State of Minnesota
Minnesota Pollution Control Agency
Attachment 2 to MPCA Post-Hearing Response to Public Comments
MPCA Detailed Responses to Public Comments
November 23, 2026

This document supplements information in the Statement of Need and Reasonableness (SONAR; Hearing Exhibit D) in the matter of proposed amendments to Minnesota Rules, chapter 7050, relating to Water Quality Standards for Lake Aquatic Life and Recreation.

This document contains the Minnesota Pollution Control Agency's (MPCA or Agency) detailed responses to public comments on the proposed amendments submitted during the pre-hearing comment period (August 24–October 8, 2026) and at the public hearing held on November 2, 2026, as well as all post-hearing comments posted to the rulemaking's eComments page as of 12:00 pm on November 23, 2026 (post-hearing comments will be submitted into the rulemaking record as Exhibit N-1). The Agency thoroughly reviewed public comments, participated in the hearing, and reviewed the transcript of the hearing. This review resulted in the compilation of comments on multiple topics, which are addressed in detail in this document. All comments received during the pre-hearing comment period and the public hearing transcript are posted in their entirety on the MPCA webpage for this rulemaking at https://www.pca.state.mn.us/get-engaged/lake-aquatic-life-and-recreation.

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Summary of comments received in the matter of proposed amendments to Minnesota Rules, chapter 7050, relating to water quality standards for lake aquatic life and recreation.

The MPCA received comments during the pre-hearing comment period (August 24 - October 8, 2026), during the November 2, 2026, hearing on the proposed amendments to Minn. R. ch. 7050, and during the post comment hearing period (November 3-23, 2026). Comments were submitted which supported improved protections for coldwater fish habitats, refinements to eutrophication standards for lakes in the North region, and the adoption of a tiered aquatic life uses (TALU) framework for lakes. Several commenters sought additional information or asked the MPCA to clarify elements of the proposed amendments. Some commenters asked the MPCA to increase protection of Minnesota lakes through the implementation or enhancement of water quality management programs. One commenter was concerned that the proposed standards for coldwater lakes were not sufficiently protective. Other commenters requested that the MPCA address natural variability through use designations and standards and that the MPCA should involve local stakeholders in these decisions. The MPCA's responses to each stakeholder comment are provided below. The comments are grouped by topic, summarized, and the MPCA's response to these comments follows each summarized comment. A spreadsheet of these comments is also provided in Attachment 1. The MPCA also responded to a subset of the comments submitted in the prehearing comment period (see Hearing Exhibit I-2: Response to Pre-Hearing Comments). The MPCA appreciates the comments provided by stakeholders and the opportunity to provide additional information and to clarify aspects of the proposed rule amendments.

A. Comments in support of the proposed rule amendments

Relates to:
Minn. R. 7050.0150 (DETERMINING WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS);
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION);
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:
Summary of Proposed Amendments and Statement of General Need [pp. 13-16];
General reasonableness [pp. 32-40].

Summary of comments:
Multiple commenters expressed general support for the adoption of the proposed amendments and the goal of refining and strengthening protections for lakes. These comments were supportive of all three major elements in the proposed rule including revisions to coldwater lake standards, revisions to northern lake eutrophication standards, and the adoption of a TALU framework. Commenters expressing general support for the rule included: Geldner (Hearing Exhibit I-1.1), DonCarlos (Hearing Exhibit I-1.2), and Jefferis (Hearing Exhibit I-1.5).

MPCA response:
The MPCA appreciates the statements of support for the primary goals of this rulemaking which are to protect and restore water quality and to maintain aquatic life and recreation benefical uses (i.e., Class 2) in Minnesota lakes (Hearing Exhibit D, SONAR [pp. 13-16, 32-40]). This goal is consistent with the Clean Water Act's (CWA) objective to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. § 1251 (a)). Amending water quality standards (WQS) and use designations as needed to assign the correct goals to lakes will lead to better outcomes in the protection and restoration of these habitats.

B. Comments requesting the removal of the Class 7 designation

Relates to:
Minn. R. 7050.0140 (USE CLASSIFICATIONS FOR WATERS OF THE STATE);
Minn. R. 7050.0227 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 7 WATERS OF THE STATE; LIMITED RESOURCE VALUE WATERS).

Hearing Exhibit D (SONAR) discussion at:
Specific reasonableness [pp. 40-43].

Summary of comments:
The MPCA received a comment that the MPCA should remove the Class 7 use designation and eliminate this use designation from the list of use designations for the state. [Geldner (Hearing Exhibit I-1.1)].

MPCA response:
Modifications to use designations or the use classification framework other than those within Class 2 are outside of the scope for this rule. The SONAR details the scope of this rule which does not include revisions to Class 7 (Hearing Exhibit D, SONAR [pp. 40-43]). However, the MPCA will consider this comment beyond the current rulemaking because an objective of the MPCA is to continuously review WQS and make revisions when needed.

C. Comments recommending the implementation of additional protections for lakes

Relates to:
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION)

Hearing Exhibit D (SONAR) discussion at:
Specific reasonableness [pp. 40-43]
Coldwater lakes [pp. 34]

Other relevant documents:
Hearing Exhibit D-1, SONAR Exhibits S-5: MNDNR (2026) Development of a tiered aquatic life use framework for Minnesota lakes
Perleberg, D., P. Radomski, S. Simon, K. Carlson, C. Schirmers, J. Knopik, and B. Holbrook (2025) Minnesota Lake Plant Survey Manual, version 4. Minnesota Department of Natural Resources. Ecological and Water Resources Division. Brainerd, MN

C.1 Implementation of macroinvertebrate monitoring and assessments for lakes

Summary of comments:
The MPCA received a comment [Geldner (Hearing Exhibit I-1.1)] that the MPCA should Incorporate macroinvertebrate monitoring into lake assessments to improve biological condition assessments because these organisms are indicators of eutrophication, sediment oxygen depletion, and chemical disturbance.

MPCA response:
The MPCA agrees that the addition of additional biological monitoring tools such as macroinvertebrate assessments would improve the ability to determine the biological condition of lakes and to identify stressors. However, the development and implementation of such tools require significant resources which are currently not available. Although the development of macroinvertebrate or other biological tools are not within the scope of this rule (Hearing Exhibit D, SONAR [pp. 40-43]), the MPCA and Minnesota Department of Natural Resources (MNDNR) will continue to consider such improvements to lake management tools.

C.2 Adding protections or scoring incentives to lakes with intact native plant shorelines

Summary of comments:
The MPCA received a comment [Geldner (Hearing Exhibit I-1.1)] that the MPCA should protect natural shorelines because native littoral vegetation supports fish spawning, amphibians,

macroinvertebrates, and water quality and that TALU tiers should recognize and reward lakes with high-quality shoreline habitat.

MPCA response:
Although the specific request by the commenter is not within the scope of this rule (Hearing Exhibit D, SONAR [pp. 40-43]), the MPCA agrees that protections are needed for natural lake shorelines and native aquatic plants. There are existing programs which support such goals and the TALU framework is expected to enhance these programs. For example, the MNDNR performs Score the Shore surveys (Perleberg et al. 2025 [pp. 18-32]) as part of most fisheries surveys with priority given to completing surveys on lakes proposed as Exceptional Use. Lakes with intact shorelines are more likely to meet Exceptional Use goals and this information is used as part of the use designation review process (Hearing Exhibit D-1, SONAR Exhibit S-5 [Appendix A]). The linkage between high-quality fish communities and natural lake shorelines demonstrates the need to maintain these habitats to protect Exceptional Use lakes. The MNDNR encourages protection of high-quality shorelines through several programs. Lakes with Fish Index of Biotic Integrity (FIBI) scores above the Exceptional Use threshold are placed on a Lakes of Biological Significance (LOBS) list which includes lakes with high-quality fish, plant, bird, and amphibian communities. The LOBS list is used internally by the MNDNR as a criterion for acquisition prioritization and externally by non-governmental organizations (NGO) to prioritize shoreline conservation easements and acquisitions. The LOBS list may also be used by local governmental units (LGU) to inform their shoreline zoning regulations. The MNDNR also encourages natural shorelines by providing tools and resources online about how to complete a natural shoreline restoration project and coordinating with The Lake Steward Program, a statewide initiative in Minnesota run by Minnesota Lakes & Rivers Advocates in partnership with local lake associations and the MNDNR. The Program recognizes property owners who protect water quality and wildlife habitat by maintaining natural shorelines. The maintence of high-quality lakes through the protection of native shorelines will also be part of Watershed Restoration and Protection Strategies (WRAPS) studies. To summarize, Minnesota currently encourages protection and restoration of shorelines, and the adoption of the TALU framework will support these efforts by identifying lakes in need of protection and prioritizing management work.

C.3 Require tracking and additional oversight of herbicide use in lakes
Summary of comments:
The MPCA received a comment [Geldner (Hearing Exhibit I-1.1)] that the Agency should monitor lakes receiving herbicide treatments because these applications can affect dissolved oxygen, sediment chemistry, macroinvertebrates, and amphibians. Furthermore, Minnesota should require post-treatment biological monitoring to align lake management with aquatic life protection goals. This same commenter also recommended additional oversight and public tracking of herbicide treatments in lakes. Because a single lake can receive multiple herbicide permits from individuals, associations, and contractors, the MPCA should track cumulative chemical load to ensure aquatic life standards are not unintentionally compromised. A centralized database would allow citizens, researchers, and local governments to understand how much chemical treatment is occurring and where.

MPCA response:
Modification to the tracking and oversight of aquatic herbicide treatments are not within the scope of this rule (Hearing Exhibit D, SONAR [pp. 40-43]), but these treatments can be relevant to the

management of lake water quality. The permitting of herbicide applications is managed by the MNDNR through the Aquatic Plant Management and Invasive Aquatic Plant Management programs which follow the National Pollutant Discharge and Elimination System (NPDES)/State Disposal System (SDS) Vegetative Pests and Algae Control Pesticide General Permit. The MPCA does not directly manage permits for herbicide applications to lakes and these rule amendments do not directly affect herbicide permitting.

C.4 Ensure TALU does not unintentionally reduce protection for modified or degraded lakes

Summary of comments:

The MPCA received a comment [Geldner (Hearing Exhibit I-1.1)] that the MPCA should continue to encourage restoration and improvement of lakes. The commenter stated that lakes with intact native plant shorelines should receive higher protection and lakes with degraded littoral zones should not be permanently assigned lower expectations.

MPCA response:

The MPCA agrees that protection and restoration efforts are needed to manage lakes in Minnesota. The TALU framework and WQS do not allow the loss or removal of beneficial uses without a Use Attainability Analysis (UAA) as described in 40 CFR § 131.10(j)(2).[1] The proposed rule amendments do not affect these provisions in WQS and do not create a subclass to assign lower goals for Minnesota lakes (Hearing Exhibit D, SONAR [pp. 40-43]; also see Section I in this document).

C.5 Proposed coldwater lake standards are only minimally protective

Summary of comments:

The MPCA received a comment [Jefferis (Hearing Exhibit I-1.5)] that the MPCA should adopt coldwater standards that reflect the optimal conditions for the growth of non-human being populations.

MPCA response:

The MPCA does not disagree that protections for coldwater fishes and other aquatic organisms require a protection framework that maintains optimal conditions for these organisms when appropriate. However, this objective is accomplished by more than water quality standards which is the focus of these rule amendments. Water quality standards in most cases establish reasonable standards which at a minimum protect beneficial uses that are consistent with state and federal rules. However, these standards do not necessarily represent management targets for these lakes. For example, lakes which have better water quality than the standards are not managed such that the objective is to only meet the minimum goal required to maintain beneficial uses. Within water

[1] "(j) A State must conduct a use attainability analysis as described in § 131.3(g), and paragraph (g) of this section, whenever:

(1) The State designates for the first time, or has previously designated for a water body, uses that do not include the uses specified in section 101(a)(2) of the Act; or

(2) The State wishes to remove a designated use that is specified in section 101(a)(2) of the Act, to remove a sub-category of such a use, or to designate a sub-category of such a use that requires criteria less stringent than previously applicable." 40 CFR § 131.10(j)

quality standards there is a provision called "antidegradation"[2] which protects existing uses[3] and waters with water quality better than standards. The adoption of Exceptional Uses for some coldwater lakes and the work through WRAPS will also promote protection of these sensitive and important habitats. In addition, there are programs including the MNDNR's Cisco Refuge Lakes, Lakes of Biological Significance, and Lakes of Phosphorus Sensitivity which protect high-quality lakes. Together these proposed amendments to WQS will enhance existing programs which benefit coldwater habitats and organisms dependent on these habitats (Hearing Exhibit D, SONAR [pp. 34]).

D. Comments related to addressing natural variability through use designations and standards

Relates to:

Minn. R. 7050.0150 (DETERMINING WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS);
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION);
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:

General reasonableness [pp. 34, 52]
Statement of General Need, Northern Lakes [p. 14]
Background on Lakes WQS Rule, Revisions to Eutrophication Standards for Northern Lakes [pp. 23-24]
Background on Lakes WQS Rule, Adoption of a TALU Framework for Lakes [pp. 25-27]

Other relevant documents:

Schupp, D.H. (1992) An ecological classification of Minnesota lakes with associated fish communities. St. Paul: Minnesota Department of Natural Resources, Section of Fisheries.
EPA (2021) Ambient water quality criteria to address nutrient pollution in lakes and reservoirs. United States Environmental Protection Agency, Washington, D.C.
Hearing Exhibit D-1, SONAR Exhibit S-4: MPCA (2026) Development of water quality standards to protect coldwater lake habitats in Minnesota. Minnesota Pollution Control Agency: St. Paul, MN.
Hearing Exhibit D-1, SONAR Exhibit S-5: MNDNR (2026) Development of a tiered aquatic life use framework for Minnesota lakes
Hearing Exhibit D-1, SONAR Exhibit S-8: MNDNR (2026) Lake Index of Biological Integrity (IBI) Nearshore Sampling Manual. Minnesota Department of Natural Resources: Brainerd, MN.

D.1: Natural variability

Summary of comments: One commenter [Sip & Finney (I-1.3)] stated that the MPCA needs to consider natural variability, site-specific conditions, and climatic variability in lakes when developing standards and adopting beneficial uses. Another commenter [Silburn (Hearing Transcript)] asked the MPCA to clarify how it intends to facilitate the development of site-specific standards (SSS).

[2] Minn. R. 7050.0265 and Minn. R. 7050.0270
[3] Those uses attained in the surface water on or after November 28, 1975. See definition in Minn. R. 7050.0255, subp. 15.

MPCA response:
The MPCA agrees that natural variability and site-specific conditions should be addressed as part of WQS, use designations, and assessments. In fact, this rulemaking addresses this variability in several respects. The adoption of lake eutrophication standards for polymictic lakes addresses natural differences between dimictic and polymictic lakes (Hearing Exhibit D, SONAR [pp. 14, 23-24]). The proposed coldwater standards address the habitat requirements for different coldwater fish species and assign separate standards to each of these species (Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 1]). Furthermore, the proposed TALU framework also provides different management options for lakes depending on biological performance (Hearing Exhibit D, SONAR [pp. 25-27]). The MPCA will continue to consider how water quality standards can be refined and improved such that appropriate goals are assigned and to ensure that management of these resources is likely to result in meaningful outcomes for the protection and restoration of these waters.

The MPCA recognizes that in some cases SSS are required to manage unique lakes in Minnesota. The process of adopting SSS can often be cumbersome due to the need to collect large amounts of data to develop a standard which will protect benefical uses and to move these revisions through rulemaking. The MPCA understands that with the lake eutrophication standards and coldwater standards, unique attributes in Minnesota lakes may be relatively common due to the large number of lakes in the state. This requires a framework to develop and adopt SSS in a reasonable manner to assign appropriate goals to these waters. As a result, the MPCA intends to consider these needs more comprehensively by developing tools and adopting needed SSS for lake eutrophication in batches. For example, tools such as the United States Environmental Protection Agency's (EPA) lake eutrophication models (EPA 2021) may be used to develop eutrophication SSS.

D.2: Local stakeholder involvement
Summary of comments:
One commenter [Sip & Finney (I-1.3)] stated that the MPCA needs to involve local stakeholders early and throughout the process of implementing water quality standards including use designation determinations.

MPCA response:
The MPCA agrees and seeks local stakeholder involvement with implementation of WQS. Local stakeholders can have extensive knowledge of their local resources and can help with directing monitoring and water quality management activities. As part of the current Intensive Watershed Monitoring (IWM) framework, the first step involves engagement with local partners in IWM planning meetings to determine the sampling framework (i.e., where will sampling station be located and what parameters will be sampled). Local partners are also involved in the use designation and assessment of waters (e.g., Professional Judgement Group (PJG) meetings, impaired waters list comment period). The Agency is also interested in receiving feedback from stakeholders on rulemakings, including use designation rulemakings, and reasonably involves public stakeholders in these efforts. Even prior to individual rulemakings, stakeholders have the opportunity to comment on future water quality standards through the triennial standards review. We appreciate

this feedback, including hearing from local stakeholders as part of rulemakings. The MPCA will work to implement feedback suggestions when supported by evidence and consistent with state and federal rules.

D.3: Lake classification

Summary of comments:

Two commenters [Sip & Finney (I-1.3); Pfeifer (Exhibit N.1)] indicated that the terminology used for assignment of FIBI models was confusing because the term "shallow lake" is used. One commenter [Sip & Finney (I-1.3)] suggested that since the MPCA is replacing the term "shallow lake" with "polymictic lake," the MPCA could also change this terminology for the fish biocriteria framework to be consistent. Both commenters asked how lake type is determined for assignment of FIBI models to specific lakes. Specifically, Sip & Finney (I-1.3) asked how lake complexity is determined in this lake typology. This commenter also expressed that determination of Exceptional Uses designations should be based on clear and reproducible criteria.

MPCA response:

Regarding the use of the term "shallow lake" for the FIBI models, this framework is separate from that of the lake eutrophication standards framework. The lake eutrophication standards distinguish lake type based on stratification (i.e., polymictic versus dimitic) and although most shallow lakes are also polymictic lakes, the term polymictic lake[4] is preferable because it better delineates natural variation in trophic status. In contrast, the term "shallow lake" used as part of the FIBI model framework is based on a different lake typology and follows existing terminology defined by Schupp (1992). This classification creates groups of naturally similar lakes in Minnesota based on lake size, lake depth variables, lake fertility, and growing season length. To account for natural variability in fish communities, the MNDNR developed FIBIs using the Schupp lake classes. The MPCA agrees that additional information can be provided to clarify the distinction between these typologies. The MPCA and MNDNR will revise the technical support document for Tiered Aquatic Life Uses in Lakes (Hearing Exhibit D-1, SONAR Exhibit S-5 [p. 3]) to reference the Schupp class framework. In addition, the MPCA and MNDNR will add details to the Lake Index of Biological Integrity (IBI) Nearshore Sampling Manual (Hearing Exhibit D-1, SONAR Exhibit S-8 [p. 5]) to clarify how lake class is determined for specific lakes. The later document (Hearing Exhibit D-1, SONAR Exhibit S-8) is proposed to be incorporated by reference which codifies the methods for determining lake class into rule. Finally, the MPCA will update the lake class names in Minn. R. 7050.0222 subps. 2d, 3d, and 4d to reduce confusion with the term "shallow lake" (see section H.4 of this document). These revisions will also address a second point by the commenter and clarify how lake complexity is determined as well as how lake typology determinations are made in general.

Regarding the review and designation of Exceptional Uses the process for determining this use is provided in Hearing Exhibit D-1 (SONAR Exhibit S-5 [pp. 12-13]). In addition, examples of the data requirements and review process are provided in Hearing Exhibit D-1 (SONAR Exhibit S-5 [Appendix

[4] Polymictic lakes are lakes with frequent mixing of the water column during the ice-free period (see Hearing Exhibit D, p. 10).

A, pp. 27-50]). These determinations will be part of monitoring and assessment efforts with local partners and subject to public participation as required through rulemaking.

D.4: Designation of Cisco lakes

Summary of comments: One commenter [Silburn (Hearing Transcript)] asked for additional details regarding how the MPCA and MNDNR determined which lakes should be designated for the protection of Cisco.

MPCA response:

The MNDNR and MPCA reviewed fisheries survey (i.e., catch) data to determine which lakes support or supported populations of Cisco (i.e., confirmed presence) on or after the existing use date (November 28, 1975). This process is described in detail in the technical support document for the proposed coldwater standards revisions[5]. In this document, we refer to lakes with suitable habitat as those with oxythermal conditions that could support Cisco. However, this analysis did not necessarily consider other Cisco requirements such as spawning substrates and biogeography which may account for the absence of this species from lakes with suitable oxythermal habitat, and which were not included as lakes to be designated for the protection of Cisco. The focus of the use designation reviews was a demonstration that a population of this species was established in each lake on or after the existing use date and not a prediction of their occurrence based on abiotic factors. We should note that these reviews are based on available evidence and if future evidence demonstrates the presence of a Cisco population in a dimictic lake that is currently not included in the rule, it could be considered for designation in a future rule. For example, some of the lakes listed in Hearing Exhibit D-1 (SONAR Exhibit S-4 [Appendix E]) may be candidates for coldwater designation when additional data are collected.

[5] Hearing Exhibit D-1, SONAR Exhibit S-4 (MPCA (2026) Development of water quality standards to protect coldwater lake habitats in Minnesota) [pp. 50-56]

E. Comments related to the economic analysis

Relates to:
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION);
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:
Consideration of economic factors [pp. 49-61]

Other relevant documents:
Hearing Exhibit I-2: Response to Pre-Hearing Comments
Minn. Stat. § 116.07, subd. 6
Minn. Stat. § 115.43, subd. 1

E.1: Evaluation of the impacts to total maximum daily load (TMDL) and WRAPS studies

Summary of comments:
One commenter [Sip (Hearing Exhibit I-1.3)] requested that the MPCA provide additional information on counts of waterbodies in the Red River Basin affected by these standards and provide additional details regarding the effects and costs of implementing these revisions.

MPCA response:
The MPCA's response to this comment is provided in Hearing Exhibit I-2 [pp. 4-6] and the economic review is described in Hearing Exhibit D, SONAR [pp. 49-61]. Additional relevant responses to this comment are below in Section E.3 including how the MPCA considered the costs of implementing TMDLs, WRAPS, and other water quality management tools.

E.2: Evaluation of all more stringent and new parameters

Summary of comments:
Silburn (Hearing Exhibit I-1.4) requested that the MPCA clarify if the economic analysis included review of all parameters that would become more stringent as a result of the rule revision – including lakes with new Class 1B designations.

MPCA response:
As discussed in Hearing Exhibit I-2 [p. 3] and Hearing Exhibit D (SONAR [p. 57]), the MPCA reviewed all parameters that would be new or more stringent when Classes 1B and 2A are assigned to waters currently classified as Class 2B or Class 2Bd.

E.3: Estimating specific costs to permitted facilities

Summary of comments:
Silburn (Hearing Transcript) requested that the MPCA provide additional details regarding how the MPCA determined in the Economic Analysis that impacts will not be widespread since specific costs could not be determined.

MPCA response:
The MPCA understands that it is important to be transparent and to provide regulated parties with certainty when possible. However, reasonable and appropriate implementation of eutrophication and biological standards creates some uncertainties because of the need to address natural differences between habitat types and site-specific conditions. The objective of addressing natural variability through the adoption and implementation of WQS has been expressed as a requirement by stakeholders involved with the implementation of WQS, including in comments on these rule amendments (see Section D.1: Natural variability). To implement permits and other water quality management activities in a reasonable manner that supports the protection or restoration of beneficial uses, it is necessary to carefully review beneficial uses assigned to waters, review applicable standards, review the potential need for SSS, assess WQS, develop TMDLs, develop WRAPS, and write permits. The reasonable implementation of WQS can be complex due to the need for additional data, the connectedness of multiple waterbodies, and the presence of multiple permitted facilities adjacent to or upstream of a water of interest. The MPCA seeks to implement WQS with the collaboration of local organizations, Minnesota residents, and permittees to ensure that resources are used efficiently and that these efforts result in the protection or restoration of waters. As a result of following state and federal rules and the science when managing these waters as well as collaborating with stakeholders, the process of implementing aquatic life and recreation WQS can be complex and difficult to identify specific costs as part of a SONAR analysis.

Considering the detailed framework developed in Minnesota to reasonably implement WQS as summarized above, the MPCA reviewed all available data from lakes adjacent to or downstream of existing permitted facilities. The overall conclusion of this review is that the scope of impact to permitted facilities is small, but it is possible that a small number may need more restrictive permits to protect beneficial uses. The conclusion that costs to permitted facilities will not be large or widespread is based on several facts which were determined as part of an economic analysis and are delineated in Hearing Exhibit D, SONAR [pp. 49-61]. To summarize:

1) Most lakes that will receive more stringent standards under the proposed revisions (coldwater lakes and dimictic northern lakes) are concentrated in northern Minnesota where there are fewer permitted facilities;
2) The proposed amendments are largely revisions to existing standards which means only a subset of lakes will have more stringent standards and of those, standards for most parameters already apply; and
3) The determination of impairments, possible pollutant loading reductions, and the partition of any necessary load reductions is complex and requires detailed watershed-level analyses and modelling which may include multiple permits and waterbodies to ensure appropriate outcomes.

Considering these factors, the MPCA did an analysis to identify all permits upstream or adjacent to lakes that **could** become impaired as a result of the proposed revisions and only 15 facilities were identified. A detailed review of these lakes and permits within their lakesheds found that only 4 of these permits are likely to need reductions in total phosphorus loading (Hearing Exhibit D, SONAR [p. 58]). As discussed in Hearing Exhibit D, SONAR [pp. 58-59], specific costs or even if additional treatment is actually needed would be speculative and not relevant to whether these revisions to

WQS are needed to protect sensitive beneficial uses. If through the process of implementing WQS it is determined that additional treatment is required to protect or restore beneficial uses, the MPCA will engage early with regulated partners throughout this process. Any impacts to permittees will not occur within the next year as a result of the time required to assess standards and implement water quality management actions within watersheds which provide time for engagement with regulated partners. Importantly, the MPCA has notified permittees discharging to lakesheds with lakes that will receive more stringent standards as a result of these amendments (Hearing Exhibit D, SONAR [p. 66]) and provided additional details of potentially affected permittees in Hearing Exhibit I-2. These steps will allow the small number of permittees that may be affected by these amendments to be involved early in the process of implementing protections for these sensitive and important lakes.

F. Comments related to maintence of multiple benefits

Relates to:
Minn. R. 7050.0150 (DETERMINING WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS);
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION);
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:
TALU framework for lakes [p. 38]

Summary of comments:
One commenter [Sip & Finney (I-1.3)] stated that projects involving flood impoundments, diversions, channel restoration, grade control structures, wetland restoration, floodwater storage, drainage improvements, and other hydrologic modifications should be evaluated according to their overall environmental and public benefits and that the MPCA should coordinate with watershed districts early in project development rather than allowing biological or water quality standards to become an obstacle late in permitting.

MPCA response:
The proposed rule amendments do not disallow local stakeholders from implementing multipurpose projects. Although local stakeholders may need to consider if implementation of hydrologic modifications will result in the loss of an existing use, the proposed amendments do not add this requirement. These amendments do assign some beneficial uses that carry with them more stringent standards, which could result in the need to determine if such projects could cause the loss of an existing use (Hearing Exhibit D, SONAR [p. 38]). In these situations, the objective would be to develop the project such that it supports multiple purposes including both the hydrologic and aquatic life and recreation benefits. Ultimately, the protection of these habitats will be more cost effective compared to trying to restore them, especially after costly infrastructure has been built. As part of implementing these standards, the MPCA will seek early coordination and input from local stakeholders as part of the implementation of WQS (see comments in section D.2 of this document).

G. Comments requesting additional information

Relates to:
Minn. R. 7050.0150 (DETERMINING WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS);
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION);
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:
Background on Lakes WQS Rule [p. 23 (footnote 13)]
Specific reasonableness [p. 41]

Other relevant documents:
SONAR Exhibits (Hearing Exhibit D-1): S-3 - MPCA (2025) Development of eutrophication standards for northern lakes in Minnesota. Minnesota Pollution Control Agency: St. Paul, MN.
Hearing Exhibit I-2: Response to Pre-Hearing Comments
SONAR Exhibits (Hearing Exhibit D-1): S-10 - Draft beneficial use tables for lakes
Hearing Exhibit D-1, SONAR Exhibit S-4 - MPCA (2026) Development of water quality standards to protect coldwater lake habitats in Minnesota. Minnesota Pollution Control Agency: St. Paul, MN.

G.1: Shallow lakes

Summary of comments: One commenter [Sip & Finney (I-1.3)] requested clarification regarding whether eutrophication standards still apply to shallow lakes and if further revisions to rule language are needed to clarify the application of eutrophication standards to shallow lakes.

MPCA response:
The MPCA does not intend to remove eutrophication standards to most shallow lakes as they are currently defined. The MPCA is proposing to replace the term “shallow lake” with “polymictic lake” to provide a more scientifically definable term for these lakes which is linked to nutrient processes that affect the standards needed to protect beneficial uses (Hearing Exhibit D, SONAR [pp. 23 (footnote 13), 41]; SONAR Exhibit S-3 (Hearing Exhibit D-1) [pp. 12-13]). Although shallow lakes (as currently defined in rule) and polymictic lakes (a defined in the proposed rule language) are not perfect analogs, there is a large degree of overlap in practice. As a result, the rule revisions to the terminology do not greatly impact the applicability of lake eutrophication standards. To provide additional clarity in rule, the MPCA is proposing additional revisions to rule language (see below in Section H.1).

G.2: Request for a list of specific permits and lakes used in the economic analysis

Summary of comments:
One commenter [Silburn (Hearing Exhibit I-1.4)] requested that the MPCA provide specific names for permits and lakes that were identified as part of the Economic Analysis in the SONAR.

MPCA response:
The requested lists are provided in Hearing Exhibit I-2 (pp. 1-3).

G.3: Confirmation of WID for West Crab Lake

Summary of comments:
One commenter [Pfeifer (Exhibit N.1)] requested that the MPCA confirm the waterbody identification (WID) codes for lakes listed as Crab Lake and West Crab Lake in the proposed amendments.

MPCA response:
The MPCA checked all references to lakes named Crab Lake and West Crab Lake in the proposed amendments and supporting documentation (Hearing Exhibit D-1, SONAR Exhibit S-4 [pp. 89, 99, 114, 116-117]; Hearing Exhibit D-1, SONAR Exhibit S-10 [pp. 2, 6]) and can confirm the WID codes are correct. Some of the confusion is that there are two Crab lakes included in this rule. Two of the lakes are located within the Boundary Waters Canoe Area Wilderness (BWCAW) in St. Louis County: Crab Lake (69-0220-00) and West Crab Lake (69-0297-00). Crab Lake (69-0220-00) is currently designated Class 2A to protect stream trout. This lake does not support a stream trout population but does have a Cisco population. Therefore, it is proposed to be designated Class 2A[TLC] to protect the Cisco population (Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 99]). West Crab Lake (69-0297-00) is connected to Crab Lake (69-0220-00) and was included in the Class 2A designation for stream trout, but it does not support stream trout, and it is too shallow to support Cisco during the summer. Therefore, it is proposed to be designated Class 2Bd to protect the warm water habitat (Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 117]). Crab Lake (16-0357-00) is located just outside the BWCAW in Cook County. Crab Lake (16-0357-00) was designated Class 2A to protect stream trout, but there is no evidence that a coldwater fishery was established, and the lake is very shallow (Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 116]). As a result, the MPCA is proposing to designate this lake Class 2Bd to protect the warm water habitat. The use designation proposals for these 3 lakes are accurately reflected in the draft use designation tables (Hearing Exhibit D-1, SONAR Exhibit S-10 [pp. 2, 6]).

G.4: Request for additional fishery survey information for coldwater lake reviews

Summary of comments:
One commenter [Pfeifer (Exhibit N.1)] requested that the MPCA provide additional fishery survey data to confirm that the proposed Class 2Bd designations are consistent with 40 CFR 131.5(a)(1). Specifically, the commenter requested that the MPCA provide information on the presence or absence of other coldwater fish species (e.g., Cisco and Lake Whitefish) and the numbers of fishery surveys in the Class 2Bd designation descriptions.

MPCA response:
The MPCA is providing additional fisheries information that confirms the lack of coldwater habitat on or after November 28, 1975, for the 25 lakes proposed to be designated Class 2Bd. These data are summarized in the table below. Full write ups are provided in Appendix C of SONAR Exhibit S-4 (Hearing Exhibit D-1). For some lakes, a single fishery survey or no fishery surveys were available. In these cases, additional information (e.g., oxythermal habitat, lake morphology) was used to

determine that the lake was unlikely to support a self-sustaining population of coldwater fish. These use designation reviews are consistent with the methods in SONAR Exhibit S-4 (Hearing Exhibit D-1 [p. 52-56]) which describes evidence besides fishery surveys that may be used to support use designations.

Lake Name	WID	Fisheries surveys reviewed	Species absent from surveys	Notes
Cone, Upper	16-0412-00	1981, 1984, 1987	LAT, LKW, TLC, SRT	No coldwater fish species sampled in 3 surveys
Devilfish	16-0029-00	1955, 1984, 1985, 1986, 1989, 1992, 1998, 2004, 2008, 2012, 2016, 2020	LKW, TLC	LAT sampled in 1955; BKT sampled in 1985 but transients from a connected managed SRT stream
Hungry Jack	16-0227-00	1980, 1982, 1984, 1986, 1988, 1989, 1991, 1994, 1997, 2001, 2004, 2008, 2012, 2016, 2020	LKW, TLC	LAT sampled in 1982, 1986, 2001, 2004, SRT sampled in 1984, RBT sampled in 1994 but a transient from a connected managed SRT lake
Lizz	16-0199-00	1984, 1994, 1998, 2002, 2013	LAT, LKW, TLC	BKT sampled in 1994, 1998, 2002, 2013 but of stocked origin and stocking discontinued due to northern pike predation
Mulligan	16-0389-00	1985, 1990, 1993, 1997, 2004	LAT, LKW, TLC	BKT sampled in 1985, 1990, 1993, 1997, 2004 but of stocked origin and stocking discontinued due to northern pike predation
Omega (Onega)	16-0353-00	1939	not applicable	1939 fisheries survey sampled only Northern Pike and recommended that fish should not be stocked until the Northern Pike population was reduced
Otto, South	16-0323-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a small (17 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Vista	16-0224-00	1985, 1993	LAT, LKW, TLC, SRT	No coldwater fish species sampled in 2 surveys
Wanihigan	16-0349-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a small (19 ha), relatively shallow (12 m) lake that is unlikely to support a self-sustaining population of coldwater fish
Normanna	69-1383-00	1977, 1980, 1991, 1996	LAT, LKW, TLC	BKT sampled in 1980, 1991, 1996 but of stocked origin and stocking discontinued (surveys recorded under incorrect lake (Unnamed Lake (69-0122-00)))

Lake Name	WID	Fisheries surveys reviewed	Species absent from surveys	Notes
Unnamed	69-0122-00	not applicable	not applicable	No survey records available to confirm coldwater species presence (Normanna (69-1383-00) survey records incorrectly entered in Unnamed Lake (69-0122-00) records); shallow (1.4 m) with a small surface area (0.9 ha) - not suitable for Lake Trout, Lake Whitefish, Cisco, or the management of a stream trout fishery
Mirror	69-0234-00	1990, 1992, 1994, 1996, 2001	LAT, LKW, TLC	BNT sampled in 1992, 1994, 1996, 2001 but of stocked origin and stocking discontinued due to competition with cool water species
Agamok	38-0011-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a shallow (9 m), relatively small (43 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Arkose	38-0382-00	1979	LAT, LKW, TLC, SRT	One survey indicates no coldwater fish species present; shallow (6 m), small (8 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Beartrack	69-0480-00	1965, 1966, 1967, 1974, 2000	LAT, LKW, TLC, SRT	5 fisheries surveys; no LAT or LKW sampled; 1 TLC sampled in 1966 but likely transient from connected lakes
Big Ruby	69-0333-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a relatively shallow (15 m) small (17 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Brandt	16-0600-00	1979	LAT, LKW, TLC, SRT	One survey indicates no coldwater fish species present; assessments of oxythermal habitat determined conditions were “marginal” or not suitable for trout
Crab	16-0357-00	1987, 1997, 2002, 2007, 2010, 2023	LAT, LKW, SRT	TLC sampled in 1987, 1997, 2023, but polymictic
Marble	38-0109-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a small (21 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Mora	16-0732-00	1987	LAT, LKW, TLC, SRT	One survey indicates no coldwater fish species present; assessments of oxythermal habitat determined conditions were “marginal” or not suitable for trout

Lake Name	WID	Fisheries surveys reviewed	Species absent from surveys	Notes
Tarry	16-0731-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a small (15 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Virgin	16-0719-00	1980	LAT, LKW, TLC, SRT	No survey records available to confirm coldwater species presence; however, this is a small (23 ha), relatively shallow (12 m) lake that is unlikely to support a self-sustaining population of coldwater fish
West Crab	69-0297-00	not applicable	not applicable	No survey records available to confirm coldwater species presence; however, this is a shallow (5 m), likely polymictic lake that is unlikely to support a self-sustaining population of coldwater fish
East Twin	03-0362-00	1966	LAT, LKW, TLC, SRT	One survey indicates no coldwater fish species present; this is also a small (5 ha) lake that is unlikely to support a self-sustaining population of coldwater fish
Kennedy	31-0137-00	1959, 1963, 1969, 1970, 1972, 1977, 1986, 2003	LAT, LKW, TLC, SRT	No coldwater fish species sampled in 8 surveys
Willard	11-0564-00	1989, 1994, 1995, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008	LAT, LKW, TLC	RBT sampled in 1989, 1994, 1995, 1998, 2000, 2002, 2003, 2006, 2007 but of stocked origin and stocking discontinued due to competition with warmwater species

G.5: Request for additional data to support proposed site-specific coldwater lake standards

Summary of comments:

One commenter [Pfeifer (Exhibit N.1)] requested that the MPCA provide additional information to justify some of the proposed SSS for coldwater lakes. The commenter noted that for some lakes with proposed SSS, the coldwater fish populations appear to be low or declining which may indicate the SSS is not sufficiently protective of the beneficial use as required by 40 CFR 131.5(a)(2). This commenter specifically asked for additional documentation of the technical basis for the proposed SSS for Jessie Lake (justify SSS more stringent than current conditions) and Lake Itasca (additional data).

MPCA response:

The MPCA prefers to provide a full justification as required by 40 CFR 131.5(a)(2) for these proposed SSS. The time constraints of the period for the response to comments does not allow the MPCA to provide this and as a result, the MPCA will remove all 11 SSS from the proposed rule as referenced in Hearing Exhibit D-1, SONAR Exhibit S-4. This does not affect any of the proposed rule language.

Many of these lakes and others will likely require SSS, but the MPCA will address these in detail in future rules.

G.6: Request for documentation of trout water status for Normanna Lake

Summary of comments:

One commenter [Pfeifer (Exhibit N.1)] requested that the MPCA provide additional information supporting the removal of the Class 2A designation from Normanna Lake (69-1383-00).

MPCA response:

The MPCA would like to clarify that these rule revisions do not propose the removal of the Class 2A designation for Normanna Lake (69-1383-00). This lake is currently designated Class 2B and therefore there is no proposed change to the use designations for this lake. The MPCA incorrectly designated an unnamed lake (69-0122-00) as a coldwater lake instead of designating Normanna Lake (69-1383-00). As a result, the lake the MNDNR was managing as a stream trout fishery (Normanna Lake (69-1383-00)) was never designated Class 2A. The MNDNR is in the process of removing the trout water designation (Minn. R. 6264.0050) from Normanna Lake (69-1383-00) and therefore the MPCA will not propose to change this lake from Class 2A to Class 2B. Regarding the change of the Class 2A designation to Class 2Bd for the unnamed lake (69-0122-00), this waterbody was not managed for stream trout and is shallow (1.4 m feet maximum) with a small surface area (0.9 ha). This waterbody is too small and shallow to support Lake Trout, Lake Whitefish, or Cisco and would not be suitable for the management of a stream trout fishery. As a result, it is reasonable to remove the Class 2A designation from this waterbody and replace it with Class 2Bd. This proposal is documented in Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 84-85].

H. Clarifications and corrections to proposed rule language

Relates to:
Minn. R. 7050.0150 (DETERMINING WATER QUALITY, BIOLOGICAL AND PHYSICAL CONDITIONS, AND COMPLIANCE WITH STANDARDS);
Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION).

Hearing Exhibit D (SONAR) discussion at:
Specific reasonableness [pp. 41, 42]

Other relevant documents:
Hearing Exhibit C: Proposed rule, including Revisor's approval

H.1: Shallow lakes definition

Summary of comments:
One commenter [Sip & Finney (I-1.3)] asked if further revisions to rule language are needed to clarify the application of eutrophication standards to shallow lakes.

MPCA response:
The proposed rule language (Hearing Exhibit C) is being revised to be clearer and to follow better defined scientific terms. The term "polymictic lake" largely replaces "shallow lake." However, since the term "shallow lake" is no longer used in rule, it is reasonable to remove this definition. The Agency will propose to remove this definition from Minn. R. 7050.0150 for clarity.

Proposed modifications based on public comments:
Guide to tracking modifications to the proposed rule language as published in the State Register on August 24, 2026 (Hearing Exhibit C): The black text, including black underlines and black strikethrough font, shows the applicable rule provisions as published. Red underlined font shows new text the MPCA is proposing to adopt that was not in the rule amendments as published.

Minn. R. 7050.0150, Subp. 4.

…

~~MM. "Shallow lake" means an enclosed basin filled or partially filled with standing fresh water with a maximum depth of 15 feet or less or with 80 percent or more of the lake area shallow enough to support emergent and submerged rooted aquatic plants (the littoral zone). It is uncommon for shallow lakes to thermally stratify during the summer. The quality of shallow lakes will permit the propagation and maintenance of a healthy indigenous aquatic community and they will be suitable for boating and other forms of aquatic recreation for which they may be usable. Shallow lakes are differentiated from wetlands and lakes on a case-by-case basis. Wetlands are defined in part 7050.0186, subpart 1a.~~

…

H.2: Correction to proposed rule language in Minn. R. 7050.0222, subps 3d and 4d

Summary of comments:
Two commenters [Sip & Finney (I-1.3); Pfeifer (Exhibit N.1)] identified a drafting error in the proposed rule language for Minn. R. 7050.0222.

MPCA response:
The MPCA appreciates the commenters' identification of this error and will correct this error to the proposed rule language (Hearing Exhibit C). These additional revisions are documented below.

Proposed modifications based on public comments:
Guide to tracking modifications to the proposed rule language as published in the State Register on August 24, 2026 (Hearing Exhibit C): The black text, including black underlines and black strikethrough font, shows the applicable rule provisions as published. Red underlined font shows new text the MPCA is proposing to adopt that was not in the rule amendments as published. These modifications also show the revisions described in Section H.4 of this document.

Minn. R. 7050.0222, subp 3d

Subp. 3d. **Biological criteria for lotic warm or cool water aquatic life and habitats (class 2Bd).**

Water Body Type	Tier	Class	Assemblage	Biocriterion
… …	…	…	…	
Deep, complex lakes	Exceptional	2BdAe	Fish	64
	General	2BdAg	Fish	45
Deep, simplemoderately complex lakes	Exceptional	2BdAe	Fish	59
	General	2BdAg	Fish	38
Moderately shallow, vegetated deep lakes	General	2BdAg	Fish	24
Shallow, productive lakes	General	2BdAg	Fish	36

…

Minn. R. 7050.0222, subp 4d

Subp. 4d. **Biological criteria for lotic warm or cool water aquatic life and habitats (class 2B).**

Water Body Type	Tier	Class	Assemblage	Biocriterion
…				
Deep, complex lakes	Exceptional	2BAe	Fish	64
	General	2BAg	Fish	45
Deep, simplemoderately complex lakes	Exceptional	2BAe	Fish	59
	General	2BAg	Fish	38
Moderately shallow, vegetated deep lakes	General	2BAg	Fish	24
Shallow, productive lakes	General	2BAg	Fish	36

…

H.3: Averaging period for oxythermal habitat criteria

Summary of comments:
One commenter [Pfeifer (Exhibit N.1)] suggested that additional details regarding the assessment requirements for T_{DO3} would assist with implementation of the standard.

MPCA response:
The MPCA will propose to add additional implementation details to Minn. R. 7050.0222 subp. 2 (Hearing Exhibit C) to clarify assessment requirements for T_{DO3}. These additional revisions are documented below.

Proposed modifications based on public comments:
Guide to tracking modifications to the proposed rule language as published in the State Register on August 24, 2026 (Hearing Exhibit C): The black text, including black underlines and black strikethrough font, shows the applicable rule provisions as published. Red underlined font shows new text the MPCA is proposing to adopt that was not in the rule amendments as published.

…
An average of maximum T_{DO3} (temperature at 3 mg/L of dissolved oxygen) sufficient to support coldwater fish species must be maintained. For assessments, maximum T_{DO3} must be calculated as an average of a minimum of three years which were measured within the most recent 10 years at the time of assessment. The following are specific to lakes supporting different coldwater fish species:
…

H.4: Lake class names for fish biocriteria

Summary of comments:
Two commenters [Sip & Finney (I-1.3); Pfeifer (Exhibit N.1)] indicated that the terminology used for assignment of FIBI models was confusing because the term "shallow lake" is used.

MPCA response:
The MPCA will propose to modify the lake class terminology in the proposed rule language (Hearing Exhibit C) in Minn. R. 7050.0222 subps. 2d, 3d, and 4d to reduce confusion regarding the term "shallow lake" and to simply terminology (see Section D.3 of this document). These additional revisions are documented below.

Proposed modifications based on public comments:
Guide to tracking modifications to the proposed rule language as published in the State Register on August 24, 2026 (Hearing Exhibit C): The black text, including black underlines and black strikethrough font, shows the applicable rule provisions as published. Red underlined font shows new text the MPCA is proposing to adopt that was not in the rule amendments as published. These modifications also show the revisions described in Section H.2 of this document.

Minn. R. 7050.0222, subp 2d

Subp. 3d. **Biological criteria for lotic warm or cool water aquatic life and habitats (class 2Bd).**

…

Water Body Type	**Tier**	**Class**	**Assemblage**	**Biocriterion**
…				
Deep, complex lakes	Exceptional	2Ae	Fish	64
	General	2Ag	Fish	45
Deep, simple~~moderately complex~~ lakes	Exceptional	2Ae	Fish	59
	General	2Ag	Fish	38
Moderately shallow, vegetated ~~deep~~ lakes	General	2Ag	Fish	24
Shallow, productive lakes	General	2Ag	Fish	36

…

Minn. R. 7050.0222, subp 3d

Subp. 3d. **Biological criteria for lotic warm or cool water aquatic life and habitats (class 2Bd).**

…

Water Body Type	Tier	Class	Assemblage	Biocriterion
…				
Deep, complex lakes	Exceptional	2BdAe	Fish	64
	General	2BdAg	Fish	45
Deep, simple~~moderately complex~~ lakes	Exceptional	2BdAe	Fish	59
	General	2BdAg	Fish	38
Moderately shallow, vegetated ~~deep~~ lakes	General	2BdAg	Fish	24
Shallow, productive lakes	General	2BdAg	Fish	36

…

Minn. R. 7050.0222, subp 4d

Subp. 4d. **Biological criteria for lotic warm or cool water aquatic life and habitats (class 2B).**

…

Water Body Type	Tier	Class	Assemblage	Biocriterion
…				
Deep, complex lakes	Exceptional	2BAe	Fish	64
	General	2BAg	Fish	45
Deep, simple~~moderately complex~~ lakes	Exceptional	2BAe	Fish	59
	General	2BAg	Fish	38
Moderately shallow, vegetated ~~deep~~ lakes	General	2BAg	Fish	24
Shallow, productive lakes	General	2BAg	Fish	36

…

I. Comments related to the development of a Modified Use for lakes

Relates to:

Minn. R. 7050.0222 (SPECIFIC WATER QUALITY STANDARDS FOR CLASS 2 WATERS OF THE STATE; AQUATIC LIFE AND RECREATION).

Relevant documents:

SONAR Exhibit S-5 (Hearing Exhibit D-1): MNDNR (2026) Development of a tiered aquatic life use framework for Minnesota lakes

Hearing Exhibit I-2: Response to Pre-Hearing Comments

Summary of comments:

One commenter [Sip & Finney (I-1.3)] asked why the MPCA did not consider a Modified Use for lakes similar to the framework for streams.

MPCA response:
As discussed in Hearing Exhibit I-2 [p. 8] and Hearing Exhibit D-1 (SONAR Exhibit S-5 [p. 6]), a Modified Use tier for lakes was considered, but the MPCA and MNDNR determined that such a tier was not needed because few lakes would fit into this category as defined by the requirements of the Clean Water Act for the removal of a use (see 40 CFR 131.10(g)).

J. Comments related to the Class 1 designation

Relates to:
Minn. R. 7050.0420 (COLDWATER HABITAT WATERS)

Hearing Exhibit D (SONAR) discussion at:
Protection and Restoration of Aquatic Life Beneficial Uses [p. 22 (body text and footnote 10)]
Hearing Exhibit D, SONAR [pp. 27-28]

Relevant documents:
Hearing Exhibit I-2: Response to Pre-Hearing Comments
Hearing Exhibit D-1, SONAR Exhibit S-4 - MPCA (2026) Development of water quality standards to protect coldwater lake habitats in Minnesota. Minnesota Pollution Control Agency: St. Paul, MN.
State Register, 1 June 2020, Volume 44, Number 49 [p. 1416]
State Register, 26 June 2023, Volume 47, Number 52 [p. 1207]

Summary of comments:
One commenter [Silburn (Hearing Exhibit I-1.4; Hearing Transcript)] asked how many lakes proposed to be assigned Class 2A would also be designated Class 1B and if the MPCA specifically evaluated the Class 1B designation for these lakes.

MPCA response:
The MPCA is only proposing changes to Class 2 designations; however, the assignment of Class 2A automatically assigns the Class 1B designation (Minn. R. 7050.0420, Item D). In these rule amendments, there are 346 lakes which are proposed to go from Class 2B to Class 2A which carries with it the Class 1B designation (Hearing Exhibit D, SONAR [pp. 22 (body text and footnote 10); 27-28]; Hearing Exhibit D-1, SONAR Exhibit S-4 [p. 3]; Hearing Exhibit I-2 [pp. 3-4]). There are also 65 lakes which are currently designated Class 2Bd which are proposed to be designated Class 2A. These lakes are already designated Class 1B. Class 2A waters already assigned Class 1B, which are proposed to change to Class 2B will retain the Class 1B designation and be designated Class 2Bd.

The linkage between these use designations was established because there is often a connection between surface and ground water in coldwater surface water habitats. To protect ground water sources of drinking water (i.e., domestic consumption), the drinking water standards are applied to Class 2A lakes and streams. As discussed in Hearing Exhibit I-2 [pp. 3-4], The evaluation of domestic consumption uses (Class 1) was not within scope for this rule as only aquatic life uses (Class 2) were reviewed. The process of automatically assigning Class 1B to Class 2A waters, as required by Minn. R.

7050.0420, without specific evaluation of the Class 1B designation is consistent with past rule amendments (e.g., State Register, 1 June 2020, Volume 44, Number 49, [p. 1416]; State Register, 26 June 2023, Volume 47, Number 52 [p. 1207]).

K. Comments related to 7050.0470 use classification tables

Relates to:
Minn. R. 7050.0470 (CLASSIFICATIONS FOR SURFACE WATERS IN MAJOR DRAINAGE BASINS).

Hearing Exhibit D (SONAR) discussion at:
Listing use designations in Minn. R. 7050.0470 through incorporations by reference [p. 28-29].

Other relevant documents:
Hearing Exhibit I-2: Response to Pre-Hearing Comments
SONAR Exhibits (Hearing Exhibit D-1): S-10 - Draft beneficial use tables for lakes

Summary of comments:
A commenter [Silburn (Hearing Exhibit I-1.4)] requested that the MPCA confirm if rulemaking is required to change or add beneficial use designations to the lists incorporated by reference.

MPCA response:
The process for designating uses to waters will be unchanged by the proposed rule amendments and will require rulemaking to change designated beneficial uses. The use of documents incorporated by reference is currently the system used to document stream designations. As authorized by Minn. R. 7050.0470, the MPCA currently maintains tables of use classifications for stream reaches by water basin in Minnesota. These use designation tables are found at: https://www.pca.state.mn.us/get-engaged/incorporations-by-reference. The draft use designation tables for lakes are provided as a SONAR exhibit (Hearing Exhibit D-1, SONAR Exhibit S-10). The MPCA also responded to this comment in Hearing Exhibit I-2 [pp. 4].