

## DECISION DOCUMENT FOR THE APPROVAL OF WISCONSIN'S 2016 LIST WITH RESPECT TO SECTION 303(d) OF THE CLEAN WATER ACT

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The U.S. Environmental Protection Agency (EPA) has conducted a complete review of Wisconsin's 2016 Clean Water Act (CWA) 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 Act and EPA's implementing regulations at 40 C.F.R. § 130.7. Therefore, EPA hereby approves Wisconsin's 2016 Section 303(d) list.

EPA concludes that Wisconsin properly assembled and evaluated existing and readily available data and information, including data and information relating to categories of waters specified at 40 C.F.R. § 130.7(b)(5). EPA concludes that the state submitted a methodology that outlines how the state uses readily available data and information to make assessment and impairment decisions. EPA also concludes that Wisconsin provided a rationale for not relying on particular existing and readily available water quality related data and information as a basis for listing waters on the 303(d) list, and that Wisconsin demonstrated good cause for not listing certain WQLSs on its 2016 303(d) list.

EPA's approval of Wisconsin's 2016 303(d) list extends to water bodies identified in Table 1 in the Appendix to this Decision Document, 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 that are within Indian Country. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.

The statutory and regulatory requirements, and EPA's review of Wisconsin's compliance with each requirement, are described below.

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## **I. Statutory and Regulatory Background**

### **A. Identification of Water Quality-Limited Segments (WQLS) for Inclusion on CWA 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,<sup>1</sup> 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.<sup>2</sup>

### **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 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.<sup>3</sup> In addition to these minimum categories, states are required to consider any other existing and readily available data and information. 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.<sup>4</sup> While states are required to evaluate all such 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.

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<sup>1</sup> 40 C.F.R. § 130.7(b)(1)(iii).

<sup>2</sup> 40 C.F.R. § 130.7(b)(1).

<sup>3</sup> 40 C.F.R. § 130.7(b)(5).

<sup>4</sup> Guidance for Water Quality-Based Decisions: The TMDL Process, EPA Office of Water, 1991, Appendix C (hereafter, "U.S. EPA's 1991 Guidance").

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.<sup>5</sup>

### **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.<sup>6</sup> In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses of such waters.<sup>7</sup> 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.<sup>8</sup>

## **II. EPA Analysis of Wisconsin's 2016 List**

### **A. Wisconsin's 2016 303(d) List Submittal**

#### **1. Timeline of List Submittal**

The 2016 303(d) list “submittal” is comprised of the state’s submittals received by EPA on April 1 and 22, 2016 and other supporting information. All of this information is summarized below and was compiled in EPA’s administrative record for this decision.

On April 1, 2016, the Wisconsin Department of Natural Resources (WDNR) submitted to EPA the State’s impaired waters list, including attachments:<sup>9</sup>

- Data Documentation Short Reports;
- Wisconsin 2016 refinement in segment mileage;
- Wisconsin final 2016 draft 303(d) list.

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<sup>5</sup> 40 C.F.R. § 130.7(b)(6).

<sup>6</sup> 40 C.F.R. § 130.7(b)(4).

<sup>7</sup> CWA Section 303(d)(1)(A).

<sup>8</sup> 57 Fed. Reg. 33040, 33045 (July 24, 1992); see also EPA's 1991 Guidance.

<sup>9</sup> See e-mail message from Ashely Beranek, WDNR, to Donna Keclik, EPA, April 1, 2016, with attachments.

On April 22, 2016, the WDNR submitted to EPA the state's final draft 303(d) list, plus supporting documentation.<sup>10</sup> The submittal included the following:

- Attachment A: Wisconsin's 2016 Water Quality Report to Congress and Executive Summary;
- Attachment B: Data Documentation Short Reports for additions, deletions, delistings, and flood-affected waters;
- Attachment C: Wisconsin 2016 Consolidated Assessment & Listing Methodology (WisCALM) dated March 2015;
- Attachment D: Public data submittals;
- Attachment E: Public Comments and Responses.

Wisconsin also submitted this information to EPA on a disk as requested by EPA.

## **2. Integrating the CWA 305(b) report and CWA 303(d) list**

EPA encourages states to submit Integrated Reports to fulfill CWA §§ 305(b) and 303(d) requirements of the CWA. Wisconsin's CWA 305(b) assessment and 303(d) list categories are set out in Table 1, below. The 2016 impaired waters submittal to EPA included waters in Category 4 and Category 5, and subcategories 5A, 5B, 5C, 5P and 5W. Wisconsin submitted data and information required under §305(b) of the CWA directly to EPA through the Water Quality Exchange Network.<sup>11</sup>

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<sup>10</sup> See e-mail message chain from Ashely Beranek, WDNR, to Donna Keclik, EPA April 22, 2016, with attachments.

<sup>11</sup> The Water Quality Exchange (WQX) is a new framework that makes it easier for states, tribes, and others to submit and share water quality monitoring data over the Internet. For more information, see <http://www.epa.gov/storet/wqx/>, last accessed August 8, 2016.

**Table 1.** Integrated report categories in the 2016 WisCALM<sup>12</sup>

IR Category	Description
Category 1	<p>All designated uses are met, no use is threatened, and the anti-degradation policy is supported.</p> <p>This category requires that all designated uses have been assessed for a given water.</p>
Category 2	<p>Available information indicates one or more designated uses are met.</p> <p>This category is applied to waters that have been assessed and considered fully meeting one or more designated uses and is usually applied in Wisconsin to waters that have been restored and removed from the impaired waters list.</p>
Category 3	<p>There is insufficient available data and/or information to assess whether a specific designated use is being met or if the anti-degradation policy is supported.</p>
<p>Category 4: Waters where a Total Maximum Daily Load (TMDL) is approved by EPA or not required.</p>	
Category 4A	<p>All TMDLs needed for attainment of water quality standards have been approved or established by EPA. This does not mean that all other designated uses have been evaluated and found to be meeting their designated use.</p>
Category 4B	<p>Required control measures are expected to achieve attainment of water quality standards in a reasonable period of time.</p>
Category 4C	<p>A waterbody where the impairment is not caused by a pollutant. Pollution is defined by EPA as the human-made or human-induced alteration of the chemical, physical, biological, and radiological integrity of water (Section 502(19)).</p>
<p>Category 5: Waters where a TMDL is required.</p>	
Category 5A	<p>Available information indicates that at least one designated use is not met or is threatened and/or the anti-degradation policy is not supported, and one or more TMDLs are still needed.</p>
Category 5B	<p>Available information indicates that atmospheric deposition of mercury has caused the impairment of the water. The water is listed for a specific advisory and no in-water source is known other than atmospheric deposition.</p>
Category 5C	<p>Available information indicates that non-attainment of water quality standards may be caused by naturally occurring or irreversible human-induced conditions.</p>
Category 5P	<p>Available information indicates that the applicable total phosphorus criteria are exceeded; however, biological impairment has not been demonstrated (either because bioassessment shows no impairment or because bioassessment data are not available).</p>
Category 5W	<p>Available information indicates that water quality standards are not met; however, the development of a TMDL for the pollutant of concern is a low priority because the impaired water is included in a watershed area addressed by at least one of the following WDNR approved watershed plans: adaptive management plan, adaptive management pilot project, lake management plan, or CWA Section 319-funded watershed plan (i.e., nine key elements plan).</p>

<sup>12</sup> 2016 WisCALM, March 2015, p. 62.

## **B. Review of Wisconsin's Consideration of Existing and Readily Available Water Quality-Related Data and Information**

EPA's regulations at 40 C.F.R. § 130.7(b)(5) require that states assemble and evaluate existing and readily available data and information to develop their lists of impaired waters. EPA reviewed WDNR's description of the data and information, its effort to gather available data, and other relevant 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)(i) – (iv). EPA's review of Wisconsin's consideration of data for these categories of waters is summarized below.

The 2016 submittal identifies five categories of impaired water bodies which need TMDLs: water bodies which are not meeting water quality standards (Category 5A), water bodies that are impaired due to atmospheric mercury deposition (Category 5B), water bodies that are impaired due to naturally occurring causes (Category 5C), water bodies that exceed total phosphorus (TP) criteria, but available biological data either do not exist or do not exceed 'poor' indicator thresholds (Category 5P), and waters that are impaired and Adaptive Management or alternative watershed management plans are in place to address the impairments (Category 5W).

Wisconsin added the subcategories 5P and 5W to the final 2012 303(d) list and continues to use these subcategories for the 2016 list. Waters in these categories receive a lower priority to develop TMDLs. Category 5P was created to identify waters that exceeded phosphorus water quality criteria, but for which biological data, such as chlorophyll-*a* or biotic indicators, either do not indicate poor conditions or are unavailable. Category 5W was created to identify waters such as Badfish Creek, which are part of an existing adaptive management program, as described in Wis. Admin. Code NR § 217, and that is designed to address the identified impairments. Wisconsin also identified on its 2016 list impaired water bodies for which the state has approved TMDLs but where the waters have not yet attained water quality standards. Waterbodies with approved TMDLs are placed in Category 4A. EPA recognizes that these waters are not meeting water quality standards but are not included the 303(d) list, as these already have TMDLs.

EPA's long-standing interpretation is that CWA § 303(d) applies to waters impacted by point and nonpoint sources.<sup>13</sup> Section 303(d) lists are to include all WQLSs still needing TMDLs, regardless of whether the sources of the impairment are point sources, nonpoint sources or a combination of the two. EPA reviewed the list and determined that the state properly listed waters with point and nonpoint sources causing or expected to cause impairment.

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<sup>13</sup> 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*, 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.

Based on its review of existing and readily available data and information, and the assessments made for the 2016 303(d) list, the State has added 286 pollutant/impairments to Category 5 and its subcategories (Tables 4 and 5 in the attachment to this document), and delisted<sup>14</sup> 23 waterbody impairments (Tables 2 and 3 in the attachment to this document)<sup>15</sup> bringing the total number of pollutant/impairments on the 303(d) list to 1476.

After full review and consideration of the information presented by the State in its 2016 submittal, EPA is approving all the waters identified in Table 1 of the Appendix to this Decision Document as impaired waters in Wisconsin needing TMDLs (i.e. waters identified in Categories 5A, 5B, 5C, 5P, and 5W).

### ***C. Review of Wisconsin's rationale to list or not list WQLSs on the 303(d) List***

EPA's regulations at 40 C.F.R. § 130.7(b)(6) require 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 (40 C.F.R. § 130.7(b)(6)(i)), a description of data and information used to determine whether to include a WQLS on the 303(d) list (40 C.F.R. § 130.7(b)(6)(ii)), a rationale for a decision to not use any data (40 C.F.R. § 130.7(b)(6)(iii)), and a demonstration of good cause for not including a water on the list (40 C.F.R. § 130.7(b)(6)(iv)).

#### **1. Methodology used to assess waters and develop the list**

While WisCALM is not part of the state's approved water quality standards, EPA's integrated reporting guidance provides that EPA should consider the methodologies that are not part of state approved standards to determine whether:

. . . [t]he 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 [...]<sup>16</sup>

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<sup>14</sup> Wisconsin identified impairments removed from the impaired waters list as either 'delisted or deleted'. A waterbody that has been identified as delisted is now meeting standards and is no longer identified as impaired for any pollutant/impairment. A waterbody impairment that is marked as deleted refers to the removal of a pollutant and associated impairment. WDNR considers waters in both Categories 4A and 5 when identifying whether a water is to be delisted or deleted. EPA has referred to both delisted and deleted waters as "delisted" in this document.

<sup>15</sup> A new cause of impairment to a water already listed for another cause is referred to by WDNR as an 'addition,' whereas WDNR refers to a water "proposed for list" as new waterbody segment that has no pollutant/impairments on a prior list. EPA considers these to be additions to the list.

<sup>16</sup> U.S. EPA, Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Section 303(d) and 305(b) of the CWA, pp. 29-30.



a. *Summary of WisCALM*

The WisCALM describes a three-tiered monitoring strategy that WDNR uses to gather information for CWA 305(b) and 303(d) purposes, as well as other state programs. The WisCALM describes these as: statewide baseline (Tier 1), targeted evaluation (Tier 2), and management effectiveness and compliance (Tier 3). The WisCALM also contains core indicators to assess general waterbody conditions, and thresholds to assess attainment of designated uses. The indicators include physical, chemical, and biological parameters.

Under the current strategy, Tier 1 monitoring is used to collect baseline information and to establish trends and identify problems. Tier 1 monitoring assesses the general condition of Wisconsin's waters on a broad, statewide scale. Waters that do not meet the minimum levels of core indicators in a Tier 1 assessment are prioritized for more intensive Tier 2 monitoring. WDNR considers Tier 2 to be more site-specific monitoring that is used to validate Tier 1 results or to further evaluate the conditions and aquatic life use of a water. Data collected in Tier 2 are used to determine impairment status and the cause(s) of impairment. Tier 3 monitoring is used to determine the effectiveness of management measures and permit conditions. Regulatory monitoring of permitted entities is also part of Tier 3 monitoring.<sup>17</sup>

To determine if a water should be added to the 303(d) list, WDNR first conducts a general assessment and identifies the qualitative condition of a water as either excellent, good, fair or poor. Waters are identified as either *excellent* or *good* if they are attaining designated uses that were assessed; waters are identified as *fair* if they attain their designated uses but actions may be needed to prevent further decline of water quality. Waters identified as *poor* do not meet designated uses and may be considered *impaired* and listed in accordance with Section 303(d) of the CWA. A water is considered impaired if available data, which meet minimum requirements, indicate that a designated use and/or a numeric or narrative water quality criterion is not met.<sup>18</sup>

WDNR staff use best professional judgment to assess whether data are relevant and appropriate for use in impairment decisions. The factors that are important in these determinations include: data quality, frequency and magnitude of exceedances, weather and flow conditions during sample collection, and anthropogenic or natural influences on water quality in the watershed. WDNR provides a rationale if professional judgment results in not relying on some available data in the final impairment decision.<sup>19</sup>

Wisconsin's water quality standards include designated uses, numeric/narrative criteria, and antidegradation provisions. Wis. Admin. Code NR §§ 102, 103, 104, 105, 207, and 217.

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<sup>17</sup> 2016 WisCALM, March 2015, pp. 4-5.

<sup>18</sup> 2016 WisCALM, March 2015, p 11.

<sup>19</sup> *Ibid* p. 9.

*i. Designated Uses*

Designated uses in Wisconsin include: recreation, public health and welfare, wildlife, and fish and aquatic life (FAL). The State's subcategories for the FAL use include coldwater community, warmwater sport fish community, warmwater forage fish community, limited forage fish community, and limited aquatic life community. Designated uses, including the subcategories for FAL, are codified in Wis. Admin. Code NR §§ 102 and 104. Waters that are not referenced in code are considered FAL waters by default and are assumed to support either a coldwater community or warmwater community depending on water temperature and habitat. In some cases, coldwater fish communities referenced in the 1980 Trout Book (Wisconsin Trout Streams - Publication 6-3600(80)) may be codified by reference.

The designated uses are considered in list decisions by comparing water quality data to narrative or numeric nutrient criteria that are set to protect a designated use. If data for a particular water meet minimum data requirements and quality considerations, and exceed the appropriate water quality criteria, then Wisconsin may add the water to the 303(d) list.

*ii. Numeric and Narrative Criteria*

Narrative criteria describe qualitative conditions to be met in a given waterbody. 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 access. Such standards protect surface waters and aquatic biota from eutrophication, algae blooms, and turbidity, among other things. Wisconsin's narrative criteria are found in Wis. Admin. Code NR §102.04(1).

Wis. Admin. Code NR § 102 includes numeric surface water quality criteria for conventional parameters such as pathogens, nutrients, and temperature to protect FAL and recreation designated uses. The regulations in NR § 105 include surface water quality criteria for toxic substances (for example, metals and organics) to protect public health and welfare uses, the present and prospective use of all surface waters for public and private water supplies and the propagation of fish and aquatic life and wildlife.

*iii. Antidegradation*

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.<sup>20</sup>

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<sup>20</sup> Wis. Admin. Code NR § 102.05(1).

WDNR identifies waters that may be subject to antidegradation during Tier 3 monitoring.

*b. EPA's review of WisCALM*

EPA reviewed and provided comments on both the draft WisCALM, which was placed on public notice on December 18, 2014; and the final WisCALM, which was placed on public notice with the draft impaired waters list, on October 27, 2015.<sup>21</sup> In its review of the draft WisCALM, EPA expressed concerns about whether WDNR's monitoring efforts would support routine and systematic assessments and impairment decisions. EPA continues to work with WDNR to resolve these concerns.

## **2. Data and information used to develop the list**

In developing its list, WDNR uses its own monitoring data and information, as well as data submitted by the public, other agencies, and universities. Available water quality information used in making assessments are summarized in impaired waters short reports for each WQLS assessed. These reports were available online during the public comment period,<sup>22</sup> and were also provided to EPA with the 2016 submittal.<sup>23</sup>

*a. WDNR monitoring data*

WDNR created and manages two databases that support the State's listing process:

The Surface Water Integrated Monitoring System (SWIMS) database contains chemical (water, sediment), physical (flow), and biological (macroinvertebrate, aquatic invasive) data collected for CWA programs. Data in SWIMS are shared through the federal [Water Quality Exchange Network](#), which is an online federal repository for all states' water monitoring data.<sup>24</sup>

Since 2004, WDNR has also used its "Water Assessment, Tracking and Electronic Reporting System (WATERS)" database, which contains:

- Program Objectives, Goals, Performance Measures, and Success Stories;
- CWA Use Designations and Classifications (NR §§102, 104);
- Outstanding and Exceptional Resource Waters Designations (NR §102);

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<sup>21</sup> See e-mail message dated February 17, 2015 from Donna Keclik, EPA, to Aaron Larson, WDNR, concerning comments on the draft WisCALM, and e-mail message dated December 17, 2015, from Donna Keclik, EPA, to Aaron Larson, WDNR, concerning comments on the final WisCALM.

<sup>22</sup> WDNR Impaired Water Search website, <http://dnr.wi.gov/water/impairedSearch.aspx>. Last accessed May 1, 2017.

<sup>23</sup> See Attachment B Short Reports, included in the e-mail message dated April 22, 2016, from Ashley Beranek, WDNR, to Donna Keclik, EPA.

<sup>24</sup> Wisconsin Water Quality Report to Congress 2016, p 66.

- CWA assessment data, including decisions about whether a waterbody is meeting its designated use or is considered "impaired";
- Impaired waters tracking information, including the methodology used for listing, the status of the TMDL development, and restoration implementation work;
- Fisheries Trout Classifications (Administrative Code, NR §102(7)); and
- Watershed planning recommendations, decisions, and related documents.<sup>25</sup>

WDNR uses data from both systems in its listing process.<sup>26</sup>

*b. Public data*

WDNR held a 1-month data solicitation period from December 16, 2014, to January 15, 2015, to gather data from the public, academic institutions, and other relevant agencies. WDNR notified the public of the data solicitation period through a December 18, 2014, press release and an e-mail message sent to WDNR's GovDelivery listserv for impaired waters, which reaches more than 1,500 contacts.

WDNR requires that data used in assessment and list decisions meet quality control requirements that are specified in WisCALM and made available on WDNR's website during the data solicitation period.<sup>27</sup> If WDNR deems that impairment is likely but the quality assurance/control procedures used for data collection were not adequate, staff will consider collecting additional data to determine whether to list the waterbody in the future.

WDNR received data submittals from nine entities during the data solicitation period:

- Capital Area Regional Planning Commission
- Green Lake Sanitary District
- Rock River Coalition
- Kewaunee CARES
- Lac Courte Oreilles Lake Association
- Northland College
- Bad River Watershed Association
- River Alliance of Wisconsin
- Cheryl Elkinton

WDNR stated that it reviewed all the data submitted during the data solicitation and used the data submitted by Rock River Coalition, Lac Courte Oreilles Lake Association, Northland

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<sup>25</sup> Wisconsin Water Quality Report to Congress 2016, p 66.

<sup>26</sup> Wisconsin Water Quality Report to Congress 2016, p 66.

<sup>27</sup> 2016 WisCALM, March 2015, pp. 8-9.

College, Bad River Watershed Association, and River Alliance of Wisconsin in its 2016 list development.<sup>28</sup>

EPA reviewed the information described above that was submitted by the state and concluded that WDNR considered all readily available information for use in 305(b) assessment and 303(d) list decisions. Information included: (1) the public comments received and responses to comments, (2) a description and copies of the data submitted by the public, (3) impaired waters short reports which identify WDNR monitoring data and public data used in assessments, and (4) a rationale for why certain data were not used to make impairment decisions. EPA concludes that WDNR's data solicitation and work with specific agencies to gather information is consistent with what EPA considers active solicitation in its integrated reporting guidance.<sup>29</sup>

### **3. Rationale for a decision to not use existing and readily available data**

EPA's 2006 IR guidance provides that data quality considerations are important in determining which data to use in assessments.<sup>30</sup> WDNR reviewed the data submitted by the public to determine if data quality requirements were met. WDNR excluded data where it had concerns about data:

- **Capital Area Regional Planning Commission:** WDNR indicated the Planning Commission submitted a satellite imagery map of Beaver Lake in Waukesha County showing possibly eutrophic conditions based on image color. WDNR reviewed available data for this lake, including satellite-derived Trophic State Index (TSI) data that were included in the 2014 Integrated Report assessments (TSI=34, Oligotrophic). The State considered available historic phosphorus data (from 1995) and other available data, but did not find sufficient information to make an impairment determination. The State explained that it may conduct additional monitoring of this lake in the future.<sup>31</sup>
- **Green Lake Sanitary District:** No data were submitted and WDNR noted that Green Lake is currently listed as impaired for the following pollutants: polychlorinated biphenyls (PCBs) and total phosphorus (TP).<sup>32</sup>
- **Kewaunee CARES:** WDNR explained that "Nitrate, Total Phosphorus (TP), and E. coli / Total Coliform data collected from streams/rivers were submitted; however, only TP data were assessed due to lacking assessment methods or

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<sup>28</sup> Wisconsin Water Quality Report to Congress 2016, pp 66-68.

<sup>29</sup> EPA 2006 IR guidance, pp. 31.

<sup>30</sup> EPA 2006 IR guidance, pp. 32-33.

<sup>31</sup> Wisconsin Water Quality Report to Congress 2016, p 67.

<sup>32</sup> Wisconsin Water Quality Report to Congress 2016, p 67.

criteria for other parameters.”<sup>33</sup> EPA considered the lack of criteria as a reasonable basis for not identifying Nitrate and E. coli/Total Coliform data as bases for stream/river impairments.

The 2016 WisCALM guidance discusses considerations of data-representativeness to ensure that the data are collected to capture a range of conditions in a waterbody. Where data cover only a period of extreme conditions, WDNR may use best professional judgment to determine whether additional information suggests the water should be listed for an impairment, or whether additional information should be collected to make an impairment decision.<sup>34</sup>

EPA reviewed instances where WDNR excluded data for use in listing decisions and confirmed that exclusion of data was due to issues related to data quality, insufficient data quantity, and the lack of a methodology. WDNR's exclusion of data based on concerns related to data quality and lack of criteria is consistent with EPA's integrated report guidance.<sup>35</sup> The remaining information submitted during the public solicitation period was used to make assessment and impairment decisions.<sup>36</sup> EPA concludes that where data were excluded for use in listing decisions, WDNR supported its decisions based on a rationale consistent with EPA guidance.

#### **4. Demonstration of good cause for not including WQLSs or pollutants on the list**

A state may remove a waterbody from the 303(d) list for good cause. Good cause includes, but is not limited to, the availability of more recent or accurate data, or more sophisticated water quality monitoring, flaws in the original analysis, or changes in conditions (40 C.F.R. §130.7(b)(6)(iv)). EPA's "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the CWA," elaborates on what constitutes good cause for delisting.<sup>37</sup> Additionally, according to EPA guidance, once a pollutant/impairment combination for a water has an approved TMDL, that pollutant/impairment combination can be placed in Category 4A. Category 4A includes waters that are still impaired but have an approved TMDL addressing the pollutant causing the impairment in question. Wisconsin tracks waters that are in 5 and 4A as impaired and considers this the list of impaired waters.

Waters or impairments removed from Wisconsin's list of impaired waters are either identified as "delisted" or "deleted." Where all pollutants/impairments for a waterbody have been resolved and the water is no longer included in category 4 or 5, the State has identified the water as

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<sup>33</sup> Wisconsin Water Quality Report to Congress 2016, p 67. EPA notes that the lack of a formalized assessment methodology by itself is not a basis for a state to avoid evaluating data or information when developing its Section 303(d) list.

<sup>34</sup> WisCALM, dated March 26, 2015, p. 8.

<sup>35</sup> EPA 2006 IR guidance Section V, H.2, pp. 31-36.

<sup>36</sup> Wisconsin Water Quality Report to Congress 2016, p 66.

<sup>37</sup> EPA 2006 IR guidance pp 58-59.

delisted. Impairments are identified as *deleted* when a pollutant/impairment combination can be removed but the waterbody will remain on the list for other pollutant/impairment combinations.<sup>38</sup>

EPA has reviewed the information provided by WDNR in its 2016 submittal and agrees that the impairments that were proposed to be delisted and deleted were appropriately delisted or deleted from Wisconsin's 2014 303(d) list and not included on the Wisconsin's 2016 list. Wisconsin proposed to remove waters where additional data and/or information supported that:

- a water now meets water quality standards;
- the historical reasons for listing were inaccurate;
- a TMDL has been approved by EPA that addresses the listed cause of impairment(s).<sup>39</sup>

*a. Delisted WQLSs*

Wisconsin proposed to delist ten waters from the Wisconsin impaired waters list (which included one water in 4A and nine waters in 5).<sup>40</sup> Four beaches were delisted for *E. coli* impairment of recreational use; two lakes were delisted for mercury impairment of contaminated fish tissue; and three river segments were delisted, for total phosphorus, sediment/total suspended solids and chlorides respectively. The rationale to delist these waters was supported by additional data and information submitted to EPA by WDNR in the short reports. WDNR also considers waters that have a TMDL to be on the impaired waters list. EPA recognizes these waters to be in category 4A (impaired, but have a TMDL). WDNR has removed one water from category 4A as now meeting the standard (Pleasant Valley Branch WATERS ID 13732, WBIC 908500). Although this water is now considered to be in category 2 (meeting some uses) for sediments/total suspended solids (degraded habitat as the impairment), the TMDL remains in place and the water is still covered by that TMDL. The list of waters with the specific pollutant/impairment identified as being delisted can be found in Table 2 of the Appendix to this decision document.

*b. Deletion of an impairment in a WQLSs*

WDNR defines 'deletion of a WQLS impairment' as removal of a pollutant/impairment for a waterbody that will remain on the list due to other pollutants/impairments.<sup>41</sup> While Wisconsin considers both category 4 and 5 waters to be on the list, EPA only approves waters in category 5.

Wisconsin deleted 14 impairments from the impaired waters list (see Table 3 of the Appendix to this decision document for deleted impairments). All the pollutant impairments were for segments in category 5. Several of the pollutants were changed and the new pollutant impairments can be found in the additions to the list (see Table 2 of this document for pollutants added to the list). The decision to delete these pollutants/impairments was supported by

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<sup>38</sup> See e-mail message from Ashley Beranek, WDNR to Donna Keclik, EPA, Attachment B, April 22, 2016.

<sup>39</sup> 2016 WisCALM, March 2015, pp. 59-60.

<sup>40</sup> Wisconsin Water Quality Report to Congress, Appendix C, 2016 Proposed Delistings.

<sup>41</sup> See e-mail message from Ashley Beranek, WDNR to Donna Keclik, EPA, Attachment B, April 22, 2016.

additional data and information submitted by WDNR to EPA. EPA's review of that information is included below and summarized in Table 4 of the Appendix to this decision. One water (Lake Wingra WATERS ID 11667, WBIC 805000) was identified as being removed for Total Phosphorus. However, this water was mistakenly omitted from the 2014 approved 303(d) list for Total Phosphorus. This water remains on the 2016 list for contaminated fish tissue due to PCBs and still requires that WDNR develop a TMDL.

EPA concludes that Wisconsin demonstrated good cause not to include the above waters on its 2016 303(d) list. EPA also concludes that the state provided a rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters, and where necessary, the State followed up or has made plans to acquire additional data in order to make impairment decisions.

#### ***D. Review of Wisconsin's Priority Ranking***

Once readily available data have been gathered and assessed, the WQLSs that are included on the 303(d) list must be assigned a priority ranking for TMDL development. Past priority rankings were evaluated during each listing cycle, generally according to a ranking of "high," "medium," or "low."<sup>42</sup> WDNR based its rankings on a number of factors including severity of the impairment and public health concerns. Under its new TMDL Vision process Wisconsin uses a modeling process that identifies watershed areas at a 12-digit Hydrologic Unit Code (HUC-12) scale. Total phosphorus (TP) and total suspended solids (TSS) are priority concerns.<sup>43</sup> Wisconsin submitted its Prioritization Framework with the information for the 2016 303(d) list and it appears on the State's website. [http://dnr.wi.gov/topic/impairedwaters/2016IR\\_IWList.html](http://dnr.wi.gov/topic/impairedwaters/2016IR_IWList.html). Wisconsin has also identified TMDLS which will be completed within the next two years.

#### ***E. Public Participation***

EPA regulations require states to involve the public and other stakeholders in the development of the 303(d) list as part of their Continuing Planning Process (CPP).<sup>44</sup> WDNR provided notice to the public on its initial draft 2016 303(d) list from October 27, 2015, to November 25, 2015, and received comments from a total of 27 individuals and organizations, including EPA. WDNR also hosted a webinar regarding the 2016 draft list on November 3, 2015. Wisconsin provided to EPA a copy of comments received and a summary of Wisconsin's response, which are included in the administrative record to this decision.<sup>45</sup> EPA reviewed WDNR's response to those comments and concludes that WDNR acknowledged and responded to public comments related to the list.

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<sup>42</sup> WDNR, Wisconsin's Water Quality Restoration and Protection Prioritization Framework (2016), p. 3.

<sup>43</sup> WDNR, Wisconsin's Water Quality Restoration and Protection Prioritization Framework (2016), pp. 3-4.

<sup>44</sup> 40 C.F.R. §130.7(a).

<sup>45</sup> See e-mail message from Ashley Beranek, WDNR, to Donna Keclik, EPA, dated April 22, 2016.



## **1. Public comments on Specific Water bodies not previously discussed**

### *a. Waters Added after draft public noticed list based on public comments*

*South Fish Creek (WIBIC 2889900, Waters ID 17624):* A commenter submitted data during the public comment period which supported an impairment finding for 25 miles of South Fish Creek. The State agreed that these 25 miles of this waterbody should be included in category 5P (i.e., TP exceed the numeric criteria, but the biology is currently meeting thresholds) for total phosphorus as the pollutant with the impairment indicator unknown. The State has added this segment (identified as proposed) to the State's submitted list.

*Bay City Creek (WIBIC 2891100, Waters ID 17626):* A commenter submitted data during the public comment period supporting an impairment finding for seven miles of the creek. The State agreed that seven miles of this waterbody should be included in category 5A (because this segment exceeded both TP criteria and biological thresholds) due to total phosphorus with degraded biology as the impairment. The State has added this segment (identified as proposed) to the State's submitted list.

*Unnamed Tributary to South Fish Creek (WIBIC 2890200, Waters ID 5698877)* A commenter submitted data during the public comment period supporting an impairment finding for seven miles of the creek. The State agreed that seven miles of this waterbody should be included in category 5P due total phosphorus with the impairment indicator unknown. The State has added this segment (identified as proposed on the State's submitted list).

### *b. Waters/impairment identified on the draft public notice list but not included on the final submitted impaired waters list*

*Pewaukee River (WIBIC 771700, Water ID 10510)* The full length of the Pewaukee River was removed from the final submitted list. It was originally identified as not meeting applicable standards based on mistaken information.

*Root River (WBIC2900, Waters ID 896175)* the Root River, from just north of Highway 38 to County Highway, was removed from the proposed list for chlorides impairment but remains on the list because of impairments due to other pollutants. The proposed chlorides listing was based on mistaken information.

### *c. Waters which commenters raised issues with the methodology*

*Lac Courte Oreilles (WBIC2390800)* One commenter requested that WDNR determine that Lac Courte Oreilles (LCO) is impaired due to low dissolved oxygen (DO). The Courte Oreilles Lake Association (COLA) submitted water column data and sampling information during the public comment period. The data submitted by COLA included samples collected in both the epilimnion and the hypolimnion. WisCALM provides that for assessing impairment due to DO,

“Samples should be taken from the epilimnion. In the case of two-story lakes, samples should be taken from both the epilimnion and hypolimnion.”<sup>46</sup> Elsewhere, however, WisCALM provides that impairment assessments for DO are to be made on the basis of “10 discrete epilimnetic values (ice free period, epilimnetic samples).”<sup>47</sup>

In its response to public comments, WDNR stated that it uses epilimnetic DO measurements collected during ice-free time periods to assess concentrations of DO for all lake types.<sup>48</sup> Using this methodology, the data provided do not support listing LCO as impaired. The COLA data which suggested possible impairment, were taken only from the lake’s hypolimnion, which the State explained is not consistent with its current assessment method.<sup>49</sup> WDNR also responded that the State is currently reevaluating its DO assessment protocols for two-story fishery lakes, as further explained below.

COLA also wrote to EPA to request that the lake be listed as impaired for DO. Although there is no public comment period associated with EPA’s review of a state’s CWA 303(d) list, EPA discussed with the State the existing data and information, including the information supplied by COLA. This discussion included the consideration of additional information that the State is currently using in developing a revised WQS for DO and a new approach for assessing DO for two-story lakes.

The State’s anticipated revision of the standard and associated assessment methodology will look at the intersection of dissolved oxygen and temperature (“oxy-thermal approach”). The oxy-thermal approach looks at the areas of the waterbody where the temperature and DO values would support cold water fisheries within a given stratum. The State considered this approach in assessing Lac Courte Oreilles for impairment using the data submitted by COLA during public comment period, but determined there were insufficient data upon which to make a listing determination.

EPA also reviewed the available data using both the State’s current method, as well as its anticipated oxy-thermal approach. The latter approach looked at zones (selected as a hypothetical matter, because the State’s anticipated revised standard and assessment methodology is not final), where the temperature was less than or equal to 66 degrees Fahrenheit (°F), and the DO level was greater than or equal to 5 mg/l in a stratum of one-meter, as those are the most stringent values being considered by the State at this time. COLA provided DO and thermal data for all three basins in the lake (these did not include data for Musky bay). The data collection methods used by COLA were not consistent with regard to the depth intervals used for taking temperature and DO measurements.<sup>50</sup> Specifically, the DO and temperature data provided by

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<sup>46</sup> 2016 WisCALM, p. 30.

<sup>47</sup> 2016 WisCALM, p. 33.

<sup>48</sup> See WDNR’s Summary of Public Comments and WDNR’s Responses pp. 16-17, Lac Courte Oreilles.

<sup>49</sup> See WDNR’s Summary of Public Comments and WDNR’s Responses pp. 16-17.

<sup>50</sup> *Quality Assurance Project Plan for 106 Water Quality Monitoring Project Lac Courte Oreilles Reservation Hayward, Wisconsin* (January 2013), states, “Each site location will be profiled at the surface and at each

COLA were taken at intervals that were too coarse to define zones of suitable habitat required for the resident fish species.<sup>51</sup>

Following the close of the State's public comment period, COLA submitted additional sampling data from 2016. These data were collected outside the timeframe the State considered for its 2016 list. However, EPA understands that WDNR is planning to assess the lake for its 2018 list using the current DO standard and the oxy-thermal approach, including using the more recent data and a fish kill report submitted by COLA for the assessment determination. EPA agrees with the WDNR that the data applicable to the 2016 list assessment are insufficient to make a listing determination. EPA finds that the State's determination to leave the water in category 3 and to reassess the lake for the 2018 listing cycle is reasonable.

## ***F. Waters with no known pollutant causing the impairment***

Under Section 303(d) of the CWA, states are required to develop TMDLs for pollutants causing impairments of listed waters. Since the Section 303(d) list is a list of waters "still requiring TMDLs," states are not required to include waters where they determine that no pollutant is causing the impairment.

WDNR has included some WQLSs on its 303(d) list beyond those that are required by federal regulations (e.g., WQLSs listed as impaired by Degraded Habitat). The state may consider scheduling these waters for 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. The state has the discretion under Section 303(d) of the Act, which charges states with the primary responsibility to identify WQLSs for TMDL development, and Section 510 of the Act, which authorizes states to adopt more stringent pollution controls, to list waters for reasons beyond those required by current EPA regulations. EPA's regulations do not compel EPA to disapprove the state's list because of the inclusion of such waters. EPA guidance also recognizes that states may take a conservative, environmentally protective approach in identifying waters on their Section 303(d) lists.<sup>52</sup>

## ***G. EPA Tribal Consultation***

Under its tribal consultation process, EPA consults with federally-recognized tribes on a government-to-government basis where EPA decisions may impact tribal interests. EPA contacted federally-recognized tribes within the State of Wisconsin to provide the opportunity to consult with EPA on its decision on the final Wisconsin 2016 303(d) list. EPA sent invitations to

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subsequent meter until it is at near bottom; depth is recorded for each measurement," p. 12.

<sup>51</sup> See e-mail message chain between Peter Swenson, EPA, and Ashley Beranek, WDNR, April 10, 2017. Also see e-mail message between Donna Keclik, EPA, and Brian Weigel, WDNR, March 15, 2017.

<sup>52</sup> EPA National Clarifying Guidance for 1998 Section 303(d) Lists, August 27, 1997.

tribal leaders and relevant staff on August 18, 2016,<sup>53</sup> and December 9, 2016.<sup>54</sup> EPA held consultation calls with the tribes on September 28, 2016, and January 4, 2016. A representative from GLIFW also participated in the January call. No additional comments were received during these consultation sessions.

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<sup>53</sup> Letter from Tinka G. Hyde, EPA, to Tribal chairpersons of the 11 tribes in Wisconsin, dated August 18, 2016.

<sup>54</sup> Letter from Christopher Korleski, EPA, to Tribal chairperson to all 35 tribes in Region 5, dated December 9, 2016.