

January 2021

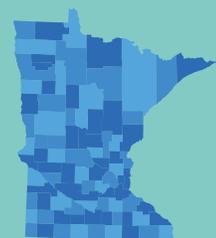
Minnesota Wetland Program Plan 2021-2025

An interagency report prepared for the U.S. Environmental Protection Agency



mi MINNESOTA

Pollution Control Agency
Board of Water and Soil Resources
Department of Natural Resources



Authors

Michael Bourdaghs—Minnesota Pollution Control Agency
Ken Powell—Board of Water and Soil Resources

Contributors

Pam Anderson—Minnesota Pollution Control Agency
Bill Cole—Minnesota Pollution Control Agency
Mark Gernes—Minnesota Pollution Control Agency
Anna Hotz—Minnesota Pollution Control Agency
Steve Kloiber—Department of Natural Resources
Kim Laing—Minnesota Pollution Control Agency
Dan Shaw—Board of Water and Soil Resources
Jennie Skancke—Department of Natural Resources
Carol Strojny—Board of Water and Soil Resources

Approvals

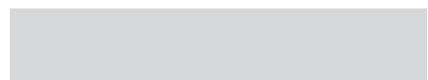


Katrina Kessler
Assistant Commissioner
Minnesota Pollution Control Agency]

Jess Richards
Digitally signed by Jess Richards
Date: 2021.04.26 09:19:05 -05'00'

This document has been electronically signed.

Jess Richards
Assistant Commissioner
Department of Natural Resources



This document has been electronically signed.

Dave Weirens
Assistant Director for Programs & Policy
Board of Water and Soil Resources

Minnesota Pollution Control Agency

520 Lafayette Road North | Saint Paul, MN 55155-4194 |

651-296-6300 | 800-657-3864 | Or use your preferred relay service. | Info.pca@state.mn.us

This report is available in alternative formats upon request, and online at www.pca.state.mn.us.

Document number: wq-bwm6-07

Table of contents

Minnesota’s wetland goal/vision	1
Minnesota’s 2012/13 wetland program plan	1
US Environmental Protection Agency core elements framework	1
Core element 1: monitoring and assessment	2
Minnesota’s wetland monitoring and assessment progress	2
Minnesota’s wetland monitoring and assessment priority program development	3
Core element 2: regulatory activities	4
Minnesota’s wetland regulatory progress	4
Minnesota’s wetland regulatory priority program development	5
Core element 3: voluntary restoration and protection	6
Minnesota’s wetland voluntary restoration and protection program progress	6
Minnesota’s voluntary wetland restoration and protection priority program development.....	7
Core element 4: wetland water quality standards	8
Minnesota’s wetland water quality standards progress	8
Minnesota’s wetland water quality standards priority program development.....	9
Wetland program documentation	9

Minnesota's wetland goal/vision

To achieve no net loss and increase the quantity, quality and biological diversity of Minnesota's wetlands by continuing effective wetland protection and conservation program implementation while emphasizing regional strategic restoration, protection and enhancement of wetland functions.

Minnesota's 2012/13 wetland program plan

The U.S. Environmental Protection Agency (EPA) has requested that state governments develop Wetland Program Plans to advance wetland conservation and protection by defining program priorities. EPA uses the plans to review grant proposals and assure that funding is directed towards priority projects.

An inter-agency group with representation from the MN Board of Water and Soil Resources (BWSR), Department of Natural Resources (DNR), and Pollution Control Agency (MPCA) was convened to develop Minnesota's initial EPA Wetland Program Plan, with completion in 2012. Following EPA comments, an addendum to clarify timelines was completed in 2013.

Since that time, state agencies have advanced a number initiatives identified in the 2012/13 program plan, including:

- Wetland quantity status & trends monitoring (DNR, initiated 2006)
- Wetland quality status & trends monitoring (MPCA, initiated 2007)
- Statewide National Wetland Inventory (NWI) update (DNR, completed 2019)
- Wetland restoration monitoring study (BWSR, initiated 2017)
- Agricultural wetland bank program (BWSR, initiated 2013)
- Updates for the Minnesota Wetland Restoration Guide (BWSR, 2012)

The remainder of this document is an update to Minnesota's 2012/13 EPA Wetland Program Plan and is intended to cover the period from 2021-2025.

U.S. Environmental Protection Agency core elements framework

The EPA has developed the core elements framework as a way to organize and define components of comprehensive state wetland programs. The framework is hierarchical – consisting of four broad core elements each having more specific objectives and actions, as well as menus of activities. The objectives and actions are provided according to a progression that states can follow as programs mature.

The core elements are:

1. monitoring and assessment
2. regulatory activities including 401 certification
3. voluntary restoration and protection
4. water quality standards for wetlands

Minnesota's 2021-2025 EPA Wetland Program Plan is organized by the four individual core elements. For each element, the summary progress of Minnesota's combined programs at meeting the element objectives and actions is provided in a chart. The list of planned and potential activities for 2021-2025 is then provided by each element.

Core element 1: monitoring and assessment

Each of the primary wetland state agencies conduct monitoring and assessment. The DNR is primarily responsible for quantity status and trends monitoring, maintaining the National Wetlands Inventory (NWI), and establishing a reference-wetland hydrology monitoring network. The MPCA is primarily responsible for quality status and trends monitoring. The BWSR is primarily responsible for Minnesota Wetland Conservation Act compliance and wetland bank monitoring.

Minnesota completed an interagency Comprehensive Wetland Assessment Mapping and Monitoring Strategy (CWAMMS) in 2006. We have established the wetland quantity and quality surveys and completed the NWI identified in the CWAMMS.

Minnesota’s wetland monitoring and assessment progress

The following chart presents the EPA monitoring and assessment core element framework objectives (rows) and corresponding actions (columns) and Minnesota’s overall progress according to the key.

Progress key

- Action is well-established as a state, update as needed
- Action is established by one/more agencies, in-development/not pursued by others
- Action is in-development as a state

ID outcomes that require monitoring & assessment	Define monitoring objectives/goals	Select core indicators	Monitor as specified in strategy	Establish reference condition	Analyze results to inform decision-making	Evaluate environmental consequences of fed/state action	Develop geographically-defined wetland mgmt. plans	Improve site-specific wetland management	Evaluate monitoring program	Evaluate environmental consequences of fed/state action	Develop geographically-defined wetland mgmt. plans	Improve site-specific wetland management
1) Develop a wetland monitoring and assessment strategy	Blue	Blue	Green	Green								
2) Implement the strategy based monitoring program					Blue	Blue	Green	Yellow	Green			
3) Incorporate monitoring data into agency decision-making									Green	Yellow	Yellow	Green

Minnesota's wetland monitoring and assessment priority program development

Activity	Status	Importance	Potential lead agency	Implementation strategy
Updating and enhancements to Minnesota's wetland inventory (NWI).	Ongoing	High	DNR	Continuing with minor enhancements.
Continue statewide wetland quantity status and trends monitoring.	Ongoing	Medium	DNR	Reporting on 4th survey iteration (data acquired 2015-17) and completion of additional iterations pending lifting of COVID emergency hiring freeze.
Continue statewide/regional wetland quality status and trends monitoring.	Ongoing	High	MPCA	Leverage Clean Water Act Section 106 grant to participate in the 2021 National Wetland Condition Assessment (NWCA) and complete intensification survey sampling for the MN Wetland Condition Assessment and Depressional Wetland Quality Assessment surveys in 2021-23.
Maintain Rapid Floristic Quality Assessment (R-FQA) method and implementation.	Ongoing	Medium	MPCA	Reanalyze data to refine FQA assessment criteria 2021-22, coordinate implementation in bank monitoring and functional assessment initiatives.
Improve wetland functional assessment tools for use in the state's wetland regulatory program.	Proposed work	High	BWSR	Coordinate with Wisconsin to develop specific proposals for tool organization and content. Pursue funding for development and refinement of regional tools to serve the regulatory programs. 2020-2023.
Install stations and implement wetland hydrology monitoring at reference condition wetlands.	Ongoing	High	DNR	Install 20 wetland hydrology monitoring stations at reference condition wetlands to inform permitting decisions. Expand network with 40 more stations, contingent on LCCMR funds.
Update the Minnesota Comprehensive Wetland Assessment Monitoring & Mapping Strategy.	New initiative	Low	All agencies	Form an interagency team to identify wetland monitoring and assessment needs and develop goals, objectives, and individual projects to meet those needs going forward. 2024-25.
Develop and implement civic engagement and/or educational materials to improve effectiveness of wetland regulatory, research and monitoring programs.	New initiative	Low	All agencies	Ongoing, program effectiveness monitoring, identify funding needs and sources as necessary.

Core element 2: regulatory activities

Each of the primary wetland state agencies administer wetland regulatory activities in Minnesota. The BWSR largely administers the state Wetland Conservation Act and related programs. The DNR administers the Public Waters Permit program, as well as metallic mining activities permits involving impacts to wetlands and other aquatic resources. The MPCA is responsible for Clean Water Section 401 certification and NPDES permitted discharges to wetlands.

Minnesota’s wetland regulatory progress

The following chart presents the EPA wetland regulatory core element framework objectives (rows) and corresponding actions (columns) and Minnesota’s overall progress according to the key.

Progress key

- Action is well-established as a state, update as needed
- Action is established by one/more agencies, in-development/not pursued by others
- Action is in-development as a state

	Provide comprehensive jurisdictional coverage	Clearly ID scope of activities to be regulated	Operate according to a clear set of criteria for application review	Coordinate among agencies/programs to reduce duplication	Actively review proposed impacts	Adopt project review criteria	Require effective mitigation	Monitor implementation of permit conditions	Track & evaluate permit/program activity	Enforce aquatic resource protections	Incorporate watershed approach into regulatory decision making	Ensure assessment/crediting lead to replacement of structure/fxn	Regulatory program public outreach	Measure environmental results
1) Clearly define the jurisdictional scope of the program	Well-established	Well-established	Well-established	In-development										
2) Administer regulatory activities efficiently & consistently				Well-established	Well-established	Well-established	Well-established	In-development	Well-established	In-development				
3) Evaluate regulatory activities to ensure environmental results										In-development	Well-established	In-development	In-development	In-development

Minnesota's wetland regulatory priority program development

Activity	Status	Importance	Potential lead agency	Implementation strategy
Complete 404 assumption application.	Ongoing	High	BWSR	BWSR, DNR, and MPCA will develop application materials for assuming the 404 program including: completing an analysis of regulatory needs, cost estimates, list of statute and rule changes required, program description(s), and identification of procedural requirements necessary to assume the 404 program. 2020 – 2022.
Develop new long-term wetland mitigation monitoring strategies and procedures to inform program requirements and restoration strategies.	Ongoing	Medium	BWSR	Finish EPA-funded vegetation and hydrology monitoring studies and use information to develop monitoring protocols and requirements for long and short term monitoring of mitigation sites. Further development of monitoring protocols anticipated to occur during and after completion of studies. 2020-2022.
Develop statewide wetland restoration prioritization for compensatory mitigation using a watershed approach.	Ongoing	High	BWSR	Compensation planning framework (CPF) documents developed for all Bank Service Areas (BSAs) in the state as part of a state in-lieu fee (ILF) program. CPF documents will incorporate components of watershed-based plans and provide a basis for prioritizing wetland mitigation for the banking and the ILF programs. 2020-2025.
Complete Wetland Conservation Act (WCA) rulemaking.	Ongoing	High	BWSR	Complete WCA rulemaking that was initiated in 2015 including the incorporation of statute changes from 2011-17 and refine and clarify rule provisions. 2020-2023.
Improve MPCA/USACE coordination to implement new 401 certification rule and federal guidance.	Ongoing	High	MPCA	Draft MOU between MPCA and USACE 2021.
Develop an interactive web interface for regulatory LGU contacts for WCA.	New initiative	Low	BWSR	Convene interagency team to develop web-based tool using contractors. Integrate with online permitting database if developed. Timing depends on funding.
Develop an online wetland permitting application submission, processing and tracking database.	New initiative	Medium	BWSR	Pursue funding, define scope and project requirements for RFP preparation. Background research in 2021, additional steps depend on funding.
Develop long-term stewardship funding and maintenance strategies for compensatory wetland mitigation sites.	New initiative	Medium	BWSR	Seek statutory authority to collect, hold and use stewardship funds for maintenance of wetland mitigation sites. Develop policies and processes to utilize funds for program. Background work in 2021, additional steps depend on legislative support and funding.

Core element 3: voluntary restoration and protection

A variety of voluntary wetland restoration and protection programs exist in Minnesota. The BWSR administers the two most prominent programs: the Reinvest in Minnesota (RIM) Reserve program (state funded) and the Conservation Reserve Enhancement Program (CREP, federal-state funded). These programs have secured permanent easements on more than 250,000 acres since the 1980's. The DNR Division of Fisheries and Wildlife also actively acquires and restores wetland habitat.

Minnesota's wetland voluntary restoration and protection program progress

The following chart presents the EPA wetland voluntary restoration and protection core element framework objectives (rows) and corresponding actions (columns) and Minnesota's overall progress according to the key.

Progress key

- Action is well-established as a state, update as needed
- Action is substantially met through independent program activities
- Action is in-development as a state

	Establish voluntary restoration/protection program(s)	Collect foundational restoration/protection info	Provide state restoration/protection program(s)	Improve wetland restoration/protection program(s)	Long term protection/function through restoration	Increase acreage through success guidance	Monitor projects through restoration	Modify restoration/protection techniques as needed
1) Clearly and consistently define voluntary program restoration and protection goals								
2) Restore and protect wetland acres, condition, and function								
3) Monitor progress over time, document results, and modify practices as appropriate								

Minnesota's voluntary wetland restoration and protection priority program development

Activity	Status	Importance	Potential lead agency	Implementation strategy
Watershed Health Assessment Framework (WHAF) tool to develop layer identifying restorable wetlands for benefits of aquifer recharge.	New initiative	High	DNR	Utilize the existing Watershed Health Assessment Framework (WHAF) mapping tool to identify restorable wetlands that may most effectively contribute to groundwater recharge areas of high groundwater use.
Develop and refine the use of grazing to restore and maintain wetlands.	New initiative	Low	BWSR	Identify situations where grazing has proven to be a beneficial tool and develop a strategy to promote and refine it as a restoration tool. Timing depends on agency priorities and funding.
Assess the role of wetland restoration for climate adaptation and mitigation.	Ongoing	Medium	BWSR	Work with Minnesota climate adaptation and mitigation teams and researchers to determine the role of wetland restoration and protection for climate mitigation and adaptation and develop recommendations for program managers and restoration professionals. Update BWSR's Climate Resiliency Toolbox, BWSR Wetland Resiliency Calculator and Minnesota Wetland Restoration Guide with new recommendations.
Assess marsh and shallow open water wetland restoration implementation and management strategies.	Ongoing	Medium	BWSR	Collaborate with agency staff, the Minnesota Restoration Evaluation Program, and researchers to determine what strategies have been most effective for the restoration and management of marsh and open water wetland restoration plant communities. Determine information needs to help improve project outcomes. Refine BWSR What's Working website and Minnesota Wetland Restoration Guide with updated information.
Complete update of state of Minnesota state wetland seed mixes.	Ongoing	Medium	BWSR	Work with stakeholders on the update of state seed mixes and seed mix installation guidance that is used for the restoration of mitigation and conservation wetlands and upland buffers. Make the new seed mixes and guidance available to professionals around the state. 2020-2023.

Core element 4: wetland water quality standards

The MPCA is Minnesota’s Federal Clean Water Act delegated authority and is responsible for state water quality standards.

Minnesota’s wetland water quality standards progress

The following chart presents the EPA water quality standards for wetlands core element framework objectives (rows) and corresponding actions (columns) and Minnesota’s overall progress according to the key.

Progress key

- Action is well-established, update as needed
- Action is partially established
- Initial scoping for action has been completed
- No plans to pursue action at this time

	Adopt wetland definition	Collect/analyze data to establish wetland WQS	Establish appropriate uses to be achieved and protected	Adopt narrative criteria describing wetland WQS	Adopt wetland numeric criteria	Better define antidegradation criteria to protect designated use	Establish wetland narrative criteria	Establish wetland numeric criteria	Draft and finalize WQS regulations	Use WQS as a basis for restoration/protection decisions	Incorporate WQS into monitoring and assessment program
1) Ensure that wetlands are treated as waters within state water quality programs											
2) Develop wetland-specific water quality standards											
3) Incorporate wetland specific water quality standards into agency decision making											

Minnesota’s wetland water quality standards priority program development

Activity	Status	Importance	Potential lead agency	Implementation strategy
Triennial standards review.	Ongoing	High	MPCA	The triennial standards review is implemented through a series of internal agency discussions followed by public comment and meetings as required by federal public participation requirements. Upon completion, the review is sent to the EPA for review and approval. 2020-2021.
Class 3 (industrial use) and 4 (agriculture/wildlife uses) rule revisions.	Ongoing	High	MPCA	The standards revision will occur through rulemaking. Because these changes are a realignment of criteria with their appropriate uses, there will be no change in how the wetland standards are implemented. 2016 – 2021.

Wetland program documentation

The resources (e.g., webpages, rules, etc.) documenting current Minnesota wetland program progress are provided below. The list is organized first by the primary EPA wetland program plan documents and then by each core element.

Program plan documents

[Minnesota Wetland Program Plan: Prepared in response to U.S. EPA Guidance. Version 1.0: 2012-2017.](#) (2012) Minnesota Pollution Control Agency. wq-bwm6-07

[Addendum to Minnesota Wetland 2012-2017 Program Plan.](#) (2013) Minnesota Pollution Control Agency. wq-bwm6-07a

[Core Elements of Effective State and Tribal Wetland Programs.](#) US Environmental Protection Agency

Monitoring and assessment

[A Comprehensive Wetland Assessment, Monitoring, and Mapping Strategy for Minnesota.](#) (2006). Minnesota Pollution Control Agency

[Minnesota’s Water Quality Monitoring Strategy: 2011-2021.](#) (2011). Minnesota Pollution Control Agency

[Statewide wetland quantity status and trends monitoring.](#) Minnesota Department of Natural Resources

[Statewide/regional wetland quality status and trends monitoring.](#) Minnesota Pollution Control Agency

[Wetland quality monitoring standard operating procedures.](#) Minnesota Pollution Control Agency

[National Wetlands Inventory Update.](#) Minnesota Department of Natural Resources

Regulatory activities

[Minnesota Administrative Rules 8420: Wetland Conservation.](#) Minnesota Board of Water and Soil Resources

[2009 Wetland Conservation Act rule and 2011-2017 statute changes.](#) Minnesota Board of Water and Soil Resources

[Wetlands Regulation in Minnesota Version 2.1.](#) (2019). Minnesota Board of Water and Soil Resources and Minnesota Department of Natural Resources

[Wetland Bank Guidance and Information.](#) Minnesota Board of Water and Soil Resources

[In-Lieu Fee Mitigation Program.](#) Minnesota Board of Water and Soil Resources

[Minnesota Administrative Rules 6115: Public Water Resources.](#) Minnesota Department of Natural Resources

[Public Waters Work Permit Program.](#) Minnesota Department of Natural Resources

[Clean Water Act Section 401 Water Quality Certifications.](#) Minnesota Pollution Control Agency

Voluntary restoration and protection

[Reinvest in Minnesota \(RIM\) Program.](#) Minnesota Board of Water and Soil Resources

[Minnesota Conservation Reserve Enhancement \(CREP\) Program.](#) Minnesota Board of Water and Soil Resources

[Minnesota Wetland Restoration Guide.](#) Minnesota Board of Water and Soil Resources

[Watershed Health Assessment Framework \(WHAF\).](#) Minnesota Department of Natural Resources

[Restoration Evaluation Program.](#) Minnesota Department of Natural Resources

Wetland water quality standards

[Minnesota Administrative Rules 7050.0186: Wetland Standards and Mitigation.](#) Minnesota Pollution Control Agency