

## Responses to the 2024 draft Impaired Waters List (IWL) public notice comments

The 2024 draft Impaired Waters List (IWL) comment period began November 14, 2023 and ended on January 12, 2024. Minnesota Pollution Control Agency (MPCA) received 236 comments total. The MPCA 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 236 comments received can be found on the Impaired Waters List website here: [Minnesota’s impaired waters list | Minnesota Pollution Control Agency \(state.mn.us\)](https://www.state.mn.us/mPCA/impairment/).

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### I. Response to 53 comments regarding the Impaired Waters App Viewer (IWAV) map tool

When viewing the Impaired Waters List Viewer (IWAV), the interactive web-map on our website, it is important to keep in mind the beneficial uses of a waterbody. The way that MPCA determines impairments is that pollutants that do not meet the standards then cause an impairment status for a designated use. Designated uses, also called beneficial uses, means the goals of what we want the waterbody to be used for. We may want the lake, stream, or wetland to be used for swimming, fishing,

and aquatic life (fish and macroinvertebrates/bugs). A lake or stream can be impaired for fishing and perfectly safe for swimming, and vice versa.

For example, a waterbody can be impaired for aquatic consumption (eating the fish in those waters) due to mercury levels. However, this heavy metal is not absorbed easily through the skin and that water is not impaired for aquatic recreation (swimming or boating). Alternatively, a waterbody can be impaired for aquatic recreation due to nutrients and bacteria, but is not impaired for aquatic life (the diversity of fish and bugs is healthy). Over a quarter of the IWL is due to mercury impairments, and when the TMDL reductions for mercury are fully implemented this should result in 73% of the mercury impaired waters to meet their goals.

The conditions that keep fish and bugs healthy are different than the conditions that protect human health. That is why the assessments are performed in this way. Therefore, when seeing a lot of red impairments on the IWAV, it is important to keep in mind the beneficial use. Not all those red waters mean they are highly polluted and you should stay out.

Additionally, it is true that the MPCA has been adding more impairments to the IWL than have been removed. This is due to the extensive amount of lake and stream monitoring that is able to be conducted thanks to the Clean Water Land and Legacy Amendment. Minnesota monitors more lake and stream miles, and more often, than any of the surrounding states. This means MPCA is looking for more pollutants and finding them in more places than surrounding states due to the amount of data available. MPCA has completed the monitoring and assessment of all 80 watersheds throughout Minnesota, and is now returning for the second time to evaluate changes. Having good data is key in order to delist impairments, and restoration activities take time in order to have the resulting benefits reflected in the data, and therefore in the resulting assessments and IWL delistings.

Minnesota strives for transparency in taking the approach that if a water does not meet the standard, it will be placed on the impaired waters list. Some states wait for stressors (causes of impairments) to be determined before placing waters on their IWLs, resulting in few impairments being placed on their lists. Some new impairments are a result of a new monitoring location, where a waterbody had not been monitored before. Some new impairments are a result of a water quality standard being newly assessed where it was previously not assessed under that numerical value or criteria.

Putting this into context - additional impairments do not necessarily mean that waters are getting worse in Minnesota. Rather, it means that we know more than we did 15+ years ago. Knowing the problem is the first step towards making improvements and changes. Return visits to watersheds in future years are crucial in order to capture new data for delisting and in quantifying the improvements made in Minnesota water quality.

## **II. Responses to 2 comments regarding PFAS**

Due to the way that MPCA does their assessments based on beneficial use of the waterbody, or the goals of what we want to use that waterbody for, being impaired for Per- and polyfluoroalkyl substances (PFAS) is an impairment for aquatic consumption. Meaning eating the fish from those waters. Being impaired for aquatic consumption due to PFAS does not mean you cannot swim in the water. However, because of the way PFAS bioaccumulates, fish may have PFAS at levels of concern even if the surface water is meeting the water quality criteria.

The state has an extensive monitoring plan with an inter-agency fish contaminant monitoring team comprised of MPCA, MDH, and DNR. Fish will continue to be collected to monitor for PFAS in fish tissue and these areas rotate in monitoring locations. There are new funds for expanding monitoring that will

start in 2024. For more information on PFAS in fish, visit [PFAS in fish | Minnesota Pollution Control Agency \(state.mn.us\)](#).

The first step to restoring waters listed as impaired for PFAS in fish tissue is stopping the source. MPCA are leaders among states in stopping the source! The state's PFAS Blueprint, which outlines many strategies the state is taking to reduce the distribution of PFAS compounds within the state, can be found here: [Minnesota's PFAS Blueprint | Minnesota Pollution Control Agency \(state.mn.us\)](#).

Minnesota Dept. of Health (MDH) is responsible for drinking water source concerns. MDH works with local partners to monitor PFAS in community water supplies across Minnesota. Details and results are available from MDH: [Interactive Dashboard for PFAS Testing in Drinking Water - MN Dept. of Health \(state.mn.us\)](#). Resources for concerned private well owners are found at: [Per- and Polyfluoroalkyl Substances \(PFAS\) and Private Wells - MN Dept. of Health \(state.mn.us\)](#).

### **III. Responses to 2 comments regarding drinking water**

Thank you for your comment and passion in protecting Minnesota waters. The MPCA in partnership with MDH has issued a response to the EPA comment letter on nitrate. That response and the efforts that MPCA is taking to address the nitrate issue in SE Minnesota can be found here: [MDH Response to Southeast Minnesota EPA Requests - MN Dept. of Health \(state.mn.us\)](#) as well as a summary of the answers to FAQ here: [Talking Points on Nitrates in Southeast Minnesota \(state.mn.us\)](#).

### **IV. Responses to 6 comments regarding Birch Lake**

Due to additional data sources submitted for the 2023 assessment cycle, Birch Lake was determined to be impaired for wild rice production in accordance with the criteria outlined for sulfate impairments in the Assessment Guidance Manual.

### **V. Response to 2 comments regarding Clearwater Biologic, LLC**

Thank you for your research into sulfate reductions and sharing that with the agency. These have been taken into consideration and will be utilized by staff when making sulfate standard implementation actions.

### **VI. Response to 3 comments regarding aquatic plant growth in lakes**

Aquatic plants can grow abundantly in response to increased water clarity, or to increased nutrients in a waterbody. Aquatic plant management is handled under the MN DNR, who can issue permits for plant removal.

Sauk River chain increased vegetation is a positive ecological response due to the increasing water clarity. Good contacts in this area are:

- DNR Fisheries Aquatic Plant Management Specialist, Joe Stewig
- DNR Fisheries Area Mgr in Sauk Rapids
- Christine Jurek, DNR AIS Specialist in Sauk Rapids

A good contact in your area regarding Lake 15 near Rollag is Nathan Olson, DNR Fisheries Area Manager in Detroit Lakes.

Specific concerns regarding wild rice growth and perceived changes or observations should be shared with Ann Geisen, DNR Wildlife Shallow Lakes Specialist.

## **VII. Response to 1 comment regarding fish IBI assessments**

pH levels are measured in surface waters and assessed, as outlined in our Assessment Guidance Manual. Data on specific lakes or streams can be obtained through our Surface Water Data Viewer here: [Surface water data access \(arcgis.com\)](#) Additionally, trends for many parameters can be found in our Clean Water Act Funding report; however, there is no specific reporting at this time regarding trends of pH in surface waters.

Trends for water clarity can be viewed in this public Tableau report here: [Water Quality Assessment Results Data Viewer: Home Page - Tableau Server \(state.mn.us\)](#). Observations have been made that zebra mussels can be a source of improved water clarity temporarily upon population boom. However, invasive species pressures on fish populations are managed by the MN DNR and they can provide more information.

F-IBI criteria are based upon fish communities in lakes with similar depth, size, shoreline complexity, and ecoregion and are not lake specific. Fishing pressure is one stressor that could impact the fish community in a lake, but the F-IBI is a comprehensive look at the game and nongame fish community. In considering how fishing pressures may lower the population or diversity of fish, the F-IBI still applies as the best measure of fish diversity expected in that waterbody. For more information, please visit the F-IBI website: [https://www.dnr.state.mn.us/waters/surfacewater\\_section/lake\\_ibi/index.html](https://www.dnr.state.mn.us/waters/surfacewater_section/lake_ibi/index.html).

## **VIII. Response to 1 comment regarding new construction**

Thank you for the comment regarding minimizing runoff on our landscape and increasing infiltration. When issuing the new construction permit, MPCA will look for any impaired water within a 1-mile radius of the construction site. Additional requirements can be made within the construction stormwater permits if there is an impaired waterbody within that 1-mile radius. Additionally, there are ongoing best management projects (BMPs) with the state, local government units, and private contractors regarding implementing these types of features in new construction planning to reduce runoff. However, any laws or policies on requirements of these features for all new construction are the responsibility of the municipality to determine, not the state.

## **IX. Response to 1 comment regarding solid waste**

Solid waste dumping should be reported to the current land managers of the area, in this location that would be the U.S. Forest Service who manages Chippewa National Forest. Our staff have followed up with the Forest Service on this particular request for cleanup.

## **X. Response to 1 comment regarding air quality concerns**

The number of days containing air quality warnings in 2023 were indeed high and found to be related to wildfire smoke. We encourage any observations of lake adverse effects be submitted to MPCA project managers. The Impaired Waters List Coordinator can help connect you to the appropriate staff who work in your area.

## **XI. Response to 2 comments regarding MPCA Citizen Board and MPCA's name**

Thank you for your comment and passion in protecting waterbodies in Minnesota. Public comments are an essential part of having citizens make their voices heard and holding the state agency accountable to fulfilling its role in permitting pollutant sources.

## **XII. Response to Bois de Sioux Watershed District**

Thank you for the submittal of this comment. We understand that local governments have limited staff and time to review watershed assessments and we strive to give as much lead time as possible for assessment reviews while still meeting state and federal deadlines for assessments. We encountered delays in performing our internal review of the assessments which pushed the timeline for the professional judgement group (PJG) meeting up against the deadline to start the 2023 field work season. The same MPCA staff that perform the assessments are also the staff that collect the field data each year. We apologize that our internal delays left you with inadequate lead time to review the assessments before the PJG meeting.

Regarding your requests for better display of information for watershed partner staff such as clearer AUID definitions, IBI scores, photographs, access to reviewer comments, and station IDs – this has long been a request of internal MPCA staff for improvement as well. We recognize there needs to be a better solution for public viewing of our assessment information. There is project underway to improve the current assessment database, referenced in the Guidance Manual as CARL, and create more comprehensive map views of the assessment decisions as well as create a public-facing access of the comments. This is a multi-year project with completion subject to funding resources and technical support availability. Once complete, this project will address the accessibility issues you raised in your letter. Thank you for highlighting these areas of improvement opportunities.

Many of the comments submitted in your response to the Impaired Waters List (IWL) public notice were previously submitted to the MPCA by the Bois de Sioux Watershed District following May 9, 2023 PJG meeting.

The MPCA's staff and watershed district administrator exchanged several emails throughout the 2023 assessment period and attended a virtual meeting to discuss these comments. The responses that MPCA sent to Bois de Sioux Watershed District in December 2023 are copied below. The MPCA is submitting this response to the United States Environmental Protection Agency as its formal response to your public notice comments.

### **Aquatic Life Use and TALU**

Regarding this comment: "MPCA proposes to change the uses from general to modified for the following AUID's: 09020102-589, 09020102-590, 09020102-593, 09020102-596, 09020102-579, 09020101-545, and 09020101-557. The District supports these changes and would request that these AUID's be added to the list for proposed change: 09020102-564, 09020102-532, 09020101-539, 09020102-557. At the PJG meeting, MPCA staff stated that assessments were not taken for channels that are 50% or more channelized.

The District further requests the following AUID's be removed from the assessment program, as they are 50% or more channelized (in some cases, 100%): 09020102-589, 09020102-579, 09020102-564, 09020102-557, 09020102-532, 09020101-545, 09020101-557, and 09020101-539."

In 2018, the Minnesota Pollution Control Agency (MPCA) adopted Tiered Aquatic Life Use (TALU) standards into rule. The development of tiered statewide biocriteria for streams in Minnesota is a further refinement to Minnesota's water quality standards, which recognizes that there are differences in the potential for restoration and protection among waters. Prior to the adoption of TALU, all waters of the state were assessed under general use standards. Assessment of waterbodies more than 50% channelized were deferred until TALU was adopted in rule. Once TALU was adopted, all channelized streams, including those over 50% channelized, with sufficient biological and habitat data were assessed under the new TALU standards. The TALU standards established both modified use and exceptional use standards in addition to the general use standards, all of which are described below:

<https://www.pca.state.mn.us/sites/default/files/wq-bsm4-02.pdf>.

### **Exceptional use**

Created to protect waters that exhibit the highest quality of 'exceptional' assemblages as measured by assemblage attributes and indices and the Minnesota Biological Condition Gradient (BCG). These communities have minimal changes in structure of the biotic assemblage and in ecosystem function which is the ultimate goal of the Clean Water Act (CWA). The 'exception use' category functions as a preservation use, which means it is intended for waters that already exhibit or have the realistic potential to attain an exceptional quality as measured by the biological criteria.

### **General use**

These are waters that harbor 'typically good' assemblages of freshwater organisms (as measured by assemblage attributes and indices) and that reflect the lower range of "least impacted" regional reference condition. In the language of the BCG, they are communities that can be characterized as possessing "overall balanced distribution of all expected major groups; ecosystem functions largely maintained through redundant attributes". As such, the 'general use' category represents the minimum CWA goal attainment threshold, and it serves as the principal restoration use for management programs. It also serves as the 'triggering threshold' for when a use attainability assessment (UAA) is required to determine the attainability of this designated use tier for specific river or stream segments.

### **Modified use**

These are waters that have been extensively altered and currently exhibit legacy physical modifications that pre-date the November 28, 1975, existing use date in the Federal Water Quality regulations (40CFR Part 131). These waters have been determined to be in non-attainment of the general use biological criteria and have been determined to be incapable of attaining those criteria via a UAA. The biological criteria for the 'modified use' category are established based on a separate population of 'modified reference sites' that exhibit these types of modifications with little presence of other types of stressors. Possible subcategories include channelization for flood control and agricultural drainage and impoundments created by run-of-river low head dams. Separate reference populations are needed to derive the numeric biocriteria for each subcategory.

TALU Timeline:

- Pre-2018: Aquatic Life impairments on ditched watercourses deferred pending TALU implementation,
- 2014-2017: TALU development, public notice, public comment, rulemaking, and
- 2018: TALU adopted into rule, implementation begins.

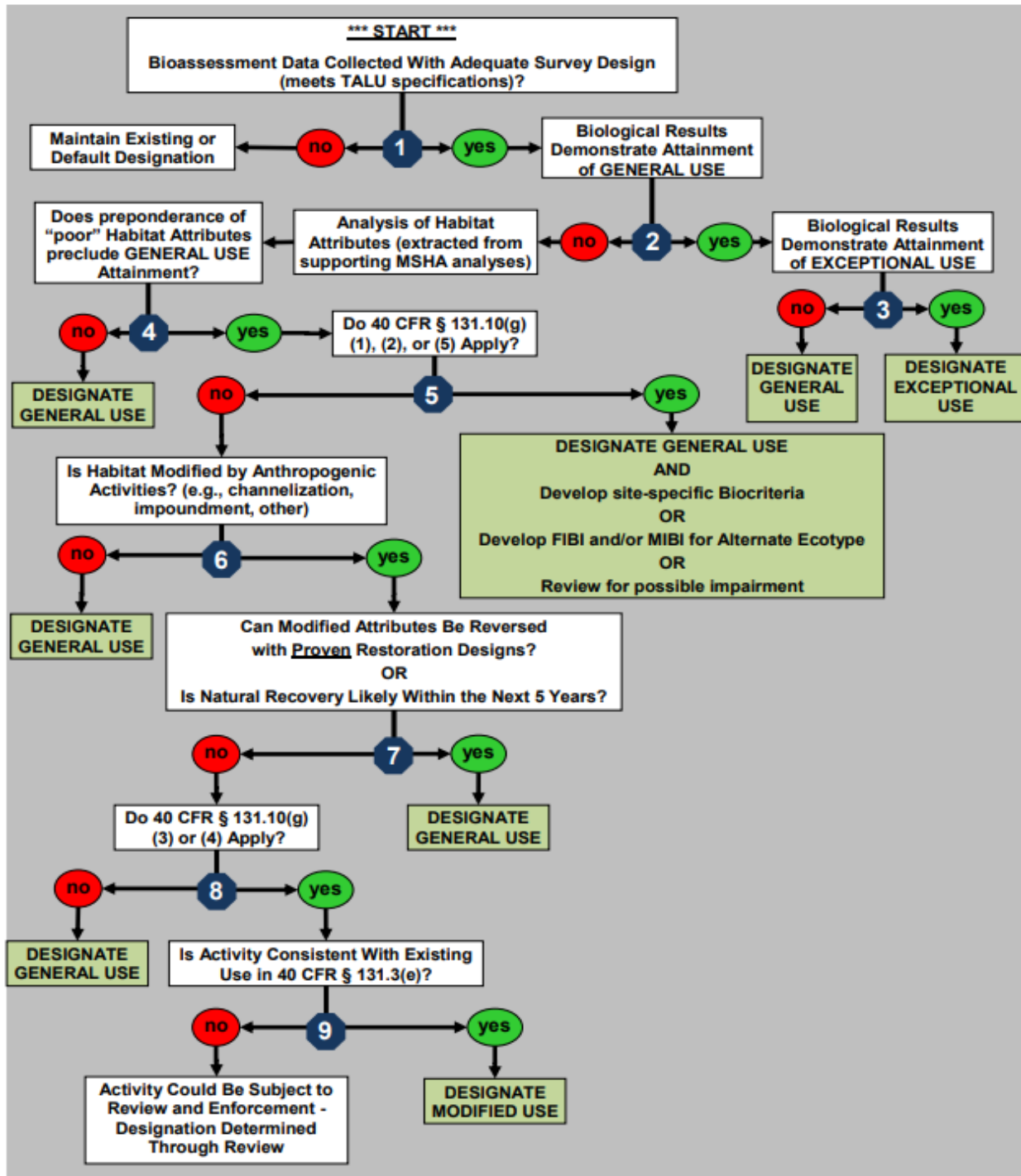
Further detail on the implementation of specific aquatic life use standards is referenced in *figure 1* below and at the following link: <https://www.pca.state.mn.us/sites/default/files/wq-s6-34.pdf>

Any person may present evidence to the agency that a beneficial 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: [7050.0405 Petition By Outside Party To Consider Attainability Of Use.](#)

In relation to the specific water body assessment units (AUIDs) referenced in letter:

- 09020101-539: This AUID was sampled above HWY 27 in a natural channel, and thus is not eligible for modified use.
- 09020101-545: This AUID was first sampled for aquatic life in Cycle 2 (2021-22) and assessed as modified use.
- 09020101-557: This AUID has been changed to modified use following assessment in 2019.
- 09020102-532: This AUID has been changed to modified use following assessment in 2019.
- 09020102-557: This AUID is entirely natural channel, and thus not eligible for modified use.
- 09020102-564: This AUID has been changed to modified use following assessment in 2019.
- 09020102-579: This AUID has been changed to modified use following assessment in 2019.
- 09020102-589: This AUID was first sampled for aquatic life in cycle 2 (2021-22) and assessed as modified use.

Figure 1: Process for using biological assessments to make use designation decisions within a TALU framework in Minnesota.





## Nearly or barely impaired streams

### Regarding this comment:

“Barely impaired are AUIDs that do not meet an applicable threshold standard and are therefore impaired (if an impairment is not existing, “barely impaired” is a new impairment); Nearly impaired: AUIDs that do meet an applicable threshold standard and are therefore not impaired.”

### Response:

The MPCA uses “nearly impaired” or “barely impaired” terminology to flag AUIDs which are very close to meeting or exceeding standards respectively. Flagging a reach as nearly or barely impaired allows local partners as well as MPCA staff to identify AUIDs where restoration/protection efforts may be most efficient at preventing/addressing an impairment.

Surface water assessment is a data-driven process where assessors may utilize multiple lines of evidence and draw upon professional judgment to make assessment determinations. Information from watershed partners is an important part of this process:

- A 90% confidence interval is generated around both sides of the general use index of biological integrity (IBI) threshold which helps to guide the MPCA’s certainty in the reproducibility of an assessment decision. Depending on an IBI score’s placement relative to the threshold, the MPCA will look at additional lines of evidence to ensure that the correct assessment decision is made. Other lines of evidence are particularly important to consider when an IBI scores falls within the bounds of the confidence interval including water chemistry, physical habitat, and other factors that could influence the health of aquatic communities.
- Biological Condition Gradient Score (BCG) score is calculated for every sample and compared with the results of the IBI to determine whether the IBI has accurately represented the health of the biological community. See this link for more information about the BCG: <https://www.epa.gov/sites/default/files/2016-02/documents/bcg-practioners-factsheet-2016.pdf>.
- It is possible that an IBI score may fall below the impairment threshold yet not result in an impairment, or conversely, it is also possible that an IBI score may fall above the impairment threshold yet result in an impairment.

### Regarding this comment:

“The District opposes the “barely impaired” assignment for macroinvertebrates, as the reach is listed as meeting the standard. The District requests a “nearly impaired” status.”

### Response:

In relation to the specific AUIDs included in letter (09020102-512, -532, -557) the most recent IBI score in combination with other data is not sufficient to remove the existing impairment. The “barely impaired” designation represents the assessment that the fish or macroinvertebrate community would need to see only modest improvement in order to meet the modified use threshold. This AUID may be a cost/resource effective location to prioritize restoration work.

### Regarding this comment:

“The District opposes the “impaired” assignment for *E. coli* on AUID 09020101-501, as the reach is listed as inconclusive for meeting the standard.”

**Response:**

This Escherichia coli (*E. coli*) impairment is an existing impairment, first listed in 2014. The data that were available for the current assessment window were inconclusive and, therefore, not enough information or consistent enough quality of data to either corroborate or de-list the existing impairment.

**Ephemeral streams and accessibility****Regarding this comment:**

“During the PJG meeting, MPCA staff stated that ephemeral streams would not be included for assessment. “Ephemeral” was further defined as areas that only carry water after precipitation events, have channel characteristics, and a small drainage area. MPCA staff stated that they are interested in finding out from local officials whether a reach is ephemeral. These AUID’s, and their proposed reaches, should be pulled from the assessment program because they are considered ephemeral.”

**Response:**

The MPCA is responsible for monitoring and assessing waters of the state, which include but are not limited to lakes, streams, and rivers, and irrigation within or bordering Minnesota ([Minn Stat. 115.0, subd. 22](#)). All watercourses, whether perennial, intermittent, or ephemeral contribute to watershed health and the condition of downstream waterbodies, but the MPCA has not developed assessment criteria for ephemeral streams and, as such, does not assess ephemeral streams. Both perennial and intermittent watercourses are part of MPCA’s watershed monitoring and assessment framework. Intermittent, ephemeral, and perennial watercourses are defined as follows:

- Intermittent watercourses occasionally go dry during periods of drought or later in the summer.
- Ephemeral streams carry water during spring snowmelt or for short periods after rainfall.
- See <https://www.epa.gov/cwa-404/streams-under-cwa-section-404> for working definition of Perennial/Intermittent/Ephemeral flow regime.

The MPCA aims to represent the condition of a watercourse while within its ‘normal’ flow condition relative to expected/observed flow conditions at a site within a given year. In doing so, the MPCA aims to avoid assessing data from sites that have gone dry prior to sampling. Waterbodies that are scheduled within the index period, have retained water prior to the sampling event, and have at least some flow at the time of sampling are considered sampleable. Periods of intermittent flow, no flow, or a completely dry channel condition after the site is sampled would not impact the accessibility of a sample. The MPCA uses a variety of methods to determine whether a site is sampleable and/or assessable including gage data, instream vegetation, sorting of substrates, pictures, and multiple visits to the site (fall and spring). Local knowledge is also extremely helpful in making assessment determinations. Observations made by the MPCA at each of the AUIDs in question are included below. Any observations made by locals or watershed district staff that could add further clarity to the assessment decisions at these sites are welcomed.

**09020102-512**

(Judicial Ditch 4), 10RD078 (45.56890, -96.47502):

*“Periods of no flow; flashy due to snowmelt runoff events”*

This site was sampled on the following dates: 06/09/10, 08/04/10, 06/17/21, 06/22/22, 08/03/22. All samples were collected during low- or moderate- flow conditions. The fish sample collected 06/17/21

was collected during a particularly low-flow condition and was not assessed. Flow measurements across three years suggest that this site maintains flow into the month of August most summers and, as such, MPCA staff assess that this waterbody is not ephemeral and would be better described as either perennial or intermittent. The MPCA staff have no evidence that flow ceased or dried up in the summer of 2022 prior to our sampling and, as such, this waterbody meets the requirements for assessment using MPCA IBIs. Flow observations gathered by stressor ID staff are as follows:

- 2020 0.1-0.5 cfs – 6/25, 7/16, 7/20, 8/3, 8/12, 8/27, No flow – 8/15
- 2021 1 cfs – 5/12, 0.5 cfs – 6/10, No flow – 7/21, 8/11
- 2022 ≥5 cfs – All visits

**Figure 2: 09020102-512**



1. 08/04/10 2. 04/01/21 3. 06/10/21 4. 06/16/21 5. 06/22/22 6. 08/03/22

**09020102-532**

(Judicial Ditch 4 B6), 10RD077 (45.56295, -96.46853)

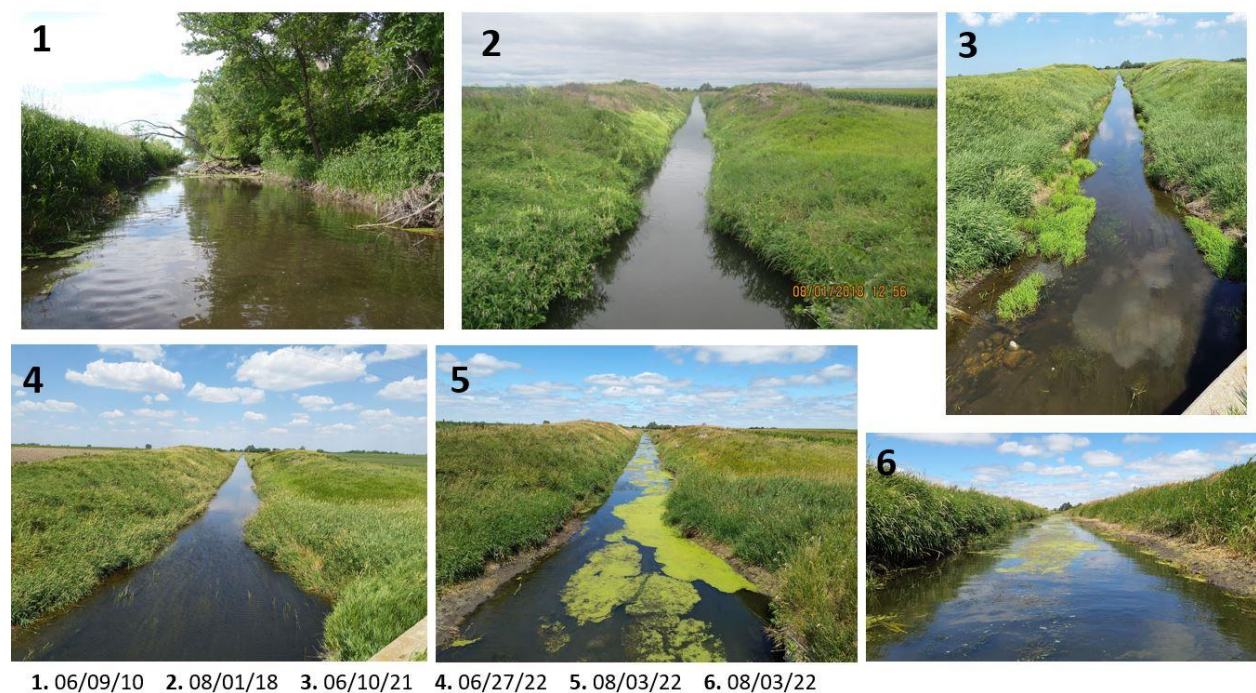
*“Periods of no flow”*

This site was sampled on the following dates: 06/19/10, 08/11/10, 06/27/22, 08/03/22. Flow measurements suggest that this site stops flowing by mid-July in years with below average rainfall but in years with average or above average rainfall, this site is likely to see flow through the middle of August. The MPCA’s data and observations indicate that this waterbody is not ephemeral and would be better described as either perennial or intermittent. The MPCA staff have no evidence that flow ceased or dried up during the summer of 2022 prior to sampling and, as such, this waterbody meets the requirements for assessment using MPCA IBIs. A broader set of observations/measurements would be helpful to further understand the flow regime in this system. Flow observations gathered by stressor ID staff are as follows:

- 2020 0.1 cfs – 6/25, 7/16, No flow – 7/20, 8/3, 8/5, 8/12, 8/27
- 2021 No flow – 7/21, 8/11

2022 ≥5 cfs – All visits

**Figure 3: 09020102-532**



**09020102-557**

Twelvemile Creek (Lateral 1 of JD 14), 10RD055 (45.85882, -96.35837)

*“Low flow”*

This site was sampled on the following dates: 07/26/10, 08/03/2010, 06/15/21, 08/04/22. All samples were collected under slow but perceptible flow conditions. The MPCA staff have no evidence that flow ceased, or the channel dried up in the summer of 2022 or 2021 prior to sampling and, as such, this waterbody meets the requirements for assessment using MPCA IBIs. Further flow data across a series of years would be useful, but MPCA observations suggest that this system a perennial stream. Flow observations gathered by stressor ID staff are as follows:

2022 ≥12 cfs – All visits

Figure 4: 09020102-557



1. 08/03/10 2. 06/15/21 3. 08/04/22

### 09020102-561

Unnamed ditch (Trib. to Mustinka River), 10RD038 (45.91962, -96.02720)

*“Drought conditions/lack of precipitation affected; reach dries up”*

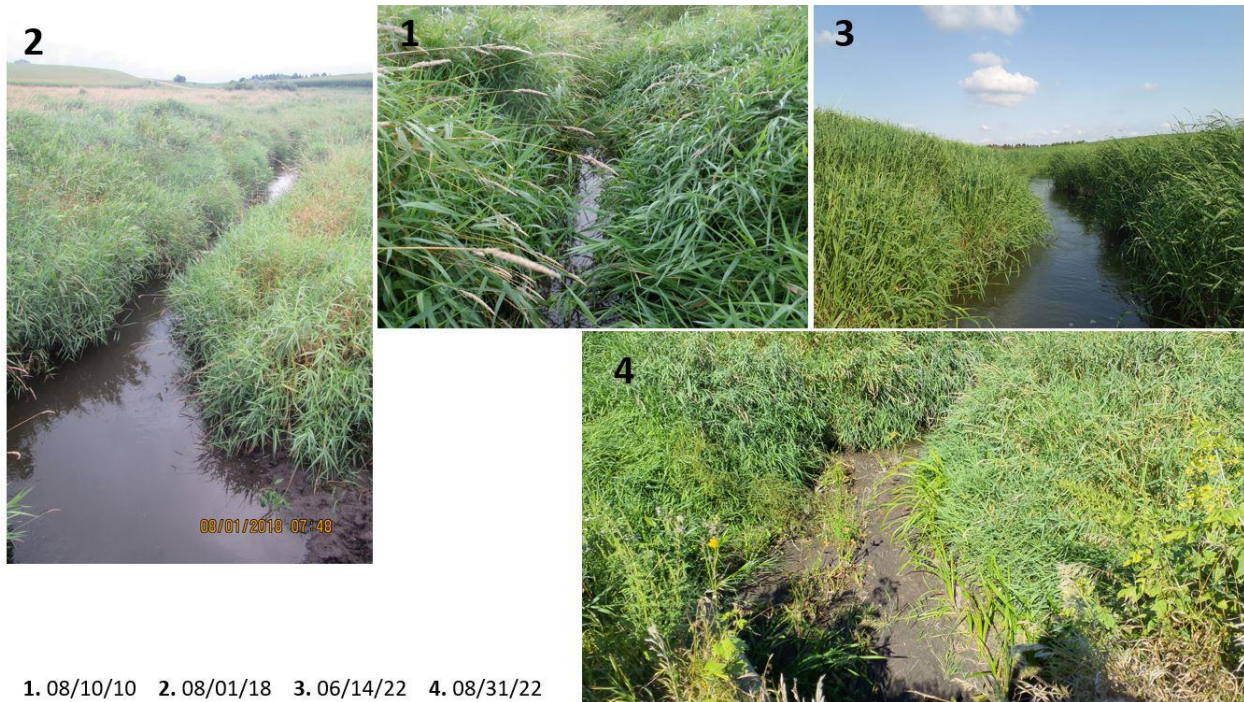
This site was sampled on the following dates: 06/08/10, 07/27/10, 08/10/10, 6/14/22, 06/21/23. This site was impounded by a beaver dam in 2021 but MPCA staff observed water in the stream in August. Biomonitoring staff attempted to sample for inverts 8/31/22 but the stream was intermittent. A fish sample was attempted in 06/21/23 but no fish were captured. Flow measurements and observations suggest that this reach stops flowing by mid-July in years with below average rainfall, but beaver impoundments have also complicated flow measurements at this site. The MPCA staff assess that this site is not ephemeral and is better classed as intermittent or perennial, but a broader set of flow observations would be helpful. The MPCA staff have no evidence that flow ceased or dried up in the summer of 2022 prior to sampling and as such, this waterbody meets the requirements for assessment using MPCA IBIs. Flow observations gathered by stressor ID staff are as follows:

2020 0.5 cfs – 11/3

2021 No flow – 7/21, 8/11

2022  $\geq 3$  cfs – All visits

Figure 5: 09020102-561



1. 08/10/10 2. 08/01/18 3. 06/14/22 4. 08/31/22

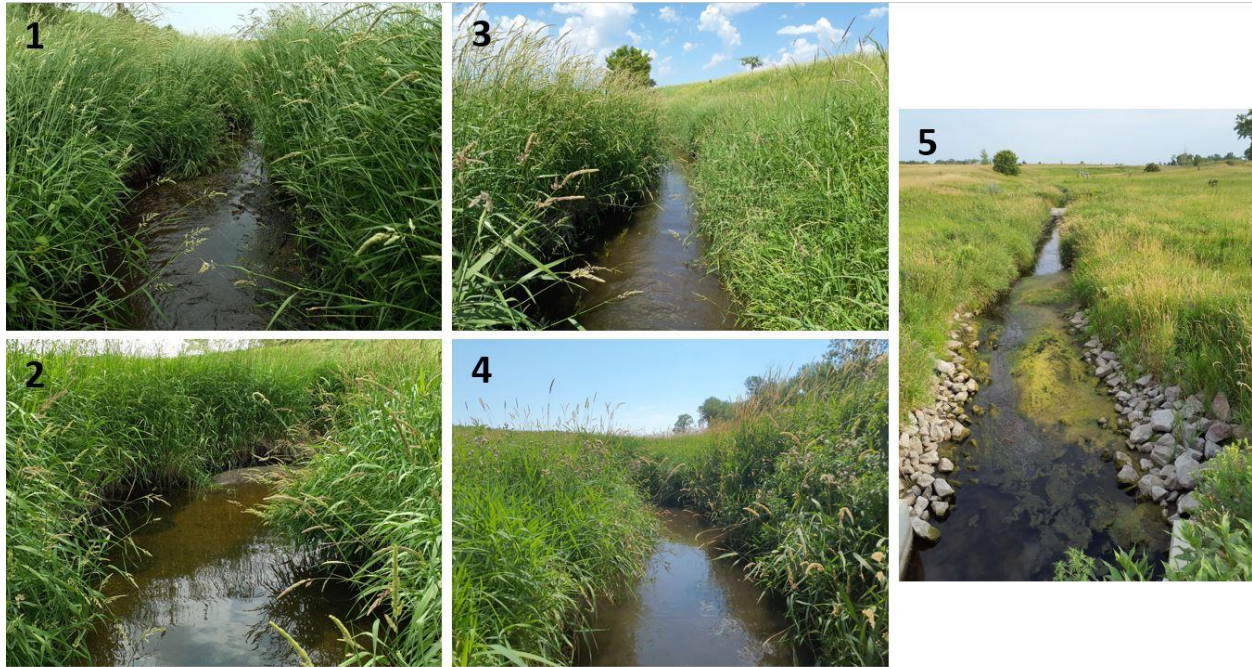
**09020102-563**

Unnamed Creek (Trib. to Mustinka River), 21RD084 (45.86012, -96.03401)

*“Local officials report this reach dries up completely.”*

This site was sampled on the following dates: 06/16/21, 06/23/22, 07/18/22, 08/02/22. Flow was moderate during fish visits and slow during invert visits. The watershed district reports that two dams upstream of this location likely impound flow later in the summer and would need very high flow to move water once flow has ceased. Biomonitoring staff noted some flow at this site in early August both in 2021 and 2022 and do not have evidence that flow ceased or dried up prior to sampling. As such, this waterbody meets the requirements for assessment using MPCA IBIs. The MPCA’s data and observations indicate that this waterbody is not ephemeral and would be better described as either perennial or intermittent despite no-flow conditions measured by stressor ID staff in 2023. A broader set of flow observations would help determine whether the site should be targeted for sampling in the future. Flow observations gathered by stressor ID staff are as follows:

Figure 6: 09020102-563



1. 06/16/21 2. 06/16/21 3. 06/23/22 4. 07/18/22 5. 08/02/22

**09020102-579**

Unnamed creek (Trib. to Niemakl Lakes), 10RD054 (45.78942, -96.02574)

*“Low levels”*

This site was sampled on the following dates: 6/9/10, 6/16/21, 6/13/22, 8/8/22. Biomonitoring staff attempted an invert sample 8/10/10 but there was no flow. Stressor ID staff did not collect flow measurements at this site but visits in 2021 and 2022 suggest that this site experiences flow into early August most years, which is consistent with a stream that is either perennial or intermittent. Flow may be groundwater dependent later in the summer as this is a very small stream and the sampling location sits within a small valley. The MPCA staff do not have evidence that flow ceased or dried up prior to sampling in 2022. As such, this waterbody meets the requirements for assessment using MPCA IBIs. A broader set of flow observations would help determine whether the site should be targeted for sampling in the future.

Figure 7: 09020102-579



1. 08/01/18 2. 06/16/21 3. 06/14/22 4. 08/08/22

**09020102-589**

Traverse County Drain 27, 21RD088 (45.83526, -96.49011)

*“Following spring runoff, flow is from groundwater seeps. Portions of this long reach go dry”*

This site was sampled 07/20/22 and 08/04/22. Macroinvertebrates were sampled on 08/04/22 but the community suggested poor colonization and, as a result, the sample was not assessed and will not result in an impairment. Stressor ID staff measured no-flow conditions in late June 2022 and again in July and August which contradicts the observations made by biomonitoring staff. Flow was present on 07/20/22 at the time of the fish sample and again on 08/04/22 for the macroinvertebrate visit. It is possible that flow is interstitial in places along the channel or that flow is rainfall dependent during most summers which would point to ephemerality. A fish passage barrier is present ~5 meters from where this ditch enters the Mustinka River which provides another explanation (outside of low or intermittent flow) to explain the lack of fish in our sample. Acknowledging the contradiction between stressor ID and biomonitoring, the decision to assess the 07/20/22 was made on the strength of the flow observations made across both 2021 and 2022 by biomonitoring staff at this site. A broader set of flow observations would help to understand normal flow condition at this site and decide whether current assessments should stand. Flow observations gathered by stressor ID staff are as follows:

2022 No flow – 6/27, 7/18, 8/24



Figure 8: 09020102-589



**09020101-512**

Rabbit River, South Fork, 10RD012 (46.06380, -96.38539)

*"No flow conditions"*

This site was sampled on the following dates: 06/15/10, 06/28/22, 08/01/22. Stressor ID staff measured limited flow at this site throughout the summer of 2020 and 2022 but flow had ceased by late June in 2023. In August of 2010, biomonitoring staff decided to forgo macroinvertebrate sampling due to no-flow conditions. Evidence that MPCA staff has gathered suggests that, in the average year, flow persists in this site through early August consistent with a stream that is either perennial or intermittent. Flow was barely perceptible at all biomonitoring sampling visits, but MPCA staff do not have evidence that flow ceased or dried up prior to sampling in 2022. As such, this waterbody meets the requirements for assessment using MPCA IBIs. Flow at this site may be affected by persistent beaver impoundment just downstream of the site. Further flow monitoring or observations would help establish normal flow condition at this site. Flow observations gathered by stressor ID staff are as follows:

- 2020 1-2 cfs – 7/16, 8/5, 8/27
- 2021 0.1 cfs – 5/12, 6/10 No flow – 7/21
- 2022 0.1-1 cfs – 8/4
- 2023 No flow – 6/27, 7/18, 8/24

Figure 9: 09020101-512



1. 06/15/10 2. 06/23/22 3. 08/01/22

**09020101-545**

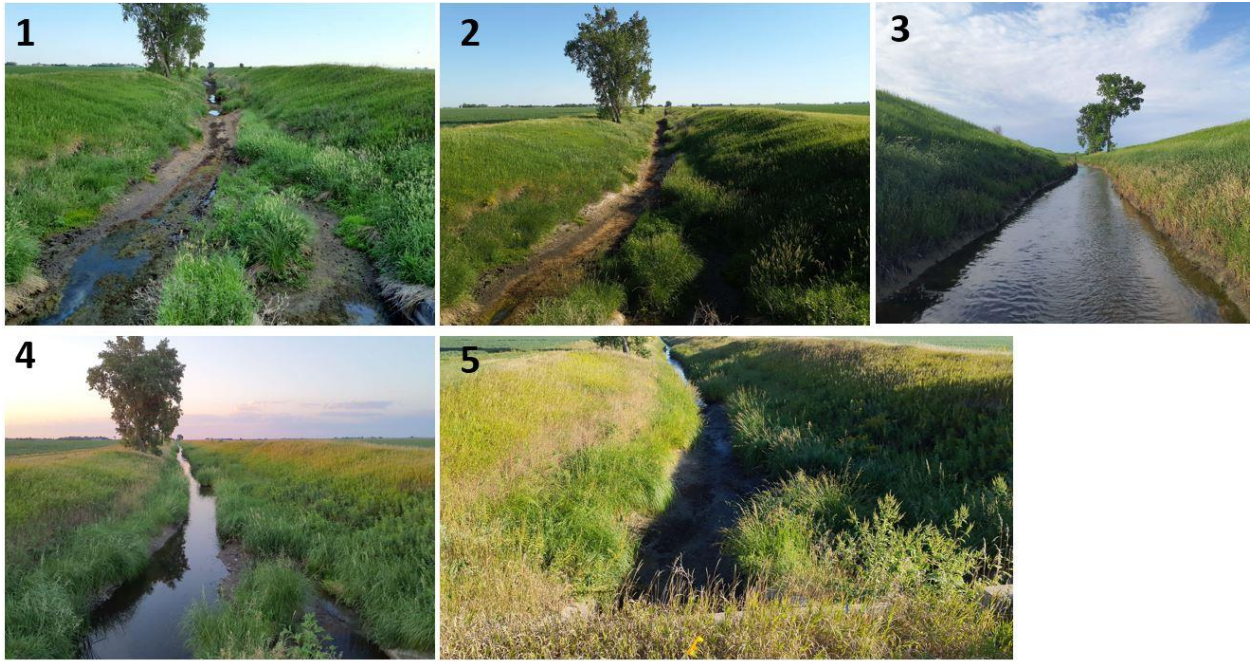
Traverse County Ditch 53, 21RD009 (46.00819, -96.35994)

*“Goes dry”*

This site was sampled 06/15/22 and 08/01/22. The MPCA staff noted low flow at both visits in 2022 and the site had gone intermittent at third visit on 8/31/2022. The MPCA staff do not have evidence that flow ceased or dried up prior to sampling in 2022. As such, this waterbody meets the requirements for assessment using MPCA IBIs. Stressor ID staff noted no flow at this site in late June 2023. The MPCA’s observations suggest that this site goes dry or intermittent by early August in a year with average rainfall conditions, but further observations or flow measurements would help better establish whether this site should be targeted for monitoring. Flow observations gathered by stressor ID staff are as follows:

2023 No flow – 6/27, 7/18, 8/24

**Figure 10: 09020101-545**



1. 06/10/21 2. 06/16/21 3. 06/15/22 4. 08/01/22 5. 08/31/22

**09020101-557**

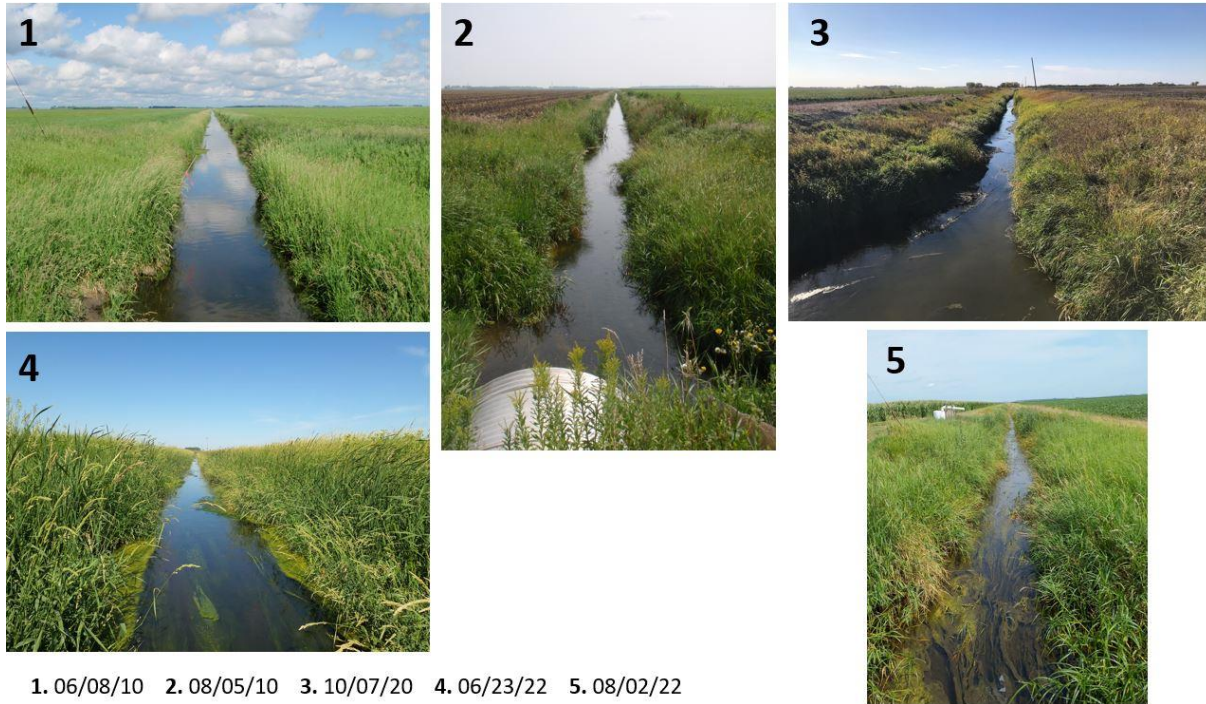
Grant County Ditch 5, 10RD009 (46.05779, -96.24437)

*“Goes dry”*

This site was sampled on the following dates: 06/08/10, 08/05/10, 06/23/22, 08/02/22. Stressor ID staff measured no flow at this site in mid-June of 2021, during a historic drought. Outside of 2021, flow measurements and visits by biomonitoring staff all indicate that this site experiences flow throughout the summer most years consistent with either a perennial or intermittent conditions. The MPCA staff do not have evidence that flow ceased or dried up prior to sampling in 2022. As such, this waterbody meets the requirements for assessment using MPCA IBIs. Flow observations gathered by stressor ID staff are as follows:

- 2020 1-3 cfs – 6/1, 8/5, 10/14
- 2021 No flow – 6/10, 7/21, 8/11
- 2022 ≥5 cfs – All visits

Figure 11: 09020101-557



## Flood avenues

### Regarding this comment:

“Several of the reaches with proposed impairments are major spring snowmelt flood avenues. These reaches can balloon in size from 50’ wide to a mile or two wide. In addition to a significant change in width, channels experience dramatic changes in water flow depth and speed – expanding and contracting rapidly as snowmelt passes through. Channel erosion is severe and occurs in both predictable locations or new locations (depending on snow and ice jams). For this evaluation round, the following AUID’s could be identified as major flood avenues: 09020102-557; 09020102-579; 09020102-594; 09020102-590; 09020101-512; 09020101-502; 09020101-503; 09020101-535; 09020101-540. These reaches fail to meet nearly every MPCA staff standard for which MPCA staff assessed. For public drainage systems, drainage authorities have the authority to remove siltation, repair eroded channel banks, and reestablish vegetation. Outside of public drainage ditches (on DNR controlled public waters), no LGU has independent authority to make repairs or improve water quality conditions. District staff strongly urge MPCA staff to consider the consequences of frequent, natural, substantial flooding and its impact on our waterway’s ability to meet MPCA’s fixed statewide water quality standards – including a conversation on the extents to which the State of Minnesota Department of Natural Resources will recognize or permit activities to mitigate impairments. Additionally, District staff are interested in further information as to how long it takes following an extreme event for the water’s chemistry and biology to return to a stable, normal condition? We strongly encourage that MPCA staff implement a more flexible assessment system that incorporates concessions for the temporary consequences and disturbances of large, naturally occurring floods.”

### Response:

Water quality standards apply despite the impacts from flood conditions. The MPCA can incorporate abnormal drought or flood conditions into its assessment decisions in applying the standard based upon local

partner feedback during PJG discussions. For some areas that experience high flooding regularly, floods may be considered normal and typical. Receiving this type of local knowledge is why it is so key to have our partners, like you, as a part of the assessment process. An impairment that is based on high sediment which occurred during an abnormal flood year may more reasonably be considered inconclusive (IC). However, any impairments from years past will still carry over and remain valid. For example, if a waterbody was previously assessed as impaired due to high sediment but during this assessment cycle is IC, that previous impairment would still remain listed. Flooding impacts are not something that has been considered for 4C or 4D recategorizations due to the inability to determine if that flooding is exacerbated by anthropogenic sources/human impacts.

The question about the length of time after an extreme event to return to normal conditions is location/waterbody specific. The MPCA does not have the information needed to answer the question at this time.

The question about DNR permitting activities would need to be directed to DNR.

## **Dissolved Oxygen assessments**

### **Regarding this comment:**

“Dissolved Oxygen scores were not included in pre-meeting reports, so District staff were unable to confirm whether the Dissolved Oxygen standard was exceeded, or to what degree the standard was exceeded for these AUID’s: 09020102-561, 09020102-564, 09020102-593, 09020102-594, 09020102-596, 09020102-595, 09020101-512, 09020101-557.”

### **Response:**

The MPCA understands the sentiment of this statement. However, according to the MPCA’s documentation business rules, the assessment decisions are based upon multiple lines of evidence including, but not limited to, flow conditions, precipitation, land use, and habitat. To reduce redundancy, MPCA staff are guided to not reiterate the information provided in the summary strings that the Comprehensive Assessment Review Library (CARL) produces. Summary strings provide a synopsis of the data that MPCA staff review to ascertain the quality of the dataset, and then provide judgement.

For Dissolved Oxygen:

The standards for DO are expressed in terms of daily minimums and the concentrations generally follow a diurnal cycle with concentrations increasing during the day and decreasing overnight. Consequently, measurements in open-water months (April through November) should be made before 9:00 a.m.

The DO standards are:

- Class 2Bd, 2B: Not less than 5.0 mg/L as a daily minimum.
- Class 7: Not less than 1.0 mg/L as a daily average, provided that measurable concentrations are present at all times.

A stream is considered to not support aquatic life usage due to low DO levels if:

1) more than 10% of the ‘suitable’ (i.e., taken before 9:00 a.m.) May through September measurements exceed the standard and there are at least three such exceedances, or

2) more than 10% of the total May through September measurements exceed the standard and there are at least three such exceedances, or

3) more than 10% of the total annual measurements exceed the standard and there are at least three such exceedances.

In the cases highlighted:

Mustinka:

- 09020102-561: 93.8% of samples from a 16-sample dataset of the total May – September measurements, exceed the standard. There are also Pre-9am data that show a 100% exceedance rate in a five-sample dataset.
- 09020102-564: 93.8% of samples from a 16-sample dataset of the total May – September measurements, exceed the standard. There are also Pre-9am data that show a 100% exceedance rate in a three-sample dataset.
- 09020102-593: This is a Carry Forward assessment. The original parent AUID had a previous low DO assessment with an approved TMDL; therefore, the existing low DO assessment remained tied to this child AUID. There were no new DO data available for this assessment window to be able to corroborate or de-list the existing impairment.
- 09020102-594: This was a Carry Forward assessment. However, there were new DO data available for this assessment window. The new data corroborates the existing low DO assessment with 23.1% of the total May-September measurements data exceeding the standard (13-sample dataset).
- 09020102-595: This was a Carry Forward assessment. The original parent AUID had a previous low DO assessment with an approved TMDL; therefore, the existing low DO assessment remained tied to this child AUID. There were no new DO data available for this assessment window to be able to corroborate or de-list the existing impairment.
- 09020102-596: This was a Carry Forward assessment. The original parent AUID had a previous low DO assessment with an approved TMDL; therefore, the low DO assessment remained tied to this child AUID. There were new DO data available for this assessment window; however, the new data were insufficient to support an assessment and also insufficient to either corroborate or de-list the existing impairment.

Bois de Sioux:

- 09020101-512: 48.6% of samples from a 37-sample dataset of the total May – September measurements exceed the standard. There are also Pre-9am data showing exceedances of the standard; however, this is dataset and is insufficient to assess. Additionally, this AUID has an existing low DO assessment (listed in 2014), but the new data are insufficient to advocate for a de-listing.
- 09020101-557: As listed in the comment, this AUID had a 16-sample dataset that reported an 87% exceedance rate of the total May-September measurements. There were also Pre-9 am DO data that corroborate the total DO data with a 100% exceedance rate in an 8-sample dataset.

Please note that all of the data used for assessment are available for viewing on the surface water data access application: [Surface water data access \(arcgis.com\)](https://arcgis.com). Click on the AUID in question and select view/download all monitoring data.

## **Dissolved Oxygen and Low Gradients**

### **Referring to comment:**

“Understanding that a defining feature of both watersheds is extremely flat topography, District staff did request and receive from MPCA monitoring station gradients...MPCA staff stated that “low gradient” AUID’s that are not classified as “low gradient” receive a modified fish score to account for their low gradient state. It is important to note that this low gradient accommodation was offered only for fish assessment scores. District staff have learned through MPCA guidance documents that MPCA policies recognize that low gradients are a limiting factor for dissolved oxygen in both rivers and streams. MPCA guidance does not identify a limitation for small drainage areas; both rivers and streams are specifically described.”

### **Response:**

Flow, gradient, and surrounding landscape/contributing watershed information (including wetland influence) were reviewed and taken into consideration for these assessment decisions. Many of these streams have comments from the previous section that are of significance here. Furthermore, eutrophication was identified for many of these systems by stressor identification staff as likely contributors to low DO and other existing AQL impairments in these AUIDs. For AUIDs with continuous Sonde deployments, notes on flow were documented at Sonde deployment/retrieval.

## **Overall and beneficial use request for 4C categorization**

### **Regarding this comment:**

Per page 46 of the MPCA Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment, a 4C use category can be applied where reaches are influenced by dams, impoundments or other anthropogenic factors affecting stream connectivity or flow. MPCA has identified four reaches (09020102-538, 09020102-578, 09020101-535, 09020101-540). The District supports this change, and also makes the following requests:

**DAMS** - The District requests 4C use categorization for three reaches that are strongly influenced by dam operations for flow. Two of these three reaches are immediately downstream of the Federal 401/404 Army Corps of Engineers’ Lake Traverse Reservoir-Reservation Dam-Mud Lake Reservoir-White Rock Dam (09020101-503; 09020101-501). These dams are completely closed for significant amounts of time throughout the year, resulting in shallow downstream conditions and low flows. The third dam-influenced reach is affected by the Pine Ridge Dam: 09020102-582.

**IMPOUNDMENTS** – The District requests 4C use categorization for 09020101-559 as it is used as an outlet for the North Ottawa Impoundment and is primarily influenced by North Ottawa operations.

**CULVERTS** – The District requests 4C use categorization for 09020102-563, as flows are limited by at least two permanent Texas crossings. The District requests 4C use categorizations for 09020102-589, 09020101-512, 09020101-545 due to perched culverts.

### **Response:**

1-503: Given the existing TSS-related aquatic life usage impairment, it seems unlikely that this would be considered for 4C recategorization at this time.

1-501: Given the existing TSS, DO, and river eutrophication standard (RES)-related aquatic life usage impairments, it seems unlikely that this would be considered for 4C recategorization at this time.

2-582: Given the existing TSS-related aquatic life usage impairment, it seems unlikely that this would be considered for 4C recategorization at this time.

1-559: Given the existing TSS-related aquatic life usage impairment, it seems unlikely that this would be considered for 4C recategorization at this time.

2-563: Insufficient data available to assess for chemistry. The MPCA will need to conduct SID assessment before determining whether this is a candidate for 4C recategorization or not.

2-589: Insufficient data available to assess for chemistry. The MPCA will need to conduct SID assessment before determining whether this is a candidate for 4C recategorization or not.

1-512: Given the existing TSS, DO, and RES-related aquatic life usage impairment, it seems unlikely that this would be considered for 4C recategorization at this time.

1-545: Insufficient data available to assess for chemistry. The MPCA will need to conduct SID assessment before determining whether this is a candidate for 4C recategorization or not.

09020102-538 F-IBI & M-IBI, 09020102-578 F-IBI & M-IBI, 09020101-535 F-IBI were approved for 4C recategorization for the 2024 list.

09020101-540 was not approved for 4C due to the inability to account for the cause of the turbidity plume. The MPCA will need to complete SID before determining if this AUID is eligible for a 4C recategorization.

## **Overall and beneficial use request for 4D categorization**

### **Regarding this comment:**

Per page 46 of the MPCA Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment, a 4D use category can be applied where reaches are influenced by wetlands that contribute to naturally low dissolved oxygen. The District requests 4D use categorization for:

- 09020102-564 Directly downstream of the Niemackl chain and wetland complexes.
- 09020102-597 Directly downstream from wetlands - literally a waterfowl production area.
- 09020102-594 Directly downstream from wetland complex.

### **Response:**

2-564: The data that the MPCA currently has is insufficient to evaluate for compliance with the RES: the limited available TP data demonstrates exceedances of TP standard, the limited available Chl-a data demonstrates exceedances of Chl-a standard, the DO flux data demonstrates exceedances, and the discrete DO sampling demonstrates low DO conditions. While the District may be correct that the low DO conditions are the result of being downstream from wetlands, the MPCA would need to confirm compliance with the RES before drawing that conclusion. The MPCA will need to collect complete sets of RES parameter data to determine whether this is a candidate for 4D recategorization for low DO.

2-597: IF for RES. The data that the MPCA currently has is insufficient to evaluate for compliance with the RES: the limited available TP data demonstrates exceedances of TP standard, there are no response variable data available, and discrete DO samples do not meet assessment minimums. While the District may be correct that the low DO conditions are the result of being downstream from wetlands, the MPCA would need to confirm compliance with the RES before drawing that conclusion. The MPCA will need to collect complete sets of RES parameter data to determine whether this is a candidate for 4D recategorization for low DO.



2-594: IF for RES. The data that the MPCA currently has is insufficient to evaluate for compliance with the RES: the limited available TP data demonstrates exceedances of TP standard, there are no response variable data available, there are no Pre-9am discrete DO samples available, and the DO5\_ALL data demonstrates exceedances at the parameter level for DO. While the District may be correct that the low DO conditions are the result of being downstream from wetlands, the MPCA would need to confirm compliance with the RES before drawing that conclusion. The MPCA will need to collect complete sets of RES parameter data to determine whether this is a candidate for 4D recategorization for low DO.

## **Overall and beneficial use request for 4E categorization**

### **Regarding this comment:**

“Per page 51 of the MPCA Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment, a 4E use category can be applied where data strongly suggests that an impairment is due to natural conditions; a final category determination will be made pending confirmation from additional data collect. The District requests 4E use categorization for the following proposed *E. Coli* impairments: 09020102-590, 09020102-593, 09020102-594, 09020102-596, 09020102-597, 09020102-595, 09020101-501.

It is easily demonstrable that both the Bois de Sioux and Mustinka River Watersheds have sparse human populations and very limited livestock production – what we do have are flourishing wildlife communities. Deer, goose, and bird feces were observed this spring by District staff at several monitoring sites. The new impairments proposed above are located in areas that attract shelter wildlife. The District strongly supports further efforts for data collection on these reaches to identify source species and use of the 4E category to facilitate further inquiry into these *E. Coli* impairments.”

### **Response:**

As the District’s statement acknowledges, the MPCA needs to collect additional data to determine that the *E. coli* sources are not human or bovine. Once the MPCA’s microbial source tracking process has been finalized, the listed AUIDs will be considered for enhanced assessment. As previously stated, the MPCA’s approach is to continue monitoring and SID/source assessment before moving something away from category 5. This ensures that a AUID does not bounce back and forth from category 5 to 4 then back to 5.

## **Parent to child impairments**

### **Regarding this comment:**

“The District opposes any and all impairments proposed to be transferred to a child AUID where the applicable monitoring station that reports impaired conditions is upstream or downstream of the bounds of the child AUID.”

### **Response:**

In accordance with MPCA Business Rules 7.2 (cited below), when a parent AUID with an existing impairment and completed TMDL (EPA Approved) is split, the child AUID(s) will generally maintain the impairment and will be considered category 4A. Child AUID reviews and categorization decisions are made on a case-by-case basis. This allows for tracking of the TMDL and the associated impairments originally placed on that portion of the waterbody. An impairment status recategorization (i.e., category

2) for a child AUID can be considered if, after the split, the child AUID is found to support its designated beneficial use.

The MPCA can revisit carry-forward assignments where the monitoring station is downstream of the new child AUID and there are no data now associated with the new upstream child AUID. The MPCA will need to formulate a list of these AUIDs in the Bois de Sioux/Mustinka area. This is tricky because some sites in this area were not a part of the 10X monitoring stations and if not proposed as part of the SWMR process may not have been monitored for 10-13 years. Sites like this may be a candidate for additional monitoring requests. Knowing if BMPs or feedlot inspections may have been implemented would aid in a decision for additional monitoring. The MPCA would need additional monitoring to demonstrate that a child AUID is no longer impaired in order to remove the original carry-forward impairment.

#### **MPCA Business Rules 7.2** (internal assessment document)

##### Appendix 2 – *step 4*

“Step 4. Analyze original listing data set/TMDL considerations: When a TMDL has already been written for an impairment on the parent AUID or if one is nearing completion, then the review needs to take into consideration how carry forward assignments could affect this work. Assignment of carry forward impairments should be a collaborative effort between the assessor and project manager to ensure that decisions do not invalidate or undermine TMDL work. The decision process should follow these general guidelines:

1. Default position is that all child AUIDs should carry forward a parent’s impairments
2. Case-by-case exceptions (i.e., data-driven decisions) are possible where individual child AUIDs should not carry forward an impairment from the parent.
3. At the very least, the child AUID representing the furthest downstream portion of the parent AUID should carry forward the impairment so as not to invalidate waste load allocations and the implications they have for permitted sources in the original TMDL drainage.
4. If an existing fecal coliform or turbidity impairment exists on a parent AUID, and a child AUID has new *E. coli* or TSS data indicating impairment, then the child should be treated as a carry-forward for the respective impairment (fecal coliform or turbidity). A new listing should not be assigned for *E. coli* or TSS. This holds true for child AUIDs that have stations from the parent with data indicating the previous impairment was present and for those that do not contain stations from the original listing but has new stations that do show impairment.”

### **XIII. Response to comment from Bassett Creek Watershed District**

Regarding concerns over chloride and macroinvertebrate data

Bassett Creek Watershed District and MPCA corresponded regarding these concerns over chloride and macroinvertebrate data not being utilized in the 2024 IWL. The chloride data was finalized by Bassett Creek Watershed District past the deadlines for data submittal, which is why it was not included in the draft 2024 IWL. These submittal deadlines can be found here: [Submitting surface water data | Minnesota Pollution Control Agency \(state.mn.us\)](#).

However, this data was able to be brought in and assessed following the public comment period so has now been placed on the Proposed 2024 IWL as an impairment for AQL due to chloride for AUID 27-0734-00.

Regarding the macroinvertebrate data, below is communication sent by staff who coordinate the biological macroinvertebrate data.

“The MPCA has not included external biological data in our assessment datasets, except for in a small number of special cases. There are a few examples where we worked very closely with a partner to ensure that our field and laboratory methods were in line. When we calculate MIBI scores for local partners, it is done with the intent of allowing our partners to use the information to support their own programmatic needs. When I processed the MIBI scores for Bassett Creek it was with the assumption that it would be used in a similar fashion. Additionally, there were some incompatibilities with laboratory and data reporting methods that would keep us from using this data in the assessment process. So unfortunately, the data collected on North Branch Bassett Creek in 2015 and 2018, cannot be used in the current assessment process, but the MPCA is very willing to work with Barr to ensure that data collected in the future will meet our minimum data requirements for assessment.

We are in the process of hiring a new position that will be responsible for further developing and administering an external data training and certification process. Attached are four documents that cover our current, DRAFT external data requirements and documentation process. I suggest reading through the overview and guidance document and following the links provided that outline our monitoring and assessment process – I realize you are already familiar with much of this. The checklist shows what is needed for various levels of data use by the MPCA. In the crew qualifications spreadsheet, you’ll notice references to whether or not a field-crews have been trained by MPCA staff, we recognize that this hasn’t happened with most people. Once you’ve looked through the documentation, we can talk more about what you might be interested in regarding data quality/level goals. If you have further questions once you’ve looked through everything, feel free to follow up with either me, or the others mentioned in the guidance document (John Genet or John Sandberg.) This part of our program is new and will be growing in the near future, so be aware that there will likely be changes on the horizon.” - Joel Chirhart.

#### **XIV. Response to comments from Coon Creek Watershed District**

Regarding the aquatic recreation impairment due to *E. Coli* on AUID 07010206-824.

Coon Creek and MPCA corresponded regarding this new impairment at the Professional Judgement Meeting during the assessment period. Coon Creek WD submitted new information regarding a stormwater re-route during the comment period. A follow-up meeting with MPCA staff occurred to re-evaluate the assessment. However, staff determined impairment was still valid and encourages more data to be collected to support an impairment removal.

Below response from following the reassessment:

“MPCA agrees that the flow regime has been altered significantly enough to disqualify the older 2017-2018 data from current assessments, as those data represented previous flows that included large contributions of urban stormwater discharge. Those data were collected prior to the completion of the stormwater interceptor project in August of 2018. MPCA also acknowledges the Coon Creek comment about data from 2019 being partially targeted to storm events, and not meeting data minimums for assessment. However, MPCA believes the 2019 data still need to be considered for assessment due to the potential for human bodily contact, and the occasionally very high results from the 2019 samples. It is worth noting that the *E. coli* standard is written to consider samples collected under all flow regimes (low, medium, and high) and considers data from nearly

any surface water location as long as someone could potentially be using it for any form of bodily contact, (e.g., kids sailing boats in the backyard or kicking around in the water after a storm).

MPCA staff who perform *E. coli* bacteria assessments note that there are other cases around the state where data minimums were not quite met, but impairments were still assigned due to the timing and magnitude of the exceedances observed. This holds true for many of the water chemistry type of assessments. Unfortunately, not meeting the 'required data minimum' only prevents MPCA from reporting that a waterbody 'fully supports' the intended beneficial use. In cases where the data are far worse than standards allow, and where even infrequent contact could still pose a risk to human health, MPCA has submitted *E. coli* impairments to EPA on 'fewer than the data minimum'. Assigning an *E. coli* impairment to this short channel based only on the 2019 data exceedances of the acute *E. coli* standard would stay consistent with MPCA's approach in those other cases (i.e., more than 10% of monthly samples are greater than the allowed 1,260 MPN/100mL).

Finally, MPCA would like to encourage Coon Creek to continue to collect another season or two of *E. coli* bacteria samples at the monitoring location on Alden Way (S014-964) to inform a new assessment and contribute additional data to the Mississippi River Bacteria TMDL. Newer data will help to determine if the high bacteria concentrations during and after higher water levels were just a legacy signal from the old stormwater influence, or if *E. coli* is still somehow a risk here. If we can prove that *E. coli* bacteria is truly no longer an issue here, then MPCA will do an opt-in assessment out of cycle so this Unnamed Creek can have the *E. coli* impairment removed without waiting for the next watershed assessment cycle in 2032.

*Reference to the Stormwater Interceptor Project being completed in August of 2018:*

<https://www.ci.fridley.mn.us/DocumentCenter/View/5184/Community-Connection-SeptemberOctober-2018> (page 3 far right column)"

## **XV. Response to City of Eagan**

MPCA staff followed up to obtain additional resources regarding this name change. Upon this coordination, the English name for AUID 19-0064-00 has now been changed in our databases to Holz Lake. There are many "unnamed" lakes, streams, and wetlands located in MPCA's database that staff understand have common names used locally. A project to research and identify these common names is necessary in order to better represent waterbodies in the IWL. Thank you for submitting this request.

## **Wild rice and sulfate related comments**

### **XVI. Responses to 5 comments regarding the Assessment Guidance Manual and adding additional 'waters used for production of wild rice'**

Regarding lakes requested for addition to the 'waters used for production of wild rice' list. MPCA utilizes our assessment unit identification number (AUID) system in order to track waterbodies. We have compared the DNR DOW numbers to match with these AUIDs. We have confirmed the waterbodies submitted are not currently listed on our 'waters used for production of wild rice' list as outlined in the Assessment Guidance Manual Appendix H. Included in this response is a table containing these waterbodies as submitted in public comment.

MPCA is currently working to develop a consistent process for adding waterbodies to the ‘waters used for production of wild rice’ list. This process will be developed in the coming two years, with the anticipation of updating the list in the 2026 Assessment Guidance Manual.

We will be following up with individuals and organizations to obtain more detailed information regarding any wild rice surveys that were performed or documentation of wild rice growth in the waterbodies listed in below table. Then these waterbodies will be evaluated in order to potentially add these waterbodies to the updated ‘waters used for production of wild rice’ list in 2026.

**Table 1: Waterbodies submitted for inclusion in Appendix H**

<b>Waterbody Name</b>	<b>AUID</b>
Mallard	03-0235-00
Solberg	15-0084-00
Unnamed	29-0386-00
Unnamed	60-0337-00
Unnamed	77-0339-00
Little Elk	49-0344-00
Lashier	77-0106-00
unnamed	18-0602-00
Loerch Impoundment	18-0785-00
Mulligan	04-0346-00
East Robinson (Deadman)	69-0162-00
Sand River	09030001-698
MPCA Name: Red Dot DNR Name: Stony River Lake	38-0947-00
North Lake *Partially within Tribal Nation Prairie Island Indian Community	25-0017-04
Long Lake	56-0574-00

## **XVII. Responses to 153 comments on Dark Lake, sulfate/mercury, and TMDL prioritization**

MPCA received 153 comments regarding requests to protect wild rice waters, to list Dark Lake as impaired, and to clarify TMDL prioritization as well as regarding the concerns over mercury and sulfate interactions. The following responses serve to address these comments, as many contain overlapping concerns.

- 1 comment from WaterLegacy, requesting 16 specific actions be taken
- 1 comment from Fond du Lac Nation
- 1 comment from Minnesota Chippewa Tribe
- 1 comment from Grand Portage Nation
- 1 comment from Leech Lake Nation
- 148 comments from the general public

**A. Regarding maintaining the 2,395 Minnesota wild rice producing waters identified through 2023 and include additional waters as they are identified.**

Thank you for the supportive comments regarding our inclusion of the waters used for production of wild rice list and the protections it affords to those waters.

Please see “Assessment Guidance Manual” topic above for the work being done to assign additional ‘waters used for production of wild rice’ in Appendix H.

**B. Regarding the request for an updated map of Minnesota wild rice producing waters on a user-friendly platform**

MPCA has already prepared an interactive map to identify wild rice producing waters. See map here: [Protecting wild rice waters | Tableau Public](#).

There is a publicly available map showing wastewater dischargers which includes a layer of ‘waters used for production of wild rice’ and that map can be found here: [Wastewater permit reference map \(arcgis.com\)](#).

Additionally, available to the public is sulfate monitoring paired with surface dischargers at this interactive search tool: [Wastewater Data Browser | Tableau Public](#).

**C. Responses to comments supporting adding 20 ‘waters used for production of wild rice’ as impaired for wild rice production due to sulfate**

MPCA submitted these waters identified as being impaired for sulfate to the EPA as a part of the final IWL integrated reporting packet. These are awaiting approval from the EPA.

**D. Responses to comments regarding adding Dark Lake as an impaired water due to sulfate**

During the 2022-2023 assessment period, MPCA did assess Dark Lake AUID 69-0790-00 for sulfate. The assessment data window utilized by MPCA is 10 years. Therefore, the period of record for the sulfate assessments ranges from 2012-2022. Within this range, available sulfate data for Dark Lake existed for four sample points taken in 2013. This led to an assessment decision for the 2024 list as *insufficient information* due to the assessment guideline of having a minimum of 5 data points.

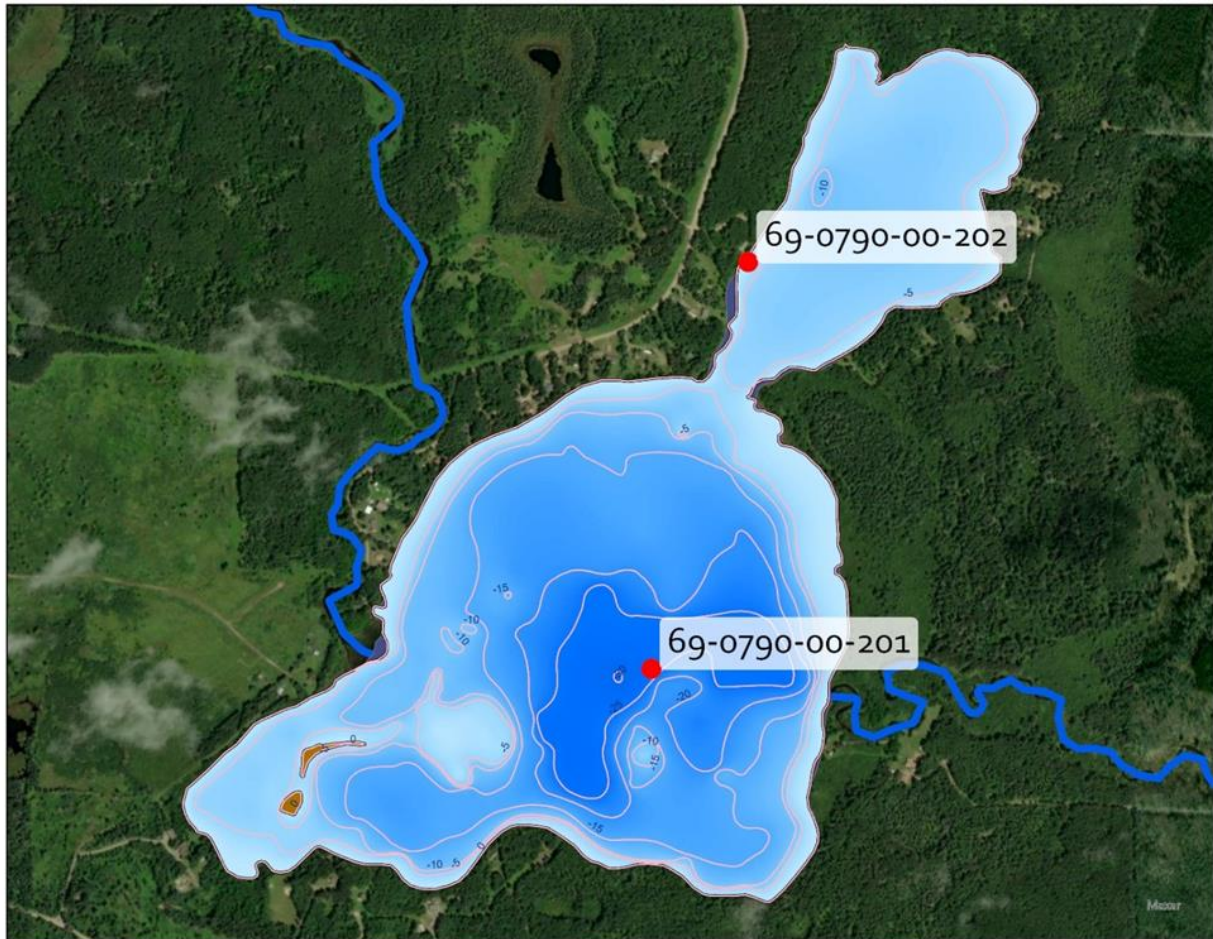
However, following public comments and an EPA preliminary review, a re-assessment was conducted on Dark Lake. It became necessary to consider all historical surface water data collected on Dark Lake for better understanding and sound impairment decisions. Per MPCA guidelines for sulfate assessment, impairment decisions can be made with one year of sulfate data due to additional lines of evidence and professional judgement. While the comments received from the public notification period may have opened the discussion about the re-assessment of Dark Lake, it should be noted that if Dark Lake was identified as a ‘water used for the production of wild rice’ in 2022, it would have been listed as impaired for sulfate on the 2022 IWL. MPCA focuses sulfate assessment on waters identified as used for the production of wild rice. Dark Lake has been added to the list in 2024.

Therefore, utilizing multiple lines of evidence and professional judgement that is consistent with the assessment methodology of other assessed parameters as described in the guidance manual, all known data for Dark Lake were reviewed. The 2011 data is considered historical data supporting multiple lines of evidence demonstrating exceedance of the sulfate standard. Professional judgement of impairment decision was reached based on current data, historical data, and knowledge of high sulfate exceedances from nearby sources such as Minntac Industry Tailings basin.

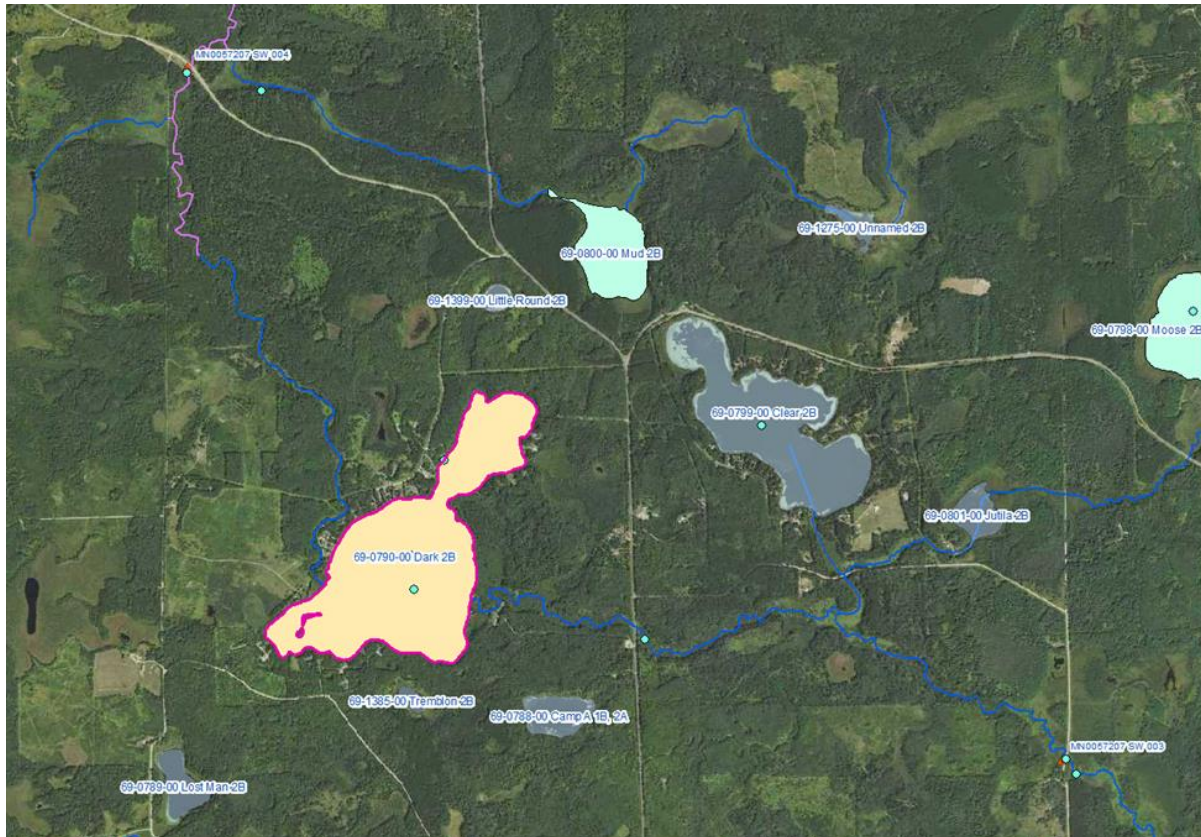
The Dark River sampling sites with sulfate data collected in 2003-2023 were considered as an additional line of evidence in taking into context the determination of impairment due to hydrological connection. The minimum, maximum, and mean values reported at both monitoring stations located upstream and downstream of Dark Lake are above the sulfate standard.

All measured surface water sulfate concentrations for Dark Lake in the MPCA EQUIS database.

Location	Unique Sulfate Values Measured (mg/L)	Years measured
69-0790-00-202	180, 175, 173, 175, 176	2011, 2013
69-0790-00-201	396, 166	2010, 2011



MPCA sample locations in Dark Lake.



Map shows Dark Lake along with blue dots representing sampling stations upstream and downstream.

**E. Regarding the request for commitment to prompt and effective enforcement of the sulfate effluent limits in the U.S. Steel Corp. Keetac mine and tailings basin NPDES permits.**

The USS Keetac NPDES is currently in progress with a full team reviewing application materials, as well as all applicable standards, statutes, and policies.

**F. Regarding request to categorize all sulfate impaired wild rice producing waters where a mining NPDES point source is the predominant or sole source of sulfate pollution as Commitment Group 1A.**

Multiple commenters shared the concern that MPCA has not committed to complete or implement studies regarding reduction of sulfate for restoration of waters impaired due to sulfate. MPCA is fully committed to addressing sulfate and implementing the standard. 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. The decision strongly advised the Agency to implement the federal CWA through permits prior to completion of TMDLs, which is the approach the agency has now taken.



The agency also recognizes that in alignment with what many commenters pointed out, addressing sulfate in permits will address many of the impairments due to sulfate in a timely manner. This is the most efficient way to address the exceedances of the sulfate standard rather than waiting for a TMDL study to be completed – which can take up to several years at times.

Webinars detailing MPCA’s approach to NPDES permit implementation were recorded from May-September 2023. Please see more information and recorded webinars here: [Protecting wild rice waters | Minnesota Pollution Control Agency \(state.mn.us\)](#).

### **G. Regarding requests for commitments to determine the WQBELs before issuing any new NPDES permits.**

When these upstream permits are reviewed during reissuance, MPCA will use water quality data and the underlying water quality standard to inform the need for effluent limits. MPCA can permit a new discharge upstream of an impaired water so long as the discharge does not cause or contribute to the impairment. This means that the concentration of the pollutant would need to be less than the concentration of the water quality standard. It also means a waterbody is not necessary to be included on the impaired waters list in order to have sulfate limits implemented in a permit. Water quality permits will include appropriate applicable standards, statutes, and policies when the permits are under review by Agency staff.

### **H. Regarding request for MPCA to clarify in its general notes that 2026 is MPCA’s targeted TMDL completion date for all of its Group 1 priority waters, or revise MPCA’s Draft 2024 Impaired Waters List to include specific prompt TMDL completion target dates for Group 1 priority mercury impaired waters.**

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. MPCA is unable to have all of the TMDL commitment group 1 waters EPA-approved by 9/30/2026 (the end of federal fiscal year 2026). 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 process of TMDL development, report writing, agency review, EPA review, and public comment can take several years. Legal challenges to TMDLs can postpone EPA approvals for an undetermined period of time. Every two years, MPCA will update the TMDL commitment group and list in conjunction with the impaired waters list. 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.

EPA suggests that states categorize TMDL commitments as “high,” “medium,” or “low” priority. MPCA’s current approach to grouping TMDL commitments aligns with other state agencies’ approaches to communicate expected timelines of TMDL completion.

**I. Regarding to request to add both Round Lake (01-0070-00) in the Upper Mississippi River and Birch Lake (69-0003-00) in the Rainy River basin to MPCA’s TMDL group 1 priority mercury impaired waters.**

MPCA does not intend to begin development of mercury TMDLs for Round Lake and Birch Lake during the time frame of the MPCA’s TMDL commitment list for federal fiscal years 2024–2026 because MPCA is prioritizing development of mercury TMDLs in the St. Louis River Watershed. The majority of the impairments that are not addressed by the statewide mercury TMDL are in the St. Louis River Watershed. Using the extensive mercury and other water quality data from the St. Louis River Watershed, MPCA is developing an approach to mercury TMDL calculation for these impairments. After EPA approval of the TMDLs, MPCA will adapt the approach for use in other priority mercury impairments in the state.

**J. Regarding request to conduct a reassessment of mercury in fish tissue in Category 4A mercury impaired waters by 2025: 1) selecting waters with likely exacerbating factors, including sulfate, and also 2) randomly sampling to test the assumption that the statewide air deposition TMDL will result in mercury standard compliance by 2025.**

MPCA has identified 32 AUIDs that have both a sulfate and a mercury impairment listed on the IWL. Out of these there are 24 AUIDs that were listed for mercury originally between 1998-2014. MPCA is reviewing this data, and any AUIDs that have had no new data in the last 10 years will be requested for data collection in order to re-assess. This request will go through the inter-agency fish contaminant monitoring team (FCMT). The FCMT evaluates and prioritizes requests according to budget and potentials for delisting. Additionally, MPCA has a new tool for requesting monitoring data to be collected and that can be requested by members of the public here: [Surface Water Monitoring Request Form \(arcgis.com\)](https://arcgis.com).

**Table 2: Identified waterbodies submitted for potential new mercury sampling data collection**

<b>Waterbody name</b>	<b>AUID</b>	<b>Year added to List for mercury in fish tissue</b>
Swan River	<a href="#">07010103-753</a>	1998
Long Prairie River	<a href="#">07010108-501</a>	1998
Long Prairie River	<a href="#">07010108-505</a>	1998
Mississippi River	<a href="#">07060001-509</a>	1998
Clearwater River	<a href="#">09020305-647</a>	1998
Sturgeon River	<a href="#">09030005-527</a>	2004
Swan Lake Southwest Bay	<a href="#">31-0067-03</a>	1998
Ox Hide	<a href="#">31-0106-00</a>	1998
Trout	<a href="#">31-0216-00</a>	1998

<b>Waterbody name</b>	<b>AUID</b>	<b>Year added to List for mercury in fish tissue</b>
Elizabeth (Main Lake)	<a href="#">34-0022-02</a>	1998
Green	<a href="#">34-0079-00</a>	1998
Lake Monongalia – main basin	<a href="#">34-0158-01</a>	2006
Lake Monongalia - Middle Fork Crow River	<a href="#">34-0158-02</a>	2006
Orwell	<a href="#">56-0945-00</a>	2008
Birch	<a href="#">69-0003-00</a>	1998
East Vermillion	<a href="#">69-0378-01</a>	1998
Vermillion – Pike Bay	<a href="#">69-0378-03</a>	1998
Wynne	<a href="#">69-0434-02</a>	2014
Embarrass	<a href="#">69-0496-00</a>	2002
Esquagama	<a href="#">69-0565-00</a>	1998
Upper Estuary	<a href="#">69-1291-04</a>	1998
Pearl	<a href="#">73-0037-00</a>	2012
Rice	<a href="#">73-0196-00</a>	1998
Clearwater (West)	<a href="#">86-0252-02</a>	1998

Additionally, there was one comment made specifically requesting an assessment of Tamarack River segment (07010103-758) and its tributary Unnamed Creek (07010103-735) for mercury in fish tissue and mercury in the water column. More data needs to be collected on these reaches in order to conduct an assessment, so an assessment was not able to be performed in 2024. These have also been added as stated above to the FCMT for future data collection and then assessment in subsequent years.

**K. Regarding request to revise MPCA’s TMDL Prioritization Framework to explicitly recognize that mercury impairments result from mercury air deposition exacerbated by other factors, including sulfate pollution.**

The MPCA recognizes that sulfate in water bodies can affect the concentration of methylmercury after mercury is deposited from the air. As part of the MPCA’s work on the St. Louis River Watershed mercury total maximum daily load (TMDL) study, MPCA is evaluating the relationships between dissolved organic carbon, mercury, and sulfate in that watershed and will present the results in the TMDL report to inform TMDL implementation.

A statement regarding this recognition in sulfate and mercury interactions has been made in previous IWL responses to public comments and now will additionally be included in the TMDL Prioritization Framework document. Addition is italicized below:

“The statewide TMDL does not cover mercury impairments where exceptionally high mercury concentrations in fish preclude those waters from meeting water quality standards even with the mercury source reductions called for in the statewide TMDL. The MPCA has begun development of individual mercury TMDLs for these waters. Mercury concentrations in surface waters can be influenced by multiple environmental factors, including mercury air deposition, dissolved oxygen, dissolved organic matter, and sulfate among other factors.”

**L. Regarding request to model, study, and implement controls on sulfate loading among other contributing factors to attain compliance with mercury water quality standards in any TMDL study or implementation plan developed by MPCA in a watershed affected by sulfate discharge.**

MPCA is implementing the 10 mg/L wild rice sulfate standard via monitoring, assessment, and permitting. The MPCA recognizes that, under low oxygen conditions, sulfate in water bodies can affect the concentration of methylmercury after mercury is deposited from the air. The St. Louis River Watershed Mercury TMDL project is underway. As part of the MPCA’s work on this project, MPCA is evaluating the relationships among dissolved organic carbon, mercury, and sulfate in that watershed and will present the results in the TMDL report to inform TMDL implementation and future monitoring efforts. One of the implementation strategies in the St Louis River Watershed Mercury TMDL report will be to reduce sulfate point source and/or nonpoint source loads in the watersheds of the impaired water bodies. To support this TMDL implementation strategy, the TMDL report will describe the most up-to-date scientific research from peer-reviewed literature of the role of sulfate in mercury methylation. Implementation strategies are included in a TMDL report when the strategy is anticipated either to reduce the TMDL pollutant (i.e., mercury in this case) or to mitigate other factors that increase loads or concentrations of the TMDL pollutant or exacerbate impairment (e.g., sulfate, ditching of peatlands).

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. 73% 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 the presentation deck here: <https://www.pca.state.mn.us/sites/default/files/wq-iw4-02k2.pdf> (Slide 27 for conclusions).

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 here: <https://www.regulations.gov/comment/EPA-HQ-OAR-2017-0664-0279>.

## **M. Response to Cleveland Cliffs**

At this time the MPCA will not be pursuing another rulemaking related to the wild rice sulfate standard and will be implementing the standard as it is currently written in rule. MPCA recognizes there are many other factors which adversely influence wild rice growth, development, and productivity such as water depth, sediment type, aquatic plant competition, and many others. However, the requirements for determination of impairment are based on what is in rule, namely the numeric sulfate water quality standard found at Minn. R. 7050.0224, subp. 2, as outlined in the Assessment Guidance Manual. The incorporation of wild rice health metrics are not required for listing impairments. Regarding the assessment approach, this approach was used in accordance with EPA’s assessment methodology for original listing of sulfate impairments in 2020. This follows a consistent process in utilization of data for determination of impairment.

Although, there is consideration regarding the need to include wild rice growth, development, and productivity metrics as data points in order to consider a water body to be fully supporting the beneficial use. Currently any waterbody that is considered a ‘water used for production of wild rice’ and is meeting the sulfate standard is considered ‘limited support’ as there is not enough additional data or assessment criteria in place to evaluate and determine if the wild rice is healthy and has a productive population. These considerations may be made in the future to determine full support of a waterbody, but a data process will first need to be developed to collect and store this information in the assessment process.

All data from 2022-2023 as well as sampling locations will be published on the MPCA’s surface water data viewer upon EPA approval of the IWL. This viewer can be found here: [Surface water data access \(arcgis.com\)](#). The data for Birch Lake, Dunka River, and Embarrass River were found to be in exceedance of the standard and met the data requirements for determination of impairment.

Regarding the comment about the 2,396 AUIDs identified as ‘water used for production of wild rice.’ This language of ‘waters used for the production of wild rice’ is contained in MR 7050.0224 subp. 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.

Regarding the resources used in developing the ‘waters used for production of wild rice’ list in Appendix H, they are listed below.

**Table 3: List of sources used in compiling Appendix H ‘waters used for production of wild rice’**

Title/Source	Discussion
Natural Wild Rice in Minnesota—A Wild Rice Study Report to the Legislature (2008)	<p>This report was submitted to the Minnesota Legislature by the MDNR in 2008 and is considered by many to be the best overview of natural wild rice stands in Minnesota.</p> <p><a href="http://files.dnr.state.mn.us/fish_wildlife/wildlife/shallowlakes/natural-wild_rice-in-minnesota.pdf">http://files.dnr.state.mn.us/fish_wildlife/wildlife/shallowlakes/natural-wild_rice-in-minnesota.pdf</a></p>
MDNR Wild Rice Harvester Survey Report (2007)	<p>This is a 2007 MDNR report tabulating the results of a survey of people who purchased a license to harvest wild rice in 2004, 2005, or 2006. This survey of those who purchase a license in 2006 requested identification of the water where wild rice was harvested but did not request information about the extent of the wild rice present. The MPCA reasonably relies upon documentation of successful harvesting of wild rice as demonstrating the existence of the wild rice beneficial use.</p>
Minnesota Wild Rice Management Workgroup List of 350 Important Wild Rice Waters (2010)	<p>The Minnesota Wild Rice Management Workgroup, a coalition of federal, state, and tribal resource managers and wild rice stakeholders, compiled this list in 2010. This workgroup was convened by a recommendation in the 2008 MDNR <i>Natural Wild Rice in Minnesota</i> report. This list identifies 350 of the most important wild rice waters in Minnesota based on harvest and/or ecological, cultural, and historical values, most of which were also identified in the 2008 MDNR report.</p>
1854 Treaty Authority List of Wild rice waters	<p>The 1854 Treaty Authority is an Inter-Tribal Natural Resource Management Organization that manages the off-reservation hunting, fishing, and gathering rights of the Grand Portage and Bois Forte Bands of the Lake Superior Chippewa in the territory ceded under the Treaty of 1854. Since 1996, this organization has identified wild rice waters based on surveys of lakes and rivers within the ceded territory.</p>
MDNR Aquatic Plant Management Database	<p>MDNR has an Aquatic Plant Management (APM) permitting program that:</p> <ul style="list-style-type: none"> <li>Allows the limited removal of wild rice from waters of the state (primarily to allow for boat access from shore to open water).</li> <li>Issues permits for individuals and organizations who are attempting to restore or introduce wild rice in a water body.</li> </ul> <p>The APM maintains a database with multi-year wild rice permit information. All waters associated with wild rice removal permits and with permits for restoration were included.</p>

Title/Source	Discussion
University of Minnesota/ MPCA Wild Rice Study Field Survey Sites	In the summers of 2011, 2012, and 2013, the MPCA contracted with the University of Minnesota, LacCore/Limnological Research Center to conduct field surveys of water bodies across the state. These surveys measured a suite of parameters in the water column and sediment porewater, and sediment samples in connection with wild rice sulfate studies. The 2011 surveys included estimated wild rice plant coverage at the sampling sites. The 2012 and 2013 surveys included both plant coverage estimates as well as wild rice stem counts at the sampling sites.
Minnesota Biological Survey Database	The MDNR's Minnesota Biological Survey (MBS) program maintains a database of surveyed sites with references to plant species (such as wild rice) observed during the surveys. DNR's Shallow Lake program collects the most relevant wild rice data in their sampling program. Tribal Natural Resource Programs, particularly at Prairie Island and Fond du Lac, may have wild rice data that could be helpful to permitting and protection efforts.
MPCA Call for Data	During the spring of 2013, the MPCA published a "Call for Data" for locational information on wild rice stands and sulfate analytical results. (Exhibit 21). MPCA received information from MDNR, U.S. Fish and Wildlife Service, United States Geological Survey, Metropolitan Council Environmental Services and Robert Pillsbury from the University of Wisconsin-Oshkosh.
Permittee Monitoring Reports	Certain NPDES permittees have conducted multi-year field surveys of selected waters in northeast Minnesota that include water quality and wild rice data. The results of these field surveys are contained in several reports and summaries that were compiled and included.
WR Waters (7050.0470)	These wild rice waters were first included in the rule in 1998 as selected wild rice waters specifically identified [WR] and listed in Minn. R. 7050.0470, subpart 1.
Waters identified by MDNR in 2015 as Wild Rice Waters	In 2015, the MDNR provided the MPCA with information about three waters in St. Louis County, not previously identified in the 2008 report, that had sufficient wild rice to demonstrate the beneficial use.  Pelican River- 09030002-530  Elbow River- 09030002-602  Rice Lake -69-0803-00
Waters Identified through MPCA Review of Various Water Surveys	As part of its effort to search for corroborating information on waters identified in the MDNR 2008 report, the MPCA reviewed past MPCA and MDNR records, reports, water surveys, and aerial photographs. Where information was available in these documents to support assignment of the beneficial use, those waters were proposed as wild rice waters. The reviewed information included:

Title/Source	Discussion
	MDNR fisheries, lakes, or stream surveys MDNR game lake surveys MDNR duck reports MDNR plant survey abundance surveys MDNR aquatic vegetation and shoal water substrate report MDNR lake survey correspondence MDNR Minnesota Biological Survey reports on Lakefinder <a href="http://www.dnr.state.mn.us/lakefind/index.html">http://www.dnr.state.mn.us/lakefind/index.html</a> MPCA lake survey reports Aerial photographs taken over multiple years

### **N. Response to Minnesota Chippewa Tribe**

Thank you for your comment. Multiple commenters also shared similar concerns as those you raised. Please see the above sections XVI. and XVII. which address the overlapping questions raised by this comment and many others submitted.

### **O. Response to Grand Portage Band of Lake Superior Chippewa**

Thank you for your comment. Multiple commenters also shared similar concerns as those you raised. Please see the above sections XVI. and XVII. which address the overlapping questions raised by this comment and many others submitted.

### **P. Fond du Lac Band of Lake Superior Chippewa**

Thank you for your comment. MPCA understands and validates Fond du Lac Nation’s frustrations with the slow progress towards addressing mercury emissions in MN. Multiple commenters also shared similar concerns as those you raised. Please see the above sections XVI. and XVII. which address the overlapping questions raised by this comment and many others submitted.

### **XVIII. Response to Mille Lacs Band of Ojibwe**

Thank you for this comment. The MPCA is in the very beginning of starting a project to identify treaty boundaries on the IWAV map, and associate AUIDs with treaty boundary attributes. This will make it easier to alert Tribal Nations in the future if there are funding opportunities with off-Reservation waters.

Regarding the AQC due to mercury in fish tissue impairment on Round Lake (01-0070-00), more data needs to be collected to determine if this lake should be delisted or remain impaired for mercury. In the additional concerns raised by the Band, Lake Minnewawa and Big Sandy Lake, as identified below, can also be added to this request for additional new mercury data to be collected. This has been added to the MPCA list of requests to the Inter-Agency Fish Contaminant Monitoring Team for new data to be collected. Additionally, this tool allows staff outside the agency to request data to be monitored: [Surface Water Monitoring Request Form \(arcgis.com\)](#).

This table identifies the waterbodies highlighted in this public comment, and these waters have been passed onto the MPCA project managers to follow up with the Band regarding future partnership opportunities.



**Table 4: List of waterbodies requested for partnership opportunities with Mille Lacs Nation**

Ojibwe Name	English Name	MPCA AUID	Impairment
Waawiyegamaa-zaaga'igan	Round Lake	01-0070-00	AQC – mercury in fish
		07030003-502 -503 -505 -506 -508 -510 -511 -517 -519 -528 -529 -551	
Akiko-ziibi	Kettle River	-552	AQC – mercury in fish
Manoominikaani-ziibi	Rice River	07010104-505	AQL - DO and fish
Chi-manoominikaan-zaaga'igan	Lake Minnewawa	01-0033-00	AQR - nutrients AQC – mercury in fish
Mitaawangaagamaa-ziibi	Sandy River	01-060-00	Sandy River AUID 07010103-512 AQL – Fish and macros
			Sandy River AUID 07010103-512
Wayaanashkobiiyaag	Flowage Lake	01-061-00	AQL – Fish and macros
Gaa-mitaawangaagamaag-zaaga'igan	Big Sandy Lake	01-0062-00	AQR - nutrients AQC – mercury in fish

Thank you for pointing out the basemap incorrect labeling on the IWAV. This basemap is a service provided from ESRI, and we have recorded and reported these lake name inconsistencies to ESRI so they can get that corrected in their system. The IWAV correctly identifying the lake shows that our databases are accurately representing the water and its English name.

Here is the link to the AGOL change request for ESRI basemap data. This can also be used to submit requests for language changes – for example, if you would like the Ojibwe names of lakes that you shared in your comment also represented in the ESRI data those can be submitted here to ESRI.

[https://www.arcgis.com/apps/mapviewer/index.html?url=https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW\\_TribalCessionLands\\_01/MapServer&source=sd](https://www.arcgis.com/apps/mapviewer/index.html?url=https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_TribalCessionLands_01/MapServer&source=sd).

## **XIX. Response to Leech Lake Band of Ojibwe**

Regarding Dixon Lake (AUID 31-0921-00)

The Mississippi River Headwaters watershed (which includes Dixon Lake) will be undergoing Cycle 2 of the Intensive Watershed Monitoring (IWM) process starting in 2024. Dixon Lake is one of the lakes planned to be monitored/assessed in this process with a final assessment of its water quality status expected in early 2026. The Leech Lake Band of Ojibwe (LLBO) will be invited to participate throughout this IWM process including the participation in the Professional Judgement/assessment meeting(s) for this watershed. The MPCA looks forward to working with the LLBO on water quality restoration and protection efforts resulting from the Cycle 2 IWM findings.

There are ongoing discussions for TMDL-like partnerships between the LLBO Tribal Nation and MPCA on Bowstring Lake. MPCA looks forward to continued partnership opportunities and will follow up in conversations regarding this opportunity on Dixon Lake.

The Class 4A designated use applies to all surface waters in the state, but a subset of these waters are considered "*waters used for production of wild rice.*" 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. MPCA is taking an expansive approach to identifying all waters that demonstrate wild rice growth or the potential to support wild rice.