

# Decision Document for the Partial Approval and Partial Disapproval of the Illinois 2024 Clean Water Act Section 303(d) List

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## 1. Introduction

This document sets forth the U.S. Environmental Protection Agency’s reasoning for partially approving and partially disapproving the Illinois 2024 Clean Water Act Section 303(d) list (303(d) list) under 33 USC Section 1313(d). The EPA received the Illinois 2024 303(d) list on October 2, 2024, through the Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS).

The EPA reviewed Illinois’ 2024 303(d) list and supporting documentation and information, including changes from the previous 303(d) list. Illinois’ 2024 303(d) list submission that is the subject of this review is available in ATTAINS (<https://www.epa.gov/waterdata/attains>) and included as Appendix 1 of this document. Based on this review, the EPA determined that Illinois’ 2024 303(d) list of water quality limited segments (WQLS) still requiring Total Maximum Daily Loads (TMDLs) (i.e., Category 5<sup>1</sup> of the Illinois’ Integrated Report (IR)) partially satisfies the requirements of Section 303(d) of the CWA and the EPA’s implementing regulations. Therefore, the EPA hereby partially approves and partially disapproves the Illinois 2024 303(d) list. The EPA is adding 19 WQLS to the Illinois 2024 303(d) list, which are identified in Appendix 3 to this decision document and discussed below in section 2.D.iv.

The EPA’s action regarding the Illinois 2024 303(d) list does not extend to any waterbodies, or portions of waterbodies, that are within Indian country, as defined in 18 USC Section 1151. The EPA is taking no action to approve or disapprove the Illinois 2024 303(d) list with respect to such waters. The EPA, or eligible Indian Tribes, as appropriate, retains responsibilities under Section 303(d) for such waters.

The EPA’s action regarding the Illinois 2024 303(d) list does not extend to any waterbodies, or portions of waterbodies, that are within exclusive federal jurisdiction. The EPA is taking no action to approve or disapprove the Illinois 2024 303(d) list with respect to such waters.

## 2. The EPA’s analysis of Illinois’ submission

Section 303(d)(1) of the CWA and the EPA’s implementing regulations at 40 CFR 130.7 require states, territories, and authorized Tribes (herein referred to as “states”) to identify waters for which effluent limitations required by CWA Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard. States need not identify on their lists waters where the following controls are adequate to implement applicable standards: 1) technology-based effluent limitations required by the CWA, 2) more stringent effluent limitations required by state or local authority, and 3) other pollution control requirements required by state, local, or federal authority. 40 CFR 130.7(b)(1) and (2). CWA Section 303(d) lists must identify WQLS still requiring TMDLs. 40 CFR 130.7(b)). The definition of “water quality limited segment” in 40 CFR 130.2(j) includes any segment where it is known that water quality does not meet applicable water quality standards (referred to as “impaired waters”) and any segment that is not expected to meet applicable water quality standards (referred to as

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<sup>1</sup> Although the Illinois IR describes that status of all Illinois’ waters, the EPA is acting only on the waters listed in Category 5 of the IR, which is the Illinois 303(d) list. Integrated Report categories include the following: Category 1: All designated uses are supported, and no use is threatened. Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported. Category 3: There is insufficient available data and/or information to make a use support determination. Category 4: One or more designated uses are impaired or threatened but establishment of a TMDL is not required for the particular cause. Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

“threatened waters”).<sup>2</sup> The term “applicable water quality standards” refers to those water quality standards established under Section 303 of the CWA, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. 40 CFR 130.7(b)(3). A WQLS must be on the 303(d) list and requires a TMDL unless the state can demonstrate that no pollutant(s) causes or contributes to the impairment.<sup>3</sup> In addition, in developing their 303(d) lists, states must meet several procedural, submission, and content requirements as described in this decision document.

States must submit their 303(d) lists to the EPA on April 1 of every even-numbered year. 40 CFR 130.7(d)(1). The EPA must approve or disapprove the 303(d) list not later than 30 days after submission. The EPA approves a list only if it meets the requirements of 40 CFR 130.7(b). 40 CFR 130.7(d)(2). If the EPA approves the list, the state must incorporate the list into its current Water Quality Management (WQM) plan. If the EPA disapproves a listing decision(s), the EPA must, within 30 days after the date of such disapproval, identify waters for inclusion on the 303(d) list (i.e., add the waters to the list). The EPA then must promptly issue a public notice seeking comment on the listing(s). After considering public comment and making any revisions the EPA deems appropriate, the EPA must transmit the listing(s) to Illinois, which must incorporate the listing(s) into its WQM plan. 40 CFR 130.7(d)(2).

The statutory and regulatory requirements, and the EPA’s review of Illinois’ compliance with the requirements, are described in detail in this document. To the extent that any EPA-approved list decisions are unchanged from prior approved 303(d) list actions, the EPA incorporates the reasoning of those previous list actions unless otherwise noted.

#### A. Supporting documentation for making list determinations

The EPA regulations at 40 CFR 130.7(b)(6) require states to include documentation to support the state’s determination to list or not to list its waters as part of their submissions to the EPA. At a minimum, such documentation must include the information discussed in subsections i through iv, immediately below.

##### i. Description of the methodology used to develop the 303(d) list. 40 CFR 130.7(b)(6)(i)

The EPA regulations at 40 CFR 130.7(b)(6) require states to include a description of the methodology used to develop the 303(d) list.<sup>4</sup> The EPA does not approve or disapprove assessment methodologies. Instead, in acting on 303(d) lists, the EPA evaluates whether the state, territory, or authorized Tribe met listing requirements in determining whether applicable WQS are met and included waters requiring TMDLs on its 303(d) list. 2024 Integrated Reporting Memorandum (IR Memo) at 15.

The EPA finds that Illinois has provided a description of its methodologies used for determining whether its waters are achieving Illinois’ WQS, satisfying the regulatory requirement to provide a “description of the methodology used to develop the list.” 40 CFR 130.7(b)(6)(i). The Illinois assessment

<sup>2</sup> The EPA uses this term to reflect the combination of a water segment and an applicable WQS that is not attained or is threatened. For example, if a segment is not meeting three applicable WQS then there are three WQLS for that segment.

<sup>3</sup> See CWA Sections 303(d)(1)(A) and 303(d)(1)(C); 40 CFR 130.7(b)(4); 2006 Integrated Reporting Memorandum, page 60; 2024 Integrated Reporting Memorandum, pages 18-19. The EPA Integrated Reporting Memoranda may be found at <https://www.epa.gov/tmdl/integrated-reporting-guidance-under-cwa-sections-303d-305b-and-314>.

<sup>4</sup> The EPA’s Integrated Reporting Memoranda provide more information on assessment methods. See 2006 Integrated Reporting Memorandum at 29.

methodology for the 2024 list is Section C-2 of the IR, “Assessment Methodology.” The EPA has considered Illinois’ methodology as part of the EPA’s review of Illinois’ 2024 303(d) list.

ii. [Description of the data and information used to identify waters. 40 CFR 130.7\(b\)\(6\)\(ii\)](#)

The EPA regulations at 40 CFR 130.7(b)(6)(ii) require states to provide a description of the data and information used to identify waters, including a description of the data and information used by the state as required by 40 CFR 130.7(b)(5). The EPA finds that Illinois has provided a description of the data and information that it assembled and evaluated. 40 CFR 130.7(b)(6)(ii). Illinois describes the data used in Section A-3 of Illinois’ 2024 IR, “Primary Data Sources and Time Periods Covered.” The EPA has considered Illinois’ description as part of the EPA’s review of Illinois’ 2024 303(d) list.

iii. [Rationale for any decision to not use existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7\(b\)\(5\). 40 CFR 130.7\(b\)\(6\)\(iii\)](#)

The EPA regulations at 40 CFR 130.7(b)(6)(iii) require states to provide a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7(b)(5). 40 CFR 130.7(b)(6)(iii). The EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.<sup>5</sup> For the reasons discussed below, the EPA finds that Illinois did not provide a defensible technical, science-based rationale for not using certain data. 40 CFR 130.7(b)(6)(iii).

With respect to Illinois’ decision not to list as impaired portions of the Illinois River that have been the subject of recreational use advisories due to elevated concentrations of cyanotoxins, Illinois received comments regarding available cyanotoxin data, considered those comments and decided not to add waters to the list on the basis that Illinois does not currently have numeric water quality criteria for cyanotoxins or a method for evaluating cyanotoxin data to assess attainment of recreational uses. The EPA considered Illinois’ rationale as part of the EPA’s review of Illinois’ 2024 303(d) list, and the EPA notes that the lack of numeric water quality criteria or an assessment methodology are not sufficient reasons to disregard existing and readily available data.<sup>6</sup> See, e.g., 2024 IR Memo at 14-15. Nevertheless, the EPA conducted an analysis of the available cyanotoxin data for the Illinois River and concluded that the available data are not sufficient to make an attainment decision. See section 2.C.ii of this decision document for a discussion of the EPA’s recommended criteria used to make this determination. Section 2.C.ii also describes the EPA’s analysis of all the cyanotoxin data available for all assessed waters in Illinois for the period of review for Illinois’ 2024 list (i.e., data between 2017 and 2021) for the recreational use.

iv. [Other reasonable information requested by the Region. 40 CFR 130.7\(b\)\(6\)\(iv\)](#)

The EPA regulations at 40 CFR 130.7(b)(6)(iv) require states to provide any other reasonable information requested by the EPA. Upon request by the EPA, each state must demonstrate good cause for not including a water or waters on the list. Consistent with 40 CFR 130.7(b)(6)(iv), good cause includes, but is not limited to:

- assessment and interpretation of more recent or accurate data in the record demonstrate that the applicable WQS is met;

<sup>5</sup> 2024 IR Memo at FN 15 (citing court cases); 2006 IR Memo at 37 (the EPA evaluates whether there is a “reasonable technical rationale”).

<sup>6</sup> The EPA notes that Illinois expressed its intention to develop a methodology for assessing cyanotoxin data and plans to include a proposed methodology in the draft 2026 IR for public comment.

- more sophisticated water quality modeling;
- flaws in the original analysis that led to the water being listed;
- changes in conditions.

Good cause may also include, for example (see, e.g., 2006 IR Memo at 58-59):

- The EPA approved or established TMDL;
- demonstration that the impairment is being addressed through more stringent effluent limits or other pollution control requirements; or
- demonstration that the impairment is not caused by a pollutant.

The EPA finds Illinois provided additional reasonable information requested by the EPA. Illinois provided algae-related data for 19 waters listed in Category 4C for the aesthetic quality use for which total phosphorus is not listed as the pollutant causing the impairment. These are the 19 waters that the EPA is adding to Illinois' list (see section 2.D.iv and Appendix 3 of this document). The EPA also requested total phosphorus and cyanotoxin data, which Illinois indicated is available for download from the [Water Quality Portal](#). Finally, Illinois answered questions from the EPA related to the algae assessments, as well as cyanotoxin-related questions about the Illinois River because of comments Illinois received from the Sierra Club and Prairie Rivers Network. The EPA has considered this information as part of the review of Illinois' 2024 303(d) list.

#### B. Public participation

The EPA regulations require states to provide for public participation in the development of their 303(d) lists, including describing their process for involving the public and other stakeholders in their Continuing Planning Processes (CPPs). 40 CFR 130.7(a). States are expected to demonstrate how they considered public comments in their final decisions. The EPA considers the public comments and state responses, as appropriate, in determining whether a state has provided reasoned support for its 303(d) list submission. See 2006 IR Memo at 25-26.

Illinois' 2024 303(d) list submission to the EPA included a summary of public comments and Illinois' responses to comments in Appendix E of the 2024 IR, "Responsiveness Summary." Illinois requested public comment on the draft 2024 IR on June 18, 2024, and requested comments within 30 days, by July 17, 2024. Illinois included the assessment methodology in the draft IR. Illinois distributed the notice by electronic mail to watershed workgroups, stakeholders, and non-governmental organizations. Illinois also posted the draft 2024 IR online at the following website: <https://epa.illinois.gov/topics/water-quality/watershed-management/tmdls/303d-list.html>. Illinois solicited water quality data for preparing the 2024 IR on September 27, 2022, and accepted data through November 15, 2022.

Illinois received comments from four entities, including the Sierra Club, Prairie Rivers Network, Metropolitan Water Reclamation District of Greater Chicago, and the EPA during the public comment period for the draft 2024 IR. Illinois' responses to the comments received are available in Appendix 4 of this decision document. Illinois considered but did not accept the recommendations of the Sierra Club and Prairie Rivers Network regarding listing waters with observed elevated concentrations of cyanotoxins. For additional discussion of comments from the EPA, Sierra Club, and Prairie Rivers Network about cyanotoxins, see section 2.C.ii of this decision document. For additional discussion of

the EPA's comments about waters with algal growth indicating impairment of the aesthetic use, see section 2.D.iv of this decision document.

The EPA concludes that Illinois provided an opportunity for public comment on its 2024 303(d) list consistent with 40 CFR 130.7(a). In addition, Illinois demonstrated how it considered public comments in its final decision. See section 2.D.iv and Appendix 3 of this decision document for further information about the 19 waters the EPA is adding to Illinois' 2024 303(d) list.

### C. Assembling, evaluating, and using data and information

#### i. Assemble and evaluate data and information

States must assemble and evaluate all existing and readily available water quality-related data and information to develop the 303(d) list. 40 CFR 130.7(b)(5). In reviewing a state's 303(d) list submission, the EPA considers whether the state has satisfied the requirements under 40 CFR 130.7(b)(5) to assemble and evaluate all existing and readily available water quality-related data and information when developing their 303(d) lists. This includes, at a minimum, all 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 CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable water quality standards; (3) waters for which water quality problems have been reported by local, state, and federal agencies; members of the public; academic institutions (these organizations and groups should be actively solicited for research they may be conducting or reporting); and (4) waters identified as impaired or threatened in any CWA Section 319 nonpoint source assessment submitted to the EPA. In addition to these minimum categories, states are required to assemble and evaluate any other water quality-related data and information that is existing and readily available. 40 CFR 130.7(b)(5).

The EPA has reviewed Illinois' submission, including Illinois' description of the data and information that it assembled and evaluated and finds that Illinois satisfied the requirement to assemble and evaluate all existing and readily available water quality-related data and information to develop its list under 40 CFR 130.7(b)(5). The data Illinois used for the 2024 assessments were collected primarily through Illinois' surface water monitoring programs. Illinois' monitoring programs include the Ambient Water Quality Monitoring Network, Intensive Basin Surveys, Facility Related Stream Surveys, Fish Contaminant Monitoring Program, Ambient Lake Monitoring Program, Harmful Algal Bloom Program, Lake Michigan Monitoring Program, and monitoring for TMDL development. Illinois indicated that additional sources of data for the 2024 list include the Illinois EPA's Field Operations, the Illinois Department of Natural Resources, North Branch Chicago River Watershed Workgroup, Metropolitan Water Reclamation District of Greater Chicago, United States Geological Survey, and TMDL contractors. In addition to several of the programs mentioned above, Illinois also uses the Safe Drinking Water Information System (SDWIS) database for assessing the public and food processing water supply use.

Illinois solicited water quality data for preparing the 2024 IR on September 27, 2022, and accepted data through November 15, 2022. Data and information were submitted from the following external organizations: Metropolitan Water Reclamation District of Greater Chicago and the North Branch Chicago River Watershed Group. Illinois considered all the data and other information submitted that



met Illinois quality assurance/quality control requirements and used data from both organizations. Data and other information received in response to Illinois' data solicitation are summarized in Appendix A-3 of the Illinois 2024 IR.

ii. [Use of data and information](#)

States must use existing and readily available water quality-related data and information in developing the 303(d) list, 40 CFR 130.7(b)(5), unless they provide a rationale not to use them, 40 CFR 130.7(b)(6)(iii). The EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.<sup>7</sup>

The EPA evaluated whether Illinois provided a technical, science-based rationale for any decisions not to use existing and readily available water quality-related data or information to make a WQS attainment status determination. Upon review of the available information, the EPA finds that Illinois did not provide a technical, science-based rationale under 40 CFR 130.7(b)(6)(iii) for not using the cyanotoxin data. States are required to assemble and evaluate all existing and readily available water quality-related data and information and use such data and information to determine if all applicable WQS, including numeric and narrative criteria, are attained (unless a rationale is provided for not using particular data and information). The lack of numeric water quality criteria or an assessment methodology do not constitute a sufficient technical, science-based rationale to disregard existing and readily available data. However, as described below, the EPA independently reviewed the cyanotoxin data available during the period of review for Illinois' 2024 list (i.e., data between 2017 and 2021) for the recreational use.

Illinois received a comment from the Sierra Club and Prairie Rivers Network during the public comment period for the draft 2024 IR asserting that portions of the Illinois River should be listed as impaired for the recreation use as reported in news releases issued by the Illinois EPA and Illinois Department of Public Health advising people to use caution when recreating on the Illinois River due to the presence of microcystins, a cyanotoxin, exceeding certain thresholds on portions of the river on June 25, 2018; June 25, 2020; and June 17, 2021. In Appendix E to the IR, "Responsiveness Summary," Illinois' response to the above comment states, "Illinois EPA does not have numeric water quality standards for cyanotoxins. Illinois EPA is investigating options to make determinations using cyanotoxins in future Integrated Reporting cycles." However, for clarification, the definition of water quality standards includes both numeric and narrative standards; specifically, "For the purposes of listing waters under § 130.7(b), the term 'water quality standard applicable to such waters' and 'applicable water quality standards' refer to those water quality standards established under Section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements" (40 CFR 130.7(b)(3)). Therefore, states are required to assess and list waters for both numeric and narrative standards.

The EPA also asked Illinois about its plans for using cyanotoxin data to make assessments (see comment 6 in Appendix E to the IR), to which Illinois responded, "Illinois EPA does not have numeric water quality criteria for cyanotoxins. Illinois EPA is open to a discussion as to how to assess cyanotoxins for the Integrated Report going forward." As noted above, states are required to assess waters for attainment of both numeric and narrative standards. Illinois has indicated it is developing a

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<sup>7</sup> See FN 5.

methodology for assessing cyanotoxin data and plans to include a proposed methodology in the draft 2026 IR for public comment. Going forward and for the 2026 listing cycle, the EPA encourages states to continue to collect data, including cyanotoxin data, and develop assessment methods to evaluate these data to determine whether waterbodies are impaired. The EPA plans to work with states and assist with assessment determinations, if needed. The EPA developed CWA Section 304(a) recommended recreational water quality criteria and swimming advisories for microcystins and cylindrospermopsin in 2019<sup>8</sup> and drinking water advisories for these two cyanotoxins in 2015,<sup>9</sup> which may be helpful resources in developing an assessment approach.

In reviewing Illinois' decision not to list portions of the Illinois River based on the occurrence of the recreational use advisories referenced by the commenters, the EPA relied upon the EPA's recommended CWA Section 304(a) criteria for cyanotoxins (microcystins and cylindrospermopsin).<sup>10</sup> The EPA's recommended criteria provide guidance to states and Tribes on using the criteria for issuing swimming advisories and for identifying waters as impaired. For issuing a swimming advisory, a single observed exceedance of the recommended magnitude (for example, 8 µg/L for microcystins) is sufficient to issue an advisory. However, the EPA recommends that a more robust data set be used to assess attainment status of a waterbody and identify impairment of recreational uses. To identify an impairment of a recreational use due to microcystins or cylindrospermopsin, the EPA recommends collecting sufficient data to document that the criterion value (magnitude) was exceeded in at least one sample in a ten-day assessment period more than three times in at least two different years.

The EPA evaluated the available cyanotoxin data available in the Water Quality Portal during the period of review for Illinois' 2024 list (i.e., data between 2017 and 2021). For all the segments of the Illinois River identified in the comments received by Illinois, there are insufficient data to assess attainment status using the EPA's recommendations because the maximum total number of samples collected for any segment is three between 2017 and 2021. The EPA also reviewed all the available cyanotoxin data for the entire Illinois River and determined that there are insufficient data to assess attainment status for all Illinois River segments. Further, the EPA evaluated the available cyanotoxin data for all assessed waters in Illinois during this period and found less than 20 waters are meeting the criteria (i.e., magnitude, frequency, and duration) for microcystins, and there are insufficient cyanotoxin data for more than 150 waters to determine whether they are meeting the recreational use based on these criteria (Appendix 6).

#### D. Identification of waters for inclusion on the 303(d) list

The EPA regulations at 40 CFR 130.7(b)(6) require states to provide documentation to support the state's determination to list or not to list its waters. The EPA reviewed Illinois' submission, including its assessment methodology and additional supporting documentation for its listing determinations.

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<sup>8</sup> U.S. EPA, "Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin," May 2019 (<https://www.epa.gov/wqc/recreational-water-quality-criteria-and-methods#rec3> and <https://www.epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-factsheet-2019.pdf>).

<sup>9</sup> U.S. EPA, "Drinking Water Health Advisory for the Cyanobacterial Toxin Cylindrospermopsin" and "Drinking Water Health Advisory for the Cyanobacterial Microcystins Toxins," June 2015 (<https://www.epa.gov/habs/epa-drinking-water-health-advisories-cyanotoxins> and <https://www.epa.gov/sites/default/files/2017-06/documents/cyanotoxins-fact-sheet-2015.pdf>).

<sup>10</sup> See FN 8.



[i. Approval of identification of waters for inclusion on the 303\(d\) list](#)

The EPA determined that Illinois' 2024 303(d) list is consistent with the CWA Section 303(d) and 40 CFR 130.7 requirements, and the EPA is approving the waters the state included on the 2024 303(d) list and disapproving the exclusion of waters discussed in section 2.D.iv below. The EPA's approval of the waters on Illinois' 2024 303(d) list is based on the EPA's review of Illinois' submission including the description of the data and information concerning individual waters, documentation to support decisions to rely or not rely on particular data and information, and a description of how data and information were applied to make WQS attainment status determinations. The EPA also considered applicable public comments and responses. The Illinois 2024 303(d) list of WQLS is located in Appendix 1 to this decision document and ATTAINS, and the newly listed WQLS are in Appendix 3 to this decision document and discussed in section 2.D.iv.

[ii. Approval of exclusion of waters identified on previous 303\(d\) lists](#)

Illinois' 2024 303(d) list submission delists 503 WQLS (Appendix 2 of this decision document). In reviewing Illinois' 2024 303(d) list, the EPA carefully considered Illinois' decision to remove certain WQLS from the 2024 303(d) list submission, Illinois' explanation for those removals, any applicable comments and responses, and the methodology used in making those decisions. The EPA concludes that the decisions to remove WQLS identified as part of the Illinois 2024 303(d) list are reasonable, based on all existing and readily available water quality-related data and information, applicable WQS, and sound science, and the removal decisions are properly justified. Most of the 2024 delistings are due to new data demonstrating that the use is met.

Consistent with the EPA's regulations at 40 CFR 130.7(b), Illinois appropriately moved previously listed waters to Category 4a of the IR where an EPA-approved TMDL is now in place; there are 3 WQLS delisted due to development of a TMDL.

[iii. Approval of exclusion of other waters not included on the list](#)

The EPA reviewed Illinois' rationale for not including certain waters on Illinois' 2024 303(d) list, the relevant supporting documentation, and any applicable public comments and responses. The EPA concludes that the decisions to exclude portions of the Illinois River from the Illinois' 2024 303(d) list are reasonable, based on all existing and readily available water quality-related data and information, applicable WQS, and sound science. As discussed in section 2.C.ii of this decision document, for all the segments of the Illinois River identified in the comments received by Illinois, there are insufficient cyanotoxin data to make an assessment of attainment status of the recreational use using the EPA's recommendations because the maximum total number of samples collected for any segment is three between 2017 and 2021. The EPA also reviewed all the available cyanotoxin data for the entire Illinois River and determined that there are insufficient data to make an assessment of attainment status for all Illinois River segments. Further, the EPA evaluated the available cyanotoxin data for all assessed waters in Illinois during this period and found less than 20 waters are meeting the criteria (i.e., magnitude, frequency, and duration) for microcystins, and there are insufficient cyanotoxin data for more than 150 waters to determine whether they are meeting the recreational use based on these criteria (Appendix 6).

As discussed in section 2.D.iv of this decision document, the EPA is partially disapproving Illinois' 2024 303(d) list and identifying 19 WQLS for inclusion on the list, because data and information indicate the aesthetic quality use is not being met for algae for these WQLS, and Illinois did not identify total

phosphorus as a contributing cause. Therefore, the EPA concludes that Illinois' decision not to identify a pollutant as a cause for the 19 algae impairments was not reasonable based on all existing and readily available data.

iv. [Disapproval and identification of additional waters for inclusion on the list](#)

Because the EPA determined the WQLS in Appendix 3 were omitted from Illinois' 2024 303(d) list, the EPA is partially disapproving Illinois' 2024 303(d) list and identifying 19 WQLS for inclusion on the list.

Illinois did not provide a reasonable basis for excluding the 19 waters in Appendix 3 from the Illinois 2024 303(d) list. Existing and readily available data and information indicate that the waterbodies must be included on the 303(d) list. Because these data and information indicate the aesthetic quality use is not being met for algae for the 19 waters, and Illinois did not provide a technical, science-based rationale for excluding these data nor good cause for excluding the WQLS from the list, the EPA is disapproving the list in part.

Illinois' assessment methodology states that for streams, lakes, and Lake Michigan, when plant or algal growth is determined to cause non-attainment, total phosphorus is identified as a contributing cause for the impairment of the aesthetic quality use. However, for 19 waters identified as impaired for algae in Category 4C, which is the category reserved for non-pollutant-related impairments for which a TMDL is not required, Illinois did not document that the observed impairments were not caused by a pollutant, and thus these waters belong in Category 5 (TMDL required). In comment 14 of Appendix E, the EPA asked Illinois why algae impairments were assessed as Category 4C (non-pollutants, TMDL not required) without an associated pollutant in Category 5. Illinois responded, "Going forward, Illinois EPA will reevaluate and ensure that any algae impairments linked to underlying pollutants, such as phosphorus, are categorized appropriately (e.g., Category 5 if a pollutant is involved)." The EPA appreciates Illinois' commitment to address the EPA's comment in future Illinois lists.

Illinois' standards prohibit ". . . plant or algal growth . . . of other than natural origin" in all "general use" waters of Illinois.<sup>11</sup> In its submittal, Illinois identified 19 waters in which nuisance algal growth impaired the aesthetic use under 35 Ill. Adm. Code 302.203. The EPA agrees with Illinois' assessment of these waters and determined that Illinois reasonably concluded these waters are impaired due to nuisance algal growth. According to Illinois' assessment methodology for the aesthetic quality use for streams, "Illinois EPA biologists, who are experienced with the natural conditions and expectations for the streams in each basin, apply these standards. The assessment involves determining whether observed conditions in the stream represent conditions prohibited by the standard."

The presence of nuisance algal growth is an observed effect caused by the presence of a pollutant or pollutants and as such must be identified in Category 5 of the list.<sup>12</sup> The pollutants expected to cause nuisance algae growth are nutrients,<sup>13</sup> particularly total phosphorus, as Illinois acknowledged by linking observed nuisance algal growth with total phosphorus in its assessment methodology. The relationship between excess algae and phosphorus is well known.<sup>14</sup> As stated on the EPA website, "too much

<sup>11</sup> 35 Ill. Adm. Code 302.203, "Offensive Conditions."

<sup>12</sup> 2006 IR Memo at 60.

<sup>13</sup> For more information on nutrient water pollution generally, see <https://www.epa.gov/nutrientpollution>.

<sup>14</sup> <https://www.epa.gov/national-aquatic-resource-surveys/indicators-phosphorus>

phosphorus can stimulate excess growth of algae” and “even small increases can negatively affect water quality.” In the case of Illinois’ assessment protocol, trained Illinois biologists evaluate conditions at a site to determine whether the algal density constitutes an impairment of the aesthetic use of the water at that site.<sup>15</sup> Where such a determination is made, total phosphorus is inferred as a cause or contributing cause, and, according to Illinois’ methodology,<sup>16</sup> the water is to be listed in Category 5 with total phosphorus identified as a pollutant cause. The EPA considers this inference reasonable and appropriate, which is why the EPA intends to add these 19 waters to the Illinois 2024 303(d) list. As a general matter, nuisance algae growth is almost invariably associated with nutrient enrichment of surface waters, and, as discussed further below, total phosphorus is almost certainly a contributing cause of the excess algae documented by Illinois biologists.<sup>17</sup>

The EPA requested and Illinois provided available algae data for the 19 waters, and the EPA obtained the total phosphorus data from the Water Quality Portal (see Appendix 5 of this decision document). All the waters but South Fork Brouilletts Creek have at least some available water quality samples in which total phosphorus was detected. Given the limited water quality data available for most of the waters (as few as two samples in a single year and a maximum of 13 collected over a single year), accurate characterization of total phosphorus concentrations is not possible. However, the data for several (S. Branch Rock Creek, Bishop Creek, Green Creek, East Branch Green Creek, Little Crab Orchard Creek-West, Grand Point Creek, and Waddams Creek) have samples with elevated concentrations of total phosphorus. Minimum observed total phosphorus concentrations for sites with total phosphorus water quality data range from non-detect to 0.211 mg/L, and maximum observed concentrations range from 0.009 mg/L to 2.36 mg/L. Based on these data and the relationship between total phosphorus and algae described earlier, the EPA has determined that it is reasonable to conclude that total phosphorus is a contributing pollutant cause to the observed impairment of aesthetic uses in these waters. Further, the prevalence of agriculture on the landscape throughout Illinois is an indicator of potential nutrient loading. Therefore, the EPA is adding these 19 waters to Illinois’ 2024 303(d) list and identifying total phosphorus in Category 5 for the aesthetic use.

#### E. Identification of pollutants causing or expected to cause a violation of applicable WQS (130.7(b)(4))

As part of their 303(d) lists, states are required to identify the pollutants causing or expected to cause violations of the applicable WQS. 40 CFR 130.7(b)(4). This includes a pollutant that by itself or in combination with other pollutants causes or is expected to cause violations of applicable WQS. States must identify in their 303(d) lists all pollutants that are known to be causing or are expected to cause violations of the applicable WQS. 40 CFR 130.7(b)(4), see also, 2024 IR memo at 17-19. For listed waters, if the available data and information do not support identification of pollutants causing or expected to cause the exceedance, list submissions would identify the pollutant as “unknown.”<sup>18</sup>

Consistent with 40 CFR 130.7(b)(4), Illinois appropriately identified the pollutants that were causing or expected to cause a violation of the applicable WQS, with the exception of the waters that the EPA is

<sup>15</sup> Illinois 2024 IR at 54 (streams), 55 (lakes), 56 (Lake Michigan open waters), and 57 (Lake Michigan harbors and shoreline waters). The draft 2024 IR and appendices are available at: <https://epa.illinois.gov/topics/water-quality/watershed-management/tmdl/303d-list.html>.

<sup>16</sup> Ibid.

<sup>17</sup> See FN 14.

<sup>18</sup> 2024 IR Memo at 18-19 and 2006 IR Memo at 60.

adding to Illinois' list. For waters where the available data and information did not support identification of pollutants causing or expected to cause the exceedance, Illinois appropriately included the water on the 2024 303(d) list and identified the pollutant as "unknown." The EPA encourages Illinois to reassess and potentially refine that determination when additional data and information become available. See, e.g., 2024 IR Memo. As discussed in section 2.D.iv above, 19 WQLS were not listed appropriately for total phosphorus; Illinois did not identify total phosphorus as the impairment cause for not meeting the aesthetic quality use.

#### F. Priority ranking and two-year TMDL development (130.7(b)(4))

The CWA and the EPA's regulations require states to establish a priority ranking for the waters on their 303(d) lists, "taking into account the severity of the pollution and the uses to be made of such waters." CWA Section 303(d)(1)(A); 40 CFR 130.7(b)(4). The regulations at 40 CFR 130.7(b)(4) provide that this priority ranking must include "all listed water quality limited segments still requiring TMDLs" and further require that states submit their priority rankings to the EPA as a component of their biennial 303(d) lists. Additionally, the regulations require that the priority ranking identify the waters targeted for TMDL development in the next two years. 40 CFR 130.7(b)(4).

Illinois' description of how all listed WQLS are prioritized for TMDL development, including identification of waters targeted for TMDL development in the next two years, is included within the Illinois' 2024 303(d) list submission. In addition, Illinois described how its priority ranking took into account the severity of pollution and the uses to be made of such waters. Illinois ranks impairments for the public and food processing water supply as high priority for TMDL development, and primary contact impairments are ranked as medium priority. Illinois also ranks watersheds higher priority based on the total number of impaired waters within the watershed. Further, Illinois takes into account the interest level of stakeholders when scheduling TMDLs. Illinois made their priority rankings available during the public comment period for the draft 2024 IR. The EPA's review of Illinois' submission finds that Illinois established a priority ranking for all waters on its 2024 303(d) list, taking into account the severity of the pollution and the uses to be made of such waters.<sup>19</sup> In addition, Illinois identified the waters targeted for TMDL development in the next two years.

#### G. Tribal Consultation by the EPA

The EPA's policy is to consult on a government-to-government basis with federally recognized Tribal governments when EPA actions and decisions may affect Tribes. To promote coordination and consultation, the EPA notified the Prairie Band Potawatomi Nation of the EPA's upcoming action on Illinois' 2024 303(d) list and offered the opportunity to engage in consultation with the EPA.<sup>20</sup>

The EPA coordinated with the Prairie Band Potawatomi Nation, but the Tribe did not respond to the EPA's offer for consultation and the Tribe did not provide input on this list.

### 3. Summary of the EPA's decision on the 2024 303(d) list

After careful review of Illinois' final 2024 303(d) list submission package, the EPA has determined that Illinois' 2024 303(d) list partially meets the requirements of Section 303(d) of the CWA and the EPA's

<sup>19</sup> In addition to these two statutory factors, states may also consider other factors when prioritizing TMDLs. See 57 Fed. Reg. 33040, 33044-45 (July 24, 1992).

<sup>20</sup> [www.epa.gov/system/files/documents/2023-12/epa-policy-on-consultation-with-indian-tribes-2023.pdf](https://www.epa.gov/system/files/documents/2023-12/epa-policy-on-consultation-with-indian-tribes-2023.pdf)

implementing regulations. Therefore, the EPA partially approves and partially disapproves Illinois' 2024 303(d) list. The EPA will seek public comment for 30 days on the waters it has identified for inclusion on the 2024 303(d) list (see section 2.D.iv and Appendix 3 of this decision document).

## Appendix 1

EPA Approved Illinois 2024 303(d) List of Impaired Waters Needing TMDLs



See file: IL\_2024\_Decision-Doc\_Appendix-1\_20241211.pdf

Appendix 2  
Water Quality Limited Segments Removed  
from the Illinois Approved 2020/2022 303(d) List

See file: IL\_2024\_Decision-Doc\_Appendix-2\_20241211.pdf

Appendix 3  
Water Quality Limited Segments the EPA is Adding to the Illinois 2024 303(d) List  
for Total Phosphorus

The following 19 waters are impaired for the aesthetic quality use due to algae, and EPA is adding total phosphorus as the pollutant causing the impairment, which is consistent with Illinois' assessment methodology.

1. Eagle Creek (IL\_ATE-05)
2. Hackett Branch (IL\_BERB-01)
3. Prairie Creek (IL\_FA-01)
4. Forked Creek (IL\_FB-01)
5. South Branch Rock Creek (IL\_FFB-01)
6. Exline Slough (IL\_FKA-01)
7. Mud Creek-West (IL\_FLID-02)
8. North Fork Saline River (IL\_ATF-05)
9. Big Creek (IL\_BED-01)
10. Little Crab Orchard Creek-West (IL\_NDA-01)
11. Grand Point Creek (IL\_OJC-03)
12. Bishop Creek (IL\_CO-01)
13. Green Creek (IL\_CS-12)
14. East Branch Green Creek (IL\_CSB-07)
15. Somonauk Creek (IL\_DTB-02)
16. Waddams Creek (IL\_PWQ-04)
17. Scattering Fork (IL\_BER-01)
18. South Fork Brouilletts Creek (IL\_BND)
19. Indian Creek (IL\_DTA-05)

Appendix 4  
Illinois 2024 Integrated Report Appendix E—Responsiveness Summary



See file: IL\_2024\_Decision-Doc\_Appendix-4\_20241211.pdf

Appendix 5  
Illinois Algae and Total Phosphorus Data for Waters with Algae Impairments  
in Category 4C Without a Pollutant in Category 5

See file: IL\_2024\_Decision-Doc\_Appendix-5\_20241211.pdf

Appendix 6  
Illinois Cyanotoxin Data, 2017-2021

See file: IL\_2024\_Decision-Doc\_Appendix-6\_20241211.pdf