# 2026 Water Condition Lists: Summary of Public Comments and the WDNR's Responses

**April 2026**

Water Evaluation Section, Water Quality Bureau
Environmental Management Division

A public comment period on the Draft 2026 Water Condition Lists was held from February 16th to March 18th, 2026. Comments from seven entities were received. In some cases, comments have been truncated or summarized. Click here for a full copy of all comments.

## Contents

## Public Notice for the Feb. 16 – Mar. 18, 2026, Public Comment Period

# DNR Seeking Public Comment on Updated Water Condition Lists and TMDLs

**MADISON, Wis.** –The Wisconsin Department of Natural Resources (DNR) today announced that more than 80% of Wisconsin's lakes and rivers recently assessed are attaining water quality standards, continuing a trend of improved surface water quality across the state.

The Clean Water Act directs states to publish biennial lists of waterbodies detailing which are healthy, which are in the process of restoration and which still need a plan to achieve good health. These lists are, respectively, the Waters Achieving Standards, Waters in Restoration and Impaired Waters lists. The DNR is seeking public comment on these draft lists and will hold a public informational meeting on March 2.

Although the majority of waterbodies are in good condition and have been placed on the list of Waters Attaining Standards, 92 new waterbodies or segments are now classified as impaired. Placing waters on the Impaired Waters List means those waters require a restoration plan to improve aquatic habitat, recreation opportunities or fish consumption.

A total of 100 new pollutant listings are proposed; a waterbody can have multiple pollutant listings. Some of the new listings are on waters already identified as impaired. The most common new pollutant listings in this review cycle are for total phosphorus, *E. coli* and Perfluorooctane Sulfonate (PFOS).

"The newly listed waterbodies reflect the DNR's commitment to locating and addressing the dominant sources of surface water pollution across the state," said Justin Chenevert, Wisconsin DNR waterbody assessment coordinator. "With hard work and sound science, we can hope to eventually remove the impairments from these waters. Depending on the pollutant, many waters listed as impaired are still beautiful resources and safe for the recreational activities that Wisconsinites and visitors alike enjoy."

Of the 100 new listings, 10 will be placed directly on the Waters in Restoration List because they are covered by an existing restoration plan called a Total Maximum Daily Load (TMDL) analysis. These listings are being added to the Milwaukee River Basin TMDL (four listings), Upper Fox-Wolf Basins TMDL (four listings), the Northeast Lakeshore TMDL (one listing) and Rock River Basin TMDL (one listing). The DNR is also seeking public comment on these TMDL additions.

Simultaneously, 15 impairment listings will be removed, with over half being for phosphorus. Overall, the 2026 draft Impaired Waters List contains 1,574 listings. The draft Waters In Restoration List contains 681 listings.

The public is encouraged to submit written comments regarding the new listings and TMDL additions by March 18 to DNRWYWaterbodyAssessments@wisconsin.gov or:

Wisconsin Department of Natural Resources
c/o Justin Chenevert, Water Quality
WY/3 P.O. Box 7921
Madison, WI 53707

The water condition lists are submitted to the U.S. Environmental Protection Agency every even-numbered year in accordance with the Clean Water Act. The DNR follows standard procedures to assess waterbodies against water quality standards.

Find the 2026 lists and other materials on the DNR's website.

**Public Information Meeting Event Details**

When: 1 p.m. Monday, March 2
Where: Virtual. Zoom link. Meeting ID: 811 1139 5449. Pre-registration is not necessary.

## List of Commenters

| Name | Organization | Topic |
|---|---|---|
| Wendy Drake | Environmental Protection Agency Region V | • Potential listing omission, inconsistencies between EPA and DNR databases |
| Stephanie Prellwitz | Green Lake Association | • Whether Fox-Wolf TMDL framework will result in attainment of water quality criteria<br>• Waters in Restoration Framing<br>• Realistic Restoration Pathways & Nonpoint Source Limitations<br>• Pathways to Implementing Restoration Activities in Green Lake Watershed |
| Leo A. Kucek | Applied Technologies | • Impairment status of sections of the Fox-IL river<br>• TMDL allocations and non-impaired waterbodies in the Fox-IL basin |
| Justin Poinsatte | Southeastern WI Regional Planning Commission (SEWRPC) | • Listing status of Turtle Lake, Walworth County |
| Linda Szramiak | Turtle Lake Improvement and Protective Association | • Listing status of Turtle Lake, Walworth County |
| Pat Malcolm | - | • Reporting waterbodies with PFAS compounds<br>• Signage and posting information about recreating on waterbodies with PFAS compounds |
| Scott Suder, Adam Jordahl | Wisconsin Paper Council, Wisconsin Manufacturers & Commerce | • Listings based on “unknown” pollutants<br>• PFOS listings based on fish consumption advisories<br>• Listings based on degraded aquatic vegetation |

## Changes to the Water Condition Lists Since Feb 16, 2026

| Waterbody Name | Assessment Unit ID | Changes Made |
|---|---|---|
| East Twin Lake | 26425 | *Correction:* Changed TMDL Priority to "Low" for the "Degraded Aquatic Vegetation" impairment |
| Burnham Canal | 3987930 | *Correction:* Added a new line in the "New Listings" sheet to show that there are two new impairments for Burnham Canal, previously the chloride and *E. coli* listings were combined on one line |
| Delavan Lake | 11618 | *Correction:* Changed the " |
| North Pipe Lake | 16525 | *Correction:* Changed the "Pollutant Listing Category" on the "New Listings" sheet to 5W. Combined two impairment listings for North Pipe Lake on the "Impaired Waters" sheet into one row. This cycle "Total Phosphorus" was added as the pollutant for the existing impairment for "Excess Algal Growth", therefore there is only one current impairment. |
| Beaver Creek | 10008 | *Correction:* Total Phosphorus impairment was removed from the "Waters In Restoration" sheet to reflect this delisting |
| Fourth Lake | 128115 | *Omission:* Added Fourth Lake to the "New Listings" and "Impaired Waters" sheets. This lake was mistakenly omitted from the draft Impaired Waters List despite the fact that fish tissue data show high levels of PFOS. DNR thanks EPA for highlighting this error. |
| Turtle Lake | 18244 | *Category change:* DNR is proposing to delist this waterbody after public comment. See "Response to Comments on Turtle Lake, Walworth County" below. |
| Spring Creek | 13609 | *Correction:* The Total Suspended Solids impairment for Spring Creek is proposed for removing this cycle; this impairment listing was still present on the "Waters in Restoration Sheet" and has been removed. |
| Fish Creek | 3924909 | *Correction:* AU Listing Category for this waterbody on the "Impaired Waters List" was corrected from 5A to 5P. Because the chloride impairment was proposed for removal this cycle and a non-overwhelming exceedance of phosphorus was documented this cycle, 5P is the correct AU Listing Category. |
| *Various waters* | - | *Correction:* Category 5W corresponds to listings where the impairment is expected to be addressed by 9-Key Element plan. Some 9-Key Element plans have expired since the last cycle, and any 5W listings with expired plans were moved to the appropriate category (usually 5A) |

# Wisconsin DNR Response to Comments

Portions of comments may be omitted for brevity as denoted by ellipses "…". Full comments may be found in the Public Comments on 2024 Draft Water Condition Lists Document.

## Listing Methodology

### PFOS Listings Based on Fish Consumption Advisories

Comment: "Once again, DNR has proposed several new listings on the basis of fish consumption advisories for PFOS-contaminated fish tissue (10 new listings in 2026). Our organizations have repeatedly objected to this practice.

The WisCALM guidance states that "Waterbodies may be designated as impaired on the 303(d) list based on the level of fish consumption advice."[1] In turn, that document cites a memorandum from the U.S. Environmental Protection Agency (EPA) which purports to allow the use of fish consumption advisories for section 303(d) water quality determinations.[2] This memorandum is another guidance document, and is not a statute or rule.

Again, the Department appears to be disregarding its own regulation, which provides that "Only water quality standards that have been promulgated via statute or rule may be considered for the purposes of listing a waterbody on the section 303(d) list."[3] Agency guidance, whether state or federal, cannot override a state law or rule that directly governs the Department's actions.

Fish advisories, like WisCALM or any other guidance document, are just that: advisory. They are not regulatory standards, which must be promulgated under the procedures and protections of the administrative rulemaking process. Neither the Wisconsin Statutes nor the Wisconsin Administrative Code provide specific fish consumption standards or calculation methods, and neither authority provides for the use of a fish consumption advisory as a water quality standard for the purpose of making a section 303(d) determination.*"* **(Scott Suder, Wisconsin Paper Council & Adam Jordahl, Wisconsin Manufacturers & Commerce)**

> **Response:** The 303(d) list is a prioritized list of surface waters in the state that do not meet applicable "water quality standards". Water quality standards include "numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements" (40 CFR 130.7(b)(3)). A surface water can be listed if it doesn't meet a designated use such as Public Health & Welfare (established in ch. NR 102.04(7), Wis. Adm. Code), including consumption of fish, even if all numeric criteria are being met.
>
> The use of fish consumption advisories to assess impaired waters is supported by statute and administrative rule. Section 281.15(1), Wis. Stats., reiterates the federal language by stating that "Water quality standards shall consist of the designated uses of the waters or portions thereof and the water quality criteria for those waters based upon the designated use. Water quality standards shall protect the public interest, which include the protection of the public health and welfare…". Chapter NR 102.50, Wis. Adm. Code, specifies "As required under sections 303 (d) and 305 (b) of the Clean Water Act, 33 USC 1313 (d) and 1315 (b), the department shall report to U.S. EPA on the status of the state's waterbodies and attainment of water quality standards every two years. Waterbody assessments are used to determine the condition of the state's surface waters or segments thereof and whether waterbodies are attaining state and federal surface water quality standards." A determination that a water quality standard is not met can be based on non-attainment of *either* a designated use or a criterion (or both), both of which are promulgated water quality standards.

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[1] Ibid., p. 60.
[2] U.S. Environmental Protection Agency, "Information Concerning 2026 *Clean Water Act* Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions," January 14, 2025.
[3] Chapter NR 102.51(2)(a), Wis. Admin. Code.

Restrictions on consumption of fish taken from specified waterbodies is a demonstration of an impairment of the public health and welfare use, established under s. NR 102.04, Wis. Adm. Code, in those waterbodies. In developing lists of impaired waters (i.e., the 303(d) list), states are required under 40 CFR 130.7(5) to make use of all available information to assess attainment of designated uses. Fish consumption advisories fall into the category of "available information", and EPA directs states to use fish consumption advisories as a basis for listing because they demonstrate that the public health designated use is not being met.

### Listings Based on "Unknown" Pollutants

Comment: "Once again, DNR has proposed several new listings on the basis of an "unknown pollutant" (28 new listings in 2026). And once again, as in past comments, our organizations strongly object to this practice, which appears to be based on criteria outlined in the Department's "Wisconsin Consolidated Assessment and Listing Methodology (WisCALM)," a guidance document.[4] The latest version of the WisCALM guidance states that an "aquatic life" (AL) impairment can be listed on the basis of an unknown pollutant:

> If a water has at least one biological metric exhibiting impairment over two years, the water can be listed as having an impaired AL use based on biology, under Category 5A. … However, if there is no pollutant exceeding its criterion then the "Pollutant" field associated with this impairment will be listed as "Unknown."[5]

In the WisCALM document, DNR claims that the Wisconsin Administrative Code authorizes this practice under "narrative standards:"

> Chapter 102.04(1)d Wis. Adm. Code provides narrative standards for the protection of fish and other aquatic life in surface waters, stating: "Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant or aquatic life."[6]

The Department's reference to "narrative standards" begs the question: what, exactly, are the "Substances in concentrations or combinations which are toxic or harmful to humans" or "acutely harmful to animal, plant or aquatic life," and at what levels are those substances harmful? Seeing as DNR cannot identify the pollutant(s) at issue, how can the agency justify an impairment listing? And how can a solution to address these "unknown pollutants" possibly be implemented? **(Scott Suder, Wisconsin Paper Council & Adam Jordahl, Wisconsin Manufacturers & Commerce)**

> **Response:** The term "cause unknown" is merely a placeholder term for cases where a waterbody is impaired but particular pollutant has not been positively identified. When an impairment of a designated use is identified, EPA's data system has a "Cause" field that must be filled. In cases where the cause of the impairment is not yet known, their data system requires entry of the term "Unknown". To use a medical analogy, it is equivalent to a doctor reporting that test results show that a patient's heart is not functioning well, but the doctor does not yet know the cause of the problem, which may be arteriosclerosis, a heart defect, high blood pressure, etc. In this analogy, this would be equivalent to "Designated Use = Health"; "Impairment = Cardiovascular system"; "Cause = Unknown". The doctor cannot neglect to report the heart problem simply because the cause is not yet known. If a designated use (which is a promulgated water

[4] Wisconsin Department of Natural Resources, "Wisconsin 2026 Consolidated Assessment and Listing Methodology (WisCALM) for CWA Section 303(d) and 305(b) Integrated Reporting," July 18, 2025.
[5] Ibid., p. 42. Note, this provision on listing an impaired AL use is the only section of the WisCALM document that refers to listing the pollutant(s) as "unknown." However, five of the proposed new listings for 2026 listing "unknown pollutant" are based on an impaired "recreational" (REC) use, which is not explicitly contemplated by the Department's own guidance.
[6] Ibid., p. iv and p. 42.

quality standard) is not attained, the department must list it as impaired, regardless of whether the cause is known.

Further, waters added with "Unknown Pollutant" were listed due to non-attainment of the Aquatic Life or Recreation designated uses, which are water quality standards established under s. NR 102.04, Wis. Adm. Code. The determination that these uses are not attained is based on thresholds promulgated expressly for this purpose under Wis. Adm. Code: macrophytes (s. NR 102.56(1)(b)), chlorophyll *a* (ss. NR 102.56(1)(a) and (2)(b), temperature (subch. II of ch. NR 102). It is also specified under NR 102.55 that assessments of the biological community are appropriate for determination of attainment of designated uses.

DNR agrees that no changes to permit conditions or corrective actions could be enacted to address an "Unknown Pollutant", since no TMDL or other plan could be developed without identifying the pollutant in question and its source(s). However, knowing the spatial extent and degree of degradation among waters of the state is critical information that must be publicly available and will guide protection and restoration activities.

### Listings Based on Degraded Aquatic Vegetation

Comment: "Once again, DNR has proposed several new listings on the basis of "degraded aquatic vegetation" (formerly, "macrophytes;" 22 new listings in 2026).[7] For the same reasons discussed above and in previous comments, our organizations do not believe that this listing practice, apparently introduced by the Department in 2024, has a legal basis." **(Scott Suder, Wisconsin Paper Council & Adam Jordahl, Wisconsin Manufacturers & Commerce)**

**Response:** See the federal, statutory and administrative code references in the previous responses, explaining that the state must report waters as impaired if they are not attaining any water quality standard, and water quality standards include designated uses. The waterbodies listed for degraded macrophytes are not attaining their Aquatic Life Designated Use, established under s. NR 102.04(3), Wis. Adm. Code. Section NR 102.56, Wis. Adm. Code, states, "This section contains numeric biological assessment thresholds for evaluating the biological condition of lakes, reservoirs, and impounded flowing waters and determining whether applicable designated uses are being attained." The macrophyte thresholds for evaluating attainment of the Fish and Aquatic Life Designated Use are specified under s. NR 102.56(1)(b), Wis. Adm. Code, which states that, "Thresholds for evaluating the general health of an aquatic plant community in a lake or reservoir to determine whether its aquatic life use is attained are shown in Table 8." These thresholds are promulgated in the administrative code.

## PFOS Compounds

### Monitoring of PFOS Compounds and Informational Signage

Comment: "DNR itself has lists of water bodies affected by PFAS/PFOS, including those safe for swimming and fishing. This information must be rolled into standards and reporting. While remediation of these forever chemicals is now not possible, their presence must be accounted for. If that means Wisconsin is holding water quality to a higher standard than EPA, so be it. Our people deserve no less. I also suggest that the DNR undertake more vigorous posting of waters affected by PFAS/PFOS, including no swimming for people or pets, washing hands after coming in contact with waters, no fishing and/or fish consumption guidelines, personal flotation device wearing required in polluted waters and other protective rules. Postings should be at every entry point or, for personal piers, at street and shore at reasonably close intervals. **(Citizen)**

**Response:** Thank you for your comment. DNR has collected more than 300 surface water PFAS samples since 2020, the large majority of which were found to be below the surface water criteria for PFOS and PFOA. When high concentrations are found in surface water, DNR conducts follow-up monitoring in order

[7] One listing also refers to "excess algal growth" and "eutrophication;" 21 listings reference "degraded aquatic vegetation" exclusively. About half (12) of these listings are also listed as "pollutant unknown."

to more specifically identify which waterbodies might be impacted, and if warranted, fish tissue samples are also collected. Waterbodies exceeding the standards for PFOS and PFOA or waters with high levels of these compounds in fish tissue are placed on the Impaired Waters List. When there are significant PFAS findings, there is often a press release from the DNR which can be tracked on this website, and/or you can apply to be on the mailing list for instantaneous alerts. In total 40 waters are currently impaired due to PFAS compounds. DNR maintains a PFAS data viewer to display monitoring results which is updated regularly when new data is available. Fish consumption guidelines, which includes PFAS and site-specific advice, are included in the DNR Choose Wisely document, which is also regularly updated found here. As far as swimming, the WI Department of Health Services has established guidelines and advice on swimming in surface waters containing PFAS.

Wisconsin's surface water standards for PFOA and PFOS were adopted into rule in 2022 and were developed based on the best available scientific evidence and information from agencies such as the US Environmental Protection Agency (EPA) and the Great Lakes Consortium for Fish Consumption Advisories. For more information on how these standards were developed, please see the Rule Package Technical Support Document.

Informational signage regarding potential exposure to PFAS compounds is important and can help the public understand risks associated with different recreational uses, however such signage is the responsibility of local public health departments. DNR does share findings of high PFAS concentrations with public health departments and DNR can work with partners to create clear language about PFAS impairments but does not possess the authority to install signage at access points owned by local governments. Requirements for such postings would likely require an act of the state legislature.

## Waterbody Listings

### Inconsistencies Between ATTAINS and WATERS Databases

Comment: EPA provided a list of waterbodies whose assessment information in the ATTAINS database differs from what the department provided in the Draft Water Condition Lists. ***(Information shared by Wendy Drake, EPA Region V)***

> **Response:** DNR will work to address these inconsistencies between our two databases with the goal of completing QC checks by Summer 2026.

### Fourth Lake, Oneida County

Comment: "WDNR's website shows that Fourth Lake also has a fish consumption advisory for PFAS. Why isn't Fourth Lake listed as impaired for the fish consumption designated use like the other lakes in the Moen Chain of Lakes with advisories?" **(Wendy Drake, EPA Region V)**

> **Response:** Thank you for pointing out this omission. Fourth Lake is indeed also impaired for fish consumption due to high levels of PFOS. This waterbody has been added to the Draft 2026 Impaired Waters List.

### Turtle Lake, Walworth County

Turtle Lake Comment 1: "I respectfully request reconsideration of the decision to designate Turtle Lake in Walworth County as an impaired waterbody…

Since 2009, Turtle Lake's aquatic plant community has been surveyed by the WDNR thirteen times. Our most recent aquatic management plan was completed in 2025. These surveys and planning efforts have consistently demonstrated that we are managing the lake responsibly and effectively.

Our association has worked closely with the WDNR for years to manage aquatic plants. Since 2019, our membership made the intentional decision not to use chemical treatments for aquatic invasive species. Instead, we have prioritized environmentally responsible management strategies, particularly Diver Assisted Suction Harvesting (DASH), which has proven successful in controlling invasives while maintaining ecological balance.

Additionally, our association actively educates lake residents about responsible stewardship. We encourage practices such as avoiding fertilizer use near the shoreline, maintaining healthy septic systems, and taking precautions to prevent the spread of invasive species. These efforts reflect our long-standing commitment to protecting and maintaining a healthy lake ecosystem.

Turtle Lake will continue to monitor its aquatic plant community and work collaboratively with the WDNR. Our long-term goal remains the preservation of a balanced and healthy lake environment." **(Linda Szramiak, Turtle Lake Improvement and Protective Association (TLIPA))**

Turtle Lake Comment 2: "… Southeastern Wisconsin Regional Planning Commission (Commission) staff disagree with this impairment listing due to how the [macrophyte, MAC-Gen] model is being applied and its use as a standalone metric when other aquatic plant metrics indicate that Turtle Lake has a relatively healthy aquatic plant community…

…Several other metrics are commonly used to evaluate the health of aquatic plant communities, including lake-wide species richness, average number of native species per site, the floristic quality index, the mean coefficient of conservatism (C) values, and the percentage of littoral points with invasive species present. The most recent aquatic plant survey of Turtle Lake conducted in 2023 had a lake-wide species richness of 23 species, an average of 1.39 native species per site shallower than maximum depth, a floristic quality index of 21.57, a mean C value of 4.95, and had 28 percent of its littoral points with an invasive species present. The 23 species observed exceeds 14 species, which is the median number of species for a lake in the North Central Hardwoods and Southeastern Wisconsin Till Plains. The WDNR Aquatic Plant Explorer tool describes a FQI of 21.57 as indicative of "high-quality" while a mean C of 4.95 is within the range described as "Specific needs, moderate tolerance." The five most common species observed in 2023 were native species that are widespread in many southeastern Wisconsin lakes: common stonewort (Chara contraria), coontail (Ceratophyllum demersum), sago pondweed (Stuckenia pectinata), Fries pondweed (Potamogeton friesii), and slender nitella (Nitella flexilis). These metrics all suggest that Turtle Lake has a fairly healthy aquatic plant community. In addition to these metrics, the WDNR recognized Turtle Lake as a "high-quality water" in 2022 as part of its Healthy Watersheds, High-Quality Waters initiative…

Several nearby lakes in Walworth County have aquatic plant communities that are arguably in poorer health than Turtle Lake based on these aquatic plant metrics. However, these lakes are not listed as impaired based on the macrophyte conditions due to their ineligibility for assessment based on recent aquatic herbicide applications, the lakes being impoundments, or both. While Commission staff understand why use of herbicide applications renders a lake ineligible for assessment, we are concerned that this ineligibility results in an unfair application of the Mac-Gen model as lakes that do not utilize herbicides can be considered impaired while lakes with arguably poorer aquatic plant communities that do utilize herbicides are not…" **(Southeastern Wisconsin Regional Planning Commission (SEWRPC))**

> **Response:** Thank you for these comments and perspectives on Turtle Lake and its aquatic plant community. When Turtle Lake was added to the impaired waters list in 2024, the regional biologist was unable to weigh in on the listing decision. Since then, the biologist has advocated for removal of the impairment to Turtle Lake's aquatic plant community for many of the same reasons outlined in these comments. In particular, Turtle Lake has demonstrated an ability to host sensitive species alongside more tolerant ones, with the percentage of littoral points containing a sensitive species reaching 68% in the most recent plant survey (2023). The DNR acknowledges that the MAC-Gen model, as an empirically derived tool

for assessing the health of aquatic plant communities, may sometimes produce an attainment status at odds with the best professional judgement of experts, who have access to additional measures of aquatic plant community health and the full lake management context. Normally all potential listings based on the aquatic plant community are thoroughly reviewed by local biologists.

Given that Turtle Lake would not have been listed as impaired in 2024 had the regional biologist been available for input, the high percentage of sensitive species and high floristic quality index which are not accounted for in the MAC-Gen model, and TLIPA's commitment to continued collaboration on the health of the aquatic plant community, DNR will propose removing the "Degraded Aquatic Vegetation" impairment and moving Turtle Lake to the Waters Attaining Standards List. In addition, DNR will re-classify Turtle Lake from "drainage" to "seepage", which will change the applicable assessment thresholds for the aquatic vegetation community.

In relation to Linda Szramiak's comments, the DNR would also like to emphasize that no impairment listing is intended to accuse an entity such as a lake association of mismanaging the resource. Water quality problems often have multiple causes, many of which may be outside the immediate control of any one entity, such as historic land use, invasive species, changes in precipitation patterns, and development. Impairments can occur even on waterbodies with the most well-intentioned and active partner organizations. The DNR thanks the Turtle Lake Improvement and Protective Association for their work and willingness to collaborate.

**Status of the Fox (Illinois) River**

Comment: "… Most sections of the Fox River in Waukesha, Racine, and Kenosha Counties are not listed as being impaired in the CWA 303(d) list. However, we do not see these sections being delisted. What is the impairment status each section of the Fox (Illinois) River?" **(Leo A. Kucek, Applied Technologies)**

**Response:** The impairment status of each section of the Fox River can be found on the Surface Water Data Viewer by selecting the "Impaired Waters List" under the "Water Condition Lists" layer. Users can then select specific waterbodies or segments and obtain a full summary including impairment status and overall condition.

## Total Maximum Daily Loads (TMDLs)

**Fox (Illinois) River Basin TMDL**

Comment: "For the forthcoming FoxIL TMDL, will the TMDL allocations be protective of waters included in the 303(d) list, waters delisted, *and* all other waterways and water bodies within the FoxIL TMDL watershed? Will the Department view waters not listed as impaired as being sufficiently protected by the FoxIL TMDL allocations, and in which ways will these protections (of waters not listed as being impaired) be different as compared to prior TMDLs (e.g., Rock River TMDL)?" **(Leo. A Kucek, Applied Technologies)**

**Response:** Yes, it is expected that allocations in the Fox-IL River Basin TMDL will be protective of facilities' receiving streams and rivers, regardless of the current or potential future impairment status of these waters. Allocations are set to meet the applicable water quality criteria of the waterbody or segment regardless of impairment status. This is consistent with other DNR developed TMDLs in which TMDL subbasins are delineated to capture transitions in hydrology, water quality criteria, and other factors as outlined in the "SWAT Model Setup, Calibration, and Validation" report that can be found on the Fox Illinois River Basin TMDL website. TMDL derived wasteload allocations (WLAs) assigned to a wastewater treatment plant, collectively with any other allocations associated with that TMDL subbasin, must be set to meet water quality criteria for the waterbody or segment covered by that TMDL subbasin as well as all downstream waterbodies and segments.

The comment mentions specifically the Rock River Basin TMDL. For TMDLs that were either in development or developed prior to the adoption of statewide water quality criteria (in this case the criteria for total phosphorus) it was standard practice by U.S. EPA to set allocations to address just the impaired waterbodies or segments. This occurred in the Rock River Basin TMDL which was developed under U.S. EPA contract and concurrently with the statewide water quality criteria for total phosphorus. U.S. EPA's TMDL assigned allocations based only on the flows and applicable water quality criterion for the impaired waterbodies or segments. During the same time that the Rock River Basin TMDL was being developed, DNR was developing its water quality trading program and U.S. EPA insisted that a water quality trade cannot result in the violation of local water quality. DNR pointed out that the methodology employed by U.S. EPA to assign WLAs in its TMDLs was not consistent with how U.S. EPA was evaluating water quality trades and that their calculated WLAs could result in violations of local water quality. To mitigate this in the Rock River TMDL, DNR utilized a combination of WLAs, and effluent limitations calculated per s. NR 217.13, Wis. Adm. Code. DNR now delineates TMDLs subbasin using methodologies to mitigate this and minimize the likelihood of needing to use both NR 217.13 effluent limitations as well as TMDL derived mass allocations.

For example, U.S. EPA's TMDL assigned WLAs to facility X to cover a downstream impaired waterbody that had an average annual flow of Y and a criterion of 100 ug/L TP but facility X actually discharges to a small tributary stream of that impaired waterbody with a criterion of 75 ug/L TP, which was not listed as impaired, and has a flow Z in which Z<Y. Under this scenario, the WLA for facility X is not necessarily protective of the immediate receiving water nut only that downstream impaired waterbody, so more restrictive effluent limitations are required to protect the immediate receiving water.

## Upper Fox-Wolf Basin TDML and Green Lake

### Impairment Status & TMDL Misalignment

Comment: "Inclusion within a TMDL does not necessarily ensure that implementation of the TMDL will result in attainment of water quality standard or removal of a waterbody from the impaired waters list..... For example, modeling conducted as part of development of the Upper Fox–Wolf Basin TMDL estimated 9,319 pounds per year of phosphorus reduction associated with Green Lake under the basin TMDL framework.

However, subsequent analysis [lead by Green Lake Association] indicates that approximately 9,770 pounds per year of reduction are required to meet dissolved oxygen criteria necessary for delisting the lake."

"How should restoration status be interpreted with an existing TMDL framework does not fully align with current scientific understanding of the reductions required to delist an individual lake?" **(Stephanie Prellwitz, Green Lake Association (GLA))**

**Response:** Green Lake was first listed as impaired in April of 2014 because available data showed an exceedance of the 15 µg/L phosphorus criterion (NR 102.06 (4), Wis. Adm. Code) for two-story fishery lakes and continues to exhibit exceedances through the 2026 listing cycle. A TMDL calculates assimilative capacity and sets allocations, with a margin of safety, such that implementation and attainment of the allocations will meet the specified water quality criteria.

The Upper Fox–Wolf Basin TMDL does not estimate a 9,319 pound per year reduction for Green Lake. Rather the 9,319 pounds is the assimilative capacity reflecting the amount of total phosphorus the lake can receive on an annual basis and still meet water quality criteria for total phosphorus (See Table 17, page 80 of the Upper Fox–Wolf Basin TMDL Report). The reduction needed to meet that assimilative capacity will vary over time as implementation occurs and will vary annually based on rainfall and other factors that could influence pollutant delivery to Green Lake. As such, these numbers are not equivalent; the 9,319 pounds per year is the assimilative capacity and the referenced USGS mass of 9,770 pounds per year is a pollutant reduction number.

### "Waters in Restoration" Framing

Comment: "The GLA supports the Department's effort to recognize progress across Wisconsin waters. Because Green Lake is addressed under the Upper Fox–Wolf Basin TMDL, it is currently categorized as a "Water in Restoration."

However, Inclusion within a basin TMDL or the existence of a written restoration plan does not necessarily indicate that restoration actions capable of achieving water quality standards are actively underway or that a realistic pathway to delisting has been established."…

"Strengthening distinctions between (1) planning, (2) implementation, and (3) measurable water quality improvement would help ensure that restoration classifications accurately reflect both progress achieved and the magnitude of work that remains. Clear alignment between classification language and implementation reality is particularly important for informing partners, policymakers, and funding decisions." **(Stephanie Prellwitz, Green Lake Association (GLA))**

> **Response:** The water quality condition categories used to group assessed waterbodies align with EPA's Clean Water Act 305(b) reporting requirements. Federal regulations in 40 CFR Part 130.7 require states to prepare a TMDL for each impaired waterbody/pollutant combination. Waters in category 4a are considered to be on Wisconsin's Waters In Restoration List because an impairment exists and a TMDL or alternative restoration plan has been created and approved by EPA. The DNR appreciates your comment on the use of terminology for its listing categories and will take it into consideration when evaluating listing categories for future cycles.

### Realistic Restoration Pathways

Comment: Implementation tools have limited practical leverage under current conditions. Adaptive Management and Water Quality Trading rely on regulatory drivers, delivery efficiencies, and market demand that are constrained within the Green Lake watershed, limiting their effectiveness as pathways to delisting. **(Stephanie Prellwitz, Green Lake Association (GLA))**

> **Response:** Water quality trading and adaptive management are compliance options for permitted point sources to meet effluent limitations for total phosphorus and total suspended solids. These programs may not be a viable compliance option for all permittees or applicable in all watersheds, depending on their location and other site-specific conditions. Because they are located in an area that may present viable options for trading, the DNR encourages the GLA association to reach out to the Ripon WWTF and explore possible collaborations that could include water quality trading.

Comment: A comprehensive agricultural BMP analysis conducted to support development of the Watershed & Lake Management Plan evaluated the maximum phosphorus reductions achievable under existing agricultural land use conditions. Results indicated that implementation scenarios — representing substantial levels of voluntary conservation adoption — did not achieve the phosphorus reductions necessary to meet water quality criteria, while only a theoretical full-implementation scenario requiring 100% participation across essentially all eligible acres just exceeded the reduction threshold. The analysis concluded that agricultural BMP implementation alone is unlikely to achieve required reduction targets through incremental adoption and that additional phosphorus reduction strategies will be necessary to meet water quality goals.

This finding is consistent with broader watershed research. For example, SWAT modeling conducted within the Lower Fox watershed similarly demonstrated that although increased implementation of agricultural best management practices reduced nutrient loading, none of the modeled scenarios achieved the phosphorus reduction targets established under the TMDL.

Together, these analyses suggest that restoration pathways that function effectively in planning models do not always translate into outcomes sufficient to achieve water quality standards or support delisting in complex agricultural lake systems. **(Stephanie Prellwitz, Green Lake Association (GLA))**

> **Response:** The DNR recognizes that not all planning models and planning level analysis will be consistent with the modeling methodologies and assumptions used in the TMDL and the results of those studies are not directly comparable to the reduction targets outlined in the TMDL. The differences in modeling results from the referenced studies illustrates the importance of using modeling methodologies consistent with those used in the TMDL and at the appropriate scale.
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> Regarding the referenced study pertaining to the SWAT model conducted within the Lower Fox, DNR conducted a detailed edge of field analysis which indicates that attainment of the reduction targets is feasible. The table below summarizes a field scale analysis conducted by DNR, with assistance from UW-Madison, using SnapPlus to evaluate field scale implementation of agricultural practices. The results indicate that the adoption of practices under conservation scenario 1 generally meets the reduction targets, shown under the "TP Credit Threshold", and that conservation scenario 2 meets the TMDL subbasin reduction targets with, in most cases, a significant margin of safety.

**Table 2. Lower Fox River Basin TMDL TP Summarized by TMDL Subbasin**

| Lower Fox TMDL TP Parameters and Rounded Credit Threshold | | | | | | | Interim Floor Calculations | | Feasibility Analysis |
|---|---|---|---|---|---|---|---|---|---|
| | TMDL Subbasin | Baseline TP loss lb/ac/yr | TMDL % Reduction | TP Credit Threshold lb/ac/yr | Rounded TP Credit Threshold lb/ac/yr | | Conservation Scenario 1 lb/ac/yr | Interim Floor lb/ac/yr | Conservation Scenario 2 lb/ac/yr |
| 4 | Apple Creek | 2.99 | 78.6% | 0.64 | 1.00 | | 0.63 | NA | 0.33 |
| 5 | Ashwaubenon Creek | 2.34 | 74.0% | 0.61 | 1.00 | | 0.51 | NA | 0.29 |
| 2 | Baird Creek | 3.48 | 80.4% | 0.68 | 1.00 | | 0.68 | NA | 0.32 |
| 3 | Bower Creek | 3.63 | 83.2% | 0.61 | 1.00 | | 0.69 | NA | 0.32 |
| 11 | Duck Creek | 3.15 | 76.9% | 0.73 | 1.00 | | 0.65 | NA | 0.30 |
| 6 | Dutchman Creek | 2.89 | 76.4% | 0.68 | 1.00 | | 0.61 | NA | 0.31 |
| 1 | East River | 3.3 | 83.9% | 0.53 | 0.50 | | 0.62 | 0.62 | 0.29 |
| 9 | Garners Creek | 2.96 | 63.1% | 1.09 | 1.00 | | 0.68 | NA | 0.37 |
| 8 | Kankapot Creek | 2.92 | 81.8% | 0.53 | 0.50 | | 0.65 | 0.68 | 0.34 |
| 14 | Lower Fox River (main stem) | 2.99 | 74.2% | 0.77 | 1.00 | | 0.64 | NA | 0.33 |
| 15 | Lower Green Bay | 3.01 | 60.7% | 1.18 | 1.50 | | 0.59 | NA | 0.28 |
| 10 | Mud Creek | 2.95 | 39.0% | 1.80 | 1.80 | | 0.59 | NA | 0.28 |
| 13 | Neenah Slough | 3.12 | 66.7% | 1.04 | 1.00 | | 0.74 | NA | 0.41 |
| 7 | Plum Creek | 3.21 | 86.0% | 0.45 | 0.50 | | 0.66 | NA | 0.33 |
| 12 | Trout Creek | 2.23 | 54.9% | 1.01 | 1.00 | | 0.55 | NA | 0.30 |

### Nonpoint Source Limitations

Comment: "Nonpoint source reductions remain structurally difficult to achieve at required scales. The majority of watershed loading originates from agricultural nonpoint sources where implementation authority, incentives, and accountability mechanisms are not directly tied to water quality standards attainment or impairment removal."

"Local modeling confirms an implementation gap. Green Lake–specific agricultural BMP modeling conducted in support of the Watershed & Lake Management Plan indicates that even substantial voluntary conservation adoption is unlikely to achieve required phosphorus reductions absent near-universal participation or complementary management strategies."

> **Response:** While perhaps challenging to achieve, the implementation of nonpoint reductions at sufficient scales to achieve water quality criteria is possible for Green Lake. To attain water quality standards through the reduction of nonpoint sources often requires working with multiple stakeholders and leveraging funding resources that are both directly and indirectly tied to meeting water quality goals.