

## Minnesota State Wetland Program Summary



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*Click Here to Skip to  
Minnesota's Information about Wetland:*

[Regulation](#)

[Monitoring & Assessment](#)

[Water Quality Standards](#)

[Voluntary Restoration](#)

[Education and Outreach](#)

[Integration with Other Programs](#)

### **Section A. Quick View**

#### **Description of State's Wetlands**

Minnesota wetlands are diverse, ranging from extensive northern peatlands, to small prairie potholes, to rare calcareous fens. Most Minnesota wetlands are categorized as palustrine because they have vegetation that remains standing all year. Lacustrine and riverine wetlands commonly have beds of non-persistent-emergent, submersed, or floating aquatic plants. Minnesota has more acres of freshwater wetlands than any other state except Alaska. A quarter of the state is in the Prairie Pothole Region.

#### **State Definition of Wetlands**

State wetland definitions are similar to the federal definitions found in the federal CWA. Wetlands are defined in state statute (Minn. Stat. § 103G.005, subd. 19) as "lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, wetlands must have the following three attributes:

- (1) have a predominance of hydric soils;
- (2) are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
- (3) under normal circumstances support a prevalence of such vegetation."

Public waters wetlands are a subset of the state's regulated wetlands and are defined in Minn. Stat. § 103G.005, subd. 15a, as follows: "Public waters wetlands means all types 3, 4, and 5 wetlands, as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, that are ten or more acres in size in unincorporated areas or 2-1/2 or more acres in incorporated areas."

Wetlands are also defined in the state rules pertaining to water quality standards (Minn. Rules Chapter 7050.0186 - Wetland Standards and Mitigation, subp 1a. Definitions):

- B. "Wetlands" are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated

soil conditions. Wetlands generally include, swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state.

Wetlands must have the following attributes:

- (1) a predominance of hydric soils;
- (2) inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and
- (3) under normal circumstances, support a prevalence of such vegetation.

### Historic Wetland Loss/Gain

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
18,583,000	10,620,000	7,963,000	43%

(Source: US Fish and Wildlife Service (Dahl, 1989))

**Note:** More recent publications on state wetland status and trends can be found at [http://www.dnr.state.mn.us/eco/wetlands/wstm\\_prog.html](http://www.dnr.state.mn.us/eco/wetlands/wstm_prog.html)

### Primary State Wetlands Webpages

Minnesota Board of Water and Soil Resources Wetlands Webpage

<http://www.bwsr.state.mn.us/wetlands/index.html>

Minnesota Department of Natural Resources Wetlands Webpage

<http://www.dnr.state.mn.us/wetlands/index.html>

Minnesota Pollution Control Agency Wetlands Webpage

<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetlands-in-minnesota.html>

### State Wetland Program Plan

Minnesota State Wetland Program Plan

<http://water.epa.gov/type/wetlands/upload/2012-mn-wetland-program-plan.pdf>

An addendum to the plan was submitted in 2013

<http://www.pca.state.mn.us/index.php/view-document.html?gid=20174>

### No Net Loss/Net Gain Goal

Minnesota has a statutory no net loss/net gain goal (Minn. Statutes 103A.201): “The legislature finds that the wetlands of Minnesota provide public value by conserving surface waters, maintaining and improving water quality, preserving wildlife habitat, providing recreational opportunities, reducing runoff, providing for floodwater retention, reducing stream sedimentation, contributing to improved subsurface moisture, helping moderate climatic change, and enhancing the natural beauty of the landscape, and are important to comprehensive water management, and that it is in the public interest to: (1) achieve no net loss in the quantity, quality, and biological diversity of Minnesota's existing

wetlands; (2) increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands; (3) avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality, and biological diversity of wetlands; and (4) replace wetland values where avoidance of activity is not feasible and prudent. In addition, the state's governor issued an executive order in 1991 directing state agencies to adhere to a no net loss of wetlands policy in their activities. The executive order has been re-issued by all subsequent governors.

**State Permitting Fees**

State Permitting Fee	State Name
Yes/No	Yes
Amount (range)	\$0 - \$1,050
Agency	DNR, Local governments

**State Resources for Wetland Work**

State Name	Core element #1: Regulation	Core Element #2: Monitoring and Assessment	Core Element #3: Wetland Water Quality Standards	Core Element #4: Voluntary Wetland Restoration
<b>Agency</b>	Bd. Water & Soil Resources	Bd. Water & Soil Resources	MPCA	Bd. Water & Soil Resources
<b>Source(s)</b>				State tax money for habitat restoration (allocated through legislative citizen's commission)
<b>Amount</b>				
<b>FTE</b>	14 FTE	2 FTE	0.3 FTE	21 FTE
<b>Agency</b>	DNR	MPCA		DNR
<b>Source(s)</b>				
<b>Amount</b>				
<b>FTE</b>	5 FTE	3 FTE		
<b>Agency</b>	Minn. Pollution Control	DNR		
<b>Source(s)</b>				
<b>Amount</b>				
<b>FTE</b>	3 FTE	1 FTE		
<b>Agency</b>	Local governments*			
<b>Source(s)</b>				
<b>Amount</b>				
<b>FTE</b>	100+ FTE			

\*Local governments are responsible for administering the primary state wetland regulatory program (WCA) = counties, cities, townships, watershed districts and soil and water conservation districts

## Innovative Features

- Minnesota is in the process of completing a \$7 million National Wetland Inventory (NWI) update for the state
- Minnesota Reinvest in Minnesota (RIM) Program
- Minnesota has recently completed state-level status and trends research on wetlands

## Models and Templates

- Minnesota Reinvest in Minnesota (RIM) Program

## Section B. Regulation

### How are Wetlands Regulated in Minnesota?

The three major wetland regulatory programs of statewide importance are the Minnesota Wetland Conservation Act, the Department of Natural Resources Public Waters Work Permit Program, the, and the federal Section 404/401 permit program administered by the United States Army Corps of Engineers. In addition, although not a regulatory program, the Swampbuster provisions of the federal farm bill protect many acres of wetlands in agricultural settings in Minnesota.

- **Wetlands Conservation Act.** In 1991, the state legislature passed the WCA in recognition that wetlands not protected under other federal or state programs were being lost throughout the state. To curb the destruction, the Act establishes a no net loss policy for all wetlands in the state and calls for an increase in quality, quantity and biodiversity of wetlands. The primary requirement of the WCA is that “[w]etlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value under [an approved] replacement plan.” Local Government Units (LGU) administer the WCA except for wetland impacts associated with metallic mineral mining and for impacts to calcareous fens, which are handled by the Minnesota DNR. The Minnesota Board of Water and Soil Resources provides oversight, promulgates rules to implement the Act and provides training to LGUs. The DNR has enforcement authority over all provisions of the WCA, which includes issuing cease-and-desist orders or wetland restoration and replacement orders..
- **Public Waters Permit Program.** The DNR Public Waters Permit Program (Minn. R. Ch 6115) pre-dates the WCA and regulates activities occurring below the ordinary high water level in designated public waters. MNDNR regulates these waters through public waters work permits. Public waters generally include larger (10 acres or larger in non-municipal areas and 2.5 acres or larger in municipal areas), seasonally flooded to permanently flooded freshwater marsh-type wetlands as well as all lakes and streams. Public waters work permits are issued for projects that will impact public waters including public waters wetlands. All public waters are identified on county-level maps. Related statutes also establish the Public Waters Inventory Program administered by the MNDNR, outline permitting guidelines, describe permitting activities, and designate enforcement authorities.

**Note:** Public waters and WCA jurisdictions do not overlap, but between the two programs, nearly all activities occurring in wetlands/waters in Minnesota are covered by a state regulatory authority,

- **401 Certification Program.** The St. Paul District of the United States Army Corps of Engineers (USACE) administers the Section 404 program in the vast majority of Minnesota. In addition, state water quality regulations confer responsibility for assuring compliance with state water quality standards in wetlands through §401 certifications and issuance of National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) permits. 401 certifications and NPDES/SDS permits are managed by the Minnesota Pollution Control Agency (MPCA). In May 2012, Minnesota’s 401 Certification program began a transition toward emphasizing greater priority to larger projects that have a greater potential for WQ impacts, are often more complex and take more staff time. Many of these larger projects have been in the mining, transportation and utility sectors.

**Wetland Delineation**

<b>Delineation Guidance</b>	<b>Yes</b>	<b>No</b>	<b>Detail</b>
Use State’s Own Method	X		DNR Public Waters Permit Program uses an approach that relies upon establishment of the “Ordinary High Water Mark” to determine jurisdiction under this program. (MN Rules 6115).
Use Corps’ 87 Manual and Regional Supplements	X		The WCA rules (MN Rule 8420) require use of the 1987 U.S. Army Corps of Engineers (Corps) Wetland Delineation Manual to define the boundary of wetlands subject to regulation under this state law.
Other (Please describe)	X		Certain aspects of the WCA and the Public Waters Permit Program require determination of wetland type. These determinations are made based on the U.S. Fish and Wildlife Service (FWS) 1971 Circular Number 39.
Agricultural wetlands determinations	X		State NRCS office has developed a desk top determination method/process

**Description:**

- For the purposes of MN Rules 7050 pertaining to water quality standards administered by the MPCA, all wetlands are considered waters of the state, except constructed wetlands designed for wastewater treatment.
- The WCA rules (MN Rule 8420) require use of the 1987 U.S. Army Corps of Engineers (Corps) Wetland Delineation Manual to define the boundary of wetlands subject to regulation under this state law. Wetland type determinations are made based on the U.S. Fish and Wildlife Service (FWS) 1971 Circular Number 39. Delineations usually are conducted by consultants or local governments.
- DNR Protected Waters Program uses an approach that relies upon establishment of the “Ordinary High Water Mark” to define the jurisdiction of wetlands regulated under the Protected Waters Permit (PWP) program they administer (MN Rules 6115).

**Evaluation Methodology**

The state does not require the use of a specific valuation method. If a method is needed, then MN Rules 8420 contains language identifying methods approved by BWSR for evaluating wetlands. The primary method currently being used is the Minnesota Routine Assessment Method (see Section C and the web link in Section J). The only other assessment method currently approved for use in Minnesota for

regulatory purposes is the Hydrogeomorphic Functional Assessment Methodology. Other methods can be applied once they receive approval from the BWSR as valid for evaluating wetlands. The regulatory agency may require identification of which method the permittee plans to use during the permit application process.

**Exempted Activities**

Minnesota’s exemptions are more extensive than the federal exemptions. While they are similar to the federal, they include additional exclusions for treatment waters in water quality statutes. The WCA contains several exemptions for certain activities like silviculture, utilities, agricultural practices and drainage maintenance. Various categories of small (deminimis) impacts are also exempt. The Public Waters Permit Program provides exemptions for 14 activities, including riprap, debris removal, and seasonal docks.

**Special Provisions for Agriculture and Forestry**

Each program contains exemptions or other provisions to allow for certain agricultural and silvicultural activities within wetlands of the state similar to those found in the federal CWA. Under each program, wetlands may be used for the purposes of pasture or cropland during periods of drought provided it does not result in draining, filling or excavating wetlands. Additionally, WCA provides exemptions for those wetlands enrolled in and receiving federal farm program benefits, as these wetlands are regulated by the U.S. Department of Agriculture through the Swampbuster provisions of the federal farm bill. WCA also provides an exemption for the construction of forest roads necessary to conduct silvicultural activities. However, activities conducted under this and all exemptions must limit the impact on the hydrologic and biologic characteristics of the wetland.

**Penalties and Enforcement**

Each program is enforced by the MN-DNR through conservation officers. Both provide for the issuance of cease and desist orders and civil restoration orders. Failure to comply with each is a criminal misdemeanor under Minnesota Statute 103G. The state relies on the Corps for §401 enforcement, but the state does have the right to incur enforcement.

**Permit Tracking**

Currently, the issuing local government unit tracks permits issued under the WCA. Annually, WCA activity by LGUs is reported to the BWSR. The DNR Division of Water staff tracks permits issued under the PWP program. No central tracking system currently exists, which is one of the state’s biggest challenges in this area.

**State General Permit (statewide vs. regional coverage)**

Permit Coverage	Yes	No	Detail (Type of Permit)
Regional General Permit		X	
Statewide General Permit	X		RGP-002-MN for certain agricultural activities and RGP-MN-003, which covers a bunch of things. These can be found at:

For more information on the state’s General Permits, go to:  
<http://www.mvp.usace.army.mil/Missions/Regulatory/SpecialNotices.aspx>

**Assumption of 404 Powers**

Assumption Status	Yes	No	Detail
Assumed		X	
Working Toward Assumption		X	
Explored Assumption	X		State agencies have evaluated state assumption several times (most recently in 1993). Legislative changes would be necessary and additional program funding would be needed before assumption could occur.

**Joint permitting**

There are currently no joint permitting provisions between state regulatory programs and the Corps of Engineers Section 404 Program. There is a joint permitting effort between the Ports and Waterways Program (PWP) program and the WCA. This allows for waiver of permit authorities between the programs on a case-by-case basis. Minnesota also share public noticing for §401 with §404 permits.

**Special Area Management Plans and Advanced Identification Plans**

Currently no Special Area Management Plans (SAMPS) exist in Minnesota; however, the Corps may begin to endorse local plans as SAMPs for Section 404 purposes. WCA provides for the development of a “local comprehensive wetland protection and management plan” for implementation of WCA through ordinance at the local government level.

**Buffer Protections**

The WCA requires that all wetlands used for compensatory mitigation be protected by an upland buffer (the buffer itself also receives some mitigation credit). Some local governments in Minnesota require protective buffers around existing wetlands through local ordinance. Some large wetlands and shallow lakes have a mandatory buffer requirement through the state’s shoreland management program.

**Mitigation Policy**

Projects subject to regulation under the state’s PWP program, WCA program, and Section 401 Water Quality Certification program are all subject to compensatory mitigation requirements. Projects regulated under the WCA and Section 404 federal CWA programs are required to sequence (i.e. avoid, minimize) before compensating for any unavoidable impacts specified.

St. Paul District Compensatory Mitigation Policy for Minnesota (January 2009):  
<http://www.mvp.usace.army.mil/Portals/57/docs/regulatory/MN-Special/Final%20St.%20Paul%20District%20Policy%20for%20Wetland%20Compensatory%20Mitigation%20in%20MNs.pdf>

Report on Siting of Wetland Mitigation in Northeast Minnesota (March 2014):  
[http://www.bwsr.state.mn.us/wetlands/wca/NE\\_MN\\_mitigation/siting\\_NE\\_MN\\_mitigation.html](http://www.bwsr.state.mn.us/wetlands/wca/NE_MN_mitigation/siting_NE_MN_mitigation.html)

## **Mitigation Database**

The state maintains several reporting mechanisms to track losses and gains in wetland resources. BWSR maintains an LGU reporting system for various actions under the WCA. Additionally, BWSR maintains a statewide wetland-banking database to track deposits and debits. DNR Division of Waters maintains data regarding its permit actions under the state waters program. Additionally, the Corps also maintains a database for its Section 10 and 404 Permit program actions. The DNR recently implemented an on-line permit application system/database for the PWP program which allows for collecting geo-referenced permit information. All of the state agencies and the St. Paul District Corps of Engineers are interested in evaluating whether this system can be expanded to incorporate WCA and Section 404 permits.

## **Links to Regulatory Documents**

<http://www.bwsr.state.mn.us/wetlands/regulation.html>

<http://www.dnr.state.mn.us/permits/water/index.html>

## **Section C. Monitoring and Assessment**

### **Agency Responsible for Wetland Monitoring and Assessment**

State and federal agencies collaborate to implement the *Minnesota Comprehensive Wetland Assessment, Monitoring and Mapping Strategy* (CWAMMS) (<http://www.pca.state.mn.us/index.php/view-document.html?gid=8828>). The CWAMMS is implemented through the collaborative efforts of local governments, state and federal agencies, and nongovernmental organizations. Agency participants include the Minnesota Board of Water and Soil Resources (BWSR), the Minnesota Department of Natural Resources (DNR), the Minnesota Department of Agriculture (MDA), the Minnesota Pollution Control Agency (MPCA), and the USFWS.

### **Mapping/Inventory**

Minnesota is in the process of updating the National Wetlands Inventory statewide, with completion expected in 2018. Information on this effort can be found at:

[http://www.dnr.state.mn.us/eco/wetlands/nwi\\_proj.html](http://www.dnr.state.mn.us/eco/wetlands/nwi_proj.html)

Minnesota Public Waters Law requires that the MNDNR develop and maintain a Public Water Inventory (maps and lists) of all the state's public waters, including public water wetlands. The *Public Waters Inventory* Maps identify the waters and wetlands regulated under the PWPP for landowners, regulators, and other interested parties. However, exact permit jurisdiction boundaries are not shown on these maps, but are subject to a field determination of the ordinary high water level for purposes of regulatory limits. The state's GIS-based PWI maps use three map scales: (1) 1:50,000 for the seven TCMA counties, (2) 1:100,000 for the most of the state, and (3) 1:125,000 for the largest counties. The GIS-based PWI maps are available as PDF documents

## State Wetland Mapping Public Portals

Minnesota ArcGIS NWI Map Viewer

<http://mndnr.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=7132a264fcd449deb8521268c0698046>

Minnesota DNR PWI Maps Download Website

[http://www.dnr.state.mn.us/waters/watermgmt\\_section/pwi/download.html](http://www.dnr.state.mn.us/waters/watermgmt_section/pwi/download.html)

## Wetland Classification and Assessment

Since the mid-1990s the MPCA has been developing methods for assessing wetland condition. Most of this time has been focused on developing quantitative indices of biological integrity (IBIs) for depressional wetlands, a Level III assessment method. At the same time, a rapid functional assessment method was developed for Minnesota wetlands, called the Minnesota Routine Wetland Assessment Method (MnRAM). It uses qualitative field observations and desktop data to assess 12 wetland functions. The MnRAM has gone through three significant revisions and has been widely used for many comprehensive wetland-planning projects by local governments in Minnesota. MnRAM 3.0 and the associated Management Classification System can be accessed at: [www.bwsr.state.mn.us/wetlands/mnram/index.html](http://www.bwsr.state.mn.us/wetlands/mnram/index.html).

The MPCA has recently finalized a methodology to use floristic quality assessment (FQA) as a routine level II assessment method. This method has been called the Rapid FQA and a detailed protocol manual is available at <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/floristic-quality-assessment.html>. The state has not adopted a routine level I assessment method though various GIS inquiries are typically used to meet this need.

## Statewide Wetland Monitoring Plan

*A Comprehensive Wetland Assessment, Monitoring and Mapping Strategy for Minnesota*

[http://files.dnr.state.mn.us/eco/wetlands/wetland\\_monitoring.pdf](http://files.dnr.state.mn.us/eco/wetlands/wetland_monitoring.pdf)

## Overall Wetland Gain and Loss Tracking System

BWSR is required to make a report to the Minnesota Legislature on a biennial basis regarding the loss and gains to wetlands and waters of the state as part of the program's "No Net Loss" requirement. This report is all encompassing covering local, state, federal and non-governmental actions that affect wetland resources of the state. Overall, the state has met or exceeded the "No Net Loss" mandate of the Legislature.

The DNR conducts a long-term wetland monitoring program to reveal status and trends in wetland acreage and types. (See the next section).

## Wetland Monitoring and Assessment Characteristics

Level	None	Level 1	Level 2	Level 3
Minnesota		None*	X	X

\*MN has done a lot of GIS work, but not under Level 1

Type	None	IBI	Condition	Functional
Minnesota		X**	X***	X****

\*\*Focused on depressional wetlands

\*\*\*Floristic covers all wetlands

\*\*\*\*MnRAM is largely used by consultants on a project-specific basis for regulatory projects

Frequency	None	Project Specific	Ongoing
Minnesota		X	X

**Description:** Minnesota has developed an extensive monitoring and assessment program that complements federal wetland program directions. Minnesota has developed several tools, methods and approaches for effective wetland monitoring. These include ambient monitoring of wetland quantity and quality and development and use of assessment methods including Rapid Floristic Quality Assessment, the Minnesota Routine Assessment Method and wetland IBIs utilizing plants and invertebrates. In association with the US EPA National Aquatic Resource Survey for wetlands Minnesota conducts a statewide survey to assess status and trends in wetland quality. A second survey conducted by MPCA targets semi-permanent and permanent water depressional wetlands in central, western and southern Minnesota to assess status and trends in wetland condition within these wetlands based on invertebrate and plant indicators.

The DNR conducts a long-term wetland monitoring program to reveal status and trends in wetland acreage and types, modeled after the U.S. Fish and Wildlife Service’s national status and trends program. The Minnesota program collects spring aerial imagery on a three-year sampling cycle for 4,990 permanent, 1-sq. mile randomly located sample plots. Information and reports from this program are available at: [http://www.dnr.state.mn.us/eco/wetlands/wstm\\_prog.html](http://www.dnr.state.mn.us/eco/wetlands/wstm_prog.html).

The BWSR conducts long-term monitoring of all wetland bank sites in Minnesota, to ensure compliance with the perpetual conservation easements. **Participation in National Wetland Condition Assessment**

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study	X	

**Detail:** Minnesota completed a plant based state intensification in conjunction with the NWCA using floristic quality assessment methods. MN continues to conduct a separate status and trends survey of depressional wetland assessments using invertebrate and plant community indicators.

#### **Section D. Water Quality Standards**

Water quality standards are central to guiding Minnesota's water quality permitting authorities under the delegated NPDES permits. These include industrial and municipal discharges, stormwater discharges, confined animal feedlot operation permits, and Section 401 certification actions in response to discharge of dredge and fill material authorized under Section 404.

## Wetland and Water Quality Standards

Type	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
<i>Wetland-specific Designated Uses</i>				X (as default)	
<i>Narrative criteria in the standards to protect designated wetland uses</i>				X	
<i>Numeric criteria in the standards based on wetland type and location to protect the designated uses</i>		X*			
<i>Anti-degradation policy includes wetlands</i>		X (applied on a case-by-case basis)			<i>In the future, seek create similar tiered system as they have for streams in the state</i>

\*The state calls out certain parameters and requires them to maintain them (e.g. DO, pH, chlorides); if other contaminants are present, must revert to warm water criteria/standards.

### **Description:**

- In 1994, the state codified narrative wetland water quality standards incorporating wetlands as Waters of the State. These standards have been used to guide MPCA wetland regulatory and some non-regulatory (nonpoint source) program decisions.
- Wetlands are included in the state use classification system and include 2D Aquatic-Life Use, 3D Industrial Consumption, 4C Agricultural and Wildlife, class 5 Aesthetic Enjoyment and Navigation, class 56 Other Uses, and Class 7 Limited Use Waters. Unless specified, wetlands are protected for classes 2, 3, 4, 5 and 6 uses.
- Wetlands are included in the State's nondegradation process for National Pollution Discharge Elimination System (NPDES) and State Disposal System (SDS) permit programs.

### **Section E. Voluntary Wetland Restoration**

The state-funded Reinvest in Minnesota (RIM) is the state's main wetland restoration program. The program is one of the oldest and most successful wetland restoration programs in the country. In recent years RIM wetland projects have been combined with the NRCS Wetland Reserve Program (WRP) to restore wetlands under a 30-year WRP easement followed by a RIM Reserve perpetual easement.

Minnesota is well positioned to accomplish significant restoration and environmental protection outcomes, including several thousand acres of wetlands being restored and/or protected by permanent conservation easements each year. These accomplishments are largely due to the constitutionally

dedicated funding through 2034, as well as a strong conservation community that is often able to match project funding. Additional information can be found at: <http://www.legacy.leg.mn/>.

Funding for the state’s wetland program comes from:

- **Minnesota’s Outdoor Heritage Fund:** In 2008, Minnesota’s *Clean Water, Land and Legacy constitutional amendment*, which dedicated a small increase in the state sales tax to fund conservation, outdoor recreation, clean water restoration projects as well as arts and cultural heritage programs. Conservation and outdoor recreation programs receive approximately \$90 million per year from the Outdoor Heritage Fund, which is dedicated to, "restore, protect, and enhance wetlands, prairies, forests, and habitat for fish, game, and wildlife ."
- **Minnesota’s Clean Water Fund** receives approximately \$90 million in dedicated funding for projects and programs to protect, enhance, and restore water quality in lakes, rivers and streams and to protect groundwater from degradation.

Additionally, where possible and appropriate both the Minnesota DNR and US Fish and Wildlife Service continue to acquire property through fee title acquisition and restore wetlands on these properties. Traditionally, fee title acquisition has mostly occurred in the agricultural regions of the state. Drained wetlands on these properties are frequently restored. For more about Minnesota’s statewide wetland restoration strategy, go to: [http://www.bwsr.state.mn.us/wetlands/Restoration\\_Strategy.pdf](http://www.bwsr.state.mn.us/wetlands/Restoration_Strategy.pdf)

Finally, Minnesota is one of eight states that share Great Lakes coastlines. Minnesota participates actively in regional Great Lakes restoration efforts and supports the goals, funding strategies and policies that maintain, restore and protect wetlands in the approximately 6,200 square miles of the state that drain to Lake Superior.

**Types of Wetland Restoration Work Funded by the State:**

Type of Work	YES	NO	Description
Fund Wetland Restoration (may include easement agreements)	X		Reinvest in Minnesota Program, Outdoor Heritage Funding, Environment and Natural Resource Trust Fund
Private Land Restoration	X		See above
Public Land Restoration	X		DNR funded on DNR-owned lands
Technical Assistance	X		DNR, BWSR, Soil and Water Conservation Districts
Tax Incentives	X (rarely)		Under the WCA, counties and watershed districts may allow individual landowners to apply to the state for property tax abatement on wetlands they identified locally as high priority for preservation. For more information visit: <a href="http://www.dnr.state.mn.us/wetlands/taxation.html">http://www.dnr.state.mn.us/wetlands/taxation.html</a> .
Other	X		State makes as strong effort to do collaborative restoration that pools resources in ways that incentivize restoration

## Voluntary Wetland Restoration Program Components

Wetland Restoration Efforts	Nothing in the Works	Planning	In Progress	Mature/ Complete
Program has a set of restoration goals				X
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes				X
Developed multi-agency body to coordinate restoration/protection efforts				X*
Set restoration goals based on agency objectives and available information				X

\*BWSR is a board itself that sets funding amounts

### Goals for Restoration Projects\*

Goal	Yes	No	Description
No Net Loss	X		
Reverse Loss/Net Gain	X		
Nonpoint Source Pollution (NPS)/WQ	X		Some CWA fund projects and related TMDL work
Total Maximum Daily Load (TMDLs)	X		"
Habitat	X		Primarily a habitat-focused program
Coastal Protection	X		St. Louis River estuary – L. Superior
Floodwater Protection	X		
Groundwater	X		
Other (please describe)		X	

### Landowner Guides and Handbooks to Assist with Voluntary Wetland Restoration Efforts

Technical assistance is available to private landowners through their local soil and water conservation district and DNR private land specialists.

### Section F. Innovative and/or Highly Effective Education and Outreach

An interagency team provides training to LGUs, state and federal agency staffs and the private sector (as available) on wetland delineation, restoration, functional assessments and regulation.

BWSR conducts an annual training “academy” aimed at local government and agency staff members involved in wetland regulation. Topics include wetland ecology, technical tools such as wetland assessment methods, and regulatory issues.

MPCA does successful citizen monitoring in collaboration with two counties. This work has included lots of testimonials from citizens about how they are better informed as a result of participating in this work.

## **Section G. Climate Change and Wetlands**

The Minnesota wetland program is actively engaged in climate change work.

The DNR issued an Operational Order on climate change in November 2014, requiring DNR staff to, “consider climate change in planning, operations, communications, and staff training.” *Specific climate adaptation actions planned by DNR that impact wetland work include:*

### Assessments

- Conducted Climate Vulnerability Assessment for aquatic, open, and forested systems using panels of internal and external experts;
- Compiling information on the vulnerability of species of greatest conservation need.

### Planning and decision support

- Using the U.S. Fish and Wildlife service risk assessment for invasive species to inform a rapid response plan that includes information on species that may move into the state as climate changes.
- Raising awareness of changing climate conditions and risk through local floodplain management training.
- DNR’s Climate Change Adaptation Team has completed adaptation strategies for forests, wetlands, open systems, and aquatic systems.

### Management responses

- Promoting higher standards in local floodplain and shoreland ordinances to keep development and infrastructure out of unstable/flood-prone areas, and to protect and restore the natural beneficial functions of floodplains and shoreline vegetation.
- Providing technical assistance in the design of critical facilities to provide a higher level of protection to address increased flood risk
- Accounting for increased precipitation and changing landscape conditions in floodplain modeling and regulation.
- Promoting BMPs that protect the channel and its floodplain against changes in its watershed as a result of both development and climate.

### Monitoring

- Providing climatology monitoring data important for tracking climate trends
- Established 20 permanent monitoring plots in the peatlands to track changes in the system due to climatic conditions and other stressors.
- Expanded monitoring of both groundwater and surface water to help us understand these resources as an integrated system so that that stresses to the system can be better managed.

Minnesota has been conducting planning to help the state adapt to climate change. Minnesota has completed a climate change adaptation plan: <http://www.pca.state.mn.us/index.php/view-document.html?gid=15414>.

*Minnesota’s Climate and Renewable Energy Steering Team (CREST):* DNR chartered this team and its five work teams to provide agency-wide coordination and guidance on climate change and renewable energy strategies. CREST produced its 82-page Management Foundations report (<http://files.dnr.state.mn.us/aboutdnr/reports/conservationagenda/crest-ccref.pdf>) in August 2011 to

synthesize information on climate and energy trends, and to provide a framework that integrates mitigation and adaptation for protecting Minnesota’s natural resources.

*Regional Staff Climate Change Adaptation Workshops:* The adaptation team conducted four regional climate change adaptation workshops for a total of 200 staff in September 2013. These workshops advanced DNR’s implementation of climate change adaptation by gaining a regional perspective on proposed adaptation strategies and beginning the process of developing regional adaptation “roadmaps”.

Minnesota Pollution Control Agency (PCA) Climate Change Website:  
<http://www.pca.state.mn.us/index.php/topics/climate-change/index.html>

**Special Considerations:**

Minnesota wetlands experience significant pressure from agricultural activities and intense development pressures. Over half of the state is utilized for the production of agricultural commodities. Much of this area is reliant upon drainage infrastructure to carry out production. As drainage technology improves, more land is being pattern tiled to improve or increase crop production, thus causing additional wetland loss. In the area surrounding the Minneapolis-St. Paul area and in the lake areas of the state, intensive land development is occurring, increasing the desire to use all available lands for residential and commercial development. Much of these undeveloped areas consist of critical wetland resources that are under threat of conversion.

The state has recently increased its focus on groundwater management, including the effects of groundwater appropriations on surface waters, including lakes, streams and wetlands. Agency experts are in the initial stages of developing thresholds for groundwater withdrawals aimed at preventing adverse impacts to wetlands that have a significant groundwater hydrology component.

**Section H. Integration**

Entity/Program Area	Yes/No	Description of the Connection
NPDES/Stormwater	X	Work closely with NPDES on project-by –project determinations; if there is a disturbance, triggers wetland review; weekly interactions with stormwater staff regarding technical decisions
303(d)	X	A small number of wetlands are listed
305(b) reporting on wetlands	X	Include wetlands in narrative 305(b) reporting
Total Maximum Daily Load (TMDLs)	X	Tie in with cross-pollution technical assistance
Climate Change/ Resiliency	X	Included in Wetland Program Plan, etc.
Land Use /Watershed planning	X	County-level watershed plans address wetlands; “one watershed-one plan” – eight major watersheds (HUC8-level) as primary planning areas for wetland regulation; NPDES, TMDLs and development pressures; this replaces system that focused at the county level; feeds into TMDLs, reports, etc. – all include wetlands.
Flood/Hazard Mitigation	~	Only in NW part of the state; large flood damage reduction plans

Coastal Work	X	A very small part of Great Lakes restoration efforts; also St. Louis River Estuary
Wildlife Action Plan	X	Address number of wetland types and needs for those habitats
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	Unknown	
Other - Transportation	X	BSWR does all the local transportation wetland work for MnDOT

### Section I. State Wetland Program Development Continuum

Continuum Stage		Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage	High	X	X (statewide assessment for quantity and quality)		X
Initial Implementation Stage	↑			X (no changes since early 1990s – numeric and anti- degradation)	
Development Stage					
Early Stage	Low				

### State Wetland Program Contact and Other Relevant Contacts

**Doug Norris** (Regulation)

Wetlands Program Coordinator  
500 Lafayette Rd Box 25  
St Paul, MN 55155-4025  
tel. (651) 259-5125  
[doug.norris@state.mn.us](mailto:doug.norris@state.mn.us)

**Jim Brist** (Mitigation)

Municipal Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, MN 55155-4194

Tel. (651) 757-2245  
[Jim.brist@state.mn.us](mailto:Jim.brist@state.mn.us)

**Mark Gernes** (Monitoring and Assessment)  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, MN 55155-4194  
Tel. (651) 757-2387  
[mark.gernes@state.mn.us](mailto:mark.gernes@state.mn.us)

**Steve Kloiber** (Wetland Mapping)  
Wetlands Monitoring Coordinator  
500 Lafayette Rd Box 25  
St Paul, MN 55155-4025  
tel. (651) 259-5164  
[steve.kloiber@state.mn.us](mailto:steve.kloiber@state.mn.us)

**Mark Tomasek** (Wetland Water Quality Standards)  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, MN 55155  
Tel. (651) 757-2788  
[mark.tomasek@state.mn.us](mailto:mark.tomasek@state.mn.us)

**Tom Wenzel**  
**Minnesota Board of Water and Soil Resources**  
520 Lafayette Rd  
St Paul, MN 55155  
tel. (651) 296-0883  
[thomas.wenzel@state.mn.us](mailto:thomas.wenzel@state.mn.us)

## Section J. Useful Websites

### State Government Programs

1. Board of Water & Soil Resources
  - a) Wetland Conservation Act  
<http://www.bwsr.state.mn.us/wetlands/wca/index.html>
  - b) Wetland Regulation  
<http://www.bwsr.state.mn.us/wetlands/regulation.html>
  - c) Wetland Banking Forms  
<http://www.bwsr.state.mn.us/wetlands/wetlandbanking/forms.html>
  - d) Wetland Delineation  
<http://www.bwsr.state.mn.us/wetlands/delineation/index.html>
  - e) Wetland Functional Assessment  
<http://www.bwsr.state.mn.us/wetlands/mnram/index.html>

- f) Watershed Planning  
<http://www.bwsr.state.mn.us/planning/index.html#watershed>
2. Department of Natural Resources
    - a) Division of Ecological & Water Resources
      - i. Wetland Programs  
<http://www.dnr.state.mn.us/eco/wetlands/index.html>
      - ii. Wetland Status And Trends Monitoring Program  
[http://www.dnr.state.mn.us/eco/wetlands/wstm\\_prog.html](http://www.dnr.state.mn.us/eco/wetlands/wstm_prog.html)
      - iii. National Wetlands Inventory Update  
[http://www.dnr.state.mn.us/eco/wetlands/nwi\\_proj.html](http://www.dnr.state.mn.us/eco/wetlands/nwi_proj.html)
      - iv. Wetland Conservation Plan  
<http://files.dnr.state.mn.us/eco/wetlands/wetland.pdf>
  3. Minnesota Pollution Control Agency  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetlands-in-minnesota.html>
    - a) [Wetland Quality Status And Trends Monitoring](http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-quality-status-and-trends-monitoring.html)  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-quality-status-and-trends-monitoring.html>
    - b) [Wetland monitoring and assessment](http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-monitoring-and-assessment.html)  
<http://www.pca.state.mn.us/index.php/water/water-types-and-programs/surface-water/wetlands/wetland-monitoring-and-assessment.html>
  4. [Department of Agriculture](#)
    - a) [Water Protection](http://www.mda.state.mn.us/protecting/waterprotection.aspx)  
<http://www.mda.state.mn.us/protecting/waterprotection.aspx>
    - b) [Conservation](http://www.mda.state.mn.us/protecting/conservation.aspx)  
<http://www.mda.state.mn.us/protecting/conservation.aspx>

### **Federal Government Programs**

1. USDA Natural Resource Conservation Service  
Wetlands Reserve Program  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/mn/programs/easements/wetlands/>

### **Other Organization Wetland Programs**

1. Minnesota Wetland Professionals Association  
<http://www.mnwetlandprofessionals.org/>
2. University of Minnesota: Wetland Delineator Certification Program  
<http://www.mnwetlands.umn.edu/>
3. Wetland Health Evaluation Program  
<http://www.mnwhep.org/>