

# Inventory of water quality standards projects, 2021 – 2023, with status as of November 2023

## New or revised water quality standards (WQS) and amendments in rulemaking:

### Group 1: Current and active WQS projects

Subgroup 1A	Topic	Status
In Rulemaking	<p>Revisions to <b>Class 1 (domestic consumption) use designations and associated WQS</b> including PFAS for surface water and groundwater.</p> <p><a href="https://www.pca.state.mn.us/water/amendments-water-quality-standards-use-classification-1">https://www.pca.state.mn.us/water/amendments-water-quality-standards-use-classification-1</a></p>	<p>These revisions are intended to provide much needed updates to Minnesota rules applying to Class 1 waters (Minn. R. ch. 7050.0221), which have changed very little since first adopted in 1967. Key revisions include adopting more appropriate water quality standards (WQS) to protect the domestic consumption use; and reviewing and updating Class 1 designated waters, including the addition of surface waters that impact the quality of groundwater. Other revisions are focused on addressing ambiguities, inconsistencies, and gaps in Minn. R. chs. 7050 (Waters of the State), 7052 (Lake Superior Basin Water Standards) 7053 (State Waters Discharge Restrictions) and 7060 (Underground Waters), as well as Minn. Stat. 103H (aka the 1989 Groundwater Protection Act). Minnesota Pollution Control Agency (MPCA) published a Request for Comments (RFC) in 2021 to provide more detail regarding the revisions under consideration and obtain feedback from the public on these issues.</p> <p>MPCA published a second RFC on August 28, 2023, to solicit comments on rules establishing WQS for per- and polyfluoroalkyl substances (PFAS) as directed by Minnesota Session Law – 2023, Chapter 60, Article 3 Section 33. This public comment period ended on October 30, 2023.</p> <p>MPCA anticipates publishing a third RFC and draft TSD in 2024.</p> <p><b>Lead scientist:</b> Meghan Hemken</p>

Subgroup 1A	Topic	Status
In Rulemaking	<p>Revision of numeric WQS for protection of aquatic life based on EPA 304(a) Ambient Water Quality Criteria for <b>ammonia</b>.</p> <p><a href="https://www.pca.state.mn.us/get-engaged/ammonia-water-quality-standard">https://www.pca.state.mn.us/get-engaged/ammonia-water-quality-standard</a></p>	<p>This revision will update Minnesota’s existing WQS for ammonia by incorporating current science. The U.S. Environmental Protection Agency’s (EPA’s) national recommended ambient water quality criteria for ammonia will be adopted as part of this revision (EPA, 2013).</p> <p>MPCA published an RFC on August 1, 2022, that was open through September 15, 2022. The RFC and comments received are available on the rule webpage.</p> <p>MPCA is currently working to develop the Statement of Need and Reasonableness (SONAR). MPCA anticipates publishing a Notice of Intent to Adopt Rules (NOI) in 2024.</p> <p><b>Lead scientist:</b> Robert Dietz</p>
In Rulemaking	<p>Revisions to <b>lake eutrophication WQS</b>.</p> <p><a href="#">Lake aquatic life and recreation   Minnesota Pollution Control Agency (state.mn.us)</a></p>	<p>This revision includes several elements needed to update and modernize the WQS for lakes. They include: 1) revising the northern lake eutrophication standards by adding standards for a shallow lake type, 2) reviewing protections for cold water fish species including lake trout, lake whitefish, and cisco and developing standards where needed, 3) review and designation of cold water lakes, 4) adoption of a <a href="#">Tiered Aquatic Life Use (TALU)</a> framework for lakes, and 5) minor corrections and housekeeping revisions.</p> <p>An RFC was published on September 18, 2023, and will remain open through November 3, 2023. <b>Lead scientist:</b> Will Bouchard</p>
Subgroup 1B	Topic	Status
Technical review/Pre-rulemaking development	<p>Revisions to aquatic life and recreation <b>use Classes 2A (cold waters) and 2B (cool and warm waters) and Class 7 (limited resource value waters)</b>.</p>	<p>This revision makes updates and corrections to Class 2 (aquatic life and recreation) and Class 7 (limited resource value waters) beneficial use designations or classifications for streams and lakes. These corrections and updates are mostly related to implementation of the <a href="#">Tiered Aquatic Life Use (TALU)</a> framework, which added new Class 2 beneficial use tiers for aquatic life. In addition, cold (Class 2A) and warm/cool (Class 2Bd and 2B) water use designations will be reviewed and corrected, if necessary, as part of this rulemaking.</p> <p>This is the third set of revisions related to implementation of the TALU framework. It is anticipated that an RFC for this rulemaking will be published by mid-2024.</p> <p><b>Lead scientist:</b> Will Bouchard</p>

Descriptions for each group and subgroup are on page 7.

## New or revised WQS and amendments that are priorities to develop 2021 to 2023:

### Group 2: In technical development

Subgroup 2A	Topic	Status
Technical development	Revision of numeric WQS for protection of aquatic life for <b>aluminum, copper</b> and potentially <b>cadmium</b> .	<p>EPA 304(a) Ambient Water Quality Criteria are available for aluminum (2018), and copper (2007), but the criteria adopted for cadmium in 2016 was vacated on August 18, 2023 by order of the U.S. District Court, District of Arizona (for more information see: <a href="https://www.epa.gov/wqc/aquatic-life-criteria-cadmium">https://www.epa.gov/wqc/aquatic-life-criteria-cadmium</a>).</p> <p>MPCA plans to revise existing WQS for aluminum and copper using EPA's updated criteria to maintain currency with newer science; cadmium may be updated, depending on future developments relative to the now vacated 2016 criterion. This work will commence as staff are available.</p> <p><b>Lead scientist:</b> To be determined (TBD)</p>
Subgroup 2B	Topic	Status
Technical information outstanding	Revisions of numeric WQS for protection of aquatic life for <b>chloride</b> .	<p>EPA is working to develop draft criteria for chloride and sulfate (combined), or potentially, a more complex ion criteria that would include chloride, sulfate, and other major ions. EPA indicated late summer it now anticipates producing a draft criteria towards the end of 2024.</p> <p><b>Lead scientist:</b> TBD</p>
Technical information outstanding	Additions of numeric WQS for protection of aquatic life for <b>sulfate</b> .	<p>EPA is working to develop draft criteria for chloride and sulfate (combined), or potentially, a more complex ion criteria that would include chloride, sulfate, and other major ions. EPA indicated late summer it now anticipates producing a draft criteria towards the end of 2024.</p> <p><b>Lead scientist:</b> TBD</p>

## New or revised WQS and amendments that are priorities to develop 2021 to 2023:

### Group 3: Tracking and evaluation

Group 3	Topic	Status
Tracking and evaluation	Revisions to numeric WQS for total suspended solids (TSS) to protect aquatic life.	This revision is under consideration to address a potential gap in the existing TSS WQS, which may not appropriately consider Minnesota rivers that have naturally high TSS and also high-quality biological communities. <b>Lead scientist:</b> Will Bouchard
Tracking and evaluation	Addition of numeric WQS for <b>perfluoro-octane sulfonate (PFOS) in fish tissue</b> , employing updated human-health based WQS methods (these methods were adopted into Minn. R. chs. 7050 and 7052 on March 16, 2015).	MPCA expects to develop a WQS for PFOS in fish tissue to address the increasing number of water bodies across the state in which fish have been impacted by PFOS. Currently, updated site-specific criteria for PFOS in fish tissue are available for certain water bodies in the Twin Cities Metro Area. For more information about MPCA's approach to addressing per- and polyfluoroalkyl substances (PFAS), see: <a href="#">the PFAS Blueprint</a> and <a href="https://www.pca.state.mn.us/waste/water-quality-criteria-development-pfas">https://www.pca.state.mn.us/waste/water-quality-criteria-development-pfas</a> . <b>Lead scientist:</b> TBD
Tracking and evaluation	Addition of numeric WQS for protection of aquatic life for <b>clothianidin</b> and <b>imidacloprid</b> .	The Minnesota Department of Agriculture (MDA) named clothianidin and imidacloprid as <a href="#">pesticides of concern in surface water</a> in 2020. These pesticides were detected at concentrations of concern to aquatic life in rivers and streams relative to a water quality reference value (i.e., EPA benchmark values). Minnesota does not have WQS for these pesticides. <b>Lead scientist:</b> Phil Monson

Descriptions for each group and subgroup are on page 7.

## Other WQS projects:

### Group 4: Other WQS projects

Group 4	Topic	Status
Intermittent activity	Updates to the list of <b>outstanding resource value waters</b> in Minn. R. 7050.00335.	Review of outstanding resource value waters is conducted on an as needed basis. <b>Lead scientist:</b> TBD
Intermittent activity	Review of <b>limited resource value waters</b> (Class 7).	Review of Class 7 waters is conducted on an as needed basis. <b>Lead scientist:</b> Will Bouchard
On hold	Addition of numeric WQS for protection of aquatic life for <b>nitrate</b>	<p>Technical development for this WQS resulted in a draft TSD that is available for review (<a href="https://www.pca.state.mn.us/sites/default/files/wq-s6-13.pdf">https://www.pca.state.mn.us/sites/default/files/wq-s6-13.pdf</a>). However, the MPCA has decided not to proceed with adoption at this time. MPCA, in coordination with its partners, is pursuing a holistic, step-wise approach to help reduce nitrogen levels statewide prior to adopting a new nitrate aquatic life toxicity water quality standard. This includes:</p> <ol style="list-style-type: none"> <li>1) Developing a detailed Wastewater Nitrogen Reduction Strategy with targeted actions to reduce nitrogen coming from WWTPs to protect drinking water, aquatic life, and meet the Nutrient Reduction Strategy's point source goals.</li> <li>2) Completing a 10-year revision of the Nutrient Reduction Strategy, updated with enhanced strategies and actions designed to achieve reductions in nonpoint and point sources of nitrogen.</li> </ol> <p>For further information on the Wastewater Nitrogen Reduction Strategy, please contact <a href="#">Suzanne Baumann</a>, Municipal Wastewater Section Manager. For more information on the revision of the Nutrient Reduction Strategy, please contact <a href="#">Dave Wall</a>, Research Scientist.</p>

Group 4	Topic	Status
Completed	<p>Revisions to aquatic life and recreation use <b>Classes 2A (cold waters) and 2B (cool and warm waters) and Class 7 (limited resource value waters)</b>.</p> <p><a href="https://www.pca.state.mn.us/water/2021-amendments-water-quality-standards-use-classification-2">https://www.pca.state.mn.us/water/2021-amendments-water-quality-standards-use-classification-2</a></p>	<p>This revision made updates and corrections to Class 2 (aquatic life and recreation) beneficial use designations or classifications for streams and lakes. These corrections and updates were mostly related to implementation of the (TALU) framework, which added new Class 2 beneficial use tiers for aquatic life. In addition, cold (Class 2A) and warm/cool (Class 2Bd and 2B) water use designations were reviewed and corrected, when necessary, as part of this rulemaking.</p> <p>(MPCA) published a Notice of Intent to Adopt Rules (NOI) on December 12, 2022, that included a hearing that was held on February 3, 2023. A notice of adopted rules was published in the State Register on June 26, 2023, and the rule amendments became effective July 3, 2023. EPA issued its approval of the amendments on October 16, 2023.</p> <p><b>Lead scientist:</b> Will Bouchard</p>

**Completed water quality standards and amendments:** these WQS projects were completed since the 2021 Triennial Standards Review.

Descriptions for each group and subgroup are on page 7.

## Explanation of group designations:

**New or revised water quality standards (WQS) and amendments in rulemaking** are **Group 1 projects that are in active development**. These WQS projects are in rulemaking (Group 1A) or are expected to enter rulemaking before the next triennial review (within two to three years) (Group 1B).

**Group 1A projects** have had a request for public comment published and there is a projected timeline for adoption into state law. The MPCA is focused on responding to any changes needed due to peer review (where applicable), finalizing the technical support document (TSD), and developing the SONAR and final rule language. The need for peer review will influence how long it takes to complete a WQS.

**Group 1B projects** are in the process of preparing supporting documentation (the TSD), and there is a basic concept of what will be included in rule language. Draft TSDs for new or revised numeric WQS go through an initial public comment period and an independent peer review process. When the TSD is sufficiently complete (i.e., complete enough to allow it to go through peer review), Group 1B projects move into Group 1A, about two to three years.

**New or revised WQS and amendments that are priorities to develop 2021 to 2023** include **Group 2 and 3 projects**. These WQS projects were selected as priorities for development in the 2020-2021 Triennial Standards Review and have not yet advanced into rulemaking; their progress during 2022 is provided here.

**Group 2 projects** are in technical development. Information needs and technical approaches for developing WQS vary widely, making it difficult to estimate the time needed to advance these projects.

**Group 2A projects** are those for which all necessary supporting studies and other information from outside the MPCA is available. The information is sufficient to conduct a basic evaluation of how the standard will address environmental or programmatic concerns, and to assess the resources needed to promulgate and implement the standard. An important consideration in whether and when a WQS project moves into Group 1 is whether MPCA programs can accommodate the added work to develop policy and implement the new WQS, and still maintain regular permitting and related work. Group 2A projects are likely to move into Group 1B within one to two years.

**Group 2B projects** are in initial technical development. This can involve many different tasks, such as: compiling and reviewing scientific literature about a pollutant; collecting and reviewing Minnesota-specific data; designing and undertaking one or more studies; and reviewing an EPA criteria document. Projects in Group 2B lack some needed information, such as a scientific study, that prevents completion of technical development. Months to years may pass before the information needed to complete basic technical development is available. Once it is, Group 2B projects move into Group 2A.

**Group 3 projects** are being tracked. Group 3 projects are those that MPCA has not started developing, either because of missing technical information, a lack of capacity, or both. Group 3 projects may remain in Group 3 with no significant progress made throughout the three-year triennial period.

**Group 4 projects** do not have a priority status with regard to development but are important WQS work.

NOTE: Under Minn. R. chs. 7050 and 7052, MPCA has authority to develop site-specific water quality standards and site-specific criteria that do not apply statewide and are not subject to rulemaking. More information is available here: <https://www.pca.state.mn.us/water/site-specific-water-quality-standards> and <https://www.pca.state.mn.us/water/site-specific-criteria>.

## Opportunities for public comment:

Opportunities for public input on water quality standards occur with the adoption of standards into Minnesota rule. In addition, all of Minnesota's water quality standards are open for public review and comment every three years as part of the Clean Water Act required Triennial Standards Review. The next Triennial Standards Review is anticipated in 2024.

Specific information about upcoming opportunities to comment on standards proposed for adoption (Group 1A) is available here:

**Note: The easiest way to stay current with water quality standards development and adoption** is to sign up for GovDelivery notices: the link to sign up is at the bottom of this webpage: <https://www.pca.state.mn.us/get-engaged/proposed-rules>. Follow the instructions and look for "Water Rulemaking."

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*This report fulfills the requirement of Minn Stat. 115.035 paragraph (g).*