

STATUS REPORT ON THE 2021-2023 TRIENNIAL STANDARDS REVIEW (TSR)

PRIORITIZED WORKPLAN

*Wisconsin Department of Natural Resources (DNR) Water Quality Standards Program
January 2024*

The following topics were priorities identified for the 2021-2023 Triennial Standards Review (TSR). The list below shows the categories they were assigned to each prioritization category in 2023. Topics in Categories A and B were prioritized as part of the DNR's work plan for the 2021-2023 timeframe. The descriptions following the list provide an end-of-cycle status report on the topics identified as priorities in these two categories. For this report, each category's topics are organized by level of completion (i.e. items that have been completed are shown first).

Category A: Standards or guidance with revisions or development currently in progress (as of 2021)

- PFOS/PFOA Criteria Development
- Waterbody Assessments Rule Development*
- Procedures for Establishing Site-Specific Phosphorus Criteria*
- Site-specific Phosphorus Criterion for Lac Courte Oreilles*
- Antidegradation Policy and Implementation Revision
- Chloride Variance Streamlining
- Mercury Variance Streamlining
- Human Health Criteria Revision/Development
- Cyanobacteria (Harmful Algal Blooms) Guidance
- Designated Uses Structure/Process Revision

* Note: While not listed in the 2021-2023 TSR, these three rules were in progress during that cycle. They are included in the status report.

Category B: Standards or guidance that were new priorities for the 2021-2023 cycle

- Nitrate/Nitrogen Criteria Development
- Total Suspended Solids Criteria Development
- Neonicotinoid Insecticides Criteria Development
- Aquatic Life Water Quality Criteria Revision/Development
- Outstanding/Exceptional Resource Waters Process Revision
- PFAS Compounds (other than PFOS and PFOA) Criteria Development

Category C: Standards or guidance that are priorities, but progress will be limited due to insufficient resources at this time *(These were not worked on, so no status report is provided.)*

- Aluminum Criteria Development
- Ammonia Criteria Revision
- Bifenthrin Criteria Development
- Chlorantraniliprole Criteria Development
- Copper Criteria Revision
- Pharmaceuticals Criteria Development
- Sulfate Criteria Development
- Wild Rice Designated Use Development

CATEGORY A (AS LISTED IN 2021): STANDARDS OR GUIDANCE WITH REVISIONS OR DEVELOPMENT CURRENTLY IN PROGRESS

Per- and polyfluoroalkyl substances (specifically PFOS/PFOA) Criteria Development

Status: Rule promulgated; EPA approved

In summer 2022, The Wisconsin Legislature promulgated surface water quality criteria for two types of per- and polyfluoroalkyl substances to protect human health: perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). Work done between 2019 and 2023 included review of toxicity values and exposure data in partnership with WDHS, a series of widely attended stakeholder meetings, development of an economic impact analysis, development of final criteria numbers and rule language, adoption by the Natural Resources Board, legislative review, and approval by EPA.

Waterbody Assessments Rule Development

Status: Rule promulgated; EPA approved

A rule package containing a variety of components related to biological assessments and related standards was promulgated by the Legislature in October 2022 and approved by EPA in 2023. The rule included updates to dissolved oxygen criteria, creation of oxythermal criteria for two-story fishery lakes, creation of narrative biological assessment thresholds for all waters, and numeric biological assessment thresholds for lakes (chlorophyll a, macrophytes, and oxythermal habitat). It also clarified assessment processes for total phosphorus criteria and established biological phosphorus response indicators. Most of the work for this rule was done prior to the 2021-2023 cycle, but the Legislature requested modifications that were made during this cycle before the rule's promulgation. Biological assessment thresholds for streams and rivers were not included in the final package and DNR expects to begin a new rule package for those in the upcoming cycle.

Procedures for Establishing Site-specific Phosphorus Criteria

Status: Rule promulgated (EPA approval not required)

A rule package establishing procedures for developing site-specific phosphorus criteria was promulgated by the Legislature in October 2022. EPA approval was not required because the rule was procedural. Most of the work for this rule was done prior to the 2021-2023 cycle.

Site-specific phosphorus criterion for Lac Courte Oreilles

Status: Rule promulgated; submittal to EPA expected Feb. 2024

The Legislature promulgated a site-specific phosphorus criterion for a lake called Lac Courte Oreilles, which will take effect in February 2024. The rule's Scope Statement was approved to re-start work on this rule (which had had a prior rulemaking effort) in October 2021 and the Natural Resources Board approved it in June 2023. Staff updated their analysis from the earlier rulemaking effort, along with the Technical Support Document, Economic Impact Analysis, and Board Order and held the public comment period and public hearing prior to Board approval and submittal to the Legislature.

Antidegradation Policy and Implementation Revision

Status: DNR work complete; Legislative process pending

Updates to the state's antidegradation policy and associated procedures have been needed to clarify when antidegradation review is required and to make Wisconsin's rules consistent with federal antidegradation requirements. A Scope Statement was approved by the

Governor's office in May 2021 to begin work on this rule. From 2021-2023, an internal workgroup met and the following steps were completed: draft rule development, external Advisory Committee meetings, Economic Impact Analysis development, public hearing and comment period, and final rule development. The Natural Resources Board adopted the rule package in September 2023 and it was submitted to the Legislature for their consideration in late 2023; the legislative process is currently underway.

Chloride Variance Streamlining

Status: Substantially complete

DNR and EPA have implemented improvements and continually work to identify other areas within the chloride variance process that could be improved or updated to help streamline the variance process for permittees, DNR, and EPA. In August 2022 the "Development and Implementation of Water Quality Standards Variances" guidance document was finalized. This document includes a list of potential chloride source reduction measures, a general Source Reduction Measure (SRM) plan template (applicable to any substance including chloride), a copy of the annual report review checklist, and information on creating an approvable variance package. Internal process help-sheets have also been updated to help guide DNR staff through the variance process of reissuing a permit with a variance. Work may be continued on related items such as updating the variance application and facility specific data sheet.

Mercury Variance Streamlining

Status: Substantially complete

Mercury, mainly from air deposition, has accumulated in fish tissue so that there are fish consumption advisories in place for many Wisconsin waterbodies. Individual mercury variances for facilities discharging wastewater have been processed since the early 2000s, using a 1997 report as the basis for saying that no economically feasible treatment exists. In August 2022 the "Development and Implementation of Water Quality Standards Variances" guidance document was finalized. This document includes a list of potential mercury pollutant minimization actions, a general pollutant minimization program (PMP) plan template (applicable to any substance including mercury), a copy of the annual report review checklist, and information on creating an approvable variance package. Internal process help-sheets have also been updated to help guide DNR staff through the variance process of reissuing a permit with a mercury variance. This work supports a streamlined approach for mercury variances. While initial efforts were undertaken to develop a streamlined variance process specific to mercury, implementation has not yet been feasible. DNR and EPA may continue to explore efforts to streamline the process, including the feasibility of the development of a mercury multi-discharger variance.

Human Health Criteria Revision/Development

Status: In progress

DNR has reviewed EPA's 2015 recommendations on how states should calculate human health criteria (HHC) – i.e., water quality standards that protect human health while swimming or eating locally-caught fish. This review encompasses multiple efforts, including: 1) making updates to Wisconsin's existing HHC based on the latest toxicological information, 2) adopting HHC for chemicals which EPA has criteria and/or a drinking water standard and Wisconsin does not, 3) evaluating the most appropriate fish consumption rates to be protective of all state and tribal fish consumers, and 4) updating water consumption rate and average body weight to be consistent with EPA's latest recommendations.

DNR has completed efforts 1) and 2) above and expects to begin rulemaking to update and adopt criteria in the upcoming triennial cycle. In pursuit of effort 3), DNR has collaborated with staff from other Great Lakes states, the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and EPA to review fish consumption rate information and is working towards compiling a white paper detailing this data for use in future criteria. DNR also worked with the Department of Health Services (WDHS) to gather body weight data. Rulemaking to accomplish efforts 3 and 4 is likely several years away.

Cyanobacterial (Harmful Algal Blooms) Guidance

Status: Guidance not begun

EPA released human health recreational ambient water quality criteria or swimming advisory values for microcystin and cylindrospermopsin in May 2019. The criteria are for use as the basis for swimming advisories for notification purposes and are designed to protect children from the harmful effects of chronic exposure to microcystin and cylindrospermopsin. States may apply the recommendations as advisory levels or may adopt them as state water quality standards.

DNR previously completed a review of EPA's recommendations and determined to apply the values as swimming advisories rather than as statewide criteria. This decision was made because cyanobacterial harmful algal blooms that produce cyanobacterial toxins are often a response to or correlated with other water quality impairments/issues for which criteria already exist or are potentially forthcoming (i.e., phosphorus, nitrogen, chlorophyll). DNR recommends that local and tribal public health agencies use these swimming advisories for notification purposes in recreational waters to protect the public. DNR has not yet been able to develop guidance to assist with implementation of these recommendations, but would like to do so in the upcoming cycle.

Designated Uses Structure/Process Revision

Status: On hold; Scope Statement expired

Under the Clean Water Act, DNR assigns all waterbodies a set of designated uses to protect human health and aquatic life. DNR is considering developing a new Scope Statement to restart work on updating the state's designated use classification system for aquatic life and the list of waters assigned "limited" uses. This rule package would revise the categories to better capture the various types of waters found in Wisconsin, and may update designated uses for certain individual waterbodies. Significant progress was made on this rule during earlier rulemaking efforts (put on hold when the Scope Statement expired in 2019), including preparation of draft rule language and discussion with an Advisory Committee. Further exploratory work was done during the 2021-2023 cycle but a new Scope Statement has not yet been submitted.

CATEGORY B (AS LISTED IN 2021): STANDARDS OR GUIDANCE THAT WERE NEW PRIORITIES FOR THE 2021-2023 CYCLE

Nitrate/Nitrogen Criteria Development:

Status: Exploratory background work in progress

The EPA water quality criteria guidance requires all states to develop nitrogen criteria as well as phosphorus criteria. Nitrogen/nitrate criteria development was ranked as the highest priority topic in the 2021-2023 TSR. In 2022, DNR convened an internal workgroup to

review the status of existing data in Wisconsin for various forms of nitrogen and related biological endpoints. The workgroups identified current gaps in our monitoring program for various waterbody types and other next steps that would be needed to move the state closer to readiness for nitrogen criteria development. It also conducted a review of nitrogen criteria established by other states. Following these recommendations, in summer 2023, DNR and EPA Region 5 staff developed two projects for EPA's N-STEPS program, which provides technical assistance to states for exploring nutrient data. The first focuses on exploring how EPA's national nutrient model for lakes may work with Wisconsin's lake data and existing lake type categories. The second focuses on exploring correlations between total nitrogen and chlorophyll *a* data in Wisconsin's large rivers. DNR and EPA expect work on these projects to begin in 2024.

Total Suspended Solids (TSS) Criteria Development:

Status: Exploratory background work begun, but on hold

In 2022, DNR convened an internal workgroup to review existing data in Wisconsin for total suspended solids and related parameters. The workgroups identified the level of data available for various waterbody types and began exploring topics around data, criteria, and implementation. It also conducted a review of criteria for TSS and related parameters established by other states. This project was put on hold in late 2022 due to program vacancies that led to water quality standards staff time being redirected to other topic items (primarily, completing the Antidegradation rule).

Neonicotinoid Insecticides Criteria Development:

Status: Literature review begun

Staff have begun compiling information related to this topic, but efforts toward criteria development have not yet begun.

Aquatic Life Water Quality Criteria Revision/Development:

Status: Not begun

Staff time was not available for this item during this cycle, as efforts were focused on the PFAS/PFOA criteria development and human health criteria review.

Outstanding/Exceptional Resource Waters Process Revision:

Status: Not begun

Federal law requires states to identify and protect "High Quality Waters." In Wisconsin, these waters are referred to as Outstanding or Exceptional Resource Waters (ORW/ERWs) and are enumerated in sections NR 102.10 and NR 102.11, respectively. The department's existing guidance on classifying waters as ORW/ERW is outdated, and these methods should be updated so that the process is clear and based on current scientific understanding. This project has not yet been begun due to program vacancies that led to water quality standards staff time being redirected to other topic items (primarily, completing the Antidegradation rule).

Per- and polyfluoroalkyl Substances (other than PFOS and PFOA) Criteria Development:

Status: Not begun

The toxicity and occurrence of PFAS compounds (other than PFOS or PFOA) are under active evaluation by EPA, WDHS, and other divisions within DNR. However, water quality staff did not begin working on criteria development for other PFAS during this TSR cycle as staff time was focused on efforts to complete other priorities.