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December 20, 2019

Iowa Department of Natural Resources
Attn: Dan Kendall
502 East 9th Street
Des Moines, IA 50319

RE: Draft 2018 List of Impaired Waters

Dear Mr. Kendall:

The Iowa Environmental Council (“Council”) offers the following comments on the draft 2018 list of the Section 303(d) impaired waters. These comments represent the views of the Iowa Environmental Council, an alliance of 75 organizations, at-large board members from business, farming, the sciences and education, and over 500 individual members.

GENERAL COMMENTS

The Council makes the following general comments about the draft 2018 impaired waters list:

- **A high proportion of assessed waters are impaired.**
Despite the DNR’s insistence that the number of impaired waters only increased 2% from the 2016 to 2018 lists, the proportion of assessed waters listed as impaired remains steady at 54%. Waters are not being removed from the list at a reasonable rate, nor has there been a serious effort on behalf of the state to write TMDLs, enact them, and improve the waters enough for them to be considered for removal. Instead, the DNR expects Iowans to accept that more than half the waters of the state are impaired for one or more of their designated uses. This indicates that the state does not take seriously its duty to protect water quality for Iowans. **The Council calls on the state to take stronger leadership to improve Iowa’s water quality and reduce the number of impairments to a manageable level.**
- **A high proportion of state public beaches are on impaired waters.**
Of Iowa’s state public beaches, 90% (35 of 39) are on waters that are impaired for recreational use. Public lands and waters are owned by the people under the care of the state. **The state has done an inadequate job of protecting public lands and waters for public use.**
- **DNR has not addressed the microcystin criterion recommended by EPA.**

The EPA has issued a recommendation for a microcystin water quality standard that would protect recreational users. The DNR has not addressed or adopted the criterion. **To identify waters impaired for microcystin, DNR should take steps to address the cause of the impairments by writing and enacting TMDLs, and to protect the health and safety of Iowans, IEC urges DNR to adopt the EPA recommended criterion for microcystin.**

- **Delay in release of the draft list means that Iowans are reviewing out-of-date data and impairments.**

By law, the final 2018 list was required to be submitted to EPA by April 1, 2018. The draft list was released more than nineteen months later on November 14, 2019. By law, the 2020 list must be submitted to EPA in less than four months on April 1, 2020, and a draft list has not been released for comment.

The 2018 draft list uses data from 2012-2016 to assess new impairments or remove impairments. The DNR methodology claims data more than five years old are too old to be valid for this round of listing because they may no longer reflect the conditions of the waters.¹ However, DNR's delay in developing the impaired waters list means the list does not consider the three most recent years of monitoring data. Iowans reviewing the draft 2018 list are looking at data from three or more years ago. Therefore, Iowans are not able to confidently use the 303(d) list to assess the safety or potential health risks associated with their local waterways.

For example, the City of Greenfield experienced a bottled water advisory in the summer of 2018 due to cyanobacteria contamination of its source water, Lake Greenfield. In the 2018 assessment, Lake Greenfield remains unassessed for Class C Drinking Water use. Greenfield residents cannot look at the 2018 assessment and expect reliable information about their drinking water source. They also cannot expect that DNR will write a TMDL to help improve their drinking water source anytime in the near future.

DNR is not meeting its legal obligation to submit the 303(d) list by the statutory deadline, leaving Iowans in the dark about the status of their waters and putting them at risk.

DETAILED COMMENTS ON SPECIFIC ASSESSMENTS

The Iowa Environmental Council completed detailed reviews of the DNR assessment information for all state public recreational beaches. Based on our review, we have identified several waterbodies where we question the DNR conclusions.

Our observations and comments on these assessments are as follows:

¹ "Methodology for Iowa's 2018 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b) and 303(d) of the Federal Clean Water Act." Iowa DNR (Oct. 2019) at 11 (citing EPA guidelines for submission of 305(b) integrated reports).

- **Recreational lake impairment omissions, including Big Creek Lake, Clear Lake, and Green Valley Lake. DNR did not identify these Class A1 recreational waters as impaired for recreational use due to cyanobacteria.**

DNR has listed several Class A1 recreational lakes as impaired for aquatic life uses due to cyanobacteria, but not impaired for recreational use. These lakes include Big Creek Lake, Clear Lake, and Green Valley Lake.

Beach advisories, documented below for the assessment period, provide evidence that recreation is in fact being limited by cyanobacteria blooms caused by excess nutrients. Without a standard for microcystin, these impairments are potentially being left off the list at the risk of Iowans.

Beach Name	Number of Beach Advisories For Microcystin Each Year				
	2012	2013	2014	2015	2016
Big Creek Lake Beach	5			1	
Clear Lake Beach	1				
McIntosh Woods Beach (Clear Lake)	1		3		
Green Valley Lake	3	2	1	9	7

By DNR’s own admission in the Assessment Explanation for Clear Lake and Green Valley Lake, the criteria for cyanobacteria impairment is “arbitrarily” set at the 75th percentile of the distribution.² This means that lakes are compared to each other and not against a clear and objective standard. The lack of clear criteria makes it impossible to accurately identify impairments due to cyanobacteria, and the DNR admits to a “lower level of confidence” in the impairment it has assigned for cyanobacteria.

For Big Creek Lake, the explanation for biological impairment due to cyanobacteria states, “Based on information from the DNR Fisheries Bureau, large cyanobacteria blooms have formed on the lake every summer in recent years and it has deterred recreation.”³ Nevertheless, Big Creek Lake does not have an impairment for recreational use due to cyanobacteria, only an impairment for Class B (WW-1) aquatic life use.

We urge the DNR to list Big Creek Lake, Clear Lake, and Green Valley Lake as impaired for Class A1 recreational use due to cyanobacteria.

² ADBNet. “Clear Lake: Assessment Explanation,” Iowa DNR, (updated May 2019). Available at <https://programs.iowadnr.gov/adbnet/Assessments/3511>; “Green Valley Lake: Assessment Explanation,” Iowa DNR, (updated Mar. 2019). Available at <https://programs.iowadnr.gov/adbnet/Assessments/3523>.

³ ADBNet. “Big Creek Lake: Assessment Explanation,” Iowa DNR, (updated Jan. 2019). Available at <https://programs.iowadnr.gov/adbnet/Assessments/3503>.

Additionally, DNR should adopt the EPA recommended standard for microcystin. It is unacceptable to have an unclear and arbitrary standard for an impairment that puts the health and safety of Iowans at risk.

- **Drinking water use continues to be unassessed despite serious risks posed by microcystin, including Geode Lake, Green Valley Lake, and Rock Creek Lake.** DNR is not assessing drinking water uses where there is documentation of cyanobacteria in Class C designated waters. Beach advisories, documented below for the assessment period, demonstrate that there is data available to assess the Class C use and provides evidence that drinking water use could be at risk. Without an assessment and without a drinking water standard for microcystin, these impairments are potentially being left off the list at the risk of Iowans.

Beach Name	Number of Beach Advisories For Microcystin Each Year				
	2012	2013	2014	2015	2016
Geode Lake Beach		6	1	1	1
Green Valley Lake	3	2	1	9	7
Rock Creek Lake	1	3			1

The recreational narrative standard for cyanobacteria is based on accidental ingestion. As a drinking water source, these waters should be assessed more stringently than what is outlined by the narrative recreational standard. Cities in Iowa have had stop providing public water due to cyanobacteria outbreaks, as was the case in Greenfield in the summer of 2018. DNR has not provided information that microcystin would be removed through the water treatment process for these drinking water sources.

The cumulative five-year monitoring data from these lakes further supports the need for assessment and listing. The lakes have exceeded EPA’s recommended criterion for microcystin more than 10 percent of the time, and in fact the five-year average exceeds EPA’s recommended criterion at each of the lakes.

Waterbody	Microcystin Samples, 2012-2016	Microcystin samples > 8 µg/L	% samples > 8 µg/L	Microcystin, 5-year average (µg/L)
Geode Lake State Park	80	19	24%	8.2
Green Valley Lake State Park	79	36	46%	14.4
Rock Creek Lake State Park	80	14	18%	11.7

None of the three lakes has been assessed for Class C, Drinking Water.

DNR should adopt a microcystin standard for Class C Drinking Water and assess these waters for Class C use.

Several lakes have very high average concentrations of chlorophyll-a free of pheophytin that exceed DNR’s guidance for listing based on the trophic status index.⁴ In some cases, DNR has assessed these lakes for an aquatic life use but has not listed the lakes as impaired for recreation. IEC suggests DNR use the information it has available to make this assessment and find the following lakes to be impaired.

Waterbody	Chlorophyll-a Samples, 2012-2016	Chlorophyll-a samples > 35 µg/L	% samples > 35 µg/L	Chlorophyll-a, 5-year average (µg/L)
West Twin Lake	20	19	95%	123.2
High Lake	10	8	80%	100.3
Morse Lake	10	9	90%	151.1

In addition, adopting numeric nutrient criteria would resolve many of the issues outlined above. The lack of clear standards has created uncertainty and low confidence in the completeness and accuracy of the assessments. Iowans deserve numeric standards, as most other states in the Midwest have adopted to protect citizens’ health and quality of life. **We urge the Environmental Protection Commission to begin rulemaking on numeric nutrient criteria for Iowa.**

We expect to see the draft 2020 list in the coming weeks and gain a better understanding of the actual current conditions of Iowa’s waters.

Thank you for the opportunity to comment on the draft 2018 impaired waters list. If you have questions or I can clarify these comments further, please feel free to call me.

Sincerely,

/s/ Michael Schmidt

Michael Schmidt
 Staff Attorney
 Iowa Environmental Council

⁴ Methodology at Attachment 3.