Response to Comments on the Draft 2026 Wisconsin Consolidated Assessment and Listing Methodology (WisCALM)

July 2025

Water Evaluation Section, Water Quality Bureau
Environmental Management Division

A public comment period on the Draft 2026 WisCALM was held from March 26th to April 24th, 2025. Comments from three entities were received. In some cases, comments have been truncated to focus specifically on the recommendations. Click here for a full copy of all comments.

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Response to Shania Nordby, Environmental Director, Red Cliff Band of Lake Superior Chippewa

Comment 1: *"I had some Red Cliff staff review the draft WisCALM and there were some comments regarding the lack of acknowledgement given to Tribes or Treaties throughout the document. There is also no indication that the WiDNR Tribal Liaison was involved in the drafting or reviewing of the document. Lastly, regarding the standards for the 303(d) waters and if the "use" associated adequately considers Tribal harvesters and Tribal Treaty Rights. "*

The intersection of the Clean Water Act with the rights and interests of Tribal nations is an important topic that is not currently addressed in WisCALM. In order to give this topic the attention it deserves, WDNR will review WisCALM, identify areas where it is relevant to include information on Tribes and Tribal interests, and include these changes in the 2028 WisCALM. WDNR will also add a new section to the 2026 Integrated Report containing a full discussion of the intersection between Wisconsin Tribal Nations and WDNR's implementation of the Clean Water Act.

WDNR recognizes that while the Public Health and Welfare and Wildlife designated uses protect wildlife that rely upon surface water and human consumption of fish and ingestion of water, these designated uses may not adequately protect the full exercise of Tribal Treaty rights. Specifically, harvest of wild rice and unsuppressed consumption of fish may not be possible even when the waters in question are considered unimpaired under current WisCALM.

As part of the Triennial Standards Review process, WDNR is coordinating with the Great Lakes Indian Fish & Wildlife Commission to explore new water quality standards and designated uses to protect Tribal Treaty rights and Tribal harvest. Once new standards and/or designated uses are developed and codified, subsequent WisCALM and waterbody assessments would be updated accordingly.

Response to Southeastern Wisconsin Regional Planning Commission

Comment 1: *"The Mac-Gen* [Macrophyte Assessment of Condition-General] *model was developed using aquatic plant data from 983 point-intercept surveys conducted across Wisconsin between 2005 and 2012.[1] As of May 2025, that database has grown to 2,994 point-intercept surveys and likely includes much more data for plant species that were previously not considered by the model, such as the relatively novel invasive species starry stonewort (Nitellopsis obtusa).[2] To ensure that the impairing listing methodology is up to date, the WDNR should consider updating the Mac-Gen model periodically with the updated aquatic plant dataset to include previously unconsidered species, such as starry stonewort, as well as reevaluate the tolerances for already considered species."*

> WDNR recognizes that taxa tolerances can be refined or for new species, introduced. Altering existing macrophyte tolerance values or introducing new values would also require re-calculating the condition thresholds for MAC-Gen and MAC-P models. For example, for Southern drainage lakes the percentage of littoral points with tolerant species must remain below 50% for the lake to achieve the MAC-Gen standard. It should be noted, that because these numbers are included in Wisconsin Administrative Code, WDNR would have to go through the administrative rule process to update them. WDNR will evaluate whether updating the MAC-Gen and MAC-P models would result in substantially more accurate conditions assessments.

Comment 2: *"The WDNR should consider the interplay between an impairment listing based on the Mac-Gen model and chemical herbicide applications. Considering lakes with recent herbicide applications as ineligible for evaluation may incentivize the use of herbicides as a means to avoid an impairment listing on lakes with clearly degraded aquatic plant communities. Additionally, it appears that any chemical application, regardless of application size relative to the lake surface area, renders a lake ineligible for consideration. Consequently, some very large lakes within southeastern Wisconsin, such as Geneva Lake, are currently "Not Attaining" based on this model and may be designated as impaired, but are presumably considered ineligible for assessment based on localized chemical applications that likely do not affect the lake-wide aquatic plant community.[3] The WDNR could also consider how this chemical application ineligibility affects consideration of new aquatic plant data. For example, if a lake listed as impaired based on the Mac-Gen model begins to utilize chemical applications, would subsequent aquatic plant data be ineligible for consideration and thus locking the lake into its impairment listing even if the lake would otherwise be "Attaining"?"*

> WDNR will reconsider whether a small-scale herbicide application should render a lake ineligible for an evaluation of the aquatic plant community. Despite the fact that chemical treatments could theoretically be used to avoid a listing, WDNR considers this unlikely, given the time and expense involved in obtaining a chemical treatment permit. Lakes could also conceivably be 'locked in' to certain assessments if there are many consecutive years of treatments, however it would also be inappropriate to apply aquatic plant metrics for these lakes, as the plant community would be in flux. In these cases, it may be useful to pursue other monitoring activities such as nutrient sampling or clarity measurements. If other assessment methods overwhelmingly supported a change in listing, WDNR could support this change using a weight of evidence approach and best professional judgement. Lake groups conducting treatments should consult with their lake biologist or rely upon their lake management plan when considering a chemical treatment.

Comment 3: *"The WDNR should consider incorporating metrics such as species richness, average number of native species per site shallower than maximum depth, floristic quality index and/or mean C value, and the*

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[1] *Mikulyuk et al., 2017,* op. cit.

[2] *The total number of surveys is presented on the splash page of the WDNR Aquatic Plant Explorer tool.*

[3] *See 2024 permit application for a chemical treatment affecting 2.0 acres in a relatively isolated lagoon of the 5,262-acre Geneva Lake. https://permits.dnr.wi.gov/water/SitePages/DocSetViewDet.aspx?DocSet=AP-IP-SE-2024-65-X02-16T11-46-38*

percentage of littoral points with an invasive species present, in addition to this model for waterbody assessments to help evaluate these edge cases.[4] *These metrics could be considered with respect to the lake morphology, type (e.g., drainage, seepage, impoundment), region of the state, and water alkalinity or pH (when known) as these factors can help determine which aquatic plant species may occur in that lake in undisturbed conditions.*[5,6,7] *Utilizing these other metrics in addition to the Mac-Gen model results may provide a more comprehensive evaluation of the aquatic plant community and remove challenges stemming from lake ineligibility due to herbicide applications and/or status as an impoundment*."

Under current WisCALM, WDNR may consider these additional aquatic plant metrics when evaluating a waterbody using best professional judgement (2026 WisCALM section 10.2). For cases where other assessment methods besides MAC-Gen / MAC-P are not possible, special attention may be given to additional aquatic plant metrics such as mean C (coefficient of conservation), FQI (floristic quality index), and native/invasive species littoral frequency of occurrence.

Incorporating additional metrics into WisCALM would require an update to Administrative Code and would need to go through the rule making process, which would entail substantial effort. WDNR will evaluate whether this should be pursued in a future rules update.

Response to Wendy Drake, Environmental Protection Agency (EPA) Region V

Comments 1-4: *Table 3, Section 2.3 Water Quality Condition Categories and Lists, row "5W". "These are not all referring to Nine Key Element (9KE) Plans – therefore, the colon should be moved to after 'following' and the different types of plans should be listed*."

"In addition, EPA doesn't approve all these types of plans and may not have reviewed all these types of plans either (e.g., 9KE plans). In the case of 9KE plans, the official term for a reviewed plan is acceptance, not approval, unless it as an alternative 9KE plan."

"Can 'CWA Section 319-funded watershed plans' be further defined? Will any 9KE plan meet this requirement, regardless of EPA staff review and receipt of 319 funding? If so, 'CWA Section 319-funded watershed plans' needs to either be removed for being duplicative or should be further defined."

"The 2024 IR Memo indicates that EPA is replacing the term 'Alternative Restoration Plan' with 'Advance Restoration Plan' moving forward (2024 IR Memo, p. 9). EPA has recommended that states discontinue the use of this term to address the potential misconception that these plans are alternatives to a TMDL. In addition, EPA does not approve ARPs: 'Because the water for which ARPs are pursued still remain on the CWA 303(d) list, EPA will not take action to approve or disapprove a state's, territory's, or authorizes tribe's ARP under CWA 303(d)' (2016 IR memo, p. 7)."

The colon was removed and the term 'CWA Section 319-funded watershed plans was removed and text edited for clarity. The term 'Advance Restoration Plan' was substituted for 'Alternative Restoration Plan' and 'accepted' for 'approved' when referencing EPA review of these plans. These substitutions were made throughout the document.

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[4] *The Commission used a similar approach when evaluating aquatic plant communities as part of the updated Regional Natural Areas plan. Turtle Lake scored above average for southeastern Wisconsin lakes with aquatic plant point-intercept data using this approach. See https://www.sewrpc.org/Regional-Planning/Natural-Areas for more information*

[5] *Vestergaard, O. and Sand-Jensen, K. "Alkalinity and Trophic State Regulate Aquatic Plant Distribution in Danish Lakes,"* Aquatic Botany *67, 2000.*

[6] *Mikulyuk et al., 2017,* op. cit

[7] *Lacoul, P. and B. Freedman, "Environmental Influences on Aquatic Plants in Freshwater Ecosystems,"* Environmental Reviews *14: 89-136, 2006.*

Comment 5: *"Section 3.2 Use of Monitoring Data from Other Sources, p. 12. This sentence could also reference EPA's QAPP Standard (https://www.epa.gov/system/files/documents/2024-04/quality_assurance_project_plan_standard.pdf), 'Data submitters outside of WDNR are referred to EPA's site for questions on quality assurance project plans at https://www.epa.gov/quality ."*

The suggested reference was added.

Comment 6-7: *"Section 8. Public Health and Welfare Use Assessment, p. 56: The main concern about the methodology for determining Public Water Supply Use support is the lake of available information to routinely make assessment decisions. As we said in the past, WDNR should aim to improve its monitoring information to support decisions using this methodology or consider changes to the methodology that could allow for more frequent use attainment decisions to occur with other readily available data.*

"We do not see any drinking water use assessment for the 2024 cycle in ATTAINS."

WDNR will review monitoring plans for upcoming field seasons and decide on a course of action for gathering more data on Lake Winnebago relevant to the public water supply use designation.

Comment 8: *"Why is only PFOA used as an indicator for the PWS Use assessment and not PFOS?"*

Data available to the department during the development of PFOA and PFOS standards indicated that PFOS readily bioaccumulates in fish tissue, while PFOA does not. Therefore, the primary exposure pathway for PFOS is fish consumption, while the primary exposure pathway for PFOA is drinking water consumption or incidental ingestion of surface water. The PFOS standard of 8 ng/L applies to all of the surface waters used for public water supply and is sufficiently protective of human health through the drinking water and incidental ingestion exposure pathways. More information may be found in the Rule Package Technical Support Document.

Comment 9: *"Section 9. Wildlife Use Assessment, Table 34, p. 61: Table 34 includes only four thresholds but the text of NR 105.07(1) includes a clarification that may be important to mention as a footnote: '(a) For any substance not shown in Table 7, the wildlife criterion (WC) is the lower of the available mammalian or avian wildlife values (WVs) calculated pursuant to sub. (2).' Subpart 2 includes directions for other thresholds.*

The sentence "Where sufficient data exist, wildlife criteria for any other substance may be calculated as described in NR 105.07(2)," was added.

Comment 10: *"Section 10.1.4. Hierarchy of Indicators, p. 63: Regarding* [the second paragraph]*, the last sentence appears to conflict with Table 18 on pp. 40 and 90 that shows when the TP criteria are exceeded (less than overwhelming exceedance) and the phosphorus response indicators show that non indicate impairment, the category is 2 and not 5P. Further clarification in section 10.1.4 is warranted.*

Text in section 10.1.4 was changed to clarify that waters with a phosphorus exceedance by less than an overwhelming amount and at least one biological indicator showing good health are placed in Category 2 (attaining the AL use). Table 40 and 90 are correct.

Comment 11: *Section 11.2 Priority Ranking for TMDL Development, p. 71: The link to Wisconsin's 'Water Quality Restoration and Protection Framework' is to a 2015 document. Also, does any of the text in this section need to be updated based on the new 2022-2023 prioritization framework?"*

Text in this section was updated to reflect newly completed and ongoing TMDLs. A new version of the Water Quality Protection and Restoration Framework is undergoing final revisions and will be completed in 2025.