



Minnesota Wetlands – Functions and Values

mn DEPARTMENT OF
NATURAL RESOURCES

mn BOARD OF WATER
AND SOIL RESOURCES

LGU Monthly Forum– August 20, 2024

Jennie Skancke – DNR Wetlands Consultant

Agenda

- Wetland Basics
- Wetland Requirements from the MN Legislature.
- New Wetland Assessment Tool in Development



What is a Wetland?

Definition: Those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of **vegetation** typically adapted to life in saturated **soil** conditions.



Hydrology + Vegetation + Soil = Wetland

MN DNR Wetland Work

Google: “MN DNR Wetlands”

- ### Wetlands
- Main page
 - Maps
 - Status and Trends
 - Monitoring
 - Hydrology Monitoring
 - Regulations and permits
 - Taxation
 - Wetlands program

Wetlands

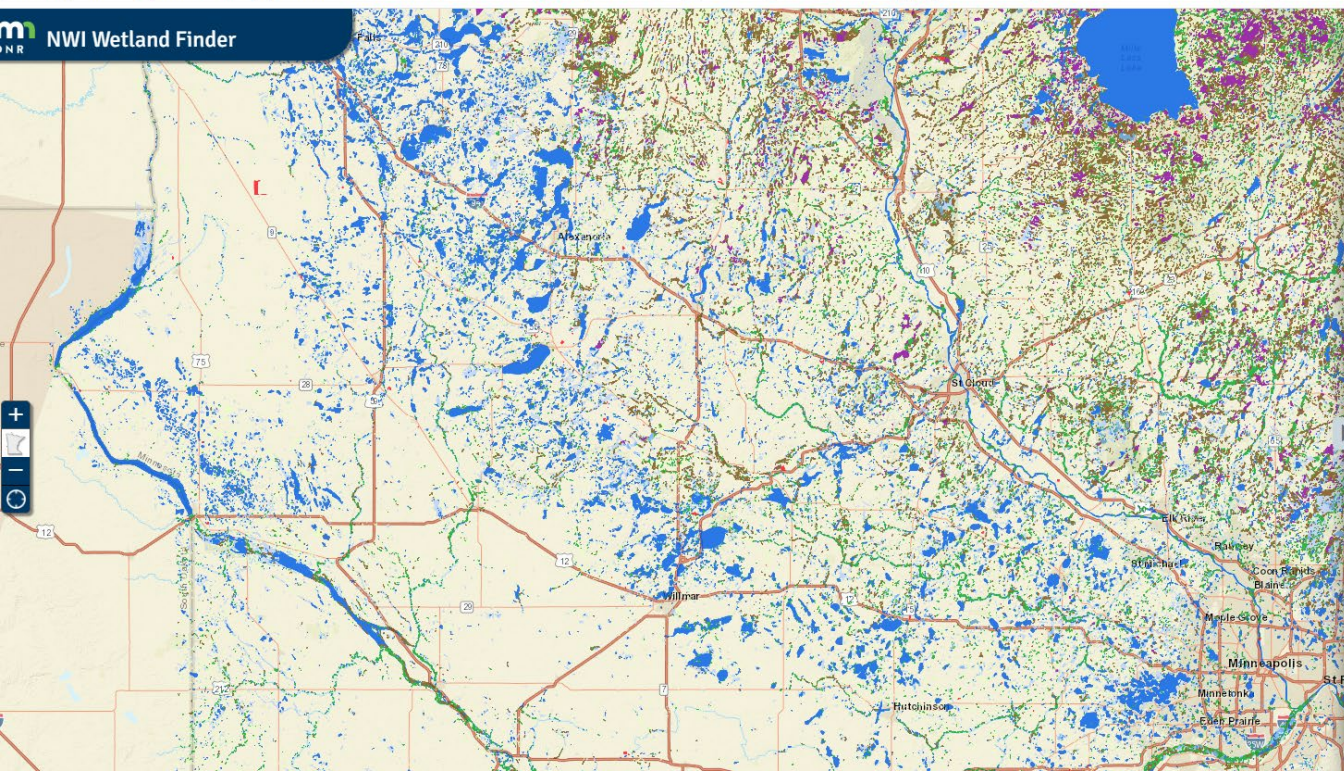


There are many types of wetlands in Minnesota, each with widely varying characteristics. Some wetlands are dry for much of the year; others are almost always covered by several feet of water. Some wetlands have grasses and sedges, shrubs, or trees. They may be small confined basins or extend for hundreds of miles.

It is estimated that Minnesota has lost about 50 percent of its original wetland acreage.

Benefits of wetlands

- **Erosion control:** Wetland vegetation reduces wave damage along lakes and stream banks.
- **Flood control:** Wetlands can slow and retain runoff water, reducing the frequency of flooding along streams and rivers.
- **Groundwater recharge and discharge:** Some wetlands recharge groundwater by holding surface water and allowing it to slowly filter into the groundwater reserves. Some wetlands are discharge areas; they receive groundwater even during dry periods, and help maintain flows in nearby rivers and streams.
- **Water quality:** Wetlands protect the water quality of downstream lakes, streams and rivers by removing pollutants.
- **Rare species habitat:** 43 percent of threatened or endangered species in the U.S. live in or depend on wetlands.
- **Recreation:** Wetlands area a great place to canoe, hunt, fish or watch wildlife.
- **Economic value:** Wetlands provide economic commodities such as wild rice and bait fish.



NWI Classifications:

- Cowardin
- Circular 39
- Simplified HGM
- Simplified Plant

Select Opacity: 0% 100%

Simplified Plant Community Class

- Seasonally Flooded Basin
- Wet Meadow
- Shallow Marsh
- Deep Marsh
- Shallow Open Water Community
- Non-Vegetated Aquatic Community
- Coniferous Wetland
- Hardwood Wetland
- Shrub Wetland
- Bog
- Artificially Flooded

Public Waters Layer

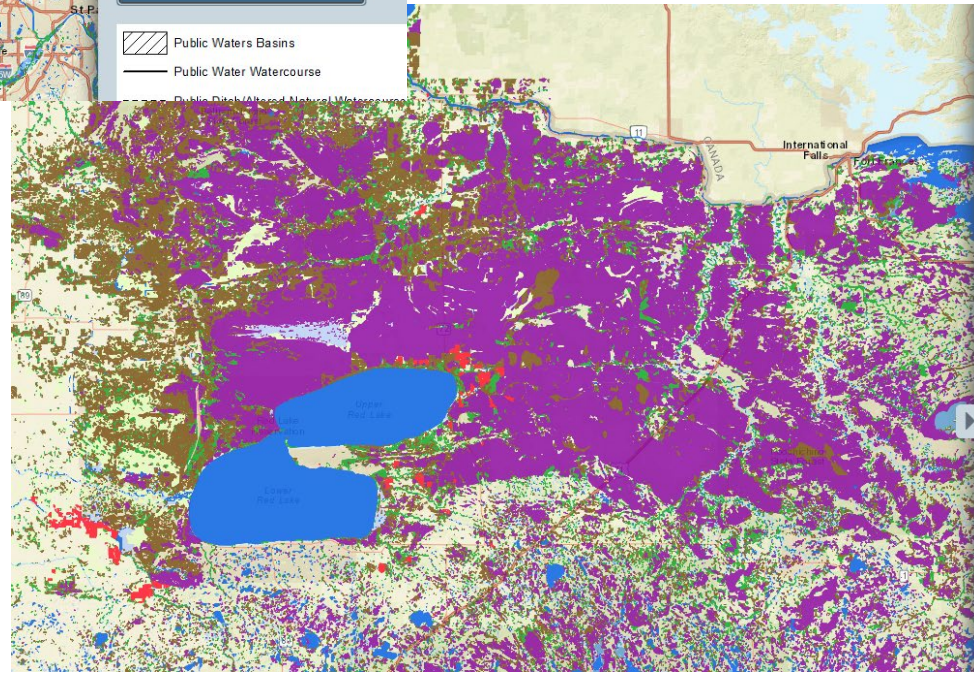
- Public Waters Basins
- Public Water Watercourse

Wetland Types in MN

Google "MN DNR Wetland Finder"

"Prairie Potholes" – favorite of duck hunters

Peatlands – can be forested or shrubs or open area – bogs and fens



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Public Waters Layer

Minnesota Wetlands Have Value

Minnesota Statutes, Sec. 103A.201 notes: “...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 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



Our “No Net Loss” Policy Includes Quantity And Quality

Public values must be based upon wetland function – MN Statute 103B

- The Board of Water and Soil Resources, in consultation with the commissioners of natural resources and agriculture and local government units, shall adopt rules establishing:
 - (1) scientific methodologies for determining the functions of wetlands; and
 - (2) criteria for determining the resulting public values of wetlands.



Wetland Functions & Values

Wetland Functions: in scientific assessments means natural processes

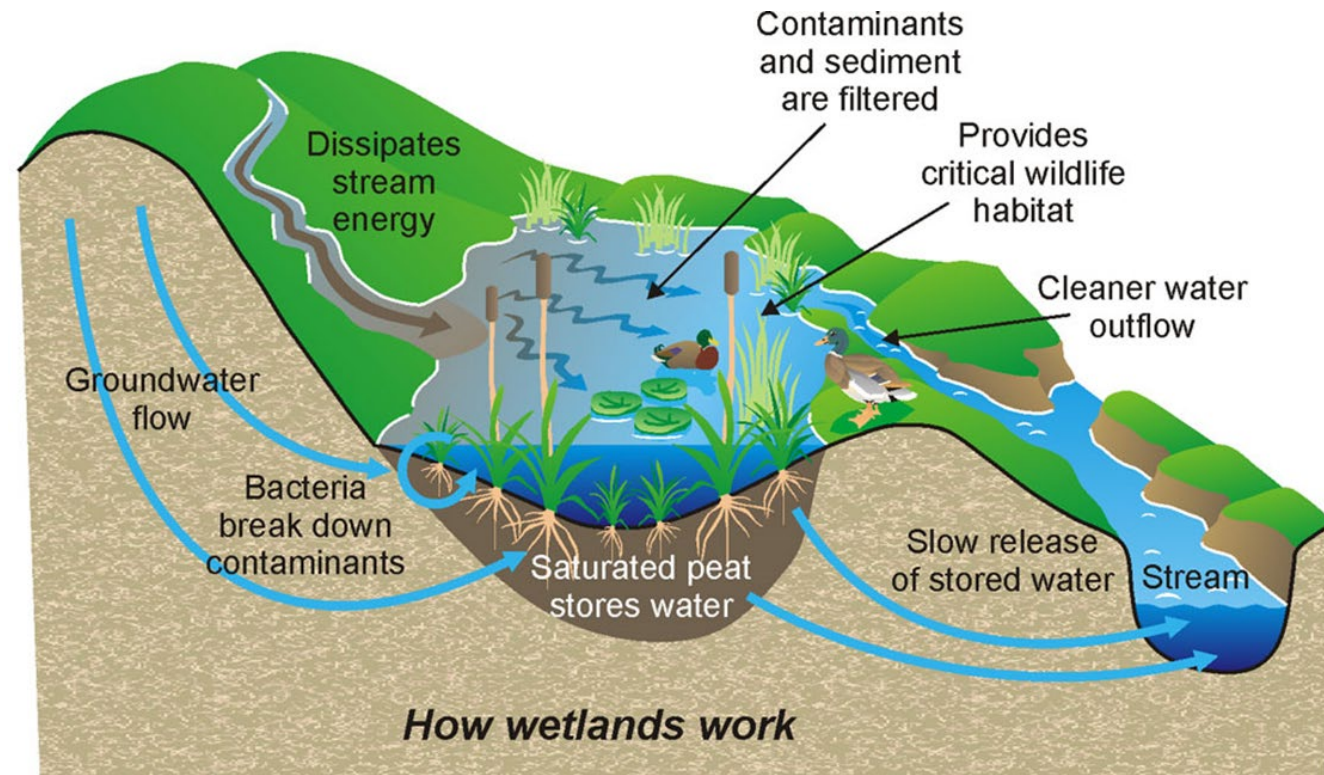


Wetland Value: wetland goods and services providing monetary or social welfare benefit.



Wetland Functions

- Act as a natural “filter” to maintain water quality
- Facilitates infiltration recharging groundwater
- Stabilize base flow
- Decreases fluid velocity during high flow events which decreases turbidity
- Storm water retention (i.e. storage)
- Provides habitat
- Shoreline protection



Wetland Functions



Hydrologic focuses on three specific functions: *Surface Water Attenuation*, *Surface Water Supply*, and *Ground Water Recharge*. Wetlands play an important role in the hydrologic cycle – influencing and controlling surface water flows in watersheds in ways that often are an interface between surface and groundwater.



Water Quality focuses on the ability of a wetland to improve water quality of downstream resources and is comprised of five specific functions: *Nitrate Removal*, *Phosphorus Retention*, *Sediment and General Pollutant Retention*, *Shoreline Stabilization*, and *Thermoregulation*. The water quality of a wetland is accounted for in other functions, specifically the ecological function related to fish/wildlife habitat. Wetland water quality influences wetland condition which drives ecological functioning.



Ecological focuses on fish and wildlife habitat of endemic species. Specific functions include *Native Plant Habitat*, *Wildlife Habitat*, and *Fish Habitat*. This group also emphasizes the natural, ecological functioning of a wetland in its landscape.



Climate relates to the physical attributes and biochemical processes of wetlands that mitigate the effects of excess atmospheric carbon and methane gas. The specific function evaluated is *Carbon Sequestration*. Wetlands accumulate carbon through internal (e.g., vegetation growth) and external (e.g., runoff) processes, and store much of that accumulated carbon in anoxic sediment over decadal and longer timescales, thereby decreasing atmospheric CO₂ concentrations as well as avoiding loss of terrestrial carbon as CO₂.



Anthropogenic function represents the attributes of wetlands that affect direct human uses, including commercial production of goods, recreation, education and research. Specific anthropogenic functions are *Historic or Cultural Uses*, *Scientific or Educational Importance*, *Commercial Uses*, *Recreational Uses*, and *Scenic Beauty*.



WISCONSIN DNR AND MINNESOTA AGENCIES SEEK PUBLIC INPUT ON DRAFT WETLAND ASSESSMENT TOOL

The Minnesota - Wisconsin Wetland Functional Assessment Initiative is an effort to develop wetland functional assessment tools that can be used in Wisconsin and Minnesota to assist in wetland regulatory implementation and for other wetland conservation and planning purposes as applicable.

A Steering Committee with representatives from the Minnesota Board of Water and Soil Resources (BWSR), Minnesota Pollution Control Agency (MPCA), Minnesota Department of Natural Resources (MDNR), Wisconsin Department of Natural Resources (WDNR), Environmental Protection Agency (EPA), and St. Paul District Army Corps of Engineers (Corps), and technical experts have developed a draft updated RAM that uses the best available data sources and field review to rapidly evaluate several wetland functions. The final RAM tools will be specific to Wisconsin and Minnesota and are tentatively planned for use beginning in 2025.

Please note that a future public notice and public comment period will be held regarding the wetland regulatory applications sometime in 2025. Also note that a science support document for the tool is being drafted and will be available for review at a later date.

Wisconsin DNR and Minnesota agencies are seeking input from wetland practitioners on draft tool functionality. We invite beta testing observations through the end of August and comments on these questions:

Excel Tool – Uses Existing Web Tools and Field Observations

Assessment Area Information		Instructions: Users should only utilize this form in Microsoft Excel.			
2	Intermittently exposed (G)		Water covers substrate throughout year excluding extreme drought.		
3	Permanently flooded (H)		Water covers the substrate throughout the year in all years.		
4	Artificially flooded (K)		Manmade features such as dikes or dams dictate the amount and d		
5	<i>Total cover must equal 100%</i>				
6	22 Is the AA located in an area with notable groundwater use?				Desktop; Field
7	23 Are there springs or seeps in the AA or its immediate buffer?				Desktop; Field
8	24 Does the AA have a surface water outlet to another waterbody?				Desktop; Field
9	25 What is the primary source of surface water input?				Desktop; Field
10	26 Characterize predominant water flow through the AA:				Field

Tool Output

A	B	C	D	E
Functions Organized by Ranking				

Higher	Moderate	Lower	Not Applicable

Functional Group Summary (Highest rated specific function within each group)				
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Functional Group	Functional Capacity Rank	Opportunity-Value Rank	Overall Rank
Hydrology	Incomplete table	Incomplete table	Incomplete table
Water Quality	Incomplete table	Incomplete table	Incomplete table
Ecological	Incomplete table	Incomplete table	Incomplete table
Climate	Incomplete table	Not Applicable	Incomplete table
Anthropogenic	Not Applicable	Incomplete table	Incomplete table

Function Rankings				
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Thanks again!

Jennie.Skancke@state.mn.us





Wetland Conservation Act Summary of Key 2024 Statutory Amendments

July 2024

Background

Amendments to WCA Statutes since the current rule was adopted (2009)

- 2011
- 2012
- 2015
- 2017
- **2024**

Some amendments require the completion of rulemaking before they become effective, others have been effective since passage.

We will discuss the 2024 amendments, most of which are effective August 1, 2024.

Information on BWSR Website

A strikeout-underline version of the statutory amendments, a narrated presentation, and a Q&A webinar are posted on the BWSR website.

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WETLAND REGULATORY PROGRAMS

- Wetlands Regulation in Minnesota
- WCA Program Reports

WETLAND CONSERVATION ACT RESOURCES

- Wetland Conservation Act Contacts
- Joint Application Form
- WCA Forms and Templates
- WCA Program Guidance and Information

MITIGATION & BANKING

- Wetland Bank Credits and Fees
- Wetland Bank Transaction Forms
- Wetland Bank Guidance and Information
- Local Government Road Wetland Replacement Program
- Wetland Bank & Mitigation Easements
- In-Lieu Fee Mitigation Program
- Agricultural Wetland Bank

DELINEATION, ASSESSMENT & RESTORATION

- Wetland Delineation
- Wetland Functional Assessment
- Wetland Restoration

MN WETLAND PROFESSIONAL CERTIFICATION PROGRAM

- Minnesota Wetland Professional Certification Program
- Wetland Training Opportunities
- Online Wetland Training

SPECIAL PROJECTS

- Wetland Conservation Act Rulemaking
- Wisconsin - Minnesota Wetland Functional Assessment Initiative
- 404 Assumption
- Minnesota Stream Quantification Tool and Debit Calculator
- Waters of the U.S.

Wetland Regulations in Minnesota



[Buffers](#) ▾

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Wetlands Regulation in Minnesota



MENU

[Wetlands Regulation in Minnesota](#)

[2009 Wetland Conservation Act Rule and 2011-2024 Statute Changes](#)

[WCA State Compilation](#)

[WCA Program Reports](#)

The major wetland regulatory programs of statewide importance in Minnesota are:

- Department of Natural Resources Public Waters Work Permit Program (state program)
- Wetland Conservation Act (state & local program)
- Clean Water Act Section 404 permit program (federal program)
- Clean Water Act Section 401 water quality certification process (state & federal program)

Two or more of these programs may cover the same wetland and in some cases, various portions of the same wetland will be regulated by different programs. However, state and federal agencies along with local units of government coordinate to help the public determine applicable regulatory program jurisdiction on a case by case basis. The regulatory process is often initiated at the local level (city, county, watershed district, watershed management organization or soil and water conservation district) where program representatives can identify which regulations apply depending on the location and nature of the proposed activity that may effect wetlands or other water resources. BWSR is the state agency responsible for administration of the Wetland Conservation Act (WCA) which regulates the vast majority of wetlands at the state/local level.

WCA is implemented at the local level by the local government unit ("LGU"). BWSR promulgates administrative rules for the program, provides training to LGUs, participates on technical evaluation panels, hears appeals from local government determinations, and assures proper implementation by LGUs.

Agricultural Exemption

The following provisions were removed from the agricultural exemption:

- Agricultural activities impacting a wetland that was planted, in a crop rotation, or set aside program in six of the 10 years prior to 1991.
- Agricultural activities impacting a wetland on ag pastureland remaining in the same use (restricted to certain wetland types and sizes).

Agricultural Exemption -continued

The following provisions were added to the agricultural exemption:

- Impacts to wetlands on agricultural land labeled as prior-converted cropland (PC) by the USDA Natural Resources Conservation Service (NRCS).
- Impacts to wetlands on agricultural land resulting from drainage *maintenance* activities authorized by NRCS where labeled as farmed wetland (FW), farmed-wetland pasture (FWP) or wetland (W).
- ❖ Labels must be identified on a “Certified” Wetland Determination.

Drainage Exemption

The following provisions were removed from the drainage exemption:

- Draining wetlands (certain type restrictions) in an unincorporated area on land that has been assessed drainage benefits for a public drainage system (with various requirements).
- Wetland impacts on lands that were planted with annually seeded crops, in a crop rotation, or set aside 8 of the last 10 most recent years.

Drainage Exemption Maintenance/Repair Provisions

Previously, the drainage exemption had separate provisions for public and private drainage systems:

- **Private:** Wetland impacts resulting from maintenance/repair are exempt except for draining wetlands that have been in existence for more than 25 years.
- **Public:** Wetland impacts resulting from maintenance/repair are exempt except for draining types 3, 4, & 5 wetlands that have been in existence for more than 25 years.

Drainage Exemption Maintenance/Repair Provision

Now, the “public” drainage maintenance exemption is the same as the “private” drainage maintenance exemption.

- What remains the same for public systems:
 - ✓ Drainage maintenance that drains wetlands that have existed for 25 years or less is still exempt.
- What changed for public systems:
 - ✓ Now all wetlands that have existed for more than 25 years will need to be evaluated for potential impacts, not just types 3, 4, and 5.

Utilities Exemption

- WCA exempts impacts to wetlands resulting from the installation, maintenance, repair or replacement of utility lines meeting certain requirements including a ½ acre threshold.
- This exemption now requires that the project be authorized under a permit issued by the U.S. Army Corps of Engineers. The ½ acre threshold was eliminated.
- The repair and updating of existing subsurface sewage treatment systems to comply with state/federal/local requirements is also exempt, is unchanged, and does not require a Corps permit.

De Minimis Exemption

WCA has a de minimis which exempts relatively small wetland impacts associated with a project. The threshold for this exemption varied by many factors. The exemption was changed as follows:

- Eliminated thresholds based on wetland “type” and on location in the 11-county metro area.
- Clarifies that if project wetland impacts exceed the applicable de minimis threshold, all wetland impacts require replacement.
- Additional restrictions added to prevent dividing property to increase de minimis amounts.
- Eliminated previous restrictions related to the landowner's portion of the wetland and the cumulative area drained or filled since 1992.
- Thresholds were changed.

De Minimis Exemption - continued

De Minimis thresholds are now as follows:

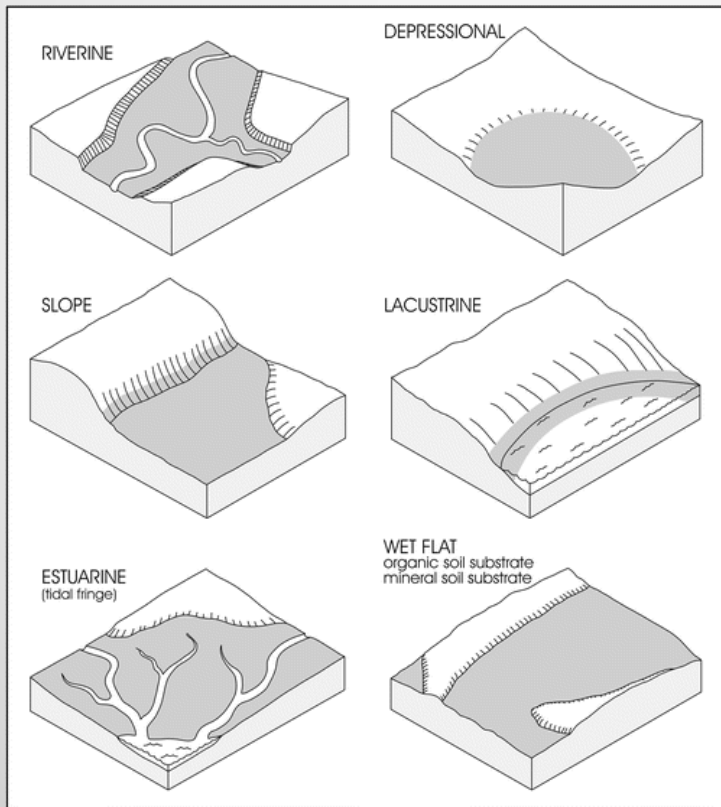
- **20 sf** – in shoreland building setback zone (can be increased to **100 sf** if permanent water runoff/retention/infiltration measures established).
- **100 sf** – in shoreland wetland protection zone.
- **400 sf** – in permanently/semi-permanently flooded areas of wetlands.
- **1/20th acre** - <50% area of state.
- **1/10th acre** – 50-80% area of state.
- **1/4 acre** - >80% area of state.

Splitting Projects to Gain Exemptions

- Previously, statute said that projects can't be split for the *sole* purpose of gaining exemptions. “*Sole*” was deleted. This means that projects can't be split to gain exemptions even if that was not the “sole” purpose of the split.

Hydrogeomorphic Classification System for Wetlands

A Hydrogeomorphic Classification for Wetlands (HGM for short) was added as an option for identifying “Wetland Type”. HGM will be incorporated into WCA rules for implementation and Circular 39 removed.



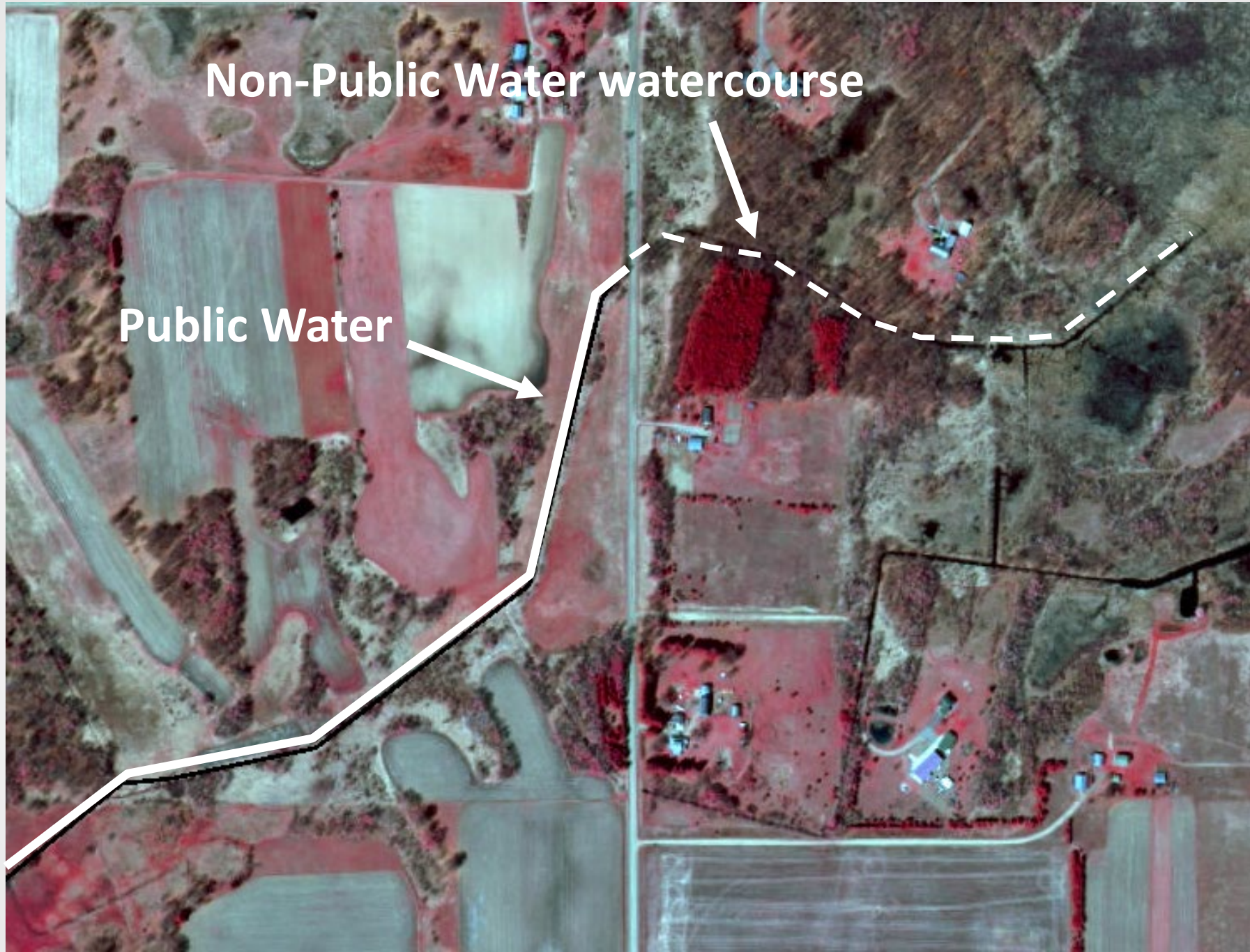
← HGM is a relatively simple system that classifies wetlands based on their position in the landscape (depression, slope, floodplain, etc.) and their source of water (flooding from stream, lake bounce, seep, etc.).

Non-PW Deepwater Habitats Now Regulated by WCA

- Water bodies that are too deep to be wetlands (generally >8.2 feet deep) and are not big enough to meet the criteria for Public Waters (>2.5 ac in metro, >10 ac non-metro) are now subject to WCA regulations.
- This change is effective August 1. Most of these water bodies include a fringe of wetland that was already regulated by WCA.

Regulatory Authority for Non-PW Intermittent/Perennial Streams added to WCA

- BWSR can adopt rules that protect or mitigate impacts to watercourses that are upstream of Public Waters watercourses (drainage area >2 sq miles).
- This change is not effective until rules are adopted in a future rulemaking when the necessary resources and expertise are acquired to implement it.



Non-Public Water watercourse

Public Water

Wetland Banking – Review and Comment Timelines

- As with all WCA decisions, a decision on a wetland bank plan must be made in compliance with Minnesota Statutes 15.99 which generally requires a decision within 60 days.
- Statute directs BWSR to establish review and comment period timelines in WCA rule for wetland banking projects. Once adopted, the review timelines would no longer be subject to MS 15.99.
- Does not apply to other WCA application types.

Wetland Replacement Responsibility – State Roads

- WCA requires that BWSR provide replacement for wetland impacts associated with public transportation projects meeting certain requirements, except for projects that Minnesota Department of Transportation (MnDOT) is responsible for.
- Statute now clarifies that MnDOT is responsible for wetland replacement on public transportation projects that occur on state roads, regardless of who the project sponsor or co-sponsor is.

Next Steps, WCA Rulemaking

1. Notice posted in State Register
 - Expand the scope of WCA rulemaking to include 2024 statute changes
 - Request for comments (deadline August 12)
2. Review/consider comments received.
3. Incorporate relevant statute changes into an initial WCA rule draft.
4. Continue with the rulemaking process, including additional opportunities for public review and comment.

More Information

BWSR website WCA Rulemaking page: <https://bwsr.state.mn.us/wca-rulemaking>.

- Buffers ▾
- Wetlands ▾**
- Easements ▾
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WCA Rulemaking Page

- Includes link to State Register Request for Comments.
- Link to statute changes includes a written summary and narrated presentation.

Wetland Conservation Act Rulemaking



MENU

Wetland Conservation Act Rulemaking

WCA Rulemaking Comments Received

Wisconsin - Minnesota Wetland
Functional Assessment Initiative

The Minnesota Board of Water and Soil Resources (BWSR) is responsible for promulgation of the Wetland Conservation Act (WCA) Rules. The WCA Rules are codified in Minnesota Rules Chapter 8420 based on the standards and authorizations contained in state statute. WCA took effect with an interim program in 1992 and began operating under formally adopted rules in January 1994. The Legislature has passed numerous amendments to WCA since its original passage and the rules have undergone multiple revisions. The current WCA Rule was adopted in 2009 and multiple statute changes have occurred since adoption.

Rulemaking in Minnesota follows the procedures outlined in the Minnesota Administrative Procedure Act (APA), Minnesota Statutes, Chapter 14. BWSR staff utilize the [Minnesota Rulemaking Manual](#) as a procedural guide for WCA Rulemaking. The current WCA Rulemaking process was initiated in 2015 when an initial request for comments was published in the State Register. A supplemental request for comments was published on January 20, 2022.

Another supplemental request for comments based on the addition of 2024 statute changes was published in the **July 8, 2024 edition** of the [State Register](#).

This page contains information relating to WCA Rulemaking, WCA statutes, public comments, and stakeholder participation. See our page on the WCA statute changes related to this rulemaking [2011 – 2024 WCA Statute Changes](#) (link) including recent information on outreach associated with the 2022 statute changes.

Additional Questions about Implementation of the 2024 Statute Changes?

- General questions can be sent to: Lewis.Brockette@state.mn.us
- Implementation questions regarding specific projects should be directed to your BWSR Wetland Specialist.

If you would like to discuss a particular provision further, you can also contact any of us directly.



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