Review of
Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) Lists of Impaired Waters

I. Introduction and Summary of this Action

Pursuant to Sections 303(d) and 305(b) of the Clean Water Act (CWA or Act) and the U.S. Environmental Protection Agency’s (EPA) regulations, the State of Indiana is required to submit a list of impaired waters and a water quality report to Congress every two years.

In 2006, EPA issued guidance for integrating the development and submission of Section 305(b) water quality reports and Section 303(d) lists of impaired waters. This guidance recommends that states develop an Integrated Report (IR) that places all waters into one of five assessment categories, with Category 5 consisting of any water quality-limited segments for which available information indicates that at least one designated use is not being supported or is threatened, and for which a Total Maximum Daily Load (TMDL) is needed. EPA’s action is limited to waterbody segments and causes of impairment included in Category 5, which comprises the State’s Section 303(d) list.

On May 8, 2013, EPA approved the impaired waters identified on Indiana’s 2010 list but disapproved the State’s decision to not include a series of waterbody segments and associated metal pollutant causes of impairment for inclusion on Indiana’s Section 303(d) list. EPA added 129 waterbody segments and 139 associated metal pollutant causes of impairment to the 2010 list. The Indiana Department of Environmental Management (IDEM) submitted its 2012, 2014, 2016, and 2018 Section 303(d) lists on December 28, 2012, September 29, 2015, February 23, 2017, and August 17, 2018, respectively. EPA has consolidated its review of Indiana's 2012, 2014, 2016, and 2018 Section 303(d) list submissions.

EPA has reviewed the assessment methodology used by the State in developing its Section 303(d) lists and the State's description of the data and information it assembled and evaluated (see Enclosure 2). EPA’s review of Indiana’s 2012, 2014, 2016 and 2018 Section 303(d) lists considers whether the State assembled and evaluated all existing and readily available water quality-related data and information and identified waters required to be listed.

Based upon this review, EPA is approving the waterbodies and causes of impairment identified by the State on the 2012, 2014, 2016, and 2018 Section 303(d) lists. However, EPA is taking no action at this time on Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) lists with respect to certain metals causes of impairment, pending further discussion with the State.

EPA’s approval/disapproval authority extends only to the waterbodies and causes of impairment listed in Category 5 of the IR, which is the State’s Section 303(d) list, included under Table 1 of Enclosures 3, 4, 5, and 6. The statutory and regulatory requirements, and EPA’s review of Indiana’s compliance with each requirement, are described in detail below.

See 40 C.F.R. 130.7.


II. Statutory and Regulatory Background

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

Section 303(d)(1) of the Act directs states to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standards (WQSs) (these waters are referred to as “water quality limited segments” or “WQLSs” as defined in 40 C.F.R. 130.2(j)), 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 non-point sources, pursuant to EPA’s long-standing interpretation\(^4\) of Section 303(d) of the Act.

States do not need to list WQLSs for which the following controls are adequate to implement applicable water quality standards: (1) technology-based effluent limitations required by the Act; (2) more stringent effluent limitations required by state, local, or federal authority; and (3) other pollution control requirements required by state, local, or federal authority. 40 C.F.R. 130.7(b)(1). All other WQLSs must be listed.

B. Evaluation 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. 40 C.F.R. 130.7(b)(5). This includes, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state’s most recent Section 305(b) report; (2) waters for which dilution calculations or predictive models indicate non-attainment of applicable standards; (3) waters for which water quality problems have been reported by government agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in a non-point assessment submitted to EPA under Section 319 of the Act. In addition to these minimum categories, states are required to consider any other existing and readily available data and information. While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

States must provide documentation to EPA to support the state determination to list or to not list waters. 40 C.F.R. 130.7(b)(6). Such documentation must 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; (3) a rationale for any decision to not use any existing and readily available data for any category of waters; and (4) any other information requested by EPA.

C. Establishment of a Priority Ranking

Section 303(d)(1)(A) of the Act requires that states establish a priority ranking for listed waters. States must include a priority ranking for all listed WQLSs and must identify those WQLSs targeted for TMDL development in the next two years. 40 C.F.R. 130.7(b)(4). In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. States may consider other factors relevant to prioritizing waters for TMDL development.

D. Definition of Applicable Water Quality Standards

For purposes of identifying waters for the Section 303(d) list, the term “applicable water quality standards” refers to standards established under Section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. 40 C.F.R. 103.7(b)(3). Section 303(d) of the Act and its implementing regulations require the states to identify the impaired waters within their boundaries and EPA to approve or disapprove the states’ Section 303(d) lists for those waters that have federally-approved water quality standards.

III. Analysis of Indiana’s Submissions

A. EPA’s Previous Action on Indiana’s 2010 Section 303(d) List

IDEM submitted its 2010 Section 303(d) list on November 30, 2010. On May 8, 2013, EPA approved the impaired waters identified on Indiana’s 2010 list but disapproved the State’s decision to not include a series of waterbody segments and associated metal pollutant causes of impairment for inclusion on Indiana’s Section 303(d) list. EPA added 129 waterbody segments and 139 associated metals impairments to the State’s 2010 list.5 The basis for the disapproval was EPA’s determination that the State did not meet the requirements to assess its waters against the “applicable water quality standards” (40 C.F.R. 130.7(b)(3)); did not assemble and evaluate all readily available data (40 CFR 130.7(b)(5)); and did not provide an adequate rationale or good cause to not use that data (40 C.F.R. 130.7(b)(6)(iii), (iv)).

B. EPA’s Partial Approval of Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) Lists

IDEM submitted its 2012, 2014, 2016, and 2018 Section 303(d) lists on December 28, 2012, September 29, 2015, February 23, 2017, and August 17, 2018, respectively.6 EPA has consolidated its review of these lists and is taking concurrent actions on Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) lists. In reviewing Indiana’s submittals, EPA first reviewed the methodology used by the State to develop its Section 303(d) lists in light of the State’s federally-approved water quality standards, and then reviewed the Section 303(d) lists of impaired waters and impairment causes (see Enclosure 2). EPA has concluded that, with the exception described below, Indiana identified the impaired waters within its boundaries on its Section 303(d) lists and, thus, complied with the

requirements set forth under Section 303(d) of the CWA and 40 C.F.R. 130.7. Pending further
discussion with the State, EPA is taking no action with respect to IDEM’s decision to not include
certain waterbody segments and associated metal pollutant causes of impairment on its 2012-2018
Section 303(d) lists.

EPA’s review is based on, among other things, an analysis of whether the State considered existing
and readily available water quality-related data and information and identified waters required to be
listed. EPA’s partial approval of Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) lists extends
to the waterbodies and corresponding impairments in Category 5 of the IR that are included under Table 1 of Enclosures 3, 4, and 5. Additional details on EPA’s partial approval action of Indiana’s
2012, 2014, 2016 and 2018 Section 303(d) lists are provided in Enclosure 2.

C. Evaluation of Existing and Readily Available Water Quality-Related Data and Information

EPA has reviewed IDEM’s description of the data and information it assembled and evaluated to
identify impaired waters within its boundaries, its methodology for developing its 2012 through 2018
Section 303(d) lists, and other relevant information submitted by IDEM.

Regarding the data and information not related to metals, EPA concludes that the State of Indiana
properly assembled and evaluated all existing and readily available data and information, including
data and information relating to the categories of waters specified in 40 C.F.R. 130.7(b)(5). In
addition, the State provided a description of the data and information used for each listing cycle and,
where appropriate, a reasonable rationale for not using particular existing and readily available water
quality-related data and information as a basis for listing waters or impairments.

IDEM collected data in accordance with its water quality monitoring strategy (WQMS), which
employs a basin rotation approach (revised from a five-year to a nine-year basin rotation) to
monitoring for CWA purposes. IDEM used data it collected from various state monitoring programs
and data collected by other organizations to develop its 2012, 2014, 2016, and 2018 IRs. The types
of data collected consist mainly of chemical (water, sediment, and fish tissue), physical (habitat, flow
data), and biological (fish community, macroinvertebrates, and E. coli) monitoring information.
These data were reviewed for the purposes of making Sections 305(b) assessment and 303(d) listing
decisions using IDEM’s consolidated assessment and listing methodology (CALT).

IDEM had been working since 2006 to develop the External Data Framework (EDF) to provide a
systematic and streamlined process for the solicitation and review of external data for potential use in
its water quality programs. Before launching its EDF in 2015, IDEM’s preliminary solicitations were
conducted by letter, individual email, and through email listservs targeted to organizations that might
reasonably be expected to have water quality data. IDEM also placed links on various agency web
pages to help reach the broadest audience possible.

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7 IDEM’s data-collection sampling programs include: Probabilistic Monitoring, Fixed Station Monitoring, E. coli
  Monitoring, Fish Community Monitoring, Fish Tissue Monitoring, Sediment Contaminant Monitoring,
  Macroinvertebrate Community Monitoring, Clean Lakes, Watershed Characterization, Performance Measures
  Monitoring, and Special Projects.
8 See Attachment 1 of Appendix I of the 2012 Indiana IR. See also Appendix H of the 2014 Indiana IR. See also
  Appendix N of the 2016 Indiana IR. See also, Appendix G of Indiana’s 2018 IR.
9 See EDF website at http://in.gov/idem/cleanwater/2485.htm
Several entities submitted data to IDEM in response to IDEM’s Sections 305(b)/303(d) data solicitations.\textsuperscript{10} IDEM used the data submitted from these entities\textsuperscript{11} where the data met IDEM’s QA/QC requirements as identified in the State’s QA/QC manual.\textsuperscript{12}

In addition to the data collection efforts described above, Indiana public noticed its draft 2012, 2014, 2016, and 2018 Section 303(d) lists in the Indiana Register and on IDEM’s website starting on February 9, 2012, May 20, 2014, May 9, 2016, and April 11, 2018, respectively, and ending on May 31, 2012, July 29, 2014, July 5, 2016, and July 10, 2018, respectively. IDEM also held a number of public meetings to discuss the draft 303(d) lists. Copies of the full public comments, and a responsiveness summary of the comments received and the State’s responses were included in the submittal packages to EPA.\textsuperscript{13} Consistent with the requirement at 130.7(a) that states have a process for “involving the public” in the identification of water quality limited segments and the requirement at 130.7(b)(5) that states “assemble and evaluate all existing and readily available water quality-related data and information,” EPA finds that IDEM has adequately responded to comments not related to metals causes of impairment and will address Indiana’s response to comments related to metals in a subsequent action.

C. Priority Ranking and Targeting

EPA has reviewed Indiana’s priority ranking of listed waters for TMDL development for the 2012, 2014, 2016 and 2018 Section 303(d) lists\textsuperscript{14} and concludes that the State provided “a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of pollution and the uses to be made of such waters” as required by 40 C.F.R. 130.7(b)(4).\textsuperscript{15} In general, IDEM’s TMDL development schedule corresponds with IDEM’s rotating basin monitoring schedule unless there is a significant reason to deviate from that schedule. This strategy allows IDEM to take advantage of all available resources for TMDL development by targeting Section 303(d) listed waters in a given basin for additional monitoring as sampling crews are working in that basin. Indiana’s waterbodies were given a priority ranking for TMDL development based on relevant factors such as:

\textsuperscript{10} See Table 8 under Appendix A of the 2012 and 2014 Indiana IRs. See also Table 11 under Appendix A of the 2016 Indiana IR. See also page 36 of 2018 Indiana IR Narrative.

\textsuperscript{11} See Table 9 under Appendix A of the 2012 Indiana IR. See also Table 8 under Appendix A of the 2014 Indiana IR. See also Table 11 under Appendix A of the 2016 Indiana IR. See also page 36 of 2018 Indiana IR Narrative.

\textsuperscript{12} See IDEM’s Quality Assurance Project Plan for Indiana Surface Water Quality Monitoring and TMDL Programs, 3rd Revision, October 2004. See also IDEM’s Quality Assurance Project Plan for Indiana Surface Water Programs, 4th Revision, March 2017.

\textsuperscript{13} See Attachment 2 and IDEM Responses under Appendix I of the 2012 Indiana IR. See also Attachment 1 and Attachment 3 under Appendix I of the 2014 Indiana IR. See also Appendix M of the 2016 Indiana IR. See also emails to Vilma Rivera-Carrero from Jody Arthur dated 10/6/2017, 2/2/2018 and 4/5/2019.

\textsuperscript{14} See Table 3 in Attachment 2 under Appendix H, and Pages A-50 and A-51 in Attachment 1 of Appendix I of the 2012 Indiana IR. See also Pages 66 and 67 in Attachment 1 of Appendix H, and Table 3 of TMDL Development Schedules under Appendix H of the 2014 Indiana IR. See also Appendix E, Appendix F, Pages 89 – 96 of Appendix L, and Page N-43 of Appendix N of the 2016 Indiana IR. See also Appendix E, Pages G-48 and G-49 of Appendix G, and Pages 31 - 39 of Appendix I of the 2018 Indiana IR.

\textsuperscript{15} Although EPA reviews whether a state’s Section 303(d) submission “include[s] a priority ranking for all water quality-limited segments still requiring TMDLs” consistent with 40 CFR 130.7(b)(4), the regulations do “not authorize the U.S. EPA to review or pass judgment on a state’s priority ranking.” Envtl Law and Policy Ctr. v. United States Envtl Protection Agency, 349 F. Supp. 3d 703, 712 (N.D. Ohio 2018).
specific designated uses; the magnitude of the impairment; the amount of readily available and representative data; relative complexity and ability to characterize the impairment; and level of activities occurring in the watershed (e.g., local interest by active watershed groups). For the 2012 and 2014 lists, IDEM ranked all pathogen impairments as high priority, all fish tissue impairments as low priority, and all other impairments as medium priority for TMDL development. For the 2016 and 2018 lists, as part of the implementation of the CWA Section 303(d) Program Vision, IDEM developed a TMDL Program Priority Framework which included a long-term schedule that identified a series of waterbody segments and impairments (E. coli, dissolved oxygen, and impaired biotic communities) with a higher priority for TMDL development between 2016 and 2022. All other waterbody segments and impairments listings have been given a lower priority for TMDL development.

The regulations at 40 C.F.R. 130.7(b)(4) also require that Section 303(d) lists identify waters targeted for TMDL development in the next two years. EPA refers to this identification as the two-year schedule. EPA reviewed Indiana’s two-year schedule for targeting 303(d) listed waters for TMDL development (for the 2012, 2014, 2016, and 2018 Section 303(d) lists)\(^{16}\) and concludes that IDEM has identified those WQLSs targeted for TMDL development and completion in the next two years, as required by 40 CFR 130.7(b)(4).

D. **Summary of Action on Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) Lists**

EPA is approving Indiana’s 2012, 2014, 2016, and 2018 Section 303(d) lists submitted (Table 1 of Enclosure 3, 4, 5, and 6), with the exception of the series of metal pollutant causes of aquatic life use impairment associated with certain waterbody segments. EPA is taking no action at this time on IDEM’s 2012, 2014, 2016, and 2018 Section 303(d) lists with respect to the metal pollutant causes of aquatic life use impairment other than those identified by the State.

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\(^{16}\) See Table 2 in Attachment 2 under Appendix H of the 2012 Indiana IR. See also Table 2 of TMDL Development Schedules under Appendix H of the 2014 Indiana IR. See also Appendix E of the 2016 and 2018 Indiana IRs.