

# DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

## NOTICE OF COMMENT PERIOD

### Office of Water Quality Notice of Public Comment Period for the 2022 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 2022 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 the 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 will submit its finalized 2022 303(d) List as part of its 2022 Integrated Report to U.S. EPA by April 1, 2022. All public comments received during the public comment period and IDEM’s responses will be included in its April 1, 2022 submittal to the United States Environmental Protection Agency (U.S. EPA).

This notice and all appendices including IDEM’s CALM and TMDL Priority Framework are provided on IDEM’s website at: <https://www.in.gov/idem/nps/watershed-assessment/water-quality-assessments-and-reporting/section-303d-list-of-impaired-waters/>. The website also contains all supporting tables in a spreadsheet format to provide the public the ability to more effectively search for information regarding specific waters of interest. Anyone experiencing difficulty accessing these tables can obtain a copy by contacting Paul McMurray in the Watershed Assessment and Planning Branch, Office of Water Quality, (317) 308-3210 or (800) 451-6027 (in Indiana).

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

#### SUBJECT MATTER

#### 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 in order 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 2020 303(d) list to U.S. EPA on June 25, 2020. On February 19, 2021, 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 website at: <https://www.in.gov/idem/nps/watershed-assessment/water-quality-assessments-and-reporting/section-303d-list-of-impaired-waters/>.

### **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 2022 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 CALM.

Comments may be submitted in one of the following ways:

- By mail or common carrier to the following address:  
Subject Line: 2022 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 facsimile to (317) 308-3219. Please confirm the timely receipt of your faxed comments by calling the Watershed Assessment and Planning Branch at (317) 308-3210.
- 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 “2022 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, faxed, or time stamped not later than February 28, 2022. 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 2022 303(D) LIST OF IMPAIRED WATERS**

For the development of the 2022 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, and 2022 cycles<sup>1</sup> (U.S. EPA, 2005-2021).

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 and existing water quality data and listing decisions takes into account 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 February 19, 2021 partial approval of Indiana’s 2020 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 Appendix 1. The

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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 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 IAC 2-1-1.5 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.

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.
- 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 5-alt 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 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 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 2022 cycle, IDEM's TMDL development has been focused on three watersheds:

- [Laughery Creek Watershed](#) – TMDL approved on September 2, 2020.
- [Maria Creek Watershed](#) – TMDL approved on September 12, 2021.
- [Vernon Fork-Muscatatuck River Watershed](#) – TMDL currently under development.

For the 2024 cycle, IDEM's TMDL development will focus on the following watersheds:

- [Black Creek](#)
- Lake Manitou

IDEM will submit its finalized list of TMDLs developed and approved for the 2022 cycle with the submittal of its 2022 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 (Appendix 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 2022 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 (Appendix 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 (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 detail 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 2020 303(d) LIST**

Each 303(d) list builds upon the previous list. To develop the draft 2022 303(d) list in this notice, IDEM used as its basis the approved 2020 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 2022 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 Appendix 1. IDEM's CALM can change 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 water quality standards, 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.

For the 2022 integrated reporting cycle, IDEM has implemented a new method for evaluating metals data for waterbodies where only total recoverable metals data are available. This method does not replace IDEM methods for assessing dissolved metals results. Rather, it provides a set of total metals conversion factors that allow IDEM to estimate the dissolved fraction of the total recoverable metal concentration in a sample. By multiplying the total metal results by the conversion factor developed for that metal, IDEM can then compare the estimated dissolved fraction to the dissolved metals criteria in Indiana's water quality standards to determine aquatic life use support. Stream segments not meeting aquatic life use support based on these estimated dissolved metals concentrations will then be prioritized for follow-up dissolved metals' sampling. This method of converting total metals' results to estimated dissolved metals' values allows IDEM to use more of its existing and readily available data to gain a fuller understanding of the degree to which metals may be impacting aquatic life in Indiana waters.

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

Most 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.

To utilize external data for 303(d) listing, the data must satisfy certain quality requirements. Therefore, IDEM has developed an online tool to assist EDF participants (and anyone else collecting water quality monitoring data) to better document the quality of the data they collect. The [Online Quality Assurance Project Plan \(QAPP\) Tool](#) allows users to fill out a pre-formatted QAPP template that includes all the necessary elements that the organization collecting the data or any secondary users of the data set (including IDEM) will need to determine whether it is reliable for their needs. The tool allows users to develop their QAPPs over as many sessions as they need, provides an extensive library



of documents to help the user understand the information needed in different sections of the QAPP, and allows users to e-mail IDEM staff directly with any QAPP-related questions. While the QAPP tool is available to any organization conducting water quality monitoring, IDEM is developing it primarily for use by EDF participants to help them provide sufficient quality assurance documentation with their data submittals.

The public is invited to explore IDEM's EDF website and its Secondary Data Portal 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:

- IDEM Office of Water Quality's EDF website:  
<https://www.in.gov/idem/cleanwater/resources/external-data-framework/>
- IDEM Office of Water Quality's Secondary Data Portal:  
<https://www.hoosieriverwatch.com/portal/>

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 2022 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**

For the 2022 cycle, IDEM submitted two TMDL reports to U.S. EPA, which have been approved. The TMDL reports for Laughery Creek Watershed and Maria Creek Watershed were approved on September 2, 2020 and on September 12, 2021, respectively, resulting in IDEM moving sixty one (61) 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 2022 cycle as of this notice are identified in Appendix 3 (provided in the 2022 NOC Listing Tables\_ALL.xlsx spreadsheet). The TMDL reports for the Laughery Creek and Maria Creek watersheds and other 2022-cycle TMDLs currently under development can be found online at: <https://www.in.gov/idem/nps/resources/total-maximum-daily-load-reports/>.

### **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 2020 303(d) list, some through new assessments and others through review of existing assessment information. IDEM has identified a total of one hundred four (104) previously identified impairments for which WQS are now being met (see Appendix 4 in the 2022 NOC Listing Tables\_ALL.xlsx spreadsheet). These impairments have been removed from Category 5A for the 2022 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 2020 cycle, IDEM has identified twenty-four (24) impairments that should be removed from Category 5 (see Appendix 5 in the 2022 NOC Listing Tables\_ALL.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 2020 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.

The impairments added to the 303(d) list based on new or revised assessments are located mostly in the Ohio River Tributaries, which were sampled by IDEM in 2019, and the White River, West Fork Basin, which was sampled in 2020. Based on these assessments, IDEM has added a total of one hundred twenty (120) impairments to Category 5 (see Appendix 6 in the 2022 NOC Listing Tables\_ALL.xlsx spreadsheet).

### **Summary of Changes to Indiana's 303(d) List for the 2022 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 2020 303(d) list and the draft 2022 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 2020 303(d) list with those identified on the draft 2022 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 2022 303(d) list includes all Category 5 impairments (see Appendix 7 of 2022 NOC Listing Tables\_ALL.xlsx spreadsheet) and all Category 4 waters (see Appendix 8a, 8b, and 8c in



the 2022 NOC Listing Tables\_ALL.xlsx spreadsheet). Together, these appendices provide the most comprehensive assessment of impairment of Indiana waters to date.

With the combined changes made for the 2022 cycle, Indiana's draft 2022 303(d) List identifies a total of 6,522 impairments that will require TMDLs (Figure 1).

To date, IDEM has completed a total of 3,030 TMDLs, which have been approved by U.S. EPA for impairments to Indiana waters (Figure 2). Appendix 8d provides a TMDL key that can be used to associate the Category 4A impairments identified in Appendix 8a with their associated TMDLs, which are available on IDEM's website at: <https://www.in.gov/idem/nps/resources/total-maximum-daily-load-reports/>.

Table 1: Changes to the approved 2020 303(d) List.

Nature of Change	Total Number of Impairments	Total Number of Individual Waterbodies*	Stream Impairments	Individual Streams**	Stream Miles	Lake Impairments	Individual Lakes***	Lake Acres***
<b>Impairments Removed from Category 5</b>								
Impairments moved from Category 5 to Category 4A based on TMDL development*	61	37	61	37	225	0	0	0
Impairments removed from Category 5 based on new or revised assessments	104	91	104	91	539	0	0	0
Impairments removed from Category 5 based on IDEM's ongoing review for errors and inconsistencies	24	22	24	22	109	0	0	0
<b>Impairments Added to Category 5</b>								
Impairments added to Category 5 based on new or revised assessments	120	91	113	85	565	7	6	4,087

\*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.

\*\*The term “streams” refers to all streams, reaches of streams, and Great Lakes shoreline reaches defined by a unique Assessment Unit ID (AUID).

\*\*\*For accurate year-to-year comparisons, this value does not include Lake Michigan, which is 154,176 acres in size.

Table 2: Changes to Indiana's 303(d) List of Impaired Waters in terms of the total number of impairments added to or removed from the approved 2020 303(d) list.

<b>Total Number of Impairments on the 2020 approved 303(d) List</b>	<b>6,591</b>
Impairments moved from Category 5 to Category 4A based on TMDL development	61
Impairments removed from Category 5 based on new or revised assessments	104
Impairments removed from Category 5 based on IDEM's ongoing review for errors and inconsistencies	24
<b>DELISTINGS TOTAL</b>	<b>189</b>
Impairments added to Category 5 based on new or revised assessments	120
<b>ADDITIONS TOTAL</b>	<b>120</b>
<b>Total Number of Impairments on Draft 2022 303(d) List</b>	<b>6,522</b>

Table 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*	Stream Impairments	Individual Streams**	Stream Miles	Lake Impairments	Individual Lakes ***	Lake Acres***
Category 5 (303(d) Listed Waters)	6,522	4,303	6,349	4,167	20,774	173	136	56,387
Category 4 (Impairments for which a TMDL is not required)	3,090	2,701	3,088	2,700	13,444	2	1	1,556

\*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.

\*\*The term “streams” refers to all streams, reaches of streams, and Great Lakes shoreline reaches defined by a unique Assessment Unit ID (AUID).

\*\*\*For accurate year-to-year comparisons, this value does not include Lake Michigan, which is 154,176 acres in size.

Table 4: Comparison of the types of impairments in Category 5 identified on the 2020 303(d) list with those identified on the draft 2022 303(d) list. This comparison also 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)	
	2020 Category 5	2022 Category 5	2020 Category 4	2022 Category 4
E. COLI	2,247	2,232	2,576	2,600
BIOLOGICAL INTEGRITY	1,549	1,535	204	210
PCBs (FISH TISSUE)	1,279	1,264	0	0
DISSOLVED OXYGEN	552	542	58	67
NUTRIENTS	439	416	185	178
TOTAL MERCURY (FISH TISSUE)	139	141	0	0
DIOXIN (WATER)	69	69	0	0
PCBs (WATER)	69	69	0	0
TOTAL MERCURY (WATER)	42	42	0	0
PHOSPHORUS	50	50	0	0
PH	41	41	7	7
CHLORIDE	48	48	3	3
ALGAE	9	9	0	0
TASTE AND ODOR	9	9	0	0
AMMONIA	23	23	5	5
FREE CYANIDE	4	4	0	0
OIL AND GREASE	5	5	0	0
PESTICIDES	3	3	0	0
SEDIMENTATION/SILTATION	1	1	5	5
SULFATE	8	10	0	0
CADMIUM (DISSOLVED)	1	2	0	0
COPPER (DISSOLVED)	1	1	0	0
LEAD (DISSOLVED)	3	0	0	0
NICKEL (DISSOLVED)	1	1	0	0
ZINC (DISSOLVED)	2	5	0	0
TEMPERATURE	0	0	6	6
<b>Total</b>	<b>6,594</b>	<b>6,522</b>	<b>3,049</b>	<b>3,081</b>

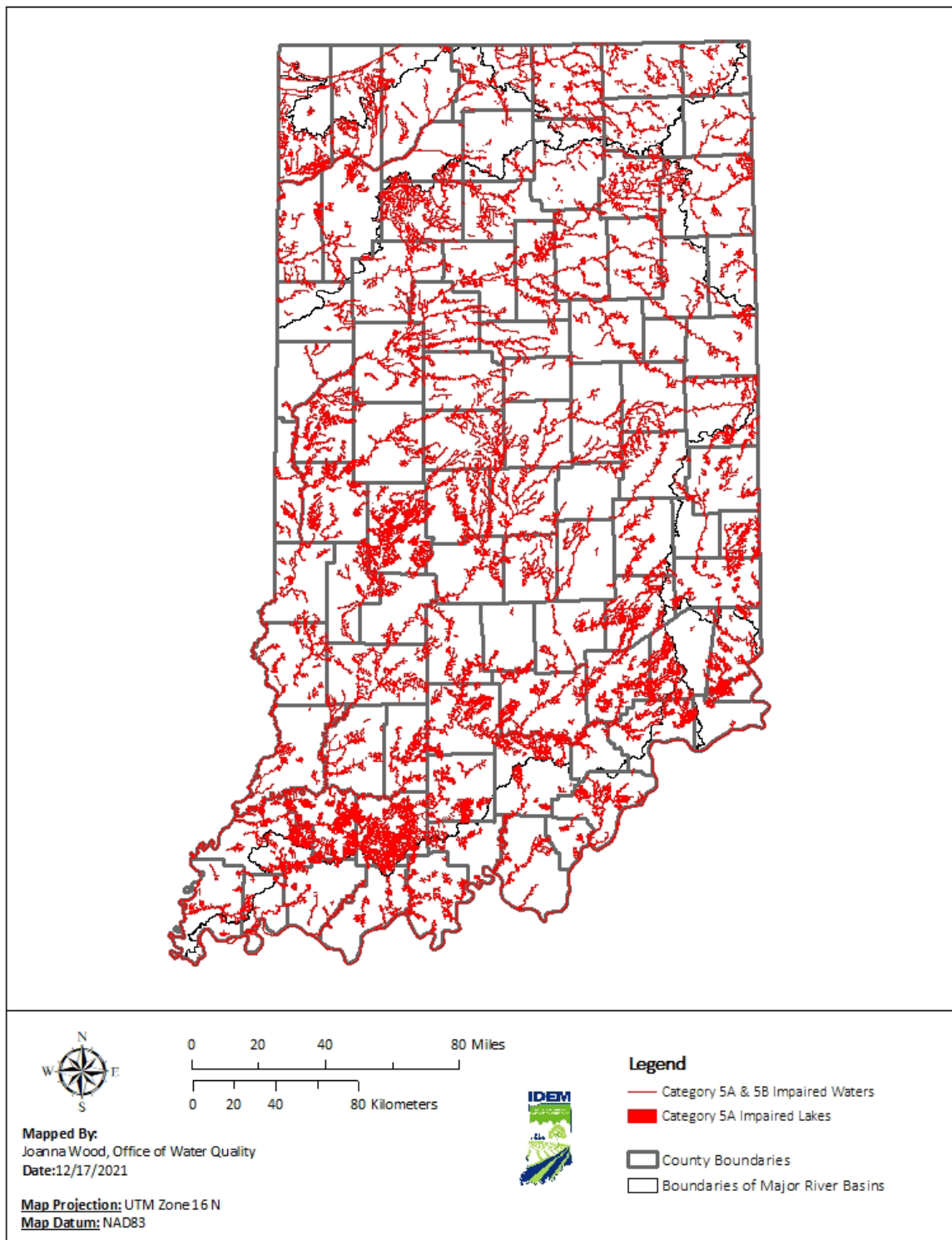


Figure 1: All Category 5 waters on Indiana's draft 2022 303(d) list.

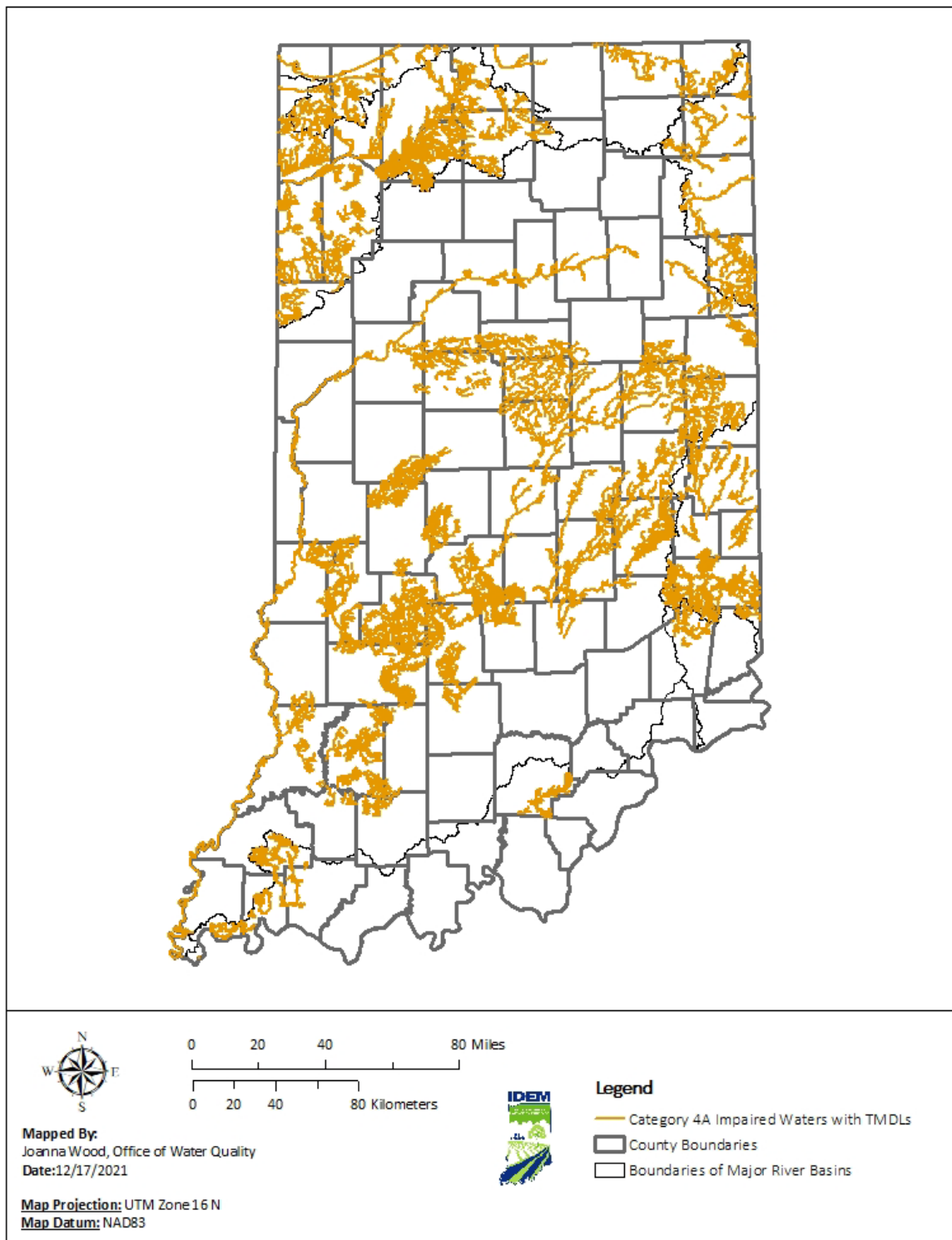


Figure 2: All impairments to date for which a TMDL has been approved (Category 4A waters).



## 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): <http://iac.iga.in.gov/iac//title327.html>

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**APPENDIX 1**  
**IDEM'S 2022 CONSOLIDATED ASSESSMENT AND LISTING METHODOLOGY (CALM)**

*Available in Integrated Report Appendix G – IDEM's 2022 Consolidated Assessment and Listing Methodology (CALM)*

**APPENDIX 2**  
**IDEM's Total Maximum Daily Load**  
**Program Priority Framework and Development Schedule**

*Available in Integrated Report Appendix E – IDEM's Priority Ranking and 2022-2024  
Schedule for Total Maximum Daily Load Development*