

State of Minnesota's Waters: Impaired Waters List



Catherine Neuschler, Manager, Water Assessment Section Miranda Nichols, Impaired Waters List Coordinator Paul Gardner, Clean Water Council Administrator

What we'll cover





Framework from Federal law and regulations

- Clean Water Act (CWA) provides framework and oversight for key MPCA water programs
 - 303(c) Standards
 - 303(d) Monitoring, assessment, listing
 - 402 Point Source Permitting (NPDES)







Federal Clean Water Act: Two Pathways to Clean Water

Focus on Pollution Sources

- Reduce or eliminate pollutant discharge
- Point Sources/Facilities
- Nonpoint/Widespread
- Require technology/ BMPs

Focus on Waterbody Condition

- Designate uses
- Set standards
- Monitor & assess for support
- TMDLs

Protection & Pollution Control Strategies

- Permits
- Compliance & Enforcement
- Financial & Tech assistance
- Education
- WRAPS and local water plans



Designating Uses and Setting Standards





Using Water Quality Standards

To measure the health of our waters

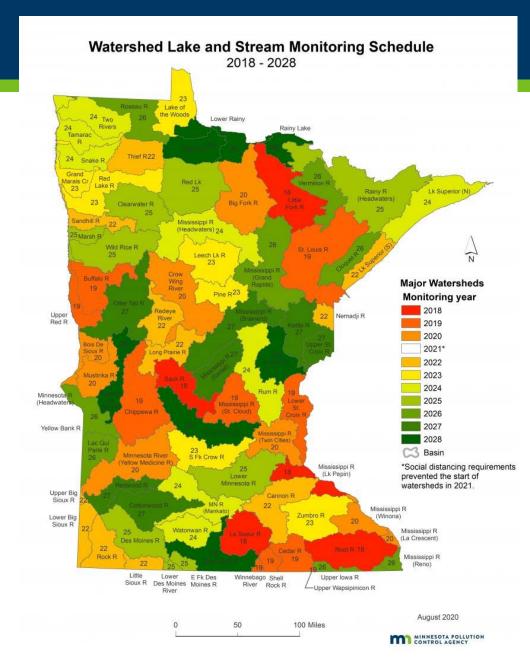
- Monitoring
- Assessment
- To take actions to ensure the health of our waters
 - TMDLs
 - Point source based reductions: pollution prevention, permit limits, compliance and enforcement
 - Nonpoint source based reductions: BMPs, technical assistance, land use changes











Monitoring and Assessment

- Monitoring is that first step to measure the health of waters and assess them against standards
 - CWLL Funds allow Minnesota to do more monitoring than many states
- Evaluating conditions informs management actions
 - Identify high quality for protection
 - Identify polluted (impaired) for restoration





Minnesota's Impaired Waters List

- Impaired Waters List (IWL) is the "report out"
 - Cumulatively lists those waters that are not meeting standards
- 2020 IWL was a milestone
 - Capped off one full 10 year cycle
- 2022 IWL
 - First list with evaluation from repeat monitoring (starting second 10 year cycle)





Air ▼ Water ▼ Waste ▼ Regulations ▼ Living Green ▼ Data ▼ About the MPCA ▼

Water / How's the water? / Water monitoring and assessment

Minnesota's Impaired Waters List

As required by the federal Clean Water Act, the MPCA creates a list of impaired waters — those that fail to meet water quality standards — every two years. The listings are based on intensive water monitoring of major lakes and streams in Minnesota's 80 watersheds, along with data from several partners.

For the draft 2022 list, the MPCA is adding 305 water bodies with 417 new impairments, bringing the total to 2,904 water bodies with 6,168 impairments.







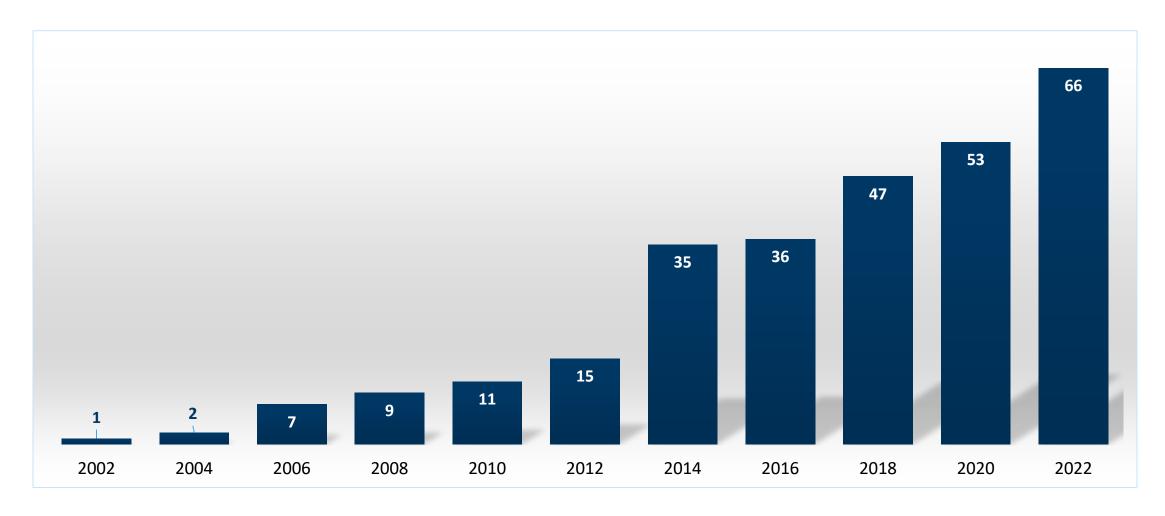
Impairments over time







Restored impairments over time

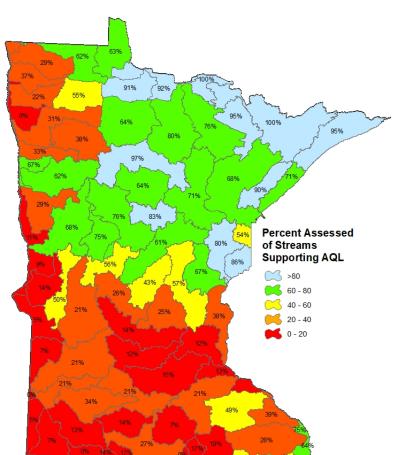






Geography of Impaired Waters

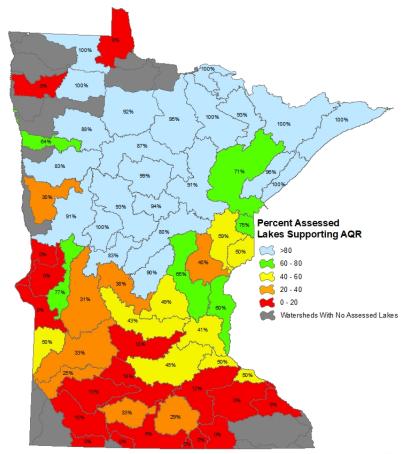








Lake Assessments (Aquatic Recreation Use - AQR)
Eutrophication - Phosphorus, Chlorophyll, and Secchi Transparency

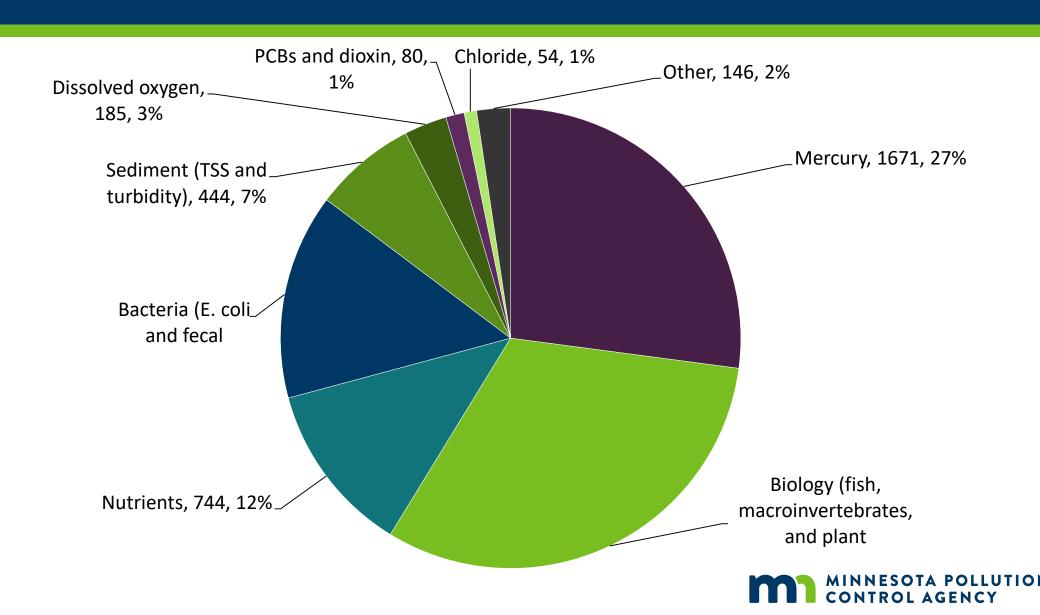








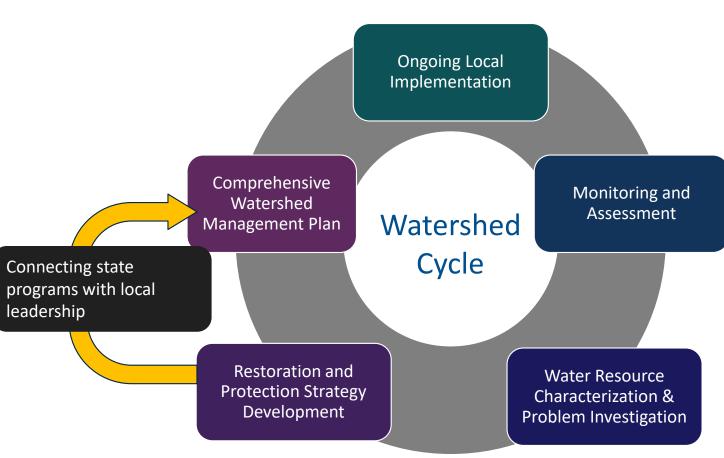
Types of impairments





What Happens Next?

- Listing isn't the only story
 - We also find waters in need of protection to keep them clean
- Listing is NOT the end of the story
- We work to protect and restore the waters that need it
 - TMDLs, WRAPS, local plans (1W1P)







If This Seems Overwhelming...



- Impairments are now leveling off after 10 year monitoring cycle
- Minnesota monitors for more impairments in more places than other states

- Impairments were already there, we just documented them
- State can't affect 30% of impairments (esp. mercury)
- For remaining 70%, we have a systematic, watershed-based approach to prioritize the most important waters
- De-listed impairments are accelerating

