number: 76
Program Contact Name: Joy Loughry	Phone: 651-259-5686
Contact E-mail Address: joy.loughry@state.mn.us	
Person filling out form: Jason Moeckel	Phone: 651-259-5240
Person filling out form e-mail address Jason.moeckel@state.mn.us	

Purpose

This program collects stream flow data, which is used to analyze total runoff, flood flows, calculate pollutant loads for MPCA's water quality assessments, and sample bedload at select stations to analyze sediment transport in streams.

Webpage

[Cooperative Stream Gaging \(CSG\) | Minnesota DNR \(state.mn.us\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Clean water funds have allowed the DNR to expand a network of stream gages that are critical for MPCA's water quality assessments. Funds are used to install/upgrade and calibrate stream gages and to collect, compile, analyze and distribute data collected at gage stations. The Cooperative Stream Gaging Website provides a portal for agencies and the public to see stream flow data, site photos, water quality information and links to other information. In addition, a Monthly Hydrologic Conditions Report provides general trend information on water resources using climatic data, lake and river gages, and groundwater monitoring information.

The stream flow information collected from these gage stations is used by the Minnesota Pollution Control Agency to calculate pollution loads for Total Maximum Daily Loads. They are also used to evaluate trends in base flow conditions, determine the frequency and magnitude of floods and low flows, assist in assessing changes in land use and watershed conditions and the potential effects of climate change. This information is used to inform comprehensive watershed plans (1W1P) and helps set goals and objectives for implementation efforts.

PRIOR APPROPRIATIONS	
FY10-11	\$1,500,000
FY12-13	\$3,700,000
FY14-15	\$4,000,000
FY16-17	\$4,000,000
FY18-19	\$3,900,000

FY20-21	\$4,000,000
FY22-23	\$4,000,000
FY24-25	\$5,100,000
TOTAL APPROPRIATED TO DATE	\$30,200,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST
TBD	TBD	TBD

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Continuously monitored flow at 147 sites. The program has achieved its goal for establishing long term monitoring sites. Current efforts are to maintain sites, service and replace equipment as needed, serve the data through a web application and support analysis of data for use by others.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Other state funding sources are used to maintain previously established gage stations. CWF supplements that activity.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	5.0
FY12-13	7.0
FY14-15	14.0
FY16-17	16.1
FY18-19	15.0
FY20-21	15.0
FY22-23	15.0
FY24-25	15.0
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Private Well Initiative	
MDH	Program Number: 9
Program Contact Name: Tannie Eshenaur and Frieda von Qualen	Phone: 651.201.4074
Contact E-mail Address: frieda.vonqualen@state.mn.us	
Person filling out form: Frieda von Qualen	Phone: 651-201-4547
Person filling out form e-mail address frieda.vonqualen@state.mn.us	

Purpose

The Private Well Initiative works to ensure that the at least 20% of the people in Minnesota who rely on a private well as their source of drinking water (over 1.1 million people) are confident their drinking water is safe. This program does the following to supplement the work of the MDH Well Management Section (which ensures all wells are constructed and sealed properly) and local partners:

- **Better understand and explain the occurrence and distribution of contaminants in private wells** in Minnesota. This includes identifying if there are additional common contaminants in Minnesota private well water, understanding mitigation options, and making it easy for private well users to know what to test for and how to mitigate contaminant issues;
- **Education, outreach, and technical assistance** for private well users about testing private well water for common contaminants (coliform bacteria, nitrate, arsenic, lead, and manganese) and mitigation. A statewide assessment of private well users' knowledge, attitudes, and behaviors will inform and drive education and outreach approaches. Existing approaches include developing new materials and online trainings, translating materials, and sharing materials with partners.
- **Develop and strengthen partnerships** with local governments, professional organizations, and nonprofit organizations to support private well users. Activities include hosting the Private Well Forum, online training for real estate professionals, outreach to rental property owners and renters, and supporting the development of the peer-to-peer learning Minnesota Private Well Stewardship Program.
- **Make private well water quality data accessible** to the public and partners. This includes determining the platform for where data could be housed, the sources from which data will be pulled, and how the data will be displayed.
- **Develop model policies** that local partners could adopt to better protect private well users.
- **Establish a statewide well testing and inventory program.** This will build off lessons learned through previous and current pilot grants.
- **Support efforts to address nitrate in private wells in southeast Minnesota.**

Webpages

- [Private Well Protection Clean Water Fund - MN Dept. of Health \(state.mn.us\)](http://www.health.state.mn.us/communities/environment/water/cwf/wells.html)
(www.health.state.mn.us/communities/environment/water/cwf/wells.html)
- [Well Testing, Results, and Options](http://www.health.state.mn.us/communities/environment/water/wells/waterquality/tips.html)
(www.health.state.mn.us/communities/environment/water/wells/waterquality/tips.html)
- [Well Partners](http://www.health.state.mn.us/communities/environment/water/wells/partners/index.html)
(www.health.state.mn.us/communities/environment/water/wells/partners/index.html)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program works directly with private well users and will establish and maintain a system to support private well users so they can protect their drinking water source and be confident their private well water is safe for everyone in their household.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	\$650,000
FY16-17	\$650,000
FY18-19	\$800,000
FY20-21	\$1,500,000
FY22-23	\$0
FY24-25	\$3,000,000
TOTAL APPROPRIATED TO DATE	\$6,600,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Drinking water is safe for everyone, everywhere in Minnesota.

Goal 1: Private water supply wells

- Strategy: Identify risks to and fund testing of private well water.
- Strategy: Support selected mitigation activities for private well users.
- Strategy: Identify policy options that will accelerate the reduction in the number of unsafe private wells.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

- **Percent of private well owners testing their well water at the frequency MDH recommends.**
 - In our 2016 survey, less than 20% of respondents test well water at the frequency MDH recommends.
- **Percent of private well owners with elevated arsenic who take action to reduce their exposure to arsenic in drinking water.**
 - In our 2016 survey, 66% of respondents took action to reduce their exposure to arsenic in drinking water.
- **Number of model policies that have been shared and adopted.**
 - MDH is drafting the policies.
- **Number of newly identified wells (pre-code and new construction) entered into Minnesota Well Index.**
 - In development.

Completed

- Studies of arsenic in private wells and radium in private wells.
- 2016 survey of private well households to better understand knowledge, attitudes, and behaviors of private well users with elevated arsenic.
- New *Well Water and Your Baby* brochure and translating top 8 brochures/info sheets into Spanish, Somali, and Hmong.
- Two pilot private well grants for well testing and mitigation to find ways to develop a statewide approach to well testing and mitigation.
- Hosted a Private Well Forum in 2023 to bring together partners working with private well users; 205 attendees.
- Online training for real estate professionals about private wells and property transfer. Over 100 completions since November 2023.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Increase.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes, we currently have a grant that will end in August 2025 from the U.S. Centers for Disease Control and Prevention. The grant provides some funding for outreach and education to real estate

professionals and rental property owners and to provide data visualizations related to existing private well water quality data and sociodemographic information.

We regularly search for grant opportunities.

Supplement vs. supplant

*Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.***

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Previous entities:

- FY14-25: U.S. Geological Survey (\$425K)
- FY18-19: Stearns County SWCD (\$6,030), Becker County SWCD (\$10,682)
- FY20-21 Appropriation: UMN Water Resources Center (\$20,000), Horizon Public Health (\$100,000), Olmsted County SWCD (\$125,000), Healthy Kids Minnesota well testing (\$20,000), Minnesota Management Analysis and Development (\$31,000)
- FY24-25 (anticipated): Olmsted County SWCD (\$100,000), Horizon Public Health (\$100,000). Six phase I grants for well testing (\$600,000), UMN Water Resources Center (\$440,000), UMN Center for Changing Landscapes (\$325,000)

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	1.0
FY16-17	2.5
FY18-19	2.5
FY20-21	2.75
FY22-23	
FY24-25	2.3
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

River and Lake Monitoring and Assessment	
MPCA	Program Number: 10
Program Contact Name: Kim Laing	Phone: 651-757-2515
Contact E-mail Address: kim.laing@state.mn.us	
Person filling out form: Kim Laing	Phone: 651-757-2515
Person filling out form e-mail address kim.laing@state.mn.us	

Purpose

The Surface Water Monitoring program collects data on lakes, rivers, and streams to complete assessments and determine if waters are impaired or meeting standards, conducts trend analysis to determine water quality changes in our waters over time, and identifies areas for protection and restoration. Program includes 197 sites for annual pollutant load monitoring, and stream and lake monitoring at dozens of sites in up to 16 watersheds over the biennium. The program continues to conduct water quality monitoring at the basin, watershed, and subwatershed scales and deliver the high quality water quality data needed to run the other aspects of the Watershed Framework.

Webpage

[Minnesota's Water Quality Monitoring Strategy 2021 to 2031 \(state.mn.us\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program delivers the water quality data that are foundational to all other steps within the Watershed Framework. The monitoring activities allow us to determine ambient condition (are waters impaired or meeting standards), if waters have been protected or restored, and long-term trends in water quality. The data are also used to facilitate biological stressor identification and calibrate watershed models, which are critical to delivering TMDLs and WRAPS, and targeting local implementation efforts. Monitoring data from watersheds we are revisiting help us evaluate progress towards meeting clean water goals, including delisting waters from the Impaired Waters List once they have been restored.

PRIOR APPROPRIATIONS	
FY10-11	\$15,000,000
FY12-13	\$15,000,000
FY14-15	\$15,200,000
FY16-17	\$16,700,000

FY18-19		\$16,550,000
FY20-21		\$16,300,000
FY22-23		\$14,832,000
FY24-25		\$18,100,000
TOTAL APPROPRIATED TO DATE		\$127,682,000
FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Clean Water Council Strategic Plan: Surface Water Protection and Restoration Vision:
Minnesotans will have fishable and swimmable waters throughout the state.

Goal 1: Monitor, assess, and characterize Minnesota's surface waters.

o Strategy: Maintain consistent funding for a statewide monitoring system.

o Action: Continue to monitor and assess on 10-year cycle and for emerging contaminants.

▪ Measure: Completion of second monitoring and assessment cycle.

▪ Measure: Reports on contaminants of emerging concern as needed or requested.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

The primary output from the surface water monitoring activities are a large body of high-quality data, which is used in innumerable ways by other steps within the Watershed Framework. Monitoring data from approximately 16 watersheds will be assessed over the biennium, yielding a list of waters that are impaired or meeting standards. The data will also indicate whether we are meeting clean water goals and restoring impaired waters or not. The watershed pollutant load monitoring network will yield long-term trend data at the basin, watershed and subwatershed scales or help us both understand if pollutant levels from both point source and nonpoint sources combined are reducing, as well as feed watershed models used to target local implementation efforts. A primary feature of the surface water monitoring activities is partnership between MPCA and local SWCDs, WDs, educational institutions, and Tribal nations who work together to select monitoring sites. A large portion of the water chemistry sampling is conducted by local partners, which serves to involve them in this phase of the Watershed Framework and build their knowledge and capacity.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

MPCA historically (back to FY04) received an average of \$1,250,000 per year for surface water monitoring and assessment activities from state and federal funds. MPCA has maintained this level of non-CWF funding for surface water monitoring and assessment activities following the advent of the CWLA and CWF. The specific breakdown of funding among the funding sources varies from one year to the next.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

On average 2.1 million has been passed through each biennium to LGUs, higher educational institutions, and non-profits.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	36.0
FY12-13	37.9
FY14-15	44.8
FY16-17	42.8
FY18-19	41.3
FY20-21	52.7
FY22-23	36.5
FY24-25	46.5
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Groundwater Monitoring and Assessment	
MPCA	Program Number: 11
Program Contact Name: Paul Pestano	Phone: 651-757-2090
Contact E-mail Address: paul.pestano@state.mn.us	
Person filling out form: Erik Smith	Phone: 651-757-2719
Person filling out form e-mail address erik.smith@state.mn.us	

Purpose

MPCA's Ambient Groundwater Monitoring and Assessment Program.

Webpage

[Groundwater monitoring | Minnesota Pollution Control Agency \(state.mn.us\)](http://state.mn.us)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Groundwater monitoring and assessment to continue to support the MPCA and local and state partners' ability to: track contaminant trends in an early warning well network; assess downward migration of key contaminants into drinking water aquifers; investigate potential new sources of contamination to the state's groundwater; and better understand the interaction between ground and surface waters in specific areas. Groundwater quality data, modeling, and information about surface water and groundwater interactions will inform: restoration and protection strategies developed by the MDH, MPCA and local and state partners; advancement of groundwater protection BMPs; and evaluation of their effectiveness in protecting groundwater for drinking, irrigation and healthy aquatic ecosystems.

PRIOR APPROPRIATIONS	
FY10-11	\$2,250,000
FY12-13	\$2,250,000
FY14-15	\$2,250,000
FY16-17	\$2,364,000
FY18-19	\$2,363,000
FY20-21	\$2,364,000
FY22-23	\$1,900,000
FY24-25	\$2,000,000
TOTAL APPROPRIATED TO DATE	\$17,741,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST
--------------	--------------	-----------------------

--	--	--

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

This proposal aligns with a strategy from Goal 1- Develop baseline data on Minnesota's groundwater quality, including areas of high pollution sensitivity.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Maintaining ambient well network of 270 wells focusing on shallow aquifers in urban areas; conducting annual sampling and data analysis of multiple pollutants at most sites; contaminants of emerging concern (CECs) in 40 network wells; continuous data on level and conductivity at a few key sites; providing groundwater data and analysis for Watershed Monitoring and Assessment Reports, WRAPS, GRAPS, and 1W1P.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

MPCA historically (back to FY04) received an average of \$225,000 per year for groundwater monitoring and assessment activities from state and federal funds. MPCA has maintained this level of non-CWF funding.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Funds passed through by contract to analytical labs (private, MDH, USGS), well drilling and siting (private well drillers), and equipment providers (private). Number and value of contracts varies by year.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	3.0
FY12-13	2.6
FY14-15	2.9
FY16-17	3.6
FY18-19	3.9
FY20-21	6.5
FY22-23	3.9
FY24-25	4.45
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Watershed Restoration and Protection Strategies, Including TMDL Development	
MPCA	Program Number: 9
Program Contact Name: Glenn Skuta Heather Johnson	Phone: 651-470-7572
Contact E-mail Address: glenn.skuta@state.mn.us , heather.johnson@state.mn.us	
Person filling out form: Glenn Skuta, Heather Johnson	Phone: 651-470-7572
Person filling out form e-mail address glenn.skuta@state.mn.us , heather.johnson@state.mn.us	

Purpose

Watershed Restoration and Protection Strategies (WRAPS) Updates, including TMDLs, are developed with local partners to set implementation strategies for impaired waters and healthy waters, including pollutant reduction goals and timelines. They provide the watershed science needed to inform and guide local water planning and implementation efforts. As of the FY22-23 biennium, funding for the We Are Water public engagement program is now centralized in this program.

Webpage

[Watershed information | Minnesota Pollution Control Agency \(state.mn.us\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

WRAPS Updates and TMDLs are all about providing the science local water managers need to develop and update local water plans and implement them. Activities include watershed computer model development and use to identify key subwatersheds contributing high pollutant loads and help set wastewater effluent limits, identification of stressors to fish and aquatic bugs, limited problem investigation monitoring, pollutant load allocations for point and nonpoint sources, and protection and restoration strategy identification. All of this builds on ambient monitoring and feeds the One Watershed One Plan process. In this way, WRAPS Updates/TMDLs are "blueprints" for watershed planning and implementation. We Are Water is the CWF's premier public engagement program, serving many communities across Minnesota's watersheds over time. Multiple agencies contributed CWF to We Are Water in the past, but now the CWF contribution is centralized in this budget.

PRIOR APPROPRIATIONS	
FY10-11	\$18,000,000

FY12-13	\$18,800,000
FY14-15	\$18,800,000
FY16-17	\$20,200,000
FY18-19	\$19,000,000
FY20-21	\$15,100,000
FY22-23	\$13,451,000
FY24-25	\$12,700,000
TOTAL APPROPRIATED TO DATE	\$136,051,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Surface Water Protection and Restoration **Vision:** Minnesotans will have fishable and swimmable waters throughout the state.

Goal 1: Monitor, assess, and characterize Minnesota's surface waters.

o Strategy: Maintain consistent funding for a statewide monitoring system.

- Action: Complete Total Maximum Daily Load (TMDL) reports as needed. ▪
Measure: Publication of TMDL reports by the MPCA

Goal 2: Protect and restore surface waters to achieve 70% swimmable and 67% fishable waters by 2034 by prioritizing and targeting resources by major watershed.

o Strategy: Identify and refine strategies required to meet water quality standards in each HUC-8 watershed.

o Action: Review and revise previously completed Watershed Restoration and Protection Strategies (WRAPS) ▪

- Measure: Completion of second generation of WRAPS.

Vision: All Minnesotans value water and take actions to sustain and protect it.

Goal 1: Build capacity of local communities to protect and sustain water resources.

- Strategy: Maintain and increase capacity of Minnesotans to improve water quality.

o Action: Engage non-traditional audiences with water planning and implementation.

- Measure: Evaluation of We Are Water exhibit and its outreach.

o Action: Support local efforts to engage lakeshore property owners and private landowners.

▪ Measure: We Are Water annual report.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

This funding will enable continued development and completion of WRAPS Updates and TMDLs. WRAPS for all 80 watersheds were required by statute to be completed by mid-2023 and it was met. This funding would enable us to provide WRAPS Updates for each initial WRAPS. These updates allow us to compare, contrast and summarize changes in water quality conditions and progress towards water quality goals. They also allow us to provide additional water quality data and other information to support on-going local water planning and implementation. Finally, the WRAPS Updates will update strategies necessary to restore and/or protect surface water within the watershed. Beyond WRAPS Updates for the 80 watersheds, this funding will also enable: use of the WRAPS, WRAPS Updates and TMDLs in One Watershed One Plan projects; O+M for the watershed computer models and the associated SAM tool, for continued use in local watershed planning and implementation, and for wastewater effluent limit setting; further biological stressor identification and problem investigation monitoring; and as-needed in collaboration with LGUs, additional TMDL development and WRAPS update reports.

We are Water has measures regarding attendance at exhibits, programming performed, partnerships formed, etc.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

CWF supplements other PCA funding from state general/environmental funds, and federal CWA Section 319 funds.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Funding has been passed-through to SWCDs, counties, watershed districts, consulting firms, and for We Are Water to the MN Humanities Center and their local partners. Roughly about 20% of this amount would be passed-through.

In addition to standard deliverables of WRAPS, TMDL, and Stressor Identification Reports, here are some examples of current projects:

Pathogen Special Project - \$511,000

Recipients: The University of Minnesota is completing this project. They are one month into their field season, and once collected, they will launch their genetic analysis on over 1,000 samples statewide.

Project overview: This project will use state-of-the-art microbial source tracking methods to determine the sources of fecal contamination in representative watersheds in Minnesota. Water samples will be collected from multiple locations within each watershed and during both low and high flow conditions to analyze the temporal and spatial dynamics of fecal contamination sources. In addition to fecal contamination sources, basic water quality parameters (total nitrogen, total phosphorus, chemical oxygen demand, turbidity, and total suspended solids) and the occurrence of human sourced pathogens will be also quantified.

Expected project outcomes: Results from each HUC-10 watershed will provide *E. coli* source information to be used in watershed planning and inform management decisions at the local and regional level.

Project timeline: Staff from the University of Minnesota will be out collecting water samples April – October 2024. The project will wrap up in June of 2026.

St. Louis River WRAPS/TMDL - \$112,00

Recipients: Tetra Tech is using some of this funding to model mercury in the St. Louis River Watershed.

Project overview: The simulation of mercury transformations throughout the watershed will help inform implementation and development of TMDL WLAs.

Shell Rock street sweeping study and other deliverables - \$42,000

Project overview: Managing stormwater is a strategy listed in the Shell Rock/Winnebago CWMP to meet lake total phosphorus (TP) and sediment (TSS) reduction goals. Fountain Lake is located in the heart of the city of Albert Lea and is the primary focus of this street sweeping study. Portions of Albert Lea Lake will also be included. The purpose of this study to identify hot spot areas for nutrient/organic matter (OM) inputs. This will likely include identifying specific areas within city of Albert Lea with deciduous trees, typical leaf drop, and other high priority areas (high sedimentation & lawn clippings). With this information, the city of Albert Lea will be able to modify their street sweeping program to increase sweeping during times of high nutrient/OM inputs. This work will be contracted with a professional consultant (to be determined). Final products to be delivered to the local partners will include recommendations for the city's street sweeping schedule and a GIS map of high priority locations.

Rice Creek Cover Crop project - \$40,000 over several years

Project overview: FY24 CWF money is being used to provide monitoring and technical support to LGUs working to implement cover crops in a small trout stream watershed; 30%+ of the acres in the watershed participated and the monitoring work documented significant changes in the nitrate concentrations leaving the cropland.

Buffalo River Watershed TMDL - \$4,500

Project overview: The Buffalo River Watershed (BRW) and Upper Red River of the North Watershed (URRW) “cycle 2” TMDL report and WRAPS update report are currently in development. The TMDL report will address 22 impairments on 14 water bodies – 10 impaired streams and 1 impaired lake in the BRW and 3 impaired streams in the URRW. The impairments are caused by excess nutrients in the one impaired lake, as well as excess total suspended solids (TSS), low dissolved oxygen, and impaired fish and/or macroinvertebrate communities in the impaired streams. The TMDLs will be written for TSS and total phosphorus and will include pollutant reduction targets to help these impaired water bodies meet applicable water quality standards in the future. The money for this contract will be used for sampling and data collection for the impairments.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	34.0
FY12-13	31.8
FY14-15	31.5
FY16-17	35.2
FY18-19	35.4
FY20-21	31.2
FY22-23	35.0
FY24-25	35.0
FY26-27	33.0

FY26-27 CLEAN WATER FUND PROPOSAL

Watershed Restoration and Protection Strategies (DNR portion)	
DNR	Program Number: 10
Program Contact Name: Barbara Weisman	Phone: 651-259-5147
Contact E-mail Address: barbara.weisman@state.mn.us	
Person filling out form: Jason Moeckel	Phone: 651-259-5240
Person filling out form e-mail address Jason.moeckel@state.mn.us	

Purpose

DNR stream geomorphology experts and area hydrologists work with staff from other state agencies to help local resource managers identify the root causes of water quality problems and enduring, multiple-benefit solutions. We collect and analyze stream channel stability and streambank erosion data to help address sediment-related impairments and better understand stream restoration success factors. We analyze stream flow, precipitation, and climate data to estimate the potential impacts of hydrologic change on flooding, stream stability, and the health of plants, fish, and other life in and around streams. We provide the Watershed Health Assessment Framework (WHAF), a web-based tool to help resource managers explore watershed health and access extensive watershed data. All of this work informs efforts by MPCA and local partners to investigate and characterize water quality problems and develop or refine strategies in the second generation of WRAPS and ultimately also as Comprehensive Watershed Management Plans are implemented and renewed.

Webpage

[Watershed Health Assessment Framework | Minnesota DNR \(state.mn.us\)](#)

[Watershed Restoration and Protection Strategies | Minnesota's Legacy \(mn.gov\)](#)

[Evaluation of Hydrologic Change Technical Summaries - watershed report series | Minnesota Water Research Digital Library](#)

A web map providing access to DNR stream geomorphology survey data and studies is anticipated to be available on the DNR website in 2025.

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

To select cost-effective protection and restoration strategies, local resource managers need a robust understanding of how streams and lakes interact with the land that drains to them and how climate and land use impact watershed health. This program complements MPCA's collection and analysis of water quality and biology data and helps bridge gaps in the science of healthy watersheds.

Hydrology and Geomorphology Analysis

We know that widespread climate and land use changes have accelerated an increase in stream flows in Minnesota in recent decades. This affects not only water quality but also stream channel stability, water storage capacity, and aquatic habitat. The MPCA has identified altered hydrology as a key stressor in many water quality impairments and BWSR requires comprehensive watershed management plans to include a water storage goal. A watershed can endure only so much change to the flow regime before the biological and the physical systems become degraded. Therefore, understanding when, how, and to what extent hydrologic conditions have changed can help local managers set appropriate goals and choose effective strategies to address unwanted impacts.

Until recently Minnesota lacked consistent, complete data on the exact nature and degree of hydrologic change in watersheds. Rigorous in-depth DNR Evaluation of Hydrologic Change (EHC) analyses are filling this gap. The analysis not only quantifies the magnitude, frequency, duration, timing, and rate of change of several hydrologic conditions; it also uses these data to indicate how concerned local resource managers should be about the potential impacts of these changes – for example related to flood flows, channel-forming flows, and impacts on aquatic life and water quality. The information is provided via technical summaries (see link above to publication series), with key findings described at the start. More work is needed to help watershed partners understand and apply this technical information (see Outcomes).

Many impaired or nearly impaired streams are plagued by excessive sediment, often with related nutrient pollution problems and impacts on aquatic life. Targeted field surveys and analyses by DNR stream geomorphology experts help resource managers understand these problems holistically and identify solutions that address root causes. DNR field survey data provides baseline information for monitoring stream channel stability trends. It enables us to determine how much sediment in a stream or a specific reach is attributable to streambank erosion versus upland erosion.

Without these surveys and analyses, we might miss the mark on targeting primary sources of sediment in restoration and protection efforts. When implementers are ready to pursue a specific sediment reduction project, the same DNR survey data used to help prioritize and target primary sources is often used to design project-specific natural-channel features to restore key functions of a healthy, stable stream. (DNR project design and other technical assistance with implementation projects take place in our CWF Nonpoint Restoration and Protection program.)

DNR staff select where to do surveys in response to MPCA water quality investigations, the needs of local implementers, and other factors, such as ongoing efforts to develop and refine regional curves for stream geomorphology in Minnesota. Regional curves are necessary to extrapolate stream geomorphology data for subwatersheds not surveyed, to design natural-channel restorations, and to help quantify the benefits of restoration projects.

Watershed Health Assessment Framework (WHAF)

The web-based WHAF tool invites users to visualize and explore watershed health via several interactive components: a [map](#); [health scores](#); [reports](#) summarizing physical characteristics, ecological health, and historical climate trends; and a growing array of [use cases](#) and special modules on topics like [land cover](#) and [lake health](#).

The map enables anyone with internet access to view extensive data at multiple watershed scales without using GIS. Users can also save and share customized map images. The health scores provide a baseline for following trends and comparing watersheds to identify similarities and differences. The WHAF map and health scores can be used at subwatershed scales to help local resource managers better understand complex ecological interactions that affect watershed health, identify vulnerabilities, and better target restoration and protection efforts. WHAF

PRIOR APPROPRIATIONS	
FY10-11	\$2,100,000
FY12-13	\$3,500,000
FY14-15	\$3,700,000
FY16-17	\$3,880,000
FY18-19	\$3,772,000
FY20-21	\$3,800,000
FY22-23	\$3,800,000
FY24-25	\$4,300,000
TOTAL APPROPRIATED TO DATE	\$28,852,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST
TBD	TBD	TBD

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

This program directly supports the following Council strategies:

- Surface Water Protection and Restoration Vision / Goal 2 / **Strategy:** Identify and refine strategies required to meet water quality standards in each HUC-8 watershed / **Strategy:** Prioritize waters for protection and restoration ...
- Vision: All Minnesotans value water and take actions to sustain and protect it / Goal 1 / **Strategy:** Maintain and increase capacity of Minnesotans to improve water quality / **Action:** Engage water managers statewide.

The program also generally aligns with several other Council strategies related to surface water protection and restoration, groundwater, and drinking water, as surface water restoration and protection in some cases may benefit groundwater recharge and protect surface or groundwater sources of drinking water.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Over the past five years or so, staff hydrologists finished developing the Evaluation of Hydrologic Change (EHC) methodology, a rigorous scientific approach to assessing altered hydrology. They analyzed 150+ metrics of change for each of the 65 USGS streamflow gages in Minnesota that met certain criteria, including a continuous 30-year data record. For each of the 47 major watersheds that have one or more suitable gages, staff produced a technical report summarizing 20+ key indicators of hydrologic change.

The resulting EHC Technical Summaries (see link above to publication series) characterize and quantify the hydrologic changes that occurred and levels of concern about the potential impacts (as described in Rationale/Background). In the next biennium, we will focus on further interpreting and communicating this information to help water managers better understand and apply it. We will also explore the potential to mine the data to aid water storage implementation planning. Also, as the period of record lengthens at USGS and DNR streamflow gages throughout Minnesota, we will have the opportunity to conduct EHC assessments for more watersheds and potentially subwatersheds of interest to local managers.

Over the past decade staff geomorphology specialists have conducted over 500 stream geomorphology surveys and several intensive subwatershed stream stability and sediment source studies. The Wells Creek Sediment Reduction Strategies report, a major accomplishment in recent years, was based on one such study. In the next biennium, we anticipate accelerating the pace of sediment reduction strategy reports and the studies necessary to produce them. We will also organize survey data, analyses, and reports in a centralized database and make them available on a public web map. We anticipate adding 20 to 40 new surveys to the database each year.

In the past several years, staff began developing communication tools such as watershed posters to help convey key points from often complex and highly technical hydrology and geomorphology analyses. The posters include other relevant DNR data and information about the health of the watershed (much of it available in the WHAF tool). Together with the WHAF tool itself, this type of communication tool can help foster a more holistic understanding of watershed health which, in turn, may help local resource managers discuss high-priority watershed issues, concerns, and potential solutions with non-technical stakeholders and elected officials. In the next biennium, we anticipate accelerating this work.

Staff will continue to maintain, update, and enhance the WHAF tool. For example, they collaborate with MPCA to update the Stream Protection Priorities layer every year. Among other recent accomplishments is a robust “WHAF for Lakes” module, which brought in 2,500 users in a single month in FY23. A quarterly WHAF newsletter has nearly 5,000 subscribers. Staff will continue the newsletter and other outreach to engage water managers statewide.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

A portion of the stream geomorphology survey and analysis work in this program leverages a U.S. Fish and Wildlife Service grant to the DNR.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

n/a

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	6
FY12-13	11
FY14-15	17
FY16-17	19
FY18-19	16
FY20-21	15
FY22-23	13
FY24-25	~14
FY26-27	TBD

FY26-27 CLEAN WATER FUND PROPOSAL

Source Water Protection	
MDH	Program Number: 24
Program Contact Name: Sandeep Burman and Steve Robertson	Phone: 651-201-4648
Contact E-mail Address: steve.robertson@state.mn.us	
Person filling out form: Steve Robertson	Phone: 651-201-4648
Person filling out form e-mail address steve.robertson@state.mn.us	

Purpose

The Source Water Protection Program at MDH takes a collaborative, science-based approach to protect sources of drinking water and protect the health of public water system customers. The Source Water Protection Program delineates protection areas around drinking water sources, called Drinking Water Supply Management Areas (DWSMAs), and supports local planning to prevent drinking water contamination. This planning process is tied to financial assistance programs to facilitate local implementation within the DWSMA. The Source Water Protection Program conducts an ambient monitoring program to monitor and address emerging threats to drinking water, such as PFAS, manganese, 1,4-dioxane, and cyanazine.

Webpage

- [Source Water Protection Planning and Grants](http://www.health.state.mn.us/communities/environment/water/cwf/dwpcwf.html)
(www.health.state.mn.us/communities/environment/water/cwf/dwpcwf.html)
- [Protecting Vulnerable Drinking Water Sources](http://www.health.state.mn.us/communities/environment/water/cwf/protecting.html)
(www.health.state.mn.us/communities/environment/water/cwf/protecting.html)
- [Source Water Protection Web Map Viewer](http://www.health.state.mn.us/communities/environment/water/swp/mapviewer.html)
(www.health.state.mn.us/communities/environment/water/swp/mapviewer.html)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The Source Water Protection Program continues to conduct source water protection work at the local level, in conjunction with public water systems. At the same time, MDH is working to integrate these activities with those of partners and stakeholders to increase the acceptance, effectiveness, and efficacy of implementation efforts. Core activities continue to focus on proactive planning and targeted implementation to protect groundwater and surface water sources of drinking water. Future needs require more emphasis on characterizing water quality conditions of these sources. This information is needed to improve management and mitigation efforts to protect and improve drinking water supplies.

PRIOR APPROPRIATIONS	
FY10-11	\$2,400,000
FY12-13	\$2,830,000
FY14-15	\$3,230,000
FY16-17	\$3,800,000
FY18-19	\$5,470,000
FY20-21	\$5,494,000
FY22-23	\$7,884,000
FY24-25	\$7,500,000
TOTAL APPROPRIATED TO DATE	\$38,608,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Drinking Water Source Protection Vision: Drinking water is safe for everyone, everywhere in Minnesota.

Goal 1: Public water systems

- Strategy: Identify and reduce risks to drinking water sources by investing in technical training, planning, coordination, and source water protection grants.
- Action: Assist public water suppliers in completing Drinking Water Source Protection Plans (DWSPPs) and support implementation projects listed in the plans.

Additionally, partners use many of the program work products to direct their resources and programmatic activities in a manner that positively affects drinking water sources. Many of these partner efforts are represented by other strategies in the plan.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

- Engage community public water systems in source water protection planning and implementation.
- Update Source Water Assessments for all community public water systems using surface water by 2027.
- Complete source water protection planning for surface water systems by 2028.
- Provide financial assistance to facilitate source water protection implementation through grants.

- Implement Drinking Water Ambient Monitoring program to characterize risk profile of drinking water sources to new and emerging contaminants.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes. MDH receives funding from the EPA to support source water protection. That support has been static for years. CWF support has allowed MDH to accelerate and expand the reach of the state's source water protection efforts.

Supplement vs. supplant

*Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.***

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

MDH uses CWF appropriations to support three grant programs for public water systems. In FY22-23, over 300 grants were issued, totaling over \$2M. Table 1 (appended) provides detail on some of the grants completed.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	7.0
FY12-13	10.0
FY14-15	11.0
FY16-17	11.0
FY18-19	13.0
FY20-21	14.0
FY22-23	14.0
FY24-25	16.0
FY26-27	

Table 1. Source Water Protection Grants, 2022-2023

Year	Grant Type	County	Recipient	Recipient Type	Project Manager	Project Overview	Start Date	End Date	Funding Amount	Status
2022	Competitive	Anoka	City of Andover	Local/Regional Government	David Berkowitz	Design and install stormwater pretreatment practices.	7/15/2022	8/16/2023	10000	Completed
2022	Competitive	Big Stone	City of Beardsley	Local/Regional Government	Jackie Homan	Explore options to drill new well to replace existing well with high manganese.	1/14/2022	12/12/2022	5625	Completed
2022	Competitive	Carlton	City of Moose Lake	Local/Regional Government	Phillip Entner	Hydro clean and apply PE liner to inside of lift station. (Phase 2)	7/15/2022	8/17/2023	4500	Completed
2022	Competitive	Carver	GreyStone Mobile Home Park	Local/Regional Government	Dianne Griffith	Install manganese treatment	1/14/2022	6/13/2023	10000	Completed
2022	Competitive	Crow Wing	Crow Wing Estates	Local/Regional Government	Ruth Olding	Purchase generator. Includes wiring, switch gear/natural gas hookup. Concrete pad.	7/15/2022	2/27/2023	5982.5	Completed
2022	Competitive	Faribault	City of Minnesota Lake	Local/Regional Government	John Hawker	Purchase generator	1/14/2022	5/18/2022	10000	Completed
2022	Competitive	Goodhue	City of Kenyon	Local/Regional Government	Mark Vahlsing	Purchase and installation of pressure transducer fiber and electronic components	1/14/2022	11/10/2022	3845.03	Completed
2022	Competitive	Grant	City of Barrett	Local/Regional Government	Marita Rhude	Purchase and install generator. (Phase 2)	7/15/2022	5/24/2023	4894.93	Completed
2022	Competitive	Hennepin	City of Richfield	Local/Regional Government	Chad Donnelly	Full replacement of security system infrastructure (cameras, switches, transmitters, connectivity, so	7/15/2022	3/20/2023	10000	Completed
2022	Competitive	Hennepin	City of St. Louis Park	Local/Regional Government	Jay Hall	Seal unused wells.	7/15/2022	7/17/2023	10000	Completed
2022	Competitive	Meeker	City of Eden Valley	Local/Regional Government	Cindy Anderson	Purchase a generator	1/14/2022	9/6/2022	10000	Completed
2022	Competitive	Millie Lacs	City of Bock	Local/Regional Government	Roger Girard	Install security fence (Phase 2)	7/15/2022	8/22/2022	4401	Completed
2022	Competitive	Millie Lacs	City of Onamia	Local/Regional Government	Gene Falconer	Exploratory boring for new municipal Well #5 test well. (Phase 2)	7/1/2022	8/29/2023	8936	Completed
2022	Competitive	Millie Lacs	City of Princeton Public Utilities	Local/Regional Government	Keith Butcher	Conduct PCSI.	7/15/2022	2/24/2023	2138.75	Completed
2022	Competitive	Nobles	City of Worthington Public Utilities	Local/Regional Government	Eric Roos	Replacement of Production Well.	7/15/2022	8/30/2024	10000	Amending
2022	Competitive	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	Provide first half of annual rent payment (2020-2021) to landowner to allow city to implement nitro	1/14/2021	3/7/2022	10000	Completed
2022	Competitive	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	Provide second half of annual rent Payment (2022-2023) to landowner to allow city to implement n	7/1/2022	10/17/2022	10000	Completed
2022	Competitive	Pipestone	City of Pipestone	Local/Regional Government	Joel Adelman	Install shallow monitoring well and collect groundwater data. (Phase 2)	1/14/2022	3/21/2022	7066.89	Completed
2022	Competitive	Pipestone	City of Pipestone	Local/Regional Government	Joel Adelman	Collect/analyze data to better define potential groundwater surface interaction near the city's well	7/15/2022	8/17/2023	7107.11	Completed
2022	Competitive	Polk	City of Climax	Local/Regional Government	Jackie Voeller	Connect to rural water system. (Phase 2)	7/15/2022	8/3/2023	10000	Completed
2022	Competitive	Polk	City of Miesville	Local/Regional Government	Stephanie Abentroth	(Phase 2) Remove and replace 2 metal doors at the pump house. Install 6' chain link fences with gate	1/14/2022	9/19/2022	6147.5	Completed
2022	Competitive	Renville	City of Bird Island	Local/Regional Government	Deb Ling	Seal inactive city well #3. (Phase 3)	1/14/2022	3/7/2022	6375	Completed
2022	Competitive	Rock	Rock County Rural Water	For-Profit Business/Entity	Ryan Holtz	Install a new well in a deep aquifer.	7/1/2022	8/14/2023	10000	Completed
2022	Competitive	Stearns	City of Rockville	Local/Regional Government	Martin Bode	Update PCSI	7/15/2022	5/15/2023	5020	Completed
2022	Competitive	Stearns	City of Roscoe	Local/Regional Government	Donald Albrecht	Install new well. (Phase 2)	7/15/2022	8/30/2024	10000	Amending
2022	Competitive	Stearns	City of Sartell	Local/Regional Government	Jeff Bemboom	Construct Observation well. Transducer and electrical connection.	7/15/2022	11/28/2022	10000	Completed
2022	Competitive	Traverse	City of Browns Valley	Local/Regional Government	Jodi Hook-Hanson	Hire electrician to install security lights and connect generator to wells and water plant.	7/15/2022	4/3/2023	4198	Completed
2022	Competitive	Wadena	City of Sebeka	Local/Regional Government	Cheryl Hahn	Replace aging electrical components in city's pump house.	7/15/2022	5/23/2023	6925	Completed
2022	Competitive	Washington	City of Forest Lake	Local/Regional Government	Dave Adams	Purchase and install security fencing around the site proximal to municipal well #5.	1/14/2022	5/23/2022	10000	Completed
2022	Competitive	Washington	Liberty Classical Academy	K-12 Education	Eric Woernle	Seal old well. Drill new well.	7/15/2022	4/5/2023	10000	Completed
2022	Competitive	Wright	City of Otsego	Local/Regional Government	Kurt Neidermeier	Test well drill and water quality sample.	7/1/2022	3/20/2023	10000	Completed
2022	Competitive	Yellow Medicine	City of Hanley Falls	Local/Regional Government	Patricia Savole	Relocate portion of the storm water system that penetrates the IWMZ.	7/15/2022	8/17/2023	10000	Completed
2022	Competitive	Yellow Medicine	City of Wood Lake	Local/Regional Government	Brenda Dreager	Seal wells #1 and #2. (Phase 2)	7/15/2022	6/13/2023	10000	Completed
2022	Plan Implementation	Anoka	City of Andover	Local/Regional Government	Steve Weinhold	Prepare information to educate property owners within DWSMA. Update PCSI.	11/30/2021	9/19/2022	3599.5	Completed
2022	Plan Implementation	Anoka	City of Centerville	Local/Regional Government	Mark Statz	Locate and seal 3 identified unused wells within the DWSMA.	12/17/2021	12/5/2022	1975	Completed
2022	Plan Implementation	Anoka	City of Lino Lakes	Local/Regional Government	Michael Grochala	Investigate and document 2 wells. Seal 2 wells. (Added a 3rd well)	7/15/2022	2/21/2023	7064	Completed
2022	Plan Implementation	Beltrami	Pine Valley Mobile Home Park	Local/Regional Government	Frank Gehrke	Construct a new well.	6/1/2022	8/31/2023	10000	Completed
2022	Plan Implementation	Benton	Benton Utilities LLC	Non-Profit Business/Entity	Craig Hanson	Correct grade of slope around well #2. Correct grade around well #3. Seal electrical conduit in well #	7/15/2022	8/14/2023	3500	Completed
2022	Plan Implementation	Benton	Fischers Garden Mobile Home Park	Local/Regional Government	Debbie Ihde	Install new well.	11/30/2021	11/21/2022	10000	Completed
2022	Plan Implementation	Big Stone	City of Ortonville	Local/Regional Government	Sam Berger	Hire licensed well driller to seal old municipal well.	11/30/2021	11/7/2022	10000	Completed
2022	Plan Implementation	Blue Earth	City of Mankato	Local/Regional Government	Kyle Hinrichs	Seal the 4th private well within the DWSMA.	12/7/2021	6/13/2022	2185.5	Completed
2022	Plan Implementation	Brown	City of Cobden	Local/Regional Government	Chris Gartner	Seal unused wells in the DWSMA.	11/29/2021	9/14/2022	9379.64	Completed
2022	Plan Implementation	Brown	City of Comfrey	Local/Regional Government	Steven Berberich	Install 200 amp transfer switch and connect to generator.	11/30/2021	9/27/2022	3079.43	Completed
2022	Plan Implementation	Brown	Springfield Public Utilities	Local/Regional Government	Chris Gartner	Seal Old Well 1 (#241530).	11/30/2021	9/14/2022	9205	Completed
2022	Plan Implementation	Carlton	City of Cromwell	Local/Regional Government	Gwen Koehler	Replace controls for the wells.	7/15/2022	8/15/2022	10000	Completed
2022	Plan Implementation	Carlton	City of Moose Lake	Local/Regional Government	Phillip Entner	Hydro clean and apply PE liner to inside of lift station.	7/15/2022	11/8/2022	8920	Completed
2022	Plan Implementation	Carver	City of Chaska	Local/Regional Government	Matt Haefner	Spill response planning. PCSI Update. Property owner mailing.	7/15/2022	8/31/2023	9265.66	Completed
2022	Plan Implementation	Clay	John Bouton Housing Development (Dukes Water LLC)	Local/Regional Government	Jared LaDuque	Install backup generator that will run off propane.	12/17/2021	6/23/2022	6543.58	Completed
2022	Plan Implementation	Clay	Spring Prairie Colony	Local/Regional Government	Thomas Wipf	Construct a new well.	6/1/2022	8/2/2023	10000	Completed
2022	Plan Implementation	Crow Wing	City of Baxter	Local/Regional Government	Trevor Thompson	Sanitary sewer utilities well be extended to service existing parcels within the DWSMA.	12/17/2021	8/22/2022	10000	Completed
2022	Plan Implementation	Freeborn	City of Albert Lea	Local/Regional Government	Wayne Sorensen	Perforate well casing. Seal well.	7/15/2022	9/6/2022	10000	Completed
2022	Plan Implementation	Grant	City of Barrett	Local/Regional Government	Marita Rhude	Purchase and install generator.	6/1/2022	5/24/2023	10000	Completed
2022	Plan Implementation	Hennepin	City of Eden Prairie	Local/Regional Government	Rick Wahlén	Public Outreach within DWSMA. ISTS Brochure and Mailing.	2/16/2022	12/14/2022	8814.7	Completed
2022	Plan Implementation	Hennepin	City of Minnetonka	Local/Regional Government	Tom Pletcher	Public Outreach with tanks. Public Outreach with wells. Public Outreach with ISTS.	7/15/2022	5/24/2023	9962.68	Completed
2022	Plan Implementation	Hennepin	City of St. Louis Park	Local/Regional Government	Jay Hall	Seal 5-10 wells.	7/15/2022	8/31/2023	9287.5	Completed
2022	Plan Implementation	Hennepin	Curtis Flats	For-Profit Business/Entity	Lucas Wiborg	Extend existing well casing 18" above ground and provide an approved well cover. Replace pump w	12/21/2021	2/22/2022	7582.35	Completed
2022	Plan Implementation	Kandiyohi	City of Blomkest	Local/Regional Government	Doug Hopp	Install automatic Transfer Switch, generator wiring, electrical permit, commissioning, all wiring, gas	7/15/2022	2/23/2023	10000	Completed
2022	Plan Implementation	Kandiyohi	City of Pennock	Local/Regional Government	Dawn Johnson	Excavate the suspected location of former municipal well. Extension/capping of well casing.	7/15/2022	8/16/2023	540	Completed
2022	Plan Implementation	Kitson	North Kitson Rural Water	Local/Regional Government	Todd Nordine	Seal well #2.	7/15/2022	11/28/2022	3313	Completed
2022	Plan Implementation	Koochiching	City of Northome	Local/Regional Government	Pete Bender	Hire licensed contractor who will provide; Labor & Pump Rig, well abandonment with grout, mobiliz	11/30/2021	10/10/2022	8024.7	Completed
2022	Plan Implementation	Lake of the Woods	Anchor Bay Mobile Home Park	For-Profit Business/Entity	Jeff Poolman	Install a generator and necessary wiring with switch box.	11/30/2021	8/29/2022	10000	Completed
2022	Plan Implementation	Lake of the Woods	City of Baudette	Local/Regional Government	Tina Rennemo	Install new control panel for wells.	6/1/2022	9/14/2022	10000	Completed
2022	Plan Implementation	Lyon	City of Balaton	Local/Regional Government	Josh Torgeson	Purchase and install natural gas powered generator to replace an existing gasoline generator.	7/15/2022	7/13/2023	10000	Completed
2022	Plan Implementation	Millie Lacs	City of Bock	Local/Regional Government	Roger Girard	Install security fence	6/1/2022	8/22/2022	10000	Completed
2022	Plan Implementation	Millie Lacs	City of Onamia	Local/Regional Government	Gene Falconer	Exploratory boring for new municipal Well #5 test well.	7/5/2022	8/29/2023	10000	Completed
2022	Plan Implementation	Morrison	City of Upsala	Local/Regional Government	Michelle Stevens	Purchase and installation set-up for a generator.	11/30/2021	8/29/2022	10000	Completed
2022	Plan Implementation	Mower	City of Racine	Local/Regional Government	Robert Mathias	Seal Former Racine Creamery Well #241036.	7/1/2022	8/29/2023	10000	Completed
2022	Plan Implementation	Murray	City of Lake Wilson	Local/Regional Government	Melanie Vander Schaaf	Hire engineering firm to conduct hydrologic study	12/17/2021	12/15/2022	10000	Awarded
2022	Plan Implementation	Nobles	City of Worthington Public Utilities	Local/Regional Government	Eric Roos	Construction of a new production well to replace well #27.	7/15/2022	8/30/2024	10000	Amending
2022	Plan Implementation	Norman	City of Halstad	Local/Regional Government	Lucas Spaeth	Replace sewer lines at 3 residences.	6/1/2022	8/30/2024	10000	Amending
2022	Plan Implementation	Olmsted	City of Byron	Local/Regional Government	Tom Ricke	Seal abandoned well.	12/17/2021	9/19/2022	4500	Completed
2022	Plan Implementation	Olmsted	City of Dover	Local/Regional Government	Gary Pedersen	Phase 2 to purchase and install generator.	12/17/2021	11/28/2022	10000	Completed
2022	Plan Implementation	Otter Tail	City of Parkers Prairie	Local/Regional Government	Beth Wussow	Installation of cement pad in wellhouse. Electrical prep work for generator. Gas line prep work for g	7/15/2022	8/14/2023	8000	Completed
2022	Plan Implementation	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	Supplemental CRP payments to a local land owner.	12/16/2021	4/4/2022	3000	Completed
2022	Plan Implementation	Pipestone	City of Pipestone	Local/Regional Government	Joel Adelman	Collect and analyze groundwater data. (Phase 3)	6/1/2022	7/11/2022	9234.82	Completed
2022	Plan Implementation	Pipestone	City of Pipestone	Local/Regional Government	Joel Adelman	Monitoring well installation and GW data collection.	11/30/2021	1/31/2022	10000	Completed
2022	Plan Implementation	Polk	City of Climax	Local/Regional Government	Jackie Voeller	Connect to rural water system.	6/1/2022	8/3/2023	10000	Completed
2022	Plan Implementation	Ramsey	City of North St. Paul	Local/Regional Government	Ron Ritchie	Update the City's GIS story map. Contact well owners and Realtors via mailings to educate them on	11/30/2021	12/15/2022	7990.25	Completed
2022	Plan Implementation	Ramsey	City of Vadnais Heights	Local/Regional Government	Jim Hauth	Provide educational materials about wells in Story Map. Provide educational materials to residents.	7/15/2022	1/29/2024	8765	Completed
2022	Plan Implementation	Red Lake	City of Plummer	Local/Regional Government	Margaret Peterson	Seal unused well.	11/30/2021	1/3/2022	1270	Completed
2022	Plan Implementation	Redwood	City of Walnut Grove	Local/Regional Government	Paula McGarvey	Wire generator for hook up to well. Replace hydrant pressure relief valves (Task 2 N/A)	11/30/2021	9/12/2022	6163	Completed
2022	Plan Implementation	Renville	City of Bird Island	Local/Regional Government	Deb Ling	Seal inactive city well #3. (Phase 2)	12/17/2021	3/8/2022	10000	Completed
2022	Plan Implementation	Renville	City of Buffalo Lake	Local/Regional Government	Dave Kienitz	Purchase and install 2 transducers for 2 wells.	6/1/2022	8/29/2022	5019.35	Completed
2022	Plan Implementation	Rock	Rock County Rural Water	For-Profit Business/Entity	Ryan Holtz	Drill a test well and conduct necessary water testing to help select the location for a new public sup	1/6/2022	12/6/2022	10000	Completed

Table 1. Source Water Protection Grants, 2022-2023

2022	Plan Implementation	Roseau	Lakewood Park & Sales	For-Profit Business/Entity	Sharon Klassen	Purchase and install generator.	7/15/2022	8/29/2023	7800 Completed
2022	Plan Implementation	Sibley	City of Gibbon	Local/Regional Government	Dana Lietzau	Purchase of static level monitoring equipment	11/30/2021	9/26/2022	1028 Completed
2022	Plan Implementation	St. Louis	City of Gilbert	Local/Regional Government	Jill Zallar	Connect a residential home to city sewer.	11/30/2021	8/15/2022	10000 Completed
2022	Plan Implementation	Stearns	City of Avon	Local/Regional Government	Jodi Austing-Traut	Sponsor Middle Spunk Water Festival. Perform updates and maintenance on city's website. Commu	12/16/2021	12/6/2022	2613.26 Completed
2022	Plan Implementation	Stearns	City of Paynesville	Local/Regional Government	Ron Mergen	Install transfer switch, electrical work, natural gas for future generator. Concrete pad for generator.	6/1/2022	8/29/2022	9150 Completed
2022	Plan Implementation	Stearns	City of Roscoe	Local/Regional Government	Donald Albrecht	Install new well.	7/15/2022	8/30/2024	10000 Amending
2022	Plan Implementation	Stearns	City of Sartell	Local/Regional Government	Jeff Bemboom	Seal well #13 (680527).	7/15/2022	10/6/2022	7725 Completed
2022	Plan Implementation	Stearns	City of St. Cloud	Local/Regional Government	Noah Czech	Storm Drain Art Implementation. Storm Drain Art Supplies and Materials. Art/Adopt-a-Drain public	6/1/2022	8/29/2022	10000 Completed
2022	Plan Implementation	Stearns	Clearwater Forest Mobile Home Park	Non-Profit Business/Entity	Wanda Somers	Purchase and installation of a generator and switch.	12/8/2021	7/13/2022	8984.88 Completed
2022	Plan Implementation	Stearns	Sauk Centre Public Utilities	Local/Regional Government	Debbie Boyer	Investigate potential sites for a future water supply well. Test drill and test pump site to confirm sit	11/30/2021	12/12/2022	10000 Completed
2022	Plan Implementation	Steele	City of Ellendale	Local/Regional Government	Steve Engel	Seal an old unused well.	12/6/2021	8/15/2021	1514 Completed
2022	Plan Implementation	Traverse	City of Browns Valley	Local/Regional Government	Jodi Hook-Hansen	Wellhead Protection newspaper article. Seal 2 private wells. Seal old municipal wells/test wells. Mai	6/1/2022	3/3/2023	9425 Completed
2022	Plan Implementation	Wabasha	City of Wabasha Public Utilities	Local/Regional Government	Pat Mueller	Rehab/Rebuild city well #1.	7/15/2022	8/31/2023	10000 Completed
2022	Plan Implementation	Washington	City of Bayport	Local/Regional Government	Matthew Kline	Purchase and install generator.	6/1/2022	4/25/2023	10000 Completed
2022	Plan Implementation	Winona	City of Altura	Local/Regional Government	Dan Horvat	Prep work for installing back-up generator including pad, electrical wiring, and transfer switch.	7/15/2022	2/7/2023	9980 Completed
2022	Plan Implementation	Winona	City of Utica	Local/Regional Government	Dan Horvat	Hire engineer/consultant for a new well.	7/15/2022	8/2/2023	10000 Completed
2022	Plan Implementation	Wright	City of Otsego	Local/Regional Government	Kurt Neidermeier	Drill and test for water quality and capacity for a potential new water source.	7/15/2022	3/2/2023	10000 Completed
2022	Plan Implementation	Yellow Medicine	City of Canby	Local/Regional Government	Rebecca Scrupp	Distribute a WHP newsletter to residents. Seal old wells and test wells. Install a security door on the	6/1/2022	12/15/2023	1058.44 Completed
2022	Plan Implementation	Yellow Medicine	City of Hanley Falls	Local/Regional Government	Patty Savoie	Upgrading storm sewer system.	6/1/2022	8/17/2023	10000 Completed
2022	Plan Implementation	Yellow Medicine	City of Wood Lake	Local/Regional Government	Brenda Dreager	Seal abandoned wells #1 and #2. (Phase 1)	7/15/2022	6/13/2023	10000 Completed
2022	Transient	Aitkin	T-Bones Kansas City Style BBQ	For-Profit Business/Entity	Tyrus Twaddle	Construct a new well. Seal well #668797.	1/14/2022	12/13/2022	3018.75 Completed
2022	Transient	Carlton	Spring Oaks Campground	For-Profit Business/Entity	Tom Enger	Construct a new well. Seal well #817187.	12/20/2021	12/5/2022	7784.04 Completed
2022	Transient	Cook	Big Bear Lodge	For-Profit Business/Entity	Andrew Delisi	Drill and construct a new well	12/6/2021	8/3/2022	10000 Completed
2022	Transient	Cook	North-Western Lodge & Canoe	For-Profit Business/Entity	Luana Brandt	New well hydrofracking and related well completion work.	6/1/2022	8/31/2023	6027.23 Completed
2022	Transient	Dodge	Zumbro Valley Rec Center	For-Profit Business/Entity	Ted Smith	Use landscape boulders to provide a protective barrier to the well.	12/20/2021	9/7/2022	1641.39 Completed
2022	Transient	Fillmore	Whalan Lutheran Church	Non-Profit Business/Entity	James Haugen	Drill new well. Seal existing well.	12/20/2021	10/4/2022	10000 Completed
2022	Transient	Freeborn	Lunder Lutheran Church	Non-Profit Business/Entity	Roger Larson	Extend casing, new submersible pump, new tank and switches, fill in pit.	6/1/2022	8/31/2023	4394 Completed
2022	Transient	Kandiyohi	St. John's Lutheran Church	Non-Profit Business/Entity	Michael Pickle	Construct a new well	12/27/2021	10/4/2022	3119 Completed
2022	Transient	McLeod	King Motel	For-Profit Business/Entity	Rick Bestul	Connect to city water. Seal well Unique #263951	6/1/2022	12/5/2022	9493 Completed
2022	Transient	McLeod	St. Matthew's Lutheran Church	Non-Profit Business/Entity	Dale Wilder	Replace septic system.	6/1/2022	9/7/2022	9115 Completed
2022	Transient	Morrison	Fellowship Bible Church - Pierz	Non-Profit Business/Entity	Katie Boser	Capping and sealing an existing well.	7/15/2022	8/31/2023	475 Completed
2022	Transient	Otter Tail	St. Paul's Lutheran Church	Non-Profit Business/Entity	Myron Gunderson	Install a HT89DF-250 Anion Exchange System for nitrate removal.	12/17/2021	4/17/2022	2195 Completed
2022	Transient	Polk	Maple Lake Resort Ranch	For-Profit Business/Entity	Michael Pierce	Construct a new well.	12/20/2021	9/12/2022	9136.23 Completed
2022	Transient	St. Louis	Big Lake Wilderness Lodge	For-Profit Business/Entity	Charles Huber	Construct a new well.	6/1/2022	11/16/2023	8740.5 Completed
2022	Transient	St. Louis	Handberg's Marine Inc.	For-Profit Business/Entity	Scott Sanborn	Drill a new well.	12/20/2021	6/27/2022	9695 Completed
2022	Transient	St. Louis	McCarthy Beach State Park MDNR	State Government	Dawn Voges	Capping and sealing 2 non-conforming wells. (#267307 & #482936)	6/16/2022	8/16/2023	1172.5 Completed
2022	Transient	St. Louis	Northernair Lodge	For-Profit Business/Entity	George Nall	Construct 2 new wells. Connect wells to current distribution system.	12/20/2021	12/5/2022	10000 Completed
2022	Transient	St. Louis	The Landing	Local/Regional Government	Matthew Litherland	Drill a new well	12/17/2021	12/14/2022	10000 Completed
2022	Transient	St. Louis	White Eagle Resort	For-Profit Business/Entity	Tom Lantry	Drill new well, pump, and pressure tank to replace well #4 Osprey (827575).	6/1/2022	6/12/2023	7073.13 Completed
2022	Transient	Waseca	Pleasant Grove Pizza Farm	For-Profit Business/Entity	Emily Knudson	Well construction	12/20/2021	10/31/2022	8652.5 Completed
2022	Transient	Washington	Historic John P. Furber Farm LLC	Non-Profit Business/Entity	Wayne Butt	Installation of nitrate reduction treatment device.	6/1/2022	6/13/2022	4899 Completed
2022	Transient	Washington	Two Silo Farmhouse Resort and Vineyard	For-Profit Business/Entity	Keith Dehnert	Construction of a new well. Seal existing well.	12/17/2021	12/14/2022	9057.5 Completed
2023	Competitive	Aitkin	City of McGregor	Local/Regional Government	Brittany Sorensen	Purchase a generator (Phase 2)	1/15/2023	8/31/2024	10000 Awarded
2023	Competitive	Anoka	City of Fridley	Local/Regional Government	Annie Olson	Seal unused/private owned wells.	1/15/2023	2/15/2024	725 Completed
2023	Competitive	Anoka	Star of the North Academy	K-12 Education	Eman Ibrahim	Purchase and install back-up generator.	9/7/2023	12/15/2024	10000 Awarded
2023	Competitive	Beltrami	Elpine Village	Non-Profit Business/Entity	Donald Clay	Purchase and installation of a generator (Phase 2)	1/3/2023	8/31/2024	2590 Awarded
2023	Competitive	Beltrami	Schoolcraft Learning Community	K-12 Education	Robert Kiewatt	Installation of (Reduced Pressure Zone) RPZ valve to protect water source	1/15/2023	3/14/2023	1395 Completed
2023	Competitive	Blue Earth	City of Amboy	Local/Regional Government	Patty Smith	Wellhead casing extension and construction work.	8/24/2023	12/15/2024	4450 Completed
2023	Competitive	Clearwater	City of Bagley	Local/Regional Government	Bill Mastersen	Purchase and installation of a back-up generator and necessary wiring. (Phase 2)	8/28/2023	1/8/2024	10000 Completed
2023	Competitive	Cottonwood	Mountain Lake Utilities	Local/Regional Government	Michael Mueller	Locate a new well. (Phase 2)	1/3/2023	11/28/2023	10000 Completed
2023	Competitive	Crow Wing	Nelsons East Shore Landing	For-Profit Business/Entity	Jake Freeman	Construct a new well	1/3/2023	8/31/2024	10000 Awarded
2023	Competitive	Crow Wing	Riverview North Apartments	Non-Profit Business/Entity	Becky LaPlante	Drill and connect new back-up well. (Phase 2)	8/31/2023	1/29/2024	2893.57 Completed
2023	Competitive	Goodhue	City of Zumbrota	Local/Regional Government	Mike Olson	Sealing of private well.	8/28/2023	12/15/2024	2250 Awarded
2023	Competitive	Kandiyohi	City of Blomkest	Local/Regional Government	Doug Hopp	Purchase and installation of a generator. (Phase 2)	8/28/2023	2/27/2024	6987.5 Completed
2023	Competitive	Kandiyohi	City of Pennock	Local/Regional Government	Dawn Johnson	Seal old municipal well (Phase 2)	1/3/2023	7/25/2023	8000 Completed
2023	Competitive	Le Sueur	City of Elysian	Local/Regional Government	Lorri Kopischke	Purchase a generator (Phase 2)	9/1/2023	12/15/2024	10000 Awarded
2023	Competitive	Lyon	City of Balaton	Local/Regional Government	Josh Torgeson	Purchase a natural gas powered generator to replace an existing gasoline generator. (Phase 2)	1/3/2023	7/13/2023	7500 Completed
2023	Competitive	Lyon	City of Tracy	Local/Regional Government	Shane Daniels	Televise and Rehab Well #6	1/15/2023	5/6/2024	10000 Completed
2023	Competitive	Marshall	City of Argyle	Local/Regional Government	Tamara Benitt	Install a secondary well (Phase 2)	1/18/2023	8/31/2024	10000 Awarded
2023	Competitive	Meeker	Believer's Fellowship Mennonite Church	Non-Profit Business/Entity	Jason Yutzy	Construct new well. Seal existing well.	8/30/2023	12/15/2024	8255.1 Awarded
2023	Competitive	Morrison	City of Bowls	Local/Regional Government	Joshy Sobania	Hire consulting firm to provide professional engineering and hydro-geotechnical analysis for municipi	8/22/2023	12/15/2024	5000 Awarded
2023	Competitive	Morrison	City of Little Falls	Local/Regional Government	Dwayne Heinen	Rework water Dept. door locks. Water plant card readers. Door alarm replacement.	1/18/2023	4/24/2024	6546.75 Completed
2023	Competitive	Morrison	City of Royalton	Local/Regional Government	Leah Walberg	Purchase and installation of a generator (Phase 2)	1/3/2023	8/31/2024	10000 Awarded
2023	Competitive	Morrison	City of Upsala	Local/Regional Government	Jane Popp	Hire a well driller to complete exploratory drilling and water quality sampling (Phase 2)	1/15/2023	3/28/2023	8962.5 Completed
2023	Competitive	Morrison	City of Upsala	Local/Regional Government	Jane Popp	Complete additional exploratory drilling and water quality sampling to locate an alternative well site	8/28/2023	12/15/2024	10000 Awarded
2023	Competitive	Nicollet	Wis-Pak, Inc.	For-Profit Business/Entity	Brandon Hanavik	Seal well #1.	8/28/2023	12/15/2024	10000 Awarded
2023	Competitive	Norman	City of Hendrum	Local/Regional Government	Keri Plemmons	Preparation, purchase and installation of a generator (Phase 2)	1/3/2023	8/31/2024	10000 Awarded
2023	Competitive	Otter Tail	City of Battle Lake	Local/Regional Government	Chris Johnson	Replace 2 security doors on the water plant.	9/8/2023	12/15/2024	3088 Awarded
2023	Competitive	Otter Tail	City of Elizabeth	Local/Regional Government	Angela Peterson	Purchase and install a generator (Phase 2)	1/15/2023	8/31/2024	10000 Awarded
2023	Competitive	Otter Tail	City of Parkers Prairie	Local/Regional Government	Beth Wussow	Purchase generator for well house. (Phase 2)	8/28/2023	8/30/2023	10000 Completed
2023	Competitive	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	Provide the first half annual rent payment (2022-2023) to landowner to allow city to implement nitr	1/3/2023	3/6/2023	10000 Completed
2023	Competitive	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	1)Provide the second half of annual rent payment (2023) to landowner to allow city to implement n	8/28/2023	12/5/2023	10000 Completed
2023	Competitive	Redwood	Moccasin Springs Well Association	Non-Profit Business/Entity	Rick Morris	Move pressure tanks, valves, meters for well #5 to a building above ground and fill in pit.	1/3/2023	8/31/2024	9165 Awarded
2023	Competitive	Scott	Bonnevista Terrace Mobile Home Park	Non-Profit Business/Entity	Shamin Buck	Installation of an automatic transfer switch and disconnect, generator wiring, concrete pad, electric	8/28/2023	2/21/2024	10000 Completed
2023	Competitive	Sherburne	City of Big Lake	Local/Regional Government	Deb Wegeleben	Automatic transfer switch, electrical work, UP connection, and other supporting equipment necessa	1/15/2023	9/26/2023	10000 Completed
2023	Competitive	Sibley	City of Gibbon	Local/Regional Government	Dana Lietzau	Purchase and connect a back-up generator (Phase 1)	1/15/2023	8/31/2024	10000 Awarded
2023	Competitive	St. Louis	YMCA Camp Northern Lights	Non-Profit Business/Entity	Dan O'Brien	Seal unused well.	1/31/2023	11/10/2023	3712.5 Completed
2023	Competitive	Stearns	City of Brocton	Local/Regional Government	Jeanne Kinne	Construct a new well. (Phase 2)	1/3/2023	8/31/2024	10000 Awarded
2023	Competitive	Stearns	City of Paynesville	Local/Regional Government	Ron Mergen	Purchase and install a generator (Phase 2)	1/15/2023	8/31/2024	10000 Awarded
2023	Competitive	Stearns	City of St. Joseph	Local/Regional Government	Ryan Wensmann	Update PCSI, locate feedlots and unpermitted dump site.	1/17/2023	8/30/2023	4700 Completed
2023	Competitive	Todd	A Daughter's Love	For-Profit Business/Entity	Carla Platzter	Drill a new well and electrical work. Seal existing well.	8/28/2023	2/13/2024	3123.76 Completed
2023	Competitive	Todd	City of Eagle Bend	Local/Regional Government	James Gaida	Purchase and install automatic transfer switch and disconnect, generator wiring and generator. (Ph	8/30/2023	12/15/2024	4052.32 Awarded
2023	Competitive	Traverse	City of Browns Valley	Local/Regional Government	Jodi Hook-Hansen	Hire licensed well driller to complete a deep boring to determine if a deep aquifer exists near Brow	8/28/2023	5/20/2024	10000 Completed
2023	Competitive	Wabasha	City of Elgin	Local/Regional Government	Tyler Meyers	Purchase and install automatic transfer switch and disconnect, generator wiring and generator. (Phase 2)		12/15/2024	10000 Awarded
2023	Competitive	Washington	City of Forest Lake	Local/Regional Government	Dave Adams	Construction of monitoring well	1/15/2023	1/12/2024	10000 Completed

Table 1. Source Water Protection Grants, 2022-2023

2023	Competitive	Winona	City of Altura	Local/Regional Government	Dan Horvat	Purchase and install generator (Phase 2)	1/15/2023	7/26/2023	10000	Completed
2023	Competitive	Wright	City of South Haven	Local/Regional Government	Melissa Stenson	Construct 2 new municipal wells with a capacity of 65 gpm each.	8/22/2023	12/15/2023	10000	Awarded
2023	Plan Implementation	Atkin	City of McGregor	Local/Regional Government	Brittany Sorensen	Purchase a generator	1/15/2023	12/6/2023	10000	Completed
2023	Plan Implementation	Anoka	City of Circle Pines	Local/Regional Government	Chandra Peterson	Homeowners well sealing program in DWSMA.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Anoka	City of Coon Rapids	Local/Regional Government	Tim Himmer	Update PCSI	6/15/2023	8/30/2024	8525	Awarded
2023	Plan Implementation	Anoka	DaVinci Academy of Arts and Science	K-12 Education	Cassandra Anderson	Purchase 2 Watershed tables, storage cases, additional reagents. Purchase 20 Awesome aquifer kits	6/15/2023	3/27/2024	4559.42	Completed
2023	Plan Implementation	Beltrami	Elpine Village	Non-Profit Business/Entity	Donald Clay	Purchase and installation of a generator. Including automatic transfer switch, wiring, concrete pad,	12/1/2022	8/31/2024	10000	Awarded
2023	Plan Implementation	Benton	City of Rice	Local/Regional Government	Julie Fandel	Next phase of analysis for test drilling and installation of monitor wells for the installation of produc	1/15/2023	10/19/2023	10000	Completed
2023	Plan Implementation	Brown	City of Cobden	Local/Regional Government	Chris Gartner	Seal unused wells in DWSMA	1/15/2023	10/6/2023	9519.55	Completed
2023	Plan Implementation	Carlton	City of Moose Lake	Local/Regional Government	Philip Entner	Repair concrete lift station and line the inside with polyethylene. (Phase 3)	6/15/2023	8/17/2024	10000	Completed
2023	Plan Implementation	Cass	City of Backus	Local/Regional Government	Ann Swanson	Purchase and installation of fencing.	12/1/2022	8/31/2023	10000	Completed
2023	Plan Implementation	Cass	City of Cass Lake	Local/Regional Government	Sue Uhrinak	Purchase and install new doors on the well house. Create an article on the importance of WHP and	1/15/2023	11/16/2023	4850	Completed
2023	Plan Implementation	Cass	East Pointe Townhomes	For-Profit Business/Entity	Dan Lewandowski	Seal South Well (#465740) and seal the dead end, stagnant line caused by removal of Well #465740	6/15/2023	12/22/2023	6094	Completed
2023	Plan Implementation	Chisago	Shorewood Park Association	Non-Profit Business/Entity	John Maher	Drill a new well and move underground water lines to new well	1/15/2023	6/15/2024	10000	Amending
2023	Plan Implementation	Clay	City of Barnesville	Local/Regional Government	Charlie Revering	Purchase and install security cameras. Provide a map of the DWSMA to local Fire Dept., City Street t	6/12/2023	8/30/2024	3050	Awarded
2023	Plan Implementation	Clearwater	City of Bagley	Local/Regional Government	Bill Masterson	Purchase and install back-up generator and necessary wiring (Phase 1)	6/15/2023	2/8/2024	10000	Completed
2023	Plan Implementation	Cottonwood	Mountain Lake Utilities	Local/Regional Government	Michael Mueller	Determine location for a new well.	12/1/2022	11/28/2023	10000	Completed
2023	Plan Implementation	Crow Wing	City of Cuyuna	Local/Regional Government	William (Bill) Bedard	Hire consultant to provide professional engineering and analysis for site selection options for additi	1/15/2023	11/28/2023	10000	Completed
2023	Plan Implementation	Crow Wing	Riverview North Apartments	Non-Profit Business/Entity	Becky LaPlante	Drill a new well.	6/15/2023	1/29/2024	10000	Completed
2023	Plan Implementation	Crow Wing	Supreme Mobile Home Park	For-Profit Business/Entity	Dennis Ogren	Installation of an automatic transfer switch and disconnect, wiring, concrete pad, electrical permit, i	12/1/2022	7/27/2023	8710	Completed
2023	Plan Implementation	Dakota	Lexington Riverside Condominium Association	Non-Profit Business/Entity	Kara Skjold	Place at least three 1 1/2 - 2 ft. diameter boulders as protective barriers around each of 2 wellheads	1/15/2023	11/6/2023	5000	Completed
2023	Plan Implementation	Douglas	Farwell Kensington Sanitary District for City of Kensington	Local/Regional Government	Jennifer Kangas	Seal well located in ERA. Work with city attorney to add cross connections, and water/sewer hook u	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Faribault	City of Kiester	Local/Regional Government	Gary Skartland	Remove pump and seal well	1/15/2023	11/13/2023	4195	Completed
2023	Plan Implementation	Goodhue	City of Dennison	Local/Regional Government	Jeffrey Flaten	Replace exterior door on the wellhouse.	1/15/2023	4/5/2023	4825	Completed
2023	Plan Implementation	Goodhue	City of Goodhue	Local/Regional Government	Jason Mandelkow	Host a Nitrate Testing Clinic and education materials. Install Nitrogen Best Management Practice (B)	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Hennepin	City of Richfield	Local/Regional Government	Mattias Oddsson	Development, printing, and distribution of an information packet to properties with potential Class	6/15/2023	8/30/2024	2962.4	Awarded
2023	Plan Implementation	Hubbard	City of Akeley	Local/Regional Government	Kristi Kath	Purchase a generator	1/15/2023	12/13/2023	10000	Completed
2023	Plan Implementation	Hubbard	City of Park Rapids	Local/Regional Government	Scott Burlingame	Remove 2 underground fuel oil tanks.	6/15/2023	10/4/2024	10000	Completed
2023	Plan Implementation	Isanti	City of Braham	Local/Regional Government	Rachel Kytonen	Hire consulting firm to complete geologic assessment and identify potential well site	1/15/2023	12/15/2023	10000	Completed
2023	Plan Implementation	Kandiyohi	City of Blomkest	Local/Regional Government	Doug Hopp	Purchase and install generator (Phase 1)	6/15/2023	2/27/2024	10000	Completed
2023	Plan Implementation	Kandiyohi	City of Pennock	Local/Regional Government	Dawn Johnson	Seal old municipal well.	1/15/2023	7/15/2023	10000	Completed
2023	Plan Implementation	Lake of the Woods	City of Baudette	Local/Regional Government	Tina Rennemo	Purchase and install a new master water meter	1/15/2023	8/2/2023	10000	Completed
2023	Plan Implementation	Le Sueur	City of Elysian	Local/Regional Government	Lorri Kopischke	Purchase and installation of transfer switch. Generator site prep and pad construction. Natural gas l	6/15/2023	8/30/2023	10000	Awarded
2023	Plan Implementation	Marshall	City of Argyle	Local/Regional Government	Tamara Benitt	Drill a secondary well.	1/15/2023	8/31/2024	10000	Amending
2023	Plan Implementation	Marshall	City of Warren	Local/Regional Government	Mike Novacek	Purchase and install SCADA.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Meeker	City of Buffalo Lake	Local/Regional Government	Dave Klenitz	Seal a former Railroad Well.	6/15/2023	8/31/2023	2500	Completed
2023	Plan Implementation	Millie Lacs	City of Milaca	Local/Regional Government	Gary Kirkeby	Seal Dug North Well Unique #00241012. Concrete pad.	12/1/2022	11/7/2023	9682.3	Completed
2023	Plan Implementation	Morrison	City of Bowlus	Local/Regional Government	Joseph Sobania	Hire Engineer to conduct Hydro-Geotech study for potential well site.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Morrison	City of Royalton	Local/Regional Government	Leah Walberg	Purchase and installation of a generator	1/15/2023	8/31/2024	10000	Amending
2023	Plan Implementation	Morrison	City of Upsala	Local/Regional Government	Jane Popp	Complete additional exploratory drilling and water quality sampling (Phase 1).	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Morrison	City of Upsala	Local/Regional Government	Jane Popp	Hire well driller to complete exploratory drilling and water quality sampling.	1/15/2023	3/28/2023	10000	Completed
2023	Plan Implementation	Mower	City of Rose Creek	Local/Regional Government	Kristine Allas	Pull pump and video log Well #2.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Nobles	City of Adrian	Local/Regional Government	Sheri Platt	Seal private well. Provide incentives for nutrient management practices.	12/1/2022	12/4/2023	8625	Completed
2023	Plan Implementation	Nobles	City of Ellsworth	Local/Regional Government	Dawn Huisman	Seal 2 wells located within the DWSMA. Provide financial incentives for the implementation of nutri	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Norman	City of Hendrum	Local/Regional Government	Keri Plemmons	Purchase and install a generator	12/1/2022	11/20/2023	10000	Completed
2023	Plan Implementation	Olmsted	City of Oronoco	Local/Regional Government	Sunny Bjorklund Schultz	Seal wells within the DWSMA.	6/22/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Otter Tail	City of Elizabeth	Local/Regional Government	Angela Peterson	Purchase and installation of a new generator.	1/15/2023	12/15/2023	10000	Completed
2023	Plan Implementation	Otter Tail	City of Pelican Rapids	Local/Regional Government	Lance Roism	Purchase spill response kit. Educational packet to well owners in DWSMA.	6/15/2023	11/30/2023	1393.63	Completed
2023	Plan Implementation	Otter Tail	City of Vergas	Local/Regional Government	Julie Lammers	Hire electrician to install wiring and equipment to connect generator to water plant and wells.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Pipestone	City of Edgerton	Local/Regional Government	Doug Brands	Supplemental CRP payments to a local land owner.	1/3/2023	12/15/2023	3000	Awarded
2023	Plan Implementation	Pipestone	City of Pipestone	Local/Regional Government	Joel Adelman	GW and SW data collection near the city's well field.	12/1/2022	12/15/2023	2239.22	Completed
2023	Plan Implementation	Polk	City of Crookston	Local/Regional Government	Brandon Carlson	Provide and install mounted equipment enclosures and submersible level sensors.	1/15/2023	11/30/2023	10000	Completed
2023	Plan Implementation	Red Lake	City of Oklee	Local/Regional Government	Derek Cross	Purchase and install water monitoring equipment.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Redwood	City of Walnut Grove	Local/Regional Government	Paula McGarvey	Boring and installation of new drain lines at 2 well houses. Install new floor drains in 2 well houses.	12/1/2022	9/18/2023	5131.6	Completed
2023	Plan Implementation	Roseau	City of Badger	Local/Regional Government	Kassandra Tillberg	Construct a new well.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Roseau	Oak Manor Mobile Home Park	For-Profit Business/Entity	Lester Sundem	Purchase and installation of a generator.	1/3/2023	12/15/2023	6927.26	Completed
2023	Plan Implementation	Scott	Bonnevista Terrace Mobile Home Park	Non-Profit Business/Entity	Shamim Buck	Installation of an automatic transfer switch and disconnect, generator wiring, concrete pad, electric	6/15/2023	12/19/2023	10000	Completed
2023	Plan Implementation	Sherburne	City of Big Lake	Local/Regional Government	Deb Wegeleben	Automatic transfer switch, electrical work, LP connection, and other supporting equipment necessa	1/15/2023	9/26/2023	10000	Completed
2023	Plan Implementation	Sherburne	City of Zimmerman	Local/Regional Government	Randy Piascki	Purchase GPS unit and accessory equipment. Property owner letter/onsite visit/postage and copyin	12/1/2022	12/15/2023	9653	Completed
2023	Plan Implementation	Sibley	City of Gibbon	Local/Regional Government	Dana Lietzau	Purchase and install transfer switch for a generator to be purchased at a later date.	1/15/2023	8/28/2023	10000	Completed
2023	Plan Implementation	St. Louis	City of Gilbert	Local/Regional Government	Jill Zallar	Connect a residential home to city sewer.	12/1/2022	8/14/2023	10000	Completed
2023	Plan Implementation	Stearns	City of Avon	Local/Regional Government	Jodi Austing-Traut	Middle Spunk Water Festival participation. Maintain and update website. Prepare information for ci	6/15/2023	8/30/2024	2684	Awarded
2023	Plan Implementation	Stearns	City of Holdingford	Local/Regional Government	Nicky Lahr	Hire engineer to conduct Hydro-geotech study and potential well site.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Stearns	City of Paynesville	Local/Regional Government	Ron Mergen	Prepare wellhead newsletter. Plan and conduct Water Festival. Purchase a generator.	12/1/2022	8/4/2023	9592.69	Completed
2023	Plan Implementation	Stearns	City of St. Cloud	Local/Regional Government	Noah Czech	Develop pond monitoring protocols and plan. Laboratory/Data analysis costs. Data evaluation and q	12/1/2022	12/14/2023	10000	Completed
2023	Plan Implementation	Swift	City of Benson	Local/Regional Government	Valerie Alsaker	Well owner survey and education. PCSI spills/leak update. Public and tank owner education.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Todd	City of Eagle Bend	Local/Regional Government	Kevin Hess	Purchase and installation of an automatic transfer switch and wiring. Concrete slab, fill and dirt wor	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Todd	City of Grey Eagle	Local/Regional Government	Beth Ramacher	Purchase, install, and test security system equipment. Drill test well for possible new well location.	6/20/2023	4/24/2024	4290	Completed
2023	Plan Implementation	Traverse	City of Browns Valley	Local/Regional Government	Jodi Hook-Hansen	Hire licensed well driller to complete a deep boring and install test well.	6/15/2023	5/20/2024	10000	Completed
2023	Plan Implementation	Wabasha	City of Elgin	Local/Regional Government	Tyler Meyers	Purchase and install automatic transfer switch and disconnect, generator wiring and generator.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Wabasha	City of Lake City	Local/Regional Government	Scott Jensen	Excavate to locate old RR well for eventual sealing.	6/15/2023	8/30/2024	10000	Awarded
2023	Plan Implementation	Wabasha	City of Plainview	Local/Regional Government	Shane Loftus	Purchase and install a generator for well #2. Phase 1	12/1/2022	11/14/2023	10000	Completed
2023	Plan Implementation	Winona	City of Altura	Local/Regional Government	Dan Horvat	Purchase and install generator (Phase 3)	6/15/2023	7/26/2023	10000	Completed
2023	Plan Implementation	Wright	City of Clearwater	Local/Regional Government	Annita Smythe	Assessment of utility ordinances. Completion of a Spill Response Plan. Purchase/install fencing arou	1/15/2023	12/15/2023	8822	Completed
2023	Plan Implementation	Wright	Joint Powers Water Board	Local/Regional Government	Ruth Kiek	Seal 2 test wells. Research and document wells, tanks, and leak sites.	12/1/2022	10/4/2023	9564.38	Completed
2023	Transient	Atkin	Red Door Resort and Motel	For-Profit Business/Entity	Brian Linne	Drill a new well. Seal well.	12/1/2022	11/30/2023	3907.5	Completed
2023	Transient	Becker	Utopia Bay	For-Profit Business/Entity	George Windus	Construct a new well. Seal old well.	6/15/2023	11/1/2023	10000	Completed
2023	Transient	Brown	Springfield Co-op Creamery Assoc.	For-Profit Business/Entity	Bill Krueger	Well construction. Well sealing.	12/1/2022	7/19/2023	5586	Completed
2023	Transient	Cass	Lake Country Grocery	For-Profit Business/Entity	Brian Palkovich	Seal well.	6/15/2023	8/30/2024	250	Awarded
2023	Transient	Chisago	Abella Wedding and Events	For-Profit Business/Entity	Teri Meads	Construct a new well	6/15/2023	2/5/2024	7020	Completed
2023	Transient	Crow Wing	Woodlore Cider	For-Profit Business/Entity	Josh Gazelka	Drill a new well. Seal old well.	1/15/2023	7/28/2023	3818	Completed
2023	Transient	Goodhue	Cannon River Inn	For-Profit Business/Entity	Larry Gustafson	Extend flowing well above grade and install submersible pump.	6/15/2023	8/24/2023	1878.23	Completed
2023	Transient	Hennepin	The Cottage Farmhouse	For-Profit Business/Entity	Kim Serbus	Construct a new well.	6/15/2023	6/30/2025	10000	Amending
2023	Transient	Lake of the Woods	Flag Island Resort	For-Profit Business/Entity	Chuck Haggemiller	Drill new well and seal contaminated well.	6/15/2023	8/30/2024	10000	Awarded
2023	Transient	Lake of the Woods	Oak Island Resort	For-Profit Business/Entity	Alver Leighton	Construct a new well.	12/1/2022	8/17/2023	10000	Completed

Table 1. Source Water Protection Grants, 2022-2023

2023	Transient	Lyon	Garvin Park	Local/Regional Government	Brooke Kor	Seal a well and connect the existing distribution lines to another existing well. (Connection to existir	6/15/2023	7/10/2023	670 Completed
2023	Transient	Mcleod	Arnold's of Glencoe	For-Profit Business/Entity	Peter Arnold	Seal a well.		12/15/2023	857.75 Completed
2023	Transient	Mille Lacs	Good Shepherd Lutheran Church	Non-Profit Business/Entity	David Jackson	Removal of cesspool and installation of septic holding tank(s) and sewer line.	6/15/2023	9/12/2023	3902.5 Completed
2023	Transient	Olmsted	All Craft Exteriors	For-Profit Business/Entity	Brent Beck	Construct new well	6/15/2023	8/30/2024	10000 Awarded
2023	Transient	St. Louis	Arrowhead Lodge	For-Profit Business/Entity	Mike Daurio	Modification of a well. Install casing and grout.	12/1/2022	12/11/2023	10000 Completed
2023	Transient	St. Louis	Camp Esquagama	For-Profit Business/Entity	Steven Popowitz	Seal unused well	1/15/2023	12/13/2023	962.5 Completed
2023	Transient	St. Louis	Echo Shores Resort	For-Profit Business/Entity	Patrick Halbakken	Drill a new well	12/1/2022	9/26/2023	10000 Completed
2023	Transient	St. Louis	Glenmore Resort	For-Profit Business/Entity	Paul Hrvol	Well integrity investigation of Well #263067	1/15/2023	4/3/2023	1005 Completed
2023	Transient	St. Louis	Glenmore Resort	For-Profit Business/Entity	Paul Hrvol	Installation of treatment designed to inactivate/remove 4 log virus, 3 log giardia, and 2 log cryptosp	6/15/2023	8/14/2023	10000 Completed
2023	Transient	St. Louis	Lodge of Whispering Pines	For-Profit Business/Entity	Daniel Houle	Remove current water pump and install new casing with a new adapter, reducer, and pump.	6/15/2023	8/30/2024	6143 Awarded
2023	Transient	St. Louis	Retreat Lodge Resort	For-Profit Business/Entity	John Karakash	Deepening of Well #2 (839954) to increase water yield	12/1/2022	11/9/2023	6485.88 Completed
2023	Transient	St. Louis	Vermillion Dam Lodge	For-Profit Business/Entity	Ed Tausk	Well construction	12/1/2022	6/20/2023	10000 Completed
2023	Transient	Stearns	Riverside Resort	For-Profit Business/Entity	Joseph DeRose	Seal 2 unused wells.	1/15/2023	11/22/2023	475 Completed
2023	Transient	Todd	The WUGE, LLC	For-Profit Business/Entity	Sara Hinnenkamp	Drill a new well	6/15/2023	8/30/2024	7695.75 Awarded
2023	Transient	Washington	Keystone Weddings and Events	For-Profit Business/Entity	Lang Xiong	Seal abandoned well.	6/15/2023	8/30/2024	1575 Awarded

FY26-27 CLEAN WATER FUND PROPOSAL

Groundwater Restoration and Protection Strategies	
MDH	Program Number: 74
Program Contact Name: Carrie Raber and Steve Robertson	Phone: 651-201-4695
Contact E-mail Address: carrie.raber@state.mn.us	
Person filling out form: Carrie Raber	Phone: 651-201-4695
Person filling out form e-mail address carrie.raber@state.mn.us	

Purpose

The Groundwater Restoration and Protection Strategies (GRAPS) program is charged with building capacity with LGU's to effectively manage groundwater across Minnesota. This effort currently centers on report development for each participating watershed engaged in the One Watershed One Plan (1W1P). The GRAPS reports aggregate existing state information of groundwater and drinking water on a watershed scale to inform planning and implementation. In addition to the GRAPS reports, a significant investment has been made on training and tool development to build capacity.

Conservation delivery in Minnesota has traditionally centered on erosion control, managing stormwater runoff, among other resource concerns. It wasn't until 2013 when the DNR introduced the Groundwater Management Areas to manage groundwater overuse, our partner's realized groundwater was a local issue and that they were best suited to manage it. The Soil and Water Conservation Districts (SWCD) adopted a series of groundwater resolutions that put into motion GRAPS. The SWCDs asked to be partners in managing groundwater, they need training on how to best manage groundwater, and they requested access to state agency information and data on groundwater. The GRAPS process is keenly focused on delivering the items requested by the SWCDs to build groundwater capacity.

Webpage

Groundwater Restoration and Protection Strategies (GRAPS)

(www.health.state.mn.us/communities/environment/water/cwf/localimplem.html)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The GRAPS initiative has proven to be an effective model of state agencies collaborating to deliver a comprehensive overview of groundwater information in one document, eliminating barriers to local implementation. It results in a clearinghouse of information and shared goals to advance groundwater implementation. It is also one of the few approaches to consider the needs of private well owners within the framework of groundwater management.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	\$300,000
FY16-17	\$250,000
FY18-19	\$400,000
FY20-21	\$1,100,000
FY22-23	\$1,126,000
FY24-25	\$1,500,000
TOTAL APPROPRIATED TO DATE	\$4,676,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Vision: Groundwater is clean and available to all in Minnesota

Goal 1: Protect groundwater from degradation and support effective measures to restore degraded statewide.

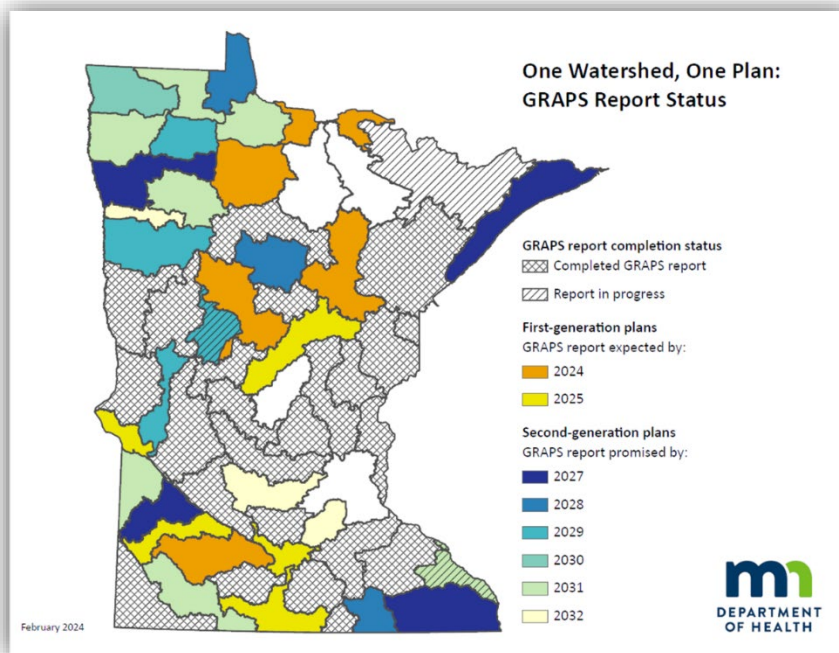
- **Strategy:** Develop and carry out strategies that will protect and restore groundwater statewide.

Outcomes

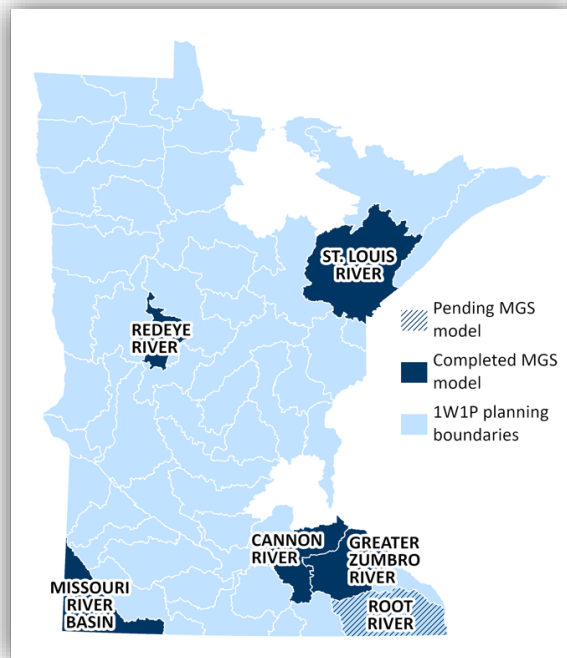
Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

The GRAPS process continues to grow with success achieved on various fronts.

- To date there are **23 completed GRAPS** with an additional six reports on track to be complete by the end of the calendar year 2024.



- Partnering with the DNR Watershed Health Assessment Framework (WHAF) team **groundwater data layers are now part of their decision support tool**. There are 17 data layers from the GRAPS report that are available statewide. The availability of this information allows our partners to engage in meaningful groundwater protection without access to a GRAPS report. You can access targeted information by clicking on the “add data” feature on the tool and type “GRAPS” to prepopulate the available data layers. The following link is preloaded with the GRAPS data layers for the state that can be easily accessed. [GRAPS Data Layers in WHAF](#).
- In partnership with the University of Minnesota (UMN), UMN Extension, Freshwater, and other state agencies **online groundwater modules were developed for resource partners to establish a baseline understanding of groundwater mechanics to help inform implementation**. This free online training is available to all interested parties and can be accessed by this link: [EXT XAF.0119 Groundwater Basics for Resource Managers | University of Minnesota \(umn.edu\)](#) (<https://learning.umn.edu/search/publicCourseSearchDetails.do?method=load&courseId=24287126&selectedProgramAreaId=18892&selectedProgramStreamId=>)
- In partnership with the Minnesota Geological Survey (MGS) **five 3D Geologic Models have been developed** to make an invisible resource visible. The models have been developed for the Missouri River Basin, Redeye River, St. Louis River, Cannon River, and the Greater Zumbro River. A contract is being executed for the Root River. [New 3D Geologic Models Published for GRAPS Pilot Project | Minnesota Geological Survey | College of Science and Engineering \(umn.edu\)](#) (<https://cse.umn.edu/mgs/news/new-3d-geologic-models-published-graps-pilot-project>)



- **Groundwater Protection Initiative – Accelerated Implementation Grant (AIG)** provides key support for LGU’s to build program capacity for groundwater quality and quantity. The grant provides a maximum award of \$50K to each successful applicant, with \$250K available annually. To date the GRAPS appropriation has awarded \$998,977 with a match of over \$718,646 in direct and in-direct support.
- **Technical trainings to build groundwater capacity** are a continuous effort. An example is being a planning lead for the CWF interagency groundwater workshop that was held in the Spring of 2024. The training reached over 300 state employees engaged in CWF work. Additionally, each year we participate in BWSR statewide trainings such as the BWSR Academy or the BWSR Spring Technical Training, along with opportunities presented by the MN Association of Soil and Water Conservation Districts, MN Association of Watershed Districts, among other relevant chances to engage our partners.
- A **Regional Groundwater Specialist** is being piloted to be a technical expert to synthesize groundwater information for targeted implementation. This position is expected to be hired by early fall.
- The **second generation GRAPS products are being explored**. These products stem from the MDH regional groundwater flow models to define aquifers, aquitards, and recharge areas within a watershed. This information combined with chemistry data will provide meaningful outputs that will better define targeted areas for implementation.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Increase.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Grant/ Contract to whom	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	FY26-27	Total
Freshwater	\$40K		\$60K					\$100K
Stearns SWCD		\$40K	\$50K	\$50K				\$140K
Pipestone SWCD		\$10K	\$20K	\$30K				\$60K
MN Geological Survey				\$135K		\$93K		\$228K
Accelerated Implementation Grant				\$289,496	\$401,830	\$547,651*	\$500K*	\$1,738,977

*Indicates future Accelerated Implementation Grant awards of \$250K annually.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	1.0
FY16-17	1.0
FY18-19	1.0
FY20-21	2.0
FY22-23	2.0
FY24-25	3.0
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

One Watershed One Plan (Watershed Management Transition)	
BWSR	Program Number: 16
Program Contact Name: Julie Westerlund	Phone: 651-600-0694
Contact E-mail Address: julie.westerlund@state.mn.us	
Person filling out form: Julie Westerlund	Phone: same
Person filling out form e-mail address same	

Purpose

Accelerate implementation of the State's Watershed Approach via watershed-based local water planning and plan maintenance. Plans are aligned with Watershed Restoration and Protection Strategies (WRAPS), Groundwater Restoration and Protection Strategies (GRAPS), and other data and information. This program provides technical assistance, program oversight, and planning grants to local governments.

Webpage

[One Watershed, One Plan | MN Board of Water, Soil Resources \(state.mn.us\)](https://state.mn.us/one-watershed-one-plan)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Local governments develop plans with prioritized, resource-focused implementation plans based on data, state strategies, and local values. Plans are comprehensive and address protection and restoration.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	\$900,000
FY16-17	\$4,200,000
FY18-19	\$3,990,000
FY20-21	\$4,000,000
FY22-23	\$5,808,000
FY24-25	\$3,500,000
TOTAL APPROPRIATED TO DATE	\$22,398,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

CWC Strategic Plan Goal 2

Strategy: Prioritize waters for protection and restoration using comprehensive watershed management plans (One Watershed One Plan or other approved plans) updated every ten years.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Since 2014, 57 groups of local governments have entered into planning agreements to jointly develop a plan. Forty-five plans have been approved by the BWSR Board as of June 3, 2024 and BWSR anticipates 1) full participation statewide (60 planning boundaries) in 2024; and 2) all plans completed and approved by BWSR by 2027. Each plan is prioritized based on the best available science and allows for implementation funding to be directed to the most important places in a watershed. As plans arrive at the mid-point of their 10-year implementation period, they undergo an assessment of progress toward goals and an examination of new data, which informs a future plan amendment which can re-start the 10-year plan time frame.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Decrease. Continued funding will be requested to support ongoing "maintenance" (assessment and amendments) so plans remain current, relevant, and useful.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

The program leverages significant in-kind resources from local government staff.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement. This program supplements Natural Resources Block Grant funding for local water planning.

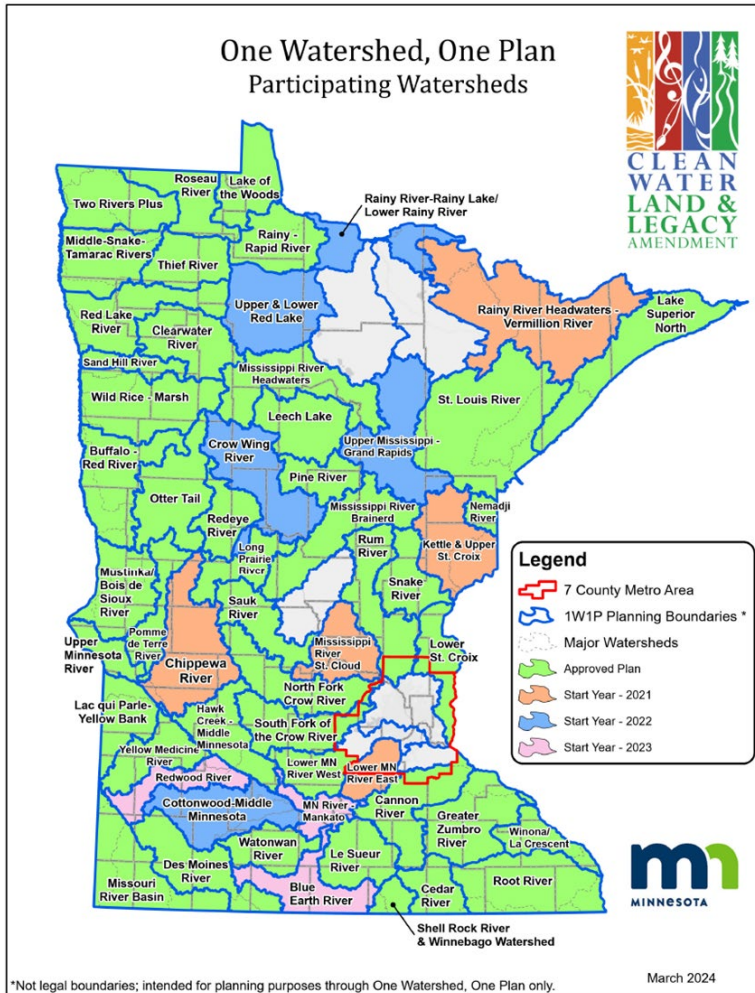
Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Planning Grants are typically ~\$230,000 each. Mid-Point Grants are typically ~\$50,000 each.

Start Year	Planning Boundary Name
Planning Grants - For Initial Plan Development	
2014	Lake Superior North
2014	Red Lake River
2014	Root River
2014	Yellow Medicine River
2015	North Fork Crow River
2016	Cannon River
2016	Cedar - Wapsipinicon
2016	Lake of the Woods
2016	Leech Lake River
2016	Missouri River Basin
2016	Pomme de Terre River
2016	Thief River
2017	Bois de Sioux - Mustinka
2017	Buffalo-Red River
2017	Lower St. Croix River
2017	Pine River
2017	Sauk River
2017	Watonwan River
2018	Greater Zumbro
2018	Hawk Creek-Middle Minnesota
2018	Mississippi River Headwaters
2018	Nemadji
2018	Redeye River
2018	Rum River
2018	Shell Rock and Winnebago River
2018	Two Rivers Plus
2018	Wild Rice - Marsh River
2019	Lower Minnesota River West
2019	Snake River
2019	St. Louis River
2020	Clearwater River
2020	Des Moines River
2020	Lac qui Parle-Yellow Bank

2020	Le Sueur River
2020	Long Prairie River
2020	Middle-Snake-Tamarac Rivers
2020	Mississippi River Winona La Crescent
2020	Otter Tail River
2021	Chippewa River
2021	Kettle and Upper St. Croix
2021	Lower Minnesota River East
2021	Mississippi River Brainerd
2021	Mississippi River St. Cloud
2021	Rainy - Rapid River
2021	Rainy River Headwaters - Vermilion
2021	Roseau River
2021	Sand Hill River
2021	South Fork of the Crow River
2021	Upper Minnesota River
2022	Cottonwood-Middle Minnesota
2022	Crow Wing River
2022	Rainy River-Rainy Lake
2022	Upper and Lower Red Lake
2022	Upper Mississippi - Grand Rapids
2023	Blue Earth River
2023	Minnesota River - Mankato
2023	Redwood River
Mid-Point Grants (for plan assessment and/or amendment)	
2022	Lake Superior North
2022	Red Lake River
2022	Root River
2022	Yellow Medicine River
2023	North Fork Crow River
2024	Missouri River
2024	Pine River



State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	1.4
FY16-17	2.1
FY18-19	4.7
FY20-21	6.5
FY22-23	5.7
FY24-25	5.7
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

County Geologic Atlas Part A	
UMN	Program Number: 61
Program Contact Name: Barbara Lusardi	Phone: 612-626-5119
Contact E-mail Address: lusar001@umn.edu	
Person filling out form: Barbara Lusardi	Phone: 612-626-5119
Person filling out form e-mail address lusar001@umn.edu	

Purpose

Provides planning-scale comprehensive geologic mapping and associated databases required for managing water and also mineral resources.

Webpage

[County Geologic Atlas | College of Science and Engineering \(umn.edu\)](https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability)
<https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability>

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Geologic atlases provide maps and databases essential for improved management of ground and surface water. This is foundational data that supports management of drinking water, domestic and industrial supply, irrigation, and aquatic habitat. County Geologic Atlases are specifically identified as essential data in the Statewide Conservation Plan, and in the efforts of the Environmental Quality Board, DNR Eco-Waters, and the Water Resources Center at the University of Minnesota to design a sustainable water management process. The distribution of geologic materials defines aquifer boundaries and the connection of aquifers to the land surface and to surface water resources to enable a comprehensive water management effort.

PRIOR APPROPRIATIONS	
FY10-11	\$305,000
FY12-13	\$0
FY14-15	\$1,230,000
FY16-17	\$0
FY18-19	\$250,000
FY20-21	\$500,000
FY22-23	\$900,000
FY24-25	\$1,000,000
TOTAL APPROPRIATED TO DATE	\$4,185,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Drinking water/Groundwater

Engagement/Education

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

To date, CWF has supported atlas production in 23 counties including: St. Louis, Lake, Dakota, Houston, Winona, Brown, Redwood, Washington, Isanti, Wadena, Cass and Hennepin, Dodge and Olmsted counties. In-production atlases with CWF support include Red Lake, Pennington, Polk, Lake of the Woods, Ramsey, Douglas, Grant, and Ramsey. Each atlas takes about 5 years to complete and costs approximately \$500,000. These funds will likely be used to complete one or more of the atlases that are currently in production; or will be used to start work in one of the 8 counties that we have yet to begin.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

The annual budget for the County Atlas program is about \$2 million. The bulk of our funding comes from the ENRTF as administered by the LCCMR. In recent years, our LCCMR award has been \$2 million to spend within 3 years. In addition, we receive about \$500,000 (per biennium) from the Department of Natural Resources. Finally, we cost-share all of these funds as much as possible with funding from various federal mapping programs including STATEMAP (~\$95,000) and Great Lakes Geologic Mapping Coalition (~\$85,000).

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

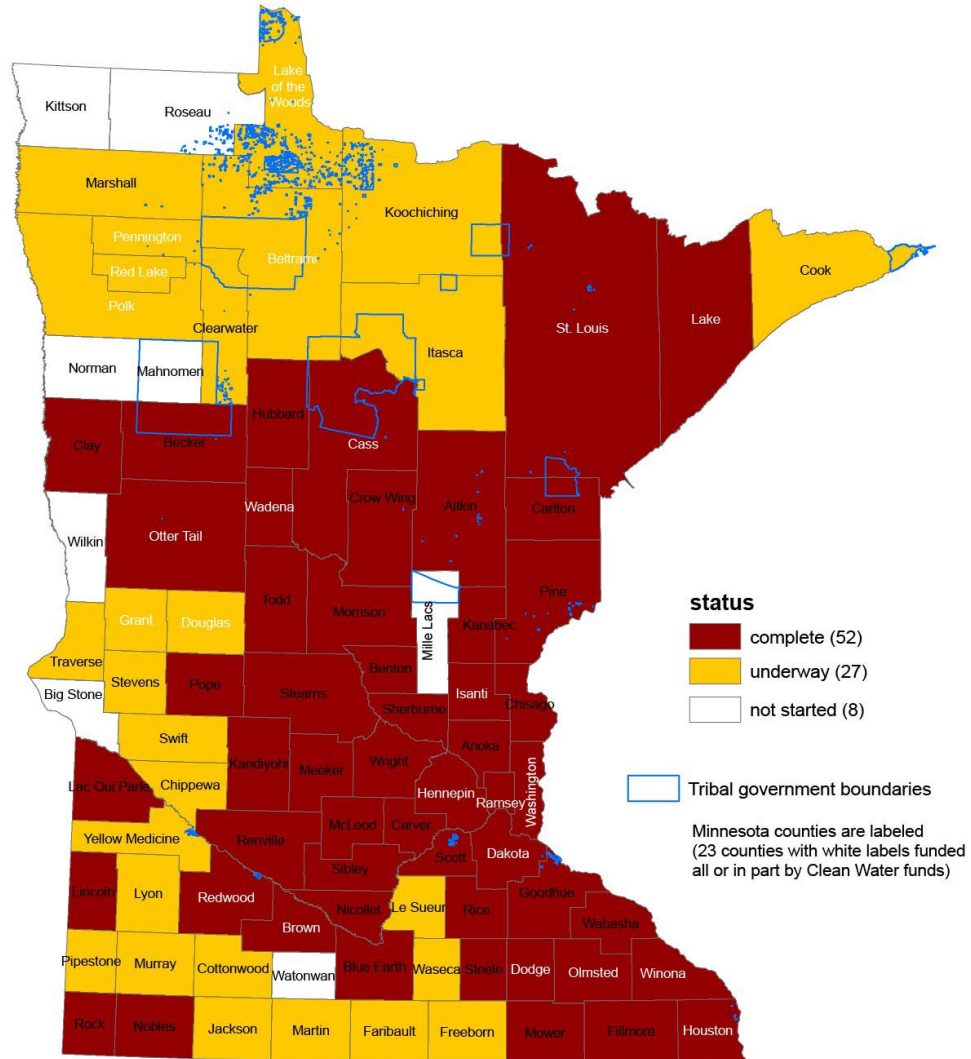
Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.



UNIVERSITY OF MINNESOTA

Status of County Geologic Atlas Part A



05/29/24

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

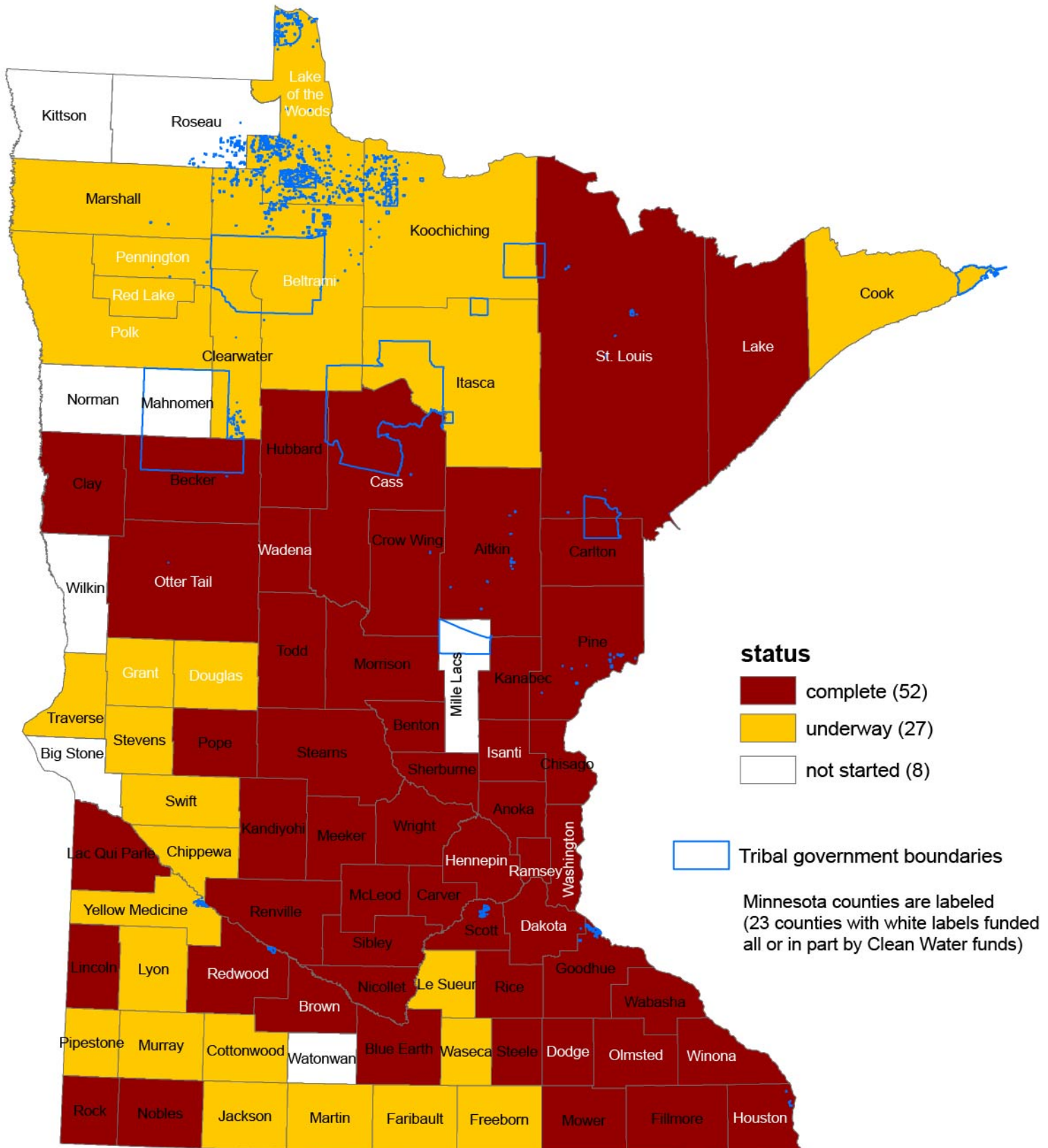
FY10-11	3.0
FY12-13	
FY14-15	13.0

FY16-17	
FY18-19	2.5
FY20-21	5.0
FY22-23	
FY24-25	9.0
FY26-27	



UNIVERSITY OF MINNESOTA

Status of County Geologic Atlas Part A



#	NAME	signed	Year_Compl	revised	revised2	status	ENRTF	CWF	DNR	USGS	funding
1	Aitkin		2022			complete	x		x		LCCMR15, 17, 18, 19, 20, DNR
2	Anoka		2013			complete	x			x	LCCMR 2009; USGS
3	Becker		2016			complete	x				LCCMR 13, 15
4	Beltrami	2023				underway		x			CWF
5	Benton		2010			complete	x				LCCMR 2007
6	Big Stone					not started					not funded
7	Blue Earth		2011			complete	x				LCCMR 2008
8	Brown		2016			complete	x	x			LCCMR11, 12, CWF
9	Carlton		2009			complete			x		Completed Prior to 2007 *
10	Carver		2009			complete			x	x	Completed Prior to 2007 *
11	Cass		2018			complete	x	x	x		CWF, DNR, LCCMR 17
12	Chippewa	2019				underway	x		x	x	LCCMR18,19,20,21; USGS; DNR
13	Chisago		2010			complete	x				LCCMR 2007
14	Clay		2014			complete			x		DNR
15	Clearwater	2024				underway					MGS start 2026
16	Cook	2019				underway	x		x	x	LCCMR18,19,20,21; USGS; DNR
17	Cottonwood	2023				underway	x				not funded
18	Crow Wing		2004			complete					Completed Prior to 2007 *
19	Dakota		1990	2023		revised		x		x	Completed Prior to 2007 *
20	Dodge		2020			complete	x	x	x	x	CWF; LCCMR 15; DNR; USGS
21	Douglas	2019				underway	x	x	x	x	DNR 2019; CWF 21-24; USGS 21-22
22	Faribault	2019				underway	x		x	x	DNR 20-21, ENRTF 21-24; USGS 21-24; DNR drill
23	Fillmore		1995			complete					Completed Prior to 2007 *
24	Freeborn	2022				underway	x			x	LCCMR_21; USGS 23
25	Goodhue		1998			complete	x				Completed Prior to 2007 *
26	Grant	2019				underway	x	x	x	x	DNR 2019; CWF 21-24; USGS 21-22
27	Hennepin		1989	2018		revised	x	x			Completed Prior to 2007 *
28	Houston		2014			complete		x			CWF
29	Hubbard		2018			complete	x				LCCMR13, 15, 17
30	Isanti		2017			complete	x	x	x		CWF; DNR, LCCMR17
31	Itasca	2023				underway	x				MGS start 2025
32	Jackson	2024				underway					MGS start 2026
33	Kanabec		2016			complete	x		x	x	DNR, USGS, LCCMR13
34	Kandiyohi		2019			complete	x				LCCMR 15, 17, 18
35	Kittson					not started					not funded
36	Koochiching	2022				underway	x			x	LCCMR_21; USGS 24
37	Lac Qui Parle		2023			complete	x		x	x	LCCMR 17,18

38	Lake		2023			complete	x	x	x	x	LCCMR12, 17, 18, 19, 20; CWF , USGS, DNR
39	Lake of the Woods	2019				underway		x	x	x	CWF ; USGS 22-24; DNR drill
40	Le Sueur	2023				underway	x				MGS start 2025
41	Lincoln		2023			complete	x		x	x	LCCMR 17, 18, 19, 20; DNR; USGS
42	Lyon	2021				underway	x			x	LCCMR21; USGS 22-24
44	Mahnomen					not started					not funded
45	Marshall	2023				underway	x				MGS start 2025
46	Martin	2023				underway	x				signed 2023
43	McLeod		2009			complete			x		Completed Prior to 2007 *
47	Meeker		2015			complete	x			x	LCCMR 11, 13
48	Mille Lacs					not started					not funded
49	Morrison		2014			complete	x			x	LCCMR 10; USGS
50	Mower		1998			complete					Completed Prior to 2007 *
51	Murray	2022				underway	x			x	LCCMR_21; USGS 23
52	Nicollet		2011			complete	x				LCCMR 2008
53	Nobles		2022			complete	x		x		LCCMR17, 18,19; DNR
54	Norman					not started					not funded
55	Olmsted		1988	2020		revised	x	x	x		Completed Prior to 2007 *
56	Otter Tail		2023			complete	x	x	x	x	LCCMR 17, 18, 19, 20; DNR; CWF ; USGS
57	Pennington	2017				underway	x	x	x	x	LCCMR 17, 18, 19, 20; DNR; CWF ; USGS
58	Pine		2001			complete					Completed Prior to 2007 *
59	Pipestone	2017				underway	x		x	x	LCCMR 17, 18, 19, 20; DNR; USGS
60	Polk	2019				underway	x	x	x	x	LCCMR18,19,20,21; USGS; DNR, CWF 24
61	Pope		2003			complete					Completed Prior to 2007 *
62	Ramsey		1992	underway		revision underway		x	x	x	Completed Prior to 2007 *
63	Red Lake	2019				underway		x	x	x	CWF ; USGS 21-22; Mentor; Statemap
64	Redwood		2016			complete	x	x			LCCMR11, 12, CWF
65	Renville		2013			complete			x		DNR
66	Rice		1995			complete					Completed Prior to 2007 *
67	Rock		2022			complete	x		x		LCCMR17, 18,19; DNR
68	Roseau					not started					not funded
70	Scott		1982	2006	underway	revised	x		x		Completed Prior to 2007 *
71	Sherburne		2013			complete	x			x	LCCMR 10; USGS
72	Sibley		2011			complete	x				LCCMR 2008
69	St. Louis		2022			complete	x	x	x	x	LCCMR12, 17, 18, 19, 20; CWF , USGS, DNR
73	Stearns		1995			complete					Completed Prior to 2007 *
74	Steele		2022			complete	x		x		LCCMR 17, 18, 19, 20; DNR
75	Stevens	2022				underway	x			x	LCCMR_21; USGS 24

76	Swift	2021			underway	x			x	LCCMR21; USGS 23-24
77	Todd		2007		complete			x		Completed Prior to 2007 *
78	Traverse	2022			underway	x			x	LCCMR_21; USGS 24
79	Wabasha		2001		complete					Completed Prior to 2007 *
80	Wadena		2016		complete	x	x		x	LCCMR 13, CWF , USGS
81	Waseca	2019			underway	x		x	x	DNR 20-21, ENRTF 21-24; USGS 21-24; DNR drill
82	Washington		1990	2016	revised		x	x		Completed Prior to 2007 *
83	Watonwan				not started					not funded
84	Wilkin				not started					not funded
85	Winona		1984	2014	revised		x			CWF
86	Wright		2013		complete	x				LCCMR 2009
87	Yellow Medicine	2019			underway	x		x	x	LCCMR18,19,20,21; USGS; DNR

FY26-27 CLEAN WATER FUND PROPOSAL

County Geologic Atlas Part B (Groundwater)	
DNR	Program Number: 59
Program Contact Name: Jason Moeckel	Phone: 651-259-5240
Contact E-mail Address: jason.moeckel@state.mn.us	
Person filling out form: Jason Moeckel	Phone: 651-259-5240
Person filling out form e-mail address jason.moeckel@state.mn.us	

Purpose

The DNR works with the Minnesota Geological Survey (MGS) to supplement completion and updates to County Geologic Atlases that convey critical groundwater and geology information to local governments.

Webpage

[Groundwater Atlas Program | Minnesota DNR \(state.mn.us\)](https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability)
<https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability>

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

County Geologic Atlases provide information about the region's geology and groundwater: location and depth of aquifers, direction of water flow, pollution sensitivity, connections to surface waters, and other characteristics like natural quality and age of groundwater. This information is essential for local planning and environmental protection efforts. Water supply planning, source water protection and well sealing programs are examples of local programs that need geologic and groundwater information. Other typical uses include providing information for permit applications, resource management, monitoring needs, and emergency response to contaminant releases.

The DNR works with the Minnesota Geological Survey (MGS) to develop County Geologic Atlases that convey geology and groundwater information and interpretations to government units at all levels, but particularly to local governments. The MGS focuses on geology (Part A reports) and DNR focuses on groundwater (Part B reports). Atlases are developed in response to requests by counties, who contribute money and data to the development of Part A reports.

Clean Water funding is used to improve the quality of County Geologic Atlases by collecting additional subsurface geologic samples, expanding the number of sites sampled for water chemistry, starting the process of installing a research well to collect stratified groundwater data from multiple aquifers, and purchasing and repairing equipment.

PRIOR APPROPRIATIONS	
FY10-11	\$1,000,000
FY12-13	\$0
FY14-15	\$1,200,000
FY16-17	\$500,000
FY18-19	\$250,000
FY20-21	\$300,000
FY22-23	\$0
FY24-25	\$200,000
TOTAL APPROPRIATED TO DATE	\$3,450,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Completing 2-4 atlases a year provides valuable information to local governments form implementation projects.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

LCCMR and General Fund.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous

funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Funds are provided to the Minnesota Geological Survey at the University of Minnesota for contract drilling to enhance geologic information. Could you include a list of counties and their completion dates (and their funding source)? A corresponding map would be good too.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	0.5
FY14-15	3.9
FY16-17	3.3
FY18-19	
FY20-21	
FY22-23	
FY24-25	
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

MN Water Research Digital Library [aka Research Inventory Database]	
DNR	Program Number: 56
Program Contact Name: Margaret Wagner	Phone: 651-201-6488
Contact E-mail Address: margaret.wagner@state.mn.us	
Person filling out form: Margaret Wagner	Phone: 651-201-6488
Person filling out form e-mail address margaret.wagner@state.mn.us	

Purpose

The Minnesota Water Research Digital Library (MnWRL) is a user-friendly, searchable inventory of water research relevant to Minnesota. It provides “one-stop” access to all types of water research, including both peer-reviewed articles and white papers and reports.

Webpage

[DISCOVER MnWRL DIGITAL COLLECTIONS | WRL Digital Asset Management \(mnpals.net\)](#)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

MnWRL provides one-stop access to all types of water research, enabling water managers, researchers, engaged citizens and others to easily find, share, and coordinate research to support their efforts to protect, conserve, manage and restore water in Minnesota. It provides a centralized location for all Clean Water Fund supported reports including WRAPS, 1W1Ps, research reports, etc. as well as other water publications.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	\$350,000
FY14-15	\$250,000
FY16-17	\$100,000
FY18-19	\$100,000
FY20-21	\$100,000
FY22-23	\$80,000
FY24-25	\$80,000
TOTAL APPROPRIATED TO DATE	\$1,060,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

The Minnesota Water Research Digital Library is a searchable inventory of documents focused on research and projects relevant to water in Minnesota. It provides a one-stop location for outcomes from the Clean Water Fund. The following publication series are included as examples: Agricultural BMPs (45 entries), Evaluation of Hydrologic Change Reports (47), Lake Assessment Program (48), Stressor Identification Reports (60), TMDL studies (251), Watershed Level Plans (141), and WRAPS Reports (68).

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

As of 5/29/2024:

3,756 publications available on MnWRL

31,306 website visitors

20,208 search sessions conducted

7,198 PDFs downloaded.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

NA

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	0.3
FY14-15	1.0
FY16-17	0.3
FY18-19	0.6
FY20-21	0.4
FY22-23	
FY24-25	0.4
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Forever Green Initiative	
MDA	Program Number: 81
Program Contact Name: Margaret Wagner	Phone: 651-201-6488
Contact E-mail Address: margaret.wagner@state.mn.us	
Person filling out form: Margaret Wagner	Phone: 651-201-6488
Person filling out form e-mail address margaret.wagner@state.mn.us	

Purpose

Develops new perennial and winter annual crops and associated cropping systems that preserve and enhance water quality, and supports the development of new supply chains that provide profitable markets for these crops. Funding will support the Forever Green Initiative in areas related to crop research, implementation, and supply chains and partnership development.

Webpage

[Forever Green Initiative | Minnesota Department of Agriculture \(state.mn.us\)](https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability)
<https://www.mda.state.mn.us/environment-sustainability/pesticide-monitoring-increased-capacity-and-capability>

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The Forever Green Initiative is developing market-driven perennial and cover cropping systems specific to Minnesota that are necessary to protect and restore the state's surface and groundwater resources while increasing efficiency, profitability, and productivity of Minnesota farmers.

Perennial crops provide continuous cover on the land, while winter annuals and cover crops grow between the time when annual crops are harvested in the fall and a new planting is established in the spring. This is the time when fields are bare and most vulnerable to erosion and nutrient loss. More vegetative cover throughout the year slows runoff and soil erosion and reduces nutrient losses providing a direct benefit to surface waters in Minnesota. Perennial and cover crops also prevent nitrate-nitrogen leaching to groundwater by taking up excess soil nitrogen.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	
FY16-17	\$1,000,000

FY18-19	\$1,500,000
FY20-21	\$4,300,000
FY22-23	\$4,000,000
FY24-25	\$6,000,000
TOTAL APPROPRIATED TO DATE	\$16,800,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Groundwater Vision: Groundwater is clean and available to all in Minnesota.

Goal 1: Protect groundwater from degradation and support effective measures to restore degraded groundwater.

- Action: Reduce nitrate contamination of groundwater.

Drinking Water Source Protection Vision: Drinking water is safe for everyone, everywhere in Minnesota.

Goal 1: Public Water Systems--Ensure that users of public water systems have safe, sufficient, and equitable drinking water.

- Action: Support implementation funding and technical assistance to reduce nitrate in DWSMAs that are Level 1 and Level 2 under the GPR.
- Action: Fund protective actions that assist public water suppliers in meeting safe drinking water levels

Surface Water Protection and Restoration Vision: Minnesotans will have fishable and swimmable waters throughout the state

Goal 2: Protect and restore surface waters to achieve 70% swimmable and 67% fishable waters by 2034 via by prioritizing and targeting resources by major watershed

- Action: Restore and protect water resources for public use and public health, including drinking water

Vision: All Minnesotans value water and take actions to sustain and protect it.

Goal 1: Build capacity of local communities to protect and sustain water resources

- Action: Support local efforts to engage farmers in water quality efforts.
- Action: Support innovative efforts that accelerate progress toward clean water goals.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Supported 76 research projects through an RFP process administered by the University of Minnesota. Projects focus on Forever Green crops such as Kernza, hazelnuts, pennycress, camelina, winter barley, perennial sunflower, perennial flax, spring and winter pea.

- **New crop varieties developed and released:** Kernza variety 'MN Clearwater', Winter Barley variety 'Equinox', Winter hardy Hairy Vetch variety 'Vinter', 4-6 hazelnut lines ready for commercialization, early-maturing Winter Camelina lines in late-stage variety trials, Domesticated pennycress in variety trials and patents issued or pending, Perennial flax variety in evaluation trials for horticultural market.

Leverages millions of dollars from state and federal grants and investments from companies, foundations and commodity groups.

Some of the first plantings of Intermediate Wheatgrass (Kernza) was targeted in areas with vulnerable groundwater. This includes growers and supply chain partners in SE, SW and Central Minnesota. Beginning in 2021, the Environmental and Economic Clusters of Opportunity (EECO) implementation program expanded beyond Kernza to include a suite of winter annuals.

- 3,006 acres enrolled with 46 contracts in the EECO Program: Kernza (1,050), Winter camelina (1,145), Hybrid winter rye (801), and Winter barley (10).
- Major partnership and \$2.5M grant awarded by Cargill to improve the winter annual oilseeds, 2,000 acre industry-led camelina pilot underway, further acreage expansion projected in '24-25
- Unique partnership with the City of Hastings to plant 80-acres of DWSMA adjacent public land to a Kernza-legume-oat intercrop through unique public bidding process that prioritized continuous living cover crops.
- In 2021, Perennial Promise Co-op was formed to develop product and markets for FGI crops (currently Kernza). Perennial Promise Growers Cooperative members have all organic grain committed and moving (several hundred thousand lbs of grain), and are now moving surplus organic demand toward purchasing existing conventional grain. Contracts to PPGC growers will be offered by a key industry partner that will drive new Kernza acres to scale their national brewery partnerships. New Kernza distributor, Arcola Farms, is raising capital and vertically integrating to grow the conventional market, they intend to plant ~2,000 acres of Kernza in fall 2024.
- There were several established Kernza products on the market in MN, including flour, pancake mix, naan, crackers, pasta, and other restaurant food items such as bakery goods and beer.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

The Forever Green Initiative leverages the CWF investment with state and federal grant dollars as well as funding from commodity groups, public and private companies, and foundations.

- FY20-21: \$4,300,000 from CWF and \$3,334,000 from other state, foundation, and company funding. FGI was also awarded \$43,936,579 in competitive federal grants.
- FY22-23: \$4,000,000 from CWF and \$2,257,180 from other state, foundation, and company funding. FGI was also awarded \$20,200,000 in competitive federal grants.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

100% of funding was passed through to the University of Minnesota, Forever Green Initiative.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	0.0
FY12-13	0.0
FY14-15	0.0
FY16-17	0.0
FY18-19	0.0
FY20-21	0.0
FY22-23	0.0
FY24-25	0.0
FY26-27	0.0

FY26-27 CLEAN WATER FUND PROPOSAL

Agricultural Research and Education	
MDA	Program Number: 56
Program Contact Name: Margaret Wagner	Phone: 651-201-6488
Contact E-mail Address: margaret.wagner@state.mn.us	
Person filling out form: Margaret Wagner	Phone: 651-201-6488
Person filling out form e-mail address margaret.wagner@state.mn.us	

Purpose

Research currently focuses on evaluating, developing, and demonstrating regional and animal-specific recommendations for manure crediting, and developing and revising manure best management practices (BMPs). Water quality benefits and greenhouse gas emission reductions can be achieved by proper crediting for the nutrient value of various types of manure. Many of the current recommendations for manure are based on research that is more than 20 years old and, in some cases, may not represent current technology and livestock management practices. Increased research and demonstration activities will increase farmers confidence in the recommendations and result in reduced manure and commercial fertilizer inputs.

Webpage

[Clean Water Research Program | Minnesota Department of Agriculture \(state.mn.us\)](https://state.mn.us/clean-water-research-program)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

This program supports research projects to identify processes that affect water quality and evaluate the costs and benefits of specific agricultural practices. As a result, best management practices will be developed and evaluated to protect and restore water resources. Funding is for increased efforts to support proper accounting and crediting of nutrients from manure. Determining the right timing, rate, source and placement for applying manure to cropland to maximize nutrient uptake by the crop. This will reduce the potential for nutrients to be converted to greenhouse gases, or leach to groundwater or for surface water runoff.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	\$2,100,000
FY14-15	\$2,100,000
FY16-17	\$1,575,000
FY18-19	\$1,325,000
FY20-21	\$0

FY22-23	\$0
FY24-25	\$1,500,000
TOTAL APPROPRIATED TO DATE	\$8,600,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Supported 43 research projects (3 active projects, 40 completed)

- 21 of the supported research projects evaluate practices to reduce nitrate-nitrogen losses. Practices include emerging technologies such as nitrification inhibitors and optical sensing tools, vegetative cover for water quality benefits, treatment of agricultural drainage systems and updating BMPs to develop statewide guidance on appropriate application practices for nitrogen fertilizer.
- 12 different organizations have been awarded research contracts through the program.
- Almost every WRAPS is using outcomes from this research in selecting practices, calculating the cost and benefits of practices and to support computer modeling.
- Clean Water fund investment has leveraged millions of additional research dollars.
- In FY24-25, the CWF provided \$1.5M for manure crediting research. A contract is in place with Dr. Melissa Wilson and a workplan has been developed and approved. This research project will begin in the fall of 2024.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Researchers leverage CWF dollars with other federal and state grants. Could you offer some specifics, especially for manure crediting?

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

In FY14-21, 86% of funding was passed through in contracts. Recipients include the University of Minnesota and other universities and research organizations.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	1.0
FY14-15	1.0
FY16-17	1.25
FY18-19	1.25
FY20-21	0.75
FY22-23	
FY24-25	0.75
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Recreational Water Quality Online Portal	
MDH	Program Number:
Program Contact Name: Trisha Robinson	Phone: 651-201-5639
Contact E-mail Address: trisha.robinson@state.mn.us	
Person filling out form: Trisha Robinson	Phone: 651-201-5639
Person filling out form e-mail address trisha.robinson@state.mn.us	

Purpose

- Establish a statewide inventory of public beaches;
- Develop a statewide portal for beach monitoring results and closures;
- Create a secure login for entities conducting beach monitoring to enter and manage test results online; and
- Provide education to Minnesotans via the portal on preventing illness and recreational water stewardship.

Webpage

n/a

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Currently there is no single entity that tracks the monitoring or closure of public beaches statewide. While many people assume all beaches are monitored, beach testing is conducted at the discretion of the entity responsible for the beach (often a local public health agency). The creation of a statewide recreational water testing portal will allow Minnesotans to go to one online location to access information on any recreational water testing conducted or beach closures currently in place. Additionally, the portal will allow for users to be made aware of any alerts currently in place at the beach of interest, such as the appearance of harmful algal blooms or major pollution events.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	
FY16-17	
FY18-19	
FY20-21	
FY22-23	
FY24-25	\$600,000

TOTAL APPROPRIATED TO DATE	\$600,000
-----------------------------------	------------------

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Surface Water Protection and Restoration Vision: Minnesotans will have fishable and swimmable waters throughout the state.

Goal 1: Monitor, assess, and characterize Minnesota's surface waters.

Strategy: Maintain consistent funding for a statewide monitoring system.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

- # of beaches monitored and reported via online portal
- # of beach closures posted on online portal
- Beach surveys to monitor knowledge, attitudes and behavior

Progress to date: Work to create an inventory of monitored beaches throughout the state, including frequency, advisory criteria, and other considerations is nearly complete. Evaluation of existing portals in other states is underway to ultimately build the most user-friendly and robust portal for Minnesota.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Decrease.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous

funding that was not from a legacy fund and was used for the same purpose.” Indicate if this proposal will supplement or supplant previous funding.

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

N/A.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	
FY16-17	
FY18-19	
FY20-21	
FY22-23	
FY24-25	1.5
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Stormwater BMP Performance Evaluation and Technology Transfer	
UMN	Program Number: 82B
Program Contact Name: Jeff Peterson	Phone: 612-624-9282
Contact E-mail Address: jmpeter@umn.edu	
Person filling out form: John Bilotta	Phone: 612-624-7708
Person filling out form e-mail address jbilotta@umn.edu	

Purpose

The program completes urban stormwater research addressing priority water resource needs for Minnesota communities, professionals, and policy leaders. Research focuses on new and revised stormwater practices and policies as well as developing systematic ways of increasing the effectiveness and efficiency of practices used to manage urban stormwater. A majority of the funds (~65%) will be invested in research through competitive or direct pass-through processes. Research is and will be conducted by a variety of Minnesota's academic institutions, public agencies, and private industry and by collaborations of all three. This research will address unanswered questions and high-priority information needs revolving around urban stormwater management. The research will develop additional management practices and increase the effectiveness of frequently used practices.

The program also provides technology transfer of research results; that is training, outreach, and Extension education to Minnesota professionals, practitioners, and policy leaders.

Approximately 20-25% of the funds will be invested in technology transfer efforts that deliver the research discoveries, information, and tools to those who can best use it to make informed decisions.

Webpages

- Main program webpage: wrc.umn.edu/stormwater
- Secondary webpage: wrc.umn.edu/msrc

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

Investing in urban stormwater research provides information and resources to address high-priority questions and needs communities, professionals, and policy leaders have about stormwater management. Research leads to the improvement of existing practices, the discovery of new innovative techniques, and increases in the efficiency and effectiveness of frequently used practices and management approaches. These research efforts result in applications in communities that protect and restore surface water and groundwater resources

and minimize the impacts of runoff and pollutants from the built urban environment. Applied research allows professionals and policy leaders to choose the best and most efficient management practices and policies. Continuing and expanding the investment in research brings the opportunity to ensure the 'best' is achieved in the best management practice (BMP) paradigm. Investing a portion of the program in technology transfer also ensures the discoveries are delivered and shared with those in Minnesota who can most benefit from them. Effective outreach, training, and resources are provided to public and private practitioners, professionals, and policy leaders to incorporate this new science into designing, planning, construction, management, and other aspects of implementation and decision-making.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	
FY16-17	\$550,000
FY18-19	\$1,500,000
FY20-21	\$1,500,000
FY22-23	\$1,500,000
FY24-25	\$2,000,000
FY25 Supplemental	\$1,000,000
TOTAL APPROPRIATED TO DATE	\$8,050,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

Groundwater

Goal 1: Protect groundwater from degradation and support effective measures to restore degraded groundwater.

- Strategy: Develop and carry out strategies that will protect and restore groundwater statewide.
Action: Reduce risk of stormwater contaminants entering groundwater.

Surface water

Goal 3: Protect and restore surface waters to achieve 70% swimmable and 67% fishable waters by 2034 via through statewide, regional, or issue-specific programs that help meet water quality goals but are not necessarily prioritized and targeted according to geography.

- Strategy: Enhance compliance for regulatory programs to accelerate progress
Action: Reduce risk of stormwater contaminants entering surface water.
- Strategy: Support competitive grants for protection and restoration activities.
Action: Provide opportunities for competitive grants that meet statewide priorities.
- Strategy: Identify policy options that will accelerate the protection and restoration of surface waters.
Action: Clean Water Council Policy Committee will make annual policy recommendations.

Vision

Goal 1: Build capacity of local communities to protect and sustain water resources.

- Strategy: Maintain and increase capacity of Minnesotans to improve water quality

Action: Engage non-traditional audiences with water planning and implementation.

Action: Engage chloride users.

Action: Engage water managers statewide.

Action: Support innovative efforts that accelerate progress toward clean water goals.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Ultimately the outcomes of the work are new and revised urban stormwater management practices and policies that protect and improve the health of Minnesota waters or mitigate and minimize the impacts to Minnesota waters from urban runoff. The various outcomes and outputs of completed research are paired with the transfer of new knowledge to practitioners, professionals, and policymakers. An additional outcome is the incorporation of this work and discoveries into stormwater management guidance policies and manuals such as the Minnesota Stormwater Manual. Outputs (measurements) for research include final reports, data, tools, models, formulas, and revised design, installation, and operation and management guidelines. Outputs from technology transfer include training guides, tools, the number of professionals, policy leaders, and practitioners engaged and trained, and the impact on their knowledge, skills, and adoption of use.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

Yes. The WRC meets or exceeds a 1:1 match of the CWF allocation. The Minnesota Stormwater Research Council, administered by the WRC, has successfully and will continue to obtain funds from cities, watershed districts and organizations, agencies, and private industry to support the program and match CWF allocations.

Since 2017 (2017-2024), these entities have contributed or pledged more than \$1.1M to match and leverage the CWF allocations, averaging more than \$157K per calendar year. In addition, the more than thirty research project teams supported since 2017 have contributed more than \$1M in cash funds for projects and secured significant in-kind contributions valued at more than \$500K. These in-kind contributions are often in the form of professional staff time from cities, watersheds, private industry, agencies, and other research project partners.

In addition, the WRC contributes funding from its Water Resources Act Base through the US Geological Survey (USGS) and also provides administrative support funds from the College of Food, Agriculture, and Natural Resources (CFANS.) Some of these funds are used to support graduate students working on research projects. Minnesota Sea Grant at UMD, provides 50% of the 1FTE Extension Educator for the program utilizing and leveraging national funds from NOAA.

For example, the most recent FY24 Clean Water Fund allocation of \$1M* to the program was matched with \$170K in cash from watersheds, cities, and private businesses through the Minnesota Stormwater Research Council. In addition, Minnesota Sea Grant matched a specific small, rapid-response research project with a 1:1 cash match of \$10K, provided more than \$60K in funding to support a 1 FTE Stormwater Extension Educator to fulfill the technology transfer mission of the program, and provided 10% of the 1FTE cost for the program administrator. The pass-through funding recipients during this period working on urban stormwater pond research projects, delivered (leveraged) an additional \$850K in cash for the projects from other external sources and \$175K for in-kind professional staff time contributions from other organizations, agencies, and from private industry. These examples illustrate the ability of the program to leverage a 1:1 ratio for the CWF allocation.

** Does not include the additional proposed \$1M CWF supplemental funds to the program.*

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

Most of the funds (~65%) will be invested in research through competitive or direct pass-through processes. Research is and will be conducted by a variety of Minnesota’s academic institutions, public agencies, and partners, and by private industry, and collaborations of all of those. Entities that have received a portion of the funding in previous years include:

- University of Minnesota – multiple research units including St. Anthony Falls Lab, the Department of Bioproducts and Biosystems Engineering, the Department of Forest Resources, and the Department of Ecology, Evolution, and Behavior
- University of Minnesota – Duluth including the Natural Resources Research Institute
- St. Cloud State University
- Barr Engineering
- Emmons and Olivier Consulting
- Stantec Environmental Consulting
- Nine Mile Creek Watershed District (and other districts and organizations indirectly)
- City of Edina (and other cities indirectly)

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	
FY16-17	
FY18-19	
FY20-21	
FY22-23	
FY24-25	
FY26-27	

FY26-27 CLEAN WATER FUND PROPOSAL

Clean Water Council	
MPCA	Program Number: 62
Program Contact Name: Paul Gardner	Phone: 651-757-2384
Contact E-mail Address: paul.gardner@state.mn.us	
Person filling out form: Paul Gardner	Phone: 651-757-2384
Person filling out form e-mail address paul.gardner@state.mn.us	

Purpose

This program supports 2.0 FTE that support the operation of the Clean Water Council and related expenses.

Webpage

<https://www.pca.state.mn.us/about-mpca/clean-water-council>

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

During FY26-27,

Paul Gardner was hired in January 2019 as the Council Administrator at 1.0 FTE. Brianna Frisch continues to provide administrative support at 0.85 FTE. The MPCA Communications team provides 0.15 FTE to support the Council's communications strategy.

The Council meets monthly, as do the Policy Committee and Budget and Outcomes Committee (BOC). The full Council currently meets in person as well as the BOC. The Policy Committee meets online presently. Each in person meeting requires food and beverage service and photocopying.

Strategic Planning: In 2023-2024, the Council completed its second strategic plan to guide the use of the Clean Water Fund for the last ten years of the Legacy Amendment.

Communications: The Council started a weekly e-mail bulletin in 2019 on upcoming meetings and updates on projects supported by the Clean Water Fund. Subscriptions stand at 5,000 people. Staff is using unencumbered funding from past fiscal years to support one-time content development to fulfill the recently approved Interagency Clean Water Fund Communications Plan. This strategy is required in M.S. 114D.35 Subd. 3.

- Legislative outreach: Staff has kept in regular communication with key legislators and their staff in both houses. A legislative update e-mail bulletin goes out twice a week during the

session to update subscribers on bill introductions, hearing schedules, testimony, etc. There are approximately 1,000 subscribers.

- Field Tour: The Council holds a field tour in September of odd-numbered years.

PRIOR APPROPRIATIONS	
FY10-11	
FY12-13	
FY14-15	\$73,000
FY16-17	\$100,000
FY18-19	\$100,000
FY20-21	\$220,000
FY22-23	\$600,000
FY24-25	\$675,000
TOTAL APPROPRIATED TO DATE	\$1,768,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

The Council budget supports the ability of the Council to carry out its strategic plan.

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

Council has approved a new Interagency Clean Water Fund Communications Plan, a new strategic plan, and biennial funding recommendations with occasional supplemental funding requests.

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

Stay about the same.

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

.

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that “any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose.” **Indicate if this proposal will supplement or supplant previous funding.**

Supplement

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	1.0
FY12-13	1.0
FY14-15	1.0
FY16-17	1.5
FY18-19	1.5
FY20-21	2.0
FY22-23	2.0
FY24-25	2.0
FY26-27	2.0

FY26-27 CLEAN WATER FUND PROPOSAL

Legislative Coordinating Commission Website	
LCC	Program Number: 63
Program Contact Name: Greg Hubinger/Sally Olson	Phone: (651) 296-2963 (GH)/(651) 296-9002 (SO)
Contact E-mail Address: greg.hubinger@lcc.leg.mn/sally.olson@lcc.leg.mn	
Person filling out form: Paul Gardner	Phone: 651-757-2384
Person filling out form e-mail address paul.gardner@state.mn.us	

Purpose

Ongoing maintenance, security upgrades, and general updates to the Legacy website.

Webpage

[Clean Water Fund | Minnesota's Legacy \(mn.gov\)](http://www.legacy.leg.mn)

Rationale/Background

Please describe how this program will protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation, or protect drinking water sources.

The LCC has been tasked with developing and maintaining a website that shows how revenues generated by the Legacy Amendment and the Environment and Natural Resources Trust Fund are utilized. The Legacy website can be accessed at: www.legacy.leg.mn. The LCC contracted with a website/database consulting firm to build and maintain the Legacy website. State agencies receiving legacy and environment & natural resources trust fund appropriations provide the statutorily required data that is displayed on the website. The LCC also developed an API, which permits agencies to import data from their databases directly to the website. Agencies can also enter project data through an on-line data entry form. The LCC staff provide technical support to the approximately 20 state agencies that report project data. Since the website was initially developed in 2010 upgrades have included an updated reporting structure, design enhancements, modifications to permit easier access and use by mobile devices, the addition of an interactive project map and the addition of interactive infographics that display the appropriations from each fund to the state agencies.

PRIOR APPROPRIATIONS	
FY10-11	\$25,000
FY12-13	\$13,000
FY14-15	\$30,000
FY16-17	\$0
FY18-19	\$15,000
FY20-21	\$9,000

FY22-23	\$8,000
FY24-25	\$6,000
TOTAL APPROPRIATED TO DATE	\$106,000

FY26 Request	FY27 Request	FY26-27 TOTAL REQUEST

[Don't fill out the FY26-27 until you receive agency approval. We will update the form at that time.]

Alignment with Clean Water Council Strategic Plan

Please indicate which strategy in the Clean Water Council's most recent Strategic Plan applies to this proposal.

[This program is required by law under Minn. Stat. 144D.50, Subd. 4\(f\).](#)

Outcomes

Describe the likely measurable outcomes of this proposal. (If this program has been funded previously by the Clean Water Fund, please describe the measurable outcomes, outputs, or results achieved to date and how close the program is to a goal, when applicable.)

[Legacy projects will be listed at \[legacy.leg.mn.gov\]\(http://legacy.leg.mn.gov\).](#)

Long-term funding vision

If this proposal is funded, should the Clean Water Council expect future requests to increase, decrease, stay about the same, or not be needed? (Do not factor inflation into your answer.)

[Stay about the same.](#)

Non-CWF Funding

Will this program receive or request other funding from non-CWF sources, or eventually leverage non-CWF sources? If so, please describe. If not, leave blank.

[Each of the four legacy funds and the environment and natural resources trust fund have contributed to the costs for the development and maintenance of the website. Legacy fund liabilities are shared proportionately by the funds, based on their participation in the 3/8ths of one percent sales tax. LCC staffing costs are absorbed within their existing General Fund appropriation.](#)

Supplement vs. supplant

Minnesota Statutes 114D.50 Subd. 3 requires that "any state agency or organization requesting a direct appropriation from the clean water fund must inform the Clean Water Council and the house of representatives and senate committees having jurisdiction over the clean water fund, at the time the request for funding is made, whether the request is supplanting or is a substitution for any previous funding that was not from a legacy fund and was used for the same purpose." **Indicate if this proposal will supplement or supplant previous funding.**

[Supplement](#)

Past Funding Recipients

If this funding will be disbursed through competitive grants, loans, or contracts, or if recipients are not yet known, please list what entities have received this funding in previous fiscal years and how much.

State Employees

Indicate the number the full-time state employees supported by the CWF for this program.

FY10-11	
FY12-13	
FY14-15	
FY16-17	
FY18-19	
FY20-21	
FY22-23	
FY24-25	
FY26-27	

Comment Sheet
for Clean Water Fund Requests

June 3, 2024

Please share any comments you have on the programs presented today.

Any comments you have on these programs will be passed along to the Budget and Outcomes Committee on June 7th.

Aquifer monitoring for water supply planning (DNR)

Buffer map maintenance (DNR)

Stream flow monitoring (DNR)

Private well initiative (MDH)

River and lake monitoring and assessment (MPCA)

Groundwater assessment (MPCA)

Watershed Restoration and Protection Strategies (including TMDLs) (MPCA)

Watershed Restoration and Protection Strategies (DNR)

Source Water Protection (MDH)

Groundwater Restoration and Protection Strategies (MDH)

One Watershed One Plan (BWSR)

County Geologic Atlases Part A (UMN)

County Geologic Atlases Part B (DNR)

Research Inventory Database (MDA)

Forever Green Initiative (MDA)

Agricultural Research and Evaluation (MDA)

Recreational Water Quality Online Portal (MDH)

Stormwater BMP Performance Evaluation and Technology Transfer (UMN)

Clean Water Council Budget (MPCA))

Legislative Coordinating Commission (LCC)



WRAPS and TMDL Development, MPCA

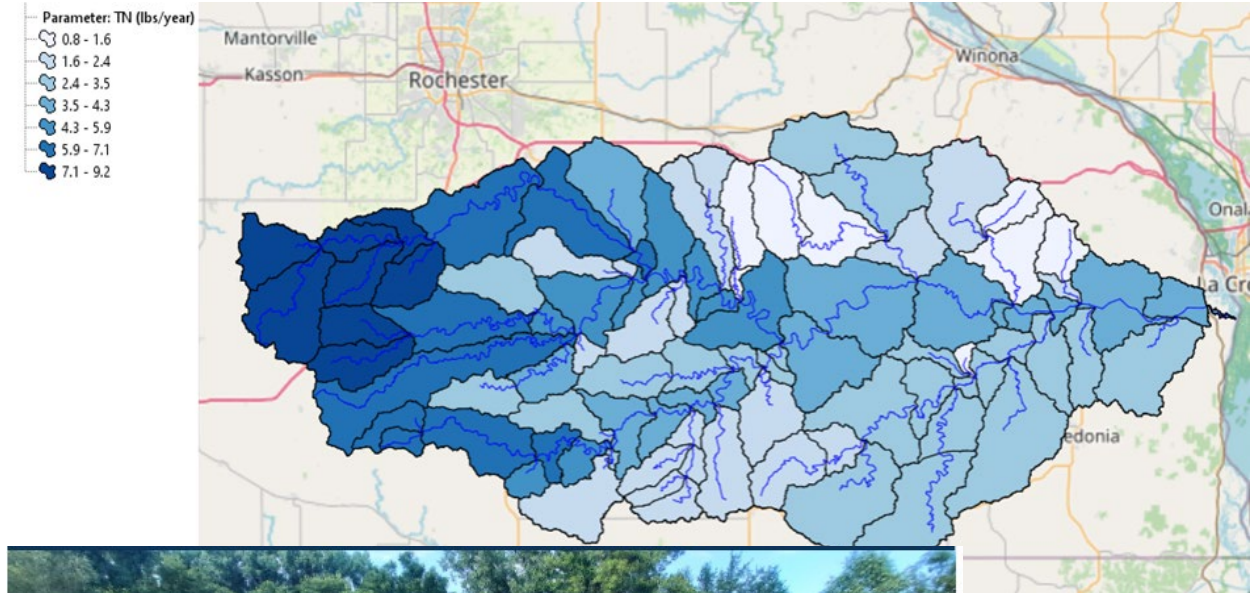


Heather Johnson | South Watershed Manager, Watershed Division
Minnesota Pollution Control Agency

Watershed Restoration and Protection Strategies

Total Maximum Daily Loads

- Reports that provide the science for understanding the state of our watersheds.
- “Blueprints” for local water planning decisions on prioritized and targeted implementation.



Clean Water Council Strategic Plan 2024 - 2028

Surface Water Protection and Restoration Vision: Minnesotans will have fishable and swimmable waters throughout the state.

Strategy – Maintain consistent funding for a statewide monitoring system.

- Goal 1: Monitor, assess, and characterize Minnesota's surface waters
 - Action: Complete Total Maximum Daily Load (TMDL) reports as needed
 - **Measure: Publication of TMDL reports by the MPCA**
- Goal 2: Protect and restore surface waters to achieve 70% swimmable and 67% fishable waters by 2034

Strategy – Identify and refine strategies required to meet water quality standards in each HUC-8 watersheds

- Action: Review and revise previously completed WRAPS
 - **Measure: Completion of second generation of WRAPS**

Clean Water Council Strategic Plan 2024 - 2028

Vision: All Minnesotans value water and take actions to sustain and protect it.

Strategy – Maintain and increase capacity of Minnesotans to improve water resources.

- Goal 1: Build capacity of local communities to protect and sustain water resources.
 - Action: Engage non-traditional audiences with water planning and implementation.
 - **Measure: Evaluation of We Are Water and its outreach.**
 - Action: Support local efforts to engage lakeshore property owners and private landowners.
 - **Measure: We Are Water annual report.**

TMDLs and WRAPS Updates

TMDLs – for impaired waters

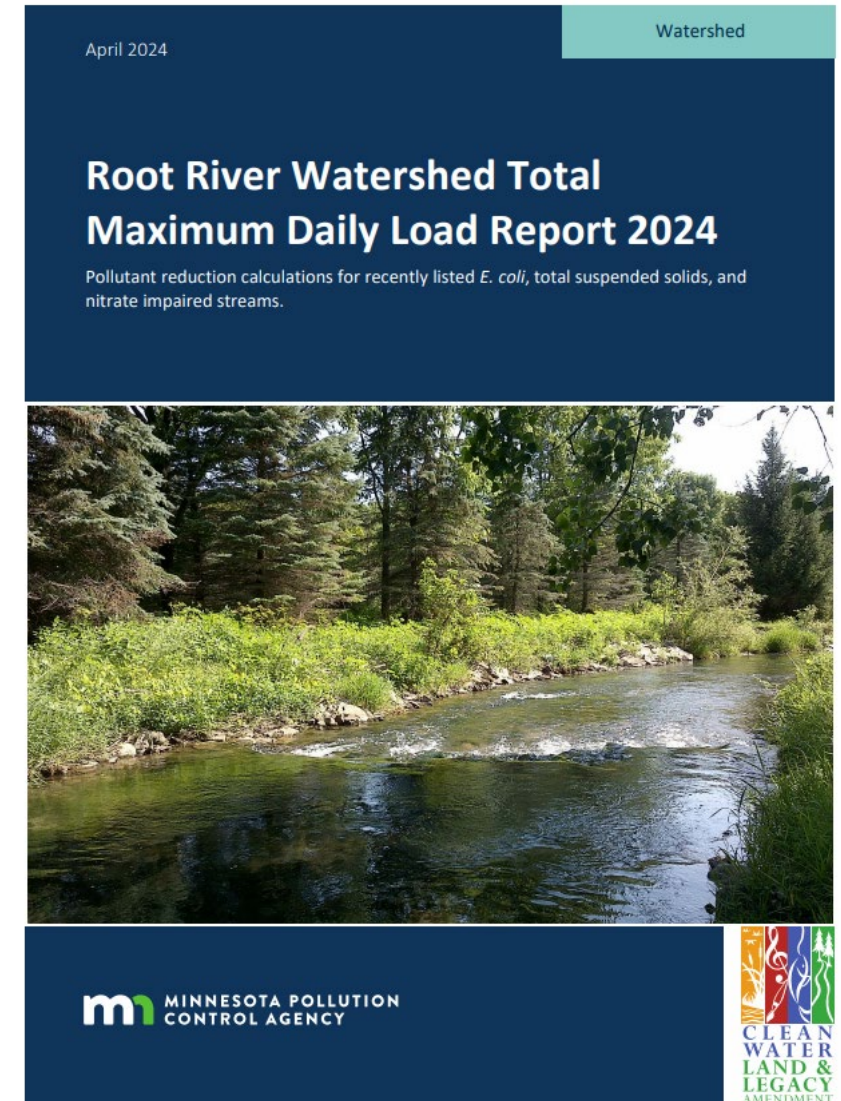
- Required by federal CWA and CWLA
- Set pollutant load reductions to impaired waters
- Accurate permit limits
- Call for pollutant reductions from unregulated sources

WRAPS Updates – for all waters

- Required by state CWLA
- Incorporate TMDL findings for impaired waters, and strategies for impaired waters not addressed by TMDLs
- Strategies to protect waters that are in good condition

WRAPS Updates and TMDL Reports Entail a Lot of Work!

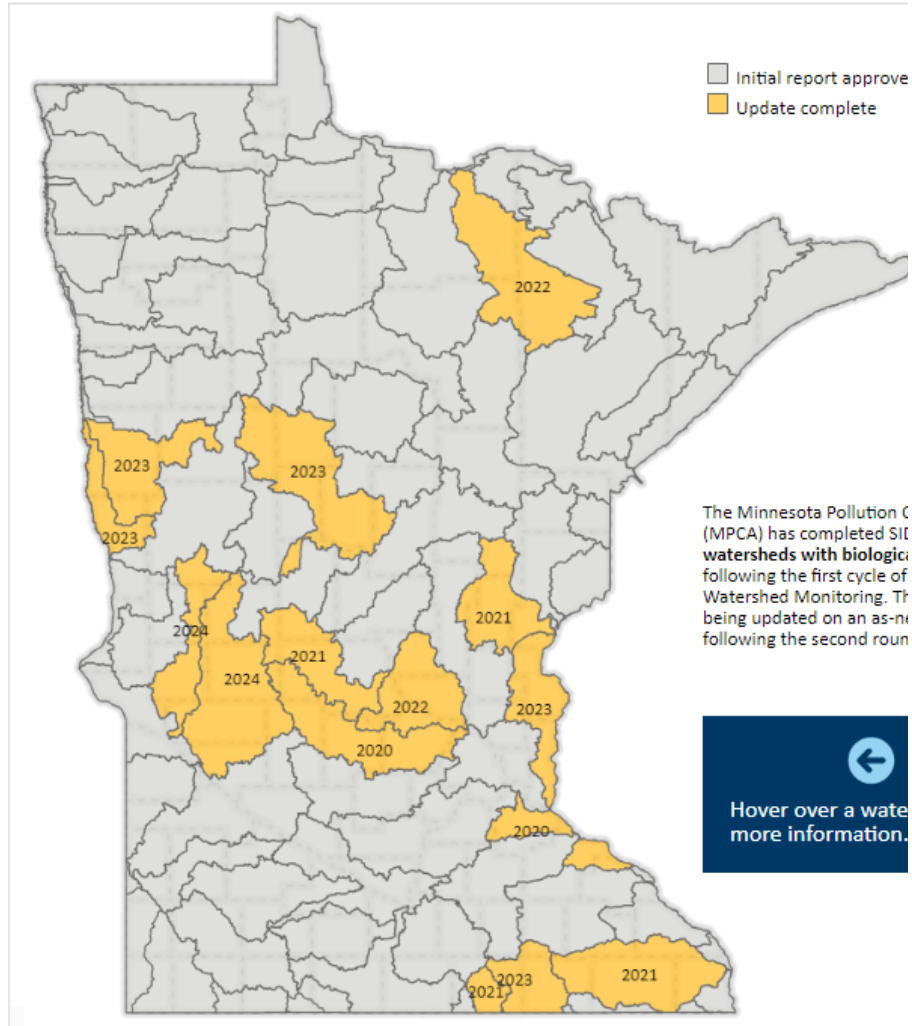
- Field work to gather data and information
- Identification of stressors on fish and aquatic invertebrates
- Watershed computer modeling scenarios, for targeting strategies
- TMDL calculations and development
- Strategy development and reports
- Partner and public participation



WRAPS and WRAPS Update progress

Stressor Identification (SID)

Report update status



WRAPS Report Update Status

Report update being drafted

	Since
Little Fork River	9/1/2022
Mississippi River - Lake Pepin	1/2/2023
Buffalo River	4/18/2023
Upper Red River of the North	4/18/2023
Minnesota River - Yellow Medicine River	8/3/2023
Redeye River	5/20/2024

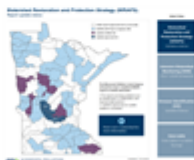
Report update on public notice

Pomme de Terre River	5/28/2024
Mississippi River - St. Cloud	5/13/2024

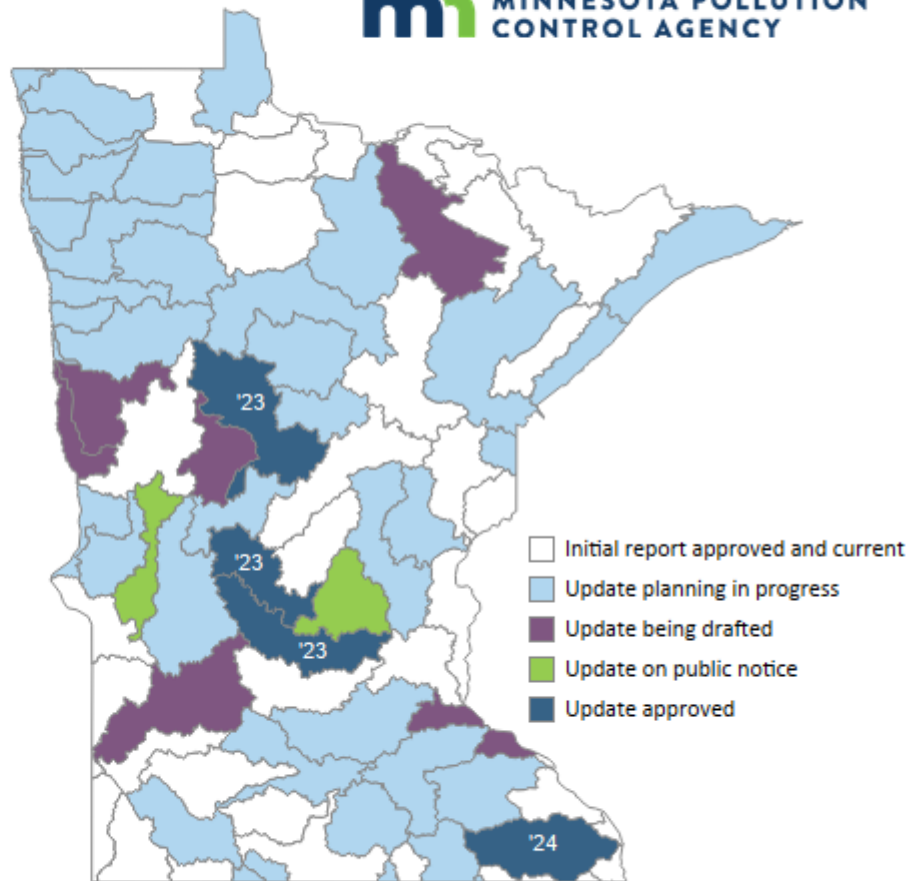
Updates approved (last 6 months)

Crow Wing River	12/5/2023
Root River	4/23/2024

Click to view the full dashboard:



m1 MINNESOTA POLLUTION CONTROL AGENCY



Thank you for viewing the new WRAPS Report Update Status email subscription. Be sure to check out the full dashboard, which is the same (but updated more frequently) as the version on the MPCA website: <https://www.pca.state.mn.us/business-with-us/healthier-watersheds-tracking-the-actions-taken>. Please contact David Miller with any questions.

Highlights from recent WRAPS Updates

- North Fork Crow River

- Developed protection strategies for 5 high priority lakes
- Identified 8 waters particularly vulnerable to becoming impaired

- Crow Wing River

- Heat maps developed to indicate where BMPS are further needed.
- Identified 4 barely impaired lakes and provided restoration strategies

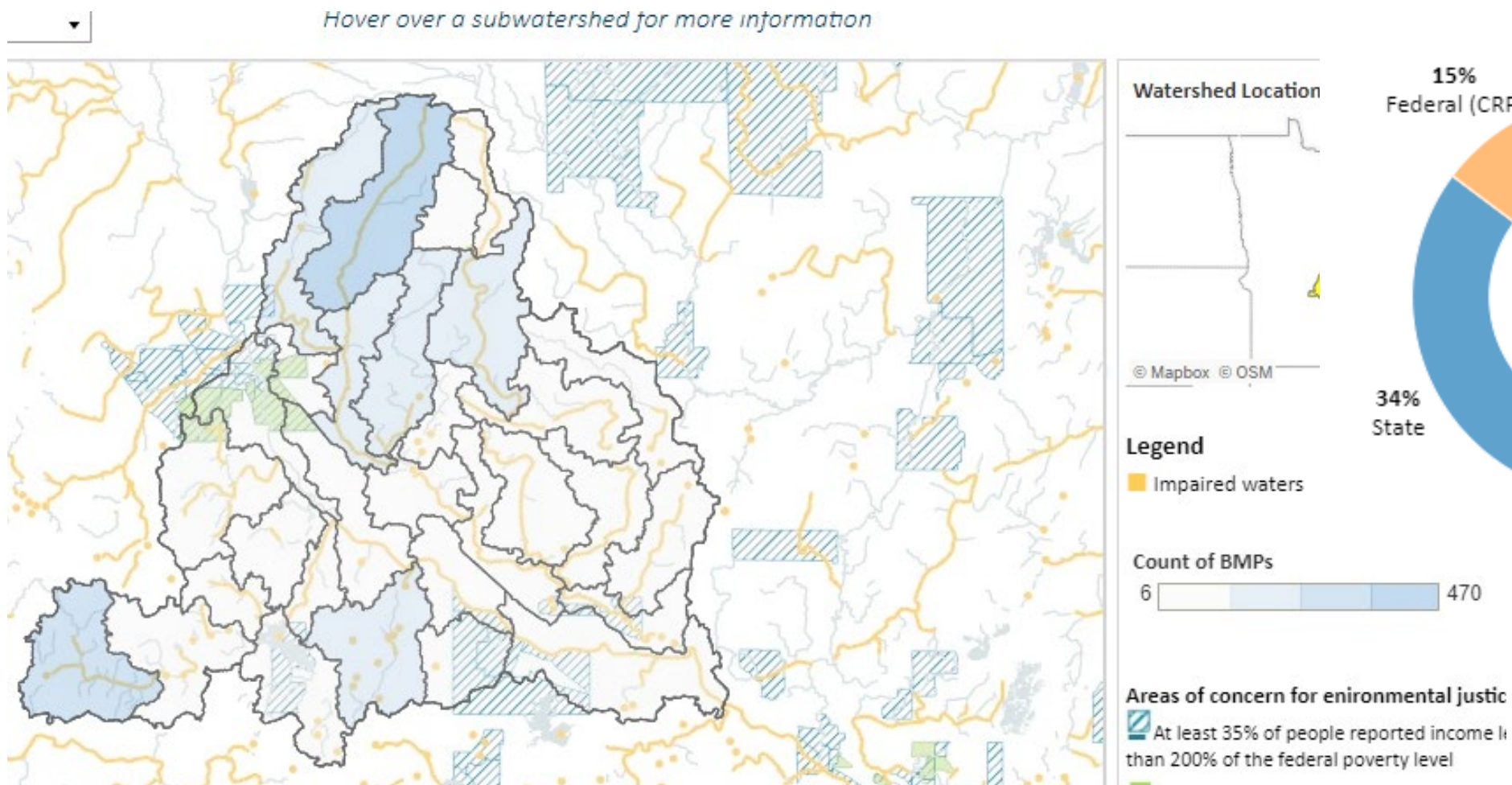
- Sauk River

- Update describes 17 projects with impressive results
- Identified 4 lakes for protection prioritization
- Protection/restoration priorities identified for each of the 10 management districts.

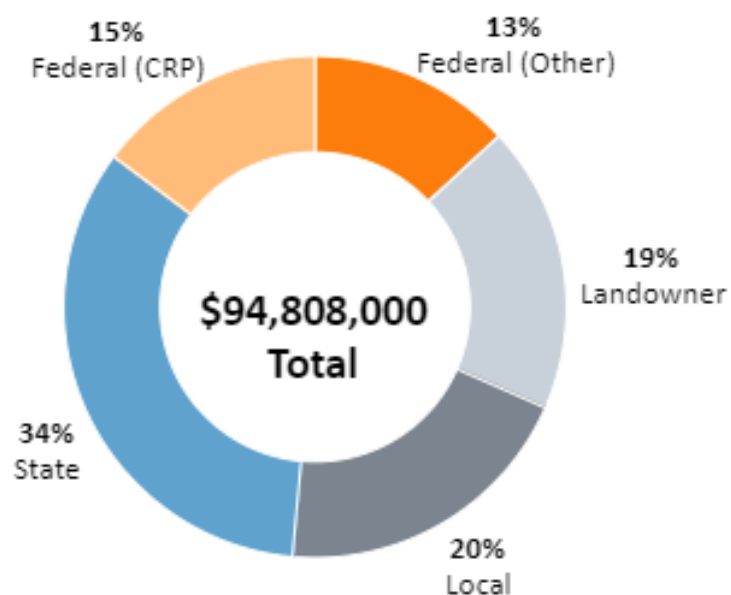
- Root River

- Identify 9 nearly impaired stream segments and protection strategies
- Priority subwatershed pollutant source assessment
- Extensive section on prioritization and targeting

Focus on results – Healthier Watersheds

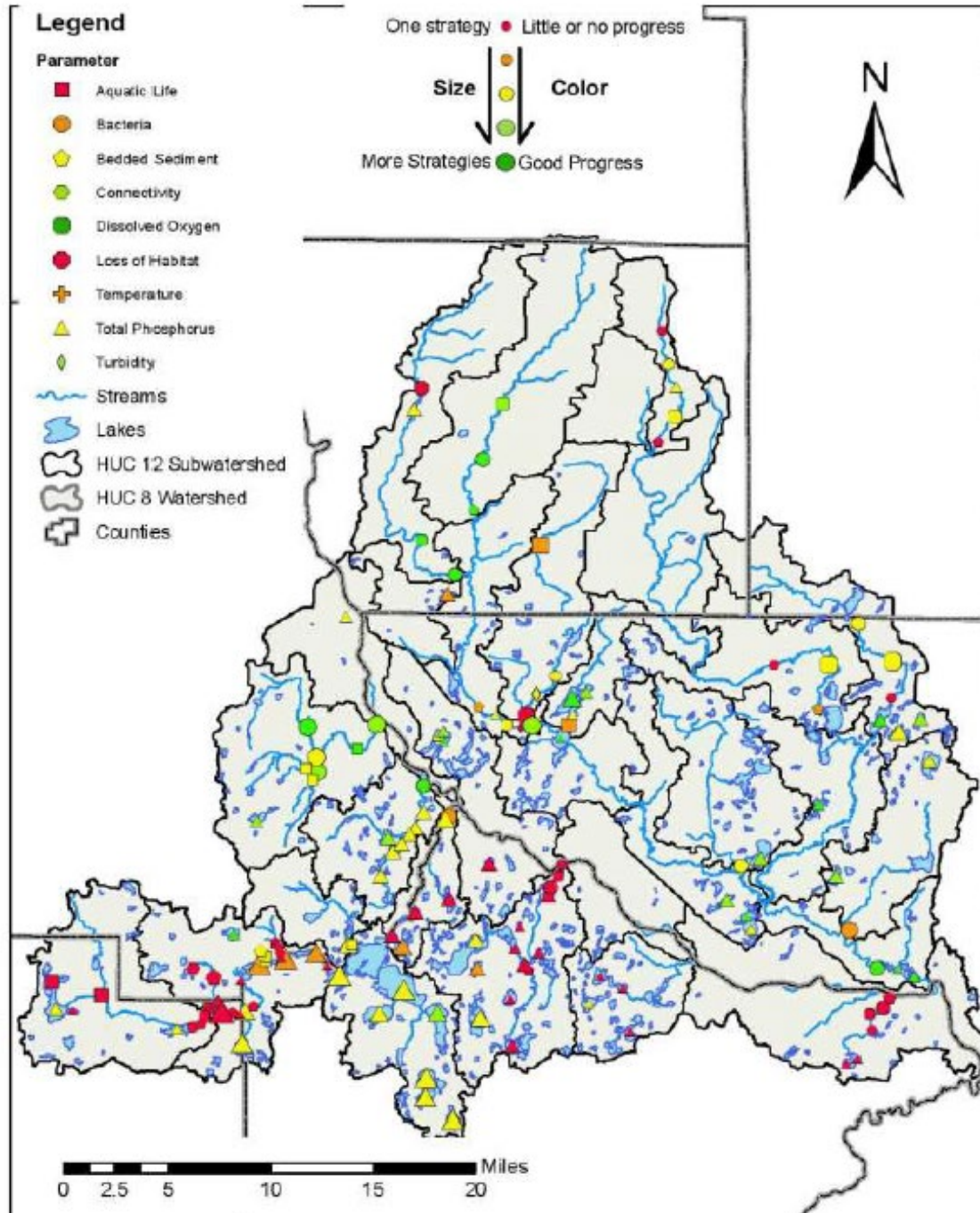


Spending by **funding source**



Focus on results

- Heat Map shows progress in strategy implementation from WRAPS to WRAPS Update



TMDLs pull information together

- Watershed and water body characterization **Water quality data**
- Pollutant sources **Where does the pollutant come from?**
- Loading capacity: Maximum amount of a pollutant a body of water can receive without violating water quality standards; overall % reduction needed **Loading goals**
- Allocations: How much the load from each source needs to be **Loading goals**
- Implementation strategies **How to get there**

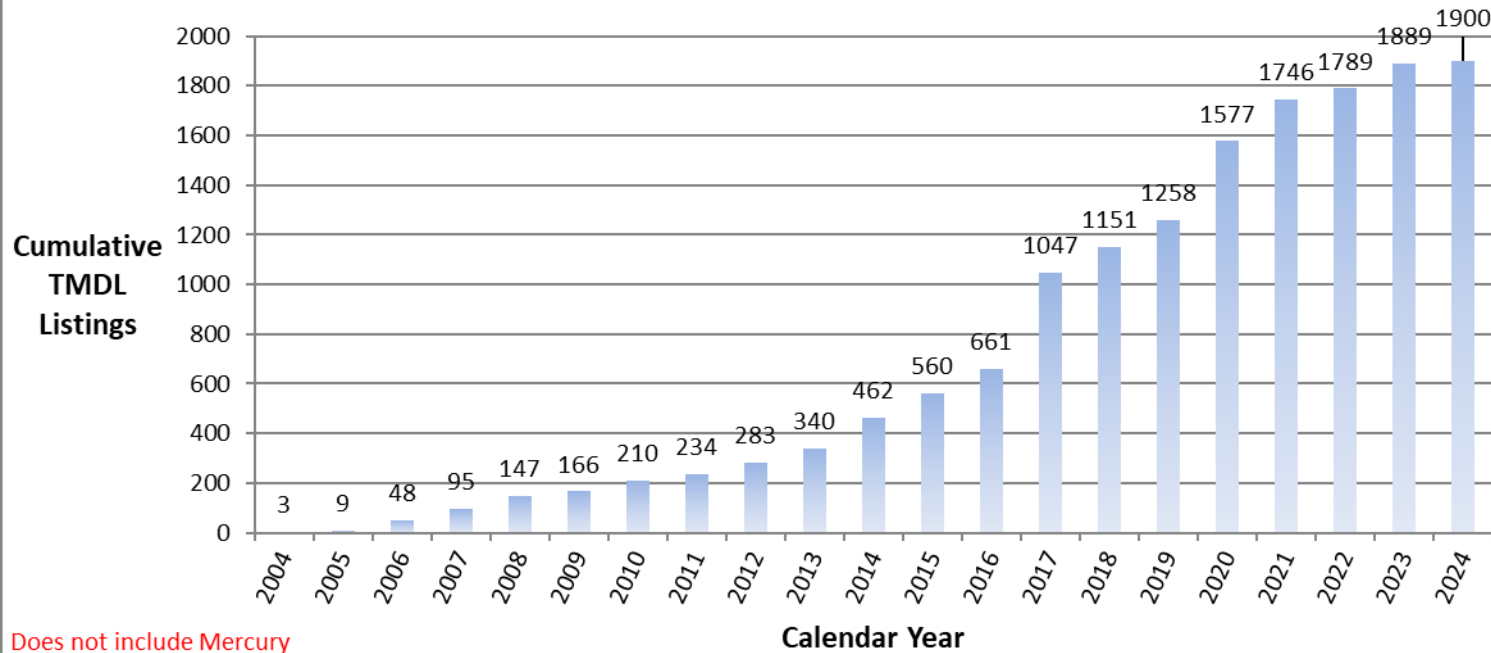
THE MATH AND THE PATH

TMDL progress

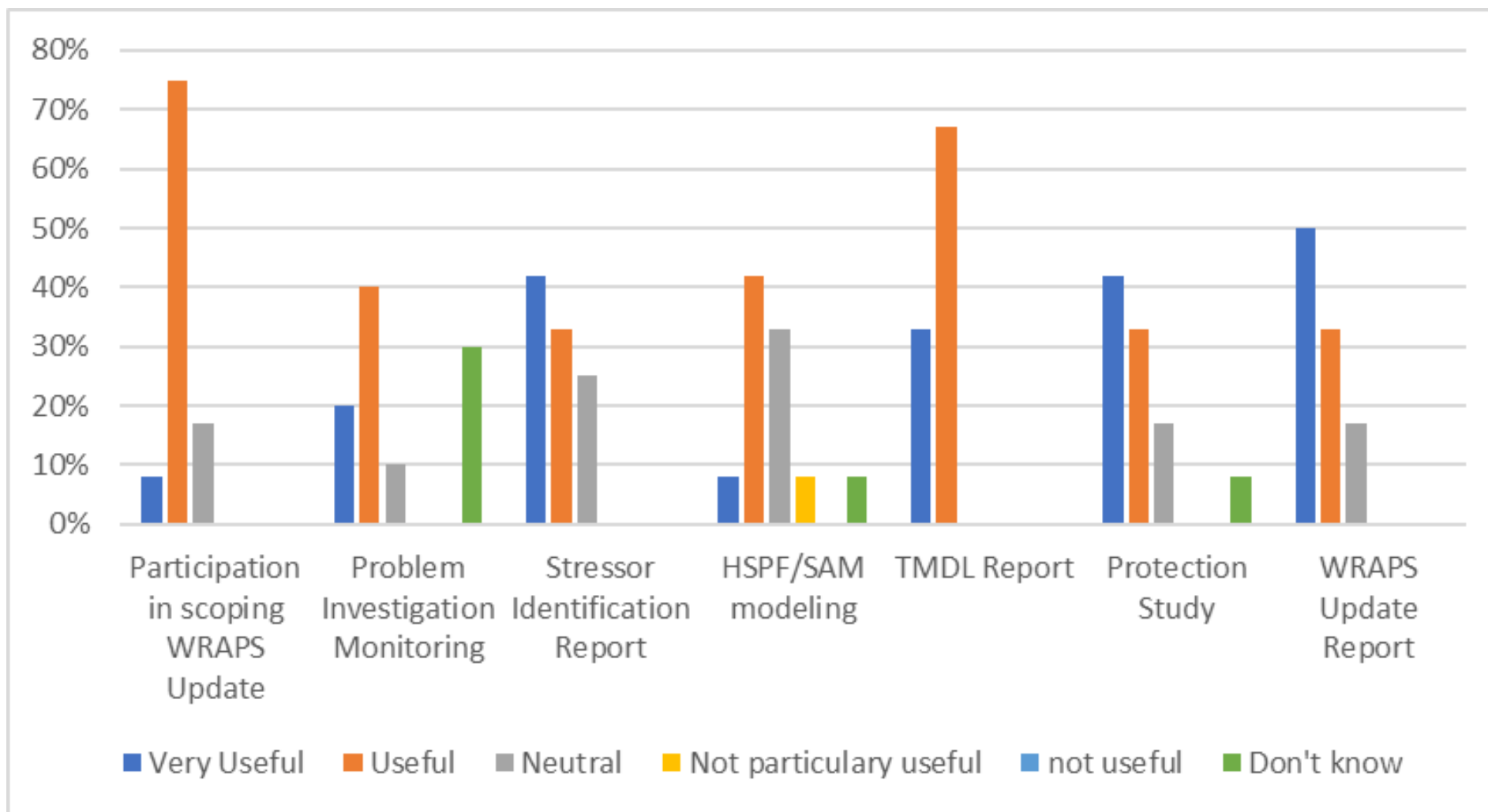
- **TMDL development:**

- Prior to CWF Legacy Amendment of 2008, very little money to do TMDL work
- Prior to 2008, completed 147 TMDLs
- Post 2008, completed 1,753 TMDLs
- 3 FTE who work on TMDLs

Approved TMDLs in Minnesota
as of 5/28/2023



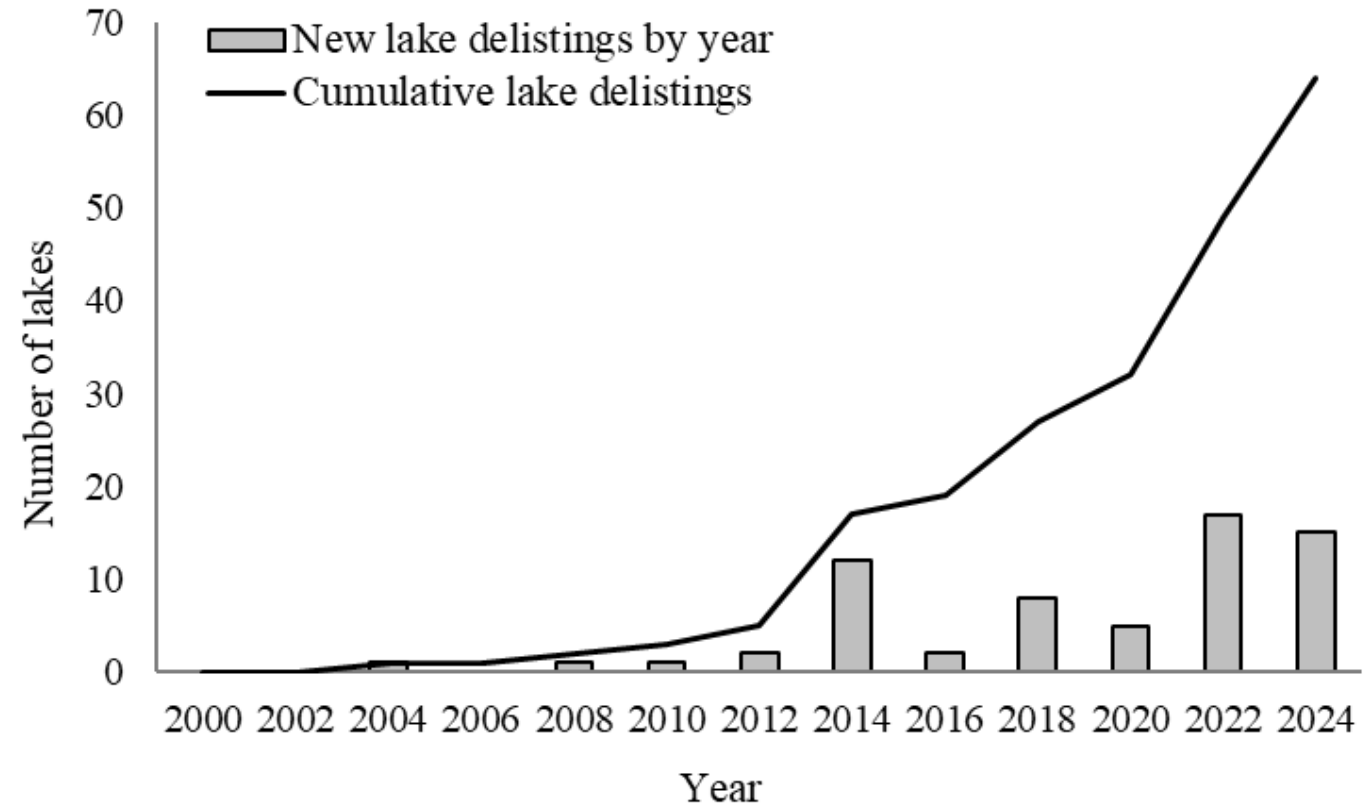
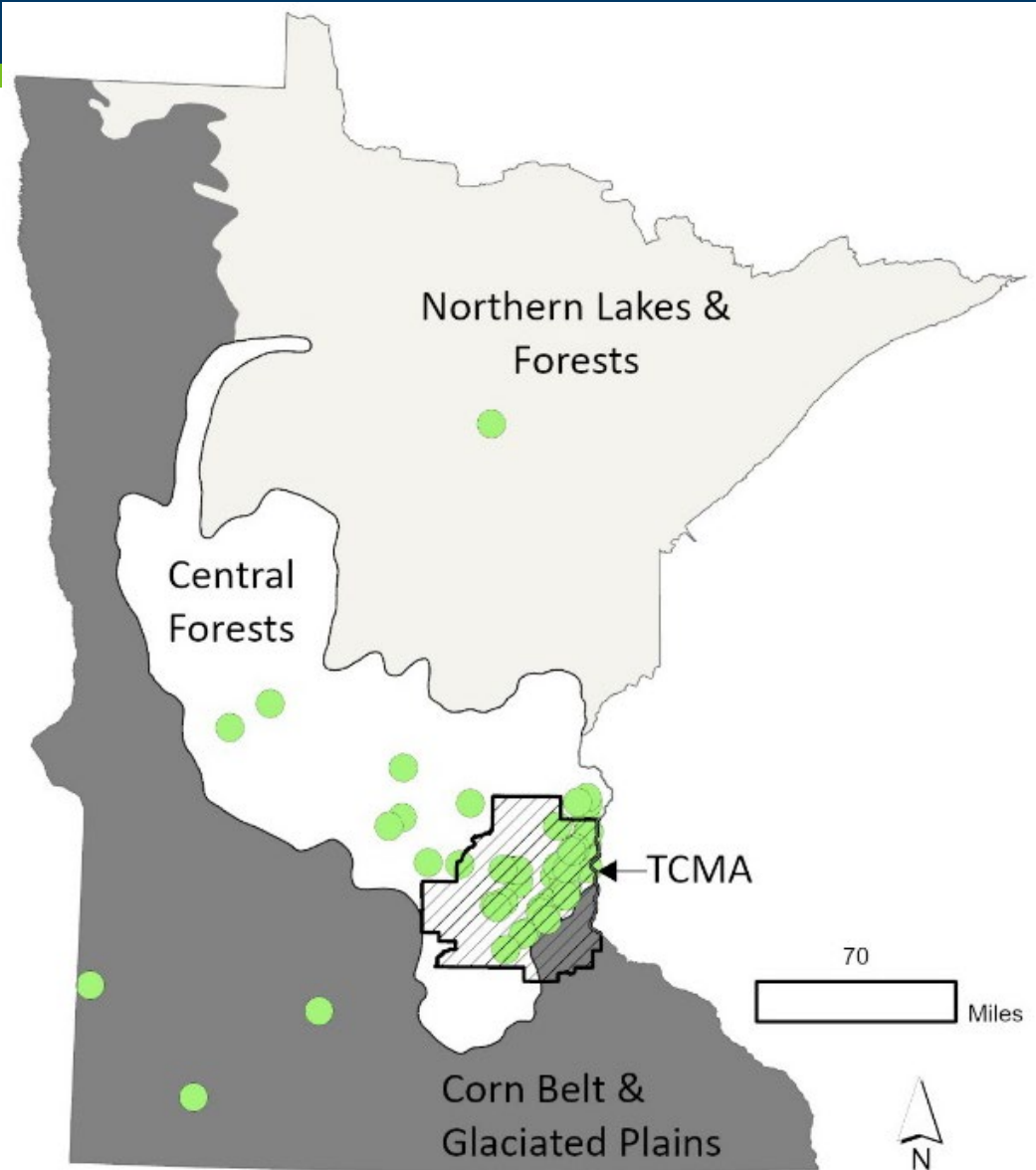
2024 Local Partner survey results



2024 Local Partner survey comments

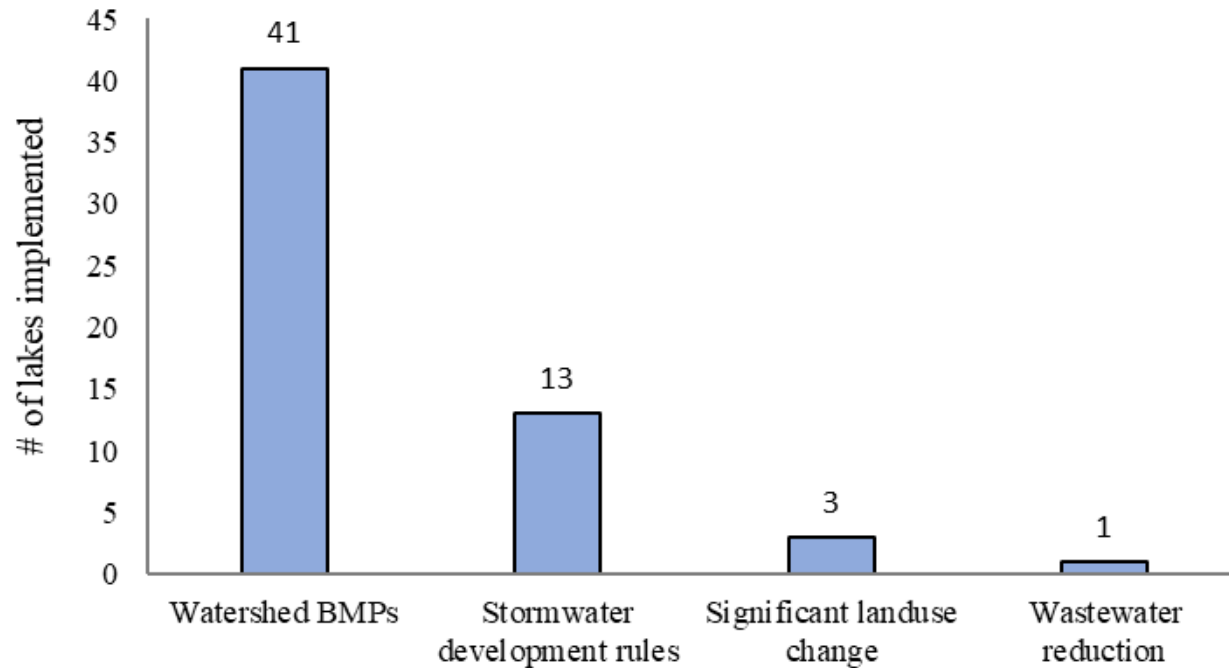
- “Honestly, if the MPCA were not conducting the WRAPS Updates, where would we be? These updates are the drivers of downstream protection efforts.”
- “Getting completed TMDLs and environmental modeling that are unable to be completed by many LGUs receive a warm welcome with open arms.”
- “The WRAPS process is critical for filling in the gaps for level assessment and condition reports of local understanding. We (LGUs) are the boots on the ground, but need teamwork from the MPCA and the WRAPS Update process to provide the sole to the boots.”

Statewide scientific findings – lake delistings

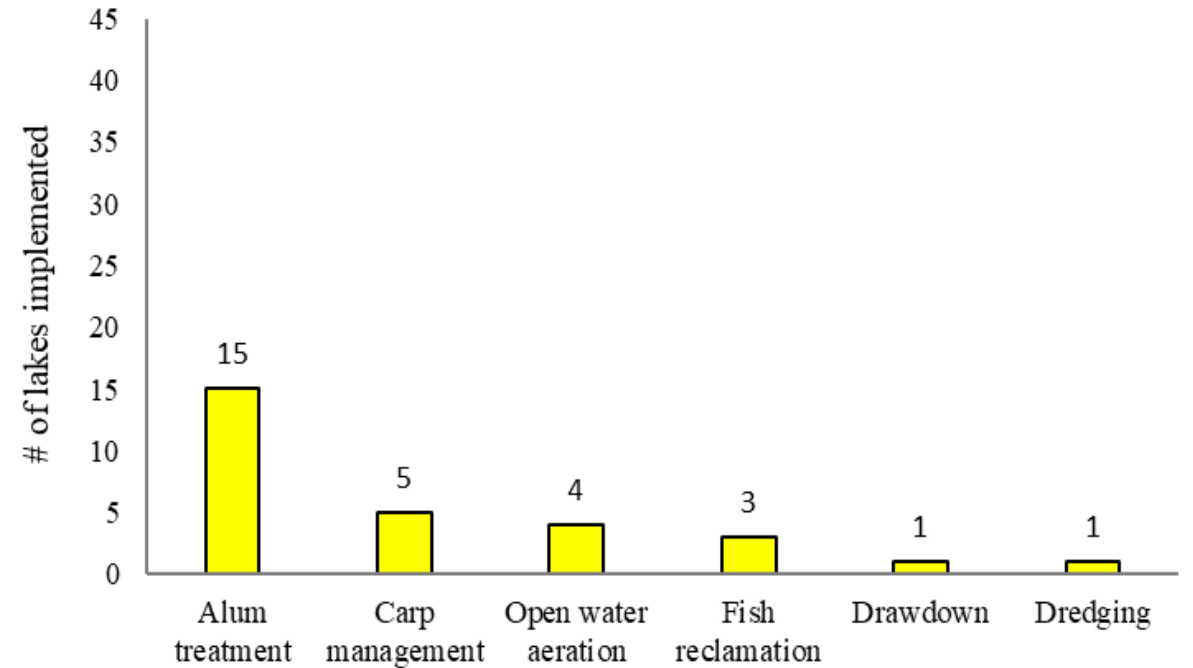


Statewide scientific findings – lake delistings

External/watershed management strategy subcategories



Internal management strategy subcategories

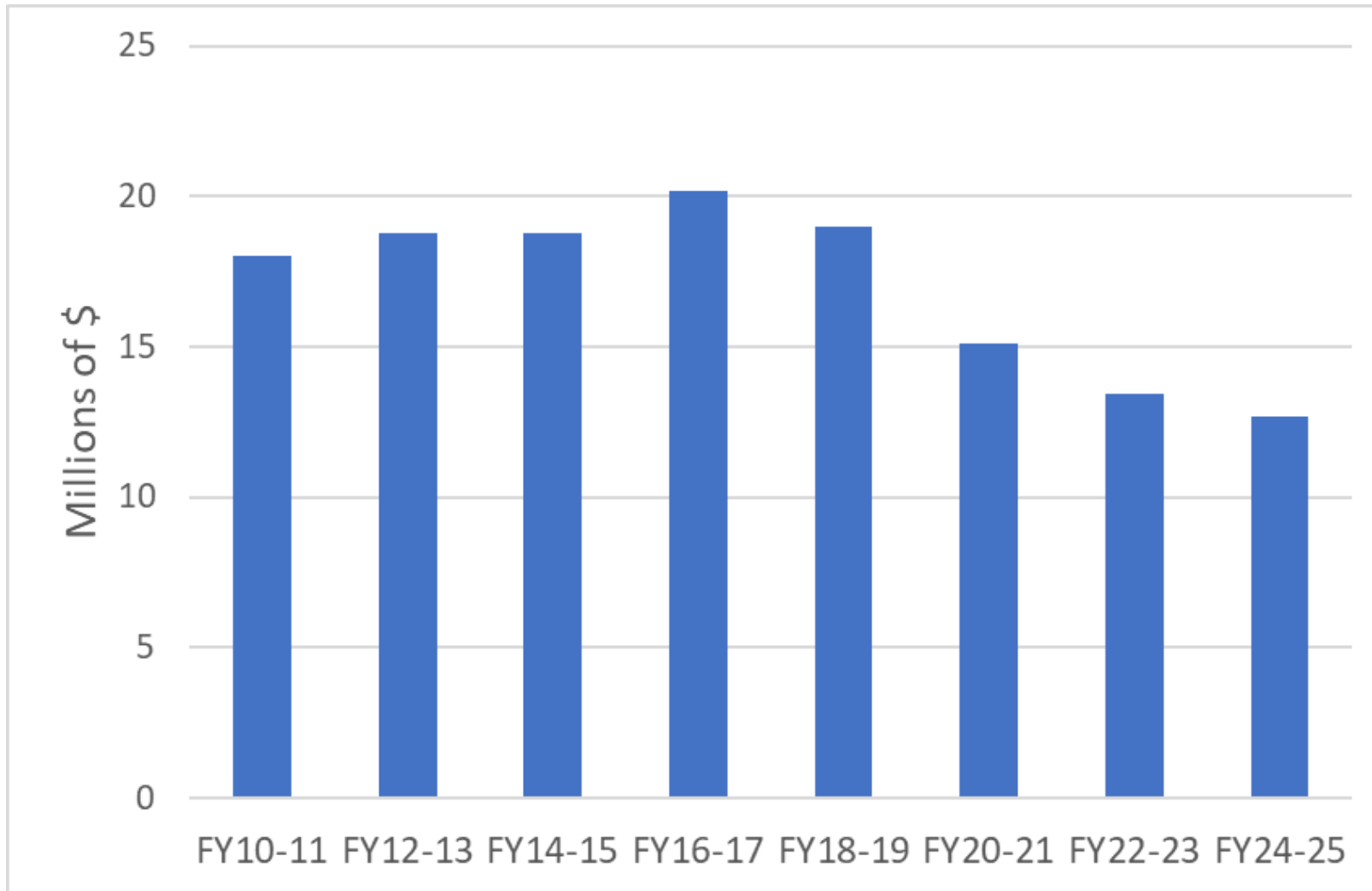


We Are Water



- Now fully included in the MPCA WRAPS/TMDL budget request
- Partnership with the MN Humanities Center and Local Partners
- National Endowment for the Humanities visited

WRAPS and TMDL Clean Water Funds over time



- Reduced >1/3 from peak appropriation
- Includes We Are Water ~\$750K



Questions?

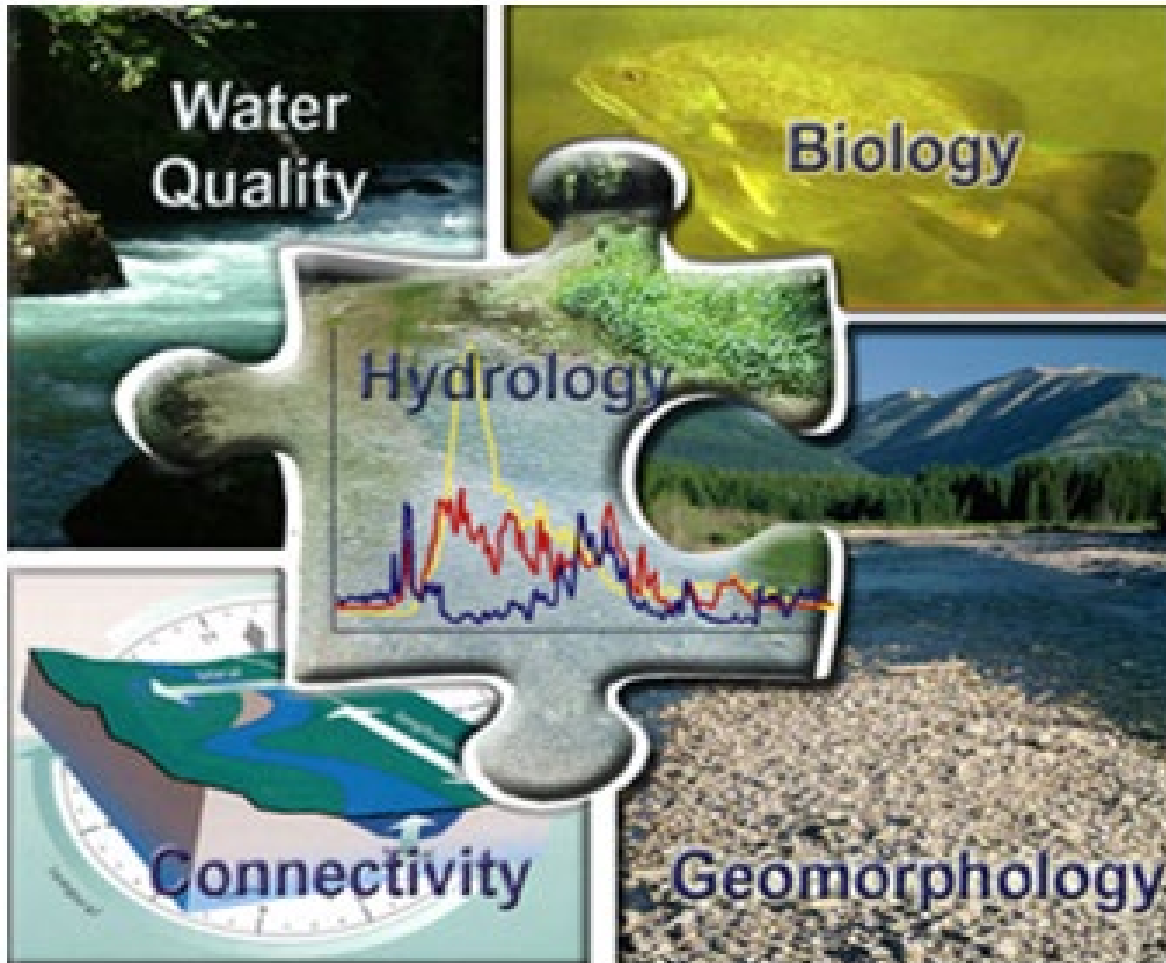


DNR Watershed Restoration and Protection Strategies

Jason Moeckel | Section Manager

Minnesota Department of Natural Resources

DNR WRAPS Work

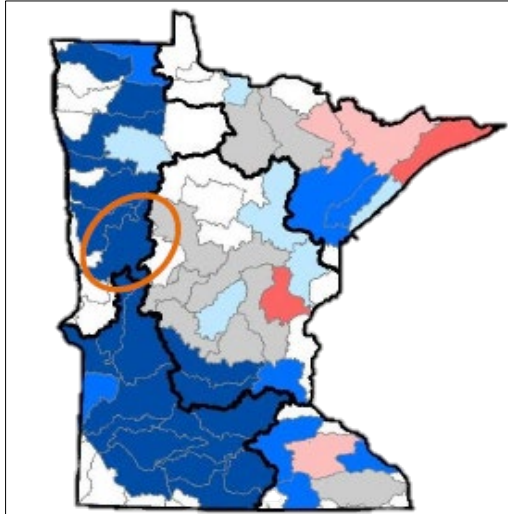


- Consistent scientific approaches to collecting and analyzing data and information to enhance our understanding of **watershed health**
- Delivered in ways that help partners identify, plan, and design projects to address **root causes of water quality and water management problems** especially related to streambank erosion, stream stability, floodplains, stream habitat, and water storage

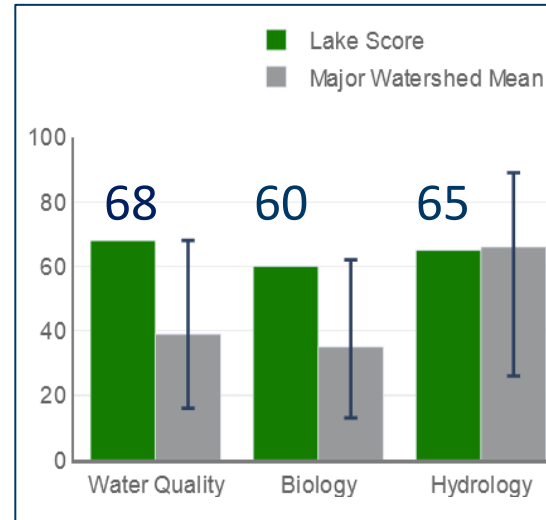
DNR WRAPS Programs



Stream
Geomorphology
Surveys and
Analysis



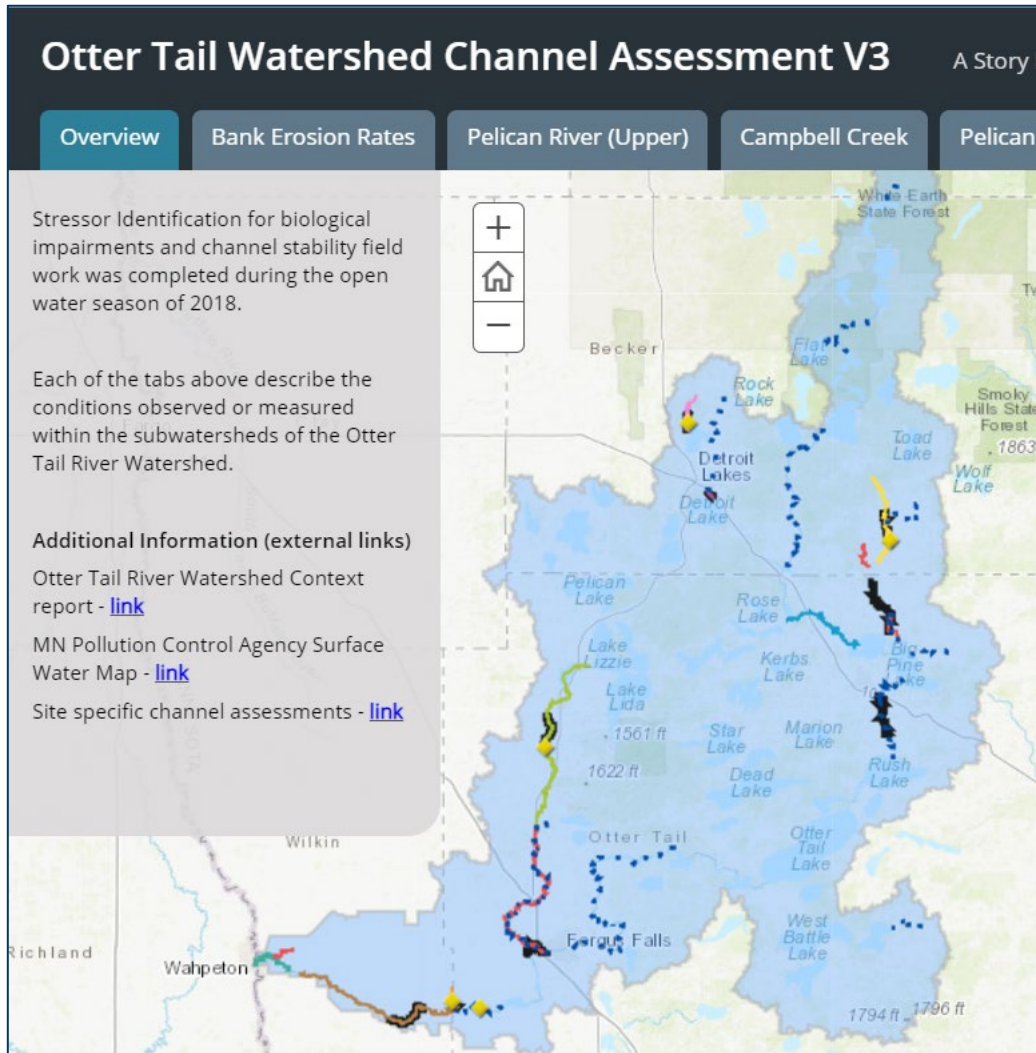
Evaluation of
Hydrologic
Change (EHC)



Watershed
Health
Assessment
Framework
(WHAF)

- Most of our data collection and analysis focuses on **stream geomorphology** and **hydrology** aspects of watershed health
- We interpret and integrate the data and analyses with other watershed health data

Stream Geomorphology Surveys & Analysis



- > 500 surveys to date
- Bank erosion and channel stability
- Helps characterize watershed health and investigate water quality problems (MPCA stressor ID)
- Helps prioritize and target sediment reduction
- Needed for natural-channel project design and monitoring
- Needed to develop regional rating curves, which improve the science

Stream Geomorphology Surveys & Analysis: Understanding Sediment and Its Sources



Overland – estimated with models



In-stream – measured with instruments

Stream Geomorphology Surveys & Analysis

Understanding Stream Stability

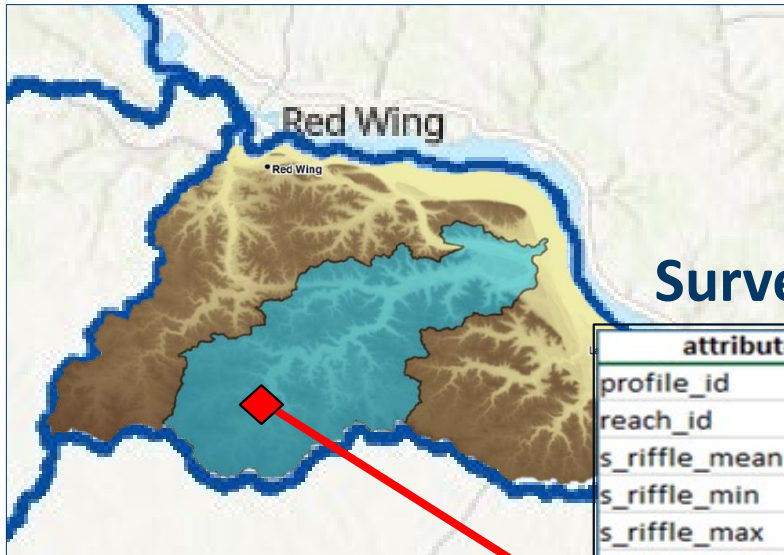


- Very low erosion rates, very low contribution to sediment load, better able to manage sediment that does flow through
- Less sediment means less risk of excess nutrients. Buffers or restored floodplains absorb & cycle nutrients.
- More resilient to water quality stressors like climate change

Stream Geomorphology Surveys & Analysis

From Surveys to Strategies

Wells Creek subwatershed

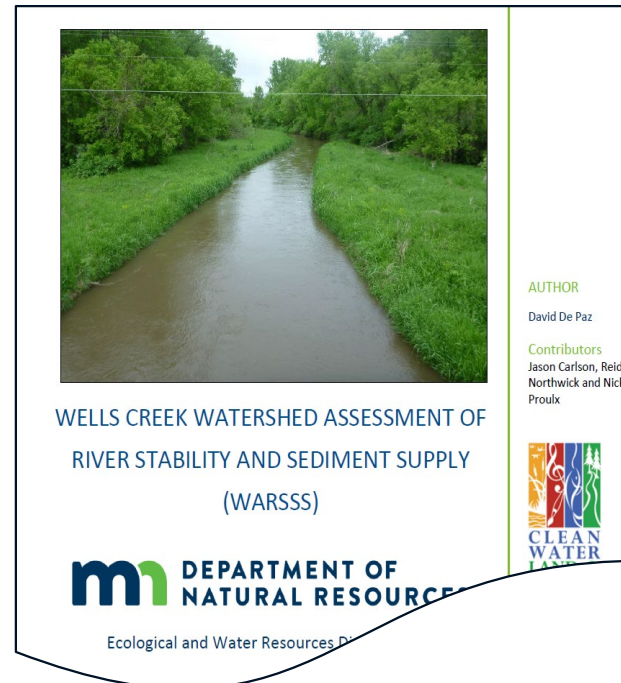


Survey Data

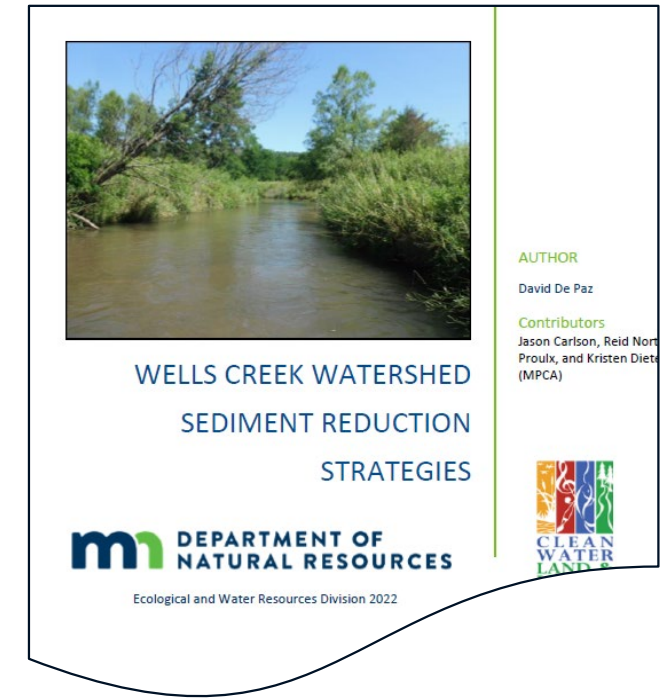
attribute	value
profile_id	15
reach_id	15
s_riffle_mean	0.0155
s_riffle_min	0.01179
s_riffle_max	0.02392
s_riffle_sbkf_mean	3.6215
s_riffle_sbkf_min	2.75467
s_riffle_sbkf_max	5.58879
s_pool_mean	0.00135
s_pool_min	0.00047
s_pool_max	0.00186
s_pool_sbkf_mean	0.31542
s_pool_sbkf_min	0.10981
s_pool_sbkf_max	0.43458

Survey Reach

Subwatershed Study (multiple sites)



Subwatershed Strategies (multiple sites)



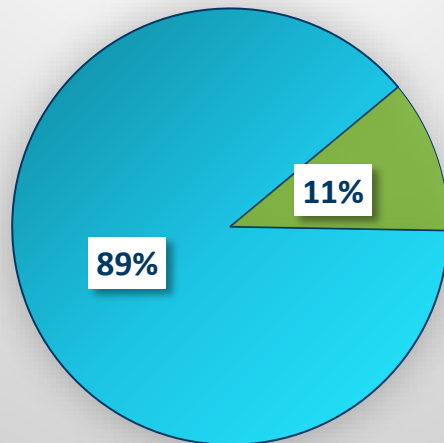
Stream Geomorphology Surveys & Analysis

Sediment Source Analysis

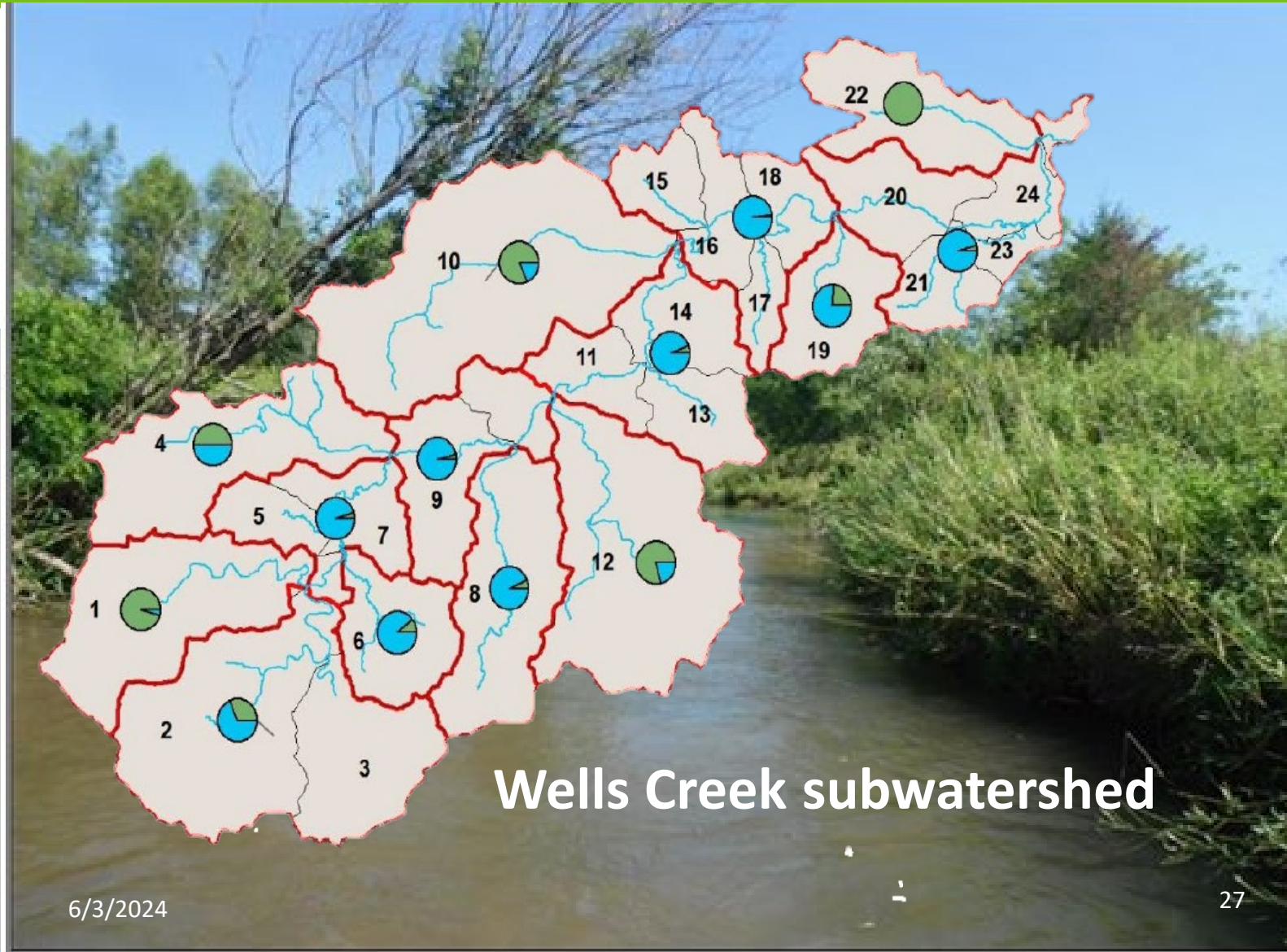
Excess sediment found to be mostly from stream erosion processes

Wells Creek

Total Sediment 10,600 tons/yr



■ Streambank ■ Overland/Surface



6/3/2024

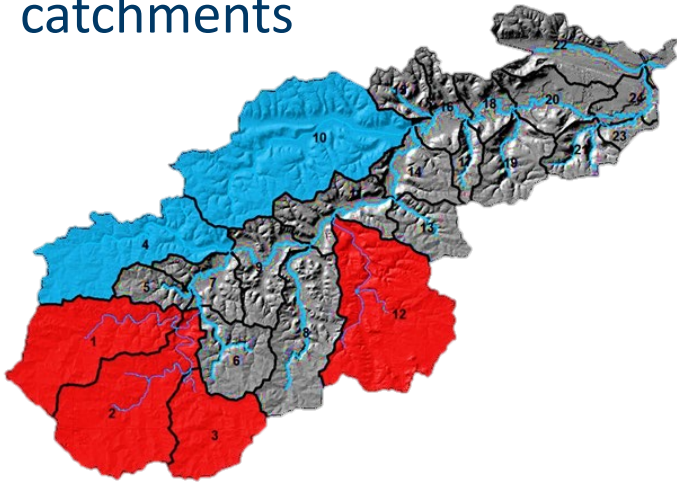
Stream Geomorphology Surveys & Analysis

Sediment Reduction Strategies

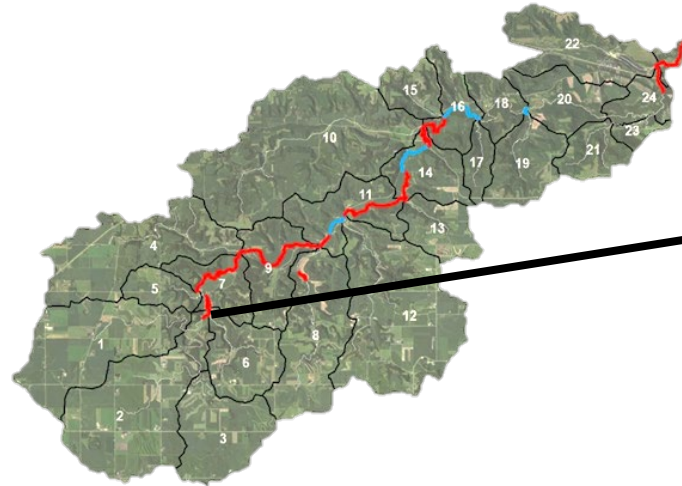


Wells Creek Sediment Reduction Strategies

Overland strategy: prioritize selected headwaters catchments



Stream strategy: prioritize selected reaches



Strategy for this priority reach

- Restore up to 4,600 ft, increase floodplain access, reduce bank height, add pasture BMPs
- Reduce streambank erosion by as much as 394 tons/yr
- Est. cost: \$460K to \$1.38M



Stream Geomorphology Surveys & Analysis

Sediment Reduction Strategies



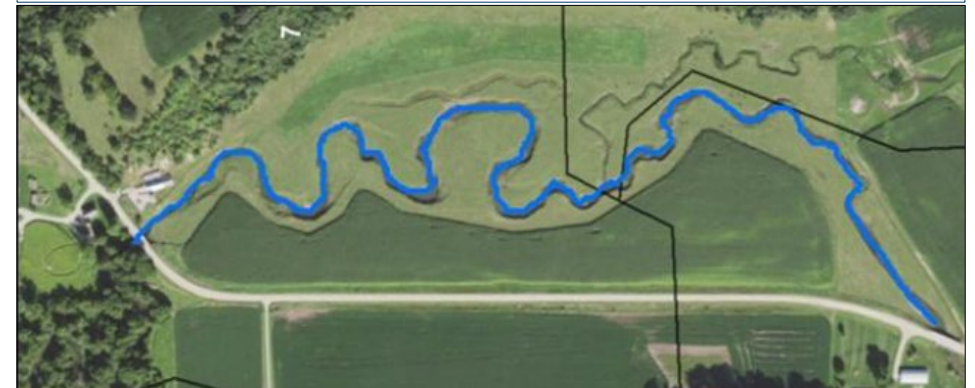
Wells Creek Sediment Reduction Strategies

“ We’ll use this to help establish a work plan for 16 years of dedicated federal funding in the Wells Creek Watershed.
Beau Kennedy, Goodhue SWCD ”

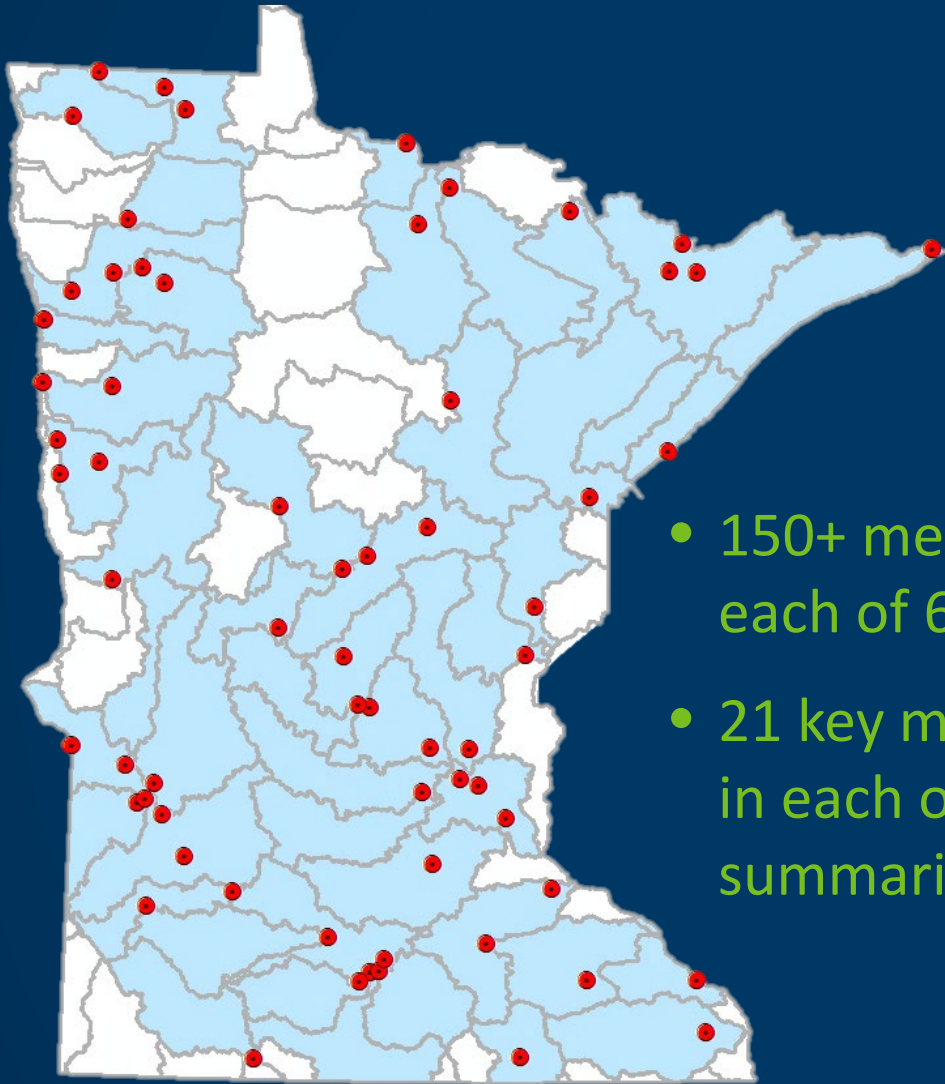
“ Without this analysis, we may miss the mark on targeting primary sources of sediment. It helps us make data-driven decisions. **Kristen Dieterman, MPCA** ”

Sample strategy (abbreviated)

- Restore up to 4,600 ft, increase floodplain access, reduce bank height, add pasture BMPs
- Reduce streambank erosion by as much as 394 tons/yr
- Est. cost: \$460K to \$1.38M



Evaluation of Hydrologic Change (EHC)

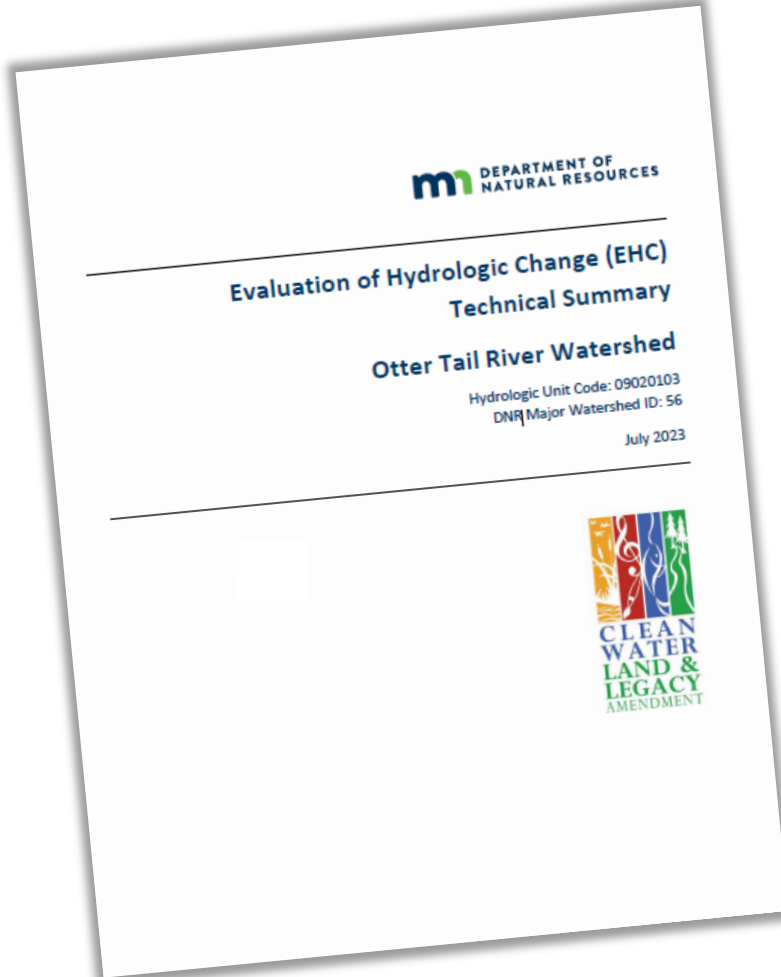


- 150+ metrics analyzed for each of 65 gages (red dots)
- 21 key metrics summarized in each of 47 watershed summaries



Evaluation of Hydrologic Change (EHC)

Technical Summaries

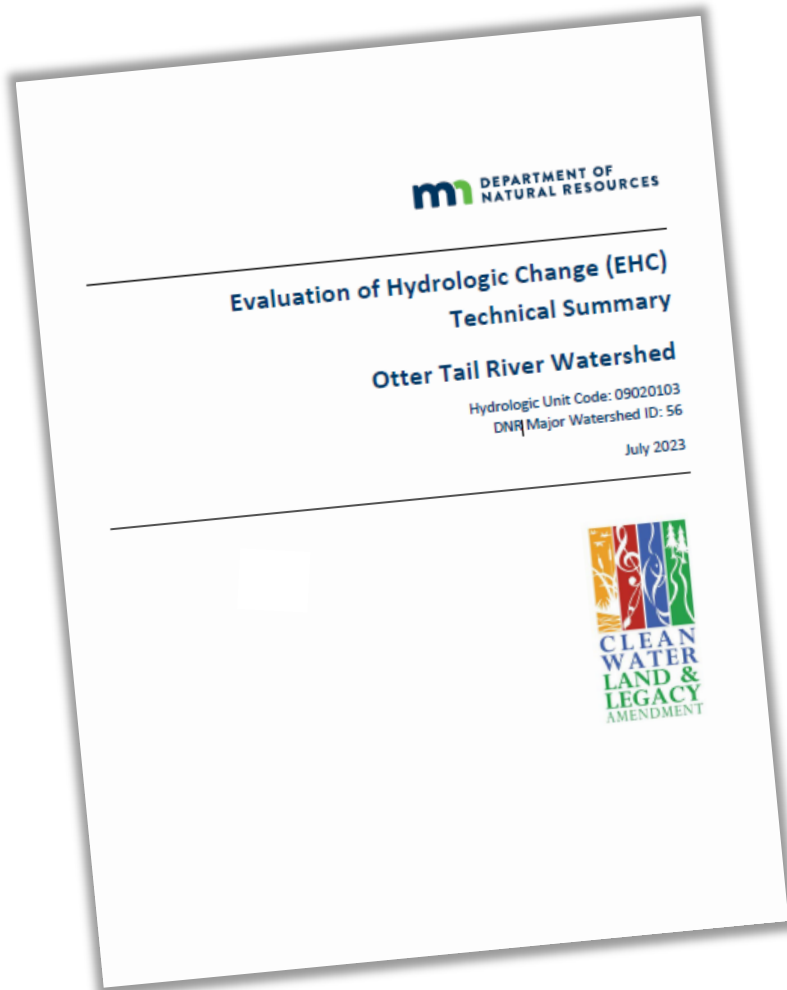
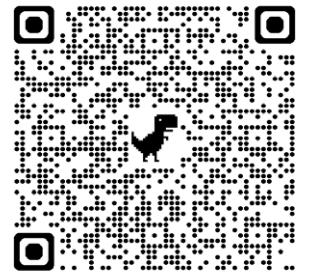


- **Changepoint**
- **20+ key metrics**
 - Magnitude, frequency, duration, timing, and rate of change
 - Level of concern about potential impacts

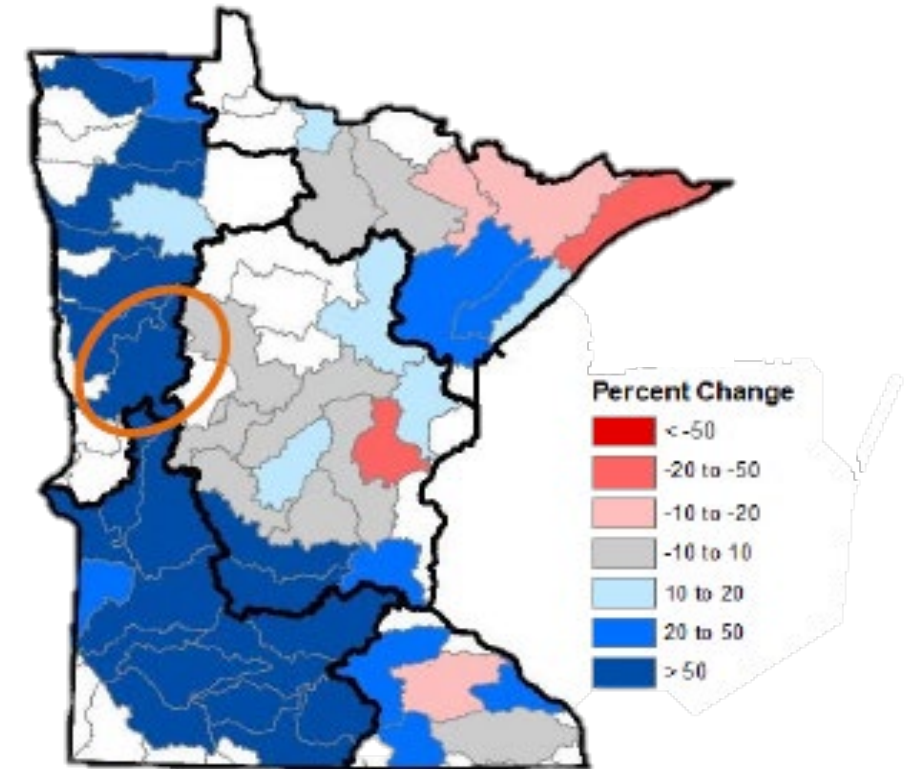
Hydrologic Group	Metric	Magnitude Change (%)	Magnitude Impact	RVA Change (%)	RVA Impact
Annual Values	Annual Precipitation	12	Moderate	-34	Major
	Annual Discharge	122	Extreme	-85	Extreme
	Annual Peak Discharge	62	Extreme	-54	Extreme
	Annual Runoff Ratios	101	Extreme	-85	Extreme
Low Flows	7-Day Minimum	260	Extreme	-85	Extreme
	August Median Base Flow	175	Extreme	-78	Extreme
	90% Flow Duration	923	Extreme	-100	Extreme
Moderate Flows	May Median Flow	82	Extreme	-56	Extreme
	50% Flow Duration	155	Extreme	n/a	n/a
	1.5 Year Return Interval Flows	75	Extreme	n/a	n/a
	Annual Baseflow	121	Extreme	-85	Extreme
High Flows	10% Flow Duration	75	Extreme	342	Extreme
	5 Year Return Interval Flows	48	Major	n/a	n/a
	10 Year Return Interval Flows	43	Major	n/a	n/a
	3-Day Maximum	63	Extreme	-63	Extreme
Flow Timing	Julian Day Max Flow	3	Neutral	4	Neutral
	Julian Day Min Flow	8	Neutral	11	Moderate
Flashiness	High Pulse Count	150	Extreme	-41	Major
	Low Pulse Count	-71	Extreme	-41	Major
	Number of Reversals	-11	Moderate	33	Major
	Rise Rate	60	Extreme	-26	Major

Increase	
Decrease	

Evaluation of Hydrologic Change (EHC) Technical Summaries



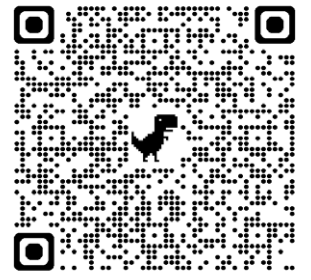
Comparison to
other watersheds,
for context



Change in Annual Peak Discharge

Evaluation of Hydrologic Change (EHC)

Technical Summaries



Evaluation of Hydrologic Change (EHC) Technical Summary

Otter Tail River Watershed

Hydrologic Unit Code: 09020103
DNR Major Watershed ID: 56

July 2023



Key Takeaways (abbreviated examples)

- Changepoint 1993
- Flood flows more than doubled
- Channel-forming flows increased 75%
- Dramatic loss of low flows
- Potential impacts

Technical Summaries

Data to help inform water storage goals and strategies (Le Sueur Watershed example)

- Flood flows up 61% post-changepoint
- Channel-forming flows up 80%
- Water balance indicates increased precip not being stored



Change Point = 1990	<u>D</u> ischarge (in.)	ET (in.)	<u>P</u> recip (in.)	Runoff Ratio (<u>D</u> / <u>P</u>)
Pre 1990	5.7	23.3	29.0	0.20
Post 1990	10.9	23.3	34.2	0.32
Change	5.2	0.0	5.2	0.12



Water balance (in inches over the watershed) for Le Sueur River near Rapidan

Hydrologic Change Data

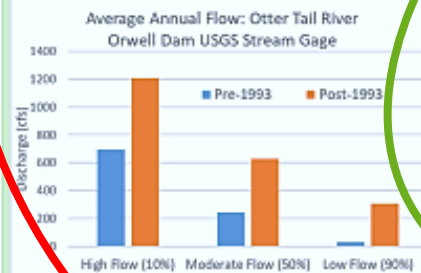
Hydrologic Group	Metric	Magnitude Change (%)	Magnitude Impact	RVA Change (%)	RVA Impact
Annual Values	Annual Precipitation	12	Moderate	-34	Major
	Annual Discharge	122	Extreme	-85	Extreme
	Annual Peak Discharge	62	Extreme	-54	Extreme
	Annual Runoff Ratios	101	Extreme	-85	Extreme
Low Flows	7-Day Minimum	260	Extreme	-85	Extreme
	August Median Base Flow	175	Extreme	-78	Extreme
	90% Flow Duration	923	Extreme	-100	Extreme
Moderate Flows	May Median Flow	82	Extreme	-56	Extreme
	50% Flow Duration	155	Extreme	n/a	n/a
	1.5 Year Return Interval Flows	75	Extreme	n/a	n/a
	Annual Baseflow	121	Extreme	-85	Extreme
High Flows	10% Flow Duration	75	Extreme	342	Extreme
	5 Year Return Interval Flows	48	Major	n/a	n/a
	10 Year Return Interval Flows	43	Major	n/a	n/a
	3-Day Maximum	63	Extreme	-63	Extreme
Flow Timing	Julian Day Max Flow	3	Neutral	4	Neutral
	Julian Day Min Flow	8	Neutral	11	Moderate
Flashiness	High Pulse Count	150	Extreme	-41	Major
	Low Pulse Count	-71	Extreme	-41	Major
	Number of Reversals	-11	Moderate	33	Major
	Rise Rate	60	Extreme	-26	Major

Integrated, Interpreted Watershed Information

Otter Tail River Watershed Hydrology & Stream Stability

Changes in precipitation and flow are evident when comparing pre-1993 to post-1993 data:

- Average yearly water flow has more than doubled (113%).
- Precipitation has increased (12%).
- Amount of water flowing during low and high flow events has increased
- Speed with which a flood rises and falls has not increased dramatically
- Dramatic decrease in dry conditions (94%), and a doubling increase of very wet conditions



Lake Levels

Some lakes are closed basins and do not have natural outlets. Increases in precipitation and decreases in drought condition can create flooding of these systems.

In-channel Erosion

Higher flows are occurring more often in the watershed, **potentially increasing in-channel erosion**. In the Otter Tail River there has been a 75% increase in stream channel-forming flows.

Channel Forming Flow (Before 1993) = 703 cfs
Channel Forming Flow (1993 and later) = 1227 cfs

Water is flowing onto floodplains more frequently. After 1992, 703 cfs is exceeded 43% of the time but only 10% prior to 1993.

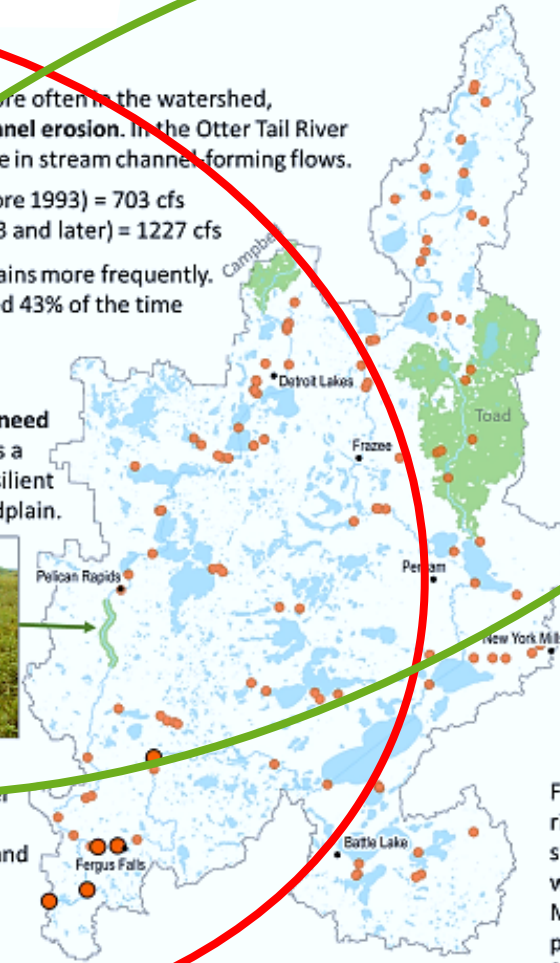
Floodplains

Rivers running at higher flows need more room. The Pelican River is a good example of a river in a resilient condition with access to a floodplain.



Floodplains:

- Reduce the depth and power of a river during high flows
- Provide habitat for aquatic and upland species
- Trap sediment
- Promote nutrient cycling
- Improve bank stability



Campbell Creek and Toad River are exhibiting symptoms of unstable systems.



With limited access to disperse flow at higher flow events these systems will need to widen and possibly deepen more. This will result in channel erosion.

Connectivity

- Identified Culvert Concern
- DNR Connectivity Priority

Fish utilize different portions of a river system for different life stages, and can move to deeper water in times of drought. Maintaining or increasing fish passage supports a healthy fishery.

Geomorphology Field Survey Data



Integrated, Interpreted Information

Otter Tail Watershed Poster (other side)

Watershed Highlights: Otter Tail River

The Otter Tail River is the headwaters of the Red River. Its 192 river miles supports **the most biologically diverse fishery** in the basin.

Lake Sturgeon, once locally extinct, are being restored to lakes and streams. Removing or modifying dams helps these and other fish populations thrive.



Freshwater mussel populations are some of the most diverse and dense in the state.



mn DEPARTMENT OF
NATURAL RESOURCES

Recreation

— State Water Trail

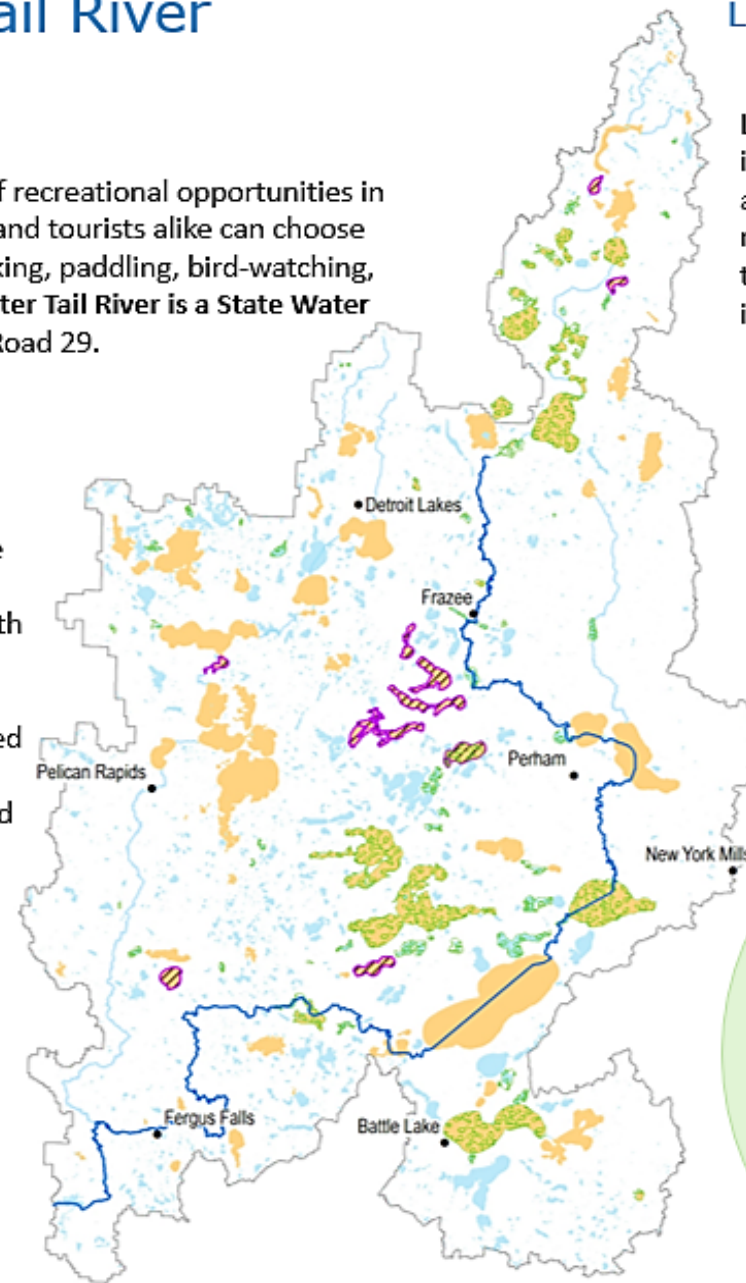
There is an abundance of recreational opportunities in this watershed. Citizens and tourists alike can choose from fishing, hunting, biking, paddling, bird-watching, hiking, and more. The **Otter Tail River is a State Water Trail**, starting at County Road 29.

Cisco Lakes

▨ Cisco Lake

Within the watershed are lakes whose cold water supports native cisco. With high temperatures occurring more often these lakes will be stressed and require more protection to support cold water species.

- Ice Cracking
- Little Bemidji
- Rose
- Little McDonald
- Jewett
- Sybil
- East Loon
- Long
- Fish
- Six
- Pickerel
- Scalp



GIS data layers - <https://www.dnr.state.mn.us/whaf/about/resources.html>

Lakes of Outstanding Biology

Orange Lakes of Biological Significance

Lakes of Biological Significance identifies basins where high quality fish, aquatic plants, birds, or amphibians reside. The presence of any one of these categories triggers a basin to be included.



Wild Rice

Green Wild Rice Lake

Minnesota has more acres of natural wild rice than any other state in the country. Wild rice is an important social and cultural component for Native American tribes and rural Minnesota communities.

Concerns

- Dams block fish movement
- Altered stream habitat lacks diversity
- Land use practices and altered streams lead to erosion
- Development impacts water quality and habitat
- Protection of habitat along trail systems
- Protection of wild rice lakes

WHAF on the Web

Watershed Health Assessment Framework

- [Main page](#)
- [Five components](#)
- [Key concepts](#)

Applications

- [Watershed map](#)
- [WHAF for lakes](#)
- [WHAF for land cover](#)
- [Application user guides](#)

Resources

- [Major watershed reports](#)
- [About health scores](#)
- [WHAF use examples](#)
- [Literature and data](#)
- [Contacts](#)
- [Subscribe to the newsletter](#)

[Home](#) > [Assistance](#) > [Natural resource planning](#) > [Regional and state tools](#)

Watershed Health Assessment Framework



mndnr.gov/whaf

DNR Watershed Restoration and Protection Strategies

	FY10-21	FY22-23	FY24-25	FY26-27	Total since FY10
Clean Water Funds	\$20.8M	\$3.8M	\$4.3M	TBD	\$28.9M
FTEs (state agency staff funded by CWF)	14	13	~14	TBD	n/a



Source Water Protection – Drinking Water Protection

Stephen W. Robertson | Supervisor, Source Water Protection

Minnesota Department of Health

page 1

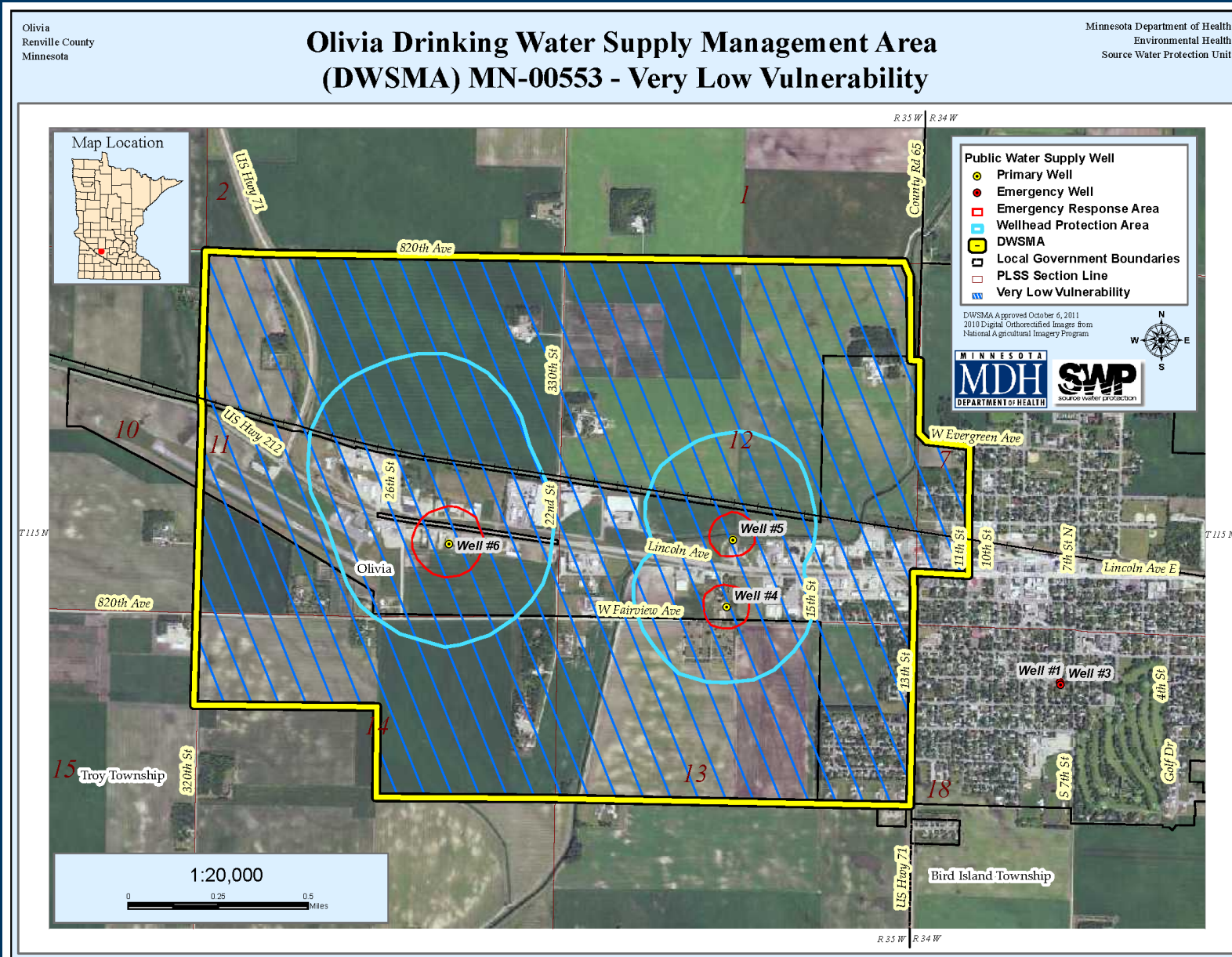
CWC Strategic Plan

- Primary -- Drinking Water Protection Vision:
 - Goal 1: Ensure that users of public water systems have safe, sufficient and equitable drinking water.
 - Strategy: Identify and reduce risks to drinking water sources
 - Strategy: Support prevention efforts to protect groundwater in DWSMAs
 - Strategy: Support prevention and management of newly identified contaminant risks.
- Ancillary -- Groundwater Protection, Surface Water Protection and Restoration, All Minnesotans Value water

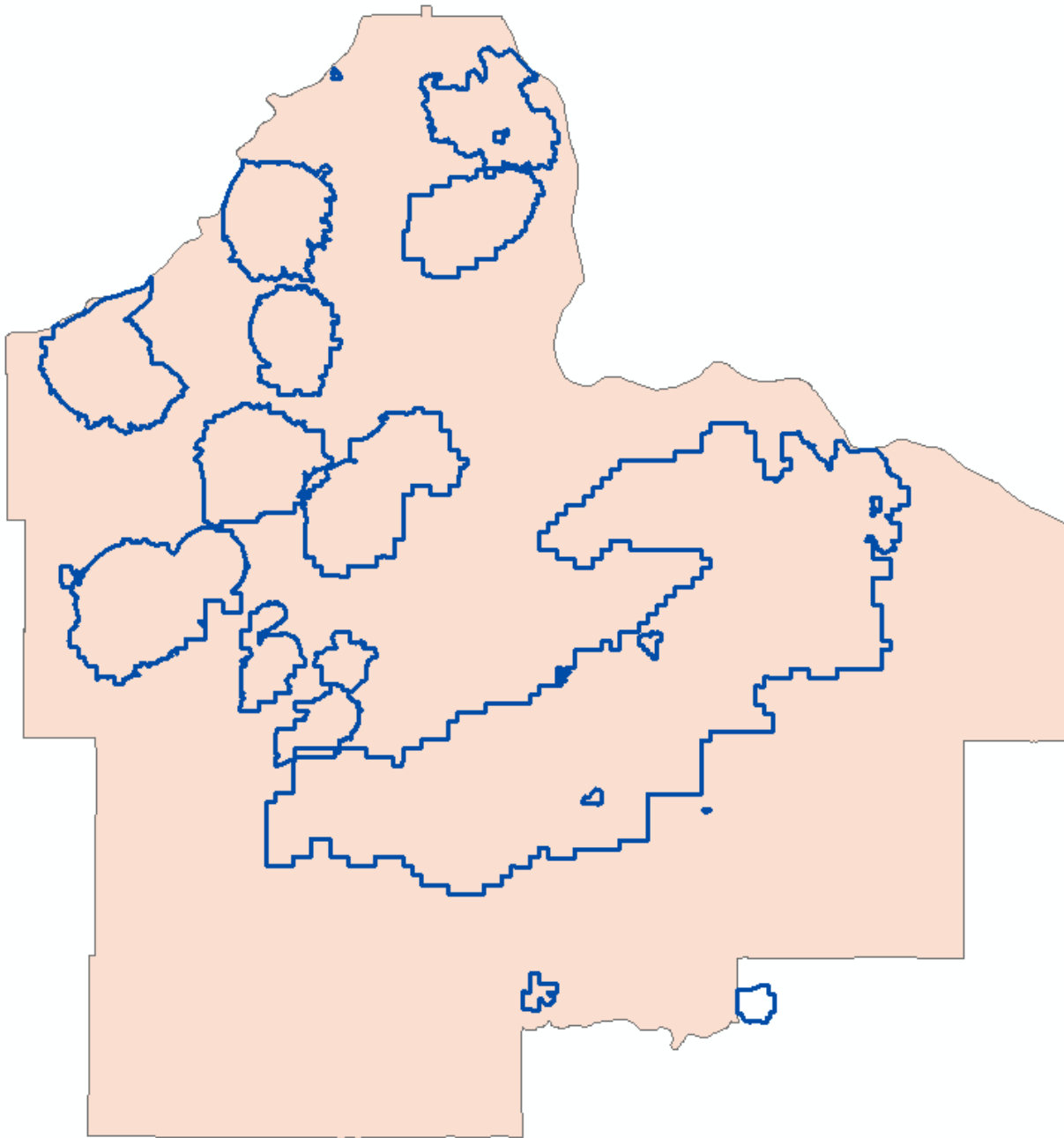
Source Water Protection (SWP) Overview

- What is a DWSMA (“*dwiz – muh*”)
- Making DWSMAs
- Using DWSMAs
- Beyond DWSMAs

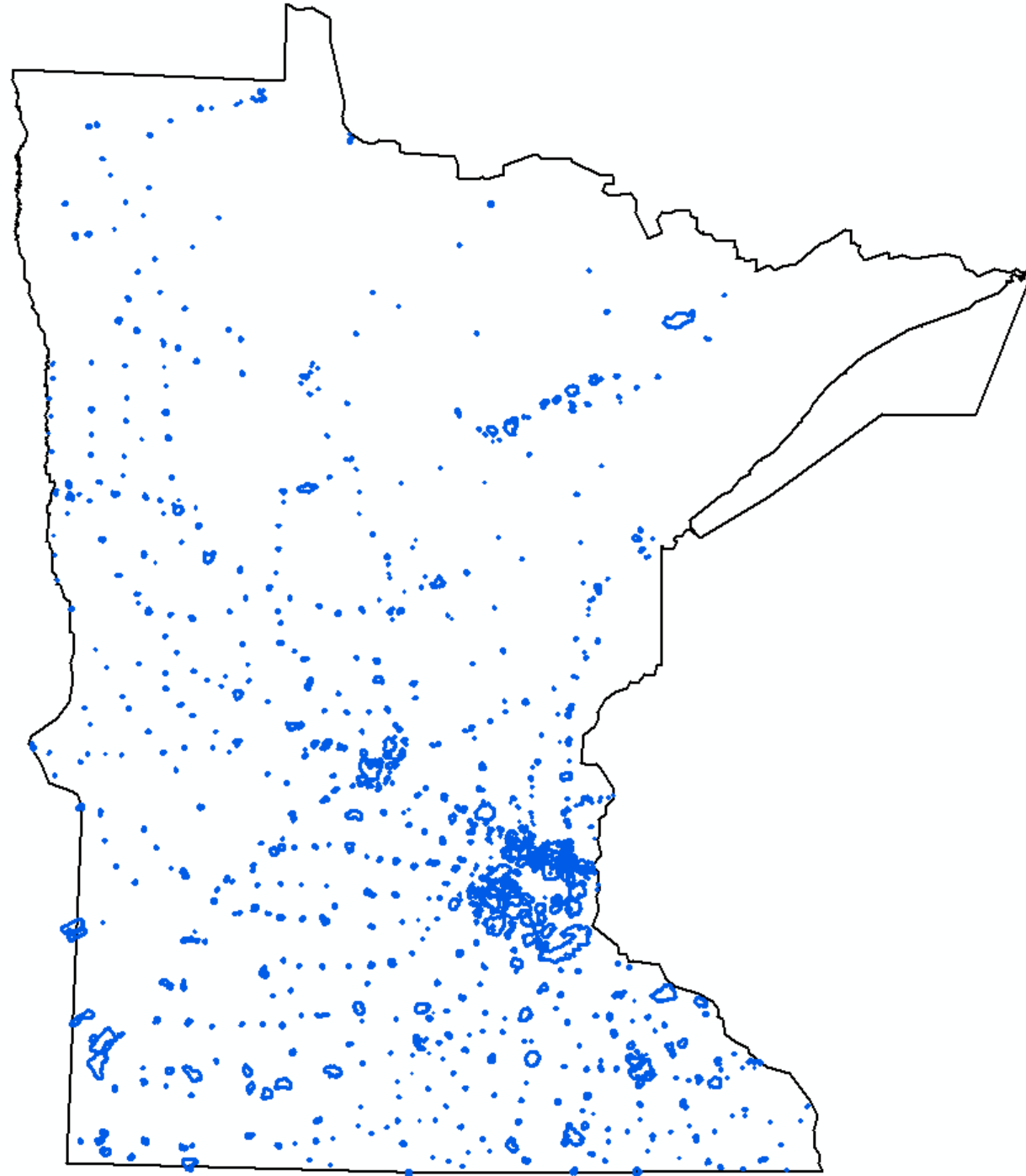
ATWATER



County Scale

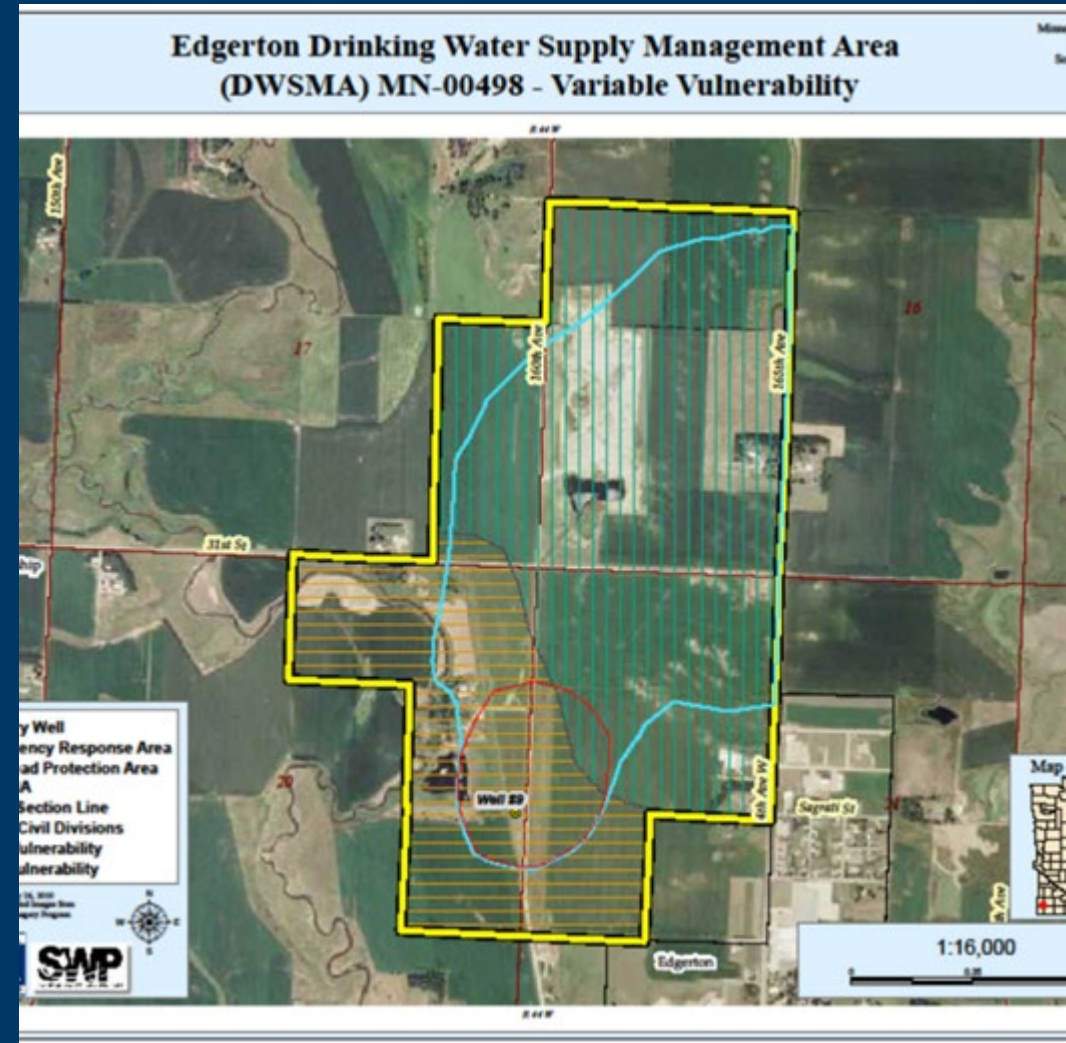


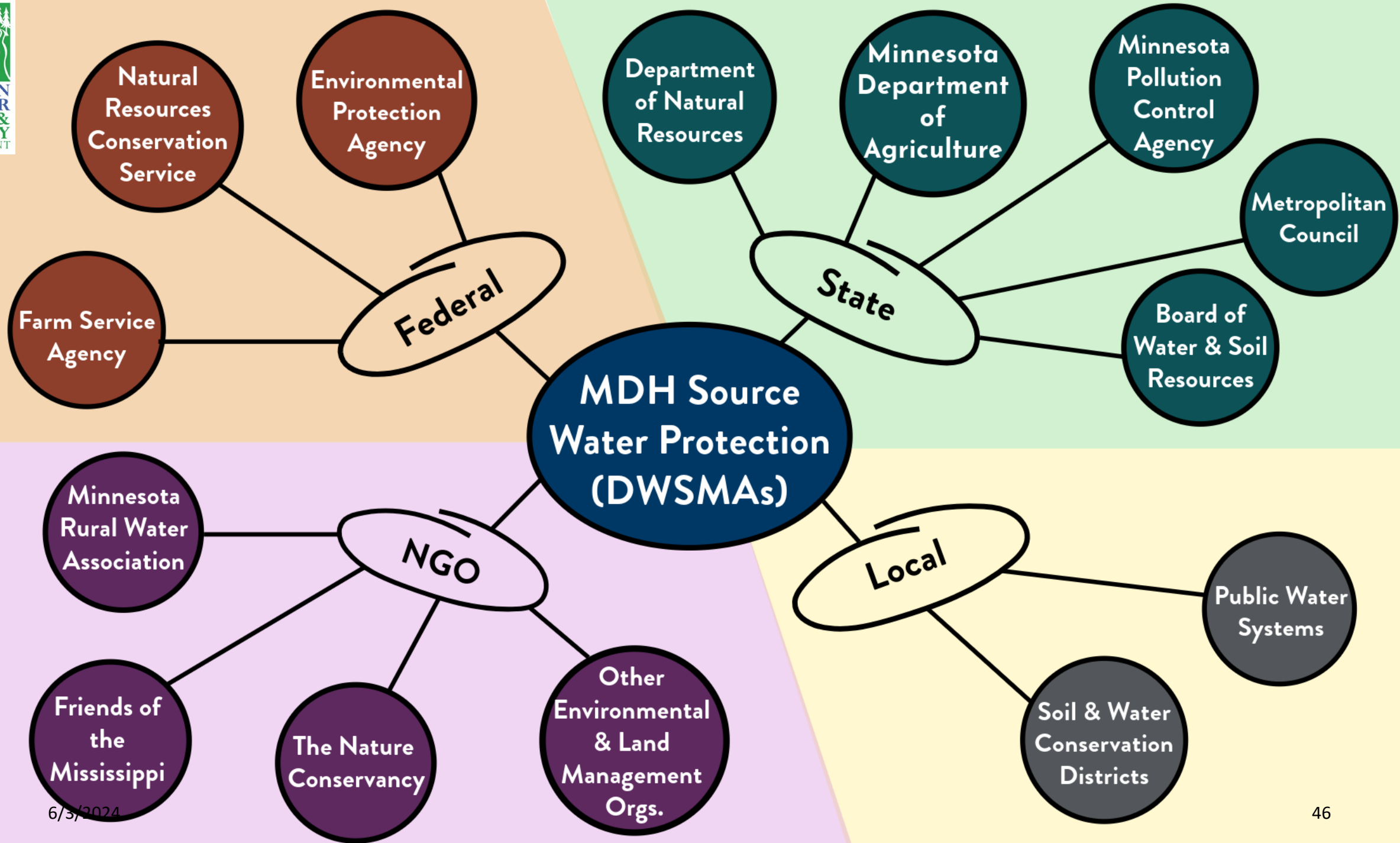
State scale



DWSMAs: Implementing SWP at multiple scales

- System-based plan implementation
- Watershed-based planning
- Technical and financial assistance
- Coordination





Beyond DWSMAs: Future SWP Directions



Watershed-scale
activities



Small systems



Private wells



Ambient
monitoring

Drinking Water Ambient Monitoring Sampling Objectives



**CEC Horizon
Scanning**



**Follow up CEC
sampling**

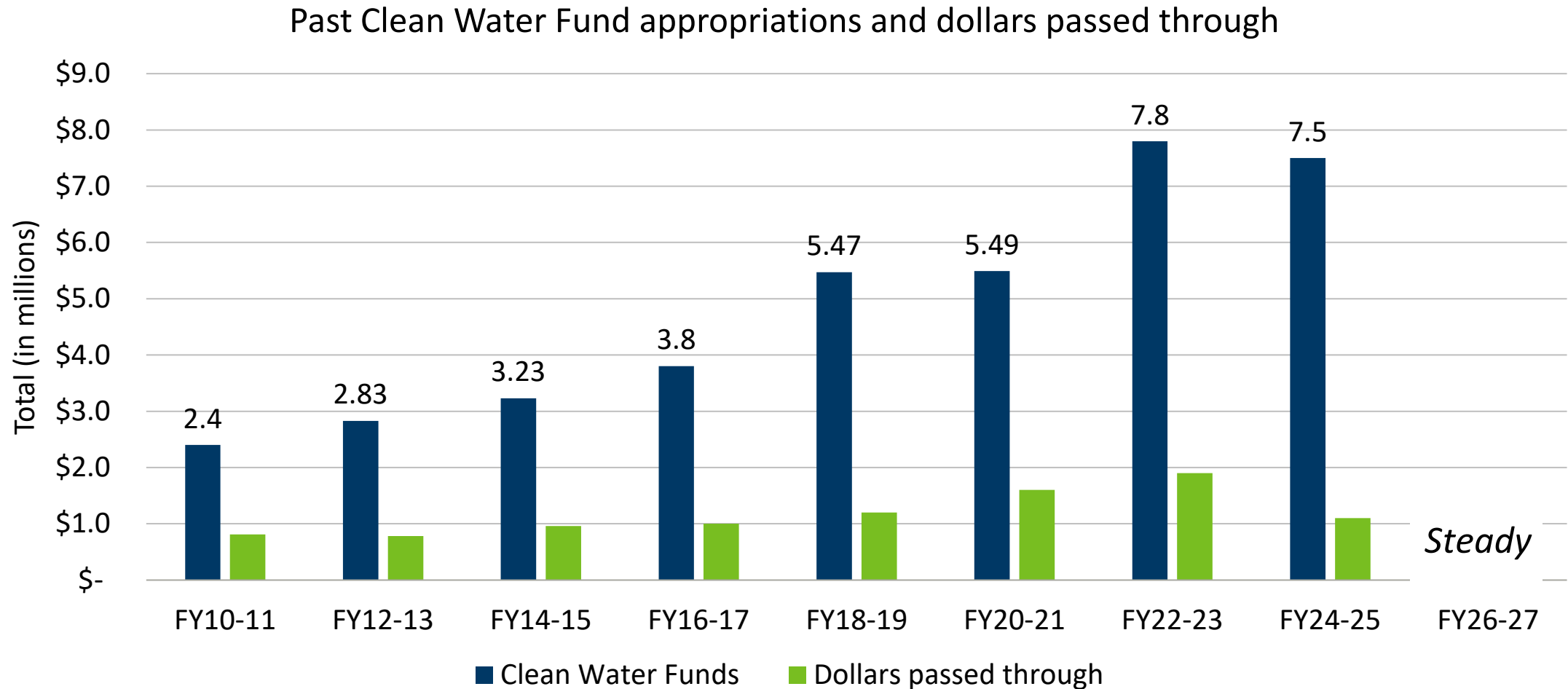


**Watershed-scale
characterization**



**Surface water
sampling**

Clean Water Fund Appropriations for Source Water Protection



Questions?





Groundwater Restoration & Protection Strategies (GRAPS)

Carrie Raber, GRAPS Coordinator

Minnesota Department of Health

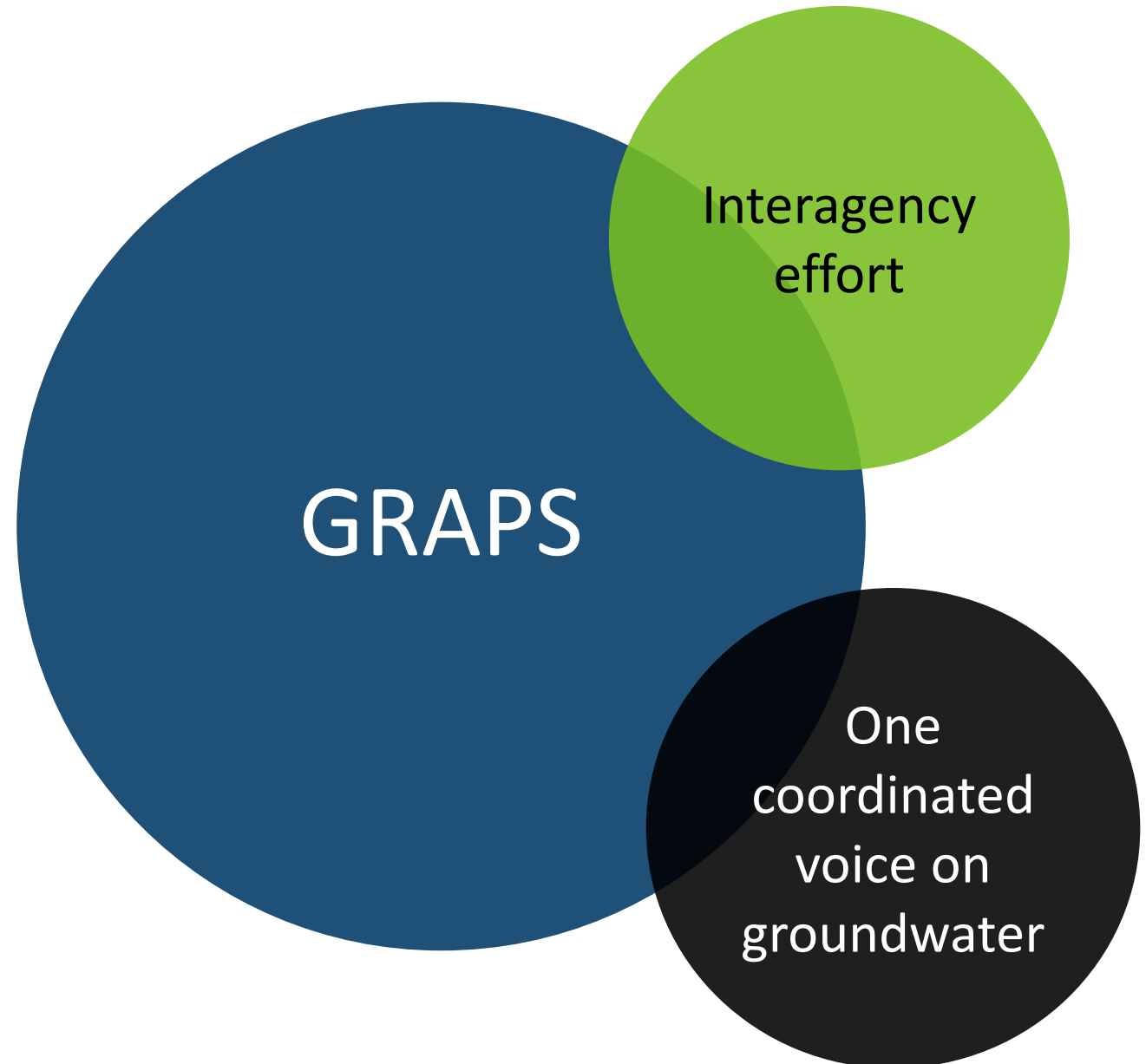
Hawk Creek – Middle Minnesota Watershed (HCMMW)

Groundwater Restoration and Protection Strategies Report

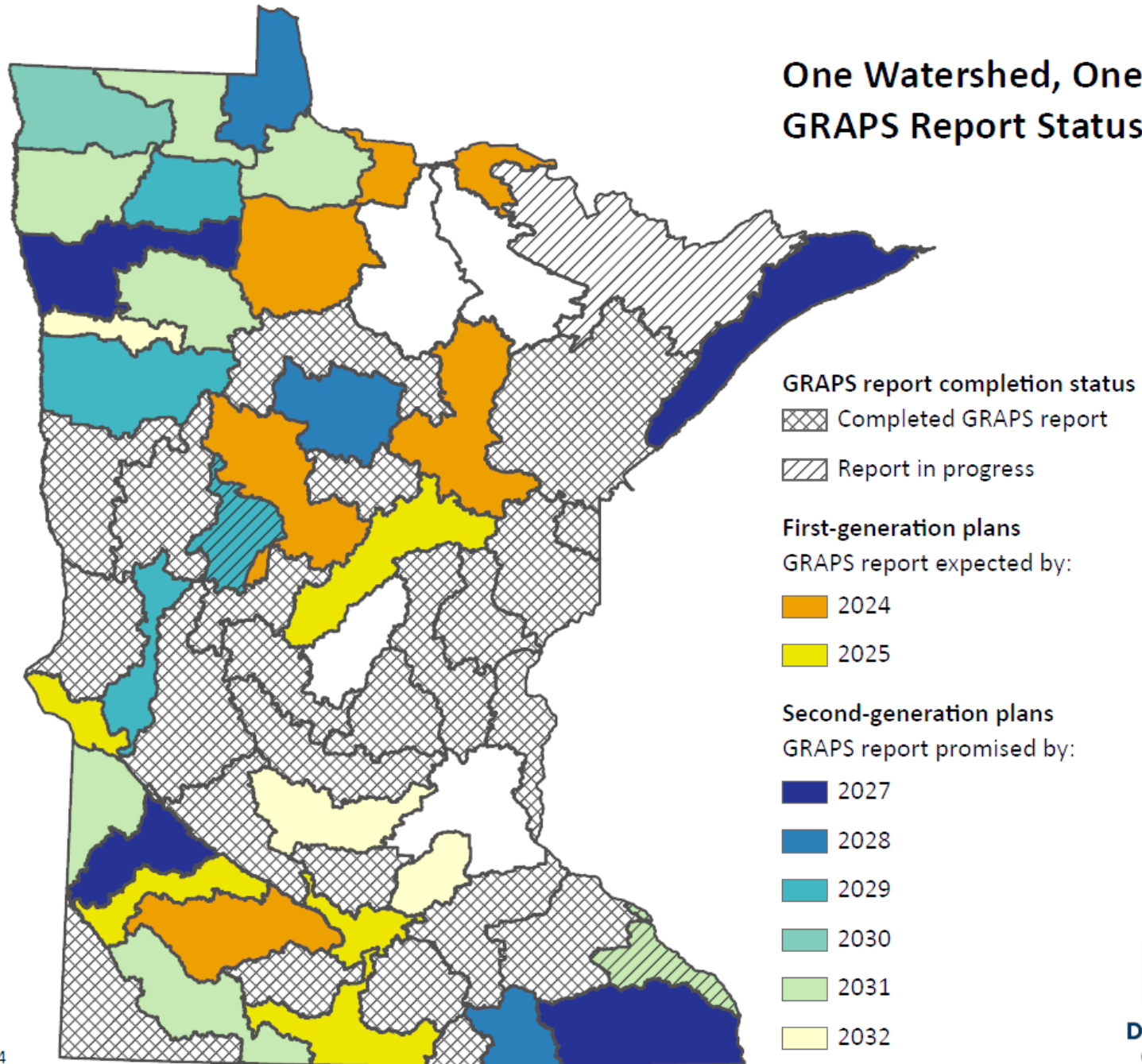


January 2020


GRAPS Report #13



One Watershed, One Plan: GRAPS Report Status



**Goal to
complete
GRAPS reports
by the midpoint
of the 10-year
1W1P plans**

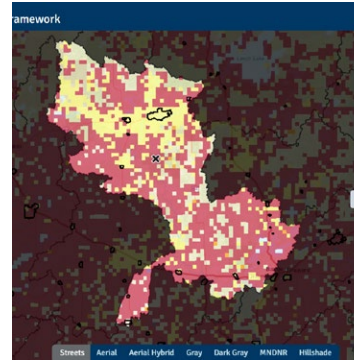


The GRAPS program
encompasses multiple tools to
build local capacity for
groundwater

GRAPS tools for groundwater



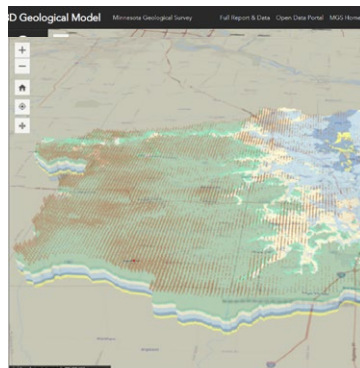
GRAPS
reports



Groundwater
data in the
WHAF tool



Online
groundwater
modules



3D geological
watershed
models



GRAPS
Accelerated
Implementation
Grant



Technical
trainings

GRAPS Accelerated Implementation Grants

- Focus on collaborative projects that build local relationships and capacity
- Priority for regional-scale work that advances health equity



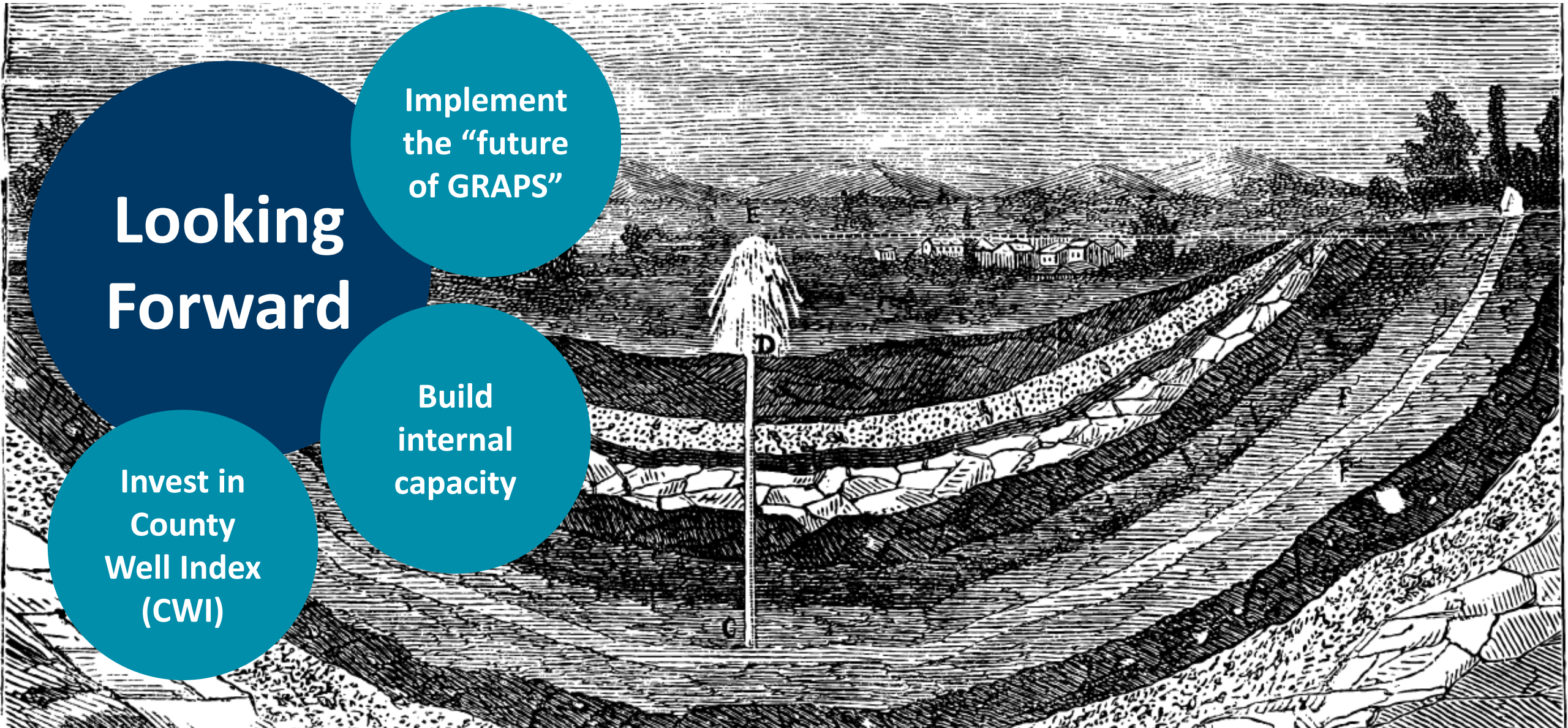
Groundwater Restoration and Protection Strategies (GRAPS)

**Looking
Forward**

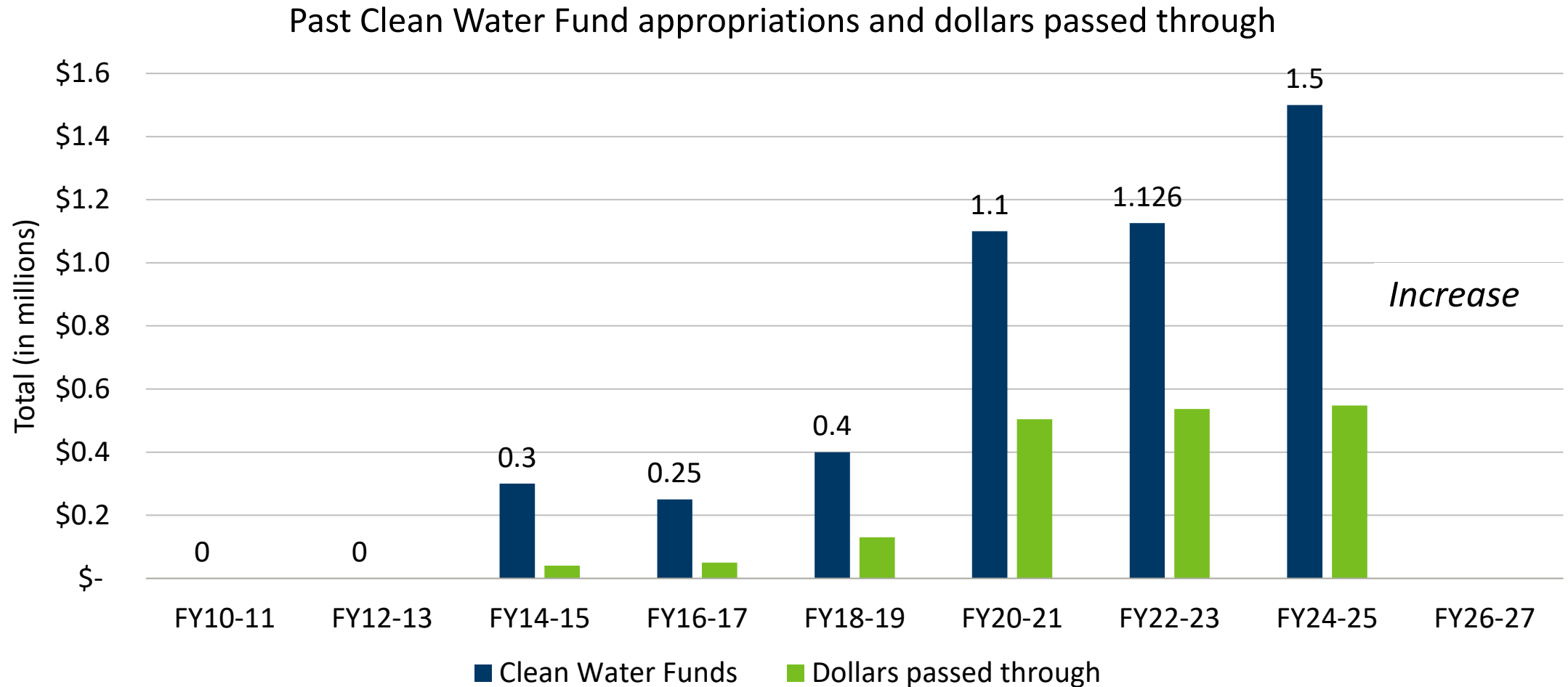
Implement
the “future
of GRAPS”

Build
internal
capacity

Invest in
County
Well Index
(CWI)



Clean Water Funds for GRAPS



CWC Strategic Plan

Vision: Groundwater is clean and available to all in Minnesota

Goal 1: Protect groundwater from degradation and support effective measures to restore degraded groundwater.

- **Strategy: Develop and carry out strategies that will protect and restore groundwater statewide.**

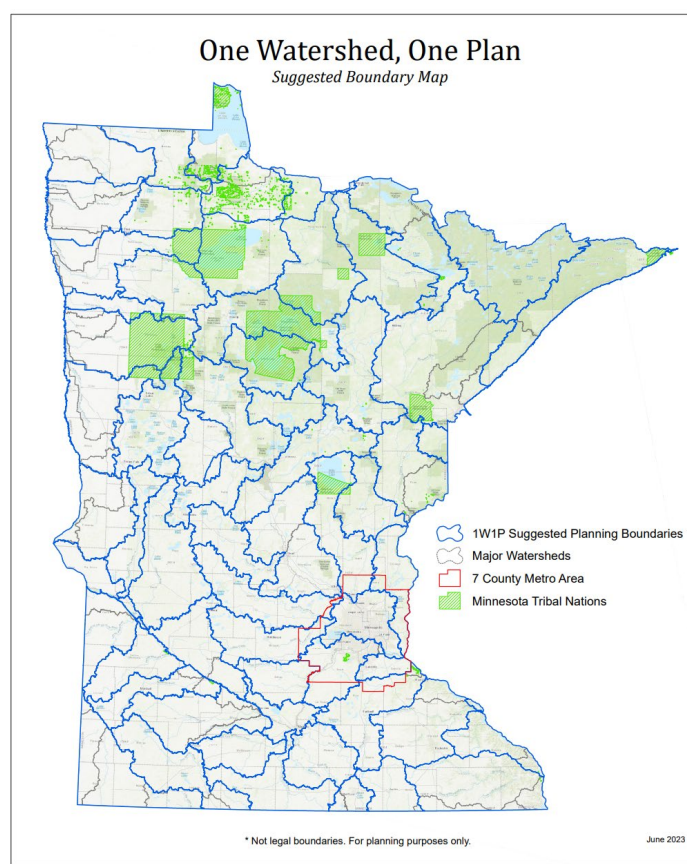
** GRAPS indirectly supports agencies specific interests identified in the CWC Strategic Plan through capacity building, and technical and financial support.*

Thank you for supporting GRAPS





**ONE
WATERSHED
ONE PLAN
EVENT HERE**



**WORKING
TOGETHER
TO IMPROVE
WATER
QUALITY**



Water Management Transition: One Watershed, One Plan

Julie Westerlund | One Watershed, One Plan Coordinator

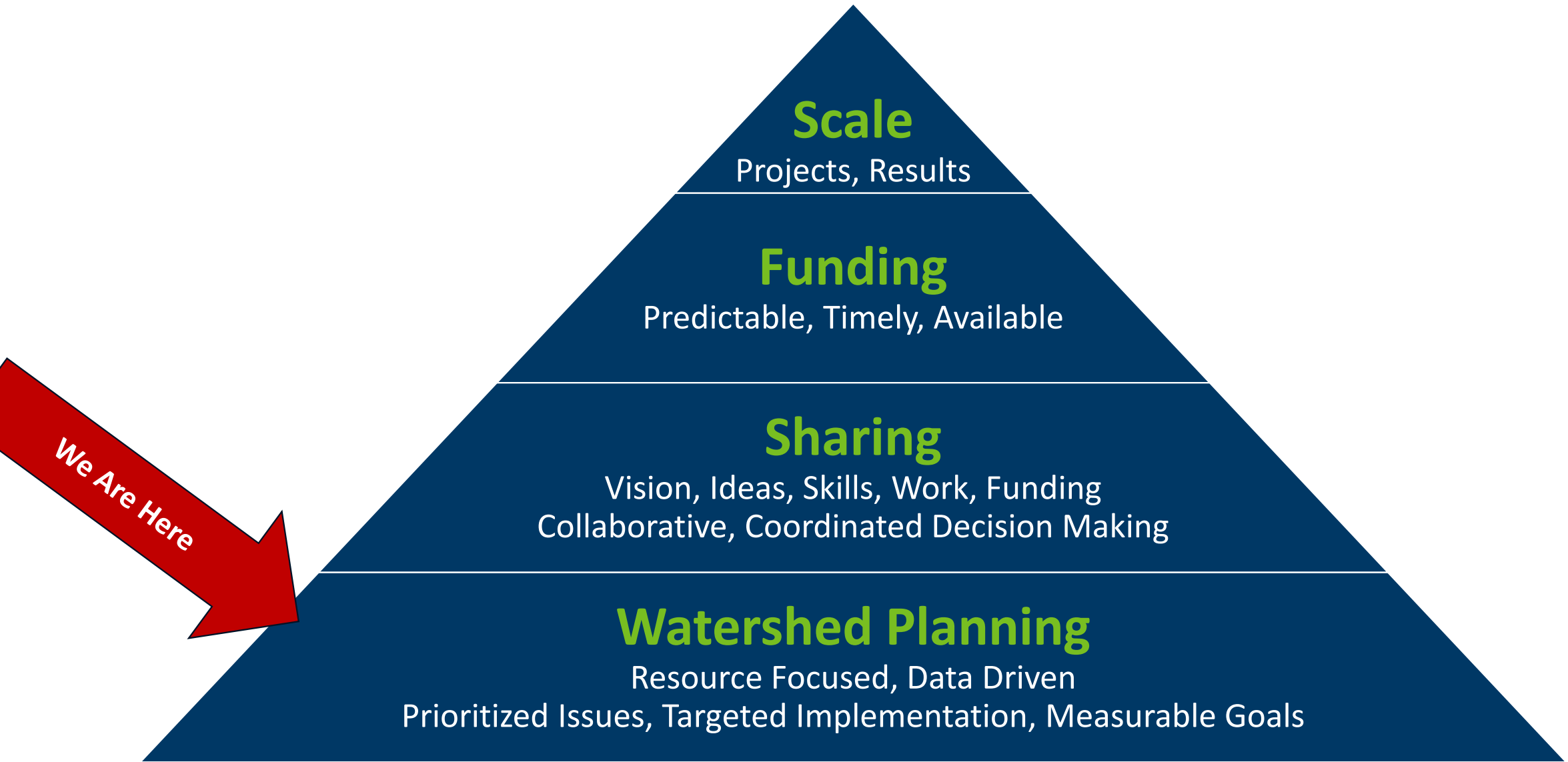
Board of Water and Soil Resources

Clean Water Council Strategic
Plan Goal 2

The Watershed Management Transition



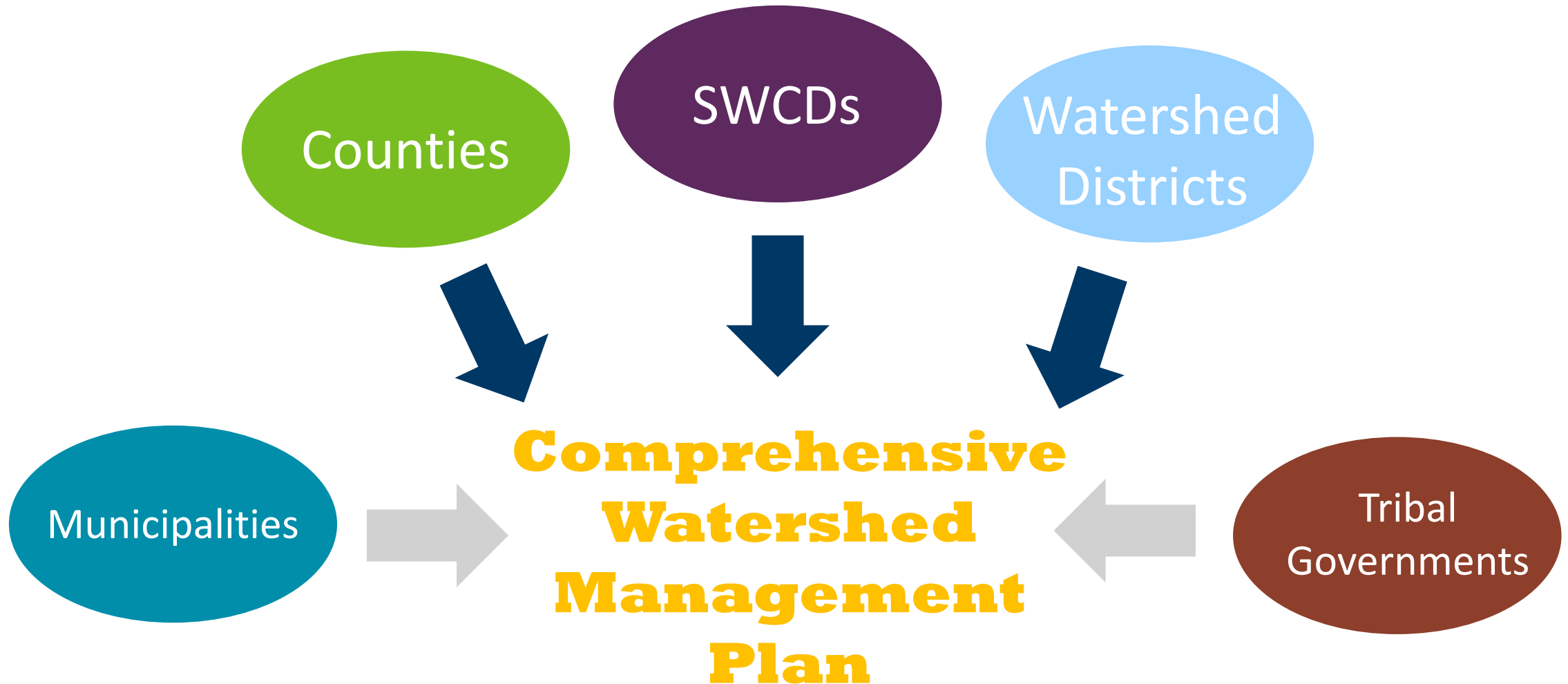
Water Management Transition



- Planning is critical to the wise use of clean water (and other) funds
- 1W1P is designed to...
 - Intentionally bring people together in value-added partnerships
 - Ensure state agencies' rich data and expertise guides local implementation
 - Accelerate protection and restoration results through the prioritize, target, measure approach



Working Together on Local Issues



Linking Data to Local Action

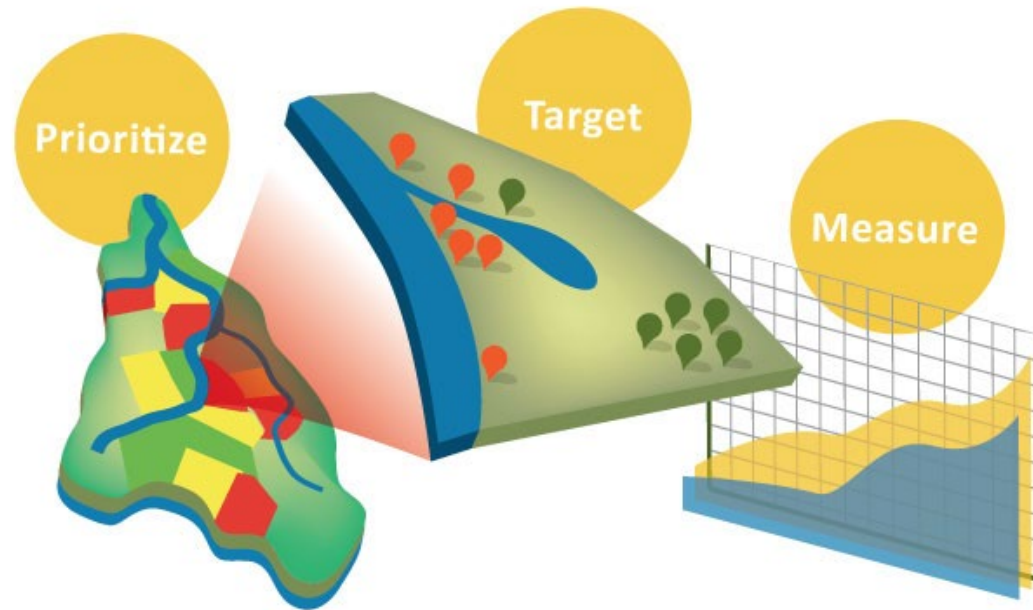




What's
important?

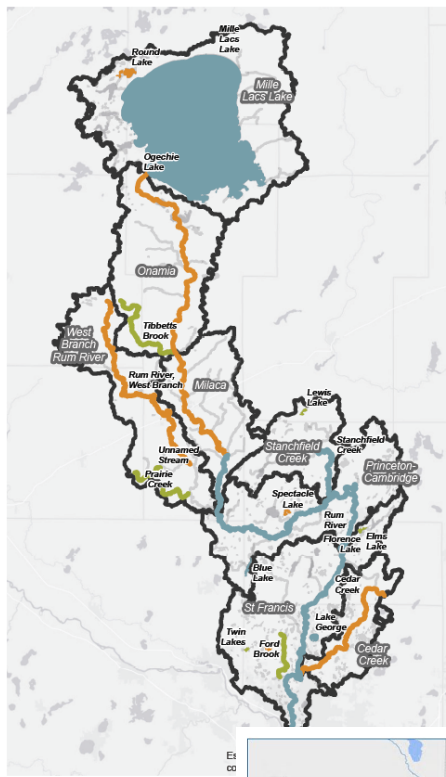
What do
you want to
do?

Guiding use of Clean Water Fund Dollars



CWC Strategic Plan Goal 2

Strategy: Prioritize waters for protection and restoration using comprehensive watershed management plans (One Watershed One Plan or other approved plans) updated every ten years.



► Figure 4.6: Priority Protection Lakes and 5

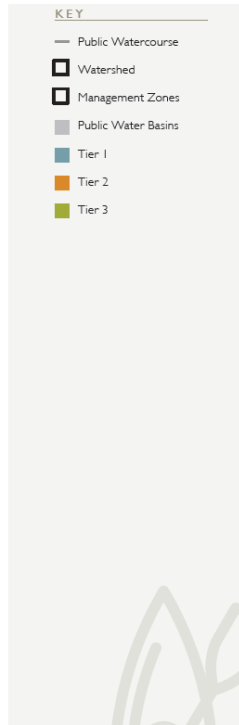
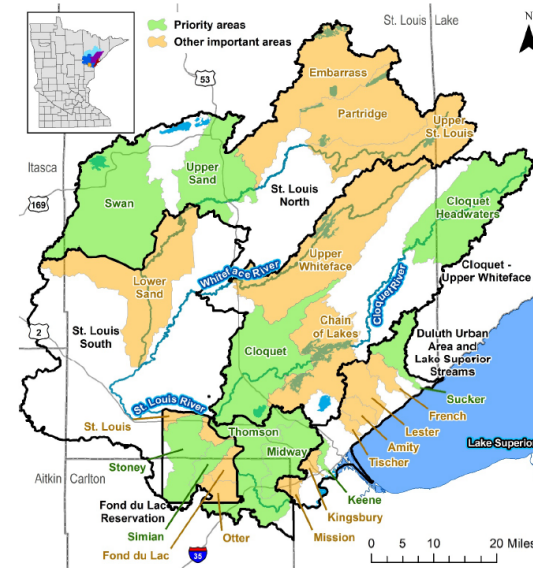
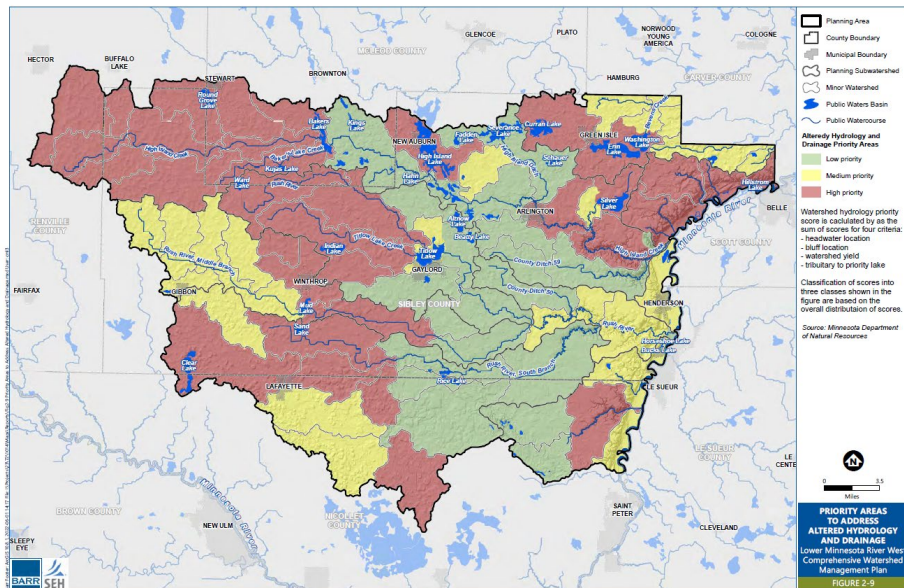
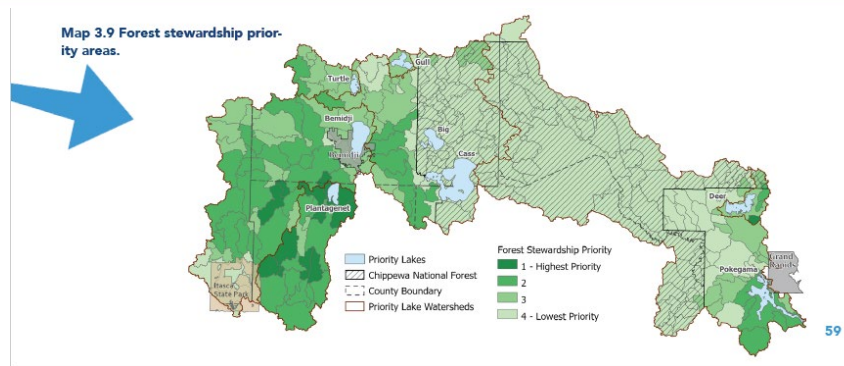


Figure 2.3 Issue priority categorization.

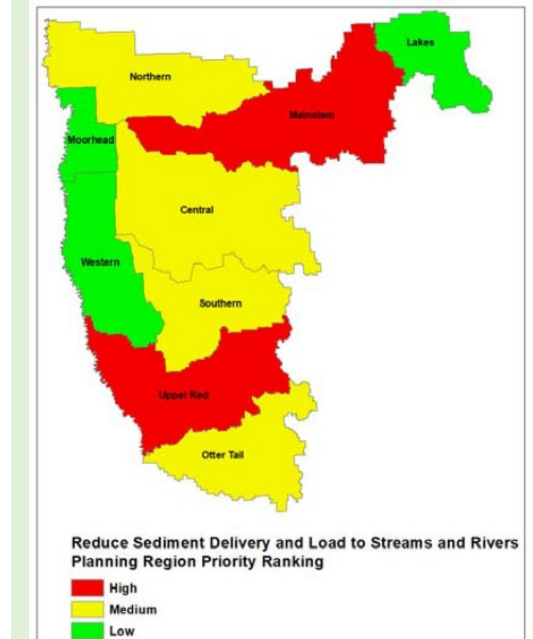
Higher Priority	----->	Lower Priority
<ul style="list-style-type: none"> Lake Stewardship Forest Stewardship Urban Stewardship Agriculture Stewardship 		<ul style="list-style-type: none"> Drinking Water Stewardship Invasive Species Management
<ul style="list-style-type: none"> Environmentally Sensitive Lands Subsurface Sewage Treatment System Management Water Course Stewardship 		



Priority Issues

✓ Sediment

Planning Region Priority



Resource Priorities for Protection

- Clay County Ditch 2 (09020106-556)
- Hay Creek (09020106-513)
- State Ditch 15 (09020106-535)
- Buffalo River, South Branch (09020106-508)
- Whiskey Creek (09020104-520)

Resource Priorities for Restoration

- Buffalo River (09020106-593)
- Buffalo River, South Branch (09020106-503)
- County Ditch 6A (09020104-526)
- Otter Tail River (09020103-504)



CLEAN WATER LAND & LEGACY AMENDMENT

[https://www.nslswcd.org/rrhwvr/;](https://www.nslswcd.org/rrhwvr/)
<https://www.youtube.com/watch?v=l6fOKu6rNk0&t=7s>

Scroll for details

Achievement of the Roundtable's vision

Generally, participants have positive perceptions of the One Watershed, One Plan program, and evaluation data indicates that the program is achieving the Local Government Water Roundtable's vision in the minds of most participants. Although some participants said the planning process was challenging, many indicated that they felt the resulting plan was worth the effort.


We had excellent professional guidance, a plentiful amount of research-based information, and a knowledgeable, articulate group of individuals working together to develop what is, in my opinion, a great plan. It was a privilege to participate.

Over 85 percent of survey respondents with approved plans agreed or strongly agreed that their CWMP provides a clear vision forward for the future of the watershed. When asked what they would change about their plan, 25 percent said they would not change anything.

Planning at a watershed level

Although participants encountered some challenges with approaching planning at a watershed level, they generally appreciate and agree that watershed-level planning is the right thing to do. While representatives from WDs indicated they are used to planning at a watershed level, it was a new approach for others, especially counties. Several comments from interviews and focus groups indicated that participants find value in the watershed-level approach.

It starts this dialogue focused on watersheds and the connectivity of them. You've got all these elected and appointed officials at the table representing political boundaries, but they are now discussing things on a watershed basis.



The Plan provides a clear vision forward for the future of the watershed.

“It starts this dialogue focused on watersheds and the connectivity of them. You’ve got all these elected and appointed officials at the table representing political boundaries, but they are now discussing things on a watershed basis.”

Value to planning participants

Participants generally:

- Gained value from **building or strengthening relationships** and having to **prioritize across political boundaries** and individual interests.
- Feel their plans are **driving the actions** of their organizations.



Value to Planning Participants: Relationships

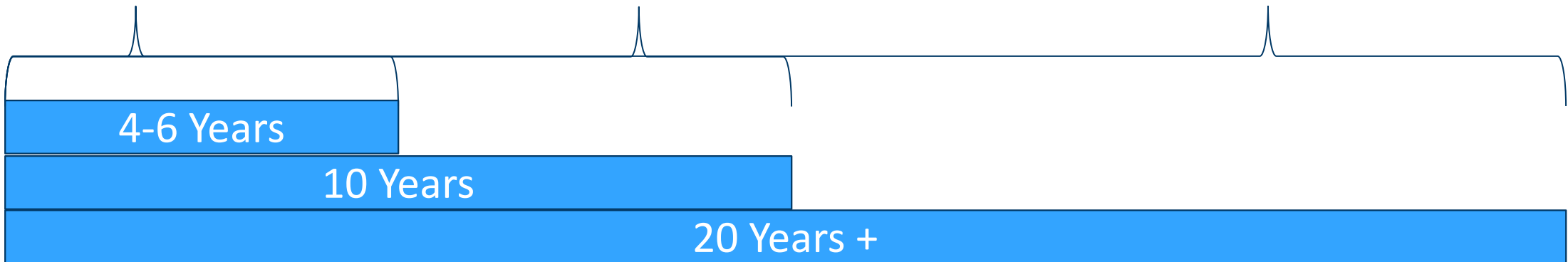
The benefit is, bringing people together, getting exposed to different perspectives, exposed to how peers are doing things in their region. There is a learning advantage there and working with folks who have been doing watershed management, so lots of experience. That's really helpful. It forces you to work outside of your area and is a tremendous learning experience.

The Life Span of a Plan

Board Order: Plan
Expires 10 years
after approval date

- Implementation Details
- Short-Term Goals
- Funding

Vision
Issues
Long-Term Goals



1W1P Mid-Point Grants

Fact Sheet: Mid-Point Planning Grants



Purpose

These noncompetitive grants support groups in conducting evaluations and/or amending comprehensive watershed management plans developed through the One Watershed, One Plan program. Funding is from Clean Water Funds appropriated to BWSR for developing comprehensive watershed management plans.

The *One Watershed, One Plan – Plan Content Requirements* requires a schedule for a **mid-point year evaluation** of progress, along with an examination of new data, to determine whether a plan amendment is warranted (section III.G.5.c).

- c. **Mid-Point Evaluation:** Include a schedule for a thorough mid-point evaluation and potential revision to the implementation schedule. The purpose of this evaluation is to determine progress and consider whether staying the course or resetting direction is necessary. It may also include revisions to models and considerations of new monitoring data. If a WRAPS has been completed or revised since the plan was originally adopted, this evaluation must include an assessment of any changes to the plan necessary due to new information.

Eligibility Requirements

These grants are available to partnerships of local governments that are implementing a BWSR approved, locally adopted comprehensive watershed management plan developed via the One Watershed, One Plan program. Partnerships must have entered into a formal agreement to collaboratively implement the plan.

Eligible Activities

Two main activities are allowable under these grants: evaluation and plan amendments.

Evaluation. Activities described in the “Evaluating” section of [Guidance for Assessing the Implementation of Comprehensive Watershed Management Plans](#) (pages 6-9) are eligible under this grant. Each item in the list below should be examined to determine if a plan amendment is needed.

- New information
- Progress toward plan goals
- Administrative or other changes

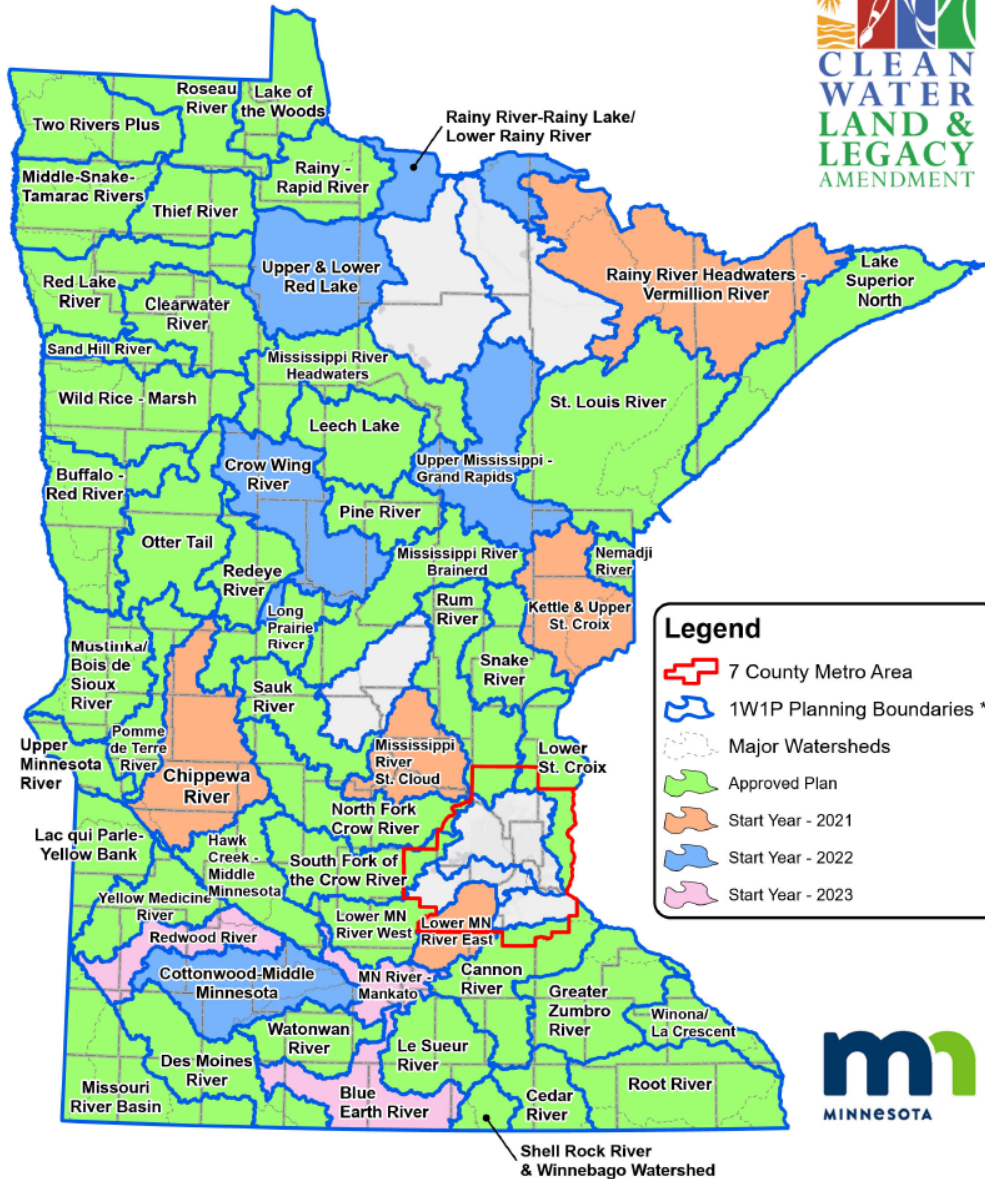
Non-competitive grants for...

- Assessing plan implementation
 - Evaluating progress toward goals
 - Examining new information

And/or

- Amending plans

One Watershed, One Plan Participating Watersheds



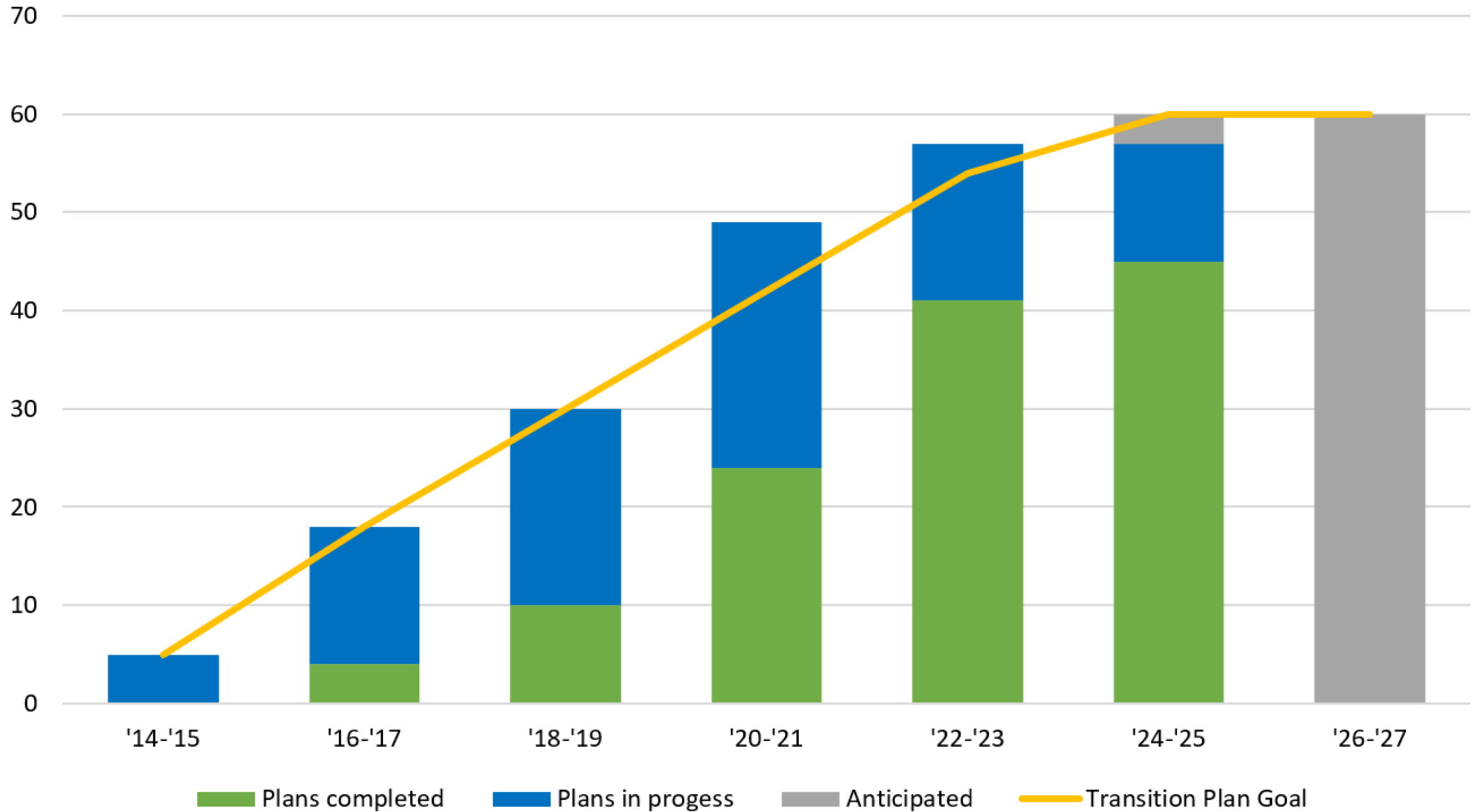
*Not legal boundaries; intended for planning purposes through One Watershed, One Plan only.

March 2024

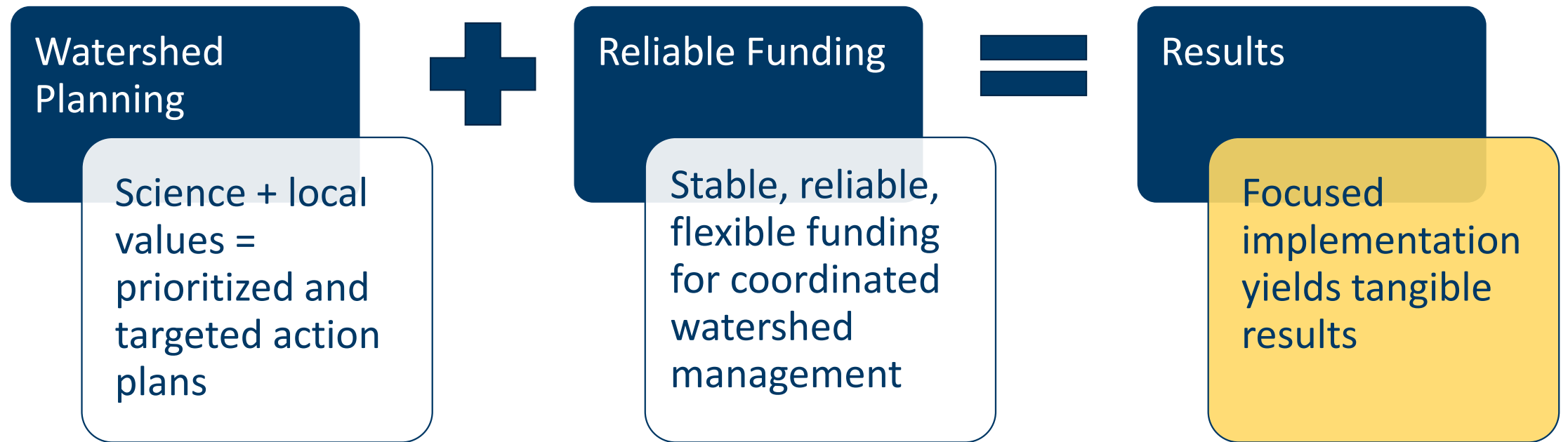
Status of planning efforts

- Planning efforts involve 2 – 17 local and tribal partners (avg = 9)
- 57 of 60 participating
- 45 approved
- 3 in review
- 9 in development

One Watershed, One Plan Progress



Watershed Management Transition



One Watershed, One Plan

	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	FY26-27	Total
Clean Water Funds	\$0.9M	\$4.2M	\$4.0M	\$3.99M	\$5.81M	\$3.5M	decrease	\$18.9M
FTEs (state agency staff funded by CWF)	1.4	2.1	4.7	6.5	5.7	5.7		
Dollars Passed Through	\$0.9 M (95%)	\$3.7M (88%)	\$2.6M (64%)	\$2.5M (61%)	\$1.1M (18%)	\$0.5M* (14%)		

**To-date, not final*



One Watershed One Plan



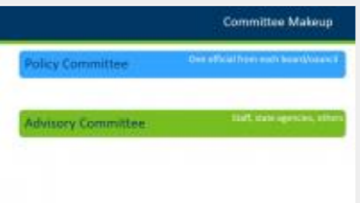
Learn More: 1W1P Video Series



[What is One Watershed, One Plan?](#) {5:18} A high level look at the One Watershed, One Plan program (including what it is not), comprehensive watershed management plans, and a preview of the Three Big Ideas behind One Watershed, One Plan.



[A Brief History of Water Management In Minnesota](#) {6:06} One Watershed, One Plan is built on a foundation of water planning in Minnesota and the Clean Water, Land, and Legacy Amendment. Learn about the important milestones in Minnesota's shift to watershed-based data, monitoring, planning, and implementation.



[Roles, Committees, and Commitments](#) {9:13} An explanation of how plans are developed in the One Watershed, One Plan program. Including an overview of committees, the steps in the planning process, and funding available to support planning and implementation.



[Making Choices to Show Results](#) {7:45} Accountability is a key element of Minnesota's approach to water management. Learn how plans incorporate the concepts of prioritizing, targeting, and measuring to "move the needle" on important water issues and demonstrate that partners are making good *investments with public dollars*.





County Geologic Atlas (Part A)

Barbara A. Lusardi, Associate Director

Minnesota Geological Survey, University of Minnesota

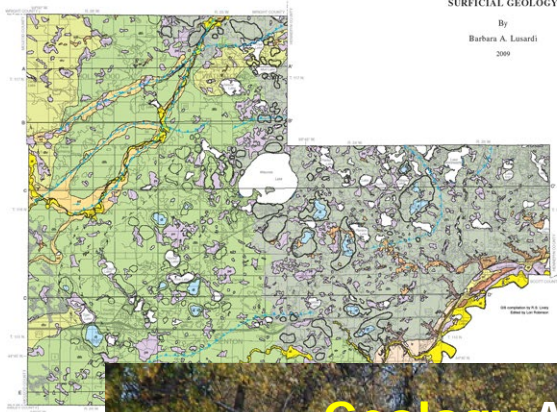
Geology (Part A)--County Geologic Atlas--Groundwater (Part B)

UNIVERSITY OF MINNESOTA
MINNESOTA GEOLOGICAL SURVEY
Barry Bartholomew, Director

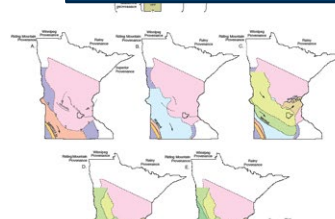
Prepared and Published with the Support of
THE CARVER COUNTY BOARD OF COMMISSIONERS AND
THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WATERS

SURFICIAL GEOLOGY

By
Barbara A. Lunardi
2009



One Atlas in 2 Parts



Geology Atlas Part A

Plate 1, Data-Base Map

Plate 2, Bedrock Geology

Plate 3, Surficial Geology

Plate 4, Quaternary Stratigraphy and
Sand Distribution Models

Plate 5, Bedrock Topography, Depth to
Bedrock

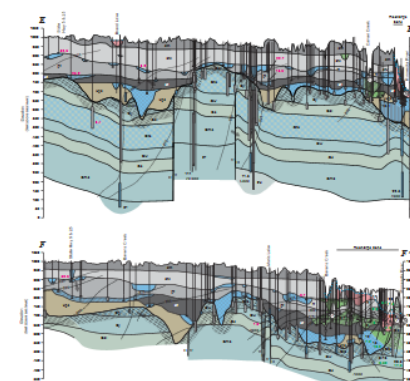
LOCATION MAP

DESCRIPTION OF MAP
This map is a compilation of data from various sources, including the Minnesota Geological Survey, the Minnesota Department of Natural Resources, and the Minnesota Department of Transportation. It is a detailed map of Carver County, Minnesota, showing the distribution of various geological features, including bedrock, surficial geology, and topography. The map is color-coded to represent different geological units and is overlaid with a grid system.

QUATERNARY GEOLOGY
This map shows the distribution of Quaternary geological units in Carver County. The units are color-coded and labeled as follows:
- Alluvium (light blue)
- Sand and gravel (yellow)
- Clay (pink)
- Silty clay (light pink)
- Silty sand (light yellow)
- Sand (yellow)
- Gravel (yellow)
- Clay (pink)
- Silty clay (light pink)
- Silty sand (light yellow)
- Sand (yellow)
- Gravel (yellow)

PEDESTAL
This map shows the distribution of Pedestal geological units in Carver County. The units are color-coded and labeled as follows:
- Pedestal (light blue)
- Sand and gravel (yellow)
- Clay (pink)
- Silty clay (light pink)
- Silty sand (light yellow)
- Sand (yellow)
- Gravel (yellow)
- Clay (pink)
- Silty clay (light pink)
- Silty sand (light yellow)
- Sand (yellow)
- Gravel (yellow)

Prepared and Published with the Support of the
MINNESOTA DEPARTMENT OF NATURAL RESOURCES TRUST FUND AND THE CARVER COUNTY BOARD



HYDROGEOLOGIC CROSS SECTIONS

By Todd A. Peterson
2011

HYDROGEOLOGIC CROSS SECTIONS

The cross-sections show the subsurface geology of Carver County, Minnesota, and are based on data from various sources, including the Minnesota Geological Survey, the Minnesota Department of Natural Resources, and the Minnesota Department of Transportation. The sections are color-coded to represent different geological units and are overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION A
This cross-section shows the subsurface geology of Carver County, Minnesota, from the north to the south. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION B
This cross-section shows the subsurface geology of Carver County, Minnesota, from the west to the east. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION C
This cross-section shows the subsurface geology of Carver County, Minnesota, from the north to the south. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION D
This cross-section shows the subsurface geology of Carver County, Minnesota, from the west to the east. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION E
This cross-section shows the subsurface geology of Carver County, Minnesota, from the north to the south. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

HYDROGEOLOGIC CROSS SECTION F
This cross-section shows the subsurface geology of Carver County, Minnesota, from the west to the east. It shows various geological units, including bedrock, surficial geology, and topography. The section is color-coded to represent different geological units and is overlaid with a grid system.

Minnesota Department of Natural Resources

Groundwater Atlas Part B

Atlas Report

Pollution Sensitivity

Aquifer Characteristics

Groundwater Flow

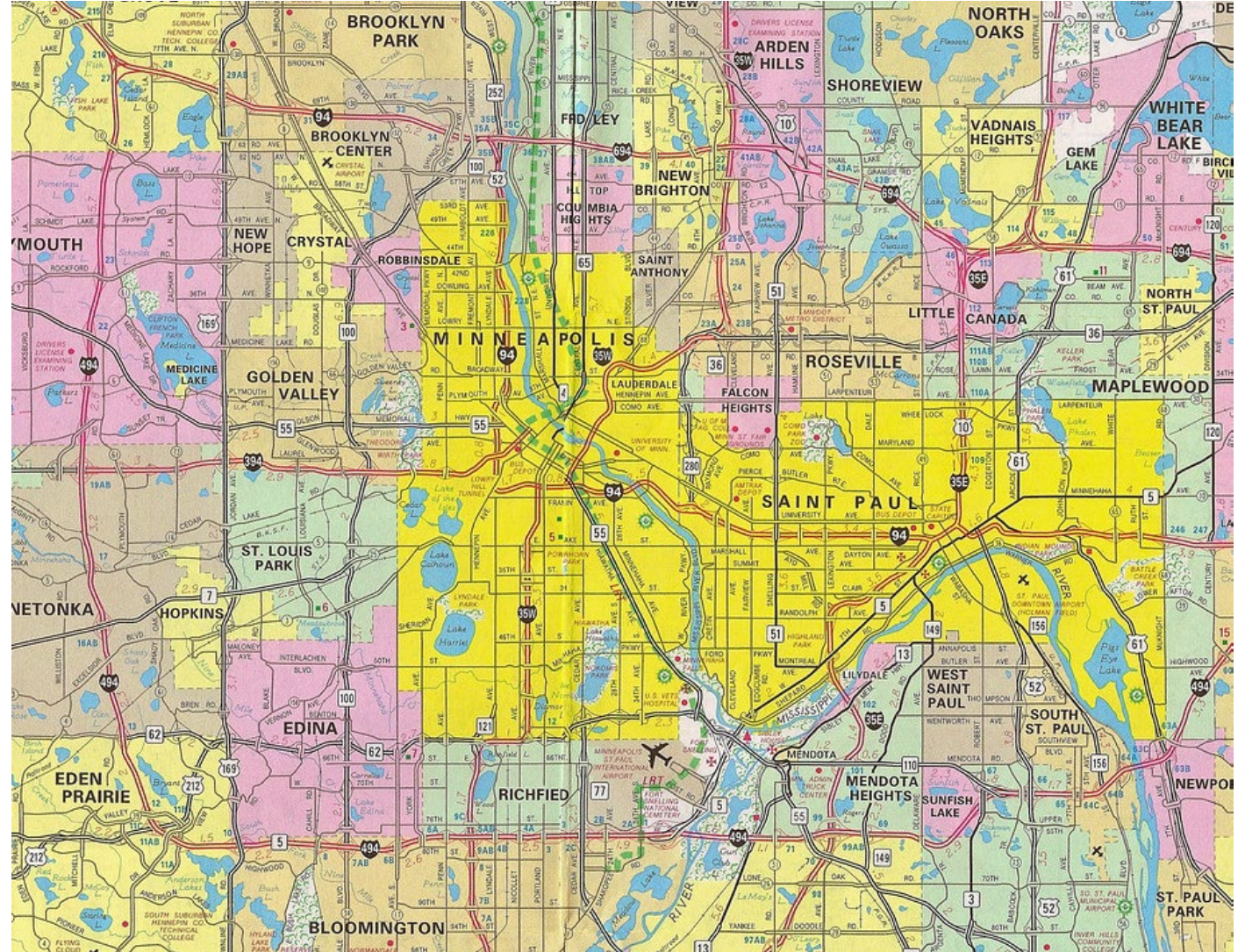
Plate – Groundwater Chemistry

Plate - Hydrogeologic Cross Sections

Street Maps

Street Map shows

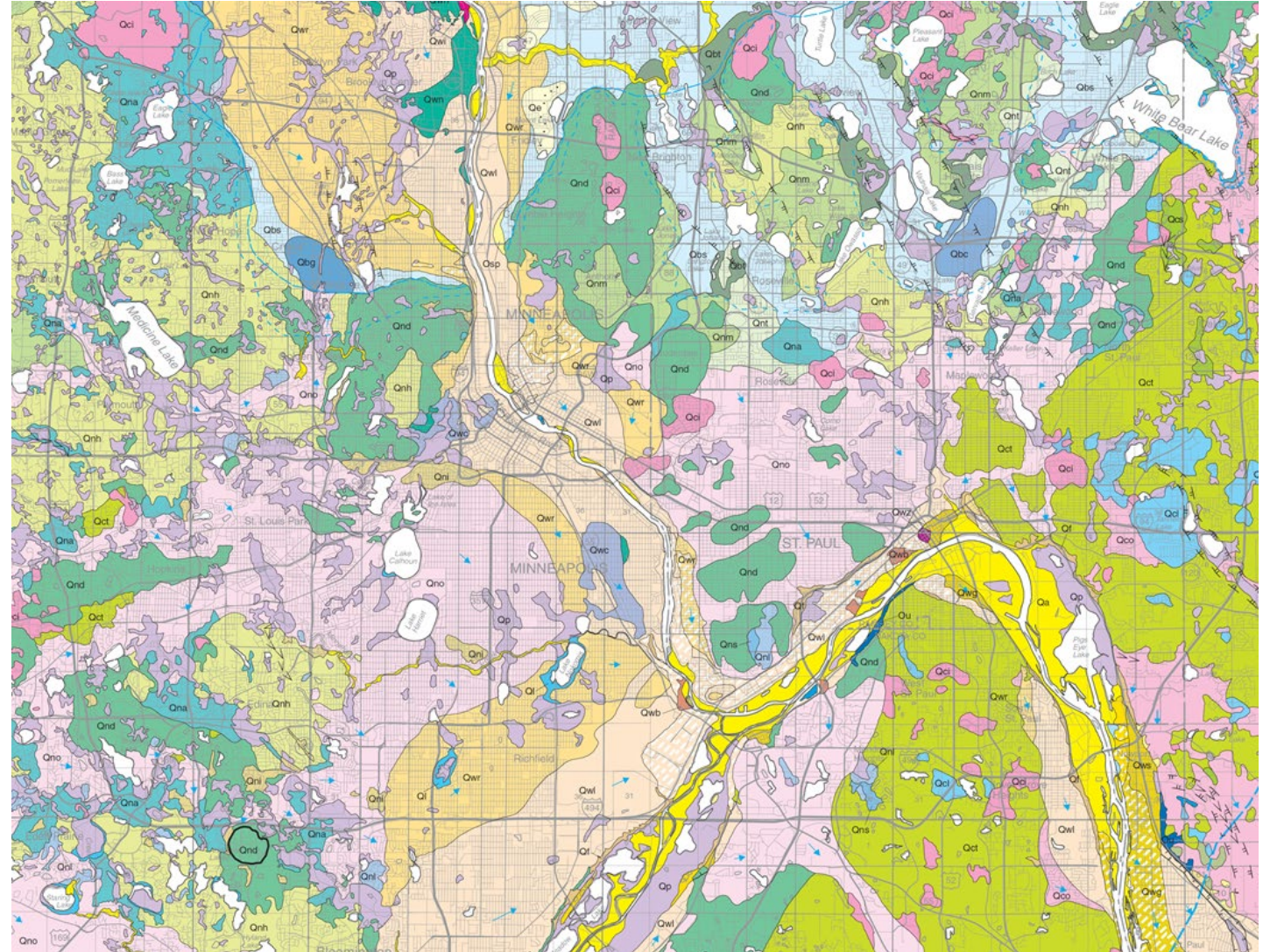
- Roads
- Lakes and Rivers
- Airports
- Suburbs



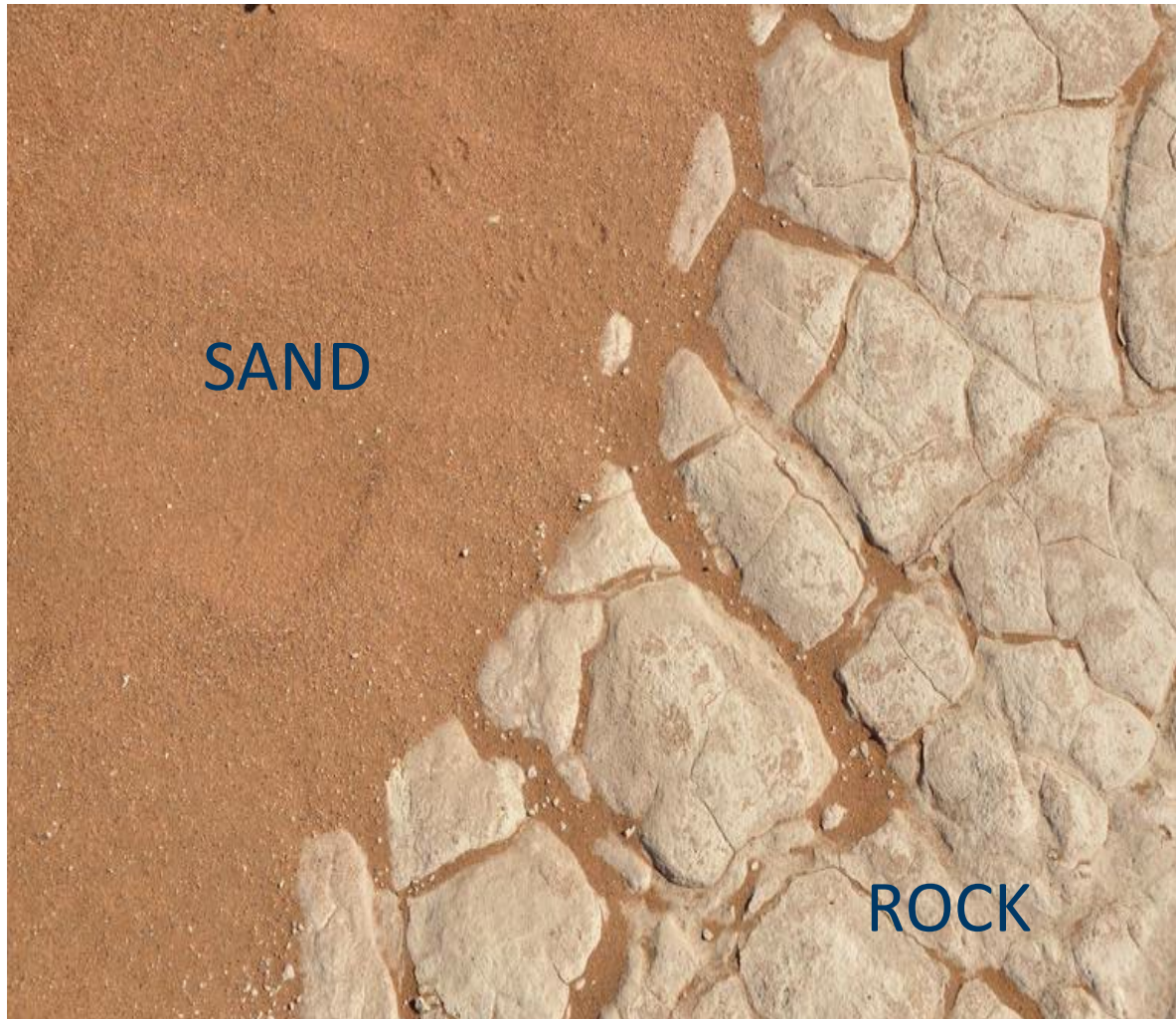
Geologic Maps

Geologic Map shows

- Roads
- Lakes and Rivers
- Gravel pits
- Rock or sediment

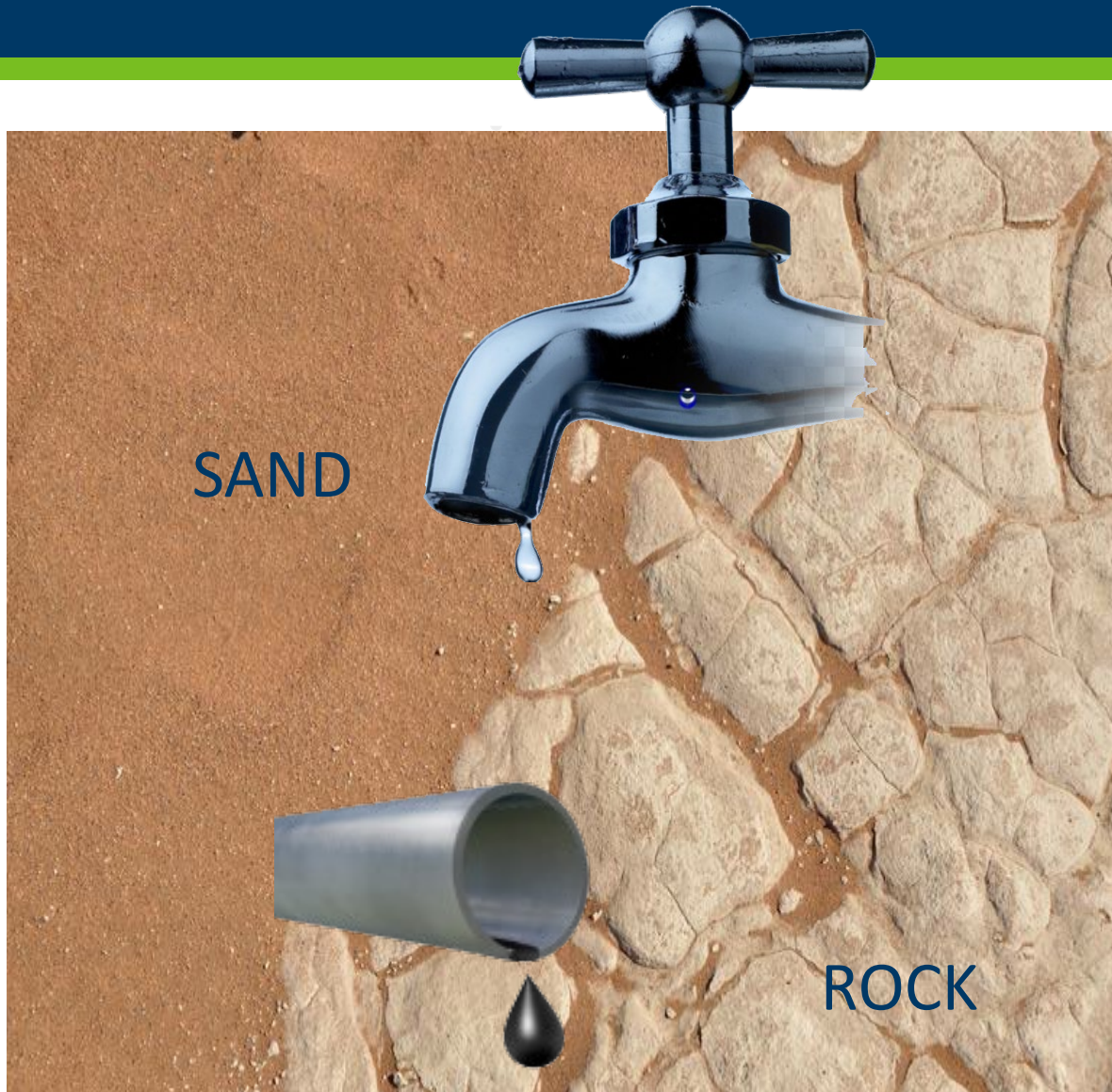


CGAs provide Foundational Data



- Geology is the “container”
- It holds all of our natural resources including: minerals, aggregate, and water
- Maps show the distribution of rocks, sediment, and resources.

The Good and the Bad

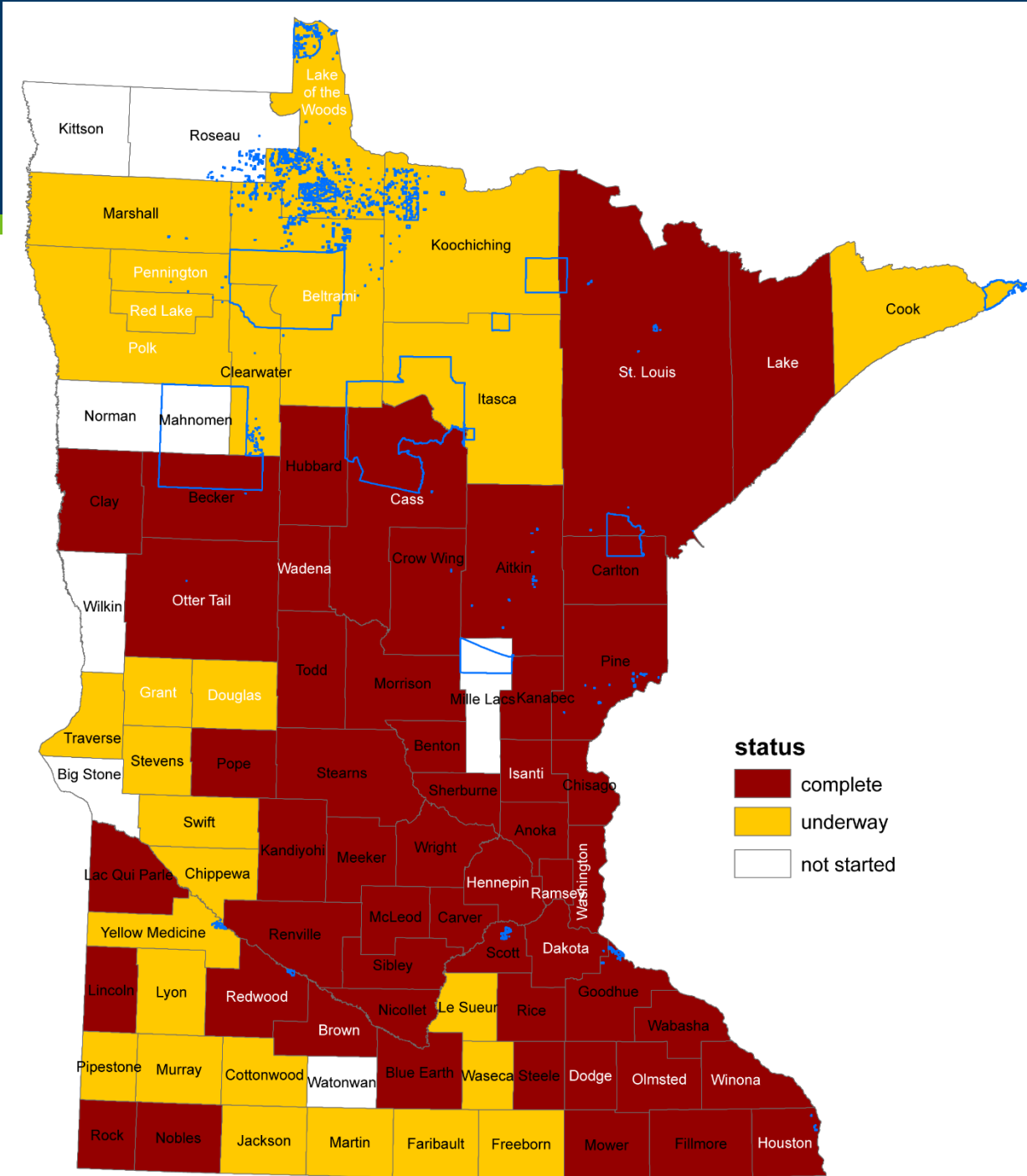


- It also holds many undesirable things
- By knowing the geologic framework, we can predict where to find, plan how to use, and protect our natural resources.

Strategic Plan Goals

- Drinking water/Groundwater
- Engagement/Education

Status of CGA Part A



- 52 counties have complete Part A (maroon)
- 27 counties in progress (gold)
- 8 counties have not started (white)
- 23 counties supported all or in part by Clean Water Funds (shown with white labels)

Status as of 5/17/24

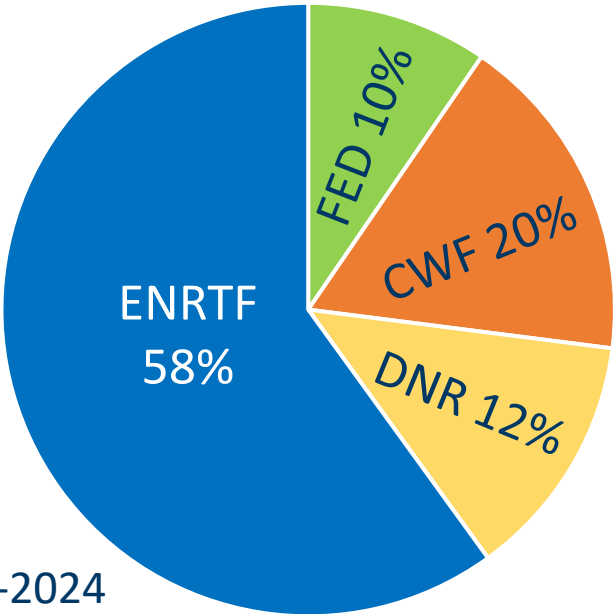
Minnesota counties are labeled

Tribal government boundaries (blue outlines)

Clean Water Funding

Geologic Atlas (A)	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY 20-21	FY 22-23	FY24-25	Historical Total
CWF	\$	\$	\$1.2M	\$	\$250k	\$500k	\$900k	\$1M	
FTEs	0	0	12	0	2.5	5	9	10	

Leverage Funds



UNIVERSITY OF MINNESOTA





County Groundwater Atlas (Part B)

Minnesota Department of Natural Resources

What does a groundwater atlas include?

Report

- Hydrogeology
- Water Chemistry
- Pollution Sensitivity
- Groundwater Use

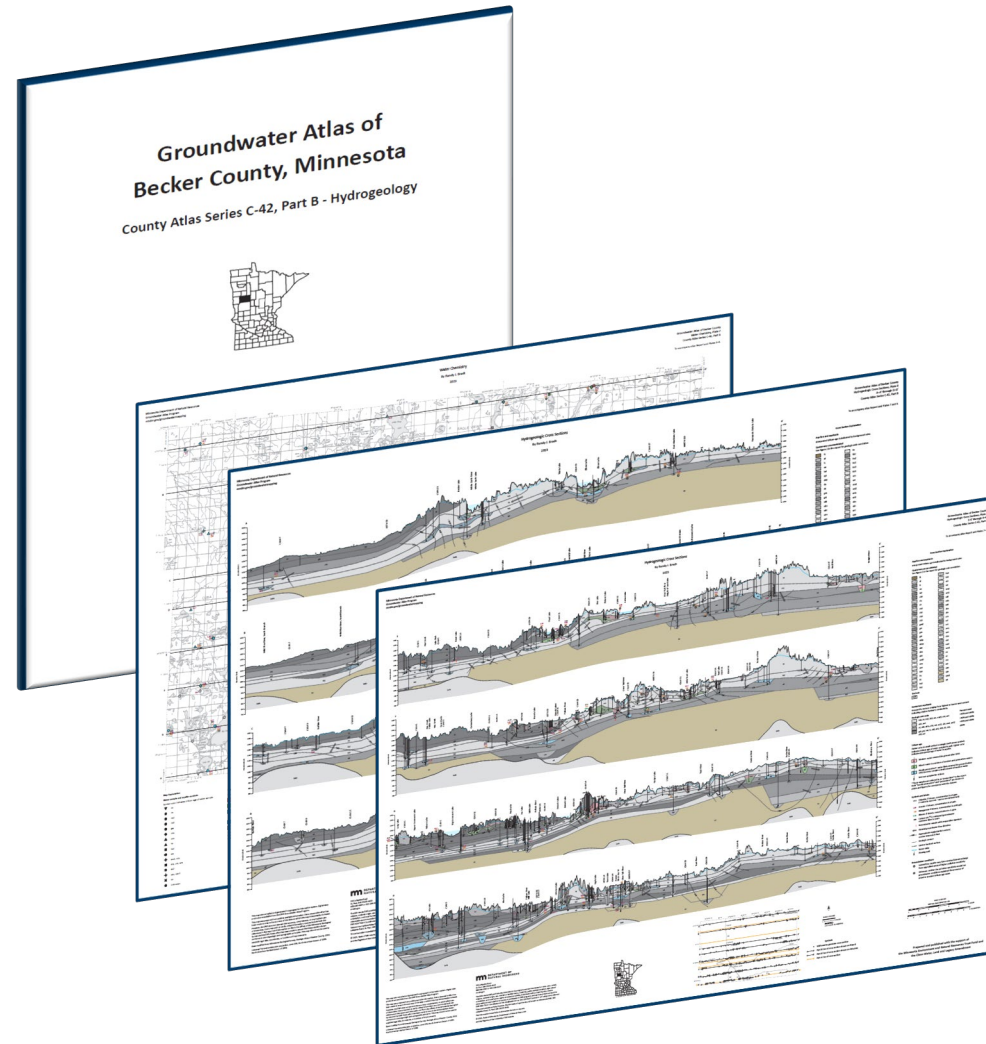
Plates

- Water Chemistry
- Hydrogeologic Cross Sections

Electronic Files

- Report and Plates
- GIS files

mndnr.gov/groundwatermapping
> County Atlas (CGA)

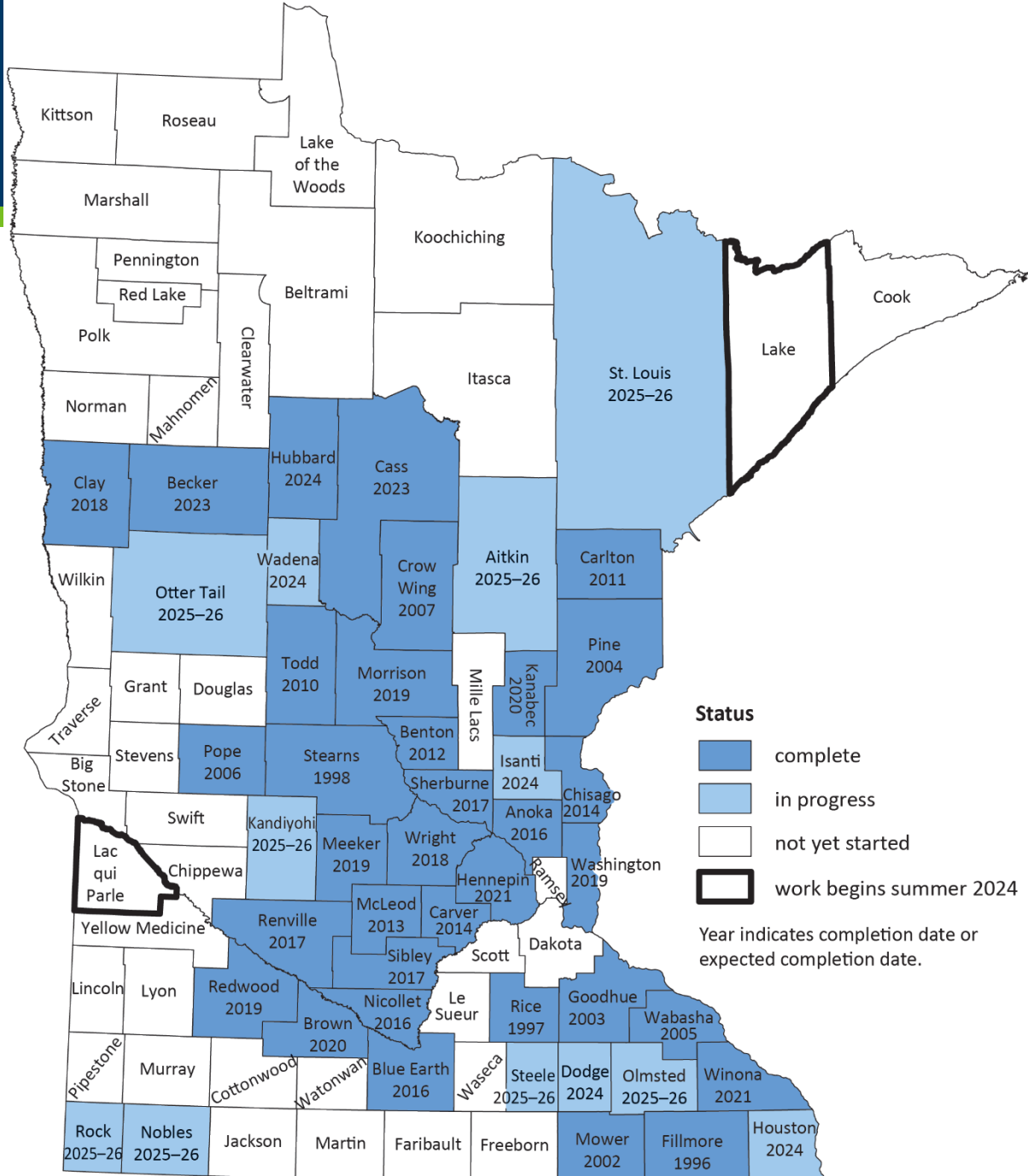


How are the Groundwater Atlases Being Used?

Some selected ways CGAs are being used includes:

- Planning for location and drilling of water supply wells (public, private, agricultural)
- Groundwater resource protection & management
- Education about natural resources and groundwater
- Pollution sensitivity of aquifers in planning and zoning
- Community development planning (land use, zoning)
- Infrastructure planning (roads, bridges)
- GIS Layers of all information available added to county databases

Groundwater Atlas Status



- 34 complete Part B (dark blue)
- 12 counties are in progress (light blue)
- 2 counties beginning this summer. (bold black outline)

Supplemental Uses of Clean Water Funds

- Clean water fund money assists in providing specialized data for our groundwater atlases:
 - Groundwater dye tracing studies
 - Ultra-low tritium sampling
 - Collaborative monitoring of sentinel springs in southeastern Minnesota
 - Specialty drilling for Part A atlases



Part B Geologic Atlas

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25
Clean Water Funds	\$1.0M	0	\$1.2M	\$0.5M	\$0.25M	\$0.3M	0	\$0.2M
FTEs (# state agency staff funded by CWF)		.5	~3.9	~3.3	0	0	0	0



MDA Agricultural Research/Evaluation

Margaret Wagner
Minnesota Department of Agriculture

Clean Water Council, June 3

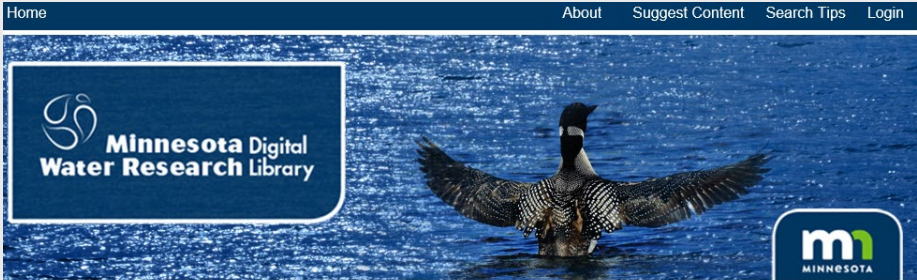
Research Inventory Database

- User-friendly, searchable inventory of water research relevant to Minnesota
- Includes both peer-reviewed articles as well as white papers and reports
- ‘One-step’ access to all types of water research
- Currently 3,756 articles and reports in MNWRL



Research Inventory Database

Home About Suggest Content Search Tips Login



Minnesota Digital Water Research Library

DISCOVER MNWRL DIGITAL COLLECTIONS


BROWSE BY
Year Issued
Associated Organization
Location – County
Location – HUC8 Watershed
Journal Title






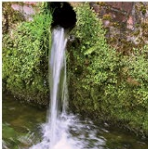
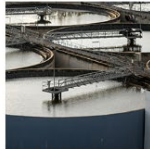









ADVANCED SEARCH
FIELD
Title
SEARCH TERMS

Welcome to the MnWRL

The Minnesota Water Research Digital Library is a searchable inventory of documents focused on research and projects relevant to water in Minnesota.

The Library provides one-stop access to information about water - enabling water managers, researchers, and engaged citizens to support their efforts to protect, conserve, and restore water in Minnesota.



 Agricultural Drainage	 Drinking Water	 Groundwater	 Hydrology
 Surface Water	 Urban & Industrial Stormwater	 Wastewater	 Water Biology & Aquatic Habitat
 Water Conveyance & Hydraulics	 Water Economics	 Water Education, Outreach & Community Capacity	 Water Monitoring & Assessment
 Water Policy	 Water Quality & Pollutants	 Water Restoration & Protection	 Water Use & Availability


- Moved to a new platform in 2018
- Larger server capacity and easier navigation
- New collections and publication series available
- Updated and “cleaned up” in 2023

wrl.mnpals.net

Research Inventory Database

Measurable Outcomes (as of May 2024)

- **3,756** publications online
- **31,306** website visitors
- **20,280** search sessions conducted
- **7,198** PDFs downloaded

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	<u>Total</u>
Clean Water Funds	\$85,000	\$350,000	\$250,000	\$100,000	\$100,000	\$100,000	\$80,000	\$80,000	\$1,145,000
FTEs (state agency staff funded by CWF)	0	0.3/1.0	1.0	0.3	0.3	0.3	0.4	0.4	

Forever Green Initiative

Developing perennial and cover cropping systems specific to Minnesota that are necessary to protect and restore the state's surface and groundwater resources while increasing efficiency, profitability, and productivity of Minnesota farmers.



**Forever
Green**



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Forever Green Initiative

- The MDA administers the distribution of funds to the University and coordinates reporting on progress, results, and outcomes
- Funding directly supports the University of Minnesota Forever Green Initiative
 - ✓ Research
 - ✓ Implementation
 - ✓ Program coordination



**Forever
Green**

Forever Green Initiative

Perennial Crops

- **Kernza® intermediate wheatgrass** – grain, forage, biomass
- **Perennial sunflower** – edible seeds, oil & protein
- **Native polyculture grassland mixtures** – biomass, forage natural products
- **Perennial flax** – edible oil and protein
- **Kura clover** – N-fixing cover crop
- **Silphium** – edible oil and protein
- **Alfalfa** – food grade protein and feed
- **Perennial Cereal Rye** – food and feed grain

Winter Annual Crops

- **Pennycress** – edible oil & protein, biofuel, feed
- **Camelina** – edible oil & protein, biofuel, feed
- **Winter barley** – food, malting barley, feed
- **Hairy vetch** – N-fixing cover crop
- **Winter and spring field pea** – food-grade protein
- **Winter hybrid rye**—food and feed grain
- **Winter durum wheat**—pasta

Native Woody Crops

- **Hazelnuts** – edible nut with oil/protein
- **Shrub willow** – biomass
- **Elderberry** – antioxidant-rich fruit
- **Agroforestry** – woody, herbaceous crop mixtures for feed, food, and fuel



Forever Green Initiative

Conventional

“Continuous Living Cover”

Fall



Spring



- Less erosion
- Less nitrate leaching
- Less phosphorus loss
- Better soil health

Forever Green Initiative- Research

- **76 research projects** supported through an RFP process administered by the University of Minnesota

Crop Development Outcomes: moving from lab research to the field

- Kernza variety 'MN-Clearwater' released; new variety available soon
- Winter barley variety 'Equinox' released
- Winter hardy hairy vetch variety 'Vinter' released
- 4-6 hazelnut lines ready for commercialization
- Early-maturing winter camelina lines in late-stage variety trials
- Domesticated pennycress, leading lines in variety trials; 9 patents issued or pending
- Perennial flax variety in evaluation trials for horticultural market

Forever Green Initiative- Implementation

Kernza® Perennial Grain
1,050 acres



Hybrid Winter Rye
801 acres

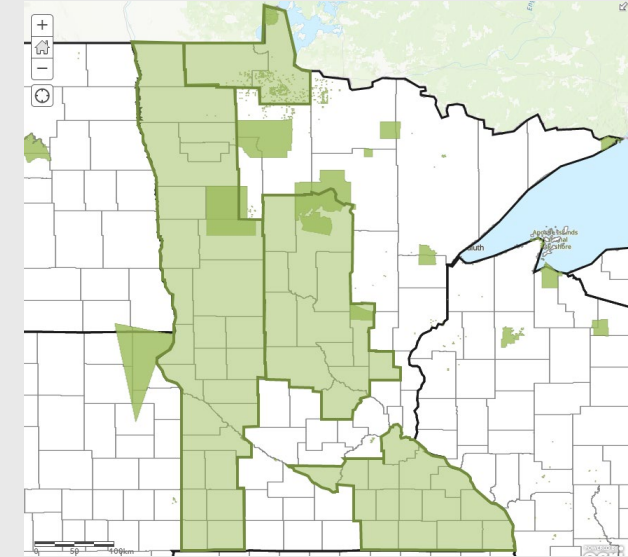


Winter Camelina
1,145 acres



Winter Barley
10 acres

Environmental and Economic Clusters of Opportunity



- ✓ Technical Assistance to growers
- ✓ Ecosystem Service payments \$20-50/acre-
Premium payments in DWSMAs
- ✓ Risk Management payment of half the cost of
production in event of crop or market failure

Forever Green Initiative- Partnerships

Working together with partners and the City of Hastings, an 80-acre field in the DWSMA was seeded in a Kernza, Alfalfa & Oats nurse crop. This replaced a corn/soybean rotation on this field which is adjacent to the community supply well.



Forever Green Initiative

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	<u>Total</u>
Clean Water Funds	-	-	-	\$1M	\$1.5M	\$4.3M	\$4.0M	\$6.0M	\$16.8M
FTEs (state agency staff funded by CWF)	-	-	-	0	0	0	0	0	

*100% of these funds are passed through to the University of Minnesota Forever Green Initiative

Leveraged \$97.6M + millions of dollars (FY16-25) from state and federal grants and investments from companies, foundations and commodity groups



Proper Crediting for Manure

Water quality benefits can be achieved by improving manure handling and refining estimates of manure nutrient content to properly credit for the nutrient value of various types of manure.

- Generally, 15-20% of corn acres in Minnesota will get a manure application either the fall before or prior to spring planting.
- Some farmers are not properly crediting for manure and this results in over application of manure and an increased risk of loss of nitrogen and phosphorus in certain areas
- Many researchers and ag stakeholders agree that there is an opportunity to update and enhance manure management for agronomic and environmental benefits



Proper Crediting for Manure

Focused on developing region and manure-specific recommendations for manure crediting, and to develop or revise manure Best Management Practices (BMPs) for Minnesota.

- Establish research plots to determine regional best manure management
- Establish updated first- and second-year availability of nitrogen in manure from different types of livestock
- Install variable rate manure applications and tools for precision liquid manure application
- Establish demonstration sites to engage farmers and support adoption of BMPs



Proper Crediting for Manure

Goal: Reduce the risk to surface water and groundwater

Promoting manure crediting so manure can be applied based on accurate information about nutrient content and agronomic crop needs

- **Encouraging the application of manure at the right rate, time and location** so the crop can better utilize the nutrients
- **Reducing the amount of crop nutrients left in the soil** after crop harvest to reduce nitrate leaching and runoff into surface water and groundwater
- **Reducing the risk of pathogen loss** to surface water
- **Improving the utilization of manure nutrients**
- **Manure management outreach and education** through U of M Extension



Agricultural Research and Evaluation Program

	FY10-11	FY12-13	FY14-15	FY16-17	FY18-19	FY20-21	FY22-23	FY24-25	Total
Clean Water Funds	-	\$2.1M	\$2.1M	\$1.575M	\$1.325M	\$0	\$0	\$1.5M	\$8.6M
FTEs (state agency staff funded by CWF)	-	0.1/1.0	1.0	1.25	1.25	-	-	0	

* 90% of these funds have been passed through a competitive process to research partners

Thank you!

Margaret Wagner

Margaret.Wagner@state.mn.us

651-201-6488



Statewide Beach Portal

Trisha Robinson | Epidemiologist Supervisor

Minnesota Department of Health

Statewide Beach Portal

Create a statewide beach portal, providing Minnesotans and tourists access to beach monitoring results and alerts for anywhere in the state.



CWC Strategic Plan

Minnesotans will have fishable and swimmable waters throughout the state.



What is beach monitoring?

Statewide Beach Portal

Looking Forward

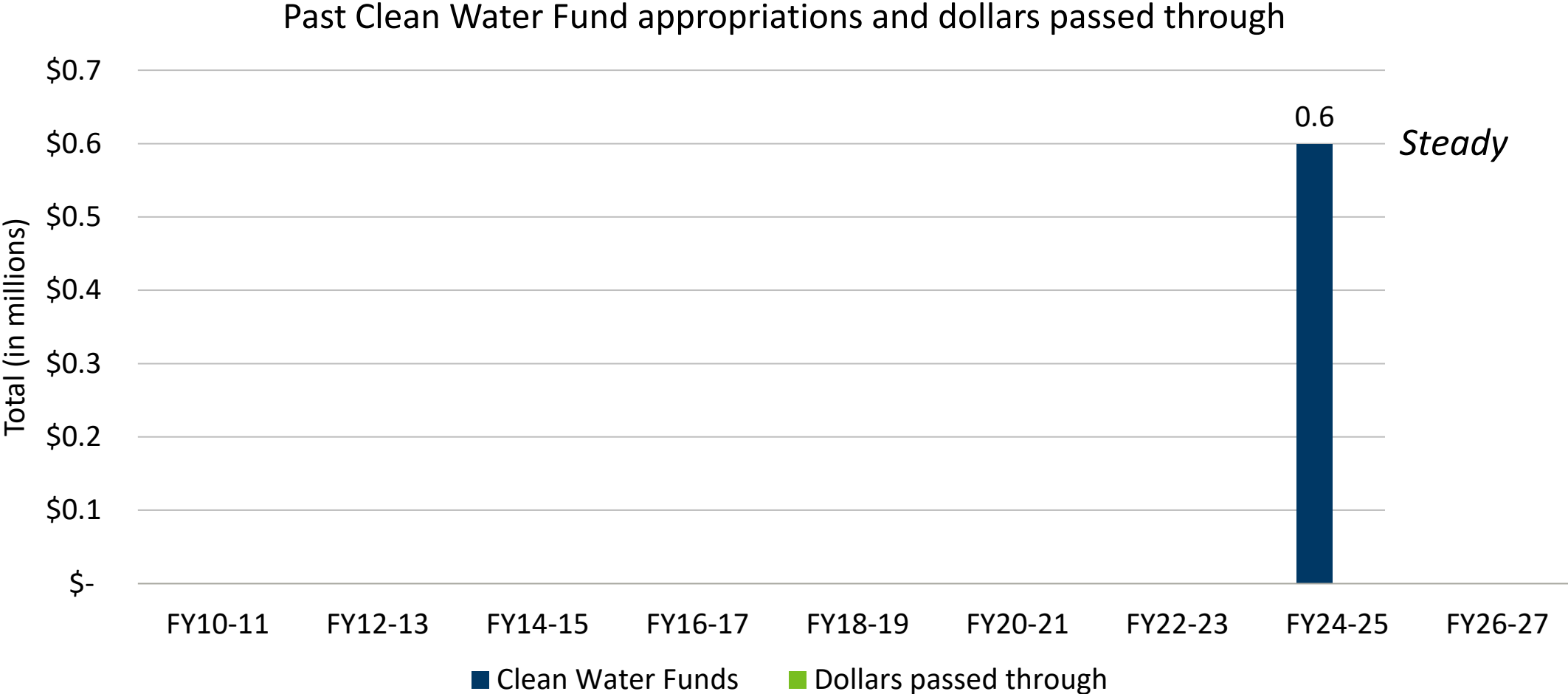
Beach Portal
launching
summer 2025

Outreach and
education
efforts

Partnering
with existing
monitoring
programs



Clean Water Funds for Statewide Beach Portal





Stormwater BMP Performance Evaluation and Technology Transfer Program

John Bilotta – Senior Research and Extension Coordinator

Jeff Peterson - Director

Water Resources Center, University of Minnesota

Stormwater BMP Performance Evaluation and Technology Transfer Program

- ✓ Research leads to the improvement of existing practices
- ✓ Discovery of new innovative techniques
- ✓ Increases in the efficiency and effectiveness of frequently used practices and management approaches
- ✓ Technology transfer - Effective outreach, training, and resources are provided to public and private practitioners, professionals, and policy leaders

Minnesota specific information to ensure the 'best' is achieved in the best management practice (BMP) paradigm.



Stormwater BMP Performance Evaluation and Technology Transfer Program

maintain surface water and groundwater resources and minimize and mitigate the impacts of runoff and pollutants from the built urban environment.



Stormwater BMP Performance Evaluation and Technology Transfer Program

Aligns to multiple
goals of the Clean
Water Council
Strategic Plan

- ❖ Develop and carry out strategies that will protect and restore groundwater statewide.
 - *Action: Reduce risk of stormwater contaminants entering groundwater.*
-

- ❖ Protect and restore surface waters
 - *Action: Reduce risk of stormwater contaminants entering surface water.*
-

- ❖ Vision - Build capacity of local communities to protect and sustain water resources.
 - *Action: Engage water managers statewide*
 - *Action: Engage chloride users*
 - *Action: Support innovative efforts that accelerate progress toward clean water goals Reduce risk of stormwater contaminants entering surface water.*

Stormwater BMP Performance Evaluation and Technology Transfer Program

Accomplishments

31
Project
investments

6
Active
investigations

4 Pond
studies

25
Completed



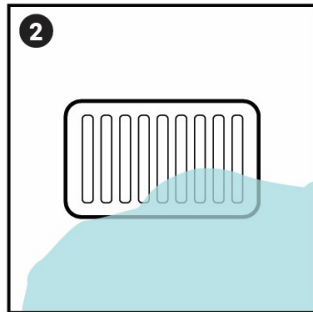
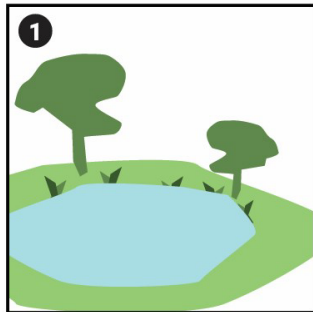
“The research is high-quality and at the forefront of the industry. It also addresses research needs and other industry challenges we are facing in our region.”

Stormwater BMP Performance Evaluation and Technology Transfer Program

Future Plans

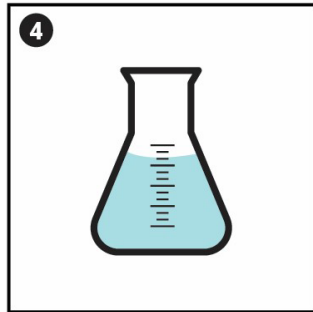
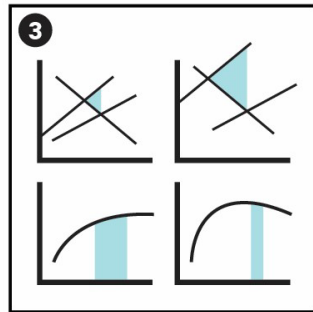
Part I. Strategic, well-informed research priorities

Structural practices



Pollution prevention and source reduction

Effectiveness (efficacy) of practices



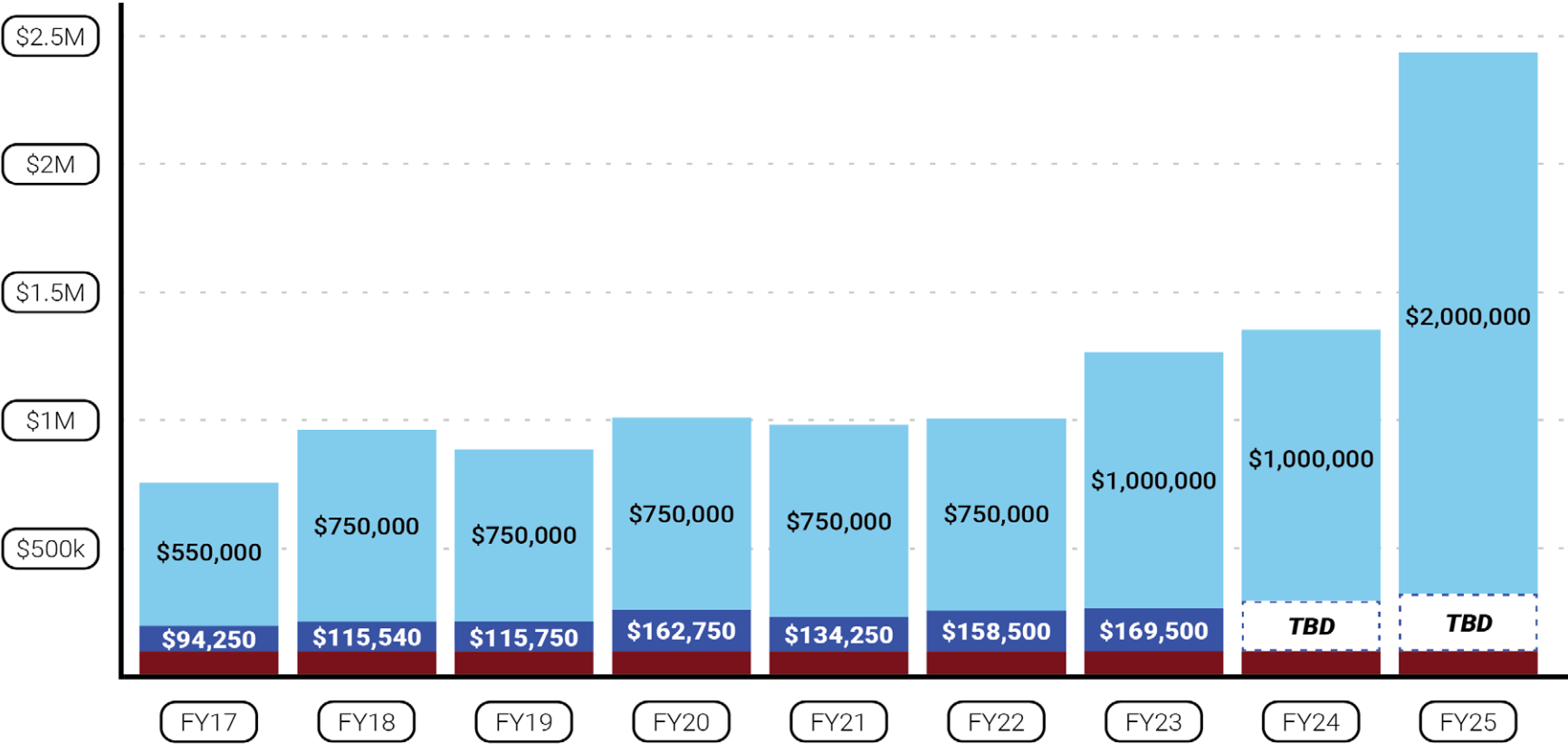
Continued characterization of stormwater runoff

Part II. Expand technology transfer



Stormwater BMP Performance Evaluation and Technology Transfer Program

Financial



Program Financiers:

Clean Water Fund from the Minnesota Clean Water, Land and Legacy Amendment

Watersheds, Cities, and Private Industry

2023 Contributors:

- Barr Engineering Company
- Capitol Region Watershed District
- City of Edina
- Emmons & Olivier Resources, Inc.
- Mississippi Watershed Management Organization
- Nine Mile Creek Watershed District
- Ramsey-Washington Metro Watershed District
- Rice Creek Watershed District
- South Washington Watershed District
- Stantec
- Upper Mississippi River Source Water Protection Project
- Valley Branch Watershed District
- WSB Engineering

Water Resources Center, College of Food, Agricultural and Natural Sciences, and Minnesota Sea Grant at the University of Minnesota

FY26-27 outlook
STEADY



Clean Water Council Budget

Paul Gardner, Administrator

- Monthly meetings for Council
- Monthly meetings for two committees
- Biennial field tour
- Biennial Clean Water Fund recommendations
- Interagency Clean Water Fund communications plan
- Legislative communications & semi-weekly newsletter to 1,000 in session
- Biweekly newsletter to 5,000 on CWF projects and other water updates





Legislative Coordinating Commission Website

- Statute requires posting of project information at LCC website
- Council must support the maintenance of the site
- Contribution is tiny--\$6,000 last time
- Working with LCC on revamp in late 2024

