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The Minnesota Chippewa Tribe

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March 15, 2017

John Linc Stine, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-419

Re: MPCA's Proposed Rule Revisions for Minnesota's Sulfate Standard to Protect Wild Rice.

Commissioner Stine:

The twelve independent sovereign Indian nations in the state of Minnesota appreciate the opportunity to have continuing dialogue with you and the Minnesota Pollution Control Agency (MPCA) regarding the work underway to revise the state's water quality standards protection for wild rice. There is a long history of expressed tribal concern documenting the damages to wild rice in the treaty ceded territories within the State of Minnesota beginning in the 1860's. Over the past several decades, we have participated in numerous state agency-led initiatives regarding wild rice, from previous rulemaking to identifying management and restoration strategies. Our motivation for sitting down at the table with the state to talk about wild rice has always been to forge a common understanding of how precious this singular resource is, and to reinforce a sense of shared responsibility to protect it for future generations. As we have repeatedly communicated to you and your staff, wild rice or *Mahnomin*, as the Ojibwe people call it, or *Psiâ*, as it is known by the Dakota people, is the preeminent cultural resource of this region and central to our cultural heritage. We see the severe diminishment of wild rice across its historic range as a call for stronger and broader protections of remaining stands here in Minnesota, its last refuge in the United States.

In previous consultations with MPCA, both formal government to government meetings and informal technical staff meetings, you have hopefully learned much more than you knew before about the unique characteristics of this incomparable and irreplaceable resource. We have shared our knowledge, our stories, and our experiences that come from many centuries of successfully managing and sustainably harvesting this sacred food. We have not been surprised that the research program you conducted has yielded "modern" scientific evidence that wild rice is exceptionally sensitive to sulfate pollution, and that Dr. Moyle's rigorous observational data from decades ago was actually on the mark. Our research, our monitoring and our traditional knowledge concur. We have also emphasized our experience with and concerns for other significant factors that can degrade or destroy natural stands of wild rice, including hydrologic changes, watershed development, invasive species, mechanical damage from motorized watercraft, and the overarching effects of climate change.

We have made it abundantly clear in our conversations and in written tribal comments that wild rice, in order to survive and thrive into the future, needs stronger and broader protections than just a single water chemistry criterion; one which, in fact, has not been properly implemented in the decades since it was promulgated. We urged your agency to reach across to the Minnesota Department of Natural Resources (MnDNR) and work collaboratively through your complementary regulatory responsibilities to forge meaningful, effective wild rice protections that go beyond a sulfate standard. Both of your agencies have been directed by the state legislature in recent years to examine water quality standards *and* management issues pertaining to wild rice. These past five years would have been a prime opportunity to not only refine and strengthen relevant water quality standards, but also refine and strengthen management, assessment, and restoration goals for this significant shared resource.

Our perspective is that, at this critical point in time, if MPCA were to seriously consider and incorporate the clear and specific recommendations that have come from experienced tribal staff, we could be commenting on revised wild rice water quality rules that:

- Recognize, first and foremost, its priceless value to the people of Minnesota and its exceptional ecological significance;

- Are as inclusive and conservative as possible in designating wild rice waters, recognizing its dramatically diminished occurrence and the need to protect all that we have left;

- Are broadly protective through additional narrative standards that reflect its sensitivity to pollution, habitat degradation and hydrologic alteration – such as those inherent in Aquatic Life Use classification;

- Define what is a sustainable, "harvestable" and generally healthy wild rice condition, and incorporate that by reference with a robust assessment methodology;

- Maintain the existing, simple-to-implement sulfate criterion that has been demonstrated to be protective of the water quality necessary to support wild rice, with rare exceptions afforded the option to demonstrate a site-specific standard that is protective of wild rice in that waterbody.

In addition to what could be defined or revised in Minnesota water quality rules, we have also counseled the agency on the overarching need for a commitment to conduct a comprehensive statewide inventory as quickly as possible. This should have been ongoing throughout the research and rulemaking process; in fact, there is a long history of the state making but not fulfilling this particular commitment. The lack of a common baseline inventory of wild rice waters is a glaring deficiency in the state's ability to protect wild rice through the broad range of regulatory processes you are responsible for under the Clean Water Act. First, there must be sufficient baseline information on the presence of wild rice across Minnesota waters, including identifying a subset of waters that will be surveyed annually to help capture known variability in wild rice stands.

Second, the agency needs to commit to establishing an assessment methodology for evaluating the condition of wild rice waters, and not simply rely upon a single water quality criterion for determining compliance with this beneficial use. Assessment is a critical step towards identifying impaired wild rice waters, listing them on the state's 303(d) list, and ultimately leading to a process for restoration, if needed. Your expressed rationale for keeping the wild rice beneficial use in Class 4 (Agriculture and Wildlife) is that the original standard defined the beneficial use as a food source for humans and wildlife. You cannot possibly determine whether a wild rice waterbody is meeting *that* beneficial use without **both** monitoring data – of the resource itself - **and** a robust assessment methodology that can determine its condition: healthy, experiencing natural variability; or impaired, showing diminished vigor and productivity. This is no different than the framework your agency employs in its assessment of other beneficial uses, specifically involving biological measurements and analyses of the condition of the resource itself. The tools for developing such an assessment methodology are readily available in your agency's wetland assessment program and the field handbook recently published by Minnesota Sea Grant, which the tribes have advocated you use for stand density surveys that are comparable with ours.

But instead of taking an approach such as outlined above – an approach that honors the ecological and cultural significance of wild rice and respects the knowledge and experience of people who have successfully managed, harvested, and restored wild rice - the MPCA has chosen to develop rule revisions that:

- Fail to acknowledge the unique ecological and cultural characteristics, and thereby a clear and compelling rationale for strengthening Clean Water Act protections;
- Err on the side of *exclusiveness* in designating WR waters, leaving hundreds of waters with an **existing** wild rice use unprotected;
- Conflate the sparse stem density established in your definition of 'wild rice water' with actually complying with the 'harvestable' beneficial use;
- Lack any assessment of the beneficial use, other than compliance with a single water chemistry parameter (problematic for their required responsibility to list impaired waters);
- Propose an arbitrary and narrow application of additional narrative standards protection to a truncated list of 'important wild rice waters', rather than all remaining and equally valuable wild rice waters;
- Are not conservative; the '4WR' distinction seems to favor certain wild rice waters without providing any rationale for why it is more important to protect them than to protect all wild rice waters;
- Propose a complicated, difficult-to-implement equation for deriving site-specific criteria that it itself relies upon data that the state currently does not have.

The MPCA is already seriously behind the information curve in its failure to have an established baseline wild rice inventory in common with the MNDNR, the tribes, wildlife conservation organizations and state rice harvesters. The agency has acknowledged that it will take years to compile sediment and water quality data sufficient to implement this new proposed equation-based standard. There has been no discussion of an assessment methodology that can broadly evaluate the actual condition of our wild rice waters, instead maintaining only a narrow focus on compliance with a single parameter to identify impairment of this beneficial use. Yet, that beneficial use is defined as human and wildlife harvest and consumption! Without broad aquatic life use protection and a comprehensive condition assessment process, there cannot be an adequate water quality standards-based framework for triggering necessary restoration of degraded wild rice waters through either a total maximum daily load study or a watershed restoration strategy.

We know that the MPCA has engaged with numerous stakeholders throughout this process, both through the Wild Rice Advisory Committee and in separate meetings and communications. We know that the legislature has passed several bills severely limiting your agency's ability to implement the existing wild rice water quality standard in permitting or listing of impairments, and shielding dischargers from spending any money on compliance with the existing approved standard. This level of political constraint over the agency's Clean Water Act authorities is shocking, yet no more disturbing than the industry and Chamber of Commerce pressure and disinformation campaign that is behind it, as we have witnessed in Advisory Committee meetings, presentations to their members and supporters, and in their written comments throughout the process. While we would never expect industry or the Chamber of Commerce to champion the protection of wild rice, we certainly hold your agency to a higher standard; it is your core mission to *protect and improve the environment and enhance human health.*

Yet, in your Draft Regulatory Analysis of costs associated with complying with the new rules, you only examine in detail dischargers' potential costs of compliance. There is no balanced analysis that genuinely shows "…a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule", as required by statute. To date, dischargers have borne *zero* costs to comply with the existing wild rice water quality standard, and Minnesota tribes (and any Minnesotan that harvests or eats Minnesota wild rice) have lost undocumented thousands of acres of productive wild rice waters. As we see the proposed rule revisions taking shape, we can only assume that the few potentially affected dischargers will claim undue economic hardship and be granted variances from any calculated sulfate criteria. No additional ecological or habitat protections are being considered or proposed for wild rice waters, nor any bona fide assessment that determines whether the defined beneficial use is being met. Regrettably, we can only conclude that tribes will continue to bear the 'costs' of your proposed rule, and dischargers will benefit.

After more than five years of investigation, literature searches, and experimental research, you now know of many other stressors that can affect the health and sustainability of wild rice in Minnesota lakes and flowages. Yet, sadly, the end result of MPCA's apparent rejection of the recommendations and experience shared by the tribes is that this rule revision process will not result in protection of wild rice for either meeting the MPCA's defined beneficial use, or the Minnesota tribes' expressed values.

We hope you will reconsider the tribes' recommendations before you move to finalize your rule revisions. We know it will take all our efforts, working together, to protect wild rice for future generations.

Sincerely,

Kevin R. Dupuis, Sr.
Chairman, Fond du Lac

Melanie Benjamin
Chief Executive, Mille Lacs Band

Catherine Chavers
Chairwoman, Bois Forte

Norman Deschampe
Chairman, Grand Portage

Terrance Tibbetts
Chairman, White Earth

Faron Jackson
Chairman, White Earth

STATE OF MINNESOTA

INDIAN AFFAIRS COUNCIL

Website: http://mn.gov/indianaffairs/

John Linc Stine, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

May 25th, 2017

Re: MPCA's Proposed Rule Revisions for Minnesota's Sulfate Standard to Protect Wild Rice.

Commissioner Stine:

The eleven independent sovereign Indian nations in the state of Minnesota appreciate the opportunity to have continuing dialogue with you and the Minnesota Pollution Control Agency (MPCA) regarding the work underway to revise the state's water quality standards protection for wild rice. There is a long history of expressed tribal concern documenting the damages to wild rice in the treaty ceded territories within the State of Minnesota beginning in the 1860's. Over the past several decades, we have participated in numerous state agency-led initiatives regarding wild rice, from previous rulemaking to identifying management and restoration strategies. Our motivation for sitting down at the table with the state to talk about wild rice has always been to forge a common understanding of how precious this singular resource is, and to reinforce a sense of shared responsibility to protect it for future generations. As we have repeatedly communicated to you and your staff, wild rice or *Mahnomin*, as the Ojibwe people call it, or *Psiå*, as it is known by the Dakota people, is the preeminent cultural resource of this region and central to our cultural heritage. We see the severe diminishment of wild rice across its historic range as a call for stronger and broader protections of remaining stands here in Minnesota, its last refuge in the United States.

In previous consultations with MPCA, both formal government to government meetings and informal technical staff meetings, you have hopefully learned much more than you knew before about the unique characteristics of this incomparable and irreplaceable resource. We have shared our knowledge, our stories, and our experiences that come from many centuries of successfully managing and sustainably harvesting this sacred

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food. We have not been surprised that the research program you conducted has yielded "modern" scientific evidence that wild rice is exceptionally sensitive to sulfate pollution, and that Dr. Moyle's rigorous observational data from decades ago was actually on the mark. Our research, our monitoring and our traditional knowledge concur. We have also emphasized our experience with and concerns for other significant factors that can degrade or destroy natural stands of wild rice, including hydrologic changes, watershed development, invasive species, mechanical damage from motorized watercraft, and the overarching effects of climate change.

We have made it abundantly clear in our conversations and in written tribal comments that wild rice, in order to survive and thrive into the future, needs stronger and broader protections than just a single water chemistry criterion; one which, in fact, has not been properly implemented in the decades since it was promulgated. We urged your agency to reach across to the Minnesota Department of Natural Resources (MnDNR) and work collaboratively through your complementary regulatory responsibilities to forge meaningful, effective wild rice protections that go beyond a sulfate standard. Both of your agencies have been directed by the state legislature in recent years to examine water quality standards *and* management issues pertaining to wild rice. These past five years would have been a prime opportunity to not only refine and strengthen relevant water quality standards, but also refine and strengthen management, assessment, and restoration goals for this significant shared resource.

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In addition to what could be defined or revised in Minnesota water quality rules, we have also counseled the agency on the overarching need for a commitment to conduct a comprehensive statewide inventory as quickly as possible. This should have been ongoing throughout the research and rulemaking process; in fact, there is a long history of the state making but not fulfilling this particular commitment. The lack of a common baseline

inventory of wild rice waters is a glaring deficiency in the state's ability to protect wild rice through the broad range of regulatory processes you are responsible for under the Clean Water Act. First, there must be sufficient baseline information on the presence of wild rice across Minnesota waters, including identifying a subset of waters that will be surveyed annually to help capture known variability in wild rice stands.

Second, the agency needs to commit to establishing an assessment methodology for evaluating the condition of wild rice waters, and not simply rely upon a single water quality criterion for determining compliance with this beneficial use. Assessment is a critical step towards identifying impaired wild rice waters, listing them on the state's 303(d) list, and ultimately leading to a process for restoration, if needed. Your expressed rationale for keeping the wild rice beneficial use in Class 4 (Agriculture and Wildlife) is that the original standard defined the beneficial use as a food source for humans and wildlife. You cannot possibly determine whether a wild rice waterbody is meeting *that* beneficial use without both monitoring data – of the resource itself - and a robust assessment methodology that can determine its condition: healthy, experiencing natural variability; or impaired, showing diminished vigor and productivity. This is no different than the framework your agency employs in its assessment of other beneficial uses, specifically involving biological measurements and analyses of the condition of the resource itself. The tools for developing such an assessment methodology are readily available in your agency's wetland assessment program and the field handbook recently published by Minnesota Sea Grant, which the tribes have advocated you use for stand density surveys that are comparable with ours.

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The MPCA is already seriously behind the information curve in its failure to have an established baseline wild rice inventory in common with the MNDNR, the tribes, wildlife conservation organizations and state rice harvesters. The agency has acknowledged that it will take years to compile sediment and water quality data sufficient to implement this new proposed equation-based standard. There has been no discussion of an assessment methodology that can broadly evaluate the actual condition of our wild rice waters, instead maintaining only a narrow focus on compliance with a single parameter to identify impairment of this beneficial use. Yet, that beneficial use is defined as human and wildlife harvest and consumption! Without broad aquatic life use protection and a comprehensive condition assessment process, there cannot be an adequate water quality standards-based framework for triggering necessary restoration of degraded wild rice waters through either a total maximum daily load study or a watershed restoration strategy.

We know that the MPCA has engaged with numerous stakeholders throughout this process, both through the Wild Rice Advisory Committee and in separate meetings and communications. We know that the legislature has passed several bills severely limiting your agency's ability to implement the existing wild rice water quality standard in permitting or listing of impairments, and shielding dischargers from spending any money on compliance with the existing approved standard. This level of political constraint over the agency's Clean Water Act authorities is shocking, yet no more disturbing than the industry and Chamber of Commerce pressure and disinformation campaign that is behind it, as we have witnessed in Advisory Committee meetings, presentations to their members and supporters, and in their written comments throughout the process. While we would never expect industry or the Chamber of Commerce to champion the protection of wild rice, we certainly hold your agency to a higher standard; it is your core mission to *protect and improve the environment and enhance human health.*

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After more than five years of investigation, literature searches, and experimental research, you now know of many other stressors that can affect the health and sustainability of wild rice in Minnesota lakes and flowages. Yet, sadly, the end result of MPCA's apparent rejection of the recommendations and experience shared by the tribes is that this rule revision process will not result in protection of wild rice for either meeting the MPCA's defined beneficial use, or the Minnesota tribes' expressed values.

We hope you will reconsider the tribes' recommendations before you move to finalize your rule revisions. We know it will take all our efforts, working together, to protect wild rice for future generations.

Sincerely,

Robert L. Larsen
President, Lower Sioux Indian Community
Chairman, Minnesota Indian Affairs Council

cc: Robert A. Kaplan, Acting Regional Administrator US EPA Region 5
Debra Dirlam, R5 RTOC Member – Lower Sioux Environmental Director
Seth Moore, R5 RTOC Member – Grand Portage Environmental Director
Levi Brown, R5 Alternate NTOC Member – Leech Lake Environmental & Lands Director

GRAND PORTAGE RESERVATION TRIBAL COUNCIL

Norman W. Deschampe - Chairman • Marie Spry - Vice Chair • Dennis B. Morrison - Secretary/Treasurer
John Morrin - Councilman • Rob Hull - Councilman

Honorable LauraSue Schlatter
Office of Administrative Hearings
P.O. Box 64620
Saint Paul, MN 55164-0620
(Docket 80-90030-34519)

October 24, 2017

Honorable Judge Schlatter:

The Grand Portage Band of Lake Superior Chippewa ("Grand Portage" or the "Band") thanks you for the opportunity to provide comments on the proposed Minnesota Pollution Control Agency ("MPCA") wild rice rules. Wild rice ("manoomin") is considered sacred to Ojibwe people. Manoomin played a central role in Ojibwe migration stories and is considered a relative, not simply "a resource". So, the Band's current effort to preserve manoomin by opposing MPCA's proposed rule is a continuation of the Band's ongoing efforts to preserve our cultural identity.

Grand Portage opposes MPCA's proposed rule because it is scientifically indefensible. This rule will not protect wild rice. Iron does not mitigate sulfide toxicity. Instead, as MPCA's scientists know, iron-sulfide forms a plaque on wild rice roots and gets taken up by the plant forming blockages that prevent nutrient uptake.

Further, the rule excludes without justification waterbodies that need wild rice protection. The wild rice rule as it is being proposed will only apply to fifty-eight percent of the known wild rice waters in the State, leaving the other forty-two percent for rule-making at a later date. Tribes in the Lake Superior basin know from experience with the 7052 rule—when twenty-four wild rice waters were added in 1998 and MPCA promised but failed to add more waters in the future—that in all likelihood no more waters will be added to the list, ever.

Indeed, while wild rice is treaty-reserved for tribes in the 1854 Ceded Territory, MPCA has denied an updated wild rice waters list that was provided by the 1854 Treaty Authority. MPCA will only accept an out-of-date March 2016 list identifying 393 waters instead of a list of 503 waters updated in March of 2017 without providing any rationale and in spite of requests from the 1854 Treaty Authority. In short, MPCA has contravened the purpose of the Clean Water Act

GRAND PORTAGE RESERVATION TRIBAL COUNCIL

by excluding existing wild rice waters listed by both the MN DNR and the 1854 Treaty Authority without providing the required Use Attainability Analysis for excluding these waters.

Finally, Grand Portage wishes to express its grave disappointment that—contrary to the specific requests that the Band made during consultations—MPCA has automatically applied its standards to waters situated entirely within the Band's Reservation. MPCA's decision to require the Band to 'opt out' of the state's standards demonstrates that MPCA did not listen to the Band when we consulted with it in good faith. The Band expressly reaffirms our request that the MPCA exclude our waters from the list of Class 4D waters.

In closing, the proposed rule is not about divisive politics with environmentalists and tribes on one side and industry on the other, with MPCA applying good science to find a "middle ground" that will protect manoomin into the future. Instead, it is about powerful industries stamping out the best available science to protect their bottom line by continuing to release pollutants into the environment at concentrations far above Minnesota water quality standards without being required to install adequate wastewater treatment. The proposed wild rice rule will not protect wild rice and contravenes the Clean Water Act by excluding more than 900 waters from the rule. Thank you for your consideration of our comments.

Please find attached to our cover letter more extensive written comments with citations regarding MPCA's proposed wild rice, previous comments made by Grand Portage and Fond du Lac, and the Minnesota Indian Affairs Council.

Sincerely,

Dennis B. Morrison

Dennis Morrison, Secretary/Treasurer

P.O. Box 428 Grand Portage, Minnesota 55605 (218) 475-2277 or 475-2239 Fax: (218) 475-2284

Sent via e-mail only
minnesotaoah.granicusideas.com

Administrative Law Judge LauraSue Schlatter
Office of Administrative Hearings
P.O. Box 64620
St. Paul, MN 55164

November 22, 2017

Re: Proposed Rules Amending the Sulfate Water Quality Standard Applicable to Wild Rice and Identification of Wild Rice Waters, Minnesota Rules parts 7050.0130, 7050.0220, 7050.0224, 7050.0470, 7050.0471, 7053.0205, and 7053.0406; Revisor's ID Number 4324

OAH Docket No. 80-9003-34519

Dear Ms. Schlatter:

The Fond du Lac Band of Lake Superior Chippewa (the "Band") appreciates this opportunity to comment on Minnesota Pollution Control Agency's ("MPCA") proposed rules amending the state water quality standards applicable to wild rice. As you know, manoomin (the Ojibwe name for wild rice, meaning "the good berry") is an exceptional culturally significant resource for the tribes in Minnesota. From historical reports,[1] Band member accounts,[2] and current Minnesota Department of Natural Resources ("DNR") and tribal reports,[3] manoomin has extensively declined throughout Minnesota, and in southern Minnesota it has virtually disappeared because of dramatic transformations of the landscape and alterations of natural hydrology over the last century. Minnesota tribes have had a unique relationship with the state regarding the protection of manoomin, as demonstrated through multiple rulemaking processes[4] and executive orders.[5]

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[1] Jenks, A.E., The Wild Rice Gatherers of the Upper Great Lakes: A Study in American Primitive Economics (Washington: GPO, 1901), available on-line at http://greatlakeswater.uwex.edu/library/articles-and-white-papers/wild-rice-gatherers-upper-lakes-study-american-primitive-economics (last visited Oct. 12, 2012).

[2] Rosemary Berens, Bois Forte Tribal Historic Preservation Officer (retired)

[3] *See, e.g.*, 1854 Treaty Authority website, "Wild Rice Survey" (including list of wild rice waters in the 1854 Ceded Territory), available at http://1854treatyauthority.org/wildrice/survey.htm (last visited Oct. 12, 2012); MN DNR website, "Wild rice management," available at http://www.dnr.state.mn.us/wildlife/shallowlakes/wildrice.html (last visited Oct. 31, 2017).

[4] *See, e.g.*, Minnesota Session Law 2007, Chapter 7, Article 1, Sect. 168

[5] *See, e.g.*, Executive Order 03-05, "Affirming the Government-to-Government Relationship between the State of Minnesota and Indian Tribal Governments Located within the State of Minnesota."

Fond du Lac Resource Management Division staff have participated in and followed closely the MPCA's research program and rulemaking approach related to the existing sulfate criteria for protecting wild rice waters[6], including the MPCA's Wild Rice Advisory Committee. Our thorough review and interpretation of the research results for the state-led hydroponics studies, the field surveys, the mesocosm studies, and the sediment studies leads to our conclusion that the existing federally approved sulfate criterion is well-supported by multiple lines of evidence and should be maintained and enforced. As we have concluded in previous comments[7], there is no scientifically defensible basis for changing the current sulfate limit, which is the clear benchmark required by the US Environmental Protection Agency ("EPA") for considering approval of a revised criterion[8], and as was clearly communicated to the Minnesota legislative body in 2011[9].

On two elements of MPCA's draft rule revisions, the Band agrees with the agency's proposals. First, the contorted name of the beneficial use in current rule ("waters used for the production of wild rice") is unnecessarily confusing, and in recent years has been purposefully misinterpreted with the intent to circumvent regulatory controls,[10] albeit unsuccessfully. We support the beneficial use name change to "wild rice waters".[11] Second, the existing rule applies the numeric sulfate standard "during periods when the rice may be susceptible to damage", which had been interpreted on occasion as only during the growing season. Scientific investigations conducted as part of the MPCA's research program, and subsequently with tribal support, have clearly shown that there is no seasonal component in wild rice susceptibility to the effects of sulfate pollution. We support the elimination of that limited seasonal applicability condition.

But other aspects of the MPCA's rule revisions and Statement of Need and Reasonableness ("SONAR") are every bit as disturbing to the Band as the proposed change in the sulfate criterion, and we can only conclude that **these rule revisions will not protect manoomin**. While Fond du Lac provided testimony at the October 26, 2017 hearing at Fond du Lac Tribal and

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[6] http://www.pca.state.mn.us/index.php/water/water-permits-and-rules/water-rulemaking/minnesotas-sulfate-standard-to-protect-wild-rice.html#assessment

[7] Letter from Minnesota Chippewa Tribe to MPCA re: Definition of "waters used for the production of wild rice"; wild rice water quality standards (February 7, 2014)

[8] *See, generally*, 40 CFR §§ 131.5, 131.11, and 131.21.

[9] Letter from USEPA to Sens. Dill, Bakk, May 13, 2011.

[10] Minnesota Chamber of Commerce, Appellant, vs. Minnesota Pollution Control Agency, Respondent, WaterLegacy, Defendant Intervenor, Respondent, Dec. 17, 2012, at http://mn.gov/web/prod/static/lawlib/live/archive/ctapun/1212/opa120950-121712.pdf

[11] However, the Band uses this term in these comments when referring to the existing designated use of manoomin or wild rice waters under State law.

Community College[12], and the Band has provided substantial information, knowledge and recommendations to the MPCA staff and Commissioner over the past seven years, we are now submitting comprehensive comments for the administrative record that reflect our deep concerns and objections to the direction this rulemaking has taken. These concerns include the MPCA's refusal to provide aquatic life use protection to manoomin in the updated classification, their refusal to apply the narrative standard protection to all wild rice waters, their unsubstantiated and unlawful decision to exclude more than 900 waters with an existing wild rice use from their statutory list of wild rice waters, the fundamental flaws in the proposed equation-based waterbody-specific numeric standard, the failure to address all known sulfate effects to wild rice (as directed by the Minnesota Legislature), and broad concerns about how the standard will be applied and implemented. These proposed rule revisions do not reflect any of the knowledge or expertise that tribal leaders, tribal members and tribal staff have shared with the agency during this latest chapter in our long history of interactions with MPCA over manoomin. It would be an understatement to say that we are disappointed in the lack of consideration of tribal expertise for this rulemaking. The proposed rule revisions also fail to satisfy the criteria required by the Clean Water Act and its implementing regulations to make a change to the existing wild rice standard.

While the MPCA acknowledges that wild rice is a unique resource in the Midwest and plays a key spiritual and cultural role in the Ojibwe traditions, we set out below some additional background on the central importance of this resource to the Band, including the rights retained by the Band under its Treaties with the United States, the expertise that the Band has with regard to wild rice, the federal requirements under the Clean Water Act, 33 U.S.C. § 1251 *et seq*., and then set out specific comments related to the proposed rule revisions.

I. BACKGROUND.

Wild rice has a unique role, both historically and currently, in the life of the Chippewa. Wild rice has been a "staple in the Ojibway diet" for hundreds of years.[13] Further, wild rice plays a central role in Chippewa culture and religion:

> Traditional Ojibway life elevates rice above being food simply for consumption or barter. Stories and legends, reinforced by the ceremonial use of *manoomin* and taboos and proscriptions against eating it at certain times, show the centrality of wild rice to Ojibway culture. These facts together suggest that wild rice, at least in the past, approached the status of a sacred food.[14]

[12] Oral testimony from Nancy Schuldt, Fond du Lac Water Projects Coordinator, attached
[13] Thomas Vennum, Jr., *Wild Rice and the Ojibway People* at 58 (Minn. Historical Society Press 1988)).
[14] *Id*.

Wild rice continues to be of profound importance both as a source of food, and for its role in the culture, traditions and spiritual life of the Chippewa people. Wild rice is relied upon to meet ceremonial and religious needs that define unique aspects of Chippewa culture.

Minnesota recognizes this. As set out in the 2008 Report to the Minnesota Legislature, the DNR stated:

> Wild rice (manoomin to the Ojibwe) is a spiritually significant resource for Native Americans in the Great Lakes region, and it has been for centuries. . . . The Ojibwe people have a special cultural and spiritual tie to natural wild rice. Their Migration Story describes how they undertook a westward migration from the eastern coast of North America. Tribal prophets had foretold that this migration would continue until the Ojibwe people found "the food that grows on water" . . . That food was wild rice, known as manoomin, and is revered to this day by the Ojibwe as a special gift from the Creator.[15]

The Fond du Lac Band retains rights to harvest wild rice not only on the Reservation that was established for the Fond du Lac Band by Treaty with the United States in 1854, [16] but also over the lands that the Band aboriginally used and occupied and which were ceded to the United States by Treaties made in 1837 and 1854.[17] In both Treaties, the Chippewa, including the Fond du Lac Band, agreed to cede to the United States, a vast area of the Chippewa's aboriginal territory. While the United States set aside from the lands ceded, reservations as the Chippewa's permanent homes, the United States also recognized that the small reservations established for the Chippewa were not alone sufficient to enable the Chippewa to sustain themselves. As a result, the Treaties also reserved to the Chippewa the right to hunt, fish, and gather natural resources, including wild rice, from the lands ceded by the Treaties, which extend over a large part of northeastern Minnesota. The continued existence of Chippewa's usufructuary rights under these treaties has been recognized and given effect by the federal courts.[18]As a result of these

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[15] Natural Wild Rice in Minnesota, A Wild Rice Study document submitted to the Minnesota Legislature by the Minnesota Department of Natural Resources, at p. 7, Feb. 15, 2008, (citations omitted) available at http://files.dnr.state.mn.us/fish_wildlife/wildlife/shallowlakes/natural-wild-rice-in-minnesota.pdf

[16] Treaty with the Chippewa, 1854, 10 Stat. 1109, in Charles J. Kappler, ed., Indian Affairs: Laws and Treaties, Vol. II (Washington: Government Printing Office, 1904), available at http://digital.library.okstate.edu/kappler/Vol2/treaties/chi0648.htm (last visited Nov. 16, 2017).

[17] *Id.; see also* Treaty of July 29, 1837, 7 Stat. 536, in Charles J. Kappler, ed., Indian Affairs: Laws and Treaties, Vol. II (Washington: Government Printing Office, 1904), available at http://digital.library.okstate.edu/kappler/Vol2/treaties/chi0648.htm (last visited Nov. 16, 2017).

[18] *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172,196 (1999); *Fond du Lac Band of Chippewa Indians v. Carlson*, Civ. No. 5–92–159 (D. Minn., Mar. 18, 1996); *United States v. Bresette*,

Treaties, the Band has legally protected rights and a direct interest in the protection and proper management of the natural resources on which those rights depend.

Minnesota recognizes the impact of the Treaty rights with regard to wild rice. As set out in the DNR's 2008 Report to the Legislature:

> the Ojibwe tribes that co-signed the Treaty of 1837 reserved the right to gather wild rice from the lands ceded in that treaty. These include an area that eventually became part of east-central Minnesota. The standing of these off-reservation rights was upheld by the U.S. Supreme Court in 1999.
>
> Similar off-reservation rights are reserved for other Ojibwe tribes in the 1854 ceded territory, in northeastern Minnesota. Rights of traditional tribal harvesting have also been preserved through other agreements between tribes and the U.S. government. For example, in the early 1900s the U.S. began buying lands adjacent to wild rice stands on Minnesota lakes. These were stands that had traditionally been harvested or lands that were to be used as rice camps by the Minnesota Chippewa Tribe (MCT).[19]

The United States Supreme Court further explains how Treaty-reserved rights to hunt, fish and gather over territory ceded were essential terms of the Treaty. Such reserved rights, founded on immemorial custom and practice, were "not much less necessary to the existence of the Indians than the atmosphere they breathed." *United States v. Winans*, 198 U.S. 371, 381 (1905); *New Mexico v. Mescalero Apache Tribe*, 462 U.S. 324, 337 n. 19 (1983). Usufructuary rights reserved by treaty were "part of larger rights possessed by the Indians, upon the exercise of which there was not a shadow of impediment . . . ." *Winans*, 198 U.S. at 381. The cession of certain rights did not affect those not ceded, for "the treaty was not a grant of rights to the Indians, but a grant of rights from them, - a reservation of those not granted." *Id.*; *see also Winters v. United States*, 207 U.S. 564, 576-77 (1908) (holding that Indian water rights are reserved by treaty, not because these rights were expressly reserved, but because they were not included in the cession).

The exercise of these rights requires access to natural resources, including natural resources that are not degraded or contaminated. *See Michigan v. U.S. EPA*, 581 F.3d 524, 525 (7th Cir. 2009) (recognizing that a tribe's "cultural and religious traditions . . . often require the use of pure natural resources derived from a clean environment."). Treaty rights, environmental health, and tribal culture are all interconnected. Populations with unique connections to the natural

761 F. Supp. 658, 661-662 (D. Minn. 1991); *see also Lac Courte Oreilles v. Voigt*, 700 F.2d 341, 365 (7th Cir.), *cert. denied*, 464 U.S. 805 (1983).

[19] 2008 Report to the MN Legislature at 17.

environment, such as Indian tribes, experience impacts that are too often overlooked. The State must consider the impacts that MPCA's rule revision will have on the Band's federally protected Treaty rights.

The EPA has determined that a state's compliance with the CWA and EPA regulations must be considered in light of Indian treaties, because these treaties are the supreme law of the land. The CWA itself provides that it must be read in harmony with treaties, as it "shall not be construed as . . . affecting or impairing the provisions of any treaty of the United States." See Revision of Certain Federal Water Quality Criteria Applicable to Washington, 81 Fed. Reg. 85,417, 85,422 (Nov. 28, 2016) (quoting 33 U.S.C. § 1371(a)). Thus, EPA explained that it is "necessary and appropriate to consider tribal treaties to ensure that EPA's actions under the CWA are in harmony with [Indian] treaties." *Id.* at 85,423. In requiring that the State of Washington consider tribal treaty rights when revising certain WQS relating to waters for fish, EPA further explained that the "purpose for which tribes reserved [off-reservation] fishing rights through treaties with the U.S. has important implications for water quality regulation under the CWA. Fundamentally, the tribes' ability to take fish for their subsistence purposes under the treaties would be substantially affected or impaired if it were not supported by water quality sufficient under the CWA to ensure that tribal members can safely eat the fish for their own subsistence." *Id.* Because many of the waters in which treaty-recognized rights could be exercised could not be regulated by tribes, it fell to the EPA to regulate them to protect tribal treaty rights that depended on them. *Id.* Applying those principles, EPA found that "when establishing WQS for these waters [used to harvest fish and shellfish], the tribal members must be considered the target general population for the purposes of setting risk levels to protect the subsistence fishing use." *Id.* This was done to "ensure that the tribes' treaty-reserved right to take fish for subsistence purposes is not substantially affected or impaired . . . ." *Id.* This justified EPA's decision that "it is necessary and appropriate" to derive human health criteria that reflects a subsistence level of consumption "that is not artificially suppressed as a result of concerns about pollution or fish contamination where such data are available." *Id.* at 85,425.

In short, EPA's findings show that the CWA must be read consistently with tribal treaty rights so as not to "affect[] or impair[]" them, and that water quality standards must ensure that water quality must be "sufficient under the CWA to ensure that tribal members can safely" consume plants and animals that they are guaranteed for subsistence and cultural reasons under treaties. For that reason, a designated use of Minnesota waters for wild rice, that itself recognizes the importance of wild rice to tribes under their treaties, should properly ensure that "the tribes' treaty-reserved right . . . is not substantially affected or impaired." A water quality standard that killed or significantly harmed the resource on which the tribal members depend would be as destructive to the treaty right as a water quality standard that made that resource unsafe to consume. Minnesota is obligated under the CWA to implement WQS that protect the treaty

resource from being harmed to an extent that substantially affects or impairs the Chippewa's Treaty rights.

As noted above, the Chippewa have significant expertise regarding the proper care and management of wild rice. For centuries, the Chippewa harvested wild rice using measures that ensure the health of wild rice stands. It has been Chippewa knowledge and expertise on the proper management of wild rice waters that has led to measures necessary to ensure the continued health of this unique resource. Chippewa knowledge has been relied on to protect wild rice from, for example, premature harvest, overharvests, and the use of mechanized equipment, all of which threatens permanent loss of wild rice stands.[20] Because of the paramount importance of wild rice, the Chippewa, including the Fond du Lac Band have devoted considerable resources to bringing substantive expertise to all matters affecting wild rice. The Fond du Lac Band has been an active participant in the technical teams that have assisted the State in addressing wild rice management issues for decades. For example, because of his expertise, Thomas Howes, a Fond du Lac Band member who served as a Natural Resource Manager for the Band's Resource Management Division, served on the Technical Team that led to the DNR's 2008 Wild Rice Report to the State Legislature. He, along with other Band officials and staff, have brought that expertise to bear as the MPCA has considered whether revisions to the wild rice rule are warranted and as the MPCA has examined proposed revisions to that rule. Additionally, Nancy Schuldt, Water Projects Coordinator in the Fond du Lac Band's Environmental Program, has 20 years of experience as an aquatic ecologist and water policy professional for the Band. She has a BS in Biology from the University of Dayton, and a MA in Aquatic Ecology from the University of Kansas. She developed the Band's water quality standards and monitoring program, has directed research into fish contaminants and sediment chemistry to characterize mercury impacts to Fond du Lac Band members, collaborated on research into wild rice ecology and toxicity, as well as watershed hydrologic modeling to inform management and restoration efforts. She participates in numerous local, regional, national and binational working groups to ensure the tribal perspective is represented, and initiated a cooperative wastewater management Project with the non-tribal community to protect Big Lake, a heavily developed lake on the Reservation. She initiated the tribe's nonpoint source management program, and leads the Band's environmental review of mining and energy industry impacts to trust resources. The Fond du Lac Band also works closely with other experts on these issues, including: Band members having traditional cultural knowledge regarding wild rice; Darren Vogt, Environmental Director for the 1854 Treaty Authority; Dr. John Pastor, Department of Biology, University of Minnesota, Duluth; and Dr. John Coleman, University of

[20] *See* Vennum, *Wild Rice and the Ojibway People*, at 269-270.

Wisconsin and Environmental Director for the Great Lake Indian Fish and Wildlife Commission, among others.

Notwithstanding the Band's federally protected treaty rights and significant expertise related to wild rice, we are deeply troubled to find that MPCA has ignored the Band's substantive comments and expertise. Instead, MCPA's proposed rule improperly relies on an untested "line of scientific inquiry" that does not satisfy the requirements of the Clean Water Act or its implementing regulations to permit a change in the existing wild rice rules.

II. CLEAN WATER ACT REQUIREMENTS

The Clean Water Act ("CWA") requires that the State "specify appropriate water uses to be achieved and protected." 40 C.F.R. § 131.10(a); 33 U.S.C. § 1313(c)(2). Any changes by the State to these uses, once specified, must comply with the Act. The goal of the water quality standards program under the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's water. 33 U.S.C. § 1251. Water quality standards help translate the broad goals of the CWA into waterbody specific objectives and goals based on the classification of a particular waterbody. An objective of classifying a waterbody is to designate uses by evaluating and describing the ecosystem and the specific purposes or uses of the waterbody as it relates to humans and the environment. Water quality standards must include water quality criteria that protect the designated uses. *Id.* § 131.11(a)(1). The State should establish criteria by "establish[ing] numerical values" based on EPA's CWA § 304(a) guidance, § 304(a) guidance modified to reflect site-specific conditions, or "[o]ther scientifically defensible methods," *id.* § 131.11(b)(1), and by "[e]stablish[ing] narrative criteria or criteria based on biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria," *id.* § 131.11(b)(2). Minnesota's criteria for protecting wild rice are found in Minn. R. 7050.0224. *See* SONAR at 11. Rule 7050.0224 includes narrative criteria for specifically named waters in subpart 1, and numerical criteria for all surface waters in the State in subpart 2.

The CWA protects both "designated" and "existing" uses of water bodies. "Existing uses" are a subcategory of designated uses, which were attained on a waterbody on or after November 28, 1975, whether or not the use was included in State water quality standards, *id.* § 131.3(e). "Designated uses" are "those uses specified in water quality standards for each water body or segment whether or not they are being attained." 40 C.F.R. § 131.3(f). Designated uses are not dependent on whether or not conditions currently support the use. For example, in Minnesota, trout waters are not protected on the basis of whether there are enough trout for actual harvest, but are protected because there is suitable habitat and physical characteristics for trout to survive. And many waters in Northeastern Minnesota are protected as "trout streams" even though the

Minnesota Department of Natural Resources acknowledges that "North Shore creeks are great scenery but are only fair trout streams."[21]

Federal CWA regulations give the most protections to existing uses of waterbodies. An existing use cannot be modified or removed unless designated uses are added that require more stringent water quality criteria. *Id.* § 131.10(h)(1).[22] The State *can* remove designated uses that are not "existing" uses, but only it if follows a procedure prescribed by regulation and makes certain findings supporting its decision. If the designated use to be removed is a use specified in § 101(a)(2) of the CWA, which are "the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water," 33 U.S.C. § 1251(a)(2), then the State must undertake a use attainability analysis ("UAA") that demonstrates that attaining the designated use is not possible for one of six particular reasons. *Id.* §131.10(j) (incorporating by reference *id.* § 131.10(g)(1)-(6). These reasons are:

> (1) Naturally occurring pollutant concentrations prevent the attainment of the use; or
> (2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or
> (3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or
> (4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or
> (5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or
> (6) Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

Id. § 131.10(g)(1)-(6). (These same requirements apply to the removal of a sub-category of a designated use. *Id.* § 131.10(j)(2).) But a designated use cannot be removed if the use can be attained by implementing effluent limits and best management practices. *Id.* § 131.10(h)(2).

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[21] *See* http://www.dnr.state.mn.us/fishing/trout_streams/north_shore.html (last visited Nov. 16, 2017).

[22] Additionally, Minnesota's CWA antidegradation policy, provides that "existing uses and the level of water quality necessary to protect existing uses *shall be maintained and protected*") Minn. R. 7050.0250(A) (emphasis added). *See* 40 C.F.R. § 131.12(a)(1) (requiring implementation of antidegradation policy).

Although a State is *not* required to conduct a UAA when it wishes to remove a designated use that is not described in § 101(a)(2) of the Clean Water Act, *id.* § 131.10(k)(3), it must still submit documentation to the EPA justifying how its consideration of the use and value of water for the uses listed in 40 C.F.R. § 131.10(a) appropriately supports its removal action or revision of a designated use – which can be in the form of a UAA, but need not be, *Id.* § 131.10(k)(3). The § 131.10(a) uses are "the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation." *Id.* § 131.10(a).

Whether or not a UAA is required, the State must then provide public notice and an opportunity for a public hearing on its decision. 40 C.F.R. § 131.20(b). These must comply with provisions of State law and the EPA's public participation regulation. *Id.* (incorporating by reference 40 C.F.R. pt. 25). The proposed revision and supporting analyses must be made available to the public in advance of the hearing. *Id.* The proposed revision is then submitted to the EPA for review. *Id.* § 131.20(c). As described above, the EPA will only approve water quality criteria if they are "based on sound scientific rationale" and "contain sufficient parameters or constituents to protect the designated use." *Id.* § 131.11(a)(1); *see Miccosukee Tribe of Indians of Fla. v. U.S. EPA*, 105 F.3d 599, 602 (11th Cir. 1997) (standards apply to new or revised water quality criteria). These criteria should take the form of numerical criteria that "[e]stablish numerical values" based on 304(a) Guidance, 304(a) Guidance modified to reflect site-specific conditions, or "[o]ther scientifically defensible methods," *id.* § 131.11(b)(1), as well as narrative criteria "based upon biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria," *id.* § 131.11(b)(2)

III. COMMENTS ON THE PROPOSED RULE

A. MPCA should have considered reclassifying wild rice waters as Class 2 waters.

The revised rule proposal to create a new wild rice waters subclass, Class 4D, does not recognize the uniqueness of the wild rice beneficial use as MPCA claims, but only helps MPCA segregate these waterbodies for purposes of implementing its newly created sulfide/sulfate standard. SONAR at 35. The proposed new standard for listing wild rice waters in Minnesota Rule 7050.0224 at Subpart Five states:

> The standards in items B and C apply to wild rice waters identified in part 7050.0471 to protect the use of the grain of wild rice as a food source for wildlife and humans. The numeric sulfate standard for wild rice is designed to maintain sulfide concentrations in pore water at 120 micrograms per liter or less. The commissioner must maintain all numeric sulfate standards for wild rice waters on a public Web site.

This standard, however, improperly limits the beneficial uses of wild rice.

During this rule revision process, the MPCA had both the authority and opportunity to take a hard look at all existing rules related to the protection of wild rice, and fundamentally improve and modernize state rules in light of new research and their growing understanding of the ecological requirements of wild rice. That is their role and charge under their delegated Clean Water Act authorities. The agency should have considered tribal recommendations that elevate the unique qualities and characteristics of manoomin beyond simply "food". For this specific shared resource, the tribes are the experts in monitoring, managing, protecting and restoring manoomin. We have had numerous discussions with the agency about the role that manoomin plays as an indicator of healthy, diverse, highly functioning aquatic ecosystems. Its presence in a waterbody is evidence of good to excellent biological/ecological condition, while conversely, its absence in a waterbody where it was historically present is indicative of a degraded condition. Further:

> Wild rice is tremendously important to the biodiversity of the lakes and rivers it is associated with. The dense stalks provide roosting and loafing areas and brood cover for a variety of waterfowl species, and nesting habitat for other bird species. The long, nutritious grains are a large part of the diet of many migratory birds. Mammals such as the muskrat utilize the tender stalks of wild rice for both food and in the creation of their lodges. The rice beds provide habitat for many other species from invertebrates to large mammals such as the moose. Indeed wild rice benefits a large number of species due to the structure, cover, or food sources it contributes to the wetland.
>
> …Other parts of the Wild Rice plant also provide sustenance. Wood Ducks often pull their flowers and geese and swans consume young shoots, germinating seeds, and mature stems and leaves, sometimes to the detriment of the stands. Rice beds also provide nursery areas for small fish, frogs, and other aquatic prey items for Common Loon, Great Blue Heron, and other piscivorous bird species.
>
> Water quality also benefits from wild rice through its ability to bind loose soils, tie up nutrients, and act as a buffer by slowing winds across shallow wetlands. By stabilizing water quality, algal blooms are reduced and water clarity is increased.[23]

Indeed, Minnesota has expressly recognized this. In the 2008 report to the MN Legislature, the Minnesota Department of Natural Resources found:

> As directed by the legislature, the wild rice study document focuses on natural wild rice. For this study, we define natural wild rice as native species of wild rice (*Zizania*) that are

[23] http://www.nativewildricecoalition.com/, supported by the National Institute of Food and Agriculture, US Department of Agriculture.

> growing in public waters and are not subject to cultivation. The simplest description of natural wild rice in Minnesota is that it is an annual aquatic grass that produces an edible grain.
>
> This simple description, of course, does not do justice to this unique and valuable plant. History is replete with examples of its importance to wildlife and value to humans both nutritionally and culturally. Wild rice (manoomin to the Ojibwe) is a spiritually significant resource for Native Americans in the Great Lakes region, and it has been for centuries. Nowhere has this grain been more important, nor had a richer history, than in Minnesota. No state harbors more acres of natural wild rice than Minnesota (Moyle and Krueger 1964). No other native Minnesota plant approaches the level of cultural, ecological, and economic values embodied by natural wild rice.[24]

The 2008 Report further directly addresses the broader ecological value that wild rice has, stating:

> The value of natural wild rice to wildlife has been long appreciated by American Indians and was marveled at by early European explorers (Jenks 1900). Jonathan Carver traveled through eastern portions of North America in the 1760s and observed of wild rice that "the sweetness and nutritious quality of it attracts an infinite number of wild fowl of every kind which flock from distant climes to enjoy this rare repast, and by it become inexpressively fat and delicious" (Stoddard 1957).
>
> Both migrating and resident wildlife rely on the nutritious and abundant seeds of natural wild rice. One acre of natural wild rice can produce more than 500 pounds of seed. These seeds have long been recognized as an important source of food during fall migrations (McAtee 1917). Martin and Uhler (1939) listed wild rice as the ninth most important source of food for ducks throughout the United States and Canada, and the third most important source of food for ducks in the eastern portions of the continent. . . . Although the value of wild rice to mallards, wood ducks, and ring-necked ducks is most commonly recognized, other ducks such as black ducks, pintail, teal, wigeon, redheads, and lesser scaup also use stands of wild rice (Rossman et al. 1982, Huseby 1997).
>
> The stems of wild rice provide nesting material for such species as common loons, red-necked grebes, and muskrats; and critical brood cover for waterfowl. The entire wild rice plant provides food during the summer for herbivores such as Canada geese, trumpeter swans, muskrats, beaver, white-tailed deer, and moose (Martin et al.1951, Tester 1995). In addition, rice worms and other insect larvae feed heavily on natural wild rice. These, in turn, provide a rich source of food for blackbirds, bobolinks, rails, and wrens. In the spring, decaying rice straw supports

[24] Natural Wild Rice in Minnesota, A Wild Rice Study document submitted to the Minnesota Legislature by the Minnesota Department of Natural Resources, February 15, 2008, available at http://files.dnr.state.mn.us/fish_wildlife/wildlife/shallowlakes/natural-wild-rice-in-minnesota.pdf

> a diverse community of invertebrates and thus provides an important source of food for a variety of wetland wildlife including birds, small fish, and amphibians. Indeed, every stage of growth of natural wild rice provides food for wildlife (McAtee 1917, Stoudt 1944).
>
> As a result, wild rice lakes and streams are breeding and nesting areas for many species. More than 17 species of wildlife listed in the MNDNR's Comprehensive Wildlife Conservation Strategy (2006) as "species of greatest conservation need" use wild rice lakes as habitat for reproduction or foraging (Henderson 1980, Martin et al.1951) . . .
>
> Natural wild rice has other ecological values as well. Emergent aquatic plants such as wild rice, bulrush, and cattails protect shorelines and provide habitat for fish (Radomski and Goeman 2001). Dense stands of wild rice stabilize loose soils and form natural windbreaks that can limit the mixing of soil nutrients into the water column (Meeker 2000). In addition, natural wild rice has relatively high requirements for nutrients such as phosphorus and nitrogen (Oelke et al. 2000). During periods of rapid growth, which occurs in spring and summer, the plants sequester these nutrients. Thus stands of natural wild rice counter the effects of nutrient loading and the potential increases in algal growth and lake turbidity.[25]

The broad ecological benefits of wild rice require a proper classification of these waterbodies under the Clean Water Act. The fundamental purpose of the CWA is the "protection and propagation of fish, shellfish and wildlife," 33 U.S.C. §101(a), which includes aquatic life and the protection of aquatic flora. However, Minnesota's Class 4 waters, which cover agricultural and wildlife uses, is intended to define *waters that are suitable for the irrigation of crops, consumption by livestock, support of vegetation for range grazing, and other uses in support of farming and ranching and protects livestock and crops from injury due to irrigation and other exposures.*[26] The Minnesota Tribes have consistently recommended to the MPCA, during multiple consultation sessions over the past four years specifically focusing on wild rice water quality standards, that natural wild rice stands (manoomin) should be more accurately classified as a distinct aquatic life use (e.g., Minnesota's Class 2 waters). We noted that it may be appropriate to leave paddy rice, a true cultivated agricultural product, in Class 4, but it is inherently offensive to Minnesota Tribes to classify manoomin as a 'crop', and we objected to construing the naturally occurring hydrology of a natural wild rice bed as "irrigation". Irrigation is defined as ". . . to supply (dry land) with water by means of ditches, pipes, or streams."[27] This is simply not an appropriate or reasonable paradigm for classifying a native plant species growing without cultivation in a natural water body.

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[25] *Id.* at 8-10
[26] *Id.* at Chapter 2, EPA Water Quality Standards Handbook
[27] Webster's II New College Dictionary (ISBN 0-395-70869-9) 1999. Houghton Mifflin Co.

Fond du Lac and other tribal staff have consistently held up the state's water quality protection framework for trout streams as a model for how the agency can use its CWA authorities to protect manoomin. Aquatic life use can apply to plant or animal species, or assemblages of related species (e.g., warm-water fishery). MPCA protects trout streams as a separate aquatic use class (2A) based upon the *thermal and habitat potential that a lake or stream could support trout*. Further, a trout lake or stream is not protected based on the number of trout that have been shocked in that waterbody on any given year. For example, the MPCA St. Louis River Stressor ID report[28] concludes for Wyman Creek, a designated trout stream that has been assessed as impaired for its fish community: "Based on the historical presence of brook trout, Wyman Creek remains a designated trout stream, despite a lack of trout in the more recent monitoring efforts." The MPCA should consistently apply this conservative justification for protecting both brook trout *and* manoomin.

The Band has regularly advised the MPCA that water quality protections for manoomin should focus on **preserving and enhancing the sustainability of the resource**, not the anthropocentric construct of "production." We maintain that the appropriate classification for manoomin is in Minnesota's Class 2 waters, with its own separate subclassification. We believe it should be protected under the relevant CWA aquatic life use standards, which apply broadly to the physical, chemical and biological attributes necessary to sustain and not degrade aquatic plant and animal species. MPCA has never provided the Band with any rationale for refusing to protect manoomin as a distinct aquatic life use, only asserting that "it disagrees". They do maintain that "all waters being proposed as wild rice waters are also protected as Class 2 waters and are protected by Class 2 standards," SONAR at 23, but that statement does not explain or justify why it is not reasonable to simply and clearly define wild rice waters as Class 2 waters with a distinct aquatic life use. The undisputed recognition of the broad ecological benefits of wild rice, and the requirements of the Clean Water Act, call for this result.

B. MPCA does not adequately explain or justify why the proposed rule's narrative standard only applies to 24 wild rice waters and not all listed wild rice waters.

MPCA proposes to limit the narrative standard to only 24 named water bodies, and not include others, as the MPCA promised to do when the narrative standards were first adopted, is not rational. *See In re Proposed Permanent Rules Relating to Miss. River Corridor Critical Area*, No. OAH 8-9014-33236, 2016 WL 6216528, at *14 (Minn. Off. Admin. Hr'gs Aug. 10, 2016) (citing *Minn. Chamber of Commerce v. Minn. Pollution Control Agency*, 469 N.W.2d 100, 103 (Minn. 1991)). This is especially true in light of the original purpose of adopting the narrative

[28] https://www.pca.state.mn.us/sites/default/files/wq-ws5-04010201a.pdf (last accessed Nov 19 2017)

standards, which was to affirm the Agency's policy of working "in concert" with Minnesota Indian tribes.

This aspect of the wild rice water quality rules – the limited number of water bodies to which the narrative standard was applied – is a relic of the 1997-98 rulemaking for waters in the Lake Superior basin. The MPCA insisted, despite dissent from the Tribes who participated in consultation and dialogue with the agency over this rulemaking, that the Tribes specifically identify "significant wild rice waters" in the Lake Superior Basin to be documented in Minn. R. 0470. The Tribes at the time clearly communicated their objective for protecting all remaining wild rice waters in the Basin, in the ceded territories, and across the state because of its diminishing range and its irreplaceable cultural significance. While the agency's intent at the time was apparently beneficent[29], they have failed to follow through with commitments made:

> Finally, the proposed amendments specifically listing the wild rice waters in Minn. R. 7050.0470 and the inclusion of the wild rice narrative language in Minn. R. 7050.0224 are needed because: 1) they are viewed as initial steps in a broader process intended to provide greater public awareness as to the ecological importance of this unique plant species; 2) they provide further support for the study of the physical, chemical and biological factors that are needed to support wild rice development; and 3) the proposed wild rice amendments represent an affirmation of the MPCA's commitment to work in concert with the American Indian Bands on environmental issues of mutual concern.
>
> …The proposed listing of the 24 wild rice waters in Chapter 7050 is specific to a select number of waterbodies within the Lake Superior Basin that have current and/or historic stands of wild rice. No additional numerical standards for wild rice protection purposes are being proposed during the present rulemaking effort. It is the current intent of the MPCA to participate in ongoing studies and assessments of the wild rice plant and wild rice habitat protection issues. MPCA staff also plan to continue to work the MDNR and the various Bands to identify additional wild rice waters on a statewide basis.
>
> …The listing of these waters and the proposed narrative wild rice waters standard in Minn. R. 7050, in and of themselves, will not automatically translate into greater protection levels that are afforded to this plant species. Rather, increased protection of natural wild rice stands will happen as a result of a continued dialogue and information exchange between interested and affected parties.

At the time of that rulemaking, MPCA was even considering other factors that affect the health and sustainability of wild rice, especially hydrology. The narrative standard broadly addresses that issue, as it directly pertains to protecting the necessary habitat. The agency recognized the

[29] *See, e.g.*, Excerpts from 1997 GLI SONAR; MPCA Staff Initial Post-Hearing Response Excerpts-1997 (Procedural Document 36)

need for continued research into factors that can impact the year-to-year successes and failures of natural stands of wild rice, but concluded:

> "…it is not reasonable to delay this *minimal first step* (emphasis added) to address the overall decline in the number and a real distribution of wild rice stands. More than adequate data exists to show that water levels are an integral element in creating appropriate environments for continued wild rice growth…MPCA staff are committed to working with interested parties on continued research, development of natural wild rice BMPs and evaluation of applicable standards (e.g. sulfates) but a need exists to move forward with the proposed amendments. The MPCA's proposal to begin listing the wild rice waters and to prevent material degradation of those waters is a reasonable and rational first step in that longer process."[30]

The agency clearly reached a conclusion during rulemaking twenty years ago that this narrative standard was necessary and reasonable to protect wild rice, and that there was sufficient data existing to support it. However, two decades later despite the opportunity to make changes, MPCA is proposing to retain the narrative standard[31] in the current rule and its narrow application to that arbitrary list of 24 selected wild rice waters, notwithstanding the vehement position expressed by Fond du Lac and other Minnesota Tribes that this broadly protective standard should apply to all wild rice waters. MPCA states that its proposal is reasonable and that:

> In recognition of the ecological importance of the wild rice resource, and in conjunction with Minnesota Indian tribes, selected class 4D wild rice waters have been specifically identified [WR] and listed in part 7050.0470, subpart 1. The quality of these waters and the aquatic habitat necessary to support propagation and maintenance of wild rice plant species must not be materially impaired or degraded.

The MPCA has not honored or fulfilled the commitments they explicitly made with the Tribes in the 1997-98 rulemaking: to move beyond that initial first step, to participate in studies and assessments of wild rice habitat protection, to identify other statewide wild rice waters, to work in concert with the American Indian Bands on environmental issues of mutual concern. By failing to do so, they have acted contrary to the purported purpose of the narrative criteria without giving any rational basis for doing so. Nor has MPCA explained why it has frozen the narrative criteria at these 24 wild rice waters. There is nothing mystical or unique about these 24 wild rice waters with regards to their capacity to maintain the species, and in fact, tribal consultation and tribal comments during this rulemaking process have consistently made it clear

[30] *Id.*
[31] Minn.R. 7050.0224, Subp. 6. Class 4D[WR]; selected wild rice waters

that we believe ALL wild rice waters must be protected to the greatest extent possible. Neither the Tribes nor agency scientists would argue that it's reasonable to expect that protecting these 24 waters will ensure the propagation and maintenance of wild rice plant species. Rather, the MPCA should reaffirm the conclusion they reached in the previous rulemaking, and *at a minimum*, apply the broad narrative standard protection to all wild rice waters in Minnesota.

C. MPCA should designate wild rice water as Outstanding Resource Value Waters.

The Band believes that wild rice waters throughout the state of Minnesota should be designated Outstanding Resource Value Waters, as we have done with our reservation manoomin waters, thereby providing comprehensive protection under the state's anti-degradation requirements.

D. MPCA's proposed process and standards for identifying wild rice waters are inadequate and do not comply with the CWA.

The Band finds the MPCA's process for identifying wild rice waters insupportable. Its fundamental flaws can be traced back to the failure of the agency to ever monitor or assess the wild rice waters of the state under their CWA responsibilities and despite past commitments to Minnesota Tribes. Because wild rice waters have not been inventoried, monitored, assessed or protected through regulatory controls for sulfate under the existing standards, many more once-harvestable stands have been degraded or destroyed since the effective date of the CWA. Wild rice waters that appear on the DNR list with diminished remnant stands that may not meet the agency's arbitrary acreage threshold or are insufficient to support human harvest should not be excluded because MPCA has failed to enforce existing rules.

The MPCA's proposed rule revision should be disapproved because it conflicts with applicable law and is illegal under the CWA. *See* Minn. R. 1400.2100(D)-(E). It also conflicts with the State's anti-degradation policy. *See id.* 7050.0250(A) (existing uses "shall be maintained and protected"). The proposed rule, under the guise of "clarifying" a State regulation, removes existing and designated uses from water bodies within the State. This can only be done in compliance with the CWA and its implementing regulations, which prescribe the narrow circumstances in which existing and designated uses can be removed. Because the MPCA has failed to comply with the CWA and its requirements, its proposed rule should be rejected.

1. The MPCA's Proposed Rule Removes Designated Uses from Water Bodies, Including Existing Uses

The CWA mandates the continued designation and listing of all wild rice waters, regardless of their specific production or use unless the reclassification process is followed. Minnesota's wild rice rules currently require that the quality of listed and unlisted wild rice waters and the aquatic

habitat necessary to support the propagation and maintenance of wild rice plant species not be materially impaired or degraded. So Minnesota already requires the listing of all wild rice waters regardless of production, *see* Minn. R. 7050.0224 subp. 1, because only the presence of wild rice or wild rice habitat is required. MPCA's failure to include all wild rice water presently recognized on its list of wild rice waters in the proposed rule revisions violates the standards of the CWA.

This element of the proposed rule is being promulgated in response to the Legislature's directive that the new rule "*designate* each body of water, or specific portion thereof, to which wild rice water quality standards apply . . . ." 2011 Minn. Sess. Law Servs. 1 Sp. ch. 2, art. 4 § 32(a)(2) (emphasis added); *see id.* § 32(b) (requiring the MPCA to consult with the MDNR, Minnesota Indian tribes, and "other parties" before "designating waters containing natural beds of wild rice as waters subject to a standard"). To that end, the Proposed Rule "remov[es]" the designated use of "waters used for the production of wild rice" from its current categorization as a Class 4A water designation, SONAR at 35, places it in the new Class 4D, *id.*, renames it "wild rice waters,"[32] applies the new sulfate standard, and deletes the current sulfate standard for Class 4A waters, Proposed Minn. R. 7050.0224 subpt. 2. But, rather than move all wild rice waters into Class 4D wholesale, the proposed rule provides that a water body is now only a "wild rice water" if it is specifically identified in Proposed Minn. R. 7050.0471.. Proposed Minn R. 7050.0130 subpt. 6c; *see* SONAR at 15 (under the proposed rule, the wild rice standard "does not apply until a water is specifically identified in rule. [sic]"). Proposed Minn. R. 7050.0471 provides an exclusive list of "wild rice waters," identified by major drainage basin and water identification number. *See id.* 7050.0471 subpt. 1. Waters not included on the list can only be added by petitioning the commissioner of the MPCA to consider adding new waters, as part of the triennial review of the State's CWA water quality standards. *Id.* 7050.0471 subpt. 2. MPCA's proposed list includes 1,271 wild rice waters, *id.* 7050.0471 subpts. 3-9, but excludes over 900 waterbodies previously recognized and identified by the Minnesota Department of Natural Resources ("MDNR") and tribal inventories identified in the MDNR's 2008 report to the Legislature, *See* Minn. Dep't of Natural Resources, *Natural Wild Rice in Minnesota*, App. B (2008), SONAR Ex. 21 ("2008 MDNR Report"). As we explain below, this removes the designated use of "used for the production of wild rice" or "wild rice waters" from those waters without a UAA justification of non-attainment, which is required by the CWA.

[32] "[C]hanging the phrasing does not alter the scope or effect of the existing beneficial use." *See* SONAR at 34.

The objective of the 2008 MDNR Study was "to consolidate and update existing natural wild rice information and produce an inventory of those waters." *Id*. at 52. The Study included an inventory of wild rice waters which was developed with substantial input from state, federal and tribal representatives, and although it is considered "the most comprehensive list available," it underrepresents rivers, streams and ditches with wild rice and a large number of listed waters do not contain wild rice acreage estimates." (*Id*.) The MPCA improperly compounded this under-inclusion problem by excluding waters listed in the report that did not include more than two acres of wild rice, unless another resource reference corroborated that water body was a "wild rice water."

The more than 900 excluded waterbodies have the "designated use" of wild rice waters because that use was "specified in water quality standards" for those waters, 40 C.F.R. § 131.3(f), when the State designated all surface waters in the state as Class 4A waters used for the production of wild rice. *See* Minn. R. 7050.0410 (incorporating by reference Minn. R. 7050.0470) (applying Class 4A designation to all listed waters); *id.* 7050.0430 (applying Class 4A designation to all unlisted surface waters "that are not wetlands as defined in" Minn. R. 7050.0186 subpt. 1a).[33] Now, because they are not included in Proposed Minn. R. 7050.0471, these 900 water bodies have had the "designated use" of wild rice waters stripped from them.

Moreover, the water bodies were "designated" as wild rice waters when they were included on the inventory of wild rice water body locations identified in the 2008 MDNR report to the Legislature. The objective of that effort was "to consolidate and update existing natural wild rice information and produce an inventory of those waters." It was then used for regulatory purposes, including the implementation of State water quality standards by the MPCA.

The MPCA asserts that "[g]enerally, the wild rice information from these resources was originally gathered to serve a specific program interest and was not intended for regulatory use." To the contrary, the MDNR list was "intended for regulatory use." The purposes of developing the list were not only to create the inventory and identify potential threats to wild rice, but also to make "recommendations to the legislative committees *with jurisdiction over natural resources on protecting and increasing natural wild rice stands in the state*." 2007 Minn. Sess. Law Serv.

[33] Although the cultural and ecological importance of manoomin requires that wild rice waters be designated as Class 2, as discussed above, a "designated use" is determined by whether the State has designated that use in its water quality standards, *see* 40 C.F.R. § 131.3(f) (designated uses are those uses "specified in water quality standards for each water body or segment"). Because the State has designated all its waters as Class 4 or 4A waters, removal of those designated uses, or a sub-category, must comply with the CWA's procedural requirements.

ch. 57 § 163(3) (emphasis added). Recommendation 5 directed the MDNR to convene a standing interagency wild rice workgroup to share information and develop recommendations for inventory methodology and trend assessments, education and information outreach, lake planning and management, harvester recruitment and retention, and other management issues as they arise. 2008 MDNR Report at 4. The rationale for that charge was that "[c]omprehensive protection and management of wild rice involved multiple agencies. Management needs to include *better inventory information* including consistent methodology for trend analysis, documenting natural genetic diversity, and establishing long-term case studies on identified lakes." *Id.* (emphasis added). Since 2008, there have been periodic updates to that list, as intended, including a broad update in 2013.

The 2008 MDNR Study list was also actually used by MPCA for regulation of water quality. After 2008, the MPCA used the list to review water discharge permits, to ensure that pollution discharges did not violate water quality standards for "waters used for the production of wild rice." *See Minn. Chamber of Commerce v. Minn. Pollution Control Agency*, No. 62-CV-10-11824, 2012 WL 2872026, at ¶¶12-14 (Minn. Dist. Ct. May 10, 2012), *aff'd* No. A-12-0950, 2012 WL 6554544 (Minn. Ct. App. Dec. 17, 2012). As part of the permit review process, "the MPCA reviews . . . available wild rice records and databases that the MDNR maintains" to determine whether the "water qualifies as a water used for production of wild rice . . . ." *Id.* at ¶¶13-14. MPCA does not use the list as an exhaustive source, and can review other information, such as "consultation with aquatic plant biologists at the MDNR," "information received from external stakeholders, including, but not limited, to, Native American tribes and environmental groups" and "information received by the discharge," to determine whether the water "has been identified as potentially producing wild rice." *Id.* ¶14. The MPCA has treated the 2008 MNDR list as presumptively valid, and in permitting decisions where external evidence must be used to verify that waters are used for production of wild rice, it "has requested that the permit applicant conduct a survey of any wild rice stands in the receiving waters to help determine whether the receiving water is a water used for production of wild rice." *Id.* ¶15.

Now, however, the MPCA proposes to flip the use of the list on its head. The proposed new rules treat waters that were designated as wild rice waters as presumptively *not* used for wild rice, if they fail to meet the arbitrary two-acre threshold, and to exclude them from coverage entirely if the MPCA's choice of "corroborating" evidence does not establish a "beneficial" use. By excluding previously-designated water bodies from its new proposed list, the MPCA is necessarily "removing designated uses" from them because they are no longer under the protection of the numerical water quality standard that once applied to them.

Manoomin has also been gathered from many of the excluded water bodies since 1975. By excluding these waters, then, the State has also removed existing uses from water bodies. This is

not immediately clear from reviewing the SONAR, because the State uses the term "beneficial" uses, which may include both "designated" and "existing" uses as those terms are defined in federal regulations. *Compare* Minn. R. 7050.0140 subpt. 5 (Class 4 waters include "all waters of the state *that are or may be used* for any agricultural purpose . . . or by waterfowl or other wildlife") (emphasis added) *with* 40 C.F.R. § 131.3(e) (existing uses are "those uses actually attained" in a water body) *and* § 131.3(f) (designated uses are uses specified in water quality standards "whether or not they are being attained). During consultation and technical meetings with the MPCA, tribal staff repeatedly elevated the importance of distinguishing between a "designated use" and an "existing use," but the MPCA fails to note this distinction in its decision-making, and only recognizes it superficially in passing in the SONAR. *See* SONAR at 41.

2. The MPCA's Removal of Designated and Existing Uses Does Not Comply with Federal or State Regulations

By "winnowing" the list, the MPCA in effect "delisted" Minnesota wild rice waters with an existing use, because it excludes water bodies that the State recognized as wild rice waters, and that were designated for that purpose under Minnesota regulations. But under 40 C.F.R. § 131.10, if a designated use is an existing use for a particular water body, the existing use cannot be removed unless a use requiring more stringent criteria is added.[34] Yet the State's "winnowing" of the list effectively removes those existing uses without adding a use with more stringent criteria, in violation of the CWA.

The State justifies its "winnowing" by claiming that it removed all waters that included less than two acres of wild rice, but then added back waters if other evidence "corroborated" the "beneficial use" of those waters.[35] As a first principle, it is **not** consistent with the Clean Water Act, to 'winnow' the MDNR list according to some arbitrary minimum acreage which has no ecological relevance. The MPCA's removal of uses must be "scientifically defensible," 40 C.F.R. § 131.11(b)(1)(iii), but nowhere in the SONAR does the MPCA justify its decision with reference to any scientific method. Its only justification is that "[w]aters identified in the MDNR 2008 report with wild rice acreage estimates greater than two acres are included in the MPCA

[34] However, uses requiring more stringent criteria may always be added because doing so reflects the goal of further improvement of water quality. This is entirely consistent with the intent of not only the CWA goals, but also the intent of the DNR and Tribes in continually updating the list of wild rice waters within the state.

[35] Because the State's designation of "beneficial uses" does not distinguish between "existing" and "designated" uses, as described above, it is not clear whether the State included all water bodies with an existing use on its list.

proposed wild rice water list, based on the MPCA's reasonable assumption that two acres is sufficient rice to demonstrate the beneficial use." SONAR at 42; *see id.* at 46. The State provides no explanation for why this assumption is "reasonable," and in fact it is particularly questionable in light of the large amount of evidence that many waters with less than two acres of manoomin are harvestable – evidence that the State itself recognizes. *Id.* at 46. Further, the fact that the state has neglected to collect sufficient inventory or monitoring data over the past four decades to support *either* their arbitrary acreage threshold or the existing water quality standards to protect this specific beneficial use, is not in and of itself justification for the de facto delisting of hundreds of inventoried wild rice waters.

Moreover, the methodology described in the SONAR violates the CWA because it will not identify all of the existing uses of surface water in the State, causing the removal of "existing uses" from some water bodies without the substitution of more stringent criteria. The MPCA's improper winnowing of the existing list is not cured by a process that calls for corroborating information as a precondition of restoring the delisted water bodies to the 2008 list. Such a process leaves significant gaps of time in which wild rice was, or may have been, gathered in water bodies on or after November 28, 1975. The MPCA also excluded some corroborating evidence from consideration without explanation. In particular, according the SONAR, the MPCA did not include all of the waters listed on the 1854 Treaty Authority's March 24, 2016 list of wild rice waters, SONAR Ex. 24, but does not say why. SONAR at 48. In addition, the MPCA improperly relied on an out-of-date 1854 Treaty Authority list. The March 24, 2016 list which MPCA uses has been superseded by the latest list, dated March 29, 2017, which identifies 114 additional wild rice waters in the portion of Minnesota ceded by the 1854 Treaty[36]. As the 1854 Treaty Authority explained in their November 21, 2017 comments on the MPCA's Proposed Rule, the new rule will not apply to 106 wild rice locations that the Authority has identified since March 2016. Moreover, the State admits that its methodology for identifying existing uses may fail, because it provides a process for parties to add water bodies to its list in the future by proving that a water has been used for wild rice in the past. *See* SONAR at 60.[37]

[36] See 1854 Treaty Auth., Wild Rice Waters in 1854 Ceded Territory 11 (Mar. 29, 2017), available at http://www.1854treatyauthority.org/management/biological-resources/fisheries/reports.html?id=102&task=document.viewdoc

[37] The State's proposed process for amending its list of water bodies in the future if a party can prove existing uses, *see* SONAR at 60, does not cure this deficiency. The CWA regulations do not allow the State to remove existing uses in exchange for a promise to add them back later if it is convinced it made a mistake.

Minnesota's antidegradation policy also requires the State to maintain and protect "existing uses and the level of water quality necessary to protect existing uses." Minn. R. 7050.0250(A). By removing these existing uses and excluding water bodies with existing wild rice use from the water quality standards, the State will allow manoomin in those water bodies to be exposed to higher levels of sulfide. This will degrade the resource and further reduce the number of water bodies available for gathering.[38]

MPCA is also improperly removing designated uses from water bodies that lack existing uses. As noted in Section II above, § 101(a)(2) designated uses may be changed *only* based upon findings of a use attainability analysis that has demonstrated that attaining the designated use is not possible because of naturally occurring pollutant concentrations, natural flow conditions, hydrologic modifications, substantial widespread economic impact resulting from more stringent controls, or human-caused pollution that cannot be remedied. A designated use cannot be removed if the use can be attained by implementing effluent limits and best management practices.[39] Therefore, attainable uses are, at a minimum, the uses (based on the State's system of water use classification) that can be achieved: (1) when effluent limits under sections 301 (b)(l)(A) and (B) and section 306 of the Act are imposed on point source dischargers; and (2) when cost-effective and reasonable best management practices are imposed on nonpoint source dischargers.

Additionally, the State's approach to designated uses that may not be existing uses is also deficient. The SONAR says that a UAA is not required because the State is not removing a designated use, SONAR at 41, but only "clarifying an existing beneficial use." But as explained above, the State is removing a designated use from many water bodies. In fact, MPCA acknowledges that it is not including all previously identified or recognized wild rice waters in its list, *see e.g.,* SONAR at 48 ("MPCA included *most* of the 393 lakes and river segments included on the 1854 Treaty Authority's list of waters"). When a State removes a designated use from a water body, and that use is one specified in § 101(a)(2) of the Clean Water Act, then the

[38] The aquatic life protection use is a broad category requiring further explanation. *Non-aberrational resident species must be protected, even if not prevalent in number or importance.* Water quality should be such that it results in no mortality and no significant growth or reproductive impairment of resident species. Any lowering of water quality below this full level of protection is not allowed… A use attainability analysis or other scientific assessment should be used to determine whether the aquatic life population is in fact an artifact or is a stable population requiring water quality protection."

[39] Pursuant to 40 C.F.R. Section § 131.10(d), "[w]hen designating uses, States may wish to designate only the uses that are attainable. However, if the State does not designate the uses specified in section 101(a)(2) of the Act, the State must perform a use attainability analysis under section 131.10(j) of the regulation. States are encouraged to designate uses that the State believes can be attained in the future."

State must undertake a UAA to justify its decision. 40 C.F.R. § 131.10(j)(2); *see* 40 C.F.R. § 131.10(k)(3) (describing when UAA not required). Section 101(a)(2) of the CWA, *codified at* 33 U.S.C. § 1251(a)(2), describes the purposes of the CWA as "the protection and propagation of fish, shellfish, and wildlife" and "provid[ing] for the recreation in and on the water . . . ." *Id.* Those purposes are implicated by the designated use of wild rice waters and so a UAA is required.

The designated use that the State is removing here is "waters used for the production of wild rice." As explained above, wild rice use is a distinct aquatic life use (Minnesota's Class 2), and so the designated use of wild rice water serves the purpose of "protection and propagation of fish, shellfish, and wildlife," as described in CWA § 101(a)(2). Even though the State does not agree with the Band's position that wild rice use is a Class 2 use, the State does recognize that wild rice "serve[s] as a food source for wildlife" with "ecological importance" in addition to its special cultural and religious significance for Indian tribes, Minn. R. 7050.0224 subpt. 1, and classifies wild rice waters as a subcategory of Class 4 waters, which are needed for wildlife. *See id.* Even under the State's own position on the classification of wild rice use, then, the State is proposing to remove a designated use that is necessary for the "protection and propagation of fish, shellfish, and wildlife," and the State must undertake a UAA to explain why its removal of the designated use from waters without existing uses is justified because the State cannot attain use under one of the six factors described in 40 C.F.R. 131.10(g).

Even if the SONAR could be construed as a UAA – contrary to the State's own representation that it has not prepared a UAA, *see* SONAR at 41-42 – it is not sufficient to remove designated uses. That is because the SONAR does not attempt to explain why it the water bodies removed from protections cannot attain the designated use of "water used for the production of wild rice." Instead, the SONAR explains the exclusion of these waters on two other bases: That the MPCA could not identify the location of a particular water from information provided by the MDNR, tribes, or the public, *id.* at 45, or because the MPCA assumed that the water could not demonstrate a beneficial use according to its own evaluation of the MPCA's 2008 list or corroborating evidence, *id.* at 46-47. The State's explanations do not show whether the designated use cannot be attained under the § 131.10(g) criteria.

As previously noted, most of the waters that currently appear on MPCA, MDNR, and 1854 Treaty Authority lists *already* have an "existing use" as "waters used for the production of wild rice," whether or not they include an estimate of acres of wild rice present for any given year. All of these waters were also designated as wild rice waters under the State's regulations. These waters must be retained on the wild rice waters list, Minn. R. 7050.0471, unless the State complies with the requirements of the CWA and its implementing regulations. Without following these procedures, the State cannot exclude them from the proposed list, in effect de-

listing them as "wild rice waters of the state," with the mere stroke of a pen. The CWA requires the State to make a reasoned determination that no existing uses are being removed without more stringent criteria being applied to those waters, and that designated uses are only being removed based upon the findings of a UAA that the designated use of wild rice waters cannot be attained for the reasons prescribed by federal regulation. As none of this has occurred, the State's proposed rule change is contrary to federal law, illegal, and cannot be adopted under the State's own regulatory standards.

E. MPCA's proposed numeric sulfate standard is not reasonable or sufficient to protect wild rice waters.

The Band acknowledges and supports MPCA's reliance on multiple lines of evidence for considering the need for updates to the sulfate standard: field surveys, laboratory hydroponic experiments, mesocosm experiments, supplemented by rooting zone profiles that characterize sulfate, sulfide and iron in both field sites and mesocosms, and the sediment incubation experiments that challenged the presumption that seasonal application of a sulfate criterion is protective. This approach for reviewing and revising water quality standards and criteria is substantially more robust and defensible than simply using short term hydroponics experiments.

However, we do **not** agree with the state's proposed approach that uses an equation to derive site-specific "protective values" for sulfate because it is not "based on sound scientific rationale," 40 C.F.R. § 131.11(a)(1), or "scientifically defensible methods," *id*. § 131.11(b)(1)(iii), as required by the regulations implementing the CWA. We believe the state's multi-pronged research program actually affirmed the protectiveness of the existing 10 mg/l sulfate criterion, and clearly negated the application of any seasonal exemption for sulfate loadings to wild rice waters. Although not disclosed in the SONAR, the records released under the Minnesota Data Practices Act show that as of February 2014, the MPCA had concluded, based on the scientific study done, that the existing 10mg/l standard was proper and should remain in effect. [40] However, undue political pressure – not scientific study –was brought to bear from members of

[40] *See Iron Range Rebellion Halted Wild Rice Initiative*, Minnesota Star Tribune (April 6, 2014) (reporting, based on records from the MPCA, that the MPCA was "set to announce on Feb. 27 [2014] that, after three years of debate and $1.5 million in taxpayer paid research, it would issue a preliminary recommendation that the 40-year old rule protecting wild rice 'was reasonable and should remain in effect.'")

the state legislature in late February 2014,[41] and the agency, as a result, unexpectedly did not release their preliminary interpretation of their research findings. The Commissioner conceded that the MPCA "changed course in response to 'frustrated' legislators who feared that even a preliminary recommendation by his agency would have a major chilling effect on mining firms and other employers important for their districts." [42] But he further added that "State scientists have not changed their view that, at least so far, the scientific research supports the current wild rice standard."[43]

A possible new approach was discussed during the convening of the MPCA's 2014 Scientific Peer Review Panel for the wild rice sulfate rule. Several of the peer reviewers recommended that it would be useful to have experimental data pertaining to iron, sulfate and sulfide interactions. The September 2014 Final Report explained that "[i]t would be useful to have an experiment that examines whether iron would mitigate the ecological effects on wild rice of added sulfide levels. Additionally, current models do not account for the effects from oxygenated rhizospheres and iron plaques on root systems. MPCA needs to understand the mechanism of toxicity better before claiming to understand how iron mitigates sulfide stress."[44]

As set out below, the Fond du Lac Band actively supported research regarding this approach, and it is clear that the assumptions underlying the approach reflected in the proposed rule are fundamentally flawed and do not alter the MPCA's February 2014 conclusion that the existing standard of 10mg/l best protects wild rice. Nevertheless, politics, not science, ultimately led to MPCA's release of a substantially modified interpretation set out in the proposed rule– one that is not supported by sound scientific analysis. For the reasons set out below, the proposed rule should be disapproved.

1. On-going research by the Band challenges MPCA's assumptions that iron concentrations in sediment are protective.

The MPCA asserts that porewater sulfide is a "significant controller of the ability of wild rice populations to persist and thrive", based upon results from their three-year research program.

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[41] *Id.* The exhibits to the SONAR that list all of the meetings, conferences, presentations, discussion that the MPCA has had with the stakeholders in this process omits the meeting that it held with the members of the State Legislature from the Iron Range in late February early March of 2014

[42] *Iron Range Rebellion,* Minnesota Star Tribune (April 6, 2014)

[43] *Id.*

[44] Summary Report of the Meeting to Peer Review MPCA's Draft Analysis of the Wild Rice Sulfate Standard Study, Submitted to MPCA by Eastern Research Group, Inc. Sept. 25, 2014. Summary of Discussions, p. 28

However, the objective of their research program was not to examine all of the factors that control wild rice populations, it was "to enhance understanding of the effects of sulfate on wild rice and to inform a decision as to whether a revision of the wild rice sulfate standard is warranted," per direction from the Minnesota Legislature.

Fond du Lac has supported additional years of mesocosm research by Dr. John Pastor at the University of Minnesota Duluth, taking advantage of the experimental array that had been established to detect sulfate effects over time on wild rice at varying concentrations[45]. The wild rice populations in those same mesocosms have now experienced three more growing seasons of exposure to continued sulfate loading (at the same concentrations as earlier years), providing confirmation of the cumulative and adverse effect of sulfate loading at lower concentrations[46]. New mesocosms were established that incorporated experimental treatments with the addition of iron in order to discern the predicted ameliorative effects of iron on the sulfide produced in the high-sulfate treatment tanks[47]. During the course of these experiments, it was observed that wild rice roots in tanks with more than 50 mg/l sulfate had become blackened.

A third experiment was initiated in 2016 that aimed at quantifying the development of iron sulfide (FeS) root plaques.[48] The results confirmed that accumulation of FeS plaques on roots of plants grown under high sulfate concentrations increased very rapidly and suddenly in midsummer at the time that wild rice plants are beginning to flower and take up additional nutrients for the ripening seeds. By the end of the growing season, FeS concentrations were two orders of magnitude higher on black root surfaces than in the surrounding sediment. Plants with the black FeS plaques on their roots produced fewer and smaller seeds containing less nitrogen *Id.* at (Fig. 5), perhaps because the plaques potentially impair the uptake of nitrogen. This suggests that even if the precipitation of FeS in the bulk sediment reduces aqueous sulfide and partly ameliorates sulfide toxicity to seedlings, precipitation on the root surfaces somehow impedes seed formation, perhaps by blocking nutrient uptake.

These results clearly refute the MPCA's fundamental assumption for their equation-based sulfate standard that sufficient porewater iron will protect wild rice plants from adverse effects of sulfate

[45] John Pastor *et al*., Effects of sulfate and sulfide on the life cycle of Zizania palutris in hydroponic and mesocosm experiments, Ecological Applications, 27(1), 2017, pp. 321-336.
[46] John Pastor, Progress Report on Experiments on Effects of Sulfate and Sulfide on Wild Rice, June 13, 2016, attached.
[47] John Pastor, Progress Report on Experiments on Effects of Sulfate and Sulfide on Wild Rice, June 30, 2017, attached.
[48] *Id*.

loading by binding the reduced sulfide. Since this fundamental assumption is incorrect, the proposed formula that relies on it is not "scientifically defensible," and the politically-motivated adoption of the standard is not based on a "sound scientific rationale." Because the proposed rule violates the CWA's regulations, it cannot be approved. Additionally, because wild rice populations grown in the high-sulfate treatment mesocosms rebounded when sulfate loading ceased, the ongoing experiments provide compelling, if not conclusive, evidence that natural stands of wild rice could in fact be restored if sulfate loading was controlled through permit limits and wastewater treatment.

2. Evidence that 120 ug/l sulfide may not be sufficiently protective (TSD Appendix 5,6)

The SONAR at p. 67 states that EPA's general guidelines on effect concentrations recommend the use of an EC 20 or EC 25 to protect aquatic communicates (assemblages of species) from chronic exposure to a chemical. This was the agency's justification in their 2014 preliminary analysis for proposing to base their "protective" sulfide concentration on the EC20, and suggesting that 300 µg/L sulfide was the appropriate threshold for harmful effects to wild rice. MCPA's initial approach was contradicted by the findings of the MCPA Peer Review panel, with which the Band concurs.

According to EPA guidance specific to deriving numeric criteria to protect aquatic organisms:[49]

> To be acceptable to the public and useful in field situations, protection of aquatic organisms and their uses should be defined as prevention of unacceptable long-term short-term effects on (1) commercially, recreationally, and other important species.
>
> Monitoring programs intended to be able to detect unacceptable effects should be tailored to the body of water of concern so that necessary samples are obtained at enough times and places to provide adequate data on the populations of the important species, as well as data directly related to the reasons for their being considered important.
>
> The amount of decrease in the number of taxa or number of individuals in an assemblage that should be considered unacceptable should take into account appropriate features of the body of water and its aquatic community. Because most monitoring programs can only detect decreases of more than 20 percent, any statistically significant decrease should usually be considered unacceptable. The insensitivity of most monitoring programs greatly limits their usefulness for studying the validity of criteria because unacceptable changes can occur and not be detected. Therefore, although limited field

[49] Guidelines for Deriving Numerical National Water Quality Criteria for the Protection Of Aquatic Organisms and Their Uses PB85-227049 (December 2010 electronic version of the 1985 Guidelines)

> studies can sometimes demonstrate that criteria are underprotective, only high quality field studies can reliably demonstrate that criteria are not underprotective.
>
> The Final Plant Value should be obtained by selecting the lowest result from a test with an important aquatic plant species in which the concentrations of test material were measured and the endpoint was biologically important.

The MPCA Peer Review panel had suggested using a more conservative protective concentration than the generic guidance (e.g., EC10 or EC5) because the goal was to protect a single species, not a community where multiple species may fill the same ecological niche. They proposed adopting a working hypothesis that less than 75 µg/L may be the threshold for adverse effects, but also stated it could be as low as 20-50 µg/L; this was based upon their review of the field survey data. In this rulemaking, MPCA is now proposing to use the more conservative EC10, and calculated various "protective" sulfide concentrations based upon different representations of sulfide exposure. The agency has defined their "protective" sulfide concentration as an effect concentration at which some "minimal effect" is allowed, and provides justification for their determination that 120 µg/L sulfide is the appropriate EC10 "protective" porewater sulfide concentration. They acknowledge that all of the lines of evidence used to relate porewater sulfide to the presence or absence of wild rice have large confidence intervals, but arrive at 120 µg/L as their proposed "protective" level of sulfide.

Field survey data would best characterize the conditions under which wild rice populations are self-perpetuating over many generations, but at this time MPCA simply does not have sufficient data to show that *any* wild rice water body is self-perpetuating. To be more conservative (i.e., protective) a lower EC value should be used; we agree with the Scientific Peer Review team recommendation that an EC_5 be considered. A relevant example is the field-based benchmark conductivity standard that EPA developed for the Appalachian coal mining region; that Scientific Advisory Board-approved process used an 'extirpation coefficient' of 5, in order to protect aquatic communities from degradation as compared to reference streams. This EC_5 represented an aquatic life endpoint concentration of a contaminant (in this case, conductivity) above which 5% of the expected native macroinvertebrate taxa were 'missing' or extirpated from the waterbody. Research confirmed that substantial aquatic life effects have already occurred when conductivity levels reached 500 µS/cm,[50] so the benchmark was set at 300 µS/cm, which was generally protective of biological condition.

[50] Pond, G.J., M.E. Passmore, F.A. Borsuk, L. Reynolds, and C.J. Rose. 2008. Downstream Effects of Mountaintop Coal Mining: Comparing Biological Condition Using Family- and Genus-Level Macroinvertebrate Bioassessment Tools. J. N. Am. Benthol. Soc. 27(3):717-737.

In Figure 2 of the SONAR (Empirical examination of the average proportion of sites with wild rice above or below a given porewater sulfide concentration), MPCA calls attention to a dip in the line representing "a notable reduction in the proportion of sites with rice", and implies that confirms their determination that 120 µg/L sulfide is actually protective of wild rice. However, this is not in fact evidence of a change in response of wild rice (presence) to sulfide concentration; it is only an artifact of the number of samples with a concentration near 120 µg/L. MPCA suggests that this represents some change in the rate of response, but their change point analysis has such a broad 95% confidence interval (25-368 µg/L) that it should not be relied upon. The Peer Review panel's observation of apparent adverse effects at substantially lower sulfide concentrations is supported by the MPCA's field survey dataset, which shows a decline in wild rice abundance at approximately 75µg/L.

The comments submitted by the Superior National Forest dated November 15, 2017, also illustrate the flaws in the MPCA's untested equation. As the Superior National Forest correctly noted, the equation was developed in part to address the costs of treating wastewater, even though "economic considerations are not to be considered when setting a water quality standard." Superior National Forest Comments at 12. The Superior National Forest then tested the equation by applying data for some of the sites in the field data set. That analysis clearly showed that the equation "sets unrealistic values" including extremely high sulfate standards in some cases, a "large ranges of values for the same site" that "makes compliance determination difficult," and sulfate standards that in some cases exceed the drinking water standard for sulfate. Superior National Forest Comments at 13. These erratic results simply confirm that the use of the equation in proposed rule will not "protect the designated use" of wild rice waters in Minnesota. See 40 C.F.R. § 131.11(a)(1).

The Band maintains that any measurable diminishment in wild rice should be considered significant, and the "protective" sulfide threshold should be set at the concentration where a negative correlation between wild rice presence and sulfide concentration becomes evident. This is especially important to protect the Chippewa treaty rights.[51] We assert that the EC5 or even the "no effect" concentration (NOEC) is the reasonable protective concentration, when holistically considering the ecology of wild rice, its vastly diminished geographic range, its natural annual variability in production, and the adverse effects of other well-known stressors such as hydrologic alterations, invasive species, and climate change. These are all important aspects of

[51] *See* Revision of Certain Federal Water Quality Criteria Applicable to Washington, 81 Fed. Reg. 85,417, 85,422 (Nov. 28, 2016) (quoting 33 U.S.C. § 1371(a)).

wild rice ecology for which the Tribes have shared knowledge of with the MPCA, as distinct and compelling reasons for incorporating wild rice population studies that could validate either the existing or any proposed revised sulfate criterion. This is consistent with the Peer Review panel recommendation.

3. Lack of ecologically relevant endpoint.

EPA's guidelines document for aquatic life use criteria also states:

> The Final Plant Value should be obtained by selecting the lowest result from a test with an important aquatic plant species in which the concentrations of test material were measured and the *endpoint was biologically important* (emphasis added).

It is problematic that MPCA has failed to provide any data, or even propose a monitoring plan for collecting data, that is directly related to their defined use: a harvestable food source for humans and wildlife. For a waterbody to serve as a harvestable food source for humans or wildlife, it must have a sustained population of wild rice from year to year, with allowances or understanding of natural cyclical variability. To demonstrate that a given wild rice water is actually meeting that designated use would require population or stand density surveys over time, which the Band has long encouraged the MPCA in collaboration with its sister agency, the DNR, to conduct. We have shared with MPCA a simple, straightforward, standardized field methods protocol for doing just that[52], one that was developed along methods used by the 1854 Treaty Authority in their long-term wild rice monitoring program, and that we and nearly 20 other Tribes across the upper Great Lakes are currently using to collect wild rice monitoring data on our tribal waters. However, the agency maintains that they do not have sufficient staff or resources to carry out that level of monitoring.

But, just as importantly, the agency has also neglected to validate their proposed equation-derived "protective" sulfate standard with any kind of study or analysis that could positively correlate the calculated standard with some measure of the health or condition (biological integrity) of the wild rice water. This is the type of analysis necessary to demonstrate that the calculated "protective" sulfate standard is indeed protective of the resource. Instead, the sole means for assessment for wild rice waters that MPCA is proposing is compliance with the equation-derived "protective" sulfate concentration.; that approach is circular logic, not

[52] Kjerland, T., 2015, Wild Rice Monitoring Field Guide. The University of Minnesota Sea Grant Program, Publication #SH15.ISBN 978-0-9965959-0-2.

biologically important evidence. Despite consistent recommendations from the Band that the MPCA define a biologically relevant endpoint for assessing whether wild rice waters are meeting their designated use, the agency is stubbornly moving forward with a revised water quality standard for wild rice that has never been demonstrated to be protective of the use, never mind indicative of biological or ecological integrity, as the CWA requires.

Additionally, in the Band's discussions about the ecological significance of manoomin, we have strongly suggested using a floristic quality index approach to actually monitor the condition of the state's wild rice waters. The concept of species conservatism is the foundation for a floristic quality assessment ("FQA"), and each native plant species has been assigned a *coefficient of conservatism* ("*C*"), generally following the methodology in Swink and Wilhelm.[53] Coefficients of conservatism range from 0 – 10 and represent an estimated probability that a plant species is likely to occur in a landscape relatively unaltered from what is believed to be pre-European settlement condition (i.e., not degraded). Plant species that have narrow habitat requirements and/or little tolerance to disturbance have high *C*-values and vice versa. The MPCA has already fully developed the FQA for use in Minnesota's wetlands,[54] and established the *C*-value for wild rice as an "8", indicating its presence in a waterbody is indicative of a high-quality condition.

In accordance with the MPCA's stated commitments during the 1998 rulemaking, the agency should develop a productivity index, similar to the FQA or other appropriate plant indices, defining ranges that incorporate acreages or linear extents (GIS polygons) and densities representative of the range of natural variability. This would address the legislative direction on defining 'size of stand' metrics. Consistent with the agency's approach for monitoring and assessing aquatic life use in the state's other critical water resources[55], the MPCA could reasonably consider establishing a biocondition gradient that defines an ecologically relevant range of condition that can be measured according to standard methodology, such as the Kjerland manual. This could be supplemented by historic record (oral histories, harvester surveys, sediment record), number of years of survey, exceedences of water quality criteria, etc., to accurately assess whether: a) the stand is diminishing, at which point they would pursue the stressor identification process and identify approaches for removing the impairment and restoring the resource; or, b) the stand is relatively healthy, reflecting natural oscillation, and attaining its designated use. Indeed, this level of effort is a necessary component for assessment

[53] Swink, F. A. and G. S. Wilhelm. 1994. Plants of the Chicago Region, fourth edition. MortonArboretum, Lisle, Ill.
[54] Milburn, S. A., M. Bourdaghs, and J. J. Husveth. Floristic Quality Assessment for Minnesota Wetlands.Minnesota Pollution Control Agency, St. Paul, Minn.
[55] *See,* e.g., https://www.pca.state.mn.us/water/tiered-aquatic-life-uses-talu-framework

which MPCA has not done as part of its rulemaking process. Compliance with an untested sulfate standard is simply insufficient for assessing the health and integrity of a wild rice water.

4. The numeric sulfate standard, which is predicated solely on the toxic effects of sulfide in sediment pore water, ignores other harmful effects of sulfate on wild rice waters.

MPCA is deliberately ignoring other sulfate effects on wild rice, such as its interaction with phosphorus, which can lead to eutrophication and degradation of wild rice populations, despite explicit direction from MN Legislature to explore the correlation between wild rice and sulfate levels to better understand the way(s) in which sulfate affects wild rice. This well-known limnological response was also clearly recognized during the Peer Review process.(TSD Appendix 1). Yet MPCA intentionally omits data from sites that did not have "sufficient transparency" to support wild rice, in its analyses for identifying a protective sulfide concentration (TSD p. 64), and maintains that the EC 10 estimate of 91µg/L sulfide calculated *without* the turbid waters is more defensible than the EC 10 estimate of 58 µg/L sulfide calculated with them included. The agency claims that elevated sulfide is not responsible for the lack of wild rice when transparency is inadequate to support wild rice. This statement is inaccurate, at best; in the case of the excluded waters, sulfide is not *directly* responsible for the lack of wild rice (i.e., toxic effects), but it most certainly is *indirectly* responsible for the lack of wild rice by diminishing water clarity and affecting seed germination and early growth. This scenario should certainly be accounted for in MPCA's proposed rule revisions, and this indirect sulfate effect should be acknowledged. The discrepancy between calculated EC 10 concentrations when turbid waters are included or excluded only provides further justification for a lower protective sulfide concentration to be used.

MPCA has also deliberately excluded any analysis or evaluation of sulfate effects on mercury methylation and bioaccumulation, despite this clear adverse relationship. Wild rice waters also provide nursery, forage and refuge habitat for a wide variety of fish species, many of which are also traditionally harvested and consumed by Band members and Minnesota sportfishers. Elevated sulfate clearly and adversely contributes to our mercury-impaired waters, and this adverse effect should also be taken into consideration when determining a "safe" level of sulfate loading to any waterbody, wild rice waters included. It is not legal, under the CWA, to permit additional pollutant loads that would cause or contribute to an exceedance of water quality standards in waters that are already impaired. 40 C.F.R. § 122.44(d)

MPCA went into great depth (TSD Appendix 2) to defend their assumptions quantifying wild rice as a food source for waterfowl, but the agency simply does not evaluate any potential adverse effects of sulfate loading on the nutritional quality of wild rice as an important food source for humans. However, the more recent research results from Dr. Pastor and his graduate

student, Sophie LaFond-Hudson, appear to demonstrate the physical inhibition of nutrient uptake by the adherence of iron sulfide plaques on the roots of wild rice plants, at the specific point in the plant's life cycle when they are directing all of their energy into reproduction (flowering and seed formation). Given that earlier experimental mesocosm treatments showed that excess sulfate (reduced to sulfide) led to reduced seed size, biomass and seed production, it is justified and relevant to consider that sulfate loading may correlate with reduced nutritional quality in wild rice. MPCA's narrow focus on only direct sulfide toxicity effects to wild rice is an inadequate response to the Legislature's instruction, and is not scientifically defensible.

5. *MPCA's proposed application and implementation of the numeric sulfate standard is flawed and there is not sufficient evidence to show that it will protect wild rice waters.*

MPCA is proposing to apply the new equation-derived numeric sulfate standard as an annual average, on the basis that 1) sulfide toxicity is not instantaneous; it occurs over time and exposure to biogeochemical processes that transform sulfate to sulfide, and 2) the annual average is consistent with the data and empirical statistical relationship upon which the equation is based. The agency points out that EPA recommends maximum pollutant concentrations in water quality standards only if the pollutant is directly toxic to the plant or animal species. The Band would argue that in all probability there exists an acute toxic sulfide concentration for wild rice, but MPCA has not experimentally or in any other manner derived it. In the SONAR (p. 80), the agency points out that it wasn't until the third year of the mesocosm experiments (Pastor et al, 2017) that wild rice growth and reproduction was significantly affected by the 100 mg/L treatment, but it is also the case that the 300 mg/L and 150 mg/L treatment mesocosms showed significant adverse effects in the first and second years. And the iron sulfide plaques that formed in the newer experimental treatments appeared relatively quickly at the point in the growing season when the wild rice plants ceased to release oxygen at the root zone. This suggests that there actually may be a discrete time in the growing season when wild rice plants are exceptionally vulnerable to the effect of sulfate loading and reduction to sulfide.

Regarding the second point, the MPCA argues that surface water grab samples used to develop the equation "were taken in a fashion that approximated random samples of the waterbodies, and therefore, approximated the average sulfate concentration." (SONAR p. 80) But these were single (one-time) grab samples that were then related to sediment organic matter and iron via the binary logistic regression. They do not represent any natural seasonal variability in sulfate concentration, and certainly do not represent any anthropogenic variability in sulfate concentrations that may result from fluctuating (volume and concentration) wastewater discharges from a regulated facility. It stretches credibility to argue that the field data grab samples "are almost like averages", and then contend that implementing the standard as an

annual average is consistent with the way that the standard was derived. Permitted dischargers could essentially "flush" higher sulfate waters periodically, or strategically time their effluent monitoring sample collection to keep their annual average concentration below their sulfate permit limit. They could be compliant with their permit requirements but still put downstream receiving wild rice waters at risk.

The MPCA also assumes that the variables known to control porewater sulfide (sulfate, sediment organic carbon, and sediment iron) are in steady state. However, the vast majority of their study sites did not receive point source discharges that would cause significant fluctuations in sulfate concentrations over time (SONAR p. 80). Clearly, facilities that should require a sulfate effluent limit in their permit are not only affecting sulfate concentrations in receiving waters with their current uncontrolled releases, but over time, their sulfate loading could conceivably diminish the available pool of sediment iron, which may not be replenished at the rate of reaction with sulfide. MPCA simply does not have the scientific evidence to support their steady-state assumption.

MPCA claims (SONAR p. 82) that average concentrations of sulfate above the allowable standard in one year out of ten would not have a significant impact on wild rice populations in the long run, citing Dr. Pastor's experiments in support of this conclusion. While the agency must consider the allowable frequency of excursions as part of revising its water quality standards, it should also be stated clearly that Dr. Pastor's experiments were not designed to determine what that frequency might be. The MPCA's decision to allow a one-in-ten year excursion from the annual average sulfate limit is premature and requires further experiments designed specifically to determine what frequency of excursions would not harm the long term sustainability of wild rice populations.

The final rationale provided for allowing a one-in-ten year excursion from the annual average sulfate limit improperly interprets 1854 Treaty Authority long term field data (SONAR p. 83). The MPCA refers to the example of Kettle Lake in Carlton County suffering a complete loss of wild rice during the 2012 extreme flood event, but the following year experiencing a higher than average stem density. The agency references the existence of a viable seed bank in natural wild rice waterbodies that allows recolonization even when environmental disturbance eliminates all growing plants in a single season. The MPCA cannot assume that this natural resilience of wild rice will be realized if an anthropogenic disturbance such as excessive pollutant loading occurs. The only existing data that is relevant to that issue are the latest mesocosm results (Pastor progress report, June 2017), where only about half of the high sulfate treatment mesocosms rebounded when the sulfate loadings ceased. It is not scientifically justified to assume that natural long-term variability (the "boom-bust cycle") equates to assurance that wild rice waters will easily recover from a year of sulfate loading above a protective concentration. There are no

guarantees that other stressors won't overwhelm a wild rice water's ability to rebound simply because of its seed bank.

F. MPCA must remove all wild rice waters within the Fond du Lac Reservation from its list under the rule revisions.

The MPCA proposed list of where the wild rice water quality standard applies includes waters that are completely or partly within Indian reservations. The MPCA states that it will not list waters within reservation boundaries if specifically requested by a tribe during the public comment period. The Fond du Lac Band here advises the MPCA that the State's water quality standards for wild rice should **not** apply to waters that are completely or partly within the Fond du Lac Reservation. The Fond du Lac Band has Treatment as a State status ("TAS") under the CWA, and, as such, has jurisdiction over reservation waters. The Fond du Lac Band has been and will continue to regulate and enforce the Band's water quality standards for all waters that are wholly or partly within the Reservation, including the water quality standards necessary to protect wild rice, which the Band believes are more protective of this critically important resource.

Furthermore, all of Minnesota's wild rice waters, whether designated by the state or not, are also federally protected as tribal traditional cultural properties under Section 106 of the National Historic Preservation Act (NHPA).[56] The NHPA requires not only that a project with the potential to impact traditional cultural properties must carefully analyze potential impacts, but also stipulates that appropriate mitigation must be done or a project cannot proceed.

G. The proposed rule would leave the Chippewa bearing a disproportionate share of the negative environmental consequences.

The environmental justice analysis in the SONAR is also flawed. As set out in the SONAR, the MPCA's environmental justice policy, which is similar to that established by the US EPA, states:

> The Minnesota Pollution Control Agency will, within its authority, strive for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

[56] *See* 36 C.F.R. §§ 800 *et seq.*

> Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

SONAR at 134. In the SONAR, the MPAC also correctly recognizes that

> An aspect of wild rice that affects the review of potential disproportionate impact is its singular importance to the Ojibwe and Dakota people. No other natural or environmental resource in Minnesota is so central to the heritage of a group of people; and the generally marginalized status of native culture makes this even more critical. Wild rice is certainly of economic importance to native harvesters and valued as a source of food, but it is also a very important spiritual component of native culture. . . .
>
> the cultural and spiritual importance of rice could be seen as making any diminishment of rice an impact that disproportionately falls upon Native American communities. Several Minnesota tribes feel that such a disproportionate impact does exist.

SONAR at 135.

The MPCA then concludes that because, in its view, the proposed new standard for wild rice "provide more accurate protection" it will "not have any negative effect on the growth, harvesting, or sustainability of wild rice. It will not exacerbate any existing disproportionate impacts or environmental justice concerns." SONAR at 134-135. The conclusion is wrong because its premise is wrong. For the reasons detailed above, the proposed new rule will not be more protective of wild rice. The proposed rule will reduce the number of waterbodies that have a designated/existing use for the production of wild rice without complying with the standards required by the Clean Water Act. The proposed rule replaces a clearly determinable objective numeric standard that has been demonstrated effective to protect wild rice, and substitutes an equation that is based on a series of assumptions which have not yet been tested. These, and the other flaws discussed above, mean that the proposed rule is less protective than the existing rule. Given the recognized and well-established importance of wild rice to the Chippewa people, it is the Chippewa who "will bear a disproportionate share of the negative environmental consequences" of the proposed rule, if adopted.

We look forward to further consultation with the MPCA on this rulemaking, and reviewing major changes in the proposed rule as the agency considers the comments received.

Sincerely,

Nancy Schuldt