

DECISION DOCUMENT FOR THE APPROVAL OF
WISCONSIN'S 2010 LIST WITH RESPECT TO
SECTION 303(d) OF THE CLEAN WATER ACT

The U.S. Environmental Protection Agency (EPA) has conducted a complete review of Wisconsin's 2010 Section 303(d) list and supporting documentation and information. Based upon this review, EPA has determined that Wisconsin's list of water quality limited segments (WQLSs) still requiring Total Maximum Daily Loads (TMDLs) meets the requirements of Section 303(d) of the Clean Water Act ("CWA" or "the Act") and EPA's implementing regulations. Therefore, EPA hereby approves Wisconsin's 2010 Section 303(d) list. The statutory and regulatory requirements, and EPA's review of Wisconsin's compliance with each requirement, are described in detail below.

I. Statutory and Regulatory Background

A. Identification of Water Quality-Limited Segments (WQLS) for Inclusion on Section 303(d) List

Section 303(d)(1) of the Act directs States to identify those waters within their jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by State or local authority, and (3) other pollution control requirements required by State, local, or federal authority.¹

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, States are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or identified as threatened in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA.² In addition to these minimum categories, States are required to consider any other data and information that is existing and readily

¹ 40 C.F.R. § 130.7(b)(1).

² 40 C.F.R. § 130.7(b)(5).

available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available.³ While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 C.F.R. § 130.7(b)(6) require States to include, as part of their submissions to EPA, documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.⁴

C. Priority Ranking

EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 C.F.R. § 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those WQLSs targeted for TMDL development in the next two years.⁵ In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters.⁶ As long as these factors are taken into account, the Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and State or national policies and priorities.⁷

II. Analysis of Wisconsin's Submission

On April 4, 2010 EPA received a hard copy of the final submittal.⁸ The package contained the submittal letter dated March 31, 2010 with the following attachments:

- Attachment A: Water Quality Report to Congress,
- Attachment B: 2010 303(d)list of impaired waters,
- Attachment C: 2010 modifications to Impaired Waters List,

³ U.S. EPA, Office of Water, *Guidance for Water Quality-Based Decisions: The TMDL Process*, Appendix C (1991) (hereafter, "U.S. EPA's 1991 Guidance").

⁴ 40 C.F.R. § 130.7(b)(6).

⁵ 40 C.F.R. § 130.7(b)(4).

⁶ CWA Section 303(d)(1)(A).

⁷ 57 *Fed. Reg.* 33040, 33045 (July 24, 1992); see also U.S. EPA's 1991 Guidance.

⁸ These documents can be found at: http://dnr.wi.gov/org/water/condition/2010_IR/ (last checked August 29, 2012).

- Attachment D: Data Documentation Sheets for 2010 Modifications to Impaired Waters List,
- Attachment E: Final Wisconsin 2010 Consolidated Assessment & Listing Methodology (WisCALM),
- Attachment F: EPA comments on WisCALM guidance and WDNR Responses,
- Attachment G: Public Data Solicitation (a) public notice (b) targeted email solicitation (c) list of external parties contacted,
- Attachment H: Public Notice for the Public comment period,
- Attachment I: Summary of public comments to the impaired waters list and WDNR's responses,
- A disk with the above Attachments as well as transmittal letter, 2008 validation spread sheet, and shape and xml files.

In our Decision Document today, WDNR's submittals of March 31, April 4, and other supporting information, are collectively referred to as the "2010 Submittal." All of this information is compiled in EPA's file for this Decision Document.

WDNR has been working with EPA to update the State's data system to support submitting an Integrated Report (IR) for the CWA §§ 303(d) and 305(b) processes as requested by EPA. In previous listing cycles, the State utilized two separate databases for tracking its assessments and impaired water decisions, which included a spreadsheet tracking system and Water Assessment Tracking and Electronic Reporting System (WATERS) database. During the 2008 listing cycle, WDNR started to integrate these two systems and used only WATERS.⁹ For the 2008 cycle, the integration of data into WATERS was not fully verified; therefore WDNR chose not to submit a fully integrated report to EPA. Additionally, the State changed its assessment methodology to help incorporate better integration between the requirements in CWA §§ 303(d) and 305(b). This change in methodology has resulted in the State's ability to provide greater detail on what WDNR considers in making its attainment decisions.

WDNR's current submittal has come closer to final integration of databases and development of the new assessment methodology. EPA is working with WDNR toward completing this integration in future listing cycles.

The 2010 submittal identifies two categories of impaired water bodies which need TMDLs: Water bodies which are not meeting water quality standards (Category 5A) and water bodies that are impaired due to atmospheric mercury deposition (Category 5B). The State's submittal also identified those impaired water bodies for which the State has approved TMDLs but where the waters have not yet attained water quality standards (Category 5C).¹⁰ WDNR's assessment

⁹ See WDNR webpage describing this database

http://dnr.wi.gov/topic/surfacewater/monitoring/strategy/logistics%20chapters/ch21-data_monstratv3_11-6-2008.pdf (last checked September 5, 2012).

¹⁰ EPA recognizes Category 5 (submitted Categories 5A and 5B) as including impaired waters still needing TMDLs. The State Category 5C waters are equivalent to EPA's Category 4A waters, waters that are impaired but

process also identifies water bodies for placement in Category 2. Category 2 waters are waters for which the State has sufficient data to support a determination that some, but not all, designated uses are attained and none are threatened. For these Category 2 waters, attainment status of the remaining designated uses is unknown because data are insufficient to categorize the water consistent with the State's listing methodology. Although not a complete integration, EPA recognizes that WDNR's use of these categories as being consistent with EPA's guidance and this is a positive step toward achieving full integration.

After full review and consideration of the information presented by the State in its 2010 submittal, EPA is approving the waters identified in Attachments 1 and 2 to this Decision Document as impaired waters in Wisconsin needing TMDLs, i.e., Wisconsin's Category 5A and 5B, respectively. Although the information was considered in EPA's review, EPA is not taking any action to approve or disapprove Category 2 and 5C in today's decision, which does not affect EPA's approval of Wisconsin's 2010 list of impaired waters.

A. Listing Methodology

EPA's regulations at 40 C.F.R. § 130.7(b)(6) require, among other things, that States provide documentation to support their decisions to list or not list waters including a description of the methodology used to develop the list. The 2010 submittal contained WisCALM, Wisconsin's 2010 listing methodology.

Wisconsin has not adopted its 2010 WisCALM into the State's approved water quality standards. EPA guidance provides that:

For methodologies that are not part of the state's applicable water quality standards, EPA will consider the methodology as it assesses whether the state conducted an adequate review of all existing and readily available water quality-related information, whether the factors that were used to make listing and removal decisions were reasonable, whether the process for evaluating different kinds of water-quality related data and information is sufficient, and whether the process for resolving jurisdictional disagreements is sufficient. If EPA finds that the state's methodology is inconsistent with its water quality standards, and its application has resulted in an improper Section 303(d) list, EPA may disapprove the list. Regardless of the suitability of the methodology, EPA must review the list for consistency with the relevant provisions of the CWA and the regulations.¹¹

Wisconsin uses a two-step process to assess whether a water body is not meeting water quality standards. First, Wisconsin conducts a general assessment to identify the status of the water body on a gradient of excellent to poor (the CWA § 305(b) assessment). If the water's condition falls

have a TMDL approved for the water body/impairment combination.

¹¹ U.S. EPA, Office of Water, *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to §§ 303(d), 305(b) and 314 of the Clean Water Act*, pp. 29-30 (July 29, 2005) (2006 IR Guidance).

at either end of the conditions gradient, then the State conducts a secondary or specific assessment to determine what type of management may be necessary. Both the monitoring results and the assessment data are stored in state and federal databases and most data are publicly available online.

Based on the results of condition assessments, water quality biologists and managers determine which actions might be needed to ensure that water quality standards are met, including antidegradation, or maintenance, of existing water quality condition (particularly for high quality or “excellent condition” waters), as well as restoration of water condition for those considered “impaired.”¹²

In Wisconsin, a water or segment of water is documented as impaired if it is not meeting water quality standards or if water quality is threatened. Waters that are removed from the list (“de-listed”) can only be removed where there is data to support that the water has achieved the full restoration of the designated use (i.e., the water is meeting water quality standards).¹³ Wisconsin considers the three parts of the WQS when making the determination of impairment: Use designations, water quality criteria, and antidegradation provisions.

1. Water Quality Standard

Designated uses are goals or intended uses for surface water bodies in Wisconsin which are classified into the categories of: recreation, public health and welfare, wildlife, and fish and aquatic life (FAL).¹⁴ Wisconsin has defined subcategories for the FAL use: coldwater community, warmwater sport fish community, warmwater forage fish community, limited forage fish community, and limited aquatic life community. Where there is no codified designated use for a water, Wisconsin assumes the water will support either a coldwater community, a warmwater sport fish community, or a warmwater forage fish community, depending upon the water body’s specific temperature and any habitat limitations. Wisconsin will classify waters without codified designated uses in the absence of a formally adopted new use designation.

Wisconsin has both numeric and narrative criteria relating to each of the use designations. Numeric criteria are quantitative and are expressed as a particular concentration of a substance or an acceptable range for a substance. Numeric surface water quality criteria have been established for conventional parameters (e.g., dissolved oxygen, pH, temperature), toxics (e.g., metals, organics, un-ionized ammonia), and pathogens (e.g., *E. coli*, fecal coliform).

All water bodies must meet a set of narrative criteria which qualitatively describe the conditions that should be achieved. A narrative water quality criterion is a statement that prohibits unacceptable conditions in or upon the water, such as floating solids, scum, or nuisance algae blooms that interfere with public rights. These standards protect surface waters and aquatic biota

¹² 2010 WisCALM, p. 7.

¹³ 2010 WisCALM, p. 7.

¹⁴ Wisconsin Administrative Code (Wis. Admin. Code) NR § 102 describes designated uses.

from eutrophication, algae blooms, and turbidity, among other things.¹⁵

Wisconsin's antidegradation policy provides:

No waters of the state shall be lowered in quality unless it has been affirmatively demonstrated to the Department that such a change is justified as a result of necessary economic and social development, provided that no new or increased effluent interferes with or becomes injurious to any assigned uses made of or presently possible in such waters.¹⁶

To make impairment determinations, each water body must be assessed according to its designated use, applicable narrative and/or numeric criteria, and anti-degradation.

2. Monitoring and Data Management

WDNR's monitoring strategy currently employs a three-tiered approach to information gathering. However, EPA is working with WDNR to improve this strategy to collect more data to better assess streams for future listing decisions. Under its current strategy, WDNR describes its Tier 1, or baseline, monitoring as what it uses to establish trends and to identify problems. The State uses the results of Tier 1 monitoring to assess the statewide, broad-scale health of Wisconsin's waters. Where environmental problems are discovered through Tier I monitoring or other credible sources of information, WDNR prioritizes these problems for further study under Tier 2.

In Tier 2 screening, WDNR identifies those waters which do not meet minimum levels of core indicators, prioritizes them, and implements more intensive monitoring for them.¹⁷ WDNR also uses Tier 2 monitoring to determine how well a water body responds to management, as evaluated under Tier 3.

Additions, deletions or other modifications for most waters on the 303(d) list are the result of specific targeted studies conducted under Tier 2 monitoring. For the past several years, DNR staff have been validating listings and preparing new listings/delistings by conducting targeted monitoring studies. This approach has resulted in water specific projects that confirmed current delistings and the development of state minimum data requirements and formal documentation of listing decisions over time.

WDNR uses Tier 3 monitoring to determine the effectiveness of implementation of management

¹⁵ 2010 WisCALM, p. 9. Wisconsin's narrative criteria are found in Wis. Admin. Code NR § 102.04(1).

¹⁶ Wis. Admin. Code NR § 102.05(1).

¹⁷ Core indicators provide a baseline picture of water chemistry, as well as different measures of the effects of stressors (e.g., exploitation, riparian development, watershed land use, and pollutants) on fishery and ecosystem health. Core indicators are discussed in WDNR, Water Division Monitoring Strategy, pp. 3-2, 3-3 (Rev. 11-6-2008). This document is available at: <http://dnr.wi.gov/org/water/monitoring/strategy.htm> (last checked August 29, 2012).

plans and to evaluate permit compliance and conditions. This monitoring provides follow-up analyses of management plans that have been implemented for problem water bodies, and evaluates permit compliance and the effectiveness of permit conditions of regulated entities.¹⁸

In 2010, the updates or changes to the 303(d) list originated from a targeted watershed planning update which involved general assessments of all waters, as well as follow-up data and specific assessments for those waters that warrant a more detailed evaluation (waters indicated as “poor” during the general assessment of data).

Currently WDNR uses two databases in the development of the identification of waters in the IR. The first is the State’s Surface Water Integrated Monitoring System (SWIMS) database, which holds chemistry (water, sediment), physical (flow), and biological (macroinvertebrate, aquatic invasive) data. Information in SWIMS is coordinated with the federal Water Quality Exchange Network, which is an online federal repository for monitoring data from all of the states. Wisconsin’s second data base is the WATERS, created in 2002, which contains the following information:

- Water Division Objectives, Goals, Performance Measures, and Success Stories,
- Clean Water Act Use Designations and Classifications (Wis. Admin. Code NR §§ 102 and 104),
- Outstanding and Exceptional Resource Waters Designations (Wis. Admin. Code NR § 102),
- Clean Water Act assessment data, including decisions regarding whether a water body meets its attainable use or whether the water body is considered "impaired",
- impaired waters tracking information, including the methodology used for listing, the status of TMDL creation, and TMDL implementation and restoration work,
- Fisheries Trout Classifications (Wis. Admin. Code NR § 1.02(7)), and
- Watershed planning recommendations, decisions, and related documents.

The SWIMS and WATERS databases are closely integrated. Within WATERS, summary values and specific information behind the assessment decision are linked directly to the monitored waters and informational data located in SWIMS.¹⁹

3. Placing waters on the List

Waters can be added to the 303(d) list for two reasons: 1) when water quality standards are not being met or 2) when designated uses are not being achieved. WDNR uses four levels of water condition to represent a water body’s placement in its overall water quality continuum: excellent, good, fair, and poor. Waters described as *excellent* and *good* attain each assessed designated use; waters described as *fair* are meeting their designated uses, but may be in a state that warrants additional management to keep water quality from declining. Waters that are described as *poor*

¹⁸ 2010 WisCALM, pp. 10-11.

¹⁹ 2010 WisCALM, pp. 14-15.

may be considered impaired, and may warrant placement on the State's 303(d) List. WDNR staff review available information to determine if it is representative (e.g. trout IBI for a warm water stream indicating "poor" would not be applicable since trout streams are cold water streams). WDNR staff also use best professional judgment to evaluate the frequency and magnitude of exceedances, weather and flow conditions during sample collection, and anthropogenic or natural influences on water quality in the watershed. If WDNR staff exclude data, these decisions are documented in the SWIMS and WATERS databases, along with recommendations for management actions.²⁰ Section 5 of the 2010 WisCALM outlines minimum data requirements and those indicators and associated thresholds that WDNR used to measure attainment status of each water body.

A water body may be considered impaired if a numeric or narrative water quality criterion is not met. WisCALM sets out data requirements for listing for most indicators including: a) period of record, b) sampling period (e.g., season, month, time of day) where appropriate, c) sample type, and d) sample size. If these data requirements are not met WDNR will use best professional judgment to determine if the water is impaired using the representative data that is available and will document its determination in a final attainment decision in the SWIMS and WATERS databases.

B. Identification of Waters and Consideration of Existing and Readily Available Water Quality-Related Data and Information

EPA reviewed WDNR's description of the information the State considered, the State's methodology for identifying impaired waters, and any other relevant information including the State's responses to EPA's requests for additional information. EPA concludes that the WDNR properly assembled and evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 C.F.R. § 130.7(b)(5). In addition, EPA concludes that the State provided sufficient information to demonstrate its rationale for its decisions not to list certain waters.

1. How Wisconsin Considers Existing and Readily Available Water Quality-Related Data and Information

In developing the 303(d) list, WDNR reviewed new data collected since the last listing cycle to determine which waters or pollutants/impairments should be added to or removed from the 2008 303(d) List. These assessment decisions are documented on WDNR 2010 Impaired Water Documentation Sheets (Documentation Sheets)²¹ and in WATERS.

EPA generally encourages States to consider monitored data that is more than five years old, unless other information indicates that conditions have changed such that the data are no longer representative of water body conditions. WDNR's WisCALM explains the State's evaluation of

²⁰ 2010 WisCALM, p. 18.

²¹ 2010 Submittal, Attachment D.

historical data and how such data is incorporated into the State's listing decisions. As explained in the 2010 WisCALM:

Data from the **most recent 10-year period** are to be used when making use assessments. Such a window ensures that the data are representative of a wide range of factors that affect water quality (i.e. weather and flow) while still being contemporary enough to document "current" water quality conditions. Further this 10-year window also increases the chance that the preferred minimum data conditions are satisfied allowing for a more robust and defensible assessment decision. The Department is not obliged to use all data that fall within the 10-year time frame if those data are determined to be unrepresentative of the stressors and normal characteristics of any given water. . . . Within the 10-year window, decisions using data from within the last 5 years are considered to be based on "monitored" data and decisions made from data between the 5 and 10 year windows, as per U.S. EPA guidance, are considered "evaluated." If a consolidated dataset from a slightly different timeframe, such as from two to eight years old is available and if the biologist determines that the dataset represents the water's current conditions, then this water may be considered "monitored" for the purposes of the state assessment program.²²

WDNR does not use non-monitored information (evaluative information) as a sole basis for identifying waters as impaired under Section 303(d). Generally, non-monitored information consists of information about land use practices, volunteer data that doesn't meet the specifications of the Wisconsin Data Quality Management Plan, and visual observations and anecdotal reports.²³ WDNR considers such information useful for screening waters and for identifying where a problem may exist but WDNR believes that monitoring should be completed to evaluate the status of a water body.

WDNR's Methodology provides that the State will review information provided by any individual or group at any time.²⁴ Data used for listing purposes must have been obtained using adequate quality assurance/control procedures. Outside agencies and individuals submitting data must show that a minimum number of samples were collected at appropriate sites and at critical periods, and that certified laboratories were used for sample analysis. If WDNR deems that the information indicates that an impairment is likely but the quality assurance/control procedures are not adequate, staff will consider collecting additional data to determine whether to list the water body in the future.

WDNR states that it did not use several forms of data in compiling the 2010 303(d) list because the data is not considered representative of current conditions or its collection did not follow the Department's Quality Management Plan. Examples where WDNR did not use such information

²² 2010 WisCALM, p. 19, emphasis in original.

²³ 2010 WisCALM, p. 14.

²⁴ 2010 WisCALM, p. 13.

included: (1) information generated outside WDNR where data quality was unknown, (2) judgments on water quality where only changes in land use were available for review (i.e. no corresponding water sampling information is available); (3) purely visual observations; and (4) anecdotal reports.²⁵ EPA reviewed the information the State submitted which included: (1) the public comments received and responses to comments, (2) information on the WATERS data sheets, (3) the listing methodology (WisCALM), and (4) public notice information and data solicitation request, and concluded that the State's listing decisions are reasonable.

2. Adding impaired waters to Category 5A and 5 B

As described above, WDNR considers data collected and received by the State in making decisions about placing waters and pollutants in Category 5A and 5B. Based on the review of existing and readily available data and information, in 2010 the State added 49 water bodies/pollutant combinations to Category 5A and 5B.

Table 1 Water bodies/pollutants added to the 303(d) list

Waters ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Category
11411	Beaver Dam Lake			6401.56	Total Phosphorus	Eutrophication	5A
13836	Bull Branch	0	3.75		Zinc	Chronic Aquatic Toxicity	5A
11701	Clear Lake			77.41	Total Phosphorus	Eutrophication	5A
1446343	Dexter Lake			222.23	Total Phosphorus	Eutrophication	5A
10049	Goldendale Creek	0	3.5		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10021	Honey Creek	0.9	7		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10020	Honey Creek	0	0.9		Fecal Coliform	Recreational Restrictions – Pathogens	5A
13680	Jordan Creek	0	6		Sediment/Total Suspended Solids	Degraded Habitat	5A
9974	Kinnickinnic River	2.84	9.61		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9973	Kinnickinnic River	0	2.83		Fecal Coliform	Recreational Restrictions – Pathogens	5A
1527102	Bayview Beach Park (Lake Michigan)			0.41	E. coli	Recreational Restrictions – Pathogens	5A
13500	Lake Wisconsin			9000	Total Phosphorus	Low DO, Eutrophication, Recreational Restrictions - Blue Green Algae	5A
18505	Little Bear Creek	0	6.77		Sediment/Total Suspended Solids	Elevated Water Temperature, Degraded Habitat	5A
18505	Little Bear Creek	0	6.77		Total Phosphorus	Eutrophication	5A

²⁵ 2010 WisCALM, pp. 14, 24.

Waters ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Category
10039	Little Menomonee Creek	0	3.9		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10038	Little Menomonee Creek	0	9		Fecal Coliform	Recreational Restrictions – Pathogens	5A
18042	Long Lake (Big Long)			120	Total Phosphorus	Eutrophication	5A
15710	Lower Turtle Lake			276	Total Phosphorus	Eutrophication	5A
16596	Magnor Lake (Richardson)			231	Total Phosphorus	Eutrophication	5A
10017	Menomonee River	2.66	6.27		Fecal Coliform	Recreational Restrictions – Pathogens	5A
426506	Menomonee River	0	2.66		Fecal Coliform	Recreational Restrictions – Pathogens	5A
1848750	Mississippi (Reach 4) Coon-Yellow - Pool 9 portion - LD 9 to LD 8)	648	679.1		Mercury	Contaminated Fish Tissue, Water Quality Use Restrictions	5A
17456	Lower Nemadji River	0	38.2		Sediment/Total Suspended Solids	Degraded Habitat	5A
10491	Potter Lake			162	Total Phosphorus	Eutrophication	5A
11081	Puckaway Lake			5039	Sediment/Total Suspended Solids	Degraded Habitat	5A
11081	Puckaway Lake			5039	Total Phosphorus	Eutrophication	5A
888574	Red Cedar River	16.48	18.8		Total Phosphorus	Eutrophication	5A
17465	St. Louis River AOC, St. Louis River			5902.36	2,3,7,8-Tetrachlorodibenzo-p-dioxin (only)	Contaminated Sediment	5A
17465	St. Louis River AOC, St. Louis River			5902.36	DDT	Contaminated Sediment	5A
17465	St. Louis River AOC, St. Louis River			5902.36	Dieldrin	Contaminated Sediment	5A
17465	St. Louis River AOC, St. Louis River			5902.36	Lead	Contaminated Sediment	5A
10026	Underwood Creek	0	5.5		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10027	Underwood Creek	5.5	8.54		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9982	Lyons Park Creek	0	1.5		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9978	Villa Mann Creek	0	1.2		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9977	Cherokee Creek	0	1.6		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10042	Lilly Creek	0	4.7		Fecal Coliform	Recreational Restrictions	5A

Waters ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Category
						– Pathogens	
9981	South 43rd Street Ditch	0	1.16		Fecal Coliform	Recreational Restrictions – Pathogens	5A
1526845	West Br. Menomonee	0	2.45		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10043	Nor-X-Way Channel	0	4.9		Fecal Coliform	Recreational Restrictions – Pathogens	5A
10040	Butler Ditch	0	2.9		Fecal Coliform	Recreational Restrictions – Pathogens	5A
11784	Whitewater Lake			640	Total Phosphorus	Eutrophication	5A
10045	Willow Creek	0	2.8		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9975	Wilson Park Creek	0	3.5		Fecal Coliform	Recreational Restrictions – Pathogens	5A
9975	Wilson Park Creek	3.5	5.5		Fecal Coliform	Recreational Restrictions – Pathogens	5A
16930	Yellow Lake			2287	Total Phosphorus	Recreational Restrictions - Blue Green Algae	5A
20304	Lake Nebagamom			985.56	Mercury	Contaminated Fish Tissue	5B
10668	Little Rice Lake			1219	Mercury	Contaminated Fish Tissue	5B
128014	Tug Lake			151	Mercury	Contaminated Fish Tissue	5B

In December 2010, the State made its draft list of impaired waters available to the public for review and comment. The State received several requests to add additional waters, including Lake Michigan near shore waters, Milwaukee River, Menomonee River, Kinnickinick River, Big Bay Park Beach, Kohler-Andrea State Beach, Apple River, St. Croix River, Beaver Dam Lake, Musky Bay, Odana Pond, Rice Lake, Red Cedar Lake, and Red Cedar River. For reasons explained in more detail below, Wisconsin did not add these waters to the list.²⁶

3. Listing of waters impaired by nonpoint sources

CWA § 303(d) lists are to include all Water Quality Limited Segments (WQLS) still needing TMDLs, regardless of whether the source of the impairment is a point or nonpoint source. EPA's long-standing interpretation is that CWA § 303(d) applies to waters impacted by point and nonpoint sources.²⁷ After complete and full review of WDNR's 2010 submittal, EPA concurs

²⁶ The State noted that many segments of the Red Cedar River were already listed. In response to the comment, WDNR reviewed the segments listed and corrected database errors relating to this water body. See 2010 Submittal, Attachment I, pp. 14-16.

²⁷ In *Pronsolino v. Marcus*, the District Court for the Northern District of California held that CWA Section 303(d) authorizes U.S. EPA to identify and establish TMDLs for waters impaired by nonpoint sources. *Pronsolino et al. v. Marcus et al.*, 91 F.Supp.2d 1337, 1347 (N.D. Ca. 2000). See also U.S. EPA's National Clarifying Guidance State and Territory Clean Water Act 303(d) Listing Decisions, Aug. 17, 1997.

that the State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with CWA § 303(d) and EPA guidance.

4. Waters Being Removed from Wisconsin's list of impaired waters

A state can remove a water body from the 303(d) list for good cause. 40 C.F.R. § 130.7(b)(6)(iv) provides that good cause includes, but is not limited to, more recent or accurate data, more sophisticated water quality monitoring, flaws in the original analysis, or changes in conditions. Additionally, EPA guidance provides that once a water body/pollutant combination has an approved TMDL, that water body/pollutant combination can be placed in the Integrated Report category 4A. Category 4A presents waters that are still impaired but have an approved TMDL addressing one or more pollutants causing an impairment.²⁸

EPA has reviewed the information provided in the 2010 Submittal and agrees that the waters identified in Table 2 below should no longer be included in WDNR's Category 5A or 5B. The State did not remove any waters because data used for the original listing was now older than five years. The state removed waters only if there was new data or information indicating the water was not impaired; or WDNR determined that the data considered in the original listing decision was flawed and thus the water pollutant combination was listed in error, or if there was an approved TMDL.²⁹

Table 2: Waters and pollutants being removed from list of impaired waters

WATERS ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Reason for removal from 2008 List
15181	Alder Lake			274	Mercury	Contaminated Fish Tissue	New data
296831	Amnicon Lake			390.23	Mercury	Contaminated Fish Tissue	New data
15718	Beaver Dam Lake, Main Basin				Mercury	Contaminated Fish Tissue	New data
128409	Big Portage Lake				Mercury	Contaminated Fish Tissue	New data
891143	Buskey Bay Lake (Pike Chain Of Lakes)			88.28	Mercury	Contaminated Fish Tissue	New data
1437248	Cedar Creek	5.01	32.71		PCBs	Contaminated Fish Tissue	New data

²⁸ See 2006 IR Guidance, pp. 58-59.

²⁹ 2010 WisCALM, pp. 59- 60.

WATERS ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Reason for removal from 2008 List
890175	Eagle Lake (Pike Chain Of Lakes)			163.42	Mercury	Contaminated Fish Tissue	New data
11907	Gilas Lake			135	Mercury	Contaminated Fish Tissue	New data
9675	Grass Lake (Cloverleaf Chain)			87	Mercury	Contaminated Fish Tissue	New data
891109	Hart Lake (Pike Chain Of Lakes)			256.87			
1488597	Marshall Park Beach			0.22	E. coli	Recreational Restrictions - Pathogens	New Data
1425363	Atwater Beach, Lake Michigan			0.65	E. coli	Recreational Restrictions - Pathogens	New Data
1452427	Atwater Beach, Lake			0.047	E. coli	Recreational Restrictions - Pathogens	New Data
1452613	Deland Park (L. Michigan)			0.58	E. coli	Recreational Restrictions - Pathogens	New Data
1452664	General King Beach (L. Michigan)			0.29	E. coli	Recreational Restrictions - Pathogens	New Data
1452935	Sunset Beach (L. Michigan)			0.55	E. coli	Recreational Restrictions - Pathogens	New data
481532	Tietien beach Doctors Park, Lake Michigan			0.81	E. coli	Recreational Restrictions - Pathogens	New data
1487383	Amnicon River Beach (L Superior)			0.25	E. coli	Recreational Restrictions - Pathogens	New data
1452451	Lake Superior Brule River State Forest Beach #2			0.36	E. coli	Recreational Restrictions - Pathogens	New data
1489001	Middle River Beach, Lake Superior			.5	E. coli	Recreational Restrictions - Pathogens	New data

WATERS ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)	Reason for removal from 2008 List
891126	Millicent Lake (Pike Chain Of Lakes)			182.69	Mercury	Contaminated Fish Tissue	New data
1488507	Long Lake Kettle Moraine St. Park North Beach			0.33	E. coli	Recreational Restrictions - Pathogens	New data
15179	Manitowish Lake			498	Mercury	Contaminated Fish Tissue	New data
890007	Morgan Coulee Creek	2.34	3.62		Sediment/Total Suspended Solids	Elevated Water Temperature, Degraded Habitat	New data
1455339	Interfalls Lake Pattison Beach (State Park)			.07	E. coli	Recreational Restrictions - Pathogens	New data
891377	Pine Lake			299.61	Mercury	Contaminated Fish Tissue	New data
9674	Pine Lake (Cloverleaf Chain) LAKE			209	Mercury	Contaminated Fish Tissue	New data
888574	Red Cedar River	16.48	18.8		Mercury	Contaminated Fish Tissue	Listed in Error correction
9676	Round Lake (Cloverleaf Chain)			27	Mercury	Contaminated Fish Tissue	New data
18028	Silver Lake			72.61	Total Phosphorus	Fish Kills, Eutrophication	New data
15178	Spider Lake			272	Mercury	Contaminated Fish Tissue	New data
14045	Squaw Creek	0	0.07		Elevated Water Temperature	Elevated Water Temperature	New data
891092	Twin Bear Lake (Pike Chain Of Lakes)			157.16	Mercury	Contaminated Fish Tissue	New data
17113	Upper Saint Croix Lake			22	Mercury	Contaminated Fish Tissue	New data

WDNR received several comments disagreeing with its proposed removal of waters from the 303(d) list.³⁰ Other comments suggested that WDNR should address beaches that show a pattern

³⁰ 2010 WisCALM, pp. 54-55.

of unsafe swimming days and consider human health consequences for removal of these waters. The comments and the waters they reference are described in detail in the discussion below.

WDNR received several requests to list as impaired those beaches that show a pattern of unsafe swimming days and also to consider human health consequences of delisting beaches that may be impacted by harmful bacteria. WDNR responded that it does not make beach assessment decisions solely on the basis of days of beach advisories or closures. Rather, WDNR re-samples when exceedances occur that are above EPA's geometric mean *E. coli* criterion of 126 colony forming unit (cfu)/100 ml, a change from WDNR's 2008 WisCALM guidance. Additionally,

WDNR does include specific re-sample requirements for beach act participants when samples exceed USEPA criteria. These requirements allow for the generation of a sufficient database over the course of a complete beach season to make a defensible decision on the tendency of a beach to experience relatively high pathogen counts.³¹

The 2010 WisCALM explains that

Using a geometric mean of a large actual data set versus using a certain number of 'beach action days' (based on individual maximum values) helps address this variability [observed by WDNR in *E. coli* sampling results] and focuses the efforts of local partners to investigate and resolve those beaches where persistent problems may exist.³²

Based on the methodology and data that WDNR evaluated for this listing cycle, WDNR delisted the following beaches: Patterson Beach State Park, Marshall Park Beach, Bender Beach, Sunset Beach-Sturgeon Bay, General King Beach, Tietien Beach-Doctors Park, Deland Park Beach, Atwater Beach, Middle River Beach, Brule River State Forest Beach #2, Brule River State Forest Beach #3, Amnicon River Beach, Long Lake Kettle Moraine State Park North Beach. Additional information on these waters can be found in the Document Data sheets found in Attachment D of the submittal package. EPA has reviewed the information that WDNR provided regarding delisting of these beaches and has concluded that the State's decision to delist is supported.

In review of the delisted waters EPA requested that WDNR look at the information supporting the delisting of James Madison Park and Spring Harbor beaches. WDNR reviewed their information and notified EPA on August 27, 2012, that James Madison Park and Spring Harbor

³¹ For the 2010 IR, WDNR changed the impairment threshold from EPA's daily maximum value of 234 CFR/100mLs, to the long-term geometric mean *E. coli* criterion of 126 cfu/100. The 2010 WisCALM explains the State's approach to listing based on the number of years of sampling data available:

Years of Information Available	Beach Listed if:
1 year of data	>35% of geomeans exceed 126 cfu/100 mL
2 years of data	>25% of geomeans exceed 126 cfu/100 mL
3 years of data	>15% of geomeans exceed 126 cfu/100 mL

2010 WisCALM, pp. 54-55, Table II, Beach Listing Thresholds for Rolling Geometric Mean. See also 2010 Submittal, Attachment I, p. 6.

³² 2010 Submittal, Attachment I, p. 6.

beaches had been delisted by mistake. WDNR provided an analysis of data to show that sampling data for these beaches exceeded the geometric mean of 15% for three years of data and that the beaches should remain on the impaired waters list for *E. coli*.³¹ Therefore, to correct this error, EPA and WDNR have agreed that these waters will remain on the Wisconsin's 2010 list.³³

40 C.F.R. § 130.7(b)(5) provides that "Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list. . . ." EPA's guidance allows the state discretion when reviewing data and information concerning the evaluation of a water body's impairment status. EPA reviews the state's methodology to determine if the methods used to list are sufficient in identifying impaired waters with respect to the WQS. WDNR currently does not have an *E. coli* standard but the 2010 WisCALM provides that the State will make listing decisions based on EPA's recommended geometric mean value. However EPA does have a concern over how WDNR is using the data to determine impairment. The State's methodology is based on taking a rolling geometric mean from 15 samples taken within a year. The rolling geometric mean is calculated from sets of 5 consecutive samples.³⁴ The State then compares the geometric mean to EPA's geometric mean *E. coli* criterion of 126 cfu/100 ml. EPA is concerned that by using this method, the state requires a higher percentage of geomeans to exceed the threshold for the first year than for subsequent years, and this could result in failing to identify an impaired water where only one year of data is available. Additionally, where a beach has been sampled fewer than 15 times in a year, but where data indicates most *E. coli* values higher than the guidance threshold, the beach may not be identified as impaired because the methodology requires a full set of 15 samples to meet minimum data requirements and calculate the geometric mean. EPA is currently working with WDNR to develop a more inclusive methodology to identify pathogen impairments for beaches.

C. Corrections to existing waters on Wisconsin's list of impaired waters

As previously discussed, WDNR is moving toward an IR for CWA §§ 305(b) and 303(d). To accomplish this integration, the State is using its WATERS database for both tracking assessment data and information needed for its CWA § 305(b) report and for making CWA § 303(d) listing decisions. WDNR made significant changes in its listing methodology between 2006 and 2008. WDNR identified some errors in the identification or segmentation of waters in the 2008 listing cycle. During the development of Category 5 for the 2010 cycle, WDNR corrected many of these errors. Table 3 below contains WDNR's corrections from the 2008 list that are reflected in the 2010 Submittal.

³³ Email from Aaron Larson, WDNR, to Donna Keclik, August 27, 2012, with attachment.

³⁴ That is, the rolling geometric mean is derived from samples 1-5, 2-6, 3-7, etc.

Table 3 Changes made from the 2008 list for the 2010 list

WATERS ID	Water body Name	Start Mile	End Mile	Acres	Pollutant(s)	Impairment(s)
18627	Black River	0	24.44		Mercury	Contaminated Fish Tissue
424081	Castle Rock Flowage			12385.63	Mercury	Contaminated Fish Tissue
889449	Chippewa R At L Wissota	77.04	80.18		Mercury	Contaminated Fish Tissue
889365	Chippewa R	60.05	77.05		Mercury	Contaminated Fish Tissue
70	Green Bay (Wi - Menominee Aoc)	0	6.43		Mercury	Contaminated Fish Tissue
2184900	Holcombe Flowage-HWY 27 Embayment			984.58	Mercury	Contaminated Fish Tissue
139900	Lake Butte des Morts			8569.14	Mercury	Contaminated Fish Tissue
2150200	Lake Hallie, Lake Hallie 2			78.64	Mercury	Contaminated Fish Tissue
11665	Monona Lake			3357.56	Mercury	Contaminated Fish Tissue
16248	Lake Winnebago			131871.09	Mercury	Contaminated Fish Tissue
16248	Lake Wissota			6300	Mercury	Contaminated Fish Tissue
12090	Menominee River	43.21	87.8		Mercury	Contaminated Fish Tissue
12090	Menominee River	3.45	43.02		Mercury	Contaminated Fish Tissue
18785	Red Cedar River	73.6	78.51		Mercury	Contaminated Fish Tissue
11455	Rock River	171.08	183.45		Mercury	Contaminated Fish Tissue
11455	Rock River	171.08	183.45		PCBs	Contaminated Fish Tissue
354476	Rock River	183.45	183.11		Mercury	Contaminated Fish Tissue
10853	Trout Creek	0	12.77		Sediment/ Total Suspended Solids	Sediment/Total Suspended Solids
10853	Trout Creek	0	12.77		Total Phosphorus	Total Phosphorus
10527	Waxdale Creek	0	2.91		Unknown Pollutant	Chronic Aquatic Toxicity
885921	Wisconsin River	187.81	204.17		Mercury	Contaminated Fish Tissue
315333	Wolf River-Main Stem	85.58	105.29		Mercury	Contaminated Fish Tissue

Midwest Environmental Advocates (MEA) requested that the DNR consider data from the Milwaukee Metropolitan Sewage District Watershed Restoration Plans and the Southeastern Wisconsin Regional Planning Commission when compiling the 303(d) list. After reviewing the information WDNR determined that its draft list contained database errors and that some stream lengths did not get properly labeled as impaired. Accordingly, WDNR added the entire length of the Menomonee River and the South Branch of Underwood Creek to Category 5.

D. Waters where no known pollutant is causing the impairment

Under Section 303(d) of the Clean Water Act, states are required to develop TMDLs for pollutants causing impairments of listed waters. Since the CWA § 303(d) list, under current regulations, is a list of waters not meeting WQS and still requiring TMDLs,³⁵ States are not required to include waters where they determine that no pollutant is causing the impairment. This is clarified in the 2006 and subsequent guidance documents.³⁶

The State has the discretion, to list waters for reasons that go beyond those required by current EPA regulations.³⁷ EPA's regulations do not require the Agency to disapprove the State's list because of the inclusion of such waters. U.S. EPA guidance also recognizes that States may take a conservative, environmentally protective approach in identifying waters to place on their Section 303(d) lists.³⁸ WDNR has included some WQLSs on its 303(d) list for reasons that are in addition to those required by federal regulations, e.g., waters where the State has evidence that pollution, rather than pollutants, is the cause of the impairment. See individual listings for water impaired by Degraded Habitat in 5A and 5B of the State's submittal.³⁹ EPA recommends that the State consider scheduling these waters for continued or additional monitoring to confirm that there continues to be no pollutant-caused impairment and to support appropriate water quality management actions to address the causes of the non-pollutant impairment.

³⁵ 40 C.F.R. § 130.7(b).

³⁶ Segments may be placed in Category 4 if available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed. Segments should be placed in Category 4c when the states demonstrates that the failure to meet an applicable water quality standard by a pollutant, but instead is caused by other types of pollution. "Segments placed in Category 4c do not require the development of a TMDL. Pollution, as defined by the CWA is "the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water" (Section 502(19)). In some cases, the pollution is caused by the presence of a pollutant and a TMDL is required. In other cases, pollution does not result from a pollutant and a TMDL is not required. States should schedule these segments for monitoring to confirm that there continues to be no pollutant associated with the failure to meet the water quality standard and to support water quality management actions necessary to address the cause(s) of the impairment. Examples of circumstances where an impaired segment may be placed in Category 4c include segments impaired solely due to lack of a adequate flow or to stream channelization." 2006 IR Guidance, p. 53.

³⁷ CWA § 303(d) charges States with the primary responsibility to identify WQLSs for TMDL development; CWA § 510 authorizes States to adopt more stringent pollution controls.

³⁸ See U.S.EPA, Office of Water, *National Clarifying Guidance for 1998 Section 303(d) Lists*, August 27, 1997.

³⁹ See Attachment 1 of this document for individual listings for water body impairments/pollutant combinations.

E. Waters included on the list which may be in Indian country

EPA's approval of Wisconsin's Section 303(d) list extends to all water bodies on the list with the exception of those waters that are within Indian Country, as defined in 18 U.S.C. § 1151. EPA is taking no action to approve or disapprove the State's list with respect to those waters at this time. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under CWA § 303(d) for those waters.

F. Priority Ranking and Targeting

EPA also reviewed the State's priority ranking of listed waters for TMDL development and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters, as well as other relevant factors, such as likelihood to respond, availability of information, opportunities provided by other activities, and time to develop TMDLs. Wisconsin ranked its waters in terms of "high," "medium" and, "low" priority. A ranking of "high" indicated a TMDL to be submitted to EPA within the next two years (two year schedule). A ranking of "medium" indicates likely completion of a TMDL in the next two to five years. A ranking of "low" indicates likely completion of a TMDL in the next five to 13 years. The ranking is not an indication of the starting point for TMDL development but when the state anticipates the completion and submittal of the TMDL.

EPA reviewed the State's identification of WQLSs targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this time frame. In developing the priority rank, WDNR considered the following: the availability of data; other activities in the area; likelihood of the water body to respond to management actions; severity of the impairment; and public health concerns. For "high" and "medium" priority waters, WDNR will also conduct Tier 1 and Tier II monitoring.

EPA has received WDNR's long-term schedule for TMDL development for all waters on the State's 2010 Section 303(d) list. The long term schedule, included with the list are those waters which the State has ranked as medium or low priority.

The State's original prioritization included consideration of available resources. If available resources have changed, EPA considers it reasonable for the State to re-evaluate the prioritization of TMDL development for an impaired water body. Additionally, U.S. EPA agrees that there are non-TMDL mechanisms which can be used to attain water quality standards. If these mechanisms are in process, yet have not been fully implemented or have not had sufficient time to impact water quality, it is reasonable for the State to change the TMDL prioritization to allow time for full implementation and evaluation of impacts of implementation. As a policy matter, EPA has requested that States provide such TMDL development schedules.⁴⁰ However,

⁴⁰ Memorandum from Robert Perciasepe, Assistant Administrator for Water, to Regional Administrators and Regional Water Division Directors, "New Policies for Developing and Implementing TMDLs," August 8, 1997.

EPA is not taking any action to approve or disapprove this schedule pursuant to CWA Section 303(d).

H. Public Participation

EPA's regulations require states to include in their Continuing Planning Process (CPP) the process for involving the public and other stakeholders in the development of the Section 303(d) list.⁴¹ WDNR's CPP has not been updated to cover public participation relating to the 303(d) process, which EPA has noted in the past.⁴² Nevertheless, WDNR did provide for public notice and comment on its 2010 303(d) list, as described below.

WDNR posted the draft 2010 303(d) list, together with its methodology, on its website on December 1, 2009. The public notice period ran for 45 days, until January 15, 2010. WDNR received 71 comments on the proposed list and subsequently responded to those comments.⁴³ WDNR provided copies of the comments and response to comments to EPA in Attachment I of the State's March 31, 2010 submittal.⁴⁴ EPA's decision today includes discussions of selected comments received by the State.

Midwest Environmental Advocates (MEA) commented that WDNR should provide a larger time period in which members of the public can submit data for consideration by the State, and, additionally, that Wisconsin make a heightened effort to notify those groups that may compile such information.⁴⁵ Federal regulations provide that states should "assemble and evaluate all existing and readily available water quality-related data and information to develop the list . . . [and including] Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These groups should be actively solicited for research they may be conducting or reporting." 40 C.F.R. § 130.7(b)(5). In its response to this comment, WDNR explained that it intends to take two steps to broaden its public outreach and information gathering for the 2012 listing cycle. These steps include: (1) increasing the public comment period for data submittal from 30 days to a period of three to six months; and (2) develop methods for transmitting data from outside institutions into the SWIMS database.⁴⁶ EPA encourages these steps to ensure broader public participation in the State's listing process, as well as increasing the scope of data collection across a broad spectrum of potentially relevant sources.

⁴¹ 40 C.F.R. § 130.7(a).

⁴² EPA, "Decision document Approving Wisconsin's 2006 List with respect to Section 303(d) of the Clean Water Act," September 29, 2006, p. 23; EPA "Decision Document for the Partial Approval/Partial Disapproval of Wisconsin's 2008 List with Respect to Section 303(d) of the Clean Water Act," January 26, 2010, pp. 38-39.

⁴³ WDNR, 2008 303(d) List Submittal, Attachment I, pp. 26-28.

⁴⁴ Copies of the comments were submitted by Aaron Larson, WDNR to Donna Keclik, EPA, through two emails dated December 7, 2011 and March 15, 2012.

⁴⁵ Letter from Betsy Lawton, MEA, to Robert Masnado, WDNR, January 15, 2010, pp. 3-5.

⁴⁶ WDNR 2010 303(d) List Submittal, Attachment I, pp. 18-19.

1. Comments requesting the State make assessments against Wisconsin's Draft Phosphorus Standard

MEA commented that Wisconsin should include waters as impaired in relation to the state's proposed numeric criteria for phosphorus. States are required to make listing determinations in relation to "water quality standards established under Section 303 of the [Clean Water] Act. . . ." 40 C.F.R. § 130.7(b)(3). At the time Wisconsin developed its 2010 303(d) list, the State was also developing a numeric water quality criterion for phosphorus. Accordingly, Wisconsin is only required to make listing decisions on promulgated standards. The standard Wisconsin used for listing for nutrients for the 2010 list is the narrative standard. Wisconsin subsequently developed a methodology to interpret this narrative standard for the 2010 listing cycle. In July 2012 EPA approve a numeric standard for phosphorus. The standards will be effective for the 2012 listing cycle.

2. Comments requesting adding Musky Bay to the 2010 303(d) list

WDNR received several comments requesting that Musky Bay be added to the list of impaired waters. The Courte Oreilles Lakes Association (COLA) also submitted data in support of its listing request. In its response, WDNR noted that EPA was then in the process of proposing to add Musky Bay to the State's 2008 303(d) list, and additionally, the WDNR's review of the additional data provided by COLA in the development of the 2010 list "verified that threshold values were not exceeded and the data did not support a determination that the Bay is impaired."⁴⁷

In its January 26, 2010, partial approval of Wisconsin's 2008 Impaired Waters List, EPA reviewed the information that had been available to WDNR regarding Musky Bay and agreed that "additional sampling is needed to make an impairment decision with regard to phosphorus."⁴⁸ However, after reviewing available data, including the documented impaired use of the Bay for boating, EPA proposed to list the Bay as impaired based on Wisconsin's narrative standard which provides that "Floating or submerged debris, oil, scum or other material shall not be present in such amounts as to interfere with public rights in waters of the State." Wis. Admin. Code NR § 102.04(1)(b).⁴⁹ After seeking public notice and comment on the proposed listing, and reviewing available data, EPA concluded that "Information available to EPA is insufficient to determine that Musky Bay is impaired, as defined in Wis. Admin. Code NR § 102.04(1)(b)."⁵⁰ EPA, however, further recommended that Wisconsin consider placing Musky Bay into Category 3 while the State obtained further information needed to reevaluate its designated use attainment determination.⁵¹ EPA agrees that in the absence of a more detailed listing methodology, either

⁴⁷ WDNR 2010 303(d) List Submittal, Attachment I, p. 12.

⁴⁸ Letter from Tinka Hyde, EPA, to Todd Ambs, WDNR, January 26, 2010, enclosing EPA Decision Document for the Partial Approval/Partial Disapproval of Wisconsin's 2008 List with Respect to Section 303(d) of the Clean Water Act, pp. 21-22.

⁴⁹ 75 Fed. Reg. 22589 (April 29, 2010).

⁵⁰ Letter from Tinka Hyde, EPA, to Kenneth G. Johnson, Administrator, Division of Water, WDNR, August 5, 2011.

⁵¹ Memorandum from Diana Regas, EPA, to Water Division Directors, "Guidance for 2006 Assessment, Listing and

for assessing phosphorus impairment or for interpreting the narrative standard set out in Wis. Admin. Code NR § 102.04(1)(b), there is insufficient information to include Musky Bay in the 2010 list of impaired waters based on the listing methodology. At the time of the development of the state's 2010 Submittal WDNR had not yet adopted numeric standards for determining phosphorus impairment. The standards will be effective for the 2012 listing cycle.

EPA notes that Wisconsin's 2012 WisCALM includes a phosphorus listing methodology and additional guidance on listing water bodies which may be impaired because of excessive plant growth. EPA additionally notes that Wisconsin has proposed listing Musky Bay for total phosphorus concentrations which exceeded WisCALM listing thresholds for recreation use for shallow lowland drainage lakes in the 2012 impaired waters list.

3. Comments linking fish consumption advisories to listing decisions

MEA commented that "DNR should list waters that contain fish with mercury levels that may injure health when the fish are relied on as a food source. MEA indicated that many of the waters under the general consumption advisory appear to violate this human health standard, yet DNR does not consider them for 303(d) listing."⁵² WDNR responded that it does not list waters subject to the general fish consumption advisory, which applies to all the state's waters, but rather lists only those waters subject to special fish consumption advisories, which are based on the collection of fish tissue data.⁵³ EPA's 2000 guidance states "For purposes of determining whether a water body is impaired and should be included on a Section 303(d) list, EPA considers a fish or shellfish consumption advisory, a National Shellfish Sanitation Program (NSSP) classification, and the supporting data, to be existing and readily available data and information that demonstrates non-attainment of a Section 101(a) fishable use when among other concerns:

1. the advisory is based on fish and shellfish tissue data,
2. the data are collected from the specific water body in question.⁵⁴

EPA agrees with WDNR that where there is a general advisory without site specific data the state is not required to include these water bodies on the 303(d) list.

In the 1998 listing cycle, WDNR included waters on the 303(d) list that were identified in the Wisconsin Department of Health's general fish consumption advisory list. Currently, Wisconsin lists as impaired those waters for which there is specific fish tissue data to support a waterbody-specific advisory. Since 2000, WDNR has been methodically collecting data on specific waters to support listing, and adding waters for which specific data becomes available. WDNR

Reporting Requirements Pursuant to Sections 303(d), 306(b) and 314 of the Clean Water Act, July 29, 2005, at 53.

⁵² Letter from Betsy Lawton, Midwest Environmental Advocates, to Robert Masnado, WDNR, January 15, 2010, p. 11.

⁵³ WDNR 2010 303(d) List Submittal, Attachment I, p. 24.

⁵⁴ U.S. EPA, "Use of Fish and Shellfish Advisories and Classifications in 303(d) and 305(b) Listing Decisions" October 24, 2000.

anticipates that it will take several listing cycles to complete data verification for all of the general use water listings from the 1998 list.

With respect to waters where data shows elevated mercury levels resulting from atmospheric mercury deposition, WDNR does not currently list these waters.⁵⁵ EPA's guidance provides a voluntary approach for states to create a separate listing category for waters that may be impaired by atmospheric mercury deposition, recognizing that the listing process is a valuable tool to raise public awareness and to augment ongoing state programs to address atmospheric deposition of mercury.⁵⁶

3. Comments regarding listing "threatened" waters

MEA commented that WDNR currently lacks a definition of "threatened" waters and a methodology to evaluate "partially meeting" and "threatened" waters for listing purposes, and requested that WDNR add such waters to the state's 2010 list.⁵⁷ WDNR responded that while it no longer uses the term "partially meeting," it lacks a definition and guidance for assessing "threatened" waters. WDNR notes its assessment categories of "Excellent," "Good," "Fair," or "Poor," and that these categories do "not relate to data trends, but how a water body is assessed relative to other similar water bodies. . . . Unless there are critical non-data reasons, the only waters considered for the 303(d) list will be those that score at the "Poor" condition level and meet appropriate impairment thresholds."⁵⁸

EPA has commented to WDNR regarding its concerns that in the absence of a means of assessing data trends, WDNR would seem limited to listing waters only after they have achieved "poor" status.⁵⁹ WDNR indicated in its response to this comment, that "Dependent upon staff and fiscal resources, ["fair"] waters will be flagged" and monitored closely to determine as early as reasonably possible any changes in water quality."⁶⁰ EPA is currently working with the state to address this issue.

⁵⁵ WDNR 2010 303(d) List Submittal, Attachment I, p. 24.

⁵⁶ EPA, "Memorandum on Listing Waters Impaired by Atmospheric Mercury Under Clean Water Act Section 303(d): Voluntary Subcategory 5m for States with Comprehensive Mercury Reduction Programs," March 8, 2007.

http://water.epa.gov/lawsregs/lawguidance/cwa/tmdl/upload/2007_03_08_tmdl_mercury5m_Mercury5m.pdf.

⁵⁷ Letter from Betsy Lawton, MEA, to Robert Masnado, WDNR, January 15, 2010, p. 12.

⁵⁸ WDNR 2010 303(d) List Submittal, Attachment I, p. 24.

⁵⁹ WDNR 2010 303(d) List Submittal, Attachment 1, Response to U.S. EPA Comments of June 20, 2009, pp. 1-3, 10.

⁶⁰ WDNR 2010 303(d) List Submittal, Attachment 1, Response to U.S. EPA Comments of June 20, 2009, pp. 1-3, 10.

I. Attachments

Attachment 1: U.S. EPA Approved Category 5A: list of impaired waters needing TMDL, except for waters solely impaired due to atmospheric mercury

Attachment 2: U.S. EPA Approved Category 5B: list of impaired waters solely impaired due to atmospheric mercury needing TMDL

Attachment 3: WDNR Category 4A: waters impaired not needing TMDL because TMDL is already approved.

Attachment 4: WDNR Category 2: waters meeting some designated uses.