



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

July 2, 2018

Scott Ireland, Chief
Water Quality Branch
US Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Dear Mr. Ireland:

Re: Indiana Water Quality Review Report

The Indiana Department of Environmental Management has completed a Review of Indiana's Water Quality Standards in accordance with Section 303(c) of the federal Clean Water Act.

The Department initiated the review on February 28, 2018 by posting the Public Notice of *Notice of Review of Water Quality Standards and Public Hearing* in the Indiana Register, by distributing the information by email to stakeholders on February 23, 2018, and by posting the notice on the program website. A copy of the public notice is found in Appendix A of the attached report.

The public comment period was open until close of business on April 26, 2018. The Department received three sets of comments during the public comment period and one comment during the public hearing. The comments can be viewed on our website at <https://www.in.gov/idem/cleanwater/2329.htm>

If you have any questions, please contact me at (317) 232-8402. We will continue to keep U. S. EPA informed as we move forward with the priorities identified in this review.

Sincerely,

Martha Clark Mettler
Assistant Commissioner, Office of Water Quality

EMH: mcm
Enclosure
cc: Annie Staffer, Media and Communications Services, IDEM

REVIEW OF INDIANA WATER QUALITY STANDARDS

Final Report

July 2, 2018

BACKGROUND

Section 303(c) of the Clean Water Act requires states to review their water quality standards (WQS) from time to time, but at least once every three years. During this process, states are to review, and modify as appropriate, their water quality standards after considering public concerns, USEPA guidance, and new scientific and technical information. EPA revised rules at 40 CFR §131.20 that outline requirements for this review, specifically related to public participation and engaging stakeholders in the review process, and state reporting requirements.

The goal of IDEM's 2018 water quality standards review was to engage stakeholders and to identify priorities for rulemaking to update water quality standards to reflect current science and USEPA policy. IDEM's notice of the water quality standards review included a brief description of water quality standards work that IDEM has identified as a priority:

- 1) Revise the aquatic life ambient water quality criteria (WQC) and human health ambient WQC for metals. Proposed revisions to these metal criteria reflect updates to National Recommended Water Quality Criteria (NRWQC) at Section 304(a) of the CWA and current science. Second Notice of Comment Period, LSA Document #14-58, closed February 1, 2018.
- (2) Remove the limited use waters classification and waters classified for limited use in 327 IAC 2-1 and 327 IAC 2-1.5. First notice of rulemaking is being developed.
- (3) Update Indiana's procedures for calculating aquatic life ambient WQC and human health ambient WQC to reflect current U.S. EPA guidance and to implement consistent statewide procedures. These methodologies are used to derive ambient WQC for chemicals that do not have a NRWQC at Section 304(a) of the CWA, but have the potential to impact human health or aquatic life. Updating these procedures will include adopting updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and United States Environmental Protection Agency (U.S. EPA) policies. First notice of rulemaking is being developed.
- (4) Update or adopt new and updated human health ambient WQC for 94 chemical pollutants that are NRWQC at Section 304(a) of the CWA. U.S. EPA derived the 94 human health ambient WQC using updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and U.S. EPA policies. First notice of rulemaking is being developed.
- (5) Update current Indiana WQS variance rules to include a 2015 U.S. EPA rule (40 CFR §131.14) that establishes a regulatory framework for the adoption of WQS variances to implement adaptive management approaches to improve water quality.

PUBLIC NOTICE:

IDEM initiated the review by circulating *Notice of Review of Water Quality Standards and Public Hearing* ("Notice") to a list of stakeholders and OWQ staff on Monday, February 26, 2018, and by posting the Notice in the *Indiana Register* on Wednesday, February 28, 2018. The public comment period was open from distribution of the Notice until close of business on April 26, 2018. IDEM requested that interested parties transmit comments by mail or common carrier, facsimile, electronic mail, or hand delivery. A copy of the public notice is found in Appendix A, and at the link, below.



REVIEW OF INDIANA WATER QUALITY STANDARDS
Final Report
July 2, 2018

<http://www.in.gov/legislative/iac/20180228-IR-318180115ONA.xml.pdf>

html version: <http://www.in.gov/legislative/iac/20180228-IR-318180115ONA.xml.html>

PUBLIC HEARING

IDEM hosted one public hearing to communicate water quality standards review requirements and to solicit feedback from stakeholders.

The public notice included information for the public hearing, scheduled for April 11, 2018 at 1:30 pm in a conference room at the Indiana Government Center South building. The public hearing coincided with IDEM's Environmental Rules Board meeting, and was recorded.

An agenda for the meeting is available at the following link, and a printed copy is included with this packet in Attachment B:

https://www.in.gov/idem/legal/files/rules_erb_20180411_agenda.pdf

A transcript of the hearing is available at the following link:

https://www.in.gov/idem/legal/files/rules_transcript_erb_20180411.pdf

WQS REVIEW COMMENTS

IDEM received two comment letters from stakeholders (one from three environmental stakeholder groups: Sierra Club Hoosier Chapter, Hoosier Environmental Council, Lower Ohio River Waterkeeper, and one from Indiana Environmental Institute) and one comment letter from EPA Region 5 (Appendix C).

Stakeholder Comment Summary

Stakeholders were generally in support of IDEM's water quality standard review priorities. Additional comments included recommendations listed below.

Environmental Stakeholder Comment: Adopt the 2013 USEPA NRWQC for ammonia in compliance with 40 CFR 131.20. Stakeholders comment that Indiana has numerous streams that contain mussels, including endangered mussels, and even more streams that could support mussels but for ammonia pollution and other forms of pollution. To help save our remaining mussels, IDEM should adopt the improved ammonia criteria.

IDEM Response: IDEM has an internal work group that is studying how to implement the 2013 NRWQC for ammonia across a wide range of wastewater treatment systems, including how to mitigate the economic impact of adopting this criterion for communities and entities with limited resources.

Environmental Stakeholder Comment: Adopt phosphorus criteria. Stakeholders comment that it is well known that phosphorus is causing serious impairments of numerous Indiana waters as well as contributing to serious impairments of downstream waters including Lake Erie and the Ohio River. They noted IDEM initiated a process to establish phosphorus criteria for lakes and reservoirs, but after convening a work group, which met for about seven months, IDEM abandoned the process, saying that it couldn't resolve certain "implementation problems."

REVIEW OF INDIANA WATER QUALITY STANDARDS
Final Report
July 2, 2018

Stakeholders urge IDEM to commit itself to overcoming these problems and establishing phosphorus criteria not only for lakes and reservoirs, but for rivers and streams.

IDEM Response: IDEM continues to research how to draft nutrient criteria to protect aquatic life and human health while considering implementation challenges. See IDEM's "Nutrient Criteria Development Milestones for FY18" submitted to EPA Region 5 November 8, 2017.

Indiana Environmental Institute Comment: *Convene two external work groups to advise IDEM for review of Indiana's water quality standards. One work group would monitor progress and advise IDEM on appropriateness and completeness of the IDEM water quality standard process. The other group would advise IDEM regarding appropriate language, assumptions and calculations to ensure regulations are scientifically sound and internally clear and consistent.*

IDEM Response: At this time, due to limited technical resources directed towards water quality standards, IDEM does not intend to convene external advisory work group for water quality standards generally. The rulemaking process for individual rules does provide multiple opportunities for input on what the agency is proposing.

Indiana Environmental Institute Comment: *Simplify the antidegradation rule language for clarity and revise it to correct technical internal inconsistencies.*

IDEM Response: IDEM does not consider modifying the antidegradation rule language a priority at this time.

Indiana Environmental Institute Comment: *When revising water quality standards across the state, consider that Great Lakes System criteria and methodologies were derived to protect all states, tribes, and both countries in the Great Lakes System from a specific set of chemicals of concern using site specific exposure factors/assumptions; and not all water quality criteria, exposure factors, or exposure assumptions will be appropriate for Indiana waters outside of the Great Lakes System.*

IDEM Response: IDEM does consider the Great Lakes System requirements when updating water quality standards. For example, when IDEM proceeds with the planned methodology update to Indiana's procedures for calculating aquatic life ambient WQC and human health ambient WQC, the proposed methodology will reflect current U.S. EPA guidance and implement consistent statewide procedures (as appropriate). IDEM did not make any changes to the Water Quality Standards priority list as a result of the stakeholder comments.

USEPA Region 5 Comment Summary

USEPA Region 5 provided a comment letter dated April 25, 2018. Comments, and IDEM's responses, are detailed below.

Comment: *EPA supports IDEM's proposed work plan as proposed in the notice.*



REVIEW OF INDIANA WATER QUALITY STANDARDS
Final Report
July 2, 2018

IDEM Response. IDEM appreciates EPA Region 5 support for the proposed work plan priorities.

Comment: *Previously, EPA provided specific comments to IDEM on the proposed revisions to metals criteria in (1) above. EPA will provide any specific comments on the other proposed rule revisions as they become available for review and are submitted to EPA for review and approval.*

IDEM Response: EPA Region 5 provided specific comments regarding Indiana's proposed Metals Criteria Rulemaking on February 1, 2018. IDEM will respond to these comments during the current rulemaking process, and not as part of this WQS Review reporting.

Comment: *As part of EPA's 2015 revisions of the federal WQS regulations, EPA revised the federal regulations at 40 CFR 131.20(a) to require that if states and authorized tribes choose not to adopt new or revised criteria for parameters for which EPA has published new or revised 304(a) criteria recommendations, they must explain their decision for not doing so. As stated in the preamble to the 2015 revisions:*

[f]ollowing this rulemaking, when states and authorized tribes conduct their next triennial review they must provide an explanation for why they did not adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations since May 30, 2000. During the triennial reviews that follow, states and authorized tribes must do the same for criteria related to parameters for which EPA has published CWA section 304(a) criteria recommendations since the states' or authorized tribes' most recent triennial review. (80 Fed. Reg. 51028)

A list of all new or updated 304(a) criteria recommendations since May 30, 2000 may be found at: <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MYS8.PDF?Dockey=P100MYS8.PDF> Since that list was prepared in July 2015, EPA has published new or updated 304(a) aquatic life criteria for cadmium and selenium and is in the process of publishing updated 304(a) aquatic life criteria for aluminum. To be consistent with the revised 40 CFR 131.20, for all parameters for which EPA has published new or updated 304(a) criteria recommendations since May 30, 2000 that are not currently addressed in IDEM's work plan or supporting documentation, IDEM's submission to EPA of the results of this review should include a discussion of whether Indiana has adopted the 304(a) criteria recommendations and an explanation for those parameters -where Indiana has not adopted the 304(a) criteria recommendations. Additionally, as described in the preamble to EPA's 2015 WQS regulatory revisions at 80 Fed. Reg. 51029, EPA encourages IDEM to make these explanations available to the public.

IDEM Response: Appendix D (*IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for Aquatic Life Published Since May 30, 2000*) and Appendix E (*IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for Human Health Published Since May 30, 2000*) provide a tabular presentation of this required information. To communicate this information to the public, IDEM will post these tables on the Water Quality Standards website. (<https://www.in.gov/idem/cleanwater/2329.htm>)

REVIEW OF INDIANA WATER QUALITY STANDARDS
Final Report
July 2, 2018

Comment: Finally, EPA notes that Indiana's WQS include a number of site-specific water quality criteria previously adopted by Indiana (IAC 2-1.5-16, Table 16-1, Table 8.9-1). These also should be reviewed by IDEM to ensure that they remain consistent with the most current science for the subject pollutants.

IDEM Response: 327 IAC 2-1-8.9 Table 8.9-1 lists site-specific water quality criteria for downstate waters, and 327 IAC 2-1.5-17 Table 17-1 lists site-specific water quality criteria for Great Lake System waters. These site-specific criteria were derived to reflect local site conditions, and were used to develop water quality based effluent limits for municipal or industrial wastewater treatment effluent. At permit renewal for each of these facilities, IDEM will review if each site-specific water quality criterion is consistent with the most current science and continues to be protective of the waterbody's designated uses, or if the site-specific criterion should be rescinded.

Comment: Federal regulations at 40 CFR 131.20(a) also require that states "re-examine any waterbody segment with water quality standards that do not include the uses specified in section 101(a)(2) CWA every three years to determine if any new information has become available." IDEM's proposed WQS work includes removal of the "limited use waters" classification from Indiana's WQS. Item (2) in the notice states that IDEM intent is to, "Remove the limited use waters classification and waters classified for limited use in 327 LC 2-1 and 327 IAC 2-1.5." It is not clear from the notice what IDEM intends to do with waters currently identified as limited use waters. Removing this use and reclassifying these waters into a use class consistent with section 101(a)(2) of the CWA would be one way to address the requirement of this federal regulations at 40 CFR 131.20(a).

IDEM Response: When the limited use classification is removed from a water, that water will be expected to support fishable and swimmable uses.

IDEM PRIORITIES FOR 2018-2021

IDEM's water quality standards action priorities, reiterated below, remain as outlined in the notice. Additionally, IDEM will continue to evaluate data and information needed for developing and implementing numeric nutrient criteria and the revised ammonia recommendation. IDEM may reassess the water quality standards action priorities as new 101(a)(2) recommendations are finalized by EPA.

(1) Continue with current proposed rulemaking to revise the aquatic life ambient WQC and human health ambient WQC for metals. Proposed revisions to these metal criteria reflect updates to National Recommended Water Quality Criteria (NRWQC) at Section 304(a) of the CWA and current science. Second Notice of Comment Period, LSA Document #14-58, closed February 1, 2018, and IDEM is working to address comments, recommendations and suggestions from stakeholders and EPA Region 5.

(2) Initiate rulemaking to remove the limited use waters designation and waters designated for limited use in 327 IAC 2-1 and 327 IAC 2-1.5.



REVIEW OF INDIANA WATER QUALITY STANDARDS
Final Report
July 2, 2018

(3) Initiate rulemaking to update Indiana's procedures for calculating aquatic life ambient WQC and human health ambient WQC to reflect current U.S. EPA guidance and to implement consistent statewide procedures, as appropriate. These methodologies are used to derive ambient WQC for chemicals that do not have a NRWQC at Section 304(a) of the CWA, but have the potential to impact human health or aquatic life. Updating these procedures will include adopting updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and United States Environmental Protection Agency (U.S. EPA) policies.

(4) Initiate rulemaking to adopt new and updated human health ambient WQC for 94 chemical pollutants that are NRWQC at Section 304(a) of the CWA. U.S. EPA derived the 94 human health ambient WQC using updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and U.S. EPA policies.

(5) Consider initiating rulemaking to update current Indiana WQS variance rules to include a 2015 U.S. EPA rule (40 CFR §131.14) that establishes a regulatory framework for the adoption of WQS variances to implement adaptive management approaches to improve water quality.

IDEM will follow state requirements to propose regulatory changes to address the topics identified above. Other topics may be included in the proposed WQS for regulatory change if sufficient information is available to support

Appendix A

Notice of Review of Water Quality Standards and Public Hearing

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Notice of Review of Water Quality Standards and Public Hearing

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on Indiana's Water Quality Standards (WQS). The federal Clean Water Act (CWA) requires all states to develop, review, revise, and adopt WQS. WQS must include the designated uses of the waterbody, water quality criteria necessary to protect those uses, and antidegradation provisions to protect the water quality.

The CWA requires the states to periodically review their water quality standards as appropriate. The most significant rulemaking to revise Indiana's WQS was development of the statewide antidegradation standards and implementation procedures, Legislative Services Agency (LSA) Document #08-764, that was final adopted on March 14, 2012. Another rulemaking, LSA Document #11-320, to amend the WQS for chloride and sulfate, was final adopted on May 23, 2012. A rulemaking on special designations and exceptional use waters, LSA Document #13-290, was final adopted on September 10, 2014.

A priority for IDEM, is to make the standards consistent for all waters (those within the Great Lakes basin and those outside of the Great Lakes basin, commonly referred to as "downstate"). Currently, IDEM has the following proposals and plans under consideration affecting WQS or use designations:

- (1) Revise the aquatic life ambient water quality criteria (WQC) and human health ambient WQC for metals. Proposed revisions to these metal criteria reflect updates to National Recommended Water Quality Criteria (NRWQC) at Section 304(a) of the CWA and current science. Second Notice of Comment Period, LSA Document #14-58, closed February 1, 2018.
- (2) Remove the limited use waters classification and waters classified for limited use in 327 IAC 2-1 and 327 IAC 2-1.5. First notice of rulemaking is being developed.
- (3) Update Indiana's procedures for calculating aquatic life ambient WQC and human health ambient WQC to reflect current U.S. EPA guidance and to implement consistent statewide procedures. These methodologies are used to derive ambient WQC for chemicals that do not have a NRWQC at Section 304(a) of the CWA, but have the potential to impact human health or aquatic life. Updating these procedures will include adopting updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and United States Environmental Protection Agency (U.S. EPA) policies. First notice of rulemaking is being developed.
- (4) Update or adopt new and updated human health ambient WQC for 94 chemical pollutants that are NRWQC at Section 304(a) of the CWA. U.S. EPA derived the 94 human health ambient WQC using updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and U.S. EPA policies. First notice of rulemaking is being developed.
- (5) Update current Indiana WQS variance rules to include a 2015 U.S. EPA rule (40 CFR §131.14) that establishes a regulatory framework for the adoption of WQS variances to implement adaptive management approaches to improve water quality.

IDEM believes these rulemakings focus on key updates needed to improve Indiana's WQS but is interested in hearing public opinion on all aspects of the WQS. With this notice, IDEM requests feedback from all interested parties on any aspect of Indiana's WQS contained in Title 327 of the Indiana Administrative Code (IAC), Article 2. Public comments should include:

- (1) the matter at issue;
- (2) whether the issue is currently covered by the WQS, and, if so, where any suggested change should be made to the WQS;
- (3) the basis for the suggested change; and
- (4) technical information, reports, or references that support the comment.

The estimated fiscal impact of changes to the WQS is impossible to determine at this notice stage without knowing what changes may ultimately occur.

A public hearing will be held on April 11, 2018, at 1:30 p.m., at the Indiana Government Center South, 10 North Senate Avenue, Conference Center Room A, Indianapolis, Indiana. Following a brief presentation by IDEM, the Environmental Rules Board (ERB) will hold a public hearing on any aspect of Indiana's WQS. The purpose of this hearing is to solicit public comments on Indiana's WQS. All interested persons are invited and will be given reasonable opportunity to express their views concerning Indiana's WQS. Oral statements will be heard, but, for the accuracy of the record, all comments should be submitted in writing. No votes or actions will be taken by the ERB. At this time, additional public meetings to solicit public comments are not scheduled.

Individuals requiring reasonable accommodations for participation in this public hearing should contact the IDEM, Americans with Disabilities Act coordinator at:

Attn: ADA Coordinator
Indiana Department of Environmental Management
Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN 46204-2251

or call (317) 233-1785 (V). Speech and hearing impaired callers may contact IDEM via the Indiana Relay Service (711) or (800) 743-3333. Please provide a minimum of 72 hours notification.

Copies of this notice are now on file at the Office of Legal Counsel, Indiana Department of Environmental Management, Indiana Government Center North, 100 North Senate Avenue, Room N1315 and are open for public inspection.

Written comments in response to this notice may be submitted to IDEM through April 26, 2018, in one of the following ways:

- (1) By mail or common carrier to the following address:
Notice of Review of WQS
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management

Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN 46204-2251

(2) By facsimile to (317) 233-5970. Please confirm the timely receipt of your faxed comments by calling the Rules Development Branch at (317) 232-8922.

(3) By electronic mail to mstevens@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 e-mail address indicated in this notice.

(4) Hand delivered by 4:45 p.m. to the receptionist on duty at the thirteenth floor reception desk, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana.

Regardless of the delivery method used, in order to properly identify each comment, it must clearly specify the title of "Notice of Review of WQS".

Additional information regarding this action may be obtained from MaryAnn Stevens, Rules Development Branch, Office of Legal Counsel, (317) 232-8635 or (800) 451-6027 (in Indiana) or Eileen Hack, Technical Environmental Specialist, Office of Water Quality, (317) 234-7914 or (800) 451-6027 (in Indiana).

Martha Clark Mettler
Assistant Commissioner
IDEM, Office of Water Quality

Appendix B

Agenda

Water Quality Standards Review Public Hearing

April 13, 2018

AGENDA
INDIANA ENVIRONMENTAL RULES BOARD

Indiana Government Center - South
Conference Room A
Public Entrance at 10 North Senate Avenue
Indianapolis, Indiana

Wednesday
April 11, 2018
1:30 p.m.

- A. Call to Order**
Quorum

- B. Approval of Meeting Summary of January 10, 2017**

- C. IDEM Reports**
Commissioner's Report
Rules Update

- D. Rules**
 - 1. Lawrenceburg Township, Dearborn County Ozone Redesignation Emergency Rule.** Temporarily amends 326 IAC 1-4-16.
Board Consideration of adoption of emergency rule.

 - 2. Attainment Status Updates.** Adoption of amendments to 326 IAC 1-4. LSA #18-1.
 - (a) Public Hearing concerning proposed rule.*
 - (b) Board Consideration of final adoption of proposed rule.*

 - 3. Cross Connections Reference Updates.** Preliminary adoption of amendments to 327 IAC 8-10. LSA #17-563.
 - (a) Public Hearing concerning draft rule.*
 - (b) Board Consideration of preliminary adoption of draft rule.*

 - 4. Volatile Organic Liquid Storage Tanks.** Final adoption of amendments to 326 IAC 8-9. LSA #15-427.
 - (a) Public Hearing concerning proposed rule.*
 - (b) Board Consideration of final adoption of proposed rule.*

 - 5. NO_x Emissions from Large Affected Units.** Final adoption of a new rule at 326 IAC 10-2, amendments to 326 IAC 10-3-1 and 326 IAC 10-3-3, and repeal of 326 IAC 10-4 and portions of 326 IAC 24-3. LSA #15-414.
 - (a) Public Hearing concerning proposed rule.*
 - (b) Board Consideration of final adoption of proposed rule.*

E. Non-Rule Actions

1. Presentation for the 2018 303(d) List of Impaired Waters and Consolidated Assessment under the Clean Water Act.

2. Hearing for the Review of Water Quality Standards

F. Other Matters

1. Open Forum

2. Tentative Date and Location of Next Meeting*

July 11, 2018, 1:30 p.m., Indiana Government Center-South, Conference Room A, 10 North Senate Avenue, Indianapolis, Indiana.

3. Board packet information can also be retrieved via the Internet as early as one week prior to the meeting at: <http://www.in.gov/idem/4696.htm>.

G. Adjournment

* Date and Location of Board Meetings are subject to change. For confirmation, please check with the Rule Development Section, Office of Legal Counsel at (317) 232-8922 or (800) 451-6027, ext. 2-8922.

Individuals requiring reasonable accommodations for participation in this event should contact the Indiana Department of Environmental Management, Americans with Disabilities Act coordinator at:

*Attn: ADA Coordinator
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46204*

or call (317) 233-1785(V). Speech and hearing impaired callers may contact the agency via the Indiana Relay Service (711) or 1-800-743-3333. Please provide a minimum of 72 hours notification.

Appendix C

USEPA Region 5 Water Quality Standards Review Comment Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 25 2018

REPLY TO THE ATTENTION OF:

WQ-16J

Notice of Review of WQS
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN Saint Paul, MN, 55155-4194

Dear Ms. Stevens:

On February 28, 2018, the Indiana Department of Environmental Management (IDEM) published a notice in the State Register announcing Indiana's water quality standards review and requesting comment on the need for amendments and revisions to Indiana's water quality standards (WQS). EPA commends IDEM in its efforts to satisfy this important requirement of the Clean Water Act (CWA).

IDEM's notice of the triennial review includes a brief description of WQS work that IDEM has identified as a priority, which includes the following:

- (1) Revise the aquatic life ambient water quality criteria (WQC) and human health ambient WQC for metals. Proposed revisions to these metal criteria reflect updates to National Recommended Water Quality Criteria (NRWQC) at Section 304(a) of the CWA and current science. Second Notice of Comment Period, LSA Document #14-58, closed February 1, 2018.
- (2) Remove the limited use waters classification and waters classified for limited use in 327 IAC 2-1 and 327 IAC 2-1.5. First notice of rulemaking is being developed.
- (3) Update Indiana's procedures for calculating aquatic life ambient WQC and human health ambient WQC to reflect current EPA guidance and to implement consistent statewide procedures. These methodologies are used to derive ambient WQC for chemicals that do not have a NRWQC at Section 304(a) of the CWA, but have the potential to impact human health or aquatic life. Updating these procedures will include adopting updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and EPA policies. First notice of rulemaking is being developed.

- (4) Update or adopt new and updated human health ambient WQC for 94 chemical pollutants that are NRWQC at Section 304(a) of the CWA. U.S. EPA derived the 94-human health ambient WQC using updated exposure, bioaccumulation, and toxicity factors that reflect the latest scientific information and EPA policies. First notice of rulemaking is being developed.
- (5) Update current Indiana WQS variance rules to be consistent with the 2015 revisions of the federal water quality standards regulations that include a rule at 40 CFR §131.14 that establishes a regulatory framework for the adoption of WQS variances to implement adaptive management approaches to improve water quality.

EPA supports IDEM's proposed work plan as proposed in the notice. Previously, EPA provided specific comments to IDEM on the proposed revisions to metals criteria in (1) above. EPA will provide any specific comments on the other proposed rule revisions as they become available for review and are submitted to EPA for review and approval.

As part of EPA's 2015 revisions of the federal WQS regulations, EPA revised the federal regulations at 40 CFR 131.20(a) to require that if states and authorized tribes choose not to adopt new or revised criteria for parameters for which EPA has published new or revised 304(a) criteria recommendations, they must explain their decision for not doing so. As stated in the preamble to the 2015 revisions:

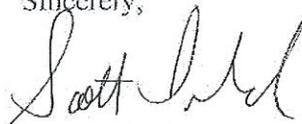
[f]ollowing this rulemaking, when states and authorized tribes conduct their next triennial review they must provide an explanation for why they did not adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations since May 30, 2000. During the triennial reviews that follow, states and authorized tribes must do the same for criteria related to parameters for which EPA has published CWA section 304(a) criteria recommendations since the states' or authorized tribes' most recent triennial review. (80 Fed. Reg. 51028)

A list of all new or updated 304(a) criteria recommendations since May 30, 2000 may be found at: <https://nepis.epa.gov/Exe/ZvPDF.cgi/P100MYS8.PDF?Dockey=P100MYS8.PDF>. Since that list was prepared in July 2015, EPA has published new or updated 304(a) aquatic life criteria for cadmium and selenium and is in the process of publishing updated 304(a) aquatic life criteria for aluminum. To be consistent with the revised 40 CFR 131.20, for all parameters for which EPA has published new or updated 304(a) criteria recommendations since May 30, 2000 that are not currently addressed in IDEM's work plan or supporting documentation, IDEM's submission to EPA of the results of this review should include a discussion of whether Indiana has adopted the 304(a) criteria recommendations and an explanation for those parameters where Indiana has not adopted the 304(a) criteria recommendations. Additionally, as described in the preamble to EPA's 2015 WQS regulatory revisions at 80 Fed. Reg. 51029, EPA encourages IDEM to make these explanations available to the public. Finally, EPA notes that Indiana's WQS include a number of site-specific water quality criteria previously adopted by Indiana (IAC 2-1.5-16, Table 16-1, Table 8.9-1). These also should be reviewed by IDEM to ensure that they remain consistent with the most current science for the subject pollutants.

Federal regulations at 40 CFR 131.20(a) also require that states "re-examine any waterbody segment with water quality standards that do not include the uses specified in section 101(a)(2) CWA every three years to determine if any new information has become available." IDEM's proposed WQS work includes removal of the "limited use waters" classification from Indiana's WQS. Item (2) in the notice states that IDEM intent is to, "[r]emove the limited use waters classification and waters classified for limited use in 327 IAC 2-1 and 327 IAC 2-1.5." It is not clear from the notice what IDEM intends to do with waters currently identified as limited use waters. Removing this use and reclassifying these waters into a use class consistent with section 101(a)(2) of the CWA would be one way to address the requirement of this federal regulations at 40 CFR 131.20(a).

Thank you for the opportunity to provide these comments. If you have any questions regarding these comments, please contact me or have your staff contact David Pfeifer of my staff at (312) 353-9024 or pfeifer.david@epa.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Scott Ireland".

D. Scott Ireland
Acting Chief, Water Quality Branch

Appendix D

*IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for
Aquatic Life Published Since May 30, 2000*

Appendix D

IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for Aquatic Life (NRWQC) Published Since May 30, 2000

Pollutant	CAS#	NRWQC for Aquatic Life Publication Year	IDEM Down State - Duly Adopted? (Date)	IDEM Great Lakes System - Duly Adopted? (Date)	IDEM explanation for not adopting NRWQC for Aquatic Life at 304(a) of CWA (NRWQC)
Acrolein	107028	2009	No	No	a
Ammonia	7664417	2013	No	No	IDEM has an internal work group that is actively studying how to implement the ammonia NRWQC across a wide range of wastewater treatment systems, and evaluating how to mitigate the economic impact of adopting this criterion for communities and entities with limited resources. IDEM is also participating in the EPA Region 5 Ammonia Implementation Work Group.
Carbaryl	63252	2012	No	No	a
Cadmium	7440439	2016	No (Included in proposed 2 nd Notice Metals Rulemaking)	No (Included in proposed, 2 nd Notice Metals Rulemaking)	IDEM is engaged in a metals rulemaking that includes adopting USEPA's 2016 NRWQC for cadmium. IDEM published the 2 nd Notice of Comment Period for this rulemaking on November 15, 2017
Copper	7440508	2007	No	No	IDEM understands that the 2018 USEPA-Metals Associations Cooperative Research and Development Agreement plans to reevaluate the Copper Biotic Ligand Model. They are considering recommending a Multiple Linear Regression (MLR) approach using fewer input parameters for the copper NRWQC, modeled after the current proposed NRWQC for aluminum which has three input parameters (pH, DOC, hardness). IDEM has considered adopting the copper BLM, but has concerns for implementation of a criterion with this set of ten input parameters. IDEM will consider adopting the updated MLR approach in lieu of the current BLM copper criterion, after EPA finalizes it.

Pollutant	CAS#	NRWQC for Aquatic Life Publication Year	IDEM Down State – Duly Adopted? (Date)	IDEM Great Lakes System - Duly Adopted? (Date)	IDEM explanation for not adopting NRWQC for Aquatic Life at 304(a) of CWA (NRWQC)
Diazinon	333415	2005	No	No	a
Nonylphenol	84852153	2005	No	No	a
Nutrients	NA	2003	No	No	IDEM continues to research how to draft eutrophication criteria to protect aquatic life and human health. See IDEM's "Nutrient Criteria Development Milestones for FY18" submitted to EPA Region 5 November 8, 2017.
Selenium	7782492	2016	No (Included in proposed, 2 nd Notice Metals Rulemaking)	No (Included in proposed, 2 nd Notice Metals Rulemaking)	IDEM is engaged in a metals rulemaking that includes adopting USEPA's 2016 NRWQC for selenium. IDEM published the 2 nd Notice of Comment Period for this rulemaking on November 15, 2017.
Tributyltin	NA	2004	No	No	a

- a. IDEM has not identified adopting this criterion as a high priority for Indiana. Stakeholders have not identified adopting this criterion as a priority for Indiana. IDEM is considering a future rulemaking to adopt select USEPA NRWQC which may include acrolein, carbaryl, diazinon, nonylphenol and tributyltin, but this rulemaking may not be initiated until after the rulemaking to update the aquatic life criteria methodology for waters outside of the Great Lakes System.

Appendix E

*IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for
Human Health Published Since May 30, 2000*

Appendix E

IDEM Adoption of New or Updated CWA Section 304(a) Criteria Recommendations for Human Health Published Since May 30, 2000

Pollutant	CAS#	USEPA NRWQC for Human Health Publication Year	IDEM Down State – Duly Adopted? (Date)	IDEM Great Lakes System - Duly Adopted? (Date)	IDEM explanation for not adopting USEPA NRWQC for Human Health at 304(a) of CWA (NRWQC)
Acenaphthene	83329	2015	No	No	a
Acrolein	107028	2015	No	No	a
Acrylonitrile	107131	2015	No	No	a
Aldrin	309002	2015	No	No	a
alpha-Hexachlorocyclohexane (HCH)	319846	2015	No	No	a
alpha-Endosulfan	959988	2015	No	No	a
Anthracene	120127	2015	No	No	a
Antimony	7440360	2002	No (Included in proposed 2 nd Notice Metals Rulemaking)	No (Included in proposed, 2 nd Notice Metals Rulemaking)	IDEM is engaged in a metals rulemaking that includes adopting the 2002 antimony NRWQC for human health. IDEM published the 2 nd Notice of Comment Period for this rulemaking on November 15, 2017.
Benzene	71432	2015	No	No	a
Benzidine	92875	2015	No	No	a
Benzo(a)anthracene	56553	2015	No	No	a
Benzo(a)pyrene	50328	2015	No	No	a
Benzo(b)fluoranthene	205992	2015	No	No	a
Benzo(k)fluoranthene	207089	2015	No	No	a
beta-Hexachlorocyclohexane (HCH)	319857	2015	No	No	a
beta-Endosulfan	33213659	2015	No	No	a
Bis(2-Chloro-1-methylethyl) Ether	108601	2015	No	No	a
Bis(2-Chloroethyl) Ether	111444	2015	No	No	a
Bis(2-Ethylhexyl) Phthalate	117817	2015	No	No	a
Bis(Chloromethyl)ether	542881	2015	No	No	a
Bromoform	75252	2015	No	No	a
Butylbenzyl Phthalate	85687	2015	No	No	a
Carbon Tetrachloride	56235	2015	No	No	a
Chlordane	57749	2015	No	No	a

Pollutant	CAS#	USEPA NRWQC for Human Health Publication Year	IDEM Down State -- Duly Adopted? (Date)	IDEM Great Lakes System - Duly Adopted? (Date)	IDEM explanation for not adopting USEPA NRWQC for Human Health at 304(a) of CWA (NRWQC)
Chlorobenzene	108907	2015	No	No	a
Chlorodibromomethane	124481	2015	No	No	a
Chloroform	67663	2015	No	No	a
Chlorophenoxy Herbicide (2,4-D)	94757	2015	No	No	a
Chlorophenoxy Herbicide (2,4,5-TP)	93721	2015	No	No	a
Chrysene	218019	2015	No	No	a
Cyanide	57125	2015	No	No	a
Dibenzo(a,h)anthracene	53703	2015	No	No	a
Dichlorobromomethane	75274	2015	No	No	a
Dieldrin	60571	2015	No	No	a
Diethyl Phthalate	84662	2015	No	No	a
Dimethyl Phthalate	131113	2015	No	No	a
Di-n-Butyl Phthalate	84742	2015	No	No	a
Dinitrophenols	25550587	2015	No	No	a
Endosulfan Sulfate	1031078	2015	No	No	a
Endrin	72208	2015	No	No	a
Endrin Aldehyde	7421934	2015	No	No	a
Ethylbenzene	100414	2015	No	No	a
Fluroanthene	206440	2015	No	No	a
Fluorene	86737	2015	No	No	a
gamma-Hexachlorocyclohexane (HCH) - Technical (Lindane)	58899	2015	No	No	a
Heptachlor	76448	2015	No	No	a
Heptachlor Epoxide	1024573	2015	No	No	a
Hexachlorobenzene	118741	2015	No	No	a
Hexachlorobutadiene	87683	2015	No	No	a
Hexachlorocyclohexane (HCH)-Technical	608731	2015	No	No	a
Hexachlorocyclopentadiene	77474	2015	No	No	a
Hexachloroethane	67721	2015	No	No	a

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Indeno(1,2,3-cd)pyrene	193395	2015	No	No	a
Isophorone	78591	2015	No	No	a
Methylmercury	22967926	2001	No	No	Until implementation issues are resolved, IDEM does not plan to replace the current water column criterion for mercury with the fish-tissue based methylmercury water quality criterion.
Methoxychlor	72435	2015	No	No	a
Methyl Bromide	74839	2015	No	No	a
Methylene Chloride	75092	2015	No	No	a
Nitrobenzene	98953	2015	No	No	a
Nitrosodibutylamine, N	924163	2002	No	No	b
Nitrosodiethylamine, N	55185	2002	No	No	b
Nitrosopyrrolidine, N	930552	2002	No	No	b
N-Nitrosodimethylamine	62759	2002	No	No	b
N-nitrosodi-n-Propylamine	621647	2002	No	No	b
N-Nitrosodiphenylamine	86306	2002	No	No	b
Pathogen and Pathogen Indicators	NA	2012	2008	2008	IDEM's existing criteria have elements of the 2012 NRWQC, including the indicator organism, magnitude, duration and frequency for the estimated illness rate of 36 per 1,000 primary contact recreators: i.e., the geometric mean must not exceed 126 cfu <i>E. coli</i> /100 mL in any thirty day interval. IDEM's criteria also include a Beach Action Value of 235 cfu <i>E. coli</i> /100 mL. IDEM's rule does not include a Statistical Threshold Value, where 10% of samples can exceed 410 cfu <i>E.coli</i> /100 mL. IDEM rules allow 10% of samples collected by NPDES permitted facilities that disinfect their effluent to exceed 235 cfu <i>E.coli</i> /100

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					mL in a 30 day period. IDEM is currently evaluating whether to fully adopt the 2012 Recreational RWQC following requests by CSO community permittees.
Pentachlorobenzene	608935	2015	No	No	a
Pentachlorophenol	87865	2015	No	No	a
Phenol	108952	2015	No	No	a
Polychlorinated Biphenyls (PCBs)		2002			b
Pyrene	1290000	2015	No	NO	a
Selenium	7782492	2002	No (Included in proposed 2 nd Notice Metals Rulemaking)	No (Included in proposed, 2 nd Notice Metals Rulemaking)	IDEM is engaged in a metals rulemaking that includes adopting the 2002 selenium NRWQC for human health. IDEM published the 2 nd Notice of Comment Period for this rulemaking on November 15, 2017.
Tetrachloroethylene	127184	2015	No	No	a
Thallium	7440280	2003	No	No	The USEPA IRIS removed the reference dose (RfD) value used to derive the 2003 NRWQC for thallium following a 2009 reassessment that concluded there was inadequate information to assess carcinogenic potential. IDEM will retain the current thallium criterion for waters outside of the Great Lakes System.
Toluene	108883	2015	No	No	a
Toxaphene	8001352	2015	No	No	a
Trichloroethylene	79016	2015	No	No	a
Vinyl Chloride	75014	2015	No	No	a
Zinc	7440666	2002			
1,1,1-Trichloroethane	71556	2015	No	No	a
1,1,2,2-Tetrachloroethane	79345	2015	No	No	a
1,1,2-Trichloroethane	79005	2015	No	No	a
1,1-Dichloroethylene	75354	2015	No	No	a

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1,2,4,5-Tetrachlorobenzene	95943	2015	No	No	a
1,2,4-Trichlorobenzene	120821	2015	No	No	a
1,2-Dichlorobenzene	95501	2015	No	No	a
1,2-Dichloroethane	107062	2015	No	No	a
1,2-Dichloropropane	78875	2015	No	No	a
1,2-Diphenylhydrazine	122667	2015	No	No	a
Trans-1,2-Dichloroethylene	156605	2015	No	No	a
1,3-Dichlorobenzene	541731	2015	No	No	a
1,3-Dichloropropene	542756	2015	No	No	a
1,4-Dichlorobenzene	106467	2015	No	No	a
2,3,7,8-TCDD (Dioxin)	1746016	2002	No	No	b
2,4,5-Trichlorophenol	95954	2015	No	No	a
2,4,6-Trichlorophenol	88062	2015	No	No	a
2,4-Dichlorophenol	120832	2015	No	No	a
2,4-Dimethylphenol	105679	2015	No	No	a
2,4-Dinitrophenol [DI]	51285	2015	No	No	a
2,4-Dinitrotoluene	121142	2015	No	No	a
2-Chloronaphthalene	91587	2015	No	No	a
2-Chlorophenol	95578	2015	No	No	a
2-Methyl-4,6-Dinitrophenol	534251	2015	No	No	a
3,3'-Dichlorobenzidine	91941	2015	No	No	a
3-Methyl-4-Chlorophenol	59507	2015	No	No	a
p,p'-Dichlorodiphenyldichloroethane (DDD)	72548	2015	No	No	a
p,p'-Dichlorodiphenyldichloroethylene (DDE)	72559	2015	No	No	a
p,p'-Dichlorodiphenyltrichloroethane (DDT)	50293	2015	No	No	a

- a. This pollutant is one of 94 included in the 2015 NRWQC human health update. IDEM intends to adopt the USEPA 2015 NRWQC for the protection of human health in waters inside and outside of the Great Lakes System as part of a future rulemaking. As part of this rulemaking, IDEM will update the methodology for waters outside of the Great Lakes System, where appropriate, so it is equivalent to the human health methodology for the Great Lakes System.
- b. IDEM will update its current water quality criteria for human health for this chemical in waters outside of the Great Lakes System to the NRWQC as part of a planned future rulemaking to update the human health methodology for waters outside of the Great Lakes System. If appropriate, IDEM will add this NRWQC for human health to Indiana's water quality standards for Great Lake System waters.