

Responses to the 2026 draft Impaired Waters List (IWL) public notice comments

The 2026 draft Impaired Waters List (IWL) comment period began May 19, 2026, and ended on July 22, 2026, 11:59 P.M. The Minnesota Pollution Control Agency (MPCA) received 38 comments total and greatly appreciates partner and public engagement on this topic. These comments serve to shape the internal conversations and prioritization work by MPCA leadership and staff now and into the future.

The comments received are summarized below, along with the MPCA’s responses. The original 38 comments received can be found on the IWL website here: [Minnesota’s impaired waters list | Minnesota Pollution Control Agency \(state.mn.us\)](https://www.mn.gov/impairedwaters)

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Changes being made from the draft 2026 IWL to the final 2026 IWL

- Edited eight AUIDs to TMDL Commitment Group 1 in Column N on the 2026 TMDL List tab to be consistent with [Minnesota's TMDL commitment list FY25–26](#). This was a clerical error in the draft list where they were incorrectly listed in commitment group 2.
- Kittleson Lake (AUID 60-0327-00) edited to show delisted due to unknown reasons (draft list said due to restoration activities). This was a clerical error in the draft list. This was accurately delisted, but restoration activities are not directly linked as being the reason for delisting. This can be found in the *Delisted* tab under column O.
- Stahl's Lake (AUID 43-0104-00) added a new FIBI impairment (draft list prepared with inconclusive data, a correction was made in the model that concluded the impairment) found in the *2026 Inventory Impaired Waters* tab.
- Removal of Fish Lake (AUID 82-0093-00) nutrient impairment. Fish Lake should be assessed as a wetland and not a shallow lake. This waterbody is managed as a wetland. More documentation can be provided upon request.
- TMDL reports newly approved by U.S. Environmental Protection Agency (EPA) since draft list was published on May 19 are reflected in the EPA Category, found in column O of both the *2026 Inventory Impaired Waters* and *2026 TMDL List* tabs. There are 23 waterbody segments (AUIDs) that now have TMDLs and have been moved to category 4A.
- Assessment Guidance Manual had two unique tables both labeled Table 17. Table numbers have been modified to fix this clerical error, along with associated page reference numbers. Content of tables did not change.
- Assessment Guidance Manual Table 15 edited from “no exceedance” to “no more than one exceedance” regarding determinations of non-impairment for consistency with the 2024 manual.

Responses to Leech Lake Band of Ojibwe¹

Thank you for the support of our continued work in assessment, impairment designations, and TMDL reports. We look forward to the continued partnership and collaboration on these efforts and more. There are ongoing discussions regarding TMDL-like partnerships between the LLBO and MPCA and we look forward to continued partnership opportunities regarding this opportunity on Dixon Lake (AUID 31-0921-00).

The Class 4A designated use applies to all surface waters in the state, but only a subset of these waters is considered “waters used for production of wild rice” according to Minnesota rule. The 10 mg/L sulfate water quality standard applies to this subset of waters to protect wild rice from elevated concentrations of sulfate in the water column. The MPCA is taking an expansive approach to identifying all waters that demonstrate wild rice growth or the potential to support wild rice. The MPCA recognizes that this subset

¹ Public comment from Leech Lake Band of Ojibwe found at [LLBO comment](#)

of identified waters is a starting point. We are asking for additional waterbodies with evidence to support a decision to designate as a water used for production of wild rice be submitted with the public notice period of the Impaired Waters List. Submitted information will be reviewed during the two years between Guidance Manual publications.

In Lake Bemidji, AUID 04-0130-02, there was fish tissue data collected for PFOS and PFOA most recently in 2019. An assessment of PFOS in fish tissue found no exceedances of the 50 ng/g (ppb) threshold for waterways, which is the upper cutoff in MDH's fish consumption guidance for 1 meal/week. Overall, Lake Bemidji remains as not-supporting the beneficial use of aquatic consumption.

This request for continued PFAS monitoring on Lake Bemidji has been added to the MPCA list of requests to the Inter-Agency Fish Contaminant Monitoring Program (FCMP) for additional data to be collected. The FCMP is comprised of MPCA, DNR, and MDH who collaborate on monitoring and prioritization setting of collecting fish tissue contaminant data across the state.

Response to Fond du Lac Band of Lake Superior Chippewa²

Thank you for your comments supporting the agency's work to assess sulfate impaired waters, and establish effluent limits in permits. The MPCA is committed to implementing the state's existing sulfate water quality standard and ensuring compliance by entities that discharge water. Implementation paths in water discharge permits may include a permit requirement to monitor for sulfate, or a sulfate limit based on the current water quality standard.

Thank you as well for your participating in the mercury working groups, and your comments supporting our efforts for facilities to meet the statewide Hg TMDL goals. The MPCA understands and validates Fond du Lac Nation's concern with the slow progress towards addressing mercury emissions in MN. The following information is already familiar to you, but included for reference for others.

A state-wide mercury TMDL is updated every two years along with the IWL. Clear guidelines on what needs to be implemented in permits and goals to be met by industry have already been laid out. Seventy three percent of waters will meet goals when the TMDL reductions are fully implemented. However, this requires participation by all emitters of mercury, specifically taconite-related, in order to meet the goals set by 2025.

In the most recent Statewide Mercury TMDL annual meeting, a presentation with general updates from MPCA staff notes:

- MPCA continues to work towards additional mercury reductions within MN and elsewhere.
- MPCA specifically stated that without reductions in taconite-related mercury, the statewide TMDL goals are unachievable.

Please see slide 27 in the presentation deck at [2023 MPCA Mercury Updates](#).

The MPCA also submitted comments on EPA's review of the federal standards for taconite, specifically calling on EPA to set more stringent mercury limits for these sources. As listed in the comment, MPCA said "Taconite iron ore processing plants in Minnesota represent roughly 75% of the total mercury emissions from point sources in Minnesota and approximately 50% of the mercury emissions from all sources statewide. The MPCA strongly supports stringent mercury control standards and urges EPA to set more stringent mercury limits for this source category than identified in the proposal. The MPCA believes that EPA must set more stringent mercury standards up to the 85% reduction capability of activated carbon injection (ACI) identified by EPA in the proposal. We provide more detailed comments on specific areas of the proposal in the following sections." That comment can be found at [Regulations.gov](#)

² Public comment from Fond du Lac Band of Lake Superior Chippewa found at [FDL comment](#)

Response to 1 comment on Treaty Rights³

In accordance with Minnesota Statutes, section 10.65, MPCA will continue to consult in government-to-government relationships regarding any topic that a Tribal Nation requests. Additionally, MPCA's consultation policy requires consultation when actions affect Tribal lands or people, treaty rights, cultural resources, or environmental conditions in or near Indian Country⁴. The MPCA consultation and coordination are ongoing with Tribal Nations regarding water quality standards and treaty rights.

One of the outcomes of consultation and coordination is the MPCA decision to prioritize an update to the fish consumption rate (FCR), which is a necessary component of calculating fish tissue standards. You can see more information in our triennial standards review workplan, located at [Triennial standards review workplan](#). The MPCA has previously identified the need to update fish consumption rates (FCR) related to developmental contaminants that impact people who may become pregnant and developed an interim FCR to address this need. There is also a need to consider FCR of subsistence fishers, whose health risk may be elevated due to additional consumption of contaminated fish. The FCR is an important component in the calculation of any updated fish tissue-based WQS, such as PFOS and mercury. Because of this, MPCA is prioritizing the work of updating the FCR, which needs to be completed prior to development of any new fish tissue WQS. This work is being done in partnership with both Tribal Nations and environmental justice communities.

Minnesota residents generally consume more caught fish than other parts of the country, on average⁵. The EPA uses national survey data for fish consumption, which results in a lower fish consumption rate than Minnesota uses for its standards. Minnesota could utilize the EPA's aquatic life ambient water quality criteria (AWQC) but alter them with a higher fish consumption rate to reflect state-specific conditions. The EPA generally intends for states to develop standards that are at least as stringent as their AQWC, but states or tribes can alter the AQWC with updated science or state-specific considerations. The MPCA has already developed some human health site-specific criteria for sites with known PFAS contamination that are similarly protective to EPA's AWQC and include three additional PFAS. It is possible that for sites that have the appropriate PFAS data, more PFAS site-specific criteria could be developed until the state is able to adopt state-wide standards for these chemicals. Development of an updated fish consumption rate for Minnesota is necessary before MPCA can proceed with the development of a statewide fish tissue standard for PFOS. Development of a statewide, fish-tissue based human health water quality standards (HH-WQS) for PFOS is needed to address the large number of Minnesota waters that are impaired for PFOS in fish tissue. The MPCA has developed site-specific criteria (SSC) for PFOS in fish tissue for several water bodies, but the new standard would apply statewide. This standard would be moved forward after completion of the update to the fish consumption rate.

Responses to 7 comments on form letter

Submitters:

- Catherine Fleming⁶
- Conservation Minnesota⁷
- Dean Borgeson⁸
- Grace Butler⁹

³ Public comment from Leanna Goose found at [Leanna Goose comment](#)

⁴ as defined in 18 U.S.C. part 1151.

⁵ Human Health-based Water Quality Standards Technical Support Document, MPCA. 2017. Page 49.

⁶ Public comment from Catherine Fleming found at [Catherine Fleming comment](#)

⁷ Public comment from Conservation Minnesota found at [Conservation MN comment](#)

⁸ Public comment from Dean Borgeson found at [Dean Borgeson comment](#)

⁹ Public comment from Grace Butler found at [Grace Butler comment](#)

- Janette Dean¹⁰
- Laura Scholl¹¹
- Megan O'Hara¹²

In response to the 404 members who signed on to Conservation Minnesota's letter, and the additional sixsubmitters who sent in individual comments in support of Conservation Minnesota's statements, MPCA thanks you for encouraging us to continue prioritizing measurable pollution reduction actions in decision making. Passionate Minnesotans like yourselves are contributors in securing future funding for clean water studies, restoration implementation, and protections. It is largely because of local efforts in implementation and advocacy that water quality improvements that lead to delistings can occur. Thank you for supporting our proposal for the 45 impairment delistings. We look forward to continued good work for future delistings to occur.

Responses to 3 delisting request comments

Submitters:

- Brown's Creek Watershed District¹³
- MPCA¹⁴
- ADM Marshall¹⁵

Regarding Long Lake (AUID 82-0021-00) & South Whaletail Lake (AUID 27-0184-02) & Redwood River

Thank you for this request. All data needs to be submitted to our EQuIS system in accordance with published timelines to be included in our assessment process. These timelines can be found on the MPCA website at [Submitting surface water data timelines](#).

Once data has been submitted and verified as final in our EQuIS system, we encourage working with the MPCA project manager assigned to your region to fill out a delisting form to submit for chemistry staff to review this delisting request. We consider this a part of our opt-in process as this request comes out of this HUC8 regularly scheduled assessment cycle. The project manager assigned to your watershed may have already reached out to you to begin this process to submit this data and form request by January 15, 2027, so this delisting request can be reviewed for consideration in the 2028 IWL.

Responses to 3 comments on monitoring Summit Lake (AUID 17-0073-00 or 32-0019-00)

Submitters:

- Diane Duerksen¹⁶
- Justin Johnson¹⁷
- Sam Duerksen¹⁸

This lake is located in the Des Moines River headwaters. This watershed was monitored in 2025 and 2026, and is scheduled for assessment in spring of 2027 with resulting impairment determinations to be updated in the 2028 IWL. This is in accordance with our integrated watershed approach to ensure that

¹⁰ Public comment from Janette Dean found at [Janette Dean comment](#)

¹¹ Public comment from Laura Scholl found at [Laura Scholl comment](#)

¹² Public comment from Megan O'Hara found at [Megan O'Hara comment](#)

¹³ Public comment from Brown's Creek Watershed District found at [Browns Creek WD comment](#)

¹⁴ Public comment from MPCA staff Amy Timm found at [Amy Timm comment](#)

¹⁵ Public comment from ADM Marshall found at [ADM Marshall comment](#)

¹⁶ Public comment from Diane Duerksen found at [Diane Duerksen comment](#)

¹⁷ Public comment from Justin Johnson found at [Justin Johnson comment](#)

¹⁸ Public comment from Sam Duerksen found at [Sam Duerksen comment](#)

once every 10 years the entire state can be monitored and assessed, with a map and schedule of those watershed assignments located on our website. More details can be found at the MPCA website at [Watershed approach to water quality](#). We do have a surface water monitoring request process for residents and watershed organizations to request monitoring to occur in specific waterbodies when MPCA is scheduled to conduct that monitoring in our watershed approach process. That information is found at [Surface Water Monitoring Requests](#). Unfortunately, because the monitoring sites are already selected for 2026 the window has passed to request additional monitoring at the state level. Even with this watershed approach we live in a state with large amounts of surface water and cannot monitor every lake, stream, and wetland with limited state funds.

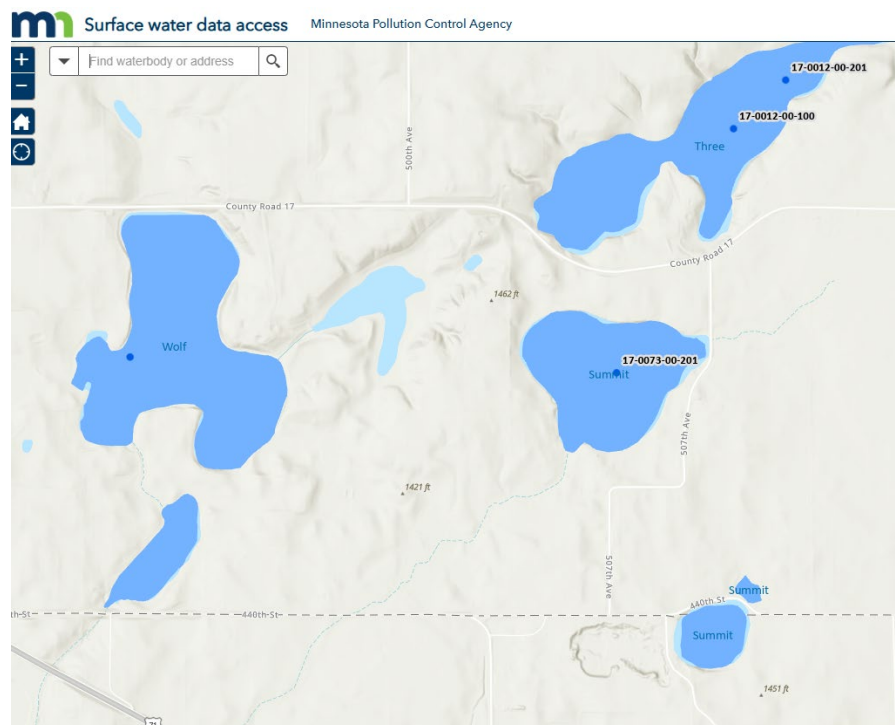
However, the good news is MPCA also pulls and utilizes any publicly available data whether collected by federal, county, city, or local partners and has been submitted on time to the MPCA EQuIS database. You can find the timeline for submitting public data for our review in assessments at [Submitting surface water data timelines](#).

There are two Summit Lakes nearby one another. Please contact us at impaired.waters.mPCA@state.mn.us if these are not the correct lakes you were referencing. Many lakes in Minnesota have the same name, even within the same county.

Summit Lake that utilizes AUID 17-0073-00 and can be found spatially referenced at this website link: [Surface Water](#) Summit Lake (AUID 17-0073-00) has minimal data. There was one sample of nutrients which includes phosphorus, chlorophyll-*a*, and Secchi as well as one sample of chloride, both collected in August 2012. Chloride was found to be meeting water quality standards. Nutrients were found to be exceeding standards. However, there are a minimum number of samples that need to be collected in order for an assessment for lake water quality to be considered impaired. The MPCA Assessment Guidance Manual details out these minimum assessments for lake nutrients. Therefore, the data analysis for Summit Lake (AUID 17-0073-00) is inconclusive as more data needs to be collected.

Summit Lake that utilizes AUID 32-0019-00 can be found spatially referenced on the web at [Surface Water](#). In a data pull from these sources, there was no chemistry or biology data available on the Summit Lake (AUID 32-0019-00). There is also no public access to this lake. For either of these lakes, the MPCA encourages residents to sign up for the volunteer monitoring program to help collect some data on these lakes. More information can be found at the MPCA website at [Volunteer water monitoring](#). The MPCA also encourages contacting the local soil water conservation district, county, city, or lake association in your local area to request if they can conduct any monitoring and submit this data to MPCA for assessment and impairment review.

Figure 1: Surface water data access map of Summit Lakes



Responses to 2 comments on chloride methodology

Submitters:

- ADM Marshall¹⁹
- MN Environmental Science and Economic Review Board (MESERB)²⁰

Thank you for your comments regarding the MPCA's interpretation of the chloride water quality standard according to Minnesota Rules. The MPCA disagrees that there is an inconsistency in application of the chloride standards' frequency components. The exceedance frequency that is referenced in ADM Marshall's comment comes from an EPA criteria document from 1988. This exceedance frequency is not promulgated in Minnesota Rules, part 7050.0222. The MPCA will maintain the current frequency component of not more than once every three years without adding the "on average" component.

According to the EPA [Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303\(d\), 305\(b\) and 314 of the Clean Water Act](#), assessment methodology must be submitted for public comment and EPA must review the list for consistency with the relevant provisions of the CWA and the regulations. The EPA has found MPCA to be consistent in chloride methodology as found in previous editions of the Assessment Guidance Manual and IWL approvals.

The difference between the 2024 Assessment Guidance Manual and the 2026 Assessment Guidance Manual does not apply to impairment determinations, but the change does apply to determinations of a waterbody fully supporting its beneficial use. Beneficial use assessments can be either fully supporting, inconclusive, insufficient information, or not-supporting. Not-supporting is considered impaired. Inconclusive or insufficient assessments mean there is some data that is showing potential exceedance, but it does not meet the data minimum in order to be listed as impaired. Inconclusive or insufficient

¹⁹ Public comment from ADM Marshall found at [ADM Marshall comment](#)

²⁰ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

assessment are a middle-ground determination in between fully supporting, or impaired. The change to fully supporting made in 2026 manual was in attempt to clarify this determination. In order to be considered fully supporting, there must be confidence that there is no concern of a pollutant issue in this waterbody, therefore no exceedances occurring. Two or more exceedances of the chronic standard *and/or* one or more exceedances of the maximum standard are required for an impairment determination. The guidance for impairment determination is consistent between the 2024 Assessment Guidance Manual and the 2026 Assessment Guidance Manual.

Responses to 2 comments on Rice Creek (AUID 07-0102-06-584) and Locke Lake (AUID 02-0077-00)

Submitters:

- City of Fridley²¹
- Dustin Norman²²

Rice Creek both above and below Locke Lake have the use class of 2Bdg. 2Bdg means that 2B standards apply, is considered a surface water drinking water source, and is a general use class.

We do not conduct benthic macroinvertebrate biodiversity assessments on lakes. The DNR assists MPCA in conducting fish biodiversity assessments on lakes, however it does not have data on this specific impoundment. Additionally, DNR has a different model in conducting fish biodiversity assessments on lakes, impoundments, and rivers. The model is not designed to compare an impoundment impairment with a river impairment as they are functioning differently ecologically. At this time, we cannot add Locke Lake to the impaired waters list for biology assessments.

Rice Creek also has an impairment for *E. coli*. However, although the same standard for *E. coli* applies to both these AUIDs, there is no data on *E. coli* collected within this impoundment. It is MPCA policy, which is supported by 303(d) reporting guidance from EPA, that you can only list a waterbody as being impaired if there is data collected in that assessment unit. Although we recognize this impoundment is adjacent to these stream assessment units, impoundments also function differently than streams and data from a stream cannot be extrapolated to apply to the impoundment. At this time, we cannot add Locke Lake to the impaired waters list for *E. coli* assessments.

Much restoration work is being done by the local watershed organization to improve water quality conditions on both the lake and the stream. Locke Lake impoundment has had dredging in the past to treat it like a lake for riparian landowners, so more documentation is necessary in order for MPCA to update our databases to remove the polygon of Locke Lake and assess this as a stream. We assess impoundments differently for standards such as nutrients because they may not act according to expected lake ecology.

The MPCA recognizes the short hydraulic residence time – water flows in and out quickly – therefore this operates more like a small reservoir. North Central Hardwoods Forest Ecoregion Shallow Lakes eutrophication standards that were referenced in the comment are not the correct standards to apply since this waterbody does not function as a lake without a 14-day residence time. This dammed creek also does not meet the merits of the river eutrophication standards (RES). These river eutrophication standards were derived for moderate to large sized rivers and streams where excess phosphorus translates to excessive eutrophication when response time is sufficient, and should not be applied to reservoirs or impoundments. You can find more information on this impoundment and reservoir scenario in Appendix G of the Assessment Guidance Manual, found on pages 93-94. The MPCA project manager will follow up with Rice Creek Watershed District to continue conversation about how to address this impoundment for assessments of impairment.

²¹ Public comment from City of Fridley found at [City of Fridley comment](#)

²² Public comment from Dustin Norman found at [Dustin Norman comment](#)

Response to 1 comment on drinking water

Submitter: Francine Tryon²³

The MPCA tests surface waters that are used as sources for drinking water. These waters may not be potable. The responsibility of drinking water treatment is on local municipalities and overseen by the MN Department of Health (MDH). According to the city of Hoyt Lakes public water supplier, there was a polymer change completed in the spring of 2026 but that would not cause taste and odor issues. According to MDH district engineers, Hoyt Lakes is in compliance with drinking water standards. We encourage you to reach out to your public works department to work with them to figure out potential reasons why you are experiencing taste and odor issues.

Response to 1 comment on Stahl's Lake (AUID 43-0104-00)

Submitter: DNR Fisheries Program²⁴

The MPCA collaborates with DNR to conduct assessments of fish biodiversity on lakes. This correction in the MPCA assessments database has now been made. Previously the MPCA assessment database recorded FIBI (index of biotic integrity) on Stahl's lake as being IC (inconclusive). This has been changed to NS (non-support). A new parameter impairment for FIBI has now been placed onto the IWL, aiding the decision of not support for the aquatic life beneficial use.

Response to 1 comment on RES and TSS region assignments

Submitter: Red Lake Watershed District²⁵

Thank you for submitting this comment in during the 2026 draft IWL public notice period. This topic was discussed at previous WAT and PJG meetings, as well as email conversation and individual meetings. We recognize the need to do a review of the TSS and nutrient region assignments with the Red Lake River Watershed, as well as specific AUIDs within the Grand Marais Creek watershed as previously requested. Water Quality Standards staff are working on a review of the submitted AUIDs in question and will follow back with you to determine a path forward.

Response to 1 comment on algae

Submitter: Sara Harrison²⁶

A lot of effort goes into preventing harmful algae bloom (HABs) across the state. These efforts include numerous watershed nutrient reductions and wastewater permitting efforts across the state. A recent MPCA report [Trends in Minnesota's lakes and rivers](#) shows phosphorus concentrations in Minnesota's larger rivers generally decreasing or staying the same. To date Minnesota has delisted 73 lakes from the impaired water list for nutrients. Algae blooms respond to several factors beyond nutrients such as light and water temperature, and to complicate matters, extreme heat events with climate change are occurring more frequently and often result in algae blooms.

Numerous efforts are being done across the state including the listing of 10 nutrient impaired waters in 2026 which will start the process of addressing these waters. The Minnesota Nutrient Reduction Strategy describes the goals the state has met in reducing nutrient loading throughout the state and this strategy can be found at [Minnesota Nutrient Reduction Strategy](#).

²³ Public comment from Francine Tryon found at [Francine Tryon comment](#)

²⁴ Public Comment from DNR Fisheries Program staff Zack Witzel found at [Zack Witzel comment](#)

²⁵ Public comment from Red Lake Watershed District found at [Red Lake WD comment](#)

²⁶ Public comment from Sara Harrison found at [Sara Harrison comment](#)

Throughout the state MPCA has completed watershed restoration and protection strategies, known as WRAPS, for every watershed in Minnesota. For more information on this process, as well as commitments and current work being done in local watershed areas on restoration, see the MPCA website at [Watershed information](#). Algae bloom reduction is not the responsibility of one single party, as it often requires watershed wide scale changes and joint efforts among local organizations and residents to reduce nutrients and prevent algae blooms.

The MPCA is also a part of an inter-agency harmful algae bloom (HABs) working group that supports consistent messaging, response and collaboration across Minnesota state agencies. The MPCA and other agencies work with local governments and water managers during HAB incidents. Guidance for counties, cities, and other local government entities on HAB water recreation advisories can be found on the MPCA webpage at [Harmful algae blooms: Water recreation advisories](#).

Specific to the ask on listing impairments for algae, Minnesota does not have a water quality standard for cyanobacteria and therefore cannot conduct assessments and list cyanobacteria impairments. See the MPCA's triennial standards review (TSR) workplan for our commitment to develop these standards for Minnesota, found at [Triennial standards review webpage](#).

Response to 1 comment on Kittleson Lake (AUID 60-0327-00)

Submitter: MPCA²⁷

All documentation in MPCA database confirms this lake was delisted due to unknown reasons, as not enough evidence was obtained to determine a direct tie to restoration activities contributing to this impairment improvement. The 2026 IWL final submittal now shows this as being delisted due to unknown reasons.

Response to 1 comment on Rice Main Lake (AUID 27-0116-01)

Submitter: George Schneider²⁸

The 2026 TMDL tab of the list shows all the waterbodies that still need a TMDL plan. In comparison, the inventory tab shows all the waters that are impaired, whether or not there is a TMDL plan already written. This is a reporting requirement distinction in accordance with the integrated report under the Clean Water Act (CWA). Therefore, you will not see Rice Main Lake (27-0116-01) on that TMDL tab, because there is already a TMDL written for this lake. That is good news, because it means there are calculations already performed for the pollution reductions needed and a bit of the path forward here in order to reduce nutrients in this lake. The project number for this TMDL is PRJ06872-001 and the report can be found here on our website: Final Elm Creek Total Maximum Daily Load (TMDL) Report.

Your local project manager can help you get connected with local watershed organizations who are working on best management practices to implement this work.

Response to 1 comment on Fish Lake (AUID 82-0093-00)

Submitter: South Washington Watershed District²⁹

A request was submitted in partnership with the assigned MPCA project manager for the Mississippi River Twin Cities watershed as well as MPCA technical staff. This request and lake-to-wetland form was filled out requesting Fish Lake be assessed as a wetland.

Technical staff reviewed this waterbody to determine whether it was a shallow lake or a wetland in 2024. Due to the vast amount of monitoring data, and uncertainly for what purpose this data was being

²⁷ Public comment from MPCA staff Scott Schroeder found at [Scott Schroeder comment](#)

²⁸ Public comment from George Schneider found at [George Schneider comment](#)

²⁹ Public comment from South Washington Watershed District found at [South Washington WD comment](#)

collected, technical staff decided to pursue assessment of this large dataset using North Central Hardwood Forests (NCHF) shallow lake standards, and added a new nutrient impairment to the 2024 IWL.

Thank you for submitting this clarification and justification of monitoring. The technical staff have worked with project managers in the area to receive additional information and have reviewed this request, concluding Fish Lake should be assessed as a wetland and not a shallow lake. This waterbody is managed as a wetland. This impairment has now been corrected on the final 2026 IWL. More documentation can be provided upon request.

Response to 1 request regarding alum treatment and biology

Submitter: Ryann Geldner ³⁰

Thank you for these detailed comments regarding nutrients, alum treatment, and the impacts to our biological communities in Minnesota. While the county monitoring program may only collect phosphorus data, the DNR conducted two surveys on German Lake (August 9, 2018, and June 21, 2023) using the lake fish-based Index of Biological Integrity (IBI) to assess aquatic life use (AQL). Results identified two stressors to aquatic life impairment: eutrophication and physical habitat alteration. More detailed information is available in the [Cannon River Watershed Stressor Identification for Lakes](#) report.

The Assessment Guidance Manual and the TMDL prioritization framework are not the guiding documents for review of alum treatment requests. The MPCA already has policy in place to evaluate external loading of nutrients before an alum treatment takes place. The MPCA agrees that external loading needs to be evaluated and addressed before internal loading of phosphorus should be treated.

The MPCA reviews and approves these in-lake nutrient treatments. Historically, these have typically been alum (aluminum sulfate and sodium aluminate) treatments, though MPCA has also approved ferric chloride and lanthanum. On average, MPCA reviews 4 to 10 applications per year. Most of these requests are for nutrient-impaired lakes, and alum treatments do significantly reduce in-lake phosphorus concentrations, sometimes leading to official impairment de-listing.

Part of the MPCA review is looking at water quality standards that could be affected by the treatments including aluminum and sulfate. We have seen short term exceedance of 2B aluminum chronic standard (125 µg/L). The MPCA's alum treatment application form asks questions about external load for evaluation to consider if alum treatment is the correct application for a lake. You can find more resources regarding alum treatment and other lake management practices the agency recommends at [Minnesota State and Regional Government Review of Internal Phosphorus Load Control](#). The MPCA scientists review each alum case specifically, and provide an approval letter (not a permit) if conditions are met and the treatment will not be toxic to lake aquatic life. The DNR is also a part of the review process in this determination, and gives input on risks to fish and aquatic life. There is a lot to consider about the effectiveness, longevity, and risks of these treatments. These treatments can have a long-term net benefit on aquatic life because of improved water clarity. The MPCA highly recommends the applicant coordinate treatment with local lake and watershed managers. The MPCA does maintain a publicly available list of all lakes that have received alum treatment, and that list can be requested through the information request form found at [Information request form](#).

The MPCA does not have the authority to require engineering firms to evaluate nature-based solutions for lake treatments. If a lake association is seeking funding to support alum treatment, that funding can be requested through BWSR's Clean Water Funds. That funding source requires that a phosphorus budget for the lake has been developed, and that progress has been made on reducing phosphorus from watershed (external) sources. The alum treatment requirements are detailed in the document at [Minnesota State and Regional Government Review of Internal Phosphorus Load Control](#). This feasibility

³⁰ Public comment from Ryann Geldner

study evaluates watershed sources and must be completed before in-lake treatments are funded through the CWF Projects and Practices grant program found at [BWSR FY 2027 Request for Proposals](#).

Regarding whether other chemical applications (e.g., herbicides, copper sulfate for algae, etc.) applied to lakes to improve swimming conditions have safeguards in place to ensure no degradation of aquatic life, those management practices are approved by MDA. Coordinating a statewide database of all chemical applications to lakes would require MPCA, DNR, MDA, MDH, and other agency participation to develop and maintain. There are currently no plans to coordinate that database development across agencies.

Responses to 1 comment on mercury

Submitter: David Zierott³¹

Sources for mercury (Hg) contamination in surface waters of Minnesota were evaluated in the statewide Hg TMDL. You can find information on these sources from the most recent update after the 2024 TMDL update was finalized, slide deck available on the MPCA website at [2024 MPCA Mercury Updates](#).

- See slides 8-10 on mercury sources and inventory of Hg in MN.
- See slides 13-15 on MPCA efforts to keep accountability among all Hg emitters to meet reduction goals.
- See slides 16-18 on challenges of EPA assisting MPCA in meeting Hg reduction goals.

Responses to 10 total comments on sulfate and wild rice related topics

Submitters:

- Agri Growth³²
- Coalition of Greater MN Cities (CGMC)³³
- Cleveland Cliffs Inc.³⁴
- MN Chamber of Commerce³⁵
- MN Environmental Science and Economic Review Board (MESERB)³⁶
- Minnesota Forest Industries (MFI)³⁷
- Range Association of Municipalities and Schools (RAMS)³⁸
- Sappi Cloquet LLC³⁹
- U.S. Steel Corporation⁴⁰
- Western Lake Superior Sanitary District (WLSSD)⁴¹

³¹ Public comment from David Zierott found at [David Zierott comment](#)

³² Public comment from AgriGrowth found at [AgriGrowth comment](#)

³³ Public comment from Coalition of Greater MN Cities (CGMC) found at [CGMC comment](#)

³⁴ Public comment from Cleveland Cliffs Inc. found at [Cleveland Cliffs Inc. comment](#)

³⁵ Public comment from MN Chamber of Commerce found at [Chamber of Commerce comment](#)

³⁶ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

³⁷ Public comment from Minnesota Forest Industries (MFI) found at [MFI comment](#)

³⁸ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

³⁹ Public comment from Sappi Cloquet LLC found at [Sappi Cloquet LLC comment](#)

⁴⁰ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁴¹ Public comment from Western Lake Superior Sanitary District (WLSSD) found at [WLSSD comment](#)

Response to 4 comments on economics in permits and cost of treatment

Submitters:

- Coalition of Greater MN Cities (CGMC)⁴²
- MN Chamber of Commerce⁴³
- Minnesota Environmental Science and Economic Review Board (MESERB)⁴⁴
- Range Associations of Municipalities and Schools (RAMS)⁴⁵

Minnesota is required to complete its CWA Section 303(d) list according to the federal regulations promulgated under the CWA, including 40 C.F.R. part 130.7. Because Minnesota's existing federally approved water quality standard to protect the production of wild rice beneficial use is 10 mg/L for sulfate, this is the standard that MPCA must apply in implementing CWA Section 303(d).

The MPCA acknowledges the potential substantial costs for treating sulfate to meet effluent limits for permittees and is actively working on developing permitting tools and associated guidance that may be used by permittees to determine their best compliance method.

The impaired waters list does not automatically require new restrictions to be added to water quality permits for facilities located upstream from an impaired water body. The MPCA sets discharge limits for pollutants, including sulfate, during our process of issuing a new permit or renewing an existing permit to protect the water quality standard, regardless of the downstream waterbodies impairment status, based on water quality data and other factors.

When considering the costs of treatment, MPCA uses the EPA's 1995 Interim Economic Guidance for Water Quality Standards. Financial reasoning may be used to implement longer compliance schedules or in variance eligibility considerations.

Response to 4 comments on sulfate standard and natural background study

Submitters:

- AgriGrowth⁴⁶
- MN Chamber of Commerce⁴⁷
- MN Environmental Science and Economic Review Board (MESERB)⁴⁸
- Range Association of Municipalities and Schools (RAMS)⁴⁹
- U.S. Steel Corporation⁵⁰

The MPCA thanks the commenters for these suggestions and examples and breaks down the answers for these several comments into categories below.

⁴² Public comment from Coalition of Greater MN Cities (CGMC) found at [CGMC comment](#)

⁴³ Public comment from MN Chamber of Commerce found at [Chamber of Commerce comment](#)

Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

⁴⁵ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁴⁶ Public comment from AgriGrowth found at [AgriGrowth comment](#)

⁴⁷ Public comment from MN Chamber of Commerce found at [Chamber of Commerce comment](#)

⁴⁸ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

⁴⁹ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁵⁰ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

Regarding the comment on “high levels of naturally occurring sulfate” impact on the sulfate standard and permittees⁵¹

The MPCA is actively undertaking a study of natural background sulfate concentrations in Minnesota. This scientific exploration of sulfate data is ongoing, and more information can be found on the MPCA webpage at [Sulfate natural background study](#). While this study may be used to inform future implementation decisions, there is no commitment to change the 10 mg/L sulfate water quality standard to protect wild rice.

The MPCA is evaluating many tools available under the CWA for sulfate standard implementation, like variances and site-specific standards.

Regarding if the sulfate natural background study information was incorporated in the 2026 IWL or Guidance Manual

The MPCA’s ongoing study on sulfate natural background values is not incorporated into the IWL cycle as Minnesota is required to complete its CWA Section 303(d) list according to the federal regulations promulgated under the CWA, including 40 C.F.R. part 130.7. Because Minnesota’s existing federally approved water quality standard to protect the production of wild rice beneficial use is 10 mg/L for sulfate, found at Minnesota Rules part 7050.0224, subpart 2, this is the standard that MPCA must apply in implementing CWA Section 303(d). This is the standard that is referenced in the Assessment Guidance Manual, as well as used in assessments of impairment determinations for the 2026 IWL.

Regarding the question on how MPCA will address prudence and feasibility of a standard during future rulemakings⁵²

There are many requirements, state and federal, the MPCA must meet when developing and adopting new water quality standards. The MPCA would need to demonstrate that a proposed standard is needed and reasonable under Minnesota’s Administrative Procedure Act (Minnesota Statutes, chapter 14). This process includes cost considerations. If proposing a new or revised numeric standard, the standard also undergoes scientific peer review. Federal regulations at 40 CFR part 131.11 (a) (1) require state standards “... be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use.”

Responses to 3 comments on identification of wild rice waters

Submitters:

- U.S. Steel Corporation⁵³
- Coalition of Greater MN Cities (CGMC)⁵⁴
- MN Environmental Science and Economic Review Board (MESERB)⁵⁵

Regarding comments on complying with the 2011 and 2015 session law⁵⁶

The session laws from 2011 and 2015 state the MPCA must complete chapter 14 rulemaking to revise the sulfate standard to protect the wild rice water beneficial use. However, federal law, as described in a

⁵¹ Public comment from AgriGrowth found at [AgriGrowth comment](#)

⁵² Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁵³ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁵⁴ Public comment from Coalition of Greater MN Cities (CGMC) found at [CGMC comment](#)

⁵⁵ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

⁵⁶ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

letter from EPA to MPCA dated February 16, 2022, obligates the MPCA to disregard Minnesota Session Law, chapter 165 for all WQBELs approved and implemented under the federal CWA and EPA approved Minnesota rules. Because the sulfate water quality standard of 10 mg/L has been duly adopted into state rules and approved by EPA, MPCA must continue implementing its CWA programs to meet that standard.

Regarding the comments that designation of waters used for production of wild rice must go through rulemaking⁵⁷

Federal regulations state that “a water quality standard defines the water quality goals of a water body” (40 CFR part 131.2) and that “designated uses are those specified in water quality standards for each water body or segment *whether or not they are being attained*” (40 CFR part 131.3(f)) (emphasis added).

This language of ‘waters used for the production of wild rice’ is contained in Minnesota Rules, part 7050.0224, subpart 2. Due to the natural variability of wild rice populations, the MPCA has determined that any documented wild rice presence is sufficient to identify a waterbody as a ‘water used for production of wild rice’ and for Class 4A wild rice beneficial use protections to apply, as waters with minimal stands or sparse rice are waters that produce wild rice and have the potential to support full use attainment in the future. This approach recognizes the often cyclical pattern of the annual grain, where there is a high degree of natural variability in population sizes and densities across multi-year spans. Thus, the ‘waters used for production of wild rice’ list includes waters where one or both of these two options holds true:

1. The wild rice use is an existing use. For example, the beneficial use has been attained at some point since November 28, 1975.
2. There is a demonstrated potential to support sufficient wild rice to attain the beneficial use in the future, whether through documentation of sparse stands or a documented history of harvest.

The EPA interpreted that Minnesota Rules part 7050.0224 is a minimum list of waters to which the wild rice beneficial use applies.⁵⁸ Formal documentation of the list is held within the Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List, Appendix H.

Regarding the data and information used in developing the ‘waters used for production of wild rice,’ these data sources are listed in Appendix H of the 2026 Assessment Guidance Manual. Detailed and specific reports related to the additional 75 AUIDs proposed as ‘waters used for production of wild rice’ are available on MPCA’s IWL website found at [Minnesota’s impaired waters list](#) under the header “Other information” and titled “document sharing site.”

The MPCA recognizes that this list is a starting point and anticipates future requests to include additional waters on the waters used for production of wild rice list. We ask that interested parties submit requests during the public notice period regarding waters they would like to see included along with evidence that would support a decision to designate the waters used for production of wild rice use. Given the time and resources necessary to make those determinations, submitted information will be reviewed during the two years between Guidance Manual publications. Any waters used for production of wild rice list addition requests will be evaluated on a case-by-case basis considering the evidence received and information about the waterbody that demonstrates either an existing use or potential future attainment of the wild rice beneficial use. Waterbodies that MPCA deems appropriate for wild rice protections, and thus the waters used for production of wild rice designation will be added during the following impaired waters list cycle.

⁵⁷ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

⁵⁸ Decision document regarding the sulfate impaired waters EPA is adding to the Minnesota 2020 Clean Water Act Section 303(d) list found at [Decision Document for EPA's Action on Minnesota's 2020 Section 303\(d\) List Phase 2](#)

Regarding the question “under what circumstances would a water body with no history of beneficial use, be designated as such in the future?”⁵⁹

The MPCA has determined that any documented wild rice presence since November 28, 1975, in accordance with 40 CFR part 131.3(e)⁶⁰ is sufficient to identify a waterbody as a water used for production of wild rice and for beneficial use protections to apply. The MPCA is therefore applying the Class 4A wild rice beneficial use to waters with documented wild rice presence, current or historical, because it shows the beneficial use either has occurred and is an existing use, or there is a demonstrated potential to support sufficient wild rice for the beneficial use to be met in the future. Documentation of wild rice presence on or after November 28, 1975 is necessary for a future designation to occur.

Responses to 3 comments on the St. Louis River Bay estuary AUID split

Submitters:

- Western Lake Superior Sanitary District (WLSSD)⁶¹
- Sappi Cloquet LLC⁶²
- Minnesota Forest Industries (MFI)⁶³

At EPA, WIDs are often called AUID, which stands for assessment unit ID. Other MPCA reports might reference WIDs, but WID and AUID can be used interchangeably to reference the same assessment unit structure.

This letter addresses your requests 1) to subdivide the St. Louis Bay (WID 69-1291-02) into two child waterbody IDs (WID) (upstream and downstream), 2) to remove the wild rice beneficial use from the proposed downstream WID, and 3) for MPCA to develop a site-specific sulfate standard for St. Louis Bay (WID 69-1291-02), Spirit Lake (WID 69-1291-03) and the Upper Estuary (WID 69-1291-04). The MPCA will consider these requests separately from the submission and finalization of Minnesota’s draft 2026 impaired waters list.

Regarding the request to subdivide the WID, thank you for providing the map with the proposed subdivided WID boundaries, and the rationale for subdividing due to anthropogenic influence hydrologically differentiating the WID reaches. Your request is under review, and MPCA will coordinate internally among water chemistry assessment staff, biology assessment staff, watershed project managers, total maximum daily load (TMDL) scientists, and stressor ID staff to ensure consistency among agency programs in utilization of the proposed WIDs and ensure the WID subdivision does not cause negative impacts to ongoing environmental initiatives in the St. Louis River Bay.

The MPCA follows EPA guidance outlined in the 2026 integrated report (IR) memo that states AUIDs’ (i.e., WIDs) “physical boundaries (beginning and end points) of a segment should be defined in such a manner that a scientifically valid assessment of the segment can be made.”⁶⁴ If the MPCA determines that subdividing the WID is supportable, it must provide documentation to the EPA Regional Administrator to support the determination to list or not to list their waters according to 40 C.F.R. part

⁵⁹ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁶⁰ Clean Water Act, 40 CFR part 131.3 (e) found at [40 CFR Part 131 -- Water Quality Standards](#)

⁶¹ Public comment from Western Lake Superior Sanitary District (WLSSD) found at [WLSSD comment](#)

⁶² Public comment from Sappi Cloquet LLC found at [Sappi Cloquet LLC comment](#)

⁶³ Public comment from Minnesota Forest Industries (MFI) found at [MFI comment](#)

⁶⁴ U.S. Environmental Protection Agency. (2025). *Information Concerning 2026 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions*. Retrieved from [2026 IR Cover memo.pdf](#)

130.7(b)(6). This applies to decisions not to list waters resulting from changes to a segmentation approach.

Regarding your request to remove the wild rice beneficial use from the proposed downstream WID, any person may present evidence to the agency that a use assigned to a water body does not exist or is not attainable and petition the agency to consider a reclassification of that water body. The MPCA recognizes Western Lake Superior Sanitary District's (WLSSD) comment letter as such a petition and, per the process defined in Minnesota Rules, part 7050.0405, has 60 days to indicate a plan for disposition of the petition, unless more information is needed. Should the agency request additional information from the petitioner if the request is considered incomplete, the agency has 60 days to reply after the additional information is received and the petition is complete pursuant to Minnesota Rules part 7050.0405, subpart 2.

The MPCA intends to do the following related to this petition:

- MPCA will determine whether the St. Louis Bay WID should be subdivided into the two proposed child WIDs, as described previously in this letter.
- MPCA will evaluate the existing primary sources used to compile the 'waters used for production of wild rice' list for any historical evidence of wild rice presence in the proposed downstream WID.
- Although there is documented presence of wild rice in the upstream portion of the St. Louis Bay WID segment in question, MPCA may not have enough information to evaluate the proposed removal of the wild rice beneficial use from the proposed downstream WID. The MPCA may request WLSSD for additional information once it determines whether the St. Louis Bay WID should be subdivided.
- If the evidence supports a review of the beneficial wild rice use, an analysis of the proposed use change will commence within six months.

Regarding the request for MPCA to develop a site-specific sulfate standard for St. Louis Bay (WID 69-1291-02), Spirit Lake (WID 69-1291-03) and the Upper Estuary (WID 69-1291-04), we do not have sufficient information and data to consider such a request. If WLSSD decides to pursue submitting a site-specific sulfate standard proposal, MPCA encourages review of the "[Framework for developing and evaluating site-specific sulfate standards for the protection of wild rice \(December 2023\)](#)." and early engagement with MPCA staff.

It is important to demonstrate that a beneficial use of wild rice production is being met in the WID to be eligible for a site-specific standard. According to the framework, for the purpose of evaluating site-specific standard requests, the MPCA will require a demonstration that the "waterbody(ies) of interest have and will maintain a wild rice population that is productive, meaning a population that is self-sustaining and that at least occasionally achieves a robust level of production."⁶⁵ The MPCA thanks commenters for their engagement in the Minnesota's draft 2026 Impaired Waters List.

Response to 3 comments on sulfate assessment methodology

Submitters:

- Cleveland Cliffs Inc.⁶⁶
- Minnesota Environmental Science and Economic Review Board (MESERB)⁶⁷

⁶⁵ MPCA (2023) found at [Framework for developing and evaluating site-specific sulfate standards for the protection of wild rice](#)

⁶⁶ Public comment from Cleveland Cliffs Inc. found at [Cleveland Cliffs Inc. comment](#)

⁶⁷ Public comment from MN Environmental Science and Economic Review Board (MESERB) found at [MESERB comment](#)

- U.S. Steel Corporation⁶⁸

Regarding the comment in sulfate vs. sulfide

As there is not a promulgated water quality standard for sulfide, discussion on sulfide and geochemical conditions is out of the scope of the Assessment Guidance Manual. This manual outlines the methodology utilized in determinations of impairments for promulgated water quality standards.

Regarding the comment that there needs to be a more holistic evaluation of wild rice impairment

While MPCA recognizes that other environmental factors influence wild rice health, impairment decisions regarding a designated use like the production of wild rice are strictly evaluated based upon the promulgated water quality standard of 10mg/L sulfate in rule at Minnesota Rules, part 7050.0224, subpart 2.

Regarding the comments that methodology does not focus on “periods when rice may be susceptible to damage by high sulfate levels” and “MPCA’s application of the 10 mg/L criteria as outlined in the 2026 IWL Assessment Manual is inconsistent with the standard and science” and “standard’s duration component is inappropriately applied”

Regarding the assessment approach, this approach was used in accordance with EPA’s screening analysis for original listing of sulfate impairments in 2020⁶⁹. This follows a consistent process in utilization of data for determination of impairment by utilizing annual data. See further details in EPA’s original methodology for assessment of sulfate impaired waters in Section III⁷⁰.

Further, the scientific evaluation of sulfate conducted by MPCA to support its proposed 2017 rule revisions found that wild rice is vulnerable to elevated sulfate concentrations year-round⁷¹, and the existing standards do not specify or define a time when wild rice is susceptible to damage by high sulfate levels. Therefore, EPA did not exclude sulfate data from consideration based on the season in which the data were collected. The MPCA has followed this screening analysis approach in developing our assessment methodology for consistency of impairment determinations and listing.

According to the EPA 2006 IR guidance⁷², assessment methodology must be submitted for public comment, and EPA must review the list for consistency with the relevant provisions of the CWA and the regulations.

E. Coli standards, TSS standards, nutrient standards, and other water chemistry standards have assessment methodologies based off how the water quality standard was developed to maintain consistency. Sulfate also bases its assessment methodology in accordance with how the water quality standard was developed. The utilization of the annual mean most closely follows the methods that Moyle used in his 1944 work that was the basis for the current 10 mg/L sulfate standard.

⁶⁸ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁶⁹ Decision document regarding the sulfate impaired waters EPA is adding to the Minnesota 2020 Clean Water Act Section 303(d) list found at [Decision Document for EPA's Action on Minnesota's 2020 Section 303\(d\) List Phase 2](#)

⁷⁰ See footnote 67

⁷¹ MPCA (2017), Statement of Need and Reasonableness (SONAR), pages 81-82

⁷² EPA (2005), [Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303\(d\), 305\(b\) and 314 of the Clean Water Act](#)

Regarding the comment that there is “inadequate data requirements for sulfate impairment decisions”

The MPCA disagrees that there are inadequate data requirements for its sulfate impairment determinations. During EPA’s review of Minnesota’s 2020 Impaired Waters List, EPA considered sulfate data sets with less than five individual sulfate samples⁷³. For certain lake and stream segments, EPA considered the historical sulfate data during review of sulfate data. The EPA conducted this historical review on a case-by-case basis in order to best understand the water quality conditions over time⁷⁴. This ensured a holistic approach in using the existing and readily available sulfate concentration data. The MPCA has modeled its assessment methodology for sulfate on EPA’s screening analysis for purpose of consistency between listing years.

Regarding the comment that “MPCA’s use of a one-in-10-year exceedance frequency is not consistent with best available science”

There is not a frequency component defined in the promulgated sulfate water quality standard. The MPCA based its assessment methodology on EPA’s screening analysis⁷⁵ which reviewed this topic.

An annual average is used, which ensures a spike that may not be representative of overall conditions does not drive impairment. Data quantity and variability are considered by using a statistical test to provide a high degree of confidence that the calculated average from the data adequately represents the actual average in the water. More information on this can be found in the Assessment Guidance Manual, Appendix I: statistical significance of sulfate impairment determinations.⁷⁶

Regarding definition of data quality, quantity, and statistical confidence

Please find this information as provided in the Assessment Guidance Manual, Appendix I: statistical significance of sulfate impairment determinations.⁷⁷

Regarding internal consistency in protection of wild rice designations⁷⁸

U.S. Steel mentions that two statements referenced in the Assessment Guidance Manual Appendix H are inconsistent. These two statements are "The MPCA recognizes the difficulty and costs to control sulfate and wants to ensure that sulfate treatment required of dischargers is being applied where it is crucial to protect wild rice" and the statement “demonstrated potential” found in the Assessment Guidance Manual, Appendix H.

The MPCA disagrees that these statements are inconsistent. The MPCA recognizes that areas where wild rice are growing and have the designated use applied are the critical areas for protecting wild rice. The MPCA is consistent in designating the use of water used for production of wild rice in areas where wild rice has been demonstrated to grow since November 28, 1975, in accordance with 40 CFR part 131.3(e), and therefore applying the standard to these waterbodies. This designation process is explained further in the response to comments under sub-header “*Responses to 3 comments on identification of wild rice waters.*” See also the clarification on the terminology of “demonstrated potential” in the response to comments under sub-header “*Regarding comments on defining demonstrated potential.*”

⁷³ See footnote 67

⁷⁴ See footnote 67

⁷⁵ Decision document regarding the sulfate impaired waters EPA is adding to the Minnesota 2020 Clean Water Act Section 303(d) list found at [Decision Document for EPA's Action on Minnesota's 2020 Section 303\(d\) List, Phase 2](#), page 14

⁷⁶ MPCA (2026), Assessment Guidance Manual, found at [2026 Assessment Guidance Manual](#)

⁷⁷ See footnote 74

⁷⁸ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

Regarding lack of Demonstration Supporting Future Beneficial Use Claims

This designation process is explained further in the response to comments under sub-header “*Responses to 3 comments on identification of wild rice waters.*” See also the clarification on the terminology of “demonstrated potential” in the response to comments under sub-header “*Regarding comments on defining demonstrated potential.*”

Regarding increased use of professional judgment

Professional judgement has been an aspect incorporated in Assessment Guidance Manuals since the beginning of impaired water listings in 2002. The number of references and examples of professional judgement in the 2026 Assessment Guidance Manual is the same as in the 2024 Assessment Guidance Manual. The MPCA disagrees that there has been increased use of professional judgement in the Assessment Guidance Manual.

Regarding the comment that impairment determinations are unsupported by more recent studies

Please see the section of this document titled “Response to 2 comments on removing AUIDs from the IWL.” The MPCA is assessing impairments according to promulgated sulfate water quality standard.

Response to 2 comments on Sulfate TMDLs

Submitters:

- U.S. Steel Corporation⁷⁹
- Range Association of Municipalities and Schools (RAMS)⁸⁰

Regarding if a TMDL is required for the St. Louis River⁸¹

According to CWA section 303(d), a TMDL is required for every listed impairment under category 5 of the IWL. See below answer regarding schedule and prioritization framework for more information.

Regarding clarification on MPCA’s schedule and prioritization framework on TMDLs

The CWA section 303(d) does not establish a required timeline for TMDL completion of category 5 waterbodies. The CWA and the EPA’s regulations require states, territories and authorized Tribes to establish a priority ranking for all of the waters on their CWA 303(d) list “taking into account the severity of the pollution and the uses to be made of such waters.” CWA Section 303(d)(1)(A); 40 C.F.R. part 130.7(b)(4)⁸². For the EPA to find that a state, territory or authorized Tribe satisfied the requirement to establish a priority ranking accounting for the required factors, the list submission needs to describe how the priority ranking took into account the severity of the pollution and uses to be made of the waters. According to 40 CFR part 130.7(d)(1), “schedules for submission of TMDLs shall be determined by the Regional Administrator and the State.”⁸³

The MPCA does maintain a schedule and prioritization framework on TMDLs in accordance with the EPA’s integrated reporting (IR) requirements. This prioritization framework can be found at [TMDL guidance](#), along with the document detailing MPCA’s TMDL commitments which serves as the requested schedule.⁸⁴ This schedule has also been integrated into the 2026 IWL spreadsheet, and can be identified in both the 2026 Inventory Impaired Waters tab, and 2026 TMDL List tab, column N. The TMDL

⁷⁹ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁸⁰ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁸¹ Public comment from Range Association of Municipalities and Schools (RAMS) found at [RAMS comment](#)

⁸² CWA Section 303(d)(1)(A); 40 C.F.R. part 130.7(b)(4)

⁸³ 40 CFR part 130.7(d)(1)

⁸⁴ Minnesota TMDL Commitment List, found at [TMDL guidance](#)

commitment list will indicate the impairments for which MPCA expects EPA approval of TMDLs within the upcoming two federal fiscal years, and the impairments for which MPCA expects to have TMDLs in development.

The MPCA's TMDL commitment list reflects the state's TMDL priorities—the impairments designated as “In development” are current MPCA TMDL development efforts, and the state is actively developing these TMDLs and will seek EPA approval in a timely manner. The TMDL commitment list will indicate the impairments for which MPCA expects EPA approval of TMDLs within the upcoming two federal fiscal years, and the impairments for which MPCA expects to have TMDLs in development. The EPA suggests that states categorize TMDL commitments as “high,” “medium,” or “low” priority. The MPCA's current approach to grouping TMDL commitments aligns with other state agencies' approaches to communicate expected timelines of TMDL completion.

For additional information about the priority ranking requirements and how such requirements are distinct from the regulatory provision providing for TMDL submission schedules in 40 C.F.R. part 130.7(d)(1), and the 2024 IR memo at page 6-7.⁸⁵

The MPCA works to develop TMDLs in a timely manner, but TMDLs are often long-term projects, and the MPCA must prioritize TMDL efforts due to resource constraints. Although MPCA has not yet completed any TMDL studies for sulfate in the waters listed as impaired for wild rice production, work is already underway to place sulfate limits into NPDES permits. Placing limits into permits does not have to wait for a TMDL study to be performed. In 2009, a state supreme court decision (ALASD) contemplated this very question – should you wait for the completion of a TMDL before putting a limit in a permit.

Responses to 2 comments on sulfate public data

Submitters

- U.S. Steel⁸⁶
- Cleveland Cliffs Inc.⁸⁷

Regarding WQX Data Used for Assessments but Not Publicly Available.

According to the CWA 40 C.F.R. part 130.7(b)(5) all readily available public data must be utilized for assessments. The MPCA has followed this federal requirement by utilizing publicly available data from EPA's WQX portal for assessment and impairment reviews. The Assessment Guidance Manual identifies which publicly available data are utilized for assessment in Appendix C: Sources of data used for assessment.

All data that is submitted to EPA via EQulS is available through our surface water data access portal, found at [Surface water data access](#). This portal does not pull data from EPA WQX. However, the surface water data access portal summarizes assessment details of all waterbodies assessed.

All data utilized for assessment reviews is publicly available upon request. To access this public data, stakeholders may request the specific data utilized in an assessment via the information request portal found at [Information request form](#).

⁸⁵ EPA (2024), found at [2024 IR memo](#), pages 6-7

⁸⁶ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁸⁷ Public comment from Cleveland Cliffs Inc. found at [Cleveland Cliffs Inc. comment](#)

Responses to 2 comments defining demonstrated potential, and wild rice density and population metrics.

Submitters:

- U.S. Steel Corporation ⁸⁸
- Cleveland Cliffs Inc. ⁸⁹

Regarding comments on defining demonstrated potential

As described in the Assessment Guidance Manual, “the MPCA is therefore applying the Class 4A wild rice beneficial use to waters with documented wild rice presence, current or historical, because it shows the beneficial use either has occurred and is an existing use, or there is a demonstrated potential to support sufficient wild rice for the beneficial use to be met in the future” (page 97). To be included on the list, there must be either current or historical documentation of wild rice presence, identified through various metrics like species present, spatial extent, density, harvest, among others, from a primary source which provides a reasonable basis to conclude that wild rice has been present.

As stated in the Assessment Guidance Manual, “waterbodies with documentation of minimal stands or sparse rice that have not and are not currently meeting the use could, in the future, be home to sufficient wild rice to attain the beneficial use, and thus these identified waterbodies will receive waters used for production of wild rice use designations as well” (page 97).

See response below on clarification on publicly available information and data sources for adding Class 4A waters.

Regarding comments on wild rice acreage and density of stands

Specific quantities of wild rice acreage or density is not necessary in defining whether a waterbody is a wild rice water. The waters used for production of wild rice list includes waters where one of these two options holds true:

1. The wild rice use is an existing use, i.e., the beneficial use has been attained at some point since Nov. 1975.
2. There is a demonstrated potential to support sufficient wild rice to attain the beneficial use in the future, whether through documentation of sparse stands or a documented history of harvest.

The MPCA has determined that any documented wild rice presence is sufficient to identify a waterbody as a water used for production of wild rice and for beneficial use protections to apply, as waters with minimal stands or sparse rice are waters that produce wild rice and have the potential to support full use attainment in the future. This approach is consistent with federal regulations which state that “a water quality standard defines the water quality goals of a water body ...” (40 CFR part 131.2) and that “designated uses are those specified in water quality standards for each water body or segment *whether or not they are being attained*” (40 CFR part 131.3(f)) (emphasis added).

The development of a site-specific standard (SSS) requires a different demonstration than an initial designation. A SSS requires a demonstration that the beneficial use will be met at the proposed standard value, not simply that the waterbody has some level of the use occurring. The Class 4A beneficial use “production of wild rice” must be shown as achievable under any SSS proposal that would modify the 10 mg/L sulfate WQS for a particular waterbody. The MPCA interprets “production of wild rice” to mean the continued generation of wild rice vegetative and seed biomass. For the purpose of evaluating site-specific standard requests, the MPCA will require a demonstration that the waterbody(ies) of interest

⁸⁸ Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

⁸⁹ Public comment from Cleveland Cliffs Inc. found at [Cleveland Cliffs Inc. comment](#)

have and will maintain a wild rice population that is productive, meaning a population that is self-sustaining and that at least occasionally achieves a robust level of production. Details regarding what the agency will evaluate on deciding if a wild rice beneficial use is being met can be found in the SSS Framework at [Framework for developing and evaluating site-specific sulfate standards for the protection of wild rice](#).

Response to 2 comments on removing AUIDs from the IWL

Submitters:

- Coalition of Greater MN Cities⁹⁰
- MN Chamber of Commerce⁹¹

Commenters asked to remove the 16 AUIDs proposed for sulfate impairment from the final 2026 IWL.

Minnesota is required to complete its CWA Section 303(d) list according to the federal regulations promulgated under the CWA, including 40 C.F.R. part 130.7. Because Minnesota's existing federally approved standard to protect the wild rice production beneficial use is 10 mg/L for sulfate, this is the standard that MPCA must apply in implementing CWA Section 303(d). Under CWA Section 303(c), States and authorized tribes have the primary authority to make use designations for waters within their jurisdiction. Further, EPA clearly states that "Minnesota has a federally-approved sulfate water quality standard (Minnesota Rules, part 7050.0224, subparts 1 and 2) and EPA expects Minnesota [to] assess the attainment status of waters against its current sulfate criterion." (EPA Region 5, Decision Document for the Partial Approval of Minnesota's 2020 Clean Water Act Section 303(d) List, page 1, footnote 3).

Pursuant to 40 C.F.R. part 131.21(e), "A State or authorized Tribe's applicable water quality standard for purposes of the Act remains the applicable standard until EPA approves a change, deletion, or addition to that water quality standard or until EPA promulgates a more stringent water quality standard." The MPCA will be submitting these 16 AUIDs as proposed for sulfate impairment to the final 2026 IWL to follow a consistent process for statewide assessments.

Response to 1 comment on future wild rice listings

Submitters:

- U.S. Steel Corporation⁹²

Regarding clarification of the process to adding or removing Class 4A wild rice waters

The inclusion of additional Class 4A waters used for production of wild rice in Appendix H is the current approach of the agency in designating waters used for production of wild rice.

The numeric sulfate water quality standard for the protection of wild rice currently resides within the Class 4A designated use, which is generally meant to protect waters used for agricultural irrigation and to prevent significant damage or adverse effects upon cultivated crops. Because the vast majority of wild rice grows in naturally occurring stands that are not subject to agricultural irrigation, it is more appropriate to assign the sulfate water quality standard to the Class 2 designated use, which is intended to broadly protect aquatic life. This change would not impact the magnitude of the numeric standard (10 mg/L sulfate), the MPCA's list of waters used for the production of wild rice, or the Agency's understanding that the standard is intended to protect both natural and cultivated wild rice.

⁹⁰ Public comment from Coalition of Greater MN Cities (CGMC) found at [CGMC comment](#)

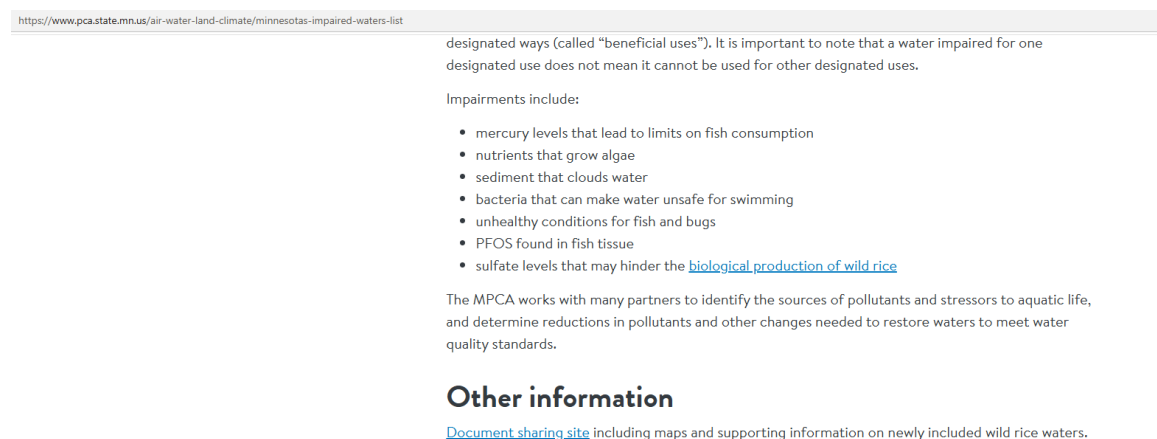
⁹¹ Public comment from MN Chamber of Commerce found at [Chamber of Commerce comment](#)

⁹² Public comment from U.S. Steel Corporation found at [U.S. Steel comment](#)

Regarding clarification on publicly available information and data sources for adding Class 4A waters

Supporting data reviewed for determining the water used for production of wild rice designation was made publicly available on the IWL website during the public comment period. That information can be accessed at the document sharing site found at [Minnesota's impaired waters list](#) under the header "other information." Due to the file size of the supporting data, please obtain this information by request in filling out a form found at [Information request form](#).

Figure 2: Screenshot of impaired waters list website showing where the document sharing site can be accessed



Response to 1 comment on the Prairie River

Submitter: Lynn Anderson⁹³

In collaboration with Charlie Lippert from Mille Lacs band, the reaches determined to be in question on this portion of the Prairie River are known by AUID 07010103-515 and 07010103-516. These reaches of the Prairie River are already listed as waters used for production of wild rice, or wild rice waters. There is water chemistry data on these reaches, including phosphorus, dissolved oxygen, total suspended solids (TSS), Secchi Tube, pH, ammonia, *E. Coli*. All of these water chemistry data shows the stream reaches are meeting standards. Additionally, there is biology data available for fish biodiversity (FIBI) and macroinvertebrate biodiversity (MIBI) that are all meeting standards. However, there was no sulfate data found on either of these reaches.

- Prairie Lake (St. Louis) 69-0848-00 is on the Impaired Waters List.
- Prairie River – Prairie Lake to Tamarack River (St. Louis, Aitkin) 07010103-516 This stretch of River is not on the Impaired Waters List. It is meeting standards for all available data.
- Prairie River – Tamarack River to West Savanna River (Aitkin) 07010103-515. This stretch of River is not on the Impaired Waters List. It is meeting standards for all available data.
- Prairie River – West Savanna River to Big Sandy Lake (Aitkin) This stretch of River is on the Impaired Waters List but as part of Big Sandy Lake 01-0062-00.

Sulfate data is needed on these stations/reaches in order to consider listing them as impaired. If you are aware of sulfate data on these reaches, please submit to our EQUIS team for assessment review. Please submit any sulfate data for the 2027 assessment period by December 15 to our EQUIS team for consideration of updating the 2028 impaired waters list. Details on submittal of data can be found at [Submitting surface water data](#). It is MPCA policy to only include chemistry impairments if there is data on that specific section of a waterbody/AUID. Details are outlined in the MPCA assessment guidance manual.

⁹³ Public comment from Lynn Anderson found at [Lynn Anderson comment](#)

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