

## **APPENDIX J**

### **INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER QUALITY NOTICE OF PUBLIC COMMENT PERIOD FOR THE 2024 LIST OF IMPAIRED WATERS AND CONSOLIDATED ASSESSMENT AND LISTING METHODOLOGY UNDER SECTION 303(D) OF THE CLEAN WATER ACT**

## **PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment for the development of its draft 2024 303(d) List of Impaired Waters (hereafter the “303(d) List”) and the Consolidated Assessment and Listing Methodology (CALM) used to develop it. Any person having water quality data to support or refute the listing of a specific waterbody or to add a waterbody to the list will be able to provide that information to IDEM during this public comment period. Comments and suggestions regarding the CALM will also be accepted during this period. IDEM will review and respond to all comments received. IDEM plans to submit its finalized 2024 303(d) List as part of its 2024 Integrated Report to U.S. EPA by April 1, 2024. All public comments received during the public comment period and IDEM’s responses will be included in its April 1, 2024, submittal to the United States Environmental Protection Agency (U.S. EPA).

This notice and all appendices including IDEM’s CALM and Total Maximum Daily Load (TMDL) Priority Framework are provided on IDEM’s [Integrated Water Monitoring and Assessment Report webpage](#). The Integrated Report webpage also contains all supporting tables in a spreadsheet format to provide the public the ability to search for information more effectively regarding specific waters of interest. Copies of these tables may also be obtained by contacting Paul McMurray in the IDEM Office of Water Quality Watershed Assessment and Planning Branch, Office of Water Quality, (317) 308-3210 or (800) 451-6027 (in Indiana).

**AUTHORITY: IC 13-18-2-3**

## **BASIC PURPOSE AND BACKGROUND**

The IDEM Office of Water Quality (OWQ) is preparing to update its 303(d) List, as required by Section 303(d) of the federal Clean Water Act (CWA) and the Water Quality Planning and Management regulation contained in the Code of Federal Regulations (CFR) at 40 CFR Part 130. Under the CWA, each state is required to assemble all existing and readily available water quality-related data and information for use in assessing its waters for compliance with the state's water quality standards (WQS). States may adopt national water quality criteria or develop state-specific criteria, or do both, to protect the uses described in their WQS. In Indiana, these uses include recreational uses, aquatic life use, and the use of some waters as a drinking water resource. States are required to prepare and make public a list of waters that do not meet the WQS, and the methodology used to evaluate the data and determine impairment status. The 303(d) List will identify the following:

- The reach or reaches of the stream or river waterbody that is impaired or the lake that is impaired (lakes are evaluated as a single waterbody).
- The pollutant or pollutants that do not meet the WQS, thereby causing the impairment.
- A schedule for development of a Total Maximum Daily Load (TMDL).

A TMDL evaluation is a process that quantifies the amount of a specific pollutant that a waterbody can assimilate and still meet WQS. A description of what constitutes a pollutant is provided in Section 502(6) of the CWA and includes materials such as sewage, chemical wastes, biological materials, and wastes from industrial, municipal, and agricultural operations. The definition also encompasses drinking water contaminants that are regulated under Section 1412 of the Safe Drinking Water Act (SDWA). A TMDL is a written, quantitative assessment that accomplishes the following:

- Identifies how much of the pollutant is coming from point sources and nonpoint sources.
- Specifies the amount of pollutant reduction necessary from each source to meet the WQS set for that pollutant.
- Lays the groundwork for developing and implementing a plan to reduce the amount of the pollutant coming from each source.

As part of IDEM's TMDL process, the public is invited to participate in the plan to develop and implement the TMDL.

## **Status of U.S. EPA Approval of Indiana's 303(d) List of Impaired Waters**

Indiana submitted its finalized 2022 303(d) list to U.S. EPA on April 1, 2022. On April 29, 2022, U.S. EPA issued a partial approval of Indiana's 303(d) list. More information regarding U.S. EPA's partial approval can be found on IDEM's [Integrated Report webpage](#).

## **Applicable Federal Law**

IDEM develops its 303(d) List pursuant to Section 303(d) of the federal CWA. This notice serves as a solicitation for any additional water quality-related information that may be used to

further develop and refine the 2024 303(d) list and satisfies the federal Water Quality Planning and Management regulation in 40 CFR Part 130.

### **Request For Public Comments**

At this time, IDEM solicits the following:

- Water quality data or water quality-related information to support or refute the listing of a specific waterbody or to add a waterbody to the 303(d) list.
- Comments and suggestions regarding the Consolidated Assessment and Listing Methodology (CALM).

Comments may be submitted in one of the following ways:

- By mail or common carrier to the following address:  
  
Subject Line: 2024 Draft 303(d) List of Impaired Waters  
Paul McMurray - Integrated Report Coordinator  
Watershed Assessment and Planning Branch  
Office of Water Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
MC65-40-2 SHADELAND  
Indianapolis, IN 46204-2251
- By electronic mail to [pmcmurra@idem.IN.gov](mailto:pmcmurra@idem.IN.gov). To confirm timely delivery of your comments, please request a document receipt when you send the electronic mail. PLEASE NOTE: Electronic mail comments will NOT be considered part of the official written comment period unless they are sent to the address indicated in this notice.
- Hand delivered to the receptionist on duty at the IDEM Shadeland office reception desk, Western Select Building, 2525 North Shadeland Avenue, Indianapolis, Indiana.

Regardless of the delivery method used, each comment document must clearly specify in the subject line or heading of the correspondence “2024 Draft 303(d) List of Impaired Waters” so that IDEM can properly associate your comment with the action it is intended to address.

### **Comment Period Deadline**

All comments must be postmarked, or time stamped not later than March 14, 2024. Hand-delivered comments must be delivered to the appropriate office by 4:45 p.m. on the above-listed deadline date.

Additional information regarding this notice may be obtained from Paul McMurray in the Watershed Assessment and Planning Branch, Office of Water Quality, (317) 308-3210 or (800) 451-6027 (in Indiana).

## **Development Of Indiana's 2024 303(d) List of Impaired Waters**

For the development of the 2024 Draft 303(d) List, IDEM has followed, to the degree possible, the 305(b) and 303(d) reporting methods outlined in U.S. EPA Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (U.S. EPA, 2003) and the additional guidance provided in U.S. EPA memorandums containing information concerning CWA Sections 303(d), 305(b), and 314 integrated reporting and listing decisions for the 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2022, and 2024 cycles<sup>1</sup> (U.S. EPA, 2005, 2006, 2009, 2011, 2013, 2015, 2017, 2021, 2023).

IDEM uses U.S. EPA's Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) to support the tracking and reporting of water quality assessment information to the public and U.S. EPA. IDEM's interpretation of the readily available and existing water quality data and listing decisions considers U.S. EPA's guidance and IDEM's current CALM.

This notice identifies all changes to the 303(d) list that have been made since U.S. EPA's April 29, 2022, partial approval of Indiana's 2022 303(d) list.

## **Indiana's Consolidated List**

One aspect of U.S. EPA's guidance calls for a comprehensive listing of all monitored or assessed waterbodies in a state, based on the state's assessment and listing methodology. Each waterbody assessment unit (AU), which may consist of an entire waterbody or a segment of a larger waterbody, is to be placed in one or more of five categories depending on the degree to which it supports designated uses. U.S. EPA guidance encourages states to place a waterbody AU in additional categories as appropriate to more clearly illustrate where progress has been made with TMDL development and other restoration efforts. Therefore, waterbodies are assigned to one category for each of the following designated uses: aquatic life use, recreational use, fish consumption<sup>2</sup>, and public water supply<sup>3</sup>.

A detailed explanation of the five categories is provided in IDEM's CALM in Attachment J-1. The following is a summary of the five categories:

Category 1 - The available data or information, or both, indicate that all designated uses are supported, and no use is threatened.

Category 2 - The available data or information, or both, indicate the individual designated use is supported.

Category 3 - The available data or other information is insufficient to determine if the individual designated use is supported.

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<sup>1</sup> U.S. EPA did not issue Integrated Reporting guidance for the 2020 cycle.

<sup>2</sup> Fish consumption is not a designated use in Indiana's Water Quality Standards (WQS). IDEM assesses Indiana waters for fish consumption pursuant to current U.S. EPA policy and in keeping with CWA goals, which are reflected in Indiana's WQS (327 IAC2-1-1.5 and 2-1.5-3).

<sup>3</sup> The designation for public water supply use is applicable only to waters that serve as a routine or emergency source of water for a public water system.

Category 4 - The available data or information, or both, indicate that the individual designated use is impaired or threatened but a TMDL is not required due to one or more of the following reasons:

- A. A TMDL for one or more pollutants has been completed and approved by U.S. EPA and is expected to result in attainment of all applicable WQS.
- B. Other pollution control requirements are reasonably expected to result in the attainment of all WQS applicable to the pollutant or pollutants in a reasonable period of time.
- C. The impairment is not caused by a pollutant and, as such, does not require a TMDL.

Category 5 - The available data or information, or both, indicate the individual designated use is impaired or threatened, and a TMDL is required due to one or both of the following reasons:

- A. The individual designated use is impaired or threatened by one or more pollutants and requires a TMDL.
- B. The waterbody is impaired due to the presence of mercury or PCBs, or both, in the edible tissue of fish at concentrations exceeding Indiana's human health criteria for these contaminants.

The 303(d) List consists of all impairments listed in Category 5. This category includes waters where the WQS is not attained because the waterbody AU is impaired or threatened by one or more pollutant(s) for each of which a TMDL is required. However, due to the complex nature of the contaminants involved, IDEM categorizes all fish tissue-related impairments into Category 5B (a state-defined subcategory similar to U.S. EPA's 5r subcategory) deferring development of a conventional TMDL to allow other contaminant clean-up efforts to remedy such impairments.

### **U.S. EPA Rules for Delisting Impairments**

U.S. EPA's most recent guidance (U.S. EPA, 2023) does not change existing rules for listing and delisting impairments from Category 5. The existing regulations still require states, at the request of the U.S. EPA's Regional Administrator, to demonstrate good cause for not including impairments on the 303(d) list that were included on previous 303(d) lists (pursuant to 40 CFR 130.7(b)(6)(iv)). In general, IDEM will consider delisting an impairment only if one of the following is true:

- New data indicate that WQS are now being met for the specific cause of impairment to the AU under consideration.
- The assessment or listing methodology, or both, has changed, and the AU would not be considered impaired in accordance with the new methodology.
- An error is discovered in the sampling, testing, or reporting of data that led to an inappropriate listing.

- IDEM determines that another program other than the TMDL program is better suited to address the water quality problem.
- IDEM determines that the water quality problem is not caused by a pollutant for which a TMDL can be developed.
- A TMDL has been approved by U.S. EPA for the impairment.

### **IDEM's Methods for Prioritizing TMDL Development**

The CWA does not clearly define the timeline for TMDL development. However, IDEM works with U.S. EPA Region 5 during every 303(d) listing cycle to determine IDEM's short term TMDL schedule, which identifies the TMDLs to be developed for the next cycle. For the 2024 cycle, IDEM's TMDL development has been focused on three watersheds:

- Vernon Fork of the Muscatatuck River watershed – TMDL approved on September 9, 2022.
- Black Creek watershed – TMDL currently on Public Notice.
- Lake Manitou – TMDL currently under development.

During the 2026 cycle, IDEM's TMDL development will focus on the following watersheds:

- Big Raccoon Creek watershed
- Indian Creek – White River watershed
- Indian Creek (Monroe County) watershed

IDEM will submit its finalized list of TMDLs developed and approved for the 2024 cycle with the submittal of its 2024 Integrated Report.

IDEM's long term schedule for TMDL development was developed in accordance with the methods described in IDEM's TMDL Program Priority Framework (Attachment J-2). This framework was developed in 2015 and describes IDEM's methods for prioritizing waters for TMDL planning and watershed restoration. It also includes the agency's long term TMDL development schedule, which identifies the watersheds in which TMDLs will be developed through the 2024 cycle. More detailed information on IDEM's 303(d) TMDL Program Priority Framework and the long-term schedule for TMDL development can be found in IDEM's CALM (Attachment J-1).

As with IDEM's short-term schedule, the watersheds identified on IDEM's long-term schedule may change based on unanticipated circumstances. While the specific watersheds IDEM focuses on may change, IDEM will prioritize TMDL development using the methods described in its Program Priority Framework to help ensure consistency with U.S. EPA's long-term vision.

### **How Impairment Information Is Organized on Indiana's 303(d) List of Impaired Waters**

IDEM maintains assessment information for all Indiana waters in ATTAINS for CWA 305(b) reporting and 303(d) listing purposes and to provide assessment information when

requested by the public. Every lake, stream, or reach of stream in ATTAINS is assigned a unique assessment unit identification code (AUID).

Generally, each lake or reservoir is considered one AU and is assigned a single AUID. For flowing waters, the size of AUs vary based on several factors such that a single AUID may represent an entire stream or only one reach of it. IDEM's methods for defining representative AUs are discussed in the CALM.

On the 303(d) list, impairments are listed individually to achieve consistency with the way U.S. EPA tracks TMDL development and to facilitate more effective planning by IDEM. Therefore, a single AU may appear on the 303(d) list for one or more impairments.

### **How IDEM Developed the Draft 2024 303(D) List**

Each 303(d) list builds upon the previous list. To develop the draft 2024 303(d) list in this notice, IDEM used as its basis 2022 303(d) list. The tables in this notice identify all impairments removed from and added to Category 5 as well as those added to Category 4A based on the approval of TMDLs developed for them. Tables summarizing all changes made to date for the 2024 cycle are also provided in this notice.

### **IDEM's Consolidated Assessment and Listing Methodology**

The impairments on Indiana's draft 303(d) list were identified through IDEM's CWA Section 305(b) water quality assessment process. Water quality assessments are made for each designated use and waterbody type by comparing the available data with the applicable WQS following the methods described in IDEM's Consolidated Assessment and Listing Methodology (CALM), which is provided in Attachment J-1. IDEM's CALM may be modified from cycle to cycle for one or more of the following reasons:

- New science or other information becomes available to support the development of new assessment methods or revisions to existing methods.
- Changes in Indiana's WQS, such as the adoption of new water quality criteria, make a change in the applicable assessment methodology necessary.
- IDEM identifies a change that will result in more accurate or representative water quality assessment and/or allows the use of additional existing and readily available data in its water quality assessment processes.

### **IDEM's Use of External Data**

The majority of the data used in IDEM's CWA Section 305(b) water quality assessments come from IDEM's water monitoring programs. However, Section 303(d) of the CWA requires that states consider all readily available data sources in the preparation of their 303(d) lists. On September 23, 2015, IDEM launched its External Data Framework (EDF) to provide a systematic, transparent, and voluntary means for external organizations to share the water quality data they collect with IDEM for potential use in its CWA assessment and listing processes. The public is invited to explore IDEM's [EDF webpage](#) to learn more about the EDF and how to submit water quality data for potential use in the development of IDEM's 303(d) list for future cycles.



The public is also encouraged to use this comment period as an opportunity to provide feedback to IDEM regarding the EDF. All comments received during the public comment period for the 2024 303(d) list will be reviewed and evaluated to identify potential improvements to the process or to suggest any changes in IDEM's policies regarding the use of external data in its decision-making processes.

### **Impairments Removed from Category 5A as a Result of TMDL Development**

During the 2024 cycle, IDEM submitted one TMDL report to U.S. EPA. The TMDL report for the Vernon Fork-Muscatatuck River watershed was approved on September 9, 2022, resulting in IDEM moving twelve (12) impairments previously listed in Category 5 to Category 4A.

To facilitate public review of the resulting changes to the 303(d) list, all impairments moved into Category 4A for the 2024 cycle as of this notice are identified in Attachment 3 (provided in the *2024 NOC Listing Tables.xlsx* spreadsheet). The TMDL report for the Vernon Fork-Muscatatuck River watershed and interactive story maps for 2026-cycle TMDLs currently under development can be found on the IDEM [Total Maximum Daily Load Reports webpage](#).

### **Impairments Removed from Category 5 Based on New or Revised Assessments Indicating that Applicable WQS Are Being Met**

This section includes impairments removed from Category 5 based on more recent data or other information that have become available since U.S. EPA approval of IDEM's 2022 303(d) list, some through new assessments and others through review of existing assessment information. IDEM has identified a total of one hundred three (103) previously identified impairments for which WQS are now being met (see Attachment 4 in the *2024 NOC Listing Tables.xlsx* spreadsheet). These impairments have been removed from Category 5A for the 2024 cycle.

### **Impairments Removed from Category 5 Based on IDEM's Ongoing Review to Identify Errors and Omissions and to Ensure Consistency with Indiana's WQS**

IDEM routinely reviews its 303(d) list for errors and omissions, and to ensure consistency with Indiana's WQS and the information IDEM maintains in ATTAINS. For the 2024 cycle, IDEM has identified one hundred thirteen (113) impairments that should be removed from Category 5 (see Attachment 5 in the *2024 NOC Listing Tables.xlsx* spreadsheet).

### **Impairments Added to Category 5 Based on New or Revised Assessments**

This section includes impairments added to Category 5 based on more recent data or other information that have become available since IDEM's 2022 303(d) list was approved by U.S. EPA. For a lake or stream to be listed, IDEM must have sampling data representative of that waterbody, and the data collected must support 303(d) listing in accordance with IDEM's CALM. Based on assessments performed during the 2024 303(d) List development cycle, IDEM has added a total of one hundred eighty four (184) impairments to Category 5 (see Attachment 6 in the *2024 NOC Listing Tables.xlsx* spreadsheet).

### **Summary of Changes to Indiana's 303(d) List for the 2024 Cycle**

Table 1 summarizes the proposed removals from and additions to Indiana's 303(d) list and the impact of these changes in terms of:

- The total number of impairments and the total number of individual waterbodies impaired. Note that these values differ because a single waterbody may be listed for one or more individual impairments.
- The total number of impairments and individual waterbodies impaired, broken out by waterbody type (streams versus lakes).
- The total number of stream miles and lake acres impaired.

Table 2 provides a comparison of the approved 2022 303(d) list and the draft 2024 303(d) list in terms of the types of changes made (removals and additions to Category 5).

Table 3 shows the total number of impairments identified in Categories 4 and 5 of this notice in terms of waterbody type and total size.

Table 4 provides a comparison of the types of impairments in Category 5 identified on the 2022 303(d) list with those identified on the draft 2024 303(d) list. This comparison also includes Category 4 impairments for both cycles to provide a comprehensive view of the parameter impairing Indiana waters.

### **A Comprehensive Picture of Impairment to Indiana Waters**

The 303(d) list is a subset of Indiana's Consolidated List, which provides a comprehensive accounting of all assessment information IDEM has for Indiana waters to date including waters that have been found fully supporting of one or more designated uses (Categories 1 and 2), those that have yet to be assessed (Category 3), and waters that are impaired (Categories 4 and 5). The 303(d) list is comprised of Category 5 impairments only, which includes Category 5A (water-column impairments) and Category 5B (fish tissue impairments).

While this notice pertains specifically to changes made to Category 5 impairments, it is important to note that to gain a fully comprehensive view of all impaired waters in Indiana, one must also consider Category 4 waters, which are impaired but do not require a TMDL for one of the following reasons:

- Category 4A – A TMDL for one or more pollutants has been completed and approved by U.S. EPA and is expected to result in attainment of all applicable WQS.
- Category 4B – Other pollution control requirements are reasonably expected to result in the attainment of all WQS applicable to the pollutant or pollutants in a reasonable period of time.
- Category 4C – The impairment is not caused by a pollutant and, as such, does not require a TMDL.

Indiana's draft 2024 303(d) list includes all Category 5 impairments (see Attachment 7 of *2024 NOC Listing Tables.xlsx* spreadsheet) and all Category 4 waters (see Attachments 8a, 8b, and 8c in the *2024 NOC Listing Tables.xlsx* spreadsheet). Together, these appendices provide the most comprehensive assessment of impairment of Indiana waters to date.

With the combined changes made for the 2024 cycle, Indiana's draft 2024 303(d) List identifies a total of 6,579 impairments that will require TMDLs (Figure J-1).

To date, IDEM has completed a total of 3,044 TMDLs, which have been approved by U.S. EPA for impairments to Indiana waters (Figure J-2). Attachment 8d provides a TMDL key that can be used to associate the Category 4A impairments identified in Attachment 8a with their associated TMDLs, which are available on the IDEM [Total Maximum Daily Load Reports webpage](#).

## Map Information Sources

All information used to create the maps in this report was obtained from IDEM databases and Geographical Information Systems Libraries, and the State of Indiana Geographical Information Office.

## References Cited

Indiana Administrative Code (IAC): [Title 327 Water Pollution Control Division](#).

U.S. Environmental Protection Agency. 2003. [Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303\(d\) and 305\(b\) of the Clean Water Act](#). July 21, 2003 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Regional Water Division Directors. Washington, D.C.: U.S. Environmental Protection Agency.

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U.S. Environmental Protection Agency. 2006. [Information Concerning 2008 Clean Water Act Sections 303\(d\), 305\(b\), and 314 Integrated Reporting and Listing Decisions](#). October 12, 2006 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Regional Water Division Directors and Directors in U.S. EPA's Region 1 Office of Environmental Measurement and Evaluation, Region 2 Division of Environmental Science and Assessment, Region 7 Environmental Sciences Division, and Region 10 Office of Environmental Assessment. Washington, D.C.: U.S. Environmental Protection Agency.

U.S. Environmental Protection Agency. 2009. [Information Concerning 2010 Clean Water Act Sections 303\(d\), 305\(b\), and 314 Integrated Reporting and Listing Decisions](#). May 5, 2009 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Regional Water Division Directors and Directors in U.S. EPA's Region 1 Office of Environmental Measurement and Evaluation, Region 2 Division of Environmental Science and Assessment, Region 7 Environmental Sciences Division, and Region 10 Office of Environmental Assessment. Washington, D.C.: U.S. Environmental Protection Agency.

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U.S. Environmental Protection Agency. 2015. [Information Concerning 2016 Clean Water Act Sections 303\(d\), 305\(b\), and 314 Integrated Reporting and Listing Decisions](#). August 13, 2015 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Regional Water Division Directors and U.S. EPA Region 1 Office of Environmental Measurement and Evaluation. Washington, D.C.: U.S. Environmental Protection Agency.

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U.S. Environmental Protection Agency. 2021. [Information Concerning 2022 Clean Water Act Sections 303\(d\), 305\(b\), and 314 Integrated Reporting and Listing Decisions](#). March 31, 2021 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Water Division Directors, Regions 1-10 and U.S. EPA Environmental Services Division Directors. Washington, D.C.: U.S. Environmental Protection Agency.

U.S. Environmental Protection Agency. 2023. [Information Concerning 2024 Clean Water Act Sections 303\(d\), 305\(b\), and 314 Integrated Reporting and Listing Decisions](#). March 29, 2023 Memorandum from U.S. EPA Office of Wetlands, Oceans and Watershed to U.S. EPA Water Division Directors, Regions 1-10 and U.S. EPA Environmental Services Division Directors. Washington, D.C.: U.S. Environmental Protection Agency.

Table J-1: Changes to the U.S. EPA approved 2022 303(d) List.

Nature of Change	Total Number of Impairments	Total Number of Individual Waterbodies <sup>4</sup>	Stream Impairments	Individual Streams <sup>5</sup>	Stream Miles	Lake Impairments	Individual Lakes <sup>6</sup>	Lake Acres <sup>6</sup>
<b>Impairments Removed from Category 5</b>								
Impairments moved from Category 5 to Category 4A based on TMDL development	12	9	12	9	97.43	0	0	0
Impairments removed from Category 5 based on new or revised assessments	103	90	103	90	793.36	0	0	0
Impairments removed from Category 5 based on IDEM's ongoing review for errors and inconsistencies	113	108	113	108	1566.57	0	0	0
<b>Impairments Added to Category 5</b>								
Impairments added to Category 5 based on new or revised assessments	184	134	182	132	1015.31	2	2	2,456

<sup>4</sup> The term “waterbodies” includes streams, stream reaches, and Great Lakes shoreline reaches, which are measured in miles and are included in the values shown for streams. Lakes are also considered waterbodies.

<sup>5</sup> The term “streams” refers to all streams, reaches of streams, and Great Lakes shoreline reaches defined by a unique Assessment Unit ID (AUID).

<sup>6</sup> For accurate year-to-year comparisons, this value does not include Lake Michigan, which is 154,176 acres in size.

Table J-2: Changes to Indiana’s 303(d) List of Impaired Waters in terms of the total number of impairments added or removed from the U.S. EPA approved 2022 303(d) list.

<b>Total Number of Impairments in the U.S. EPA 2022 approved 303(d) List</b>	<b>6,637</b>
Impairments moved from Category 5 to Category 4A based on TMDL development	12
Impairments removed from Category 5 based on new or revised assessments	103
Impairments removed from Category 5 based on IDEM’s ongoing review for errors and inconsistencies	113
<b>Delistings Total</b>	<b>228</b>
Impairments added to Category 5 based on new or revised assessments	184
<b>Additions Total</b>	<b>184</b>
<b>Total Number of Impairments in the Indiana Draft 2024 303(d) List</b>	<b>6,579</b>

Table J-3: Total number of impairments identified in Categories 4 and 5 of this notice.

303(d) List	Total Number of Impairments	Total Number of Individual Waterbodies <sup>7</sup>	Stream Impairments	Individual Streams <sup>8</sup>	Stream Miles	Lake Impairments	Individual Lakes <sup>9</sup>	Lake Acres <sup>9</sup>
Category 5 (303(d) Listed Waters)	6,579	4,322	6,405	4,185	20,880	173	136	56,387
Category 4 (Impairments for which a TMDL is not required)	3,129	2,731	3,127	2,730	13,715	2	1	1,556

<sup>7</sup> The term “waterbodies” includes streams, stream reaches, and Great Lakes shoreline reaches, which are measured in miles and are included in the values shown for streams. Lakes are also considered waterbodies.

<sup>8</sup> The term “streams” refers to all streams, reaches of streams, and Great Lakes shoreline reaches defined by a unique Assessment Unit ID (AUID).

<sup>9</sup> For accurate year-to-year comparisons, this value does not include Lake Michigan, which is 154,176 acres in size.



Table J-4: Comparison of impairments in Category 5 identified in the U.S. EPA approved 2022 303(d) list with those identified in the draft 2024 303(d) list. This comparison includes Category 4 impairments for both cycles to provide a comprehensive view of the parameter impairing Indiana waters.

Cause of Impairment	Category 5 Impairments (303d Listed)		Category 4 Impairments (TMDL Not Required)	
	2022 Category 5	2024 Category 5	2022 Category 4	2024 Category 4
E. coli	2,232	2,257	2,600	2,620
Biological Integrity	1,538	1,546	212	223
PCBs (Fish Tissue)	1,264	1,264	0	0
Dissolved Oxygen	542	525	64	75
Nutrients	417	420	177	176
Total Mercury (Fish Tissue)	141	141	0	0
Dioxin (Water)	69	69	0	0
PCBs (Water)	69	69	0	0
Total Mercury (Water)	42	47	0	0
Ph	41	60	7	7
Phosphorus	50	50	0	0
Chloride	47	46	3	3
Ammonia	23	22	5	5
Sulfate	10	13	0	0
Algae	9	9	0	0
Selenium (Fish Tissue)	0	8	0	0
Taste and Odor	9	8	0	0
Oil and Grease	5	5	0	0
Zinc (Dissolved)	5	4	0	0
Free Cyanide	4	3	0	0
Pesticides	3	3	0	0
Cadmium (Dissolved)	2	2	0	0

Cause of Impairment	Category 5 Impairments (303d Listed)		Category 4 Impairments (TMDL Not Required)	
	2022 Category 5	2024 Category 5	2022 Category 4	2024 Category 4
Zinc	2	2	0	0
Cadmium	1	1	0	0
Sedimentation/Siltation	1	1	5	5
Copper (Dissolved)	0	1	0	0
Nickel (Dissolved)	1	1	0	0
Nickel	1	1	0	0
Iron	105	0	0	0
Lead	4	0	0	0
Habitat Alteration	0	0	9	9
Temperature	0	0	6	6
<b>Total</b>	<b>6,636</b>	<b>6,579</b>	<b>3,088</b>	<b>3,129</b>

Figure J-1: All Category 5 waters on Indiana's draft 2024 303(d) list.

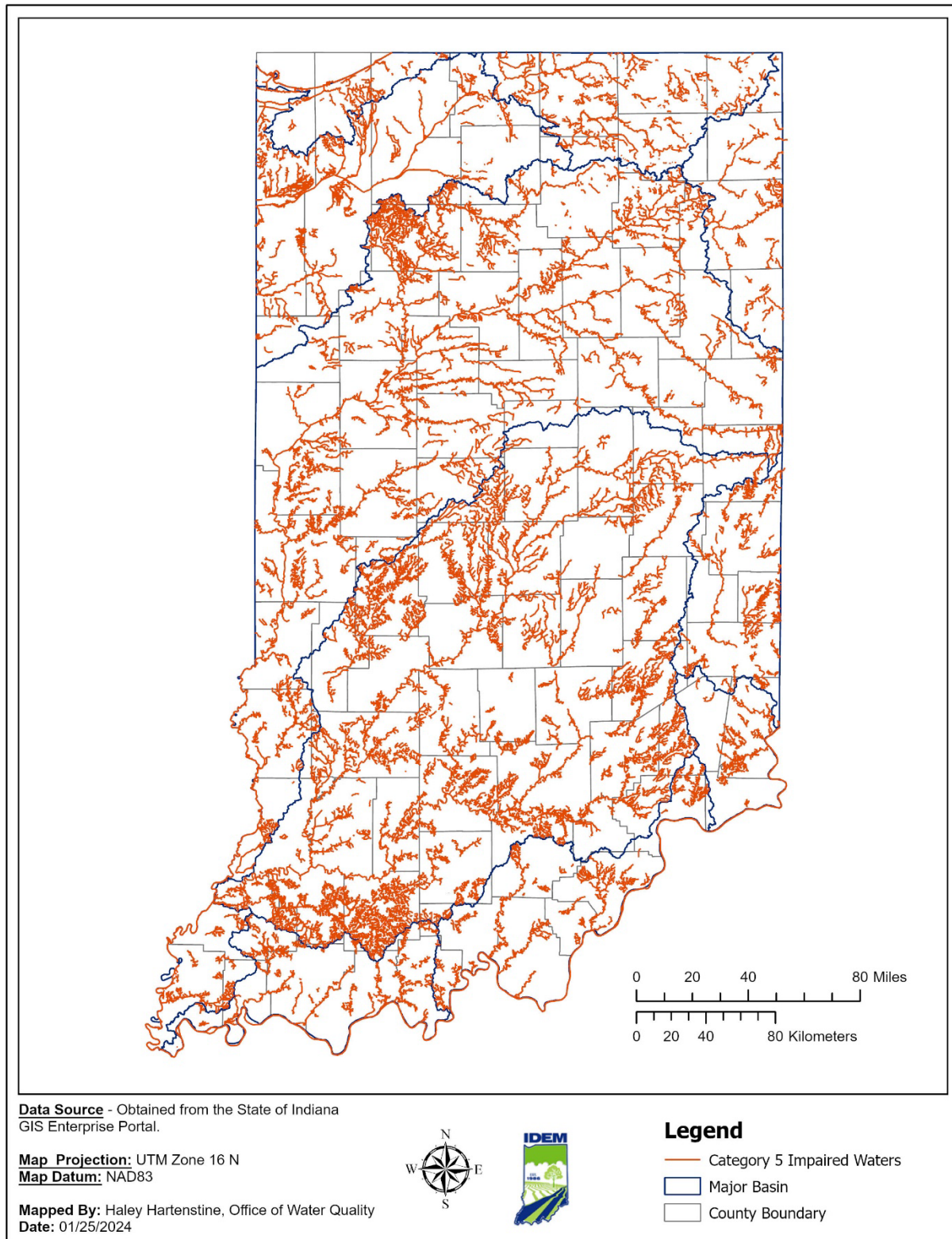
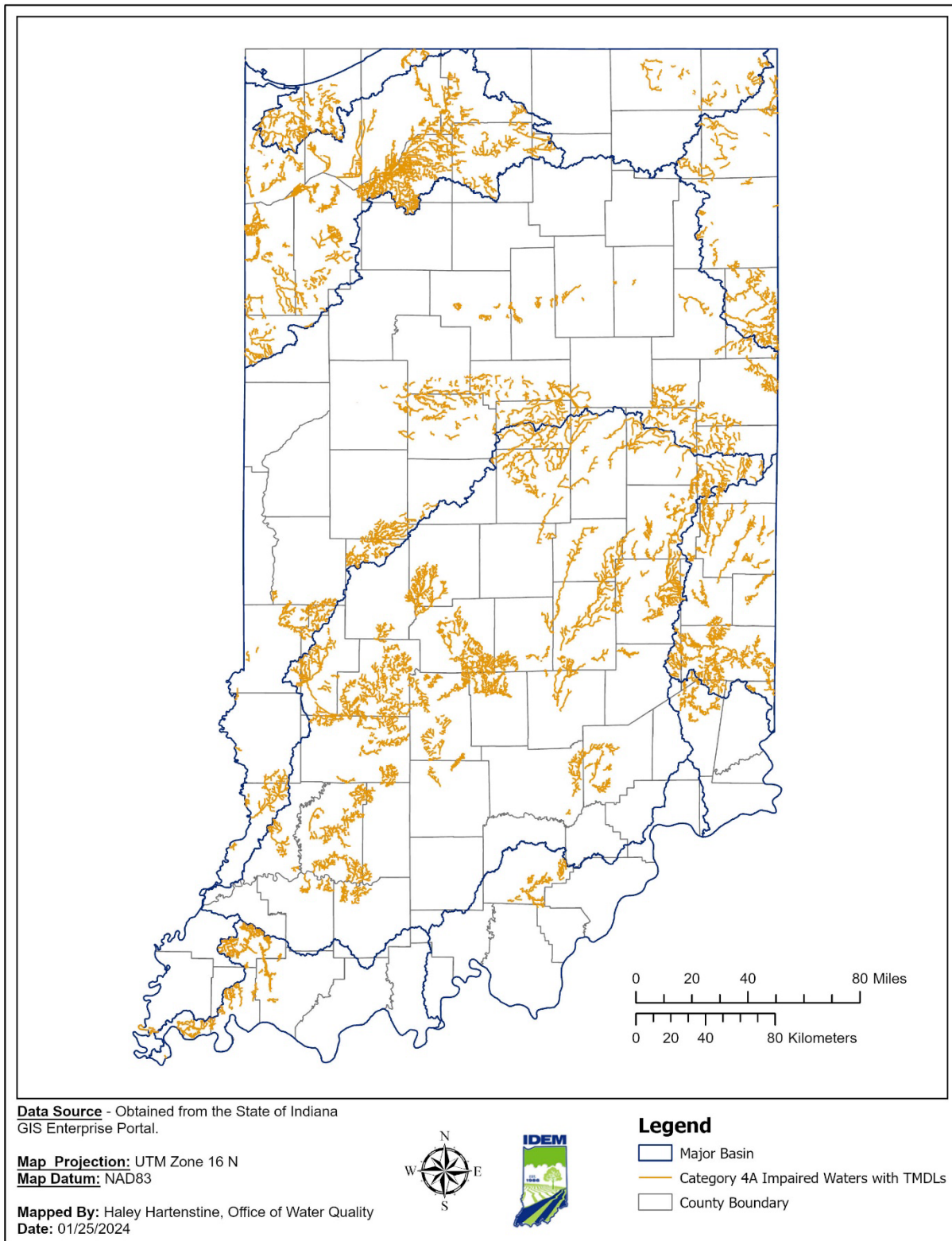


Figure J-2: All impairments to date for which a TMDL has been approved (Category 4A waters).



Attachment J-1: Draft 2024 Consolidated Assessment and Listing Methodology (CALM) – *(Attached as a separate document to the 2024 303(d) List Notice of Comment submission)*

Attachment J-2: Indiana's TMDL Program Priority Framework (2015)

**Indiana's 303(d) TMDL Program Priority Framework:**

*A Process for Implementing the National CWA 303(d) Long-Term Vision in Indiana*

Watershed Planning and Restoration Section  
Watershed Assessment and Planning Branch  
Office of Water Quality  
Indiana Department of Environmental Management

July 8, 2015



## **Background**

The U.S. Environmental Protection Agency (U.S. EPA) has worked with State program managers to develop a new long-term Vision and Goals for the Clean Water Act (CWA) Section 303(d) Program. In Section 303(d) of the CWA, States are required to develop a list of impaired waters that do not meet State water quality standards, and establish priority rankings for waters on the list to develop Total Maximum Daily Loads (TMDLs). The purpose of this revision to the existing CWA Section 303(d) program is to assist with focusing State efforts to advance the effectiveness of the program in the future. Currently there are six tenants that form the groundwork of the new national long-term vision (“the Vision”):

**Prioritization** – For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals

**Assessment** – By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State’s priority watersheds or waters through site-specific assessments

**Protection** – For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, States identify protection planning priorities and approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State’s systematic prioritization

**Alternatives** – By 2018, States use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each state, including identifying and reducing nonpoint sources of pollution

**Engagement** – By 2014, EPA and the States actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives

**Integration** – By 2016, EPA and the States identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals of each state (U.S. EPA 2013).

### Indiana's Current Approach

The Clean Water Act (CWA) Section 303(d) Program in Indiana is administered by the Indiana Department of Environmental Management's (IDEM) Watershed Assessment and Planning Branch (WAPB), which also conducts surface water quality monitoring according to *the Indiana Surface Water Quality Strategy, 2011-2019*. While the WAPB uses data from several of its monitoring programs to determine water quality status, it primarily relies on a stratified, random sampling design to meet the CWA 305(b) requirement to "assess all waters." This approach is employed in a rotating basin cycle of nine years and will result in a comprehensive and updated data set for the entire state by 2019. Water quality data collected are assessed using applicable water quality criteria in the State's water quality standards and waterbodies are placed into one or more categories of the state's Consolidated List, available biennially in Indiana's Integrated Report.

While only a portion of the 63,600 miles of streams and rivers in Indiana have been monitored to date (leaving approximately 40,000 miles unassessed due to lack of data), approximately 20,000 miles of streams are listed as impaired under Category 5. Since the inception of the TMDL program in Indiana, 46 TMDL documents have been developed resulting in 1,225 individual TMDLs moving waterbodies from the 303(d) List of Impaired Waters Category 5 into Category 4a. Prior to the commencement of the Vision, IDEM's WAPB worked with U.S. EPA Region 5 every 303(d) listing cycle to determine the number of TMDLs to be developed. With the development of a national focus on showing results of water quality improvement, including the advent of several U.S. EPA focused success measures, Indiana has been moving toward a more holistic approach of TMDL development. In 2005, the TMDL and Nonpoint Source Program (NPS) were combined into the same section to realize efficiencies and better integrate the work of the two programs with the intended outcome that better outreach to watershed organizations would lead to implementation of the Reasonable Assurance section of the TMDL. In 2010, the TMDL and NPS program areas were part of an agency reorganization that resulted in a move to the Assessments Branch, which conducts surface water monitoring. This move allowed the integration of TMDL staff with other monitoring staff, yielding multiple benefits, including a more rigorous sampling design.

In 2012, it was determined that IDEM's involvement in monitoring for watershed management planning would coincide with monitoring done in preparation for a TMDL in the same watershed. The first TMDL project in which this occurred was the Deep River TMDL project, which was monitored in 2013. The TMDL report was approved by U.S. EPA in 2014 and the watershed group is currently incorporating information from the TMDL into a watershed management plan. This TMDL development and implementation strategy has been replicated in four additional watersheds to date, with plans to begin monitoring in yet another watershed in 2015. Key to the success of these projects is the availability of a watershed group in the TMDL watershed – without local support, implementation of the nonpoint source sections of the TMDL is likely to be compromised.



### **Moving forward with the Vision**

At the June 2014 Watershed Planning and Restoration Section staff meeting, a program priority team committee was formed to begin work on Indiana’s strategy to implement the national Vision for TMDL programs. The core members of the team were the NPS and TMDL program manager, the TMDL program team leader, the NPS senior watershed planner, and two watershed specialists and Section 319 grant project managers. Ad hoc members were involved as needed, including upper management, other program areas, and watershed monitoring staff. The team members began meeting regularly starting in August 2014, working toward the development of the new Indiana 303(d) TMDL Vision.

### **Indiana’s TMDL Program Prioritization**

#### **Priority Watershed Selection Criteria**

The focus of this process document is defining the method used to prioritize which waters will be the focus of TMDL planning and watershed restoration. The process for determining the TMDL priority watersheds will meet the following criteria (Figure 1). The first four criteria are required elements, while the remaining criteria are additional considerations when choosing between watersheds identified by working through the first four.

- (1) First, the prioritization will begin by identifying those watersheds with impairments based upon Indiana’s water quality standards and 303(d) list, since the CWA mandates that TMDLs be developed for impaired waterways. As the monitoring and assessment process continues to discover new impairments, the priority list will be updated from the most recent 303(d) List of Impaired Waters
- (2) The second criterion ranks watersheds based on their current ability to meet Indiana’s aquatic life designated use. Waters that have been designated with an impaired biotic community, but show a reasonable expectation for ecological recovery by means of a “good” habitat score (QHEI) and likely due to nutrient and/or sediment will be prioritized first for TMDL development. Indiana has a highly modified hydrologic landscape, and where current law and codes prohibit physical stream restoration, NPS improvements will most reasonably show biological community response where adequate habitat already exists. Within these watersheds identified for impaired aquatic life use, IDEM will also prioritize impairments of the recreational use due to exceedances of the *E. coli* criteria.
- (3) The third criterion will identify those watersheds where neither an existing TMDL, nor a watershed planning effort has been completed. This criterion minimizes duplication of efforts where work is already progressing to improve water quality.

- (4) The fourth criterion to be considered for TMDL development is the reasonable expectation that an entity to drive implementation exists in the watershed. Part of the TMDL process requires the State to provide “reasonable assurance” that the load reduction recommendations will be implemented. The presence of a dedicated entity (e.g. watershed group) motivated to implement a TMDL will reinforce the reasonable assurance of NPS reductions.

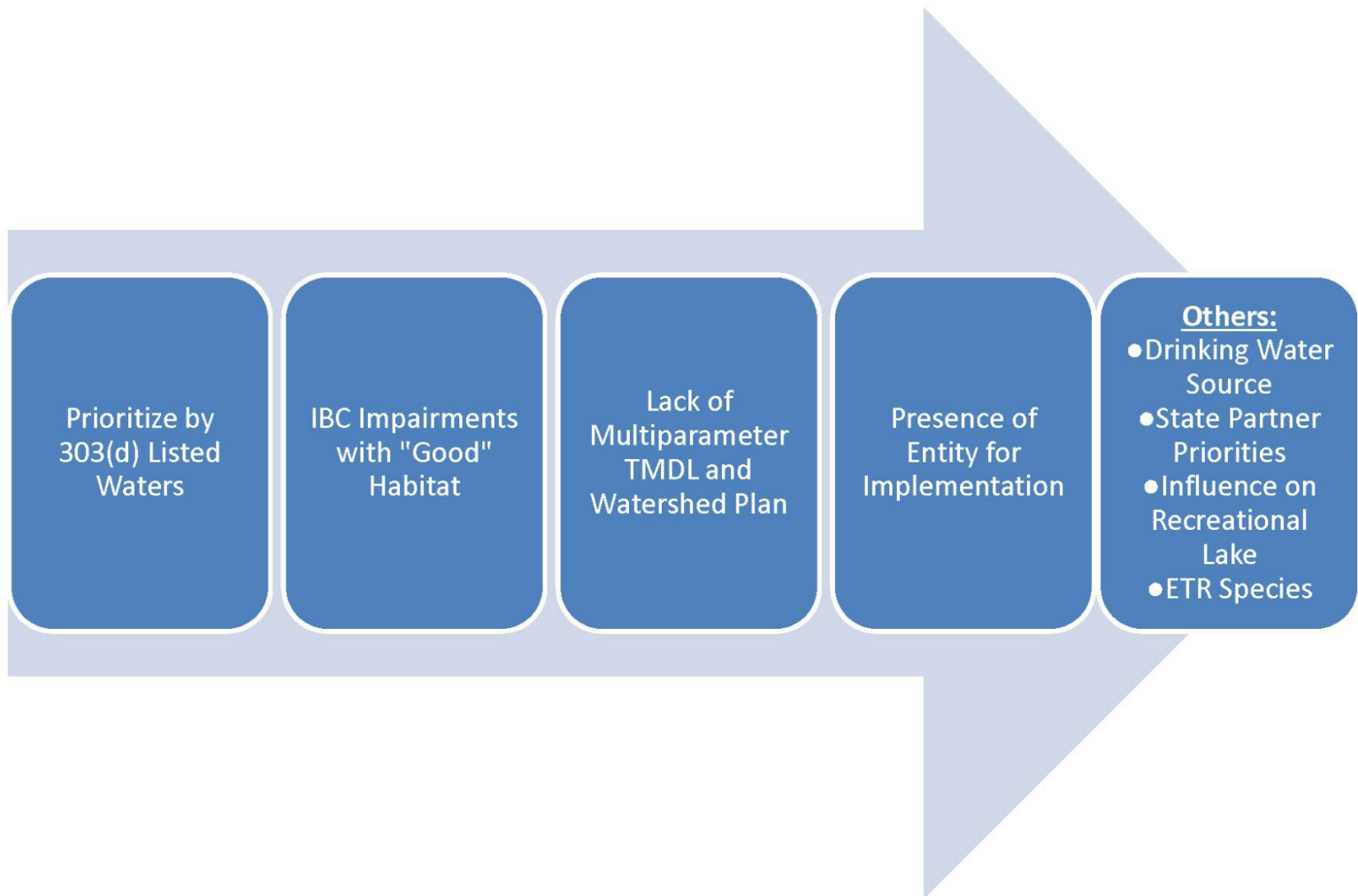
**Additional Criteria Considered:**

- Identify those surface waters that provide a source of water for public drinking water use. Citizens rely on adequate clean water for drinking, commercial and industrial uses for everyday life.
- Identify waters that are upstream of public-access lakes used for recreation. Nutrient-induced harmful algal blooms have been on the rise recently in Indiana lakes and reservoirs, threatening the use of these waterbodies for primary contact recreation.
- Identify waters that are home to endangered, threatened or rare species. Water quality pollution and loss of habitat have reduced the number of some species to critical numbers; restoration and protection of the remaining populations should be a priority.
- TMDL development based on priorities specific to the State of Indiana. This step is based on conversations about overlapping priorities with internal and external agency partners such as the Indiana Conservation Partnership (ICP)<sup>1</sup>, as well as consideration of time sensitive or current relevant high profile issues (e.g. Western Lake Erie Basin eutrophication).

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<sup>1</sup> The ICP is comprised of eight Indiana agencies and organizations who share a common goal of promoting conservation. Members include the Indiana Association of Soil and Water Conservation Districts, Indiana Department of Environmental Management, Indiana Department of Natural Resources, Indiana State Department of Agriculture, Purdue Cooperative Extension Service, Indiana State Soil Conservation Board, USDA Farm Service Agency and the USDA Natural Resources Conservation Service.

**Figure 1** Priority watershed selection process



### **Priority List 2015-2022**

The key to IDEM's current TMDL implementation strategy is the availability of a local stakeholder group ready, willing, and able to implement the TMDL. Due to the nature and dynamics of such groups, the availability of a cohesive group of stakeholders to lead a watershed planning and/or implementation effort subsequent to development of a TMDL is often unknown on a long-term basis. Therefore, though IDEM's process for choosing TMDL watersheds remains consistent, its list of priority watersheds is in a necessary state of flux. IDEM also finds itself with resource constraints that limit its TMDL development commitment to providing TMDLs for one 10-digit watershed per fiscal year. These TMDLs will be restricted to streams and rivers with *E.coli* impairment, and impaired biotic communities caused by one or more of the following conditions:

- Dissolved oxygen
- Algae
- Total Suspended Solids
- Phosphorus

IDEM has agreed with U.S. EPA to develop three TMDLs that are already in progress using the prior selection methods, and one TMDL using the new Vision prioritization method, each focused on 10-digit watershed scales. These four TMDLs are high priority for completion in the short term, as watershed groups are poised to develop plans and drive implementation in the area. These four TMDLs and their completion years are as follows:

- Southern Whitewater River (2015)
- Mississinewa River (2016)
- South Fork Blue River (2016)
- Salt Creek (2017)

The 10-digit watersheds listed in Appendix A may meet IDEM's criteria for TMDL development over the next six years. Each watershed has been selected using the four priority watershed selection criteria (p.3-4). They have been further prioritized for potential short-term and long-term selection using the additional watershed selection criteria (p.4), categorizing them as either high (green), medium (coral), or low (blue). Beginning in 2016, IDEM will select one 10-digit watershed per year for TMDL development and implementation after 2017, as agreed upon with U.S. EPA.

#### **TMDL Alternatives and Protection Strategies**

IDEM does not expect to explicitly prioritize TMDL alternatives or protection strategies at this time, but will explore the use of TMDL alternatives and protection strategies as the situation arises, and work with USEPA to collaborate on mutually acceptable plans.

Notice of Comment Period for Indiana Draft 2024 303(d) List of Impaired Waters – Appendix J

**APPENDIX A - Potential IDEM Priority Watershed Selections with Impaired Biotic Communities**

HUC_CD	STATION_NAME	WATERBODY_NAME	COUNTY_NAME	AUID	TMDL	WMP	OTHER LISTINGS?	Drinking water source in 10-digit?	WS Group in 10-digit/Watershed Specialist Comments	ETR?	Influence Lake?	Trophic State of Lake	Priority for TMDL
051201040104	WAE020-0038	Blue Babe Branch	Whitley	INB0414_T1003	NONE	NONE	NONE	NO	Middle Eel	NO	N		HIGH
051202011003	WWU-10-0002	Carmel Creek	Hamilton	INW01A3_T1004	NONE	NONE	E COLI	YES	City of Carmel/MS4	NO	Y - Lk Woodland	No data available	HIGH
051202070701	WEM-07-0004	Vernon Fork Muscatatuck River	Jennings	INW0771_01	NONE	NONE	DO, NUTRIENTS, PH, MERCURY (FT)	YES	There is no active watershed group, but the SWCD expressed interest in this watershed and the HUC10 upstream.	Y (mussels)	N		HIGH
051202080202	WEL030-0004	Guthrie Creek	Lawrence	INW0822_01	NONE	NONE	NONE	NO	Lawrence Co. is partnering with Monroe Co. on the Salt Creek project. I haven't heard back from them on whether they have interest in Guthrie Creek.	NO	N		HIGH
051202081502	WEL170-0014	East Fork White River	Dubois	INW08F2_01	NONE	NONE	PCBS	NO	Pike Co expressed interest	Y (mussels)	Y - Dogwood Lk	Mesotrophic	HIGH
050902030506	OML60-0019	Laughery Creek	Ripley	INV0356_01	NONE	NONE	NONE	YES	There is no active watershed group in Laughery Creek, but Historic Hoosier Hills RC&D and the SWCD expressed interest in working in this watershed. It sounds like there may stakeholder interest in this watershed as well.	NO	Y - Versailles State Park Lk	Hypereutrophic	MEDIUM
051201011601	WUW160-0007	Little Pipe Creek	Miami	INB01G1_01	NONE	NONE	NONE	NO	TNC priority area	? - maybe m	N		MEDIUM
051201030606	WMI060-0008	Mississinewa River	Miami	INB0366_01	NONE	NONE	E COLI, PCB5	NO	NO	NO	Y - Mississinewa Reservoir		MEDIUM
051201111801	WBU190-0002	Mania Creek	Knox	INB11J1_01	NONE	NONE	E COLI	NO	One of counties interested	NO	N		MEDIUM
051202011206	WWU130-0039	Pleasant Run Creek	Marion	INW01C6_02	NONE	NONE	E COLI	NO	WRA	NO	N		MEDIUM
051202011206	WWU130-0048	Pleasant Run Creek	Johnson	INW01C6_02	NONE	NONE	E COLI	NO	WRA	NO	N		MEDIUM
051401040205	OB5050-0001	Buck Creek	Harrison	INN0425_03	NONE	NONE	E COLI	NO	There is no active group in this watershed. The SWCD expressed interest in working in this watershed, just not in the immediate future.	NO	N		MEDIUM
051201060902	WTI080-0004	Mud Creek	Pulaski	INB0692_01	NONE	NONE	NONE	NO	To my knowledge, there are no active watershed groups in this area. Pulaski Co SWCD has attended a few meetings, but hasn't expressed any interest in starting a watershed group yet.	Y (mussels)	N		LOW
051201061207	WTI120-0005	Honey Creek	White	INB06C7_01	NONE	NONE	MERCURY	NO	To my knowledge, there are no active watershed groups in this area. White Co SWCD is just now getting involved in the Big	Y (mussels)	Y - Shafer Y - Freeman	Eutrophic No data available	LOW
051201081606	WLV200-0002	Tributary of Norton Creek	Vermillion	INB08G6_T1006	NONE	NONE	DO, E COLI	NO	To my knowledge, there are no active watershed groups in this area. Vermillion Co SWCD has historically focused in the Vermillion watershed (HUC 05120109) and is now interested in the Busseron watershed.	NO	N		LOW
051201111902	WBU200-0019	Tributary of Snapp Creek	Knox	INB11K2_T1001	NONE	NONE	DO, E COLI	NO	Knox Co?	NO	N		LOW
051402010102	OLP040-0006	Tributary of Neglie Creek	Perry	INE0112_T1007	NONE	NONE	DO	NO	Maybe Spencer Co	NO	N		LOW