# MPCA Wild Rice Advisory Committee
# Summary of Concerns of Committee Members and Public Participants
# May 19, 2015[1]

## Wild Rice Waters Definition Concerns

- MPCA has not provided any legal basis for the definition that wild rice must be self-perpetuating in order to be protected. (P. Maccabee, WaterLegacy)
- MPCA has not provided any factual basis for the definition that there must be 8,000 stems for wild rice beds in lakes, 800 stems over a river mile or approximately two stems per meter. (Several commenters)
- MPCA has provided no peer reviewed literature to support this definition. No peer-reviewed literature on population dynamics was included in the bibliography. A science-based decision on the number of stems required for protection of wild rice must be based on peer-reviewed literature on population dynamics. (L. Anderson, Committee Member)
- The evidence in this record, from several years of mesocosm wild rice self-perpetuation would seem to contradict the assumption that 8,000 stems would be needed in a lake for wild rice to be self-perpetuating. (P. Maccabee, WaterLegacy)
- None of the MDNR data or other lists from which wild rice waters were derived contain stem count information. The assumption (Shannon Lotthammer) that two acres would serve as a proxy for 8,000 stems is not factually supported. (K. Hoffman, MCEA)
- Whether a two-acre threshold is used as a proxy 8,000 stems or is simply imposed as a threshold, there has been continuing and widespread objection that such an acreage threshold is not protective of wild rice. (Several commenters)
- MPCA has provided no rationale for designating a unique class for protection of wild rice, rather than including the wild rice as another category of aquatic life standards in Class II waters. (N. Schuldt, Fond du Lac)
- MPCA has provided no justification for excluding any of the 1,286 wild rice waters identified in the Minnesota Department of Natural Resources (MDNR) 2008 report to the legislature. (Several commenters)
- The MDNR data was legislatively directed, was intended to inform the State as to where wild rice was present and at risk, is compatible with MPCA approach, and should be used. (N. Schuldt, Fond du Lac)
- Restricting wild rice waters to sites with wild rice acreage of two acres or more can be very arbitrary. Even some of the sites used for harvest of wild rice can be small in acreage, but quite dense. (L. Anderson, Committee Member)

[1] This summary was compiled by WaterLegacy Advocacy Director and Counsel, Paula Maccabee (pmaccabee@justchangelaw.com) on June 8, 2015 based on detailed electronic notes of the proceedings. It reflects the author's perception of the questions and concerns of various participants.

- The MPCA's definition of wild rice would not reduce uncertainty; it would increase uncertainty. (P. Maccabee, WaterLegacy)

**Wild Rice Sulfate Standard Approach Concerns**

- MPCA analysis doesn't attempt to measure the effect on wild rice and doesn't reflect the potential for population extinction over time, since it only looks at a single point in time and whether wild rice is "present" or "absent." Mesocosms where sulfate was added show population change and extinction over time. (P. Maccabee, WaterLegacy)
- Application of the EC10 nomenclature to the MPCA's formula is not appropriate. The statistical methodology looking at wild rice presence or absence in the field is not equivalent to a no observed adverse effects level (NOAEL) or a no observed effects level (NOEL). (P. Maccabee, WaterLegacy)
- MPCA analysis insufficiently reflects mesocosm data and prediction of sulfate and sulfide. (H. Markus, Public Participant)
- MPCA has no experimental data on the effects of adding both iron and sulfate or the effects of iron sulfide precipitate on the growth and persistence over time of wild rice. (P. Maccabee, WaterLegacy)
- MPCA should disclose at what level of sulfide a 5% effect on the presence of wild rice presence was identified and justify the use of any level above 5% to protect wild rice from extinction. (K. Hoffman, MCEA)
- MPCA's presentation to the Committee omitted the slide on page 14 of the MPCA's March 24, 2015 Report[2] that showed a scatter of predicted sulfide to sulfate. Data showing the poor fit of prediction of sulfide using MPCA equation should have been shared with the Committee. (P. Maccabee, WaterLegacy)
- Use of excess iron from anthropogenic sources to justify more sulfate discharge is inappropriate regulatory practice; any standard should be based on background unimpacted waters. (H. Markus, Public Participant)
- MPCA equation approach doesn't consider extreme variability of chemistry over time and over spatial area. Variability is a big red flag for implementation and appropriateness of the approach. (N. Schuldt, Fond du Lac)
- Data sets with consistent monitoring methodology over the long term have the greatest power, Tonya Kjerland's published method for monitoring wild rice stand density should be used statewide. (N. Schuldt, Fond du Lac)
- MPCA's proposed approach lacks legal, regulatory, or scientific peer-review support or documentation. (Several commenters)

[2] MPCA, *March 2015 proposed approach for Minnesota's sulfate standard to protect wild rice* (March 24, 2015) Figure 9. Modeled porewater sulfide concentrations (based on Equation 2) compared to observed porewater sulfide for the data that was used to calibrate the model.