



Clean Water Fund Appropriations

2018-2019 Biennial Report to the Legislature

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This report is available at www.bwsr.state.mn.us/cleanwaterfund. Upon request, this material will be made available in an alternative format such as large print, Braille, or audio recording. Printed on recycled paper.

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Introduction

Clean water matters to Minnesotans. It matters to the Minnesota Board of Water and Soil Resources (BWSR), whose mission is to improve and protect Minnesota's water and soil resources by working in partnership with local organizations and private landowners. Our agency's unique mission and structure provide for effective and efficient use of Legacy dollars with proven results. Working through Minnesota's local governments enables our agency to be strategic in granting funds to address locally identified water quality goals within the larger scope of Minnesota's clean water efforts. Our reporting and tracking requirements ensure measurable and specific results.

The goal of our Clean Water Fund (CWF) Program is to help meet statewide water quality goals through the prevention and reduction of non-point source pollution. BWSR's Competitive Grants program works through the local conservation delivery system to fund projects that are prioritized and targeted to the most critical source areas. Our CWF easements provide permanent protection of private land in riparian and groundwater locations, resulting in improved surface and groundwater quality and the health and security of community water supplies. Capacity funding to Soil and Water Conservation Districts (SWCDs) enables local conservation professionals to work with landowners to maintain and improve the quality, quantity, and sustainability of natural resources in the state including surface water, groundwater, soil, and ecological resources. Riparian Buffer cost-share and easement programs assisted landowners with meeting the requirements of the Buffer Law, resulting in 99% compliance statewide as of January 2020. The Technical Training and Certification Program provides training to our local government partners so they can deliver high-level conservation technical assistance to landowners and ensure clean water outcomes are met through proper conservation practice selection, design, and installation.

With the critical support of the Legacy Fund, these programs support progress towards meeting Minnesota's natural resource goals by working with landowners and local governments.

This report has been prepared for the Minnesota State Legislature by BWSR in fulfillment of the requirements of Laws of Minnesota 2017, Chapter 91, Article 2, Section 7. This requires BWSR to submit "to the legislature by March 1 each even-numbered year a biennial report prepared by the board, in consultation with the commissioners of natural resources, health, agriculture, and the pollution control agency, detailing the recipients and projects funded" with Clean Water Funds. This report outlines BWSR's comprehensive strategy to implement the Fiscal Year (FY) 2018-2019 appropriations from the Clean Water Fund – one of four funds established through the Clean Water, Land and Legacy Constitutional Amendment approved by voters in 2008.

Clean Water Fund Appropriation Summary

The Legislature appropriated to BWSR \$95.5 million in Clean Water Fund dollars for planning and implementation of nonpoint source pollution reduction programs. As of March 1, 2020:

- BWSR awards approximately \$20.5 million through a competitive grant process for high priority projects and practices that protect and improve water quality. Projects that receive awards are required to be prioritized, targeted, and able to achieve measurable outcomes. Each grant

applicant must meet various reporting requirements to demonstrate the effectiveness of these expenditures. These requirements are found in Minnesota Statutes 114D.50, Subdivision 4 and 3.303, Subdivision 10. Table 1 summarizes the programs and funding allocated under the appropriations.

- \$18.25 million in appropriations for easement programs for conservation easements aimed at improving surface water quality, protecting groundwater and drinking water sources, protecting waters threatened by degradation, and providing buffers on public waters. Of this total, \$16.25 million is part of the state commitment to the Minnesota Conservation Reserve Enhancement Program (MN CREP).
- \$22 million in appropriations to supplement, in equal amounts, each SWCD's ability to support local capacity and delivery of soil and water conservation programs and projects. Each district received \$200,000 over the biennium as a result of this appropriation.
- BWSR oversees \$1 million of contracted services with the Conservation Corp of Minnesota and Iowa for installing and maintaining conservation practices.

Table 1: Summary of FY 2018–FY 2019 Clean Water Fund Appropriations to BWSR (\$95,508,000)

Program	FY18-19 Appropriation	Description
Accelerated Implementation*	\$7.6M	Builds technical skills, through TSAs and technical trainings. This competitive grant invests in building the capacity of local governments to accelerate on-the-ground projects that improve or protect water quality and perform above and beyond existing standards.
Conservation Reserve Enhancement Program (CREP)	\$3.0M	Purchases and restores permanent conservation easements to surface water quality in areas targeted for nutrient reductions and protecting sensitive groundwater and drinking water resources. BWSR acquires conservation easements on behalf of the state to permanently restore and enhance land while private ownership continues.

Table 1: Summary of FY 2018–FY 2019 Clean Water Fund Appropriations to BWSR (\$95,508,000)

Program	FY18-19 Appropriation	Description
Critical Shoreland Protection-Permanent Conservation Easements	\$2.0M	Obtains on behalf of the state permanent conservation easements to protect lands adjacent to public waters with good water quality but threatened with degradation.
Local Capacity	\$22.0M	Provides grants to SWCDs to supplement, in equal amounts, each district's general service grant to provide increased technical and financial assistance to private landowners statewide.
Multipurpose Drainage Management*	\$1.5M	Funds implementation of a conservation drainage/multipurpose drainage water management program to improve surface water management under the provisions of 103E.015.
One Watershed, One Plan	\$3.99M	Accelerates implementation of the state's watershed approach through the statewide development of watershed-based implementation plans utilizing information from Watershed Restoration and Protection Strategies (WRAPS) and Groundwater Restoration and Protection Strategies (GRAPS).
Oversight, support, accountability reporting	\$1.9M	Provides state oversight and fund accountability, collects results and measures the value of conservation program implementation by local government units and preparation an annual report detailing recipients, projects funded, and environmental outcomes.
Projects and Practices*	\$19.5M	Protects and restores surface water and drinking water through grants to local government units to keep water on the land; to protect, enhance and restore water quality in lakes, rivers and streams; and to protect groundwater and drinking water, including feedlot water quality and subsurface sewage treatment system projects and stream bank, stream channel, shoreline restoration, and ravine stabilization projects.

Table 1: Summary of FY 2018–FY 2019 Clean Water Fund Appropriations to BWSR (\$95,508,000)

Program	FY18-19 Appropriation	Description
Restoration Evaluations	\$168K	Provides a technical evaluation panel to conduct up to ten restoration evaluations required under Minnesota Statutes, Section 114D.50, Subdivision 6.
Riparian Buffer Cost Share	\$5.0M	Grants to implement riparian buffers or alternative practices on public waters or public ditches consistent with Minnesota Statutes, section 103F.48.
Riparian Buffer Implementation and Assistance	\$5.0M	Provides ongoing oversight and grants to enhance compliance with riparian water quality protection buffer law.
Riparian Buffer Conservation Easements	\$9.75M	Purchases and restores permanent conservation easements on riparian lands adjacent to public waters, except wetlands. Establish buffers of native vegetation that must be at least 50 feet where possible. Part of state commitment for the MN CREP, leveraging federal funds.
Tillage and Erosion Transects	\$0.85M	Systematically collects data and produces statistically valid estimates of the rate of soil erosion and tracks the adoption of high residue cropping systems in the 67 counties with greater than 30% of land in agricultural row crop production.
Watershed-based Implementation Funding	\$9.75M	Funds grants to implement projects that protect and restore surface water and drinking water as identified in a comprehensive watershed plan developed under the One Watershed, One Plan or metropolitan surface water and groundwater management frameworks.
Wellhead Protection Conservation Easements	\$3.5M	Purchases permanent conservation easements on wellhead protection areas under MS 103F.515 Subd. 2, paragraph (d). Must be in drinking water supply management areas designated as high or very high by the Commissioner of Health. Part of state commitment to the MN CREP, leveraging federal funds.

**Competitive grant process*

Statewide Watershed Management Transition

Minnesota's Clean Water Fund recipients face two big challenges: the state's water protection and restoration needs are far greater than the available resources to address them; and Minnesotans expect to see tangible progress toward restoration and protection during the 25 years that the Clean Water Fund is available.

BWSR, together with state and local partners, is transforming how water is managed in Minnesota. The state is taking an adaptive management approach, organized by watersheds, that directs Clean Water Funds to the highest priority water restoration and protection needs. These priority areas (subwatersheds) are selected by local governments, based on data and local values and concentrating implementation in those areas.

At the heart of the transformation is a systematic, statewide watershed framework for planning and implementation. Two BWSR programs are helping to drive this water management transformation: One Watershed, One Plan and Watershed-Based Implementation Funding. These programs are designed to improve water and natural resource outcomes, enhance accountability, and improve consistency and efficiency.

The goal of the One Watershed, One Plan program is to bring local governments together for water planning on major watershed boundaries, creating resource management plans with agreed-upon priorities, and developing an action plan that targets work within subwatersheds or similar-scale units. A wealth of information summarized in technical reports (Watershed Restoration and Protection Strategies, Groundwater Restoration and Protection Strategies, and more) supports local water planning and project development.

In FY 18-19, BWSR piloted the Watershed-based Implementation Funding program, which supports the implementation of the priority actions identified in comprehensive watershed management plans developed through the One Watershed, One Plan program. This program is an alternative to the traditional project-by-project competitive grant processes that has been used to fund water-quality improvement projects with Clean Water Fund money. Watershed-based implementation funding will provide reliable support for collaborating local governments to pursue solutions based on the watershed's highest-priority needs. This approach will allow more projects to be implemented and help local governments spend limited resources where they are most needed.

Watershed Framework Transformation

At the heart of the transformation is a systematic, statewide watershed framework for planning and implementation. Two BWSR programs are helping to drive this water management transformation: One Watershed, One Plan (1W1P) and Watershed-Based Implementation Funding. These programs are designed to improve water and natural resource outcomes, enhance accountability, and improve consistency and efficiency.

Watershed-based Funding Implementation Funding

Watershed-based funding is an alternative to the current project-by-project competitive grant processes used to fund water quality improvement projects. The watershed-based funding approach depends on comprehensive watershed management plans developed by local partnerships under the One Watershed, One Plan program or the Metropolitan Surface Water or Groundwater Management framework to provide assurance that actions are prioritized, targeted, and measurable. BWSR is moving toward watershed-based funding to accelerate water management outcomes, enhance accountability, improve consistency and efficiency across the state, and to provide predictable funding for implementation of local priorities. This approach allows more projects to be implemented and helps local governments spend limited resources where they are most needed.

As Minnesota transitions to comprehensive watershed management planning through One Watershed, One Plan, the proportion of competitive funding available decreases and the proportion of watershed-based funding increases. In order to meet the One Watershed, One Plan implementation goals, the total funds available as a combination of competitive and watershed-based funds must increase overtime, to an estimated \$120 million in FY 28-29.

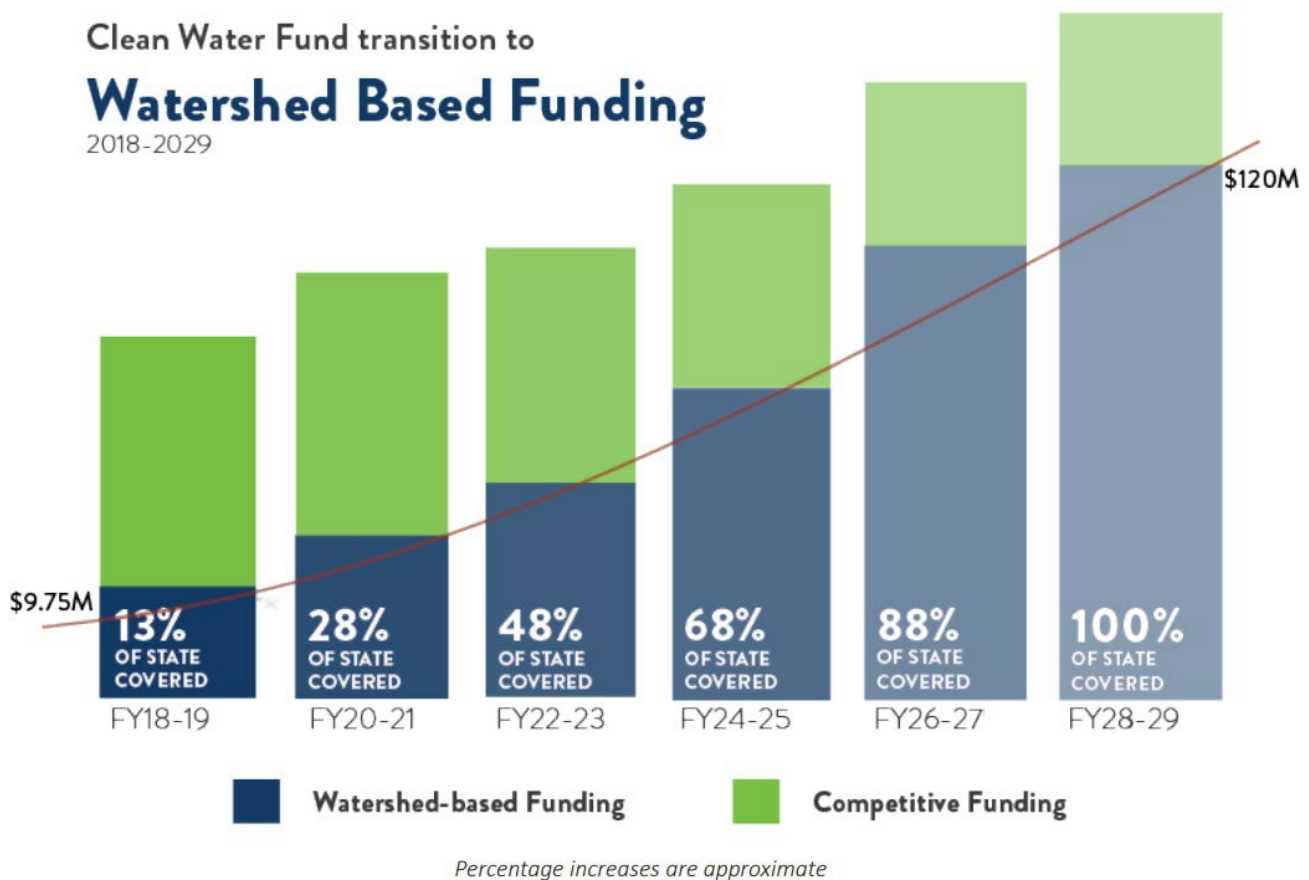


Figure 1 Clean Water Fund transition to watershed-based funding to meet implementation plans

Clean Water Fund Conservation Easement Programs

BWSR's clean water easement programs are a part of a comprehensive, statewide clean water strategy to prevent sediments and nutrients from entering Minnesota's lakes, rivers, and streams; enhance fish and wildlife habitat; and protect wetlands, groundwater, and drinking water supplies. These programs focus on permanent protection of private land to address clean water in key riparian and groundwater locations. This results not just in improved surface water quality but benefits the health and security of community water supplies and wildlife habitat.

Minnesota CREP

Launched in 2017, the Minnesota Conservation Reserve Enhancement Program (MN CREP) is a voluntary program with bipartisan support that aims to protect environmentally sensitive land. MN CREP targets the highest priority areas for reducing nitrogen, phosphorus, and sediment; protecting vulnerable drinking water; and enhancing grassland and wetland habitats. BWSR acquires conservation easements on behalf of the state to permanently restore and enhance land while private ownership continues.

MN CREP uses the nationally recognized Reinvest in Minnesota (RIM) Reserve easement program and the USDA Farm Service Agency (FSA) Conservation Reserve Program (CRP). MN CREP is a voluntary program providing landowners additional options to conserve their land and improve water quality while retraining ownership rights. This five-year program aims to enroll up to 60,000 acres prioritized and targeted for water quality and habitat. The \$525 million agreement between the state of Minnesota and the United States Department of Agriculture will use \$175 million in state funding to leverage up to \$350 million in federal funding, used as direct payments to landowners and farmers who enroll in the program.

MN CREP aims to:

- Target riparian areas and marginal agricultural land
- Restore hydrology, increase infiltration, and provide flood mitigation
- Provides habitat for wildlife, non-game species, and pollinators
- Reduce nitrate loading in drinking supplies
- Leverage state and federal funding

MN CREP implements four water quality conservation practices over the 54-county program area in southern and western Minnesota:

- Riparian Lands - Grass Filter strips
- Wetland Restoration - Non-floodplain
- Wetland Restoration - Floodplain
- Wellhead Protection Areas

MN CREP Funding

Over the biennium, MN CREP funding includes \$3 million in specific MN CREP appropriations; \$9.75 million for RIM-Reserve riparian buffer easements and \$3.5 million for wellhead protection easements.

MN CREP Outcomes

Sign-ups for MN CREP began in May 2017 and as of January 2020 total over 450 applications, including 24,000 acres funded/enrolled into permanent conservation easements.

Converting 24,000 acres of cropland to perennial vegetation provides significant greenhouse gas, nitrogen, phosphorus, and sediment load reductions, including up to:

- 35,300 metric tons of CO₂ equivalent per year
- 7,600 pounds of total phosphorus per year
- 480,000 pounds of total nitrogen per year
- 49,200 tons of sediment per year

In addition to habitat and water quality benefits, MN CREP offers incentives to landowners with marginal cropland. “It’s a good opportunity to get a fair payment on ground that would be idle and to do your part for resource protection,” said a recent landowner who enrolled in the MN CREP.

MN CREP can also help farm families cement their legacy. In West Otter Tail County, Rob and Loreli Westby enrolled the balance of their 620 acres into permanent easements using MN CREP. Westby explains, “My dad’s wish before he passed away was that the property be protected from development. All 620 acres of property is now permanently protected from development, and the CRP will stay in grasses, flowers, and trees.”

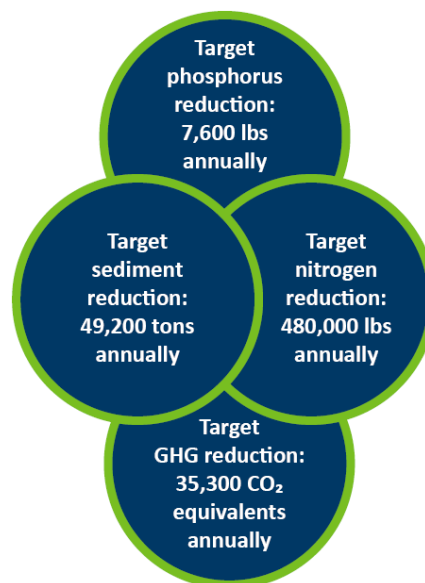


Figure 2 Target benefits of CREP acres enrolled as of January 2020

Other Easement Program Outcomes

BWSR’s RIM program creates multiple benefits by targeting lands with a cropping history and new or existing USDA Conservation Reserve Program (CRP) contracts. Minnesota is experiencing a significant loss of grasslands and the RIM Reserve program aims to slow down the loss by targeting the most critical CRP land including; areas at risk for soil erosion, areas most affecting water quality, and those lands that have high wildlife habitat quality. Participating landowners receive a payment to retire land from agricultural production and to establish permanent buffers of native vegetation.

While most of BWSR’s CWF easement appropriations were used to support MN CREP, the FY 18-19 funding also included funding for the Critical Shoreland Protection Easement Program. This program funded 14 easement applications protecting 647 acres.

Clean Water Fund Competitive Grants Program

Each year, interest in BWSR's Clean Water Fund Competitive Grants Program exceeds available funding, as demonstrated in Figures 3 and 4. Our local government partners are engaged and invested in protecting and restoring Minnesota's lakes, streams, rivers and groundwater. Their ability to do so is significantly limited by the state dollars available to fund local priority projects.

Given the demand, BWSR works to fund the best projects that make the biggest difference in water quality. Our agency allocates CWF resources through a decision-making process based on sound science, prioritized local planning, and a commitment to identifying projects that will be the most effective. Projects that lack source assessments, clear connections to water plans, or an adequate description of overall impact to the water resource of concern do not compete well under this program.

In FY 18-19, our agency's Competitive Grants Program included Projects and Practices, Accelerated Implementation, and the Multipurpose Drainage Management Program. Funding for these programs was provided under Laws of Minnesota 2017, Chapter 91, Article 2, Section 7.

The Competitive Grants Program also incorporated requirements of M.S. 114D.20, which directs the implementation of Clean Water Funds to be coordinated with

existing authorities and program infrastructure. Those requirements are referenced in the Clean Water Fund Grants Policy adopted by the BWSR Board on June 28, 2017 and June 27, 2018.

Figure 2. 2018-2019 CWF Applications

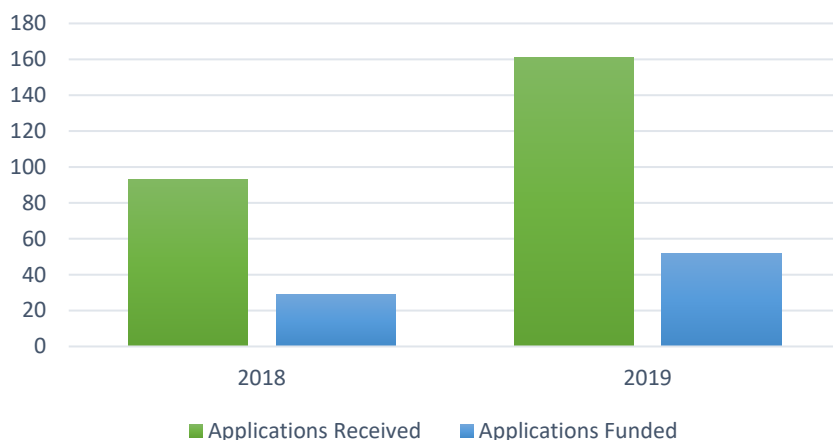


Figure 3 CWF applications received and funded by BWSR for FY 18-19

Figure 3. FY 2018-2019 CWF Dollars

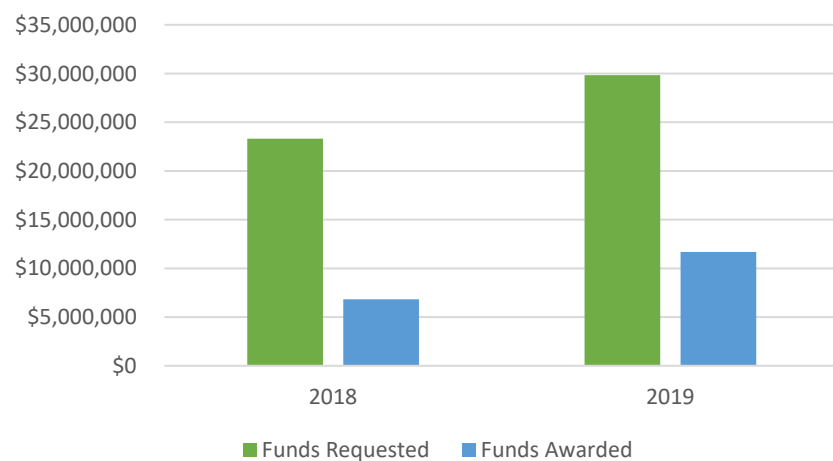


Figure 4 CWF funds requested and funds awarded for FY 18-19

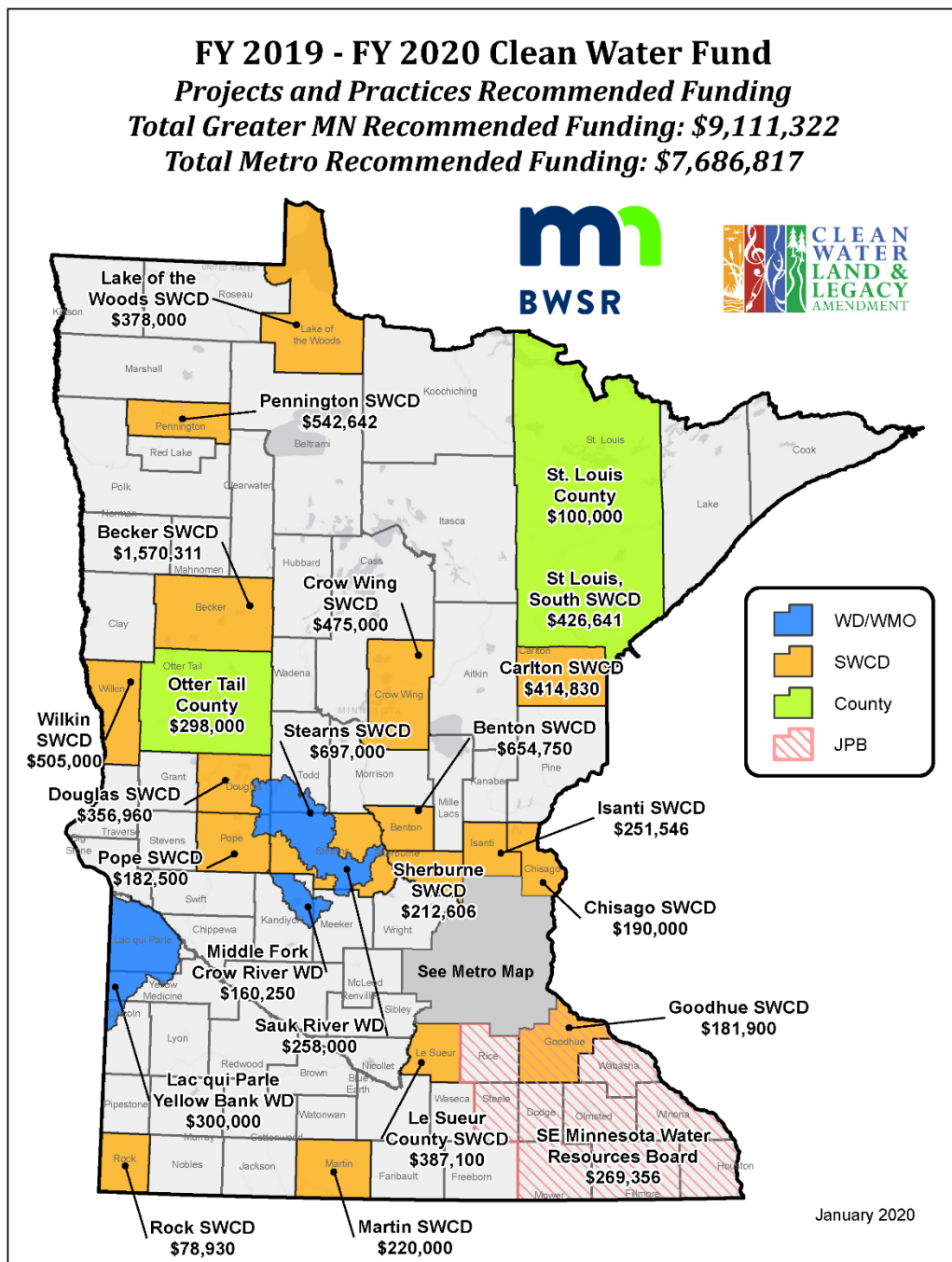
Competitive Grant Process

BWSR allocates Clean Water Funds through an interagency decision-making process that includes the Minnesota Department of Agriculture (MDA), the Department of Natural Resources (DNR), the Minnesota Pollution Control Agency (MPCA), and the Minnesota Department of Health (MDH) with the goal of effectively coordinating water quality projects and practices. See Appendix A for the criteria used in this process.

The BWSR Senior Management Team reviews the recommendation provided by the interagency and BWSR staff teams and then forwards their recommendations on to the BWSR Board. The BWSR Board Grants Program and Policy Committee review the recommendations before full Board decision.

Table 2: Clean Water Fund Applications Funded per Grant Program				
Grant Program	Applications Funded		Total Funds Awarded	
BWSR Board Approval, Dec. 2017, Dec. 2018	FY 18	FY 19	FY 18	FY 19
Projects and Practices	24	36	\$6,184,844	\$11,685,070
Accelerated Implementation	0	12	\$-	\$1,382,915
Multipurpose Drainage Management	5	4	\$634,500	\$610,000
Total	29	52	\$6,819,344	\$13,677,985

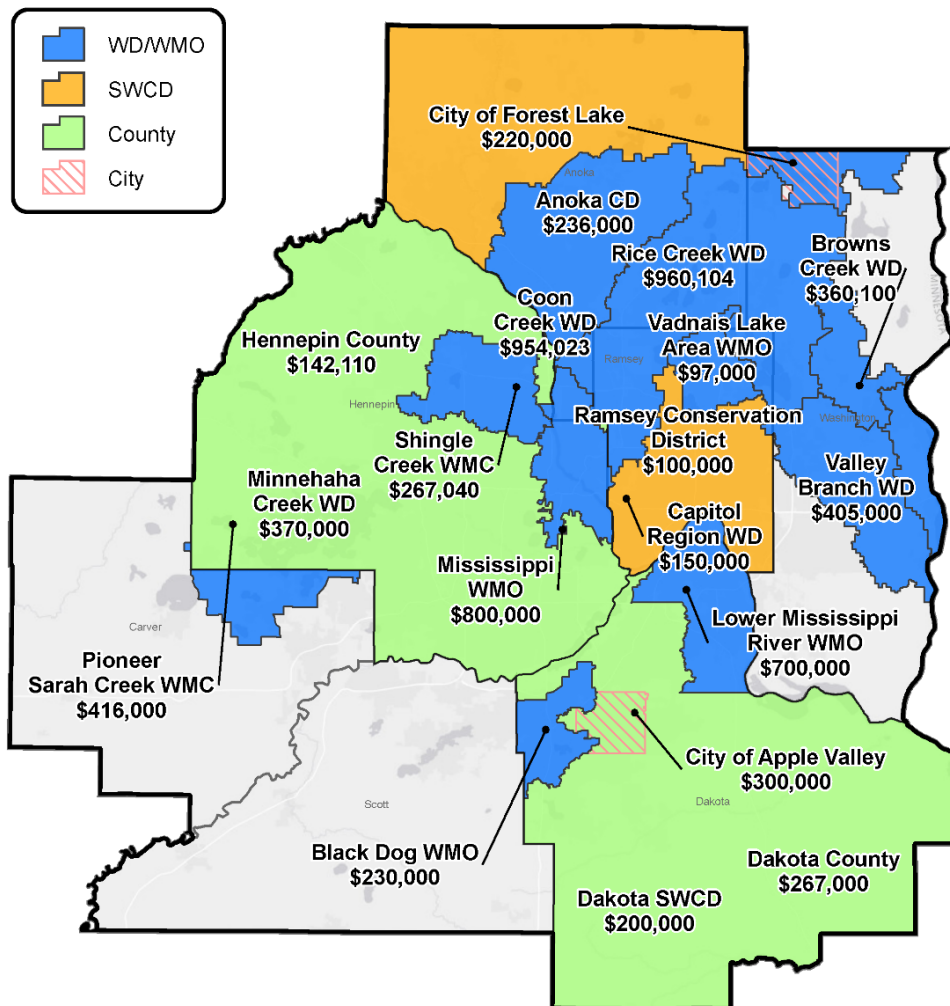
FY 2018-2019 Clean Water Fund Competitive Grant Awards



Projects and Practices Grants: Greater MN

Funds are used to protect, enhance and restore water quality in lakes, rivers, and streams, and to protect groundwater and drinking water. Activities include structural and vegetative practices to reduce runoff and retain water on the land, stream bank, stream channel and shoreline protection projects.

FY 2019 - FY 2020 Clean Water Fund
Projects and Practices Recommended Funding
Total Greater MN Recommended Funding: \$9,111,322
Total Metro Recommended Funding: \$7,686,817

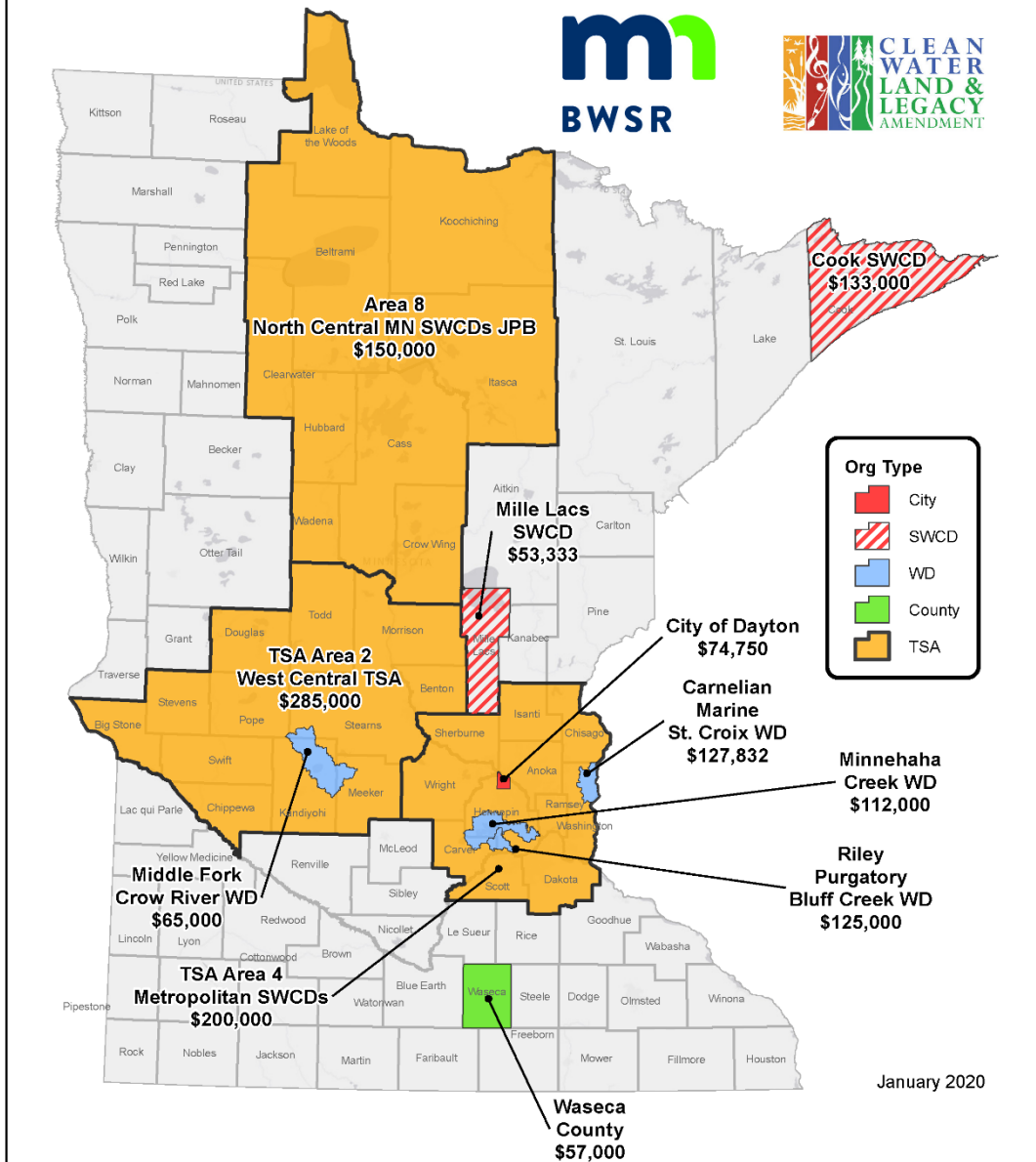


January 2020

Projects and Practices Grants: Metro

Funds are used to protect, enhance, and restore water quality in lakes, rivers, and streams, and to protect groundwater and drinking water. Activities include structural and vegetative practices to reduce runoff and retain water on the land, stream bank, stream channel and shoreline protection projects

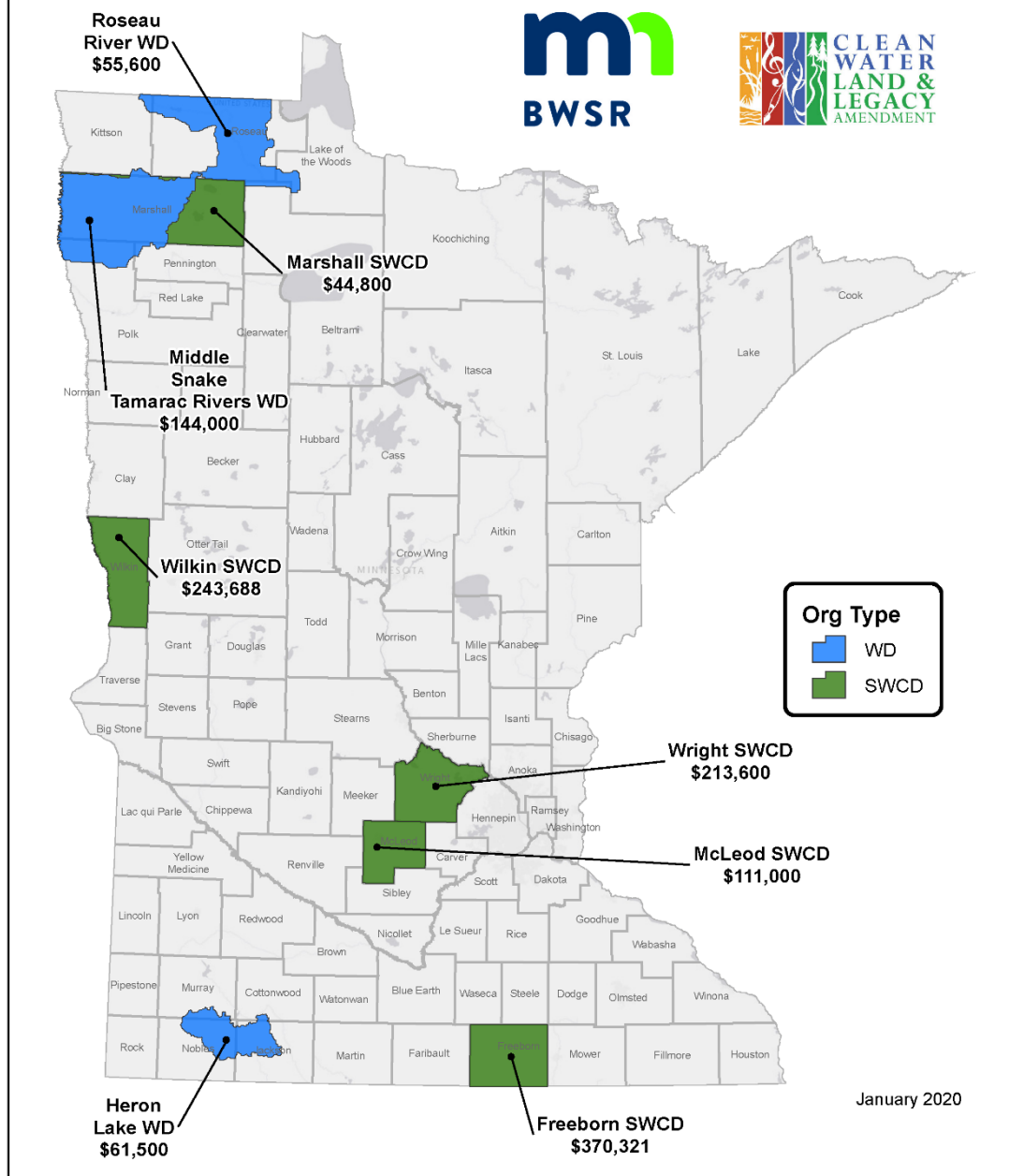
FY 2019- FY 2020 Clean Water Fund
Accelerated Implementation Grant Recommended Funding
Total Recommended Funding: \$1,382,915



Accelerated Implementation Grants Statewide

Funds are used for projects and activities (such as ordinances, organization capacity, and state of the art targeting tools) that complement, supplement, or exceed current State standards for protection, enhancement, and restoration of water quality in lakes, rivers, and streams or that protect groundwater from degradation

FY 2019 - FY 2020 Clean Water Fund
Multipurpose Drainage Management Grant Recommended Funding
Total Recommended Funding: \$1,244,509



Multipurpose Drainage Management Grants: Statewide

The purpose of these funds is implementing a conservation drainage/multipurpose drainage water management program in consultation with the Drainage Work Group to improve surface water management under the provisions of 103E.01.

Outcomes and effectiveness

BWSR funded 56 grant applications through Projects and Practices Grants over the FY 2018-19 biennium: 38 are for water bodies listed as impaired that have a completed a Total Maximum Daily Load study (TMDL); 19 are for either drinking water or water quality protection for water bodies that are currently meeting state water quality standards.

BWSR requires grant applicants to estimate anticipated outcomes for proposed projects during the application process. Applicants used pollution reduction calculators, such as the Revised Universal Soil Loss Equation (RUSLE2), and similar tools for estimating effectiveness of keeping water runoff on the land through infiltration, diversion, or collection. Based on projected outcomes, projects funded in FY 18-19 will remove 35,500 pounds of phosphorus and 51,000 tons of sediment from Minnesota waters.

Appendix B lists all estimated outcomes for FY 18-19 Clean Water Fund competitive grant projects.

Clean Water Fund in Action

BWSR works diligently to tie Clean Water Fund project pollution reduction estimates to local and state water quality goals. From FY 2010-2019 more than 11,500 conservation practices have been installed to reduce erosion and stormwater runoff, and to keep water on the land. These awards include public and private projects and involve Minnesotans who voluntarily engage in these activities.

These conservation practices are estimated to reduce **177,000** tons of sediment per year and prevent **189,000** pounds of phosphorus per year from entering Minnesota waters. That work helps move Minnesota closer to its statewide water quality goals. It works toward state waters that are drinkable, fishable, and swimmable — all important measures for Minnesotans.

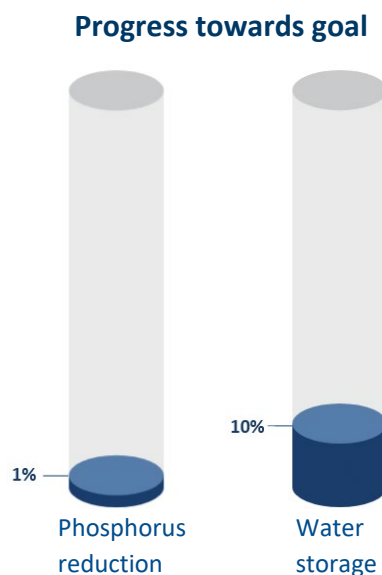
Linking Outcomes to Goals

When analyzing progress toward goals, scale is critical. It is important to understand that project impacts can vary depending on the pollutant, reduction goals, scale, and scope of project plan. For example, a 1% progress toward goal in a large river system is going to look very different than 41% progress toward goal in a small lakeshed. If you start at the very local level, you can often begin to see the impact of this work in a relatively short time frame, but the larger the scale, the longer it takes to see outcomes.

Examples of progress towards goals

Watershed-based Funding Pilot *Yellow Medicine River Planning Partnership*

In 2016, the Yellow Medicine River planning partnership produced one of the first One Watershed, One Plan comprehensive management plans approved by BWSR. Then in FY 18-19 BWSR awarded the partnership a \$551,700 watershed-based grant that has allowed the group to leverage federal dollars that will supplement funding for landowners interested in implementing new conservation practices. Rather than a flat distribution of funds across the watershed, the group's plan strategically prioritizes where and how they target their efforts. The conservation practices will reduce phosphorus by 800 pounds per year and increase water storage by 100 acre-feet per year. This represents 1% and 10% of the Phosphorus reduction and water storage goal, respectively.



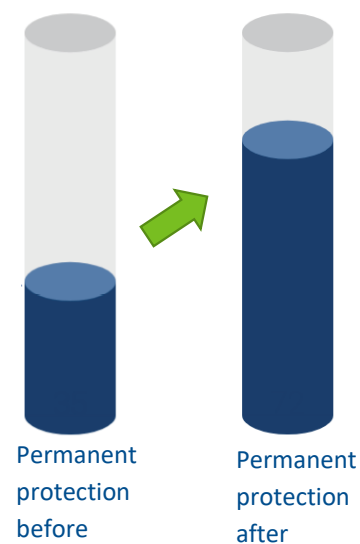
Moody Lake Alum Treatment *Comfort Lake-Forest Lake Watershed District*

The Moody Lake alum treatment is the final step of a systematic, multi-year diagnostic and implementation planning process the district began in 2011 for reducing watershed loads first, and then addressing in-lake internal loads. The reductions in watershed loads combined with the Moody Lake alum treatment will fully achieve the lake's water quality goal. The alum treatment will reduce internal phosphorus loading by an estimated 386 pounds per year, or 100% of the internal load reductions needed for Moody Lake to attain its long-term inlake phosphorus goal of 40 µg/L.



Mississippi Headwaters Habitat Corridor Project *Mississippi Headwaters Board*

Protection efforts in the Mississippi Headwaters area significantly increased permanent land protection in a 3,420-acre watershed northwest of Crosby. Using fee-title acquisitions, RIM-Reserve easements and Sustainable Forest Incentive Act enrollments, permanent protection increased from 35% to 73% of the watershed. These efforts provide multiple benefits including drinking water protection for the Twin Cities and protecting fish and wildlife habitat.



Telling the Story

BWSR funded over 1,500 projects and the ten grant-funded projects below illustrate the myriad ways Clean Water Funds helped protect, enhance, and restore Minnesota's lakes, rivers, streams and groundwater since the first allocations became available 10 years ago.



Family Farms

Root River Soil & Water Conservation District, Houston County

Improvements Josh and Steph Dahl are making to their 160-cow dairy through the Root River Field to Stream Partnership will position their fourth-generation farm for the future. The Minnesota Department of Agriculture-led venture uses intensive data collection to determine what effect specific conservation practices have on water quality. Clean Water Fund grants help farmers implement those practices. Outcomes apply to watersheds throughout southeastern Minnesota.



Rivers

Goodhue Soil & Water Conservation District

Upland dams built to stop gully erosion and retain topsoil keep sediment out of trout streams that enter the Mississippi River/Lake Pepin. The prioritized work centered on spots where conservation fixes would do the most to improve water quality and stream habitat. "It's kind of a showcase of what other watersheds could do — and that we should be doing here — to help address that sediment issue in Lake Pepin," said Beau Kennedy, Goodhue SWCD water planner.



Drinking Water

Vermillion River Watershed Joint Powers Organization, Dakota County

On a South Fork Vermillion River tributary where monitoring showed increasing nitrate levels, a pilot treatment project is underway. If it proves effective, it could be used elsewhere in the Vermillion River Watershed. Nitrate contributes to water-quality problems in local rivers and in Hastings-area drinking water supplies. A wood chip-enhanced wetland at the edge of a Dakota County farm field will treat water with some of the highest nitrate levels in the watershed.



Agriculture

East Polk Soil & Water Conservation District

In East Polk County, erosion control structures are keeping topsoil in fields and out of the Sand Hill River. Since 2011, farmers have installed 133 water and sediment control basins that keep about 426 dump truck loads of sediment out of the river annually. "Not only are we reducing the sediment load that's going into the rivers, streams and wetlands, but the farmers are now able to farm the land most effectively," said Jim Hest, Red River Valley Conservation Service engineer.



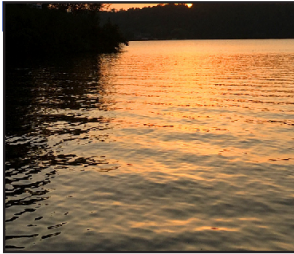
Stream Restoration

Buffalo-Red River Watershed District, Clay County & Wilkin County

Water-quality benefits of a 21-mile-long Wolverton Creek restoration extend to the Red River. The restoration will improve drainage, widen habitat corridors, curb soil erosion and flood damage to fields, and cut Fargo-Moorhead's drinking water treatment costs. The project leverages Clean Water Fund dollars. "Community-wide, there'll be better habitat. There'll be better drainage. Water quality. We won't be dumping as much sediment load in — and that goes all the way to the river and all the way north," said Wilkin County farmer Jay Nord.

“The intent of the Clean Water Fund is to protect, enhance and restore Minnesota’s water resources so they’re fishable, drinkable and swimmable. Private lands have a large role. What happens on the landscape impacts the water.”

— Marcey Westrick, BWSR Clean Water Coordinator



Septic Systems

Southeast Minnesota Wastewater Initiative, 14 counties

“If they were easily fixed, we wouldn’t get them,” said Sheila Craig, southern region community sewage treatment facilitator for the 14-county SMWI. Clean Water Funds help pay for her position. She helps small communities with failing septic systems choose a solution and secure grants to help pay for it. Work in Olmsted County connected 23 Cedar Beach homes to a shared sewage treatment system, protecting groundwater and the Zumbro River.



Clear Lakes

Becker Soil & Water Conservation District

Detroit Lake is among 12 phosphorus-sensitive lakes in Becker County with water quality in peril or warranting preservation. Clean Water Funds help shoreland property owners install native plant restorations, rain gardens and gutters — which help cut the amount of phosphorus that enters the water. “If Detroit Lake ever flipped it would be disastrous all the way downstream because everybody’s kind of at their tipping point already,” said Peter Mead, Becker SWCD administrator.



Innovation

Rice Creek Watershed District, Ramsey County

A new carp removal system tested on Rice Creek could change the way Minnesota deals with the invasive fish that degrade lakes’ water quality and habitat. The system combines technology used in Poland to keep fish out of hydroelectric plants with technology developed in the U.S. to pick fruit. It’s one element of the four-part Long Lake Targeted Watershed Demonstration Project, a plan to improve water quality in nutrient-impaired Long Lake.



Trout Streams

Carlton Soil & Water Conservation District

The 20 red clay dams built during the 1970s in the Nemadji River watershed kept highly erodible soil from reaching Lake Superior. With Clean Water Fund grants and willing landowners, the SWCD is tackling failed red clay dams that could unleash 30 years worth of accumulated sediment. Restoration and bank stabilization projects bring trout anglers’ hopes of stocked streams closer to reality, as habitat improves and fish passage is restored upstream from Lake Superior.



Multipurpose Drainage

Bois de Sioux Watershed District, Traverse County

The Bois de Sioux Watershed District’s first ditch retrofit, on Traverse County Ditch 37 near Wheaton, could be the first of many retrofits designed to improve water quality in rivers and streams and alleviate flooding on fields. A Clean Water Fund grant is in play. Farming accounts for 93 percent of land use in the 1,400-square-mile watershed, which includes parts of six west-central Minnesota counties. The ditch drains into Twelvemile Creek, the Mustinka River and Lake Traverse.

Directed BWSR Clean Water Fund Expenditures

Additional BWSR clean water programs, as mandated by Minnesota Legislature, provide other key components of the comprehensive statewide clean water framework.

One Watershed, One Plan

The vision of the One Watershed, One Plan Program is to align local water planning on major watershed boundaries with state strategies towards prioritized, targeted, and measurable implementation plans. This program builds on current local water plans, state and local knowledge, and a science-based approach to watershed management, resulting in action plans that address the largest threats and provide the greatest environmental benefits to each watershed.

Historically, local water planning occurred along government (typically county) boundaries which can be challenging since the flow of water ignores political lines. The One Watershed, One Plan Program provides a framework for local governments to work together on shared water management goals. This collaborative approach enables important cross-jurisdictional discussions about upstream-downstream issues. Plans are comprehensive in nature, addressing issues like flooding, habitat, water quality, drinking water, and recreation.

In One Watershed, One Plan, officials from local boards (county, SWCDs, and watershed districts) agree upon priority issues and commit to local action to address them. The process uses multiple streams of data and information, including surface water quality and groundwater information compiled by state agencies. A locally defined advisory committee involves other governments from cities in the watershed to federal agencies as well as a range of community stakeholders. Once plans are completed, watershed-based implementation funding allows collaborating local governments to pursue timely solutions based on a watershed's highest priority needs.

In 2015, the Minnesota Legislature passed Minnesota Statutes §103B.801, the Comprehensive Watershed Management Planning Program. This legislation defined the purposes and further outlined the structure for the One Watershed, One Plan Program. It also directed BWSR to develop a transition plan with a goal of completing a statewide transition to comprehensive watershed management plans by 2025.

Achieving the goal will require starting approximately seven planning efforts each year. As of January 2020, BWSR had 30 partnerships (51% of planning boundaries) participating, which is consistent with the pace of progress outlined in the transition plan. BWSR expects to keep or possibly exceed this pace of progress in the next biennium. The Clean Water Fund appropriation for this program allows BWSR to provide planning grants and policies, guidance, and staff support to local planning efforts. State support is a key incentive for local government participation in this voluntary program.

Through the One Watershed, One Plan Program, BWSR has approved ten plans: Root River, Yellow Medicine River, Lake Superior North, Red Lake River, North Fork Crow River, Leech Lake River, Pine River, Lake of the Woods, Missouri River Basin, and Cedar-Wapsipinicon. FY 18-19 appropriations for developing comprehensive watershed management plans through the One Watershed, One Plan Program totaled \$3.99 million.

One Watershed, One Plan Participating Watersheds

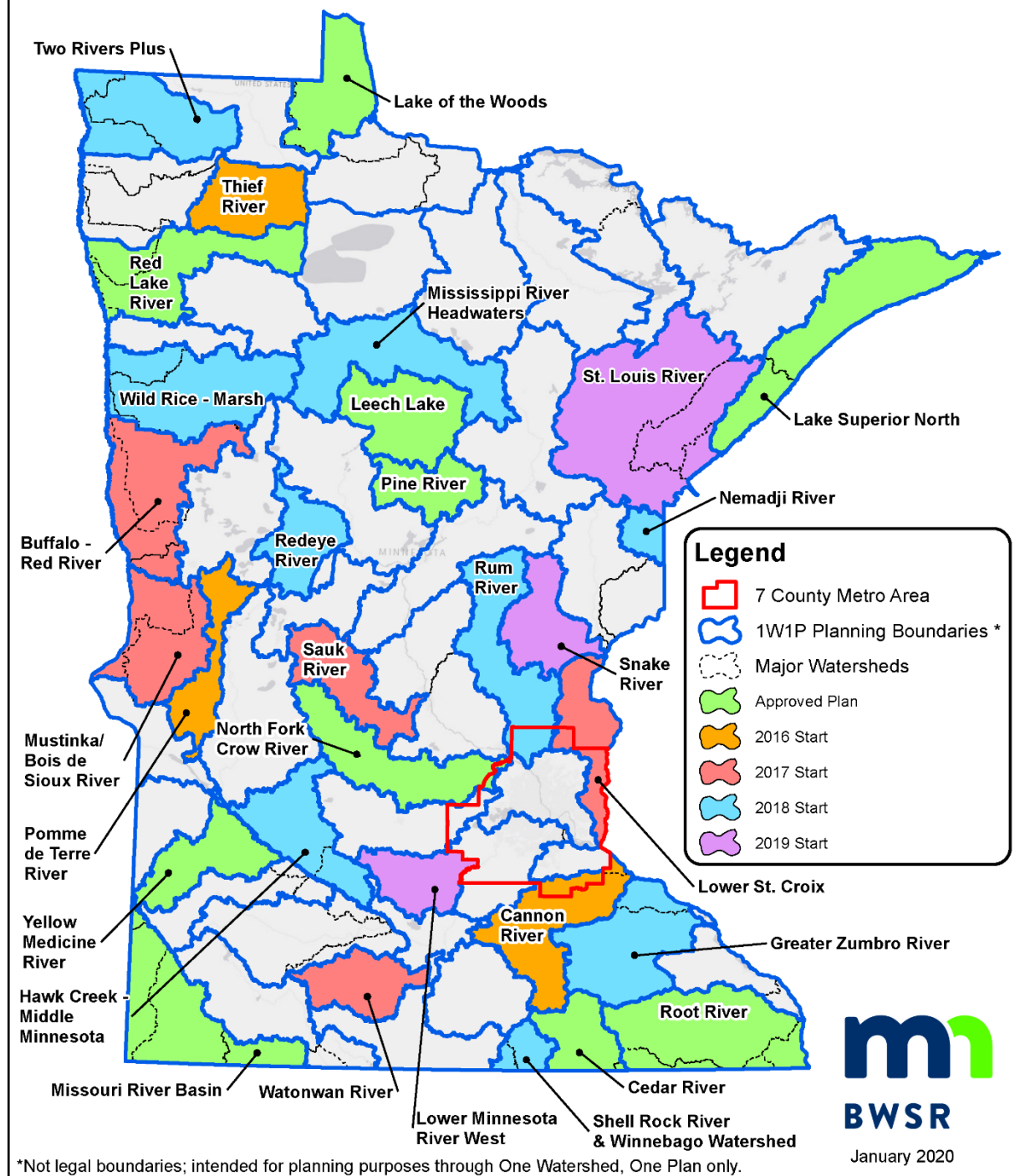


Figure 5 Map of One Watershed, One Plan participating watersheds

Watershed Conservation Planning Initiative

The Watershed Conservation Planning Initiative (WCPI) is a partnership between the USDA's Natural Resources Conservation Service, BWSR, and local SWCDs which aims to increase landowner/producer readiness to implement conservation practices in seven major watersheds. The WCPI provides comprehensive solutions to address landowner/producer concerns. The formal partnership is supported by a \$3 million, 4-year contribution agreement between the agencies.

The goals include:

1. Increasing technical capacity of SWCDs to conduct resource assessments and prepare conservation plans within the selected watersheds;
2. Targeting conservation planning assistance to high priority acres in these watersheds;
3. Increasing landowner readiness and participation in conservation programs; and
4. Accelerating conservation practice implementation along with quantifying the environmental benefits.

To date, WCPI funds have been used to hire seven watershed conservation planners – one for each major watershed (Lower St. Croix, Sauk River, Chippewa, Middle Minnesota, Blue Earth, Cedar, Root). Coordination with the Technical Training and Certification Program (TTCP) increases the technical skills and credentials of conservation planners, resulting in an enhanced capacity of SWCDs to provide conservation planning

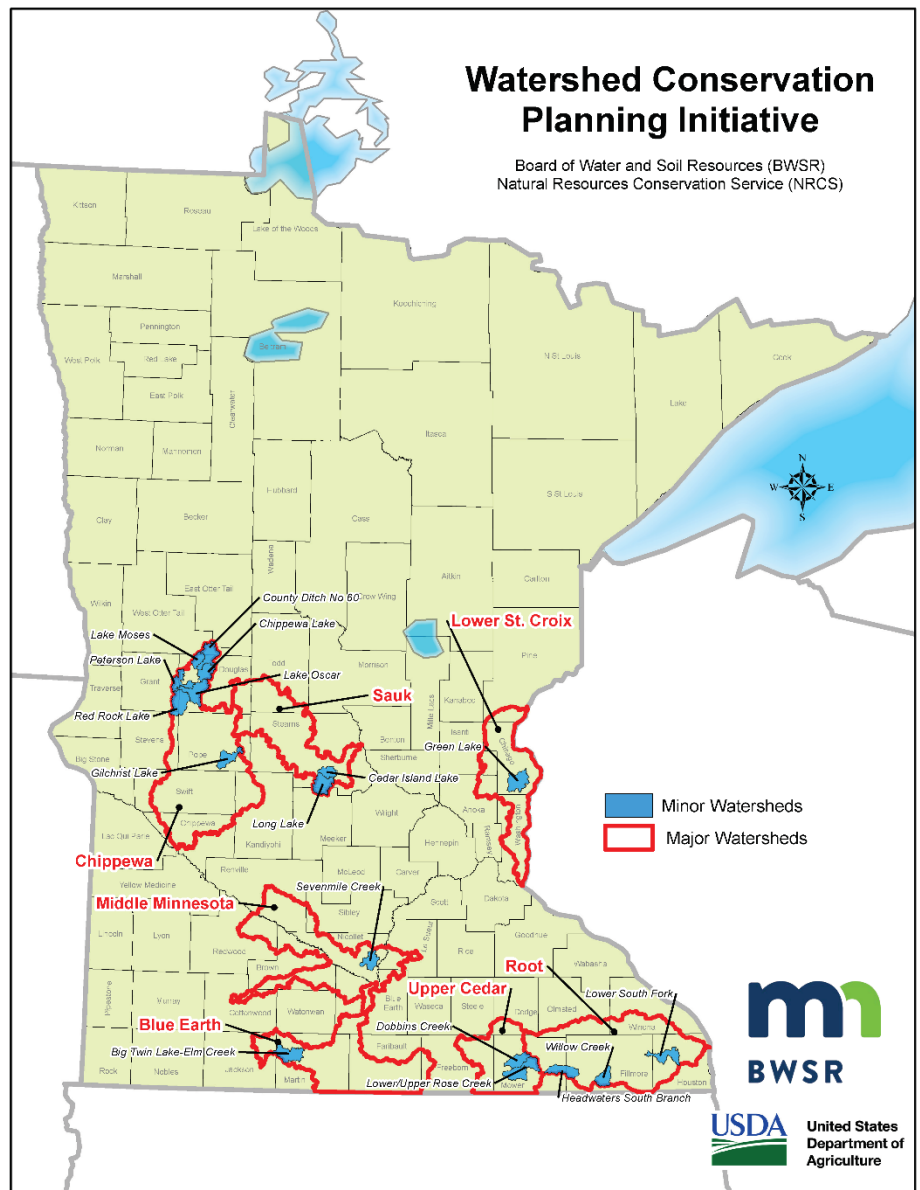


Figure 6 Map of Watershed Conservation Planning Initiative watersheds

technical assistance. Each of the seven watersheds has developed a plan of work based on local priorities and partner working relationships that increase conservation planning assistance to landowners. Targeted outreach and one-on-one technical assistance are emphasized with landowners in these watersheds. Overall, one-third of the WCPI Plan of Work milestones have been achieved with 240 conservation plans completed to date. The program is on track to meet its goal to complete 700 conservation plans by the program completion in 2021.

Local SWCD Capacity

The legislature appropriated \$22 million over the biennium to support SWCDs. This state funding recognizes the role these local governments play in providing conservation service delivery to private landowners.

The funding focuses on increasing SWCD capacity to address four resource concern areas; soil erosion, riparian zone management, water storage and treatment, and excess nutrients. Eligible activity categories include staffing, cost-share/incentives, and technology/capital equipment. Aimed at achieving additionality, these funds are intended to fill gaps in local capacity, increase delivery of essential conservation services, and accomplish critical soil and water conservation goals consistent with the following principles:

- Expand the level and/or variety of technical services SWCDs and Technical Service Areas (TSAs) can deliver.
- Increase the amount of existing, targeted, and priority services necessary to address outreach to landowners and assist landowners in meeting land and water regulatory requirements.
- Extend high priority programs funded by short-term grant funds that are expiring.
- And to improve or develop staff skills to better align with resource priorities identified by the District Board.

The results are increased responsiveness of these local governments to their landowners and more conservation on the ground.

For example, in Koochiching SWCD, this funding allowed the SWCD to support a staff forester to work with private landowners to develop custom forest management plans and implement sustainable forest management practices.



Koochiching SWCD forester discussing with landowner forestry management options on a parcel along the Littlefork River

In Martin SWCD, it allowed the SWCD to increase their cover crop cost-share funding, resulting in increased cover crop usage. The Carver SWCD used this funding to build a pollinator cost-share program to provide funding for the installation of pollinator habitat on public and private lands.

Whether investing in staff or equipment or conservation funding, the capacity dollars have enabled these local governments — who have the closest connection to landowners — to be more proactive and responsive in meeting their needs.

Technical Service Area (TSA) Funding

TSAs are a critical link in the conservation delivery system in Minnesota. In FY 18-19, BWSR's Board awarded \$240,000 to each of the eight TSAs. TSAs use these funds to build regionally specific capacity across the state to efficiently accelerate on-the-ground projects and practices that improve or protect water resources. Since 2013, TSAs have nearly doubled the number of practices that they've worked on statewide.

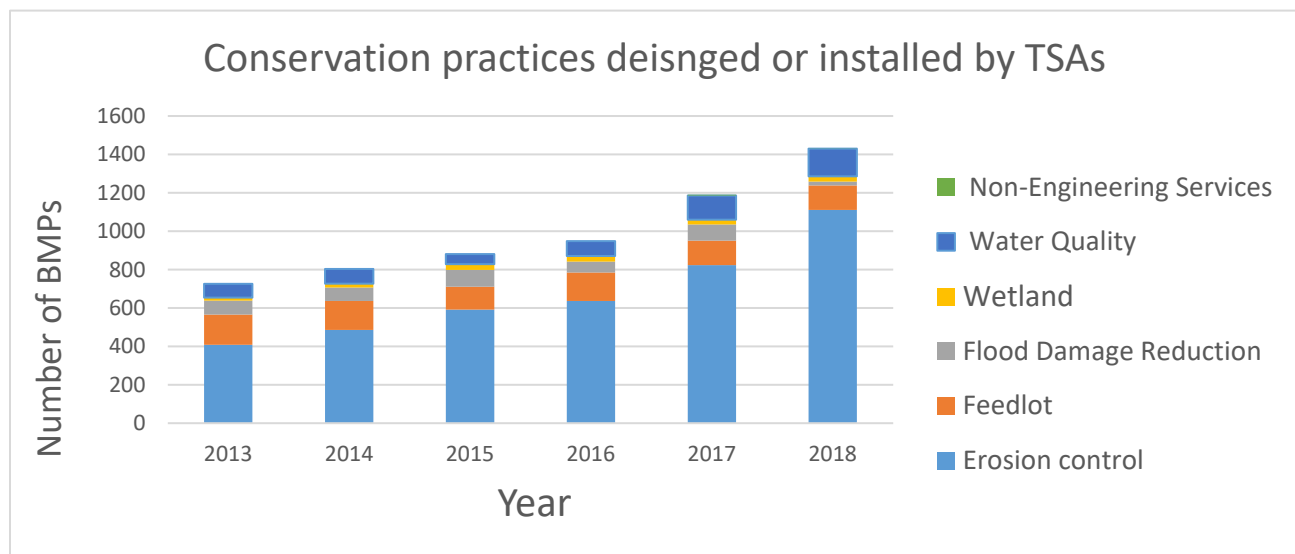


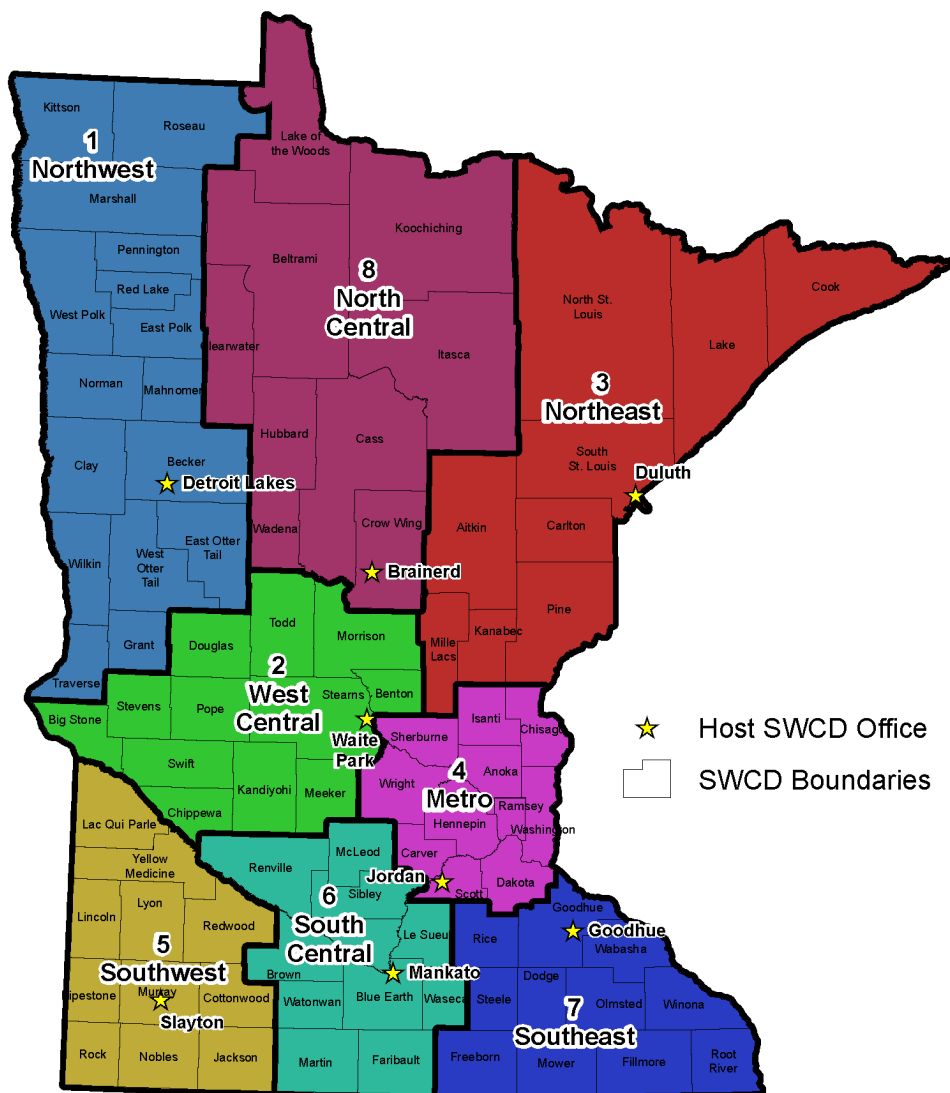
Figure 7 CWF supporting TSAs significantly increased capacity to design and install conservation practices.

The Southwest Prairie Technical Service Area (TSA) has a contract with a former NRCS employee to train SWCD technicians in writing cover crop plans. They also have a contracted Technical Service Provider, Central Crop Consulting, to complete site walkovers with local SWCD staff.

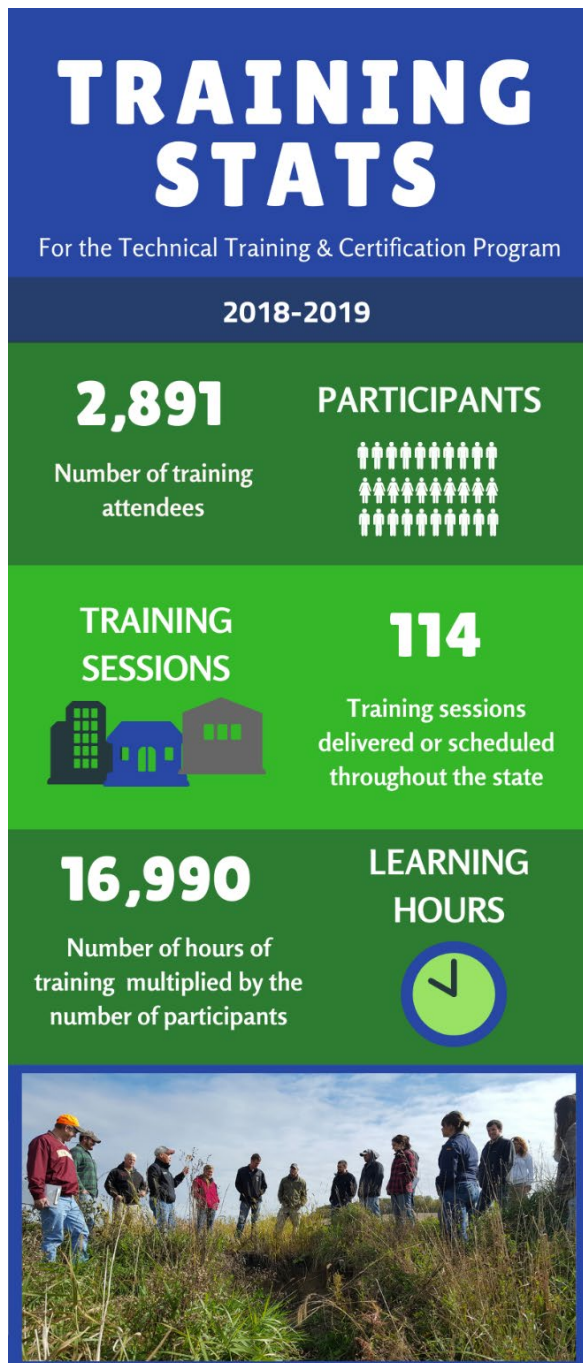
North Central TSA 8 contracts the services of a GIS specialist, a graphics and marketing specialist, and a project facilitator. In 2019, the project facilitator played a large role in communicating and collaborating between the TSA and the individual SWCDs in the region. The facilitator helped to provide:

- clear direction on project scope and constraints (e.g., financial, spatial, functional) to TSA 8 staff
- clear expectations, project purpose and timeline to landowners
- A process that increases project success, expands SWCD staff knowledge, and builds relationships and partners with key resources (e.g., master gardeners)
- leveraging of expertise from other agencies and non-profits to reduce financial risk and risk of project failure.

Technical Service Areas



Technical Training and Certification Program (TTCP)



Conservation Technical Assistance requires statewide, core technical assistance capabilities, as well as capabilities tailored to the local priority resource concerns and conservation practices found in the diverse landscapes of Minnesota. Training and certification are key quality assurance elements of an effective conservation delivery system.

BWSR, the Minnesota Association of Soil and Water Conservation Districts (MASWCD), the Minnesota Association of Conservation District Employees (MACDE), and the USDA Natural Resources Conservation Service (NRCS) have committed to providing resources for technical training and certification of local staff to maintain and enhance conservation delivery as laid out in the Technical Training and Certification Strategy.

During FY 18-19, the TTCP created a new Individual Development Plan (IDP) tool that enables conservation staff to share their technical training needs, document credentials and certifications, find others with conservation skills for peer-to-peer assistance/on the job training, and more. An IDP is a written plan that can be used by employees and managers to reach long and short-term professional development goals. The information from these individual development plans is used as a foundation for an annual training needs inventory. Individual development plans are completed or updated annually and are used to identify and document credential and Job Approval Authority goals.

Minnesota's future conservation accomplishments and clean water outcomes will depend on the skills and abilities of local experts to help landowners with projects and practices selection, design, and installation. The Technical Training and Certification Program is aimed at growing and enhancing the services provided by SWCDs by investing in the necessary

and systematic training and credentialing to make that happen. A participant described a grazing training as "It was great being able to cover something in the classroom and then go and apply it in the field. Being able to do that made this training excellent. Being able to perform forage clippings in the pasture, determine available forage, and then have real cows graze our area so we could evaluate our recommendations was outstanding."

Minnesota's Buffer Law

Minnesota's Buffer Law requires perennial vegetative buffers of up to 50 feet along lakes, rivers, and streams, and buffers of 16.5 feet along public ditches. These buffers help filter out phosphorus, nitrogen, and sediment. The law provides flexibility for landowners to comply with the law by installing alternative practices that provide equivalent water quality benefits that are based on the [Natural Resources Conservation Service Field Office Technical Guide](#).

2018 brought inclement weather to farmers at critical times: Snowfall late in the spring paired with heavy rainfall in the fall significantly disrupted planting and harvesting deadlines. BWSR staff advised the SWCD staff providing technical assistance to landowners to take this into account when assessing compliance. If fields were too wet or site conditions were not conducive to implementing a well-established buffer in fall 2018, then working into the spring was deemed appropriate.

The deadline for implementation for buffers on public waters was November 1, 2017. The deadline for public ditches was November 1, 2018.

Compliance to date

Buffer implementation is strong statewide thanks to the efforts of landowners and SWCDs. As of January 2020, approximately 99% of all parcels adjacent to Minnesota waters are compliant with the Buffer Law. SWCDs are reporting encouraging progress in their work with landowners around the state.



In FY 18-19, the legislature appropriated \$5 million to BWSR to support local governments in their implementation of the new buffer law. Funds were made available on a non-competitive, formula basis to SWCDs to support their local implementation.

SWCD roles in buffer/soil erosion law eligible for funding include:

- Meeting with county and drainage authorities (county or watershed district) to discuss implementation roles and responsibilities.

- Passthrough funding to counties and/or drainage authority to support local implementation.
- Assistance to collect and provide drainage-system-benefitted area maps, files, and/or GIS files to DNR to support mapping.
- Landowner outreach and information.
- Providing technical and financial assistance to landowners, e.g., seed cost-share, drill loan, etc.
- Purchasing of equipment to support implementation, such as grass drill.
- Providing alternative practice validations, if requested, where the prescribed buffer may not be the best water quality practice for a site.
- Reviewing DNR maps and landowner outreach prior to finalization.
- Adopting buffer recommendations for waters not mapped by DNR for inclusion in local water management plans.
- Inventorying of baseline conditions.

Tillage and Erosion Survey Program

In FY 18-19, the legislature appropriated \$850,000 for the Tillage and Erosion Survey Program. BWSR is working cooperatively with the University of Minnesota Department of Soil, Water and Climate and the Iowa State University Department of Agricultural and Biosystems Engineering to develop a long-term program to systematically collect tillage (crop residue after planting) data and soil erosion estimates to analyze trends in agricultural soil and water management in the 67-county area with greater than 30% of land dedicated to row crop production. We are moving toward bringing this program from a prototype to the production phase in 2020 as methods for data collection and analysis are being finalized. For more information on this program, see the following web page: <https://bwsr.state.mn.us/current-soil-related-research-projects>

In 2018, BWSR formed an external advisory committee to both provide information on project results and to also provide feedback on program development. BWSR continues to convene and expand the role of this committee in 2020 and beyond.

This program utilized remote sensing techniques to collect crop residue and cover crop data in the spring and fall of 2017 through 2019. Annual data availability and subsequent analysis is variable depending on the availability of satellite data and regional weather conditions at the time of data collection. Preliminary data was shared with BWSR local government partners and was utilized in informing WRAPs, the Minnesota Nutrient Reduction Strategy, and 1W1Ps.

One of the major accomplishments of this project is the development of the Daily Erosion Project (DEP) for the agricultural regions of Minnesota. This web application predicts average rainfall, water runoff, average soil detachment, and average hillslope soil loss within a sub-watershed. The first phase of this application was launched in 2019, and in 2020, a wind erosion estimate will be added to this tool. This application can be accessed at the following website: <https://www.dailyerosion.org/>.

Conservation Corps of Minnesota and Iowa

BWSR is required to contract with the Conservation Corps of Minnesota and Iowa (formerly Minnesota Conservation Corps) or CCMI, for installation and maintenance of conservation practices benefitting water

quality. The Board approved reserving \$500,000 in FY 2018 and FY 2019 Projects and Practices program funds to comply with this requirement. Clean Water Fund allocations provide SWCDs with a trained labor force and equip CCMI crews with skills to build their conservation careers and provide local conservation partners with increased capacity to accomplish clean water outcomes. See the Clean Water Story on CCMI in Appendix C.

BWSR Administration of Clean Water Fund Expenditures

BWSR's Clean Water Fund goal is to reduce non-point source pollution by providing Clean Water Fund dollars to local government units for on-the-ground activities. Many of these practices are installed on private lands and will result in improved and protected surface and groundwater. The BWSR Board uses existing authorities, policies, and staff, along with the processes outlined previously, to implement Clean Water Fund program activities.

For FY 2018-19, BWSR received a \$1.9 million direct appropriation for Clean Water Program Oversight and Administration to provide for implementation and administration of Clean Water Fund dollars. Staffing of 53 FTEs (full-time equivalents) in FY 2018 and 46 FTEs in FY 2019, including positions charged with getting protection and TMDL-derived restoration strategies adopted into local water plans, directing over \$77.7 million of grant and easement funds to priority areas and activities, working with the One Watershed, One Plan program, assisting with implementation of the buffer and soil loss law, and aligning administrative procedures to optimize leveraging of non-State funds with low transaction costs.

Appendix A: BWSR Clean Water Fund Competitive Grant Ranking Criteria

<u>Table A-1</u> Projects and Practices Ranking Criteria	Maximum Points Possible
<u>Project Description:</u> The project description succinctly describes what results the applicant is trying to achieve and how they intend to achieve those results.	5
<u>Prioritization:</u> The proposal is based on priority protection or restoration actions listed in or derived from an approved local water management plan.	15
<u>Targeting:</u> The proposed project addresses identified critical pollution sources impacting the water resource identified in the application.	25
<u>Measurable Outcomes:</u> The proposed project has a quantifiable reduction in pollution and directly addresses the water quality concern identified in the application.	30
<u>Project Readiness:</u> The application has a set of specific activities that can be implemented soon after grant award.	10
Cost-Effectiveness: The application identifies a cost-effective solution to address the non-point pollution concern(s).	15
Total Points Available	100

<u>Table A-2</u> Accelerated Implementation Ranking Criteria	Maximum Points Possible
Clarity of project's goals, standards addressed and projected impact on land and water management and enhanced effectiveness of future implementation projects.	40
Prioritization and Relationship to Plan: The proposal is based on priority protection or restoration actions listed in or derived from an approved local water management plan or address pollutant load reductions prescribed in an approved TMDL.	25
Means and measures for assessing the program's impact and capacity to measure project outcomes.	20
Timeline for implementation.	15
Total Points Available	100

Table A-3 Multipurpose Drainage Management Ranking Criteria	Maximum Points Possible
<u>Project Description:</u> The project description succinctly describes what results the applicant is trying to achieve and how they intend to achieve those results.	5
<u>Prioritization:</u> The proposal is based on priority protection or restoration actions associated with a “Priority Chapter 103E Drainage System” (as defined in this RFP) and is consistent with a watershed management plan that has been state-approved and locally adopted or an approved total maximum daily load study (TMDL), Watershed Restoration and Protection Strategy (WRAPS), surface water intake plan, or wellhead protection plan.	15
<u>Targeting:</u> The proposed project addresses identified critical pollution sources or risks impacting the water resource identified in the application.	20
<u>Measurable Outcomes:</u> The proposed project has a quantifiable reduction in pollution and directly addresses the water quality concern identified in the application.	25
<u>Project Readiness:</u> The application has a set of specific activities that can be implemented soon after grant award.	5
<u>Cost-Effectiveness:</u> The application identifies a cost-effective solution to address the non-point pollution concern(s).	20
<u>Effective Combination of Practices:</u> Use of a combination of eligible activities that increase the overall effectiveness of the implemented practices/activities.	10
Total Points Available	100

Appendix B: Estimated Outcomes for FY 18-19 Competitive Grant Awards

Applicant	Grant Title	Outcomes Sediment (tons)	Outcomes Phosphorus (lbs.)	Outcomes Nitrogen (lbs.)
Wilkin SWCD	Lower Otter Tail River Gully Stabilization Project	850	786	
Coon Creek WD	Lower Sand Creek Corridor Restoration	372	316	
Becker SWCD	Buffalo Red Shallow Lakes and Mainstem Improvement Strategy - Phase II	4,710	532	1,060
Carlton SWCD	Skunk Creek Watershed Sediment Reduction	226		
Comfort Lake- Forest Lake WD	Moody Lake Alum Treatment		386	
Le Sueur County SWCD	Jefferson German Watershed Phosphorus Reduction Project		2,299	
Benton SWCD	Little Rock Lake / Mississippi River drawdown for water quality.	368	589	
Isanti SWCD	Blue Lake Priority Action Plan		95	
Shingle Creek WMC	Bass and Pomerleau Lakes Internal Load Reduction		455 (Bass) and 135 (Pomerleau)	
Forest Lake, City of	Forest Lake Enhanced Street Sweeping Implementation		96	

Vadnais Lake Area WMO	Birch Lake Hot Spot Remediation		8	
Dakota SWCD	2018 Trout Brook Watershed Initiative Phase 2	670		
Lake of the Woods SWCD	Bostic Watershed	331	331	
Sherburne SWCD	Lower Elk River Watershed Phase II Bacteria Reduction Grant			
Pioneer-Sarah Creek WMC	Baker Park Reserve Campground Ravine Stabilization, Lake Independence, Hennepin County		134	
Rock SWCD	Rock County Rural Water Nitrogen Reduction			
Lower Mississippi River WMO	Cherokee Heights Stormwater Management and Ravine Stabilization Project	17	17	
Sauk River WD	Middle Sauk River Protection Project	380	385	
Pope SWCD	2018 Lake Emily Watershed BMP Targeted Implementation Project III	350	300	
St. Louis County	2018 CWF SLC Projects & Practices			
Minnehaha Creek WD	Minnehaha Greenway - 325 Blake Road Stormwater Management Project		181	

Becker SWCD	Becker County Targeted Phosphorus Reduction and Lake Protection Project - Phase II	29	113	
Anoka CD	Targeted Mississippi Riverbank Stabilization Focused on Bioengineering – Round 2	100	100	
Middle St. Croix River WMO	Lake St. Croix Direct Discharge Stormwater Retrofit Phase III	1	10	
Coon Creek WD	Middle Sand Creek Corridor Restoration		126	
Wilkin SWCD	Whiskey Creek Gully Stabilization Project	1,006	794	
Rice Creek WD	Bald Eagle Lake Iron- Enhanced Sand Filter		43	
Ramsey Conservation District	2019 Well Sealing Cost- Share, Ramsey County SWCD			
Middle St. Croix River WMO	Lake St. Croix Small Communities Urban Phosphorus Reductions		10	
Dakota County	Lebanon Hills Regional Park Chain of Lakes Improvement Project		26	
Coon Creek WD	Woodcrest Pond biochar- and iron-enhanced sand filter		69	
SE Minnesota Water Resources Board	Drinking Water Protection in SE MN			19,800

Rice Creek WD	Lower Rice Creek Stabilization Project	2,874		
Comfort Lake-Forest Lake WD	Bone Lake SWA Implementation	12	114	
City of Apple Valley	Johnny Cake Ridge Road Phosphorus Reduction BMP Retrofit		39	
Martin SWCD	Fairmont Drinking Water and Watershed Restoration Phase 1	130	200	1000
Valley Branch WD	Valley Creek Ravine 2E Stabilization Project	7	51	
Otter Tail County	Judicial Ditch No. 2 Outlet Gully Stabilization Project	481		
Crow Wing SWCD	Targeted Stormwater Retrofit Project for Highly Sensitive Island-Loon Lake	1	6	
Chisago SWCD	2019 Parmly Gully Stabilization Project on Green Lake	112	112	
Chisago SWCD	2019 St. Croix River Escarpment Gully Stabilization	50	50	
Browns Creek WD	Water Harvest and Reuse at Oak Glen Golf Course		78	
Hennepin County	Rush Creek SWA Implementation	616	478	
Stearns SWCD	Lake George Water Quality Improvement Project	7	27	

Benton SWCD	2019 NE St. Cloud Sediment Reduction Project	4	18	
Black Dog WMO	Keller Lake Alum Treatment		186	
Lac qui Parle- Yellow Bank WD	Protecting Del Clark Lake and Restoring Canby Creek	3,958	1,498	
Sherburne SWCD	Sherburne County Targeted Nitrate Reduction BMP Implementation			125
Becker SWCD	Top - Down: Buffalo Watershed Accelerated Improvement Project	32,712	24,322	
Middle Fork Crow River WD	Stormwater Implementation Importance for Progressive “City on the Pond”	2		
Goodhue SWCD	Lake City Stormwater Improvement Project	2	13	
Mississippi WMO	Northern Columbia Golf Course Regional BMPs	20	100	
St Louis, South SWCD	Cool it! Continued Efforts to Solve the Temperature Impairment	1	1	
Douglas SWCD	Upper Chippewa River Watershed Groundwater Protection		122	422
Pennington SWCD	Thief River Falls Streambank Stabilization Projects	385	367	

Capitol Region WD	Lauderdale Stormwater Improvements	2	9	
Pope SWCD	2016 Lake Emily Watershed BMP Targeted Implementation Project	1,121	960	
Blue Earth County SWCD	Crystal Lake Watershed Phosphorus Reduction Project	1,638	2,209	
Wilkin SWCD	Ottertail River TMDL Water Quality Improvement Projects to Reduce Turbidity Phase V	1,375	1,870	
Dodge SWCD	Dodge Saturated Buffer Project Implementation			2,700
South Washington WD	SWWD Lakes Targeted Retrofit	21		
Chisago SWCD	2016 St. Croix River Escarpment Taylors Falls Gully Stabilization	196	43	
Sauk River WD	Chain of Lakes Targeted Reduction	6	20	
Ramsey-Washington Metro WD	Spent Lime Treatment System for Wakefield Lake	9	45	
Comfort Lake-Forest Lake WD	Forest Lake Wetland Treatment Basin Implementation		56	
Valley Branch WD	Silver Lake Watershed Treatment Project		15	
Crow Wing County	Cost-Share Program to Seal Wells in Sensitive Groundwater Aquifers	Prevention: 80 wells sealed		

Red Lake SWCD	2016 Red Lake River Subwatershed (63025) Improvement Projects	690	590	
Kandiyohi SWCD	Kandi Creek Watershed	542	801	
Fillmore SWCD	Field to Stream Partnership Phase II Implementation	1,504	1,070	15
Itasca SWCD	2016 Itasca SWCD Stormwater Implementation grant	2	8	
Roseau River WD	CD 8 Subwatershed Sediment Reduction Project	275		
Vermillion River Watershed JPO	King Park Stormwater Reuse Project	1	4	
Dodge SWCD	Middle Fork Zumbro River Critical Source Area Restoration	49		
Washington Conservation District	Ag BMP Soluble P Reduction		50	
Bloomington, City of	2016 Anti-Icing Production Upgrades		300 (CHLORIDE)	
Pennington SWCD	CD-96-21-16 Gully Control and Buffer Implementation	2,428		
Dakota SWCD	Trout Brook Watershed Initiative	2000		
Becker SWCD	Upper Buffalo River Sediment Reduction Project	1386	1184	

Elm Creek Water Management Commission	Elm Creek WMC Internal Phosphorus Loading Control: Fish Lake, Hennepin County		310	
Pomme de Terre River Association Joint Powers Board	2017 - Pomme de Terre WRAPS Implementation Plan	15000	15011	
City of Forest Lake	Forest Lake High School Stormwater Reuse Project	2	20	
Stearns SWCD	2017 Sauk River Targeted Feedlot Water Quality Reduction Project		200	
Middle St. Croix River Water Management Organization	Perro Creek Urban Stormwater Quality Improvements	1	6	
Vermillion River Watershed Joint Powers Organization	2017 CWF South Branch Vermillion River Nitrate Treatment Project			13600
Wright SWCD	Crow River Gully Stabilization to Reduce Turbidity Phase Three	315	350	
Vermillion River Watershed Joint Powers Organization	2017 CWF South Creek Temperature Reduction Project	Temperature reduction of 11 degrees C		
Comfort Lake-Forest Lake WD	Bone Lake Partially Drained Wetland Restorations		50	
Anoka	Targeted Mississippi River Bank Stabilization with a Focus on Bioengineering	1250	1250	

Comfort Lake- Forest Lake WD	Shields Lake Stormwater Harvest and Irrigation Reuse System and Alum Treatment		250	
Benton SWCD	2017 - Big Elk - Mayhew Lakes Tier 1 and 2 BMP Implementation		926	
Anoka CD	Pump-controlled iron enhanced sand filter basin at the Golden Lake Stormwater Treatment Pond		40	
Okabena-Ocheda WD	Prairie View Golf Course Pond Modification		945	
Benton SWCD	2017 - Little Rock Lake TMDL Implementation Plan	1829	881	922
Vermillion River Watershed Joint Powers Organization	2017 CWF Phosphorus Treatment Enhancements at County Road 50		20	
Ramsey CD	Ramsey Conservation District Well Sealing Cost- Share Program	Seal 100 wells		
Pope SWCD	2017 Lake Emily Watershed BMP Targeted Implementation Project II	607	520	
Polk, West SWCD	Red Lake Watershed District Project 134, Polk County Ditch 63	31		

Vermillion River Watershed Joint Powers Organization	2017 CWF Lakeville Stormwater Hydrodynamic Separator Retrofit	4		
Bassett Creek WMC	BCWMC Plymouth Creek Restoration	45	52	
Browns Creek WD	McKusick Road Improvement Sediment Reduction Project	2		
Ramsey CD	Sucker Lake Channel Restoration Project	6	8	
Carlton SWCD	Red Clay Dam Phase III: Stream Restoration at Failed Red Clay Dam and Partner Prioritization	80		
Vermillion River Watershed Joint Powers Organization	2017 CWF Alimagnet Lake Stormwater Improvement Projects		62	
Chisago SWCD	Water Quality Improvements on the Mallery Jersey Dairy Farm	18	18	
Todd County	City of Long Prairie DWSMA Septic Cost Share		99	188
Scott SWCD	2017 Lower MN River Targeted Water Quality Practices Installation	7250	6670	
Minnehaha Creek WD	Six Mile Creek - East Auburn Stormwater Enhancement Project	2	39	
Lake SWCD	Landscape-scale forest stand improvements for water quality	300 acres of timber stand improvements		
Rice Creek WD	Oasis Pond Iron-Enhanced Sand Filter		34	

	Project			
Chisago SWCD	2017 Rush Lake/Goose Lake TMDL Implementation Program		20	
Wadena SWCD	Forestry Conservation Incentives to Protect the Crow Wing River	Complete 45 Forest Stewardship plans		

Appendix C: Clean Water Fund Stories

Conservation Corps of Minnesota and Iowa in Stearns County

MN CREP First Recorded Easement

Chisago Chain of Lakes

Mississippi River Basin Initiative

Mississippi Headwaters Board

Vermillion River Watershed – Nitrate Treatment Holds Promise

Septic Solutions in St. Louis County Protect Water Resources

Wabasha County Feedlot Upgrades Benefiting Mississippi River and Trout Streams