PUBLIC PARTICIPATION RESPONSIVENESS SUMMARY

FOR IOWA'S 2024

CLEAN WATER ACT SECTION 303(d) LIST

IOWA DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL SERVICES DIVISION

WATER QUALITY BUREAU

WATER QUALITY MONITORING & ASSESSMENT SECTION

May 3, 2024

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Introduction:

The following is a summary of the Iowa Department of Natural Resources' (DNR) responses to the comments received regarding the draft 2024 Clean Water Act (CWA) Section 303(d) list developed by the DNR. Notice of availability of the draft 2024 list was released for public review and comments on March 14, 2024 via the DNR EcoNewsWire (https://content.govdelivery.com/accounts/IACIO/bulletins/390936f). Additional materials for the draft 2024 list were available on the DNR's assessment website (https://programs.iowadnr.gov/adbnet/Assessments/Summary/2024). Public comments were accepted from March 14, 2024 through April 12, 2024. As distributed for public comment, DNR's draft 2024 Section 303(d) list included 576 water segments with a total of 743 impairments.

This responsiveness summary provides a discussion of the issues raised by the comments received and how the comments were incorporated into the development of DNR's final 2024 Integrated Report (IR) and Section 303(d) List (https://programs.iowadnr.gov/adbnet/Assessments/Summary/2024).

Changes made to Iowa's draft 2024 IR:

There were changes made to seven draft assessments following the public comment period and discussions with Region 7 of the US Environmental Protection Agency (EPA). Based on information provided, the final assessments were modified according to IR methodology. Table 1 details the changes that were made to the DNR's final 2024 IR.

Table 1. Changes made to the DNR's draft 2024 IR.

ADBNet Code	Waterbody Name	Designated Use	Draft IR Category	Updated IR Category	Rationale
IA 04-RAC-1120	Walnut Creek	A1	4a	5a	Bacteria impairment - Not covered by TMDL
IA 04-RAC-1139	North Raccoon River	A1	4a	5a	Bacteria impairment - Not covered by TMDL
IA 04-RAC-2036	Unnamed Tributary to Marrowbone Creek	A1	4a	5a	Bacteria impairment - Not covered by TMDL
IA 02-IOW-6263	Bennett Creek	A2	3b	4a	Bacteria impairment - covered by TMDL
IA 02-IOW-639	Iowa River	A1	3a	5a	Bacteria impairment - prior to segment split
IA 02-IOW-1276	Brushy Creek Lake	A1	5a	4a	Bacteria impairment - covered by TMDL
IA 02-IOW-1462	Prairie Rose Lake	A1	–	4a	Bacteria impairment - covered by TMDL

Responses to comments received on the draft 2024 Section 303(d) List:

The DNR acknowledges and thanks all public commenters for their input on the draft 2024 Section 303(d) List.

COMMENTER 1: David Pratt, Water Quality Section Supervisor, U.S. Environmental Protection Agency, Region 7
Date Received: April 2, 2024, e-mail & comment letter (PDF)
Comment:

Iowa 2024 Draft Integrated Report Public Notice - EPA Comments
1 message

Pratt, David <Pratt.David@epa.gov> Tue, Apr 2, 2024 at 9:30 AM
To: "IRcomment@dnr.iowa.gov" <IRcomment@dnr.iowa.gov>
Cc: Noah Poppelreiter <noah.poppelreiter@dnr.iowa.gov>

Good Morning –

Thank you for the opportunity to provide comments on the Iowa Draft 2024 Integrated Report. The EPA appreciates the diligent work from the IDNR on the draft 2024 impaired waters list. Attached to this email are EPA R7's public comments on the subject draft report.

Feel free to reach out if you have any questions,

David Pratt, Section Supervisor

U.S. Environmental Protection Agency, Region 7

Water Division

Standards and Water Quality Branch

Water Quality Section

Office: 913-551-7552

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Iowa2024IRPublicComment.20240402 - Signed.pdf
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REGION 7
LENEXA, KS 66219

April 2, 2024

Mr. Noah Poppelreiter
Water Monitoring Supervisor
Iowa Department of Natural Resources
Wallace Building
502 East 9th Street
Des Moines, Iowa 50319

Dear Mr. Poppelreiter:

The U.S. Environmental Protection Agency has reviewed the Iowa Department of Natural Resources' proposed 2024 list of water quality limited segments requiring total maximum daily loads pursuant to Clean Water Act Section 303(d) and 40 CFR 130.7. The EPA is providing the following public comment on this proposed list.

The 2024 proposed list assesses Class "C" drinking water supply waters using the Safe Drinking Water Act maximum contaminant levels (MCLs) for nitrate as nitrogen (N), nitrate plus nitrite as N, and nitrite as N. The Iowa DNR classifies these pollutants as conventional within their *Methodology for Iowa's 2024 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b), 303(d), and 314 of the Federal Clean Water Act.* However, 40 CFR 401.16 provides the complete list of conventional pollutants designated pursuant to section 304(a)(4) of the CWA, which includes biological oxygen demand, total suspended solids, pH, fecal coliform, and oil and grease. 40 CFR 401.16 does not designate nitrate as N, nitrate plus nitrite as N, and nitrite as N as conventional pollutants. Instead, these pollutants are nonconventional pollutants known to have toxic human health effects.

40 CFR 141.62 sets the MCLs for nitrate, nitrite, and nitrate and nitrite equivalent to the maximum contaminant level goals (MCLGs). In 1991, the EPA promulgated the MCLGs for nitrate, nitrite, and nitrate and nitrite "in order to account for the possible additive toxicity of these two chemicals and also to protect against the deterioration of drinking water quality." Both nitrate and nitrite could result in methemoglobin, which will not transport oxygen to human, particularly infant, tissues and "thus can lead to asphyxia which, if sufficiently severe, can lead to death[.]" Based on the review of data, the EPA concluded that the applicable MCLGs were adequate "to protect infants, and all other groups, against the nononcogenic effects presented by nitrate and nitrite in drinking water[.]"

The EPA notes that *567 Iowa Administrative Code (IAC) Chapter 61* under subrule 61.3(1)(b)(11) defines the designated use segment for drinking water supply (Class "C") as "waters which are used as a raw

water source of potable water supply." Subrule 61.3(3)(c)(2) *Specific water quality criteria*, states for Class "C" waters "all substances toxic or detrimental to humans or detrimental to treatment process shall be limited to nontoxic or nondetrimental concentrations in the surface water." Subrule 61.3(3) *Specific water quality criteria,* Table 1. Criteria for Chemical Constituents, provides for Class "C" protection for nitrate as N at 10 mg/L, nitrate plus nitrite as N at 10 mg/L, and nitrite as N at 1 mg/L.

Iowa DNR classifies nitrate as N, nitrate plus nitrite as N, and nitrite as N as conventional pollutants and proposes to use a statistical method (the "10% rule") to assess these parameters, effectively allowing 10% of samples to exceed the MCLs. However, this statistical method is not included in Iowa DNR's WQS. Furthermore, the EPA has stated that "[u]se of this rule when addressing conventional pollutants, is appropriate if its application is consistent with the manner in which applicable WQC [Water Quality Criteria] are expressed" (2006 Integrated Report Guidance), but that such use "regarding effects of toxics is not appropriate" (2004 Integrated Report Guidance).

The EPA has discussed the technical concerns regarding the current listing methodology with the Iowa DNR and previously noted these concerns in the Agency's *2022 Decision Document for Iowa's Clean Water Act Section 303(d) List Water Quality Limited Segments Still Requiring TMDLs.* A State's listing methodology cannot replace its EPA-approved water quality standards, and the EPA will consider the State's methodology only to the extent that it reflects a reasonable interpretation of the state's water quality standards and sound science. A "reasonable interpretation" of water quality standards will at minimum provide consideration for the designated use, any applicable narrative and numeric criteria, how those criteria were derived, and the group(s) the water quality standard is meant to protect.

To address the comments and technical concerns above, the EPA requests the Iowa DNR:

- Revise assessment of Class "C" waters, removing the non-defensible use of the 10% rule in relation to the nitrate as N, nitrate plus nitrite as N, nitrite as N, and any other pollutants with toxic effects treated as conventional pollutants;
- Evaluate listings according to the Iowa narrative criteria for Class "C" waters, limiting substances to concentrations in the surface water that are nontoxic or nondetrimental to humans and to the treatment process; and
- Assess pollutants with toxic effects with reasonable consideration of the individual pollutant, endpoints, and adverse effects being considered.

Sincerely,

DAVID PRATT

Digitally signed by DAVID PRATT
Date: 2024.04.02 09:24:06 -05'00'

David Pratt
Water Quality Section Supervisor
Water Division

DNR Response:
The DNR thanks David Pratt at EPA, Region 7 for commenting on the draft 2024 Section 303(d) List and IR methodology. To summarize this comment, the EPA disagrees with the DNR's use of the 10% Binomial Rule and the 7,8,9 rule (jointly, Binomial Rule) to assess Class C waters for nitrates. EPA requested the DNR:

- Rewrite the 2024 IR methodology to assess Class C waters for nitrates and "other pollutants with toxic effects treated as conventional pollutants" using methodology other than the Binomial Rule;
- Reassess Class C waters, "limiting substances to concentrations in the surface water that are nontoxic or nondetrimental to humans and to the treatment process;" and
- Assess pollutants with toxic effects with reasonable consideration of the individual pollutant, endpoints, and adverse effects being considered.

Comment, Page 2. The DNR responds to the EPA's comment, in full, as follows.

1. Nitrate Toxicity and Regulation

The DNR does not dispute that nitrates are toxic to humans. Notably, nitrate can cause blue baby syndrome in concentrations over 10 mg/L. Relative to drinking water, the DNR regulates nitrates in finished drinking water per the maximum contaminant level (MCL) of the Safe Drinking Water Act. Based on the MCL, Iowa has rules requiring nitrate concentrations in the finished water to be below 10 mg/L. See 567 IAC 41.3(b).

Relative to wastewater, Iowa has established numeric criteria in Iowa's water quality standards (WQS) of 10 mg/L for Class C waters, matching the MCL noted above (see 567 IAC chapter 61, Table 1). While EPA's comment references the narrative criteria for Class C waters, the DNR does not consider this necessary when discussing nitrates due to the presence of the numeric criteria in Table 1.

Importantly, all designated Class C waters are points on surface waters which are the exact location of public drinking water supply intakes, or lakes which contain a public drinking water supply intake. Surface Water Classification document, rule referenced at 567 IAC 61.3(5).

2. Development of Assessment Methodology

The DNR is authorized to create the assessment methodology used to place, or not place, waters on the 303(d) list under federal law. The EPA rules governing state submission of the 303(d) list requires Iowa to detail its assessment process in the Continuing Planning Process document (CPP). 40 CFR § 130.7(a). Iowa's CPP states as follows:

> The process for assessing Iowa's waterbodies and adding them to the state's list of impaired waters (303(d) list), is described in *Iowa's Methodology for the assessment, listing, and reporting requirements pursuant to Sections 305(b) and 303(d) of the federal Clean Water Act*.

Iowa CPP, pg. 14 (2005) (emphasis in original).

This mirrors the federal rule requirement that Iowa must submit the methodologies it uses to assess waters for the 303(d) list. 40 CFR § 130.7(b)(6)(i) ("Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters … and shall include at a minimum... [a] description of the methodology used to develop the list.…")

The federal rules do not require the use of a specific methodology in a state's assessment. Rather the rules require that the EPA either approve or disapprove a water's listing. 40 CFR § 130.7(d)(2).

3. Assessment of Class C Waters for Nitrates

To assess whether Iowa's Class C waters are impaired for drinking water use relative to nitrates, the DNR methodology uses two assessments: the Binomial Rule to analyze nitrate concentrations in surface water, and a review of pollutant concentrations in finished drinking water.

a. The Binomial Rule

The Binomial Rule is detailed on page 19 of the 2024 methodologies. *Methodology for Iowa's 2024 water quality assessment, listing, and reporting pursuant to Sections 305(b) and 303(d) of the federal Clean Water Act*, page 19. To summarize, when a water is assessed using the Rule as fully supporting a Class C use, this means that there is a 90% confidence level that the water will have less than 10 mg/L of nitrate on any given day. In effect, the Rule filters out waters with anomalous violations of the water quality criteria. In doing so, the assessment provides a clearer picture of a water's status to the regulated community and allows the DNR to focus efforts on watersheds which see systemic, long-term problems, as opposed to watersheds impacted solely by single or weather-driven events. This tool is particularly vital when analyzing datasets that have numerous samples per year, such as the DNR's nitrate datasets.

Due to the loss of statistical confidence level, the 10% Binomial Rule cannot be used with less than ten samples. See *2024 Methodology*, page 19. The 7,8,9 Rule is a logical expansion of this rule that allows down to seven samples, so long as there is no scenario in which the results of uncollected samples would trigger the 10% Binomial Rule. See *2024 Methodology*, page 20.

The DNR has used the Binomial Rule to assess Iowa's Class C waters for nitrates since at least the 2004 303(d) list. *Methodology for Iowa's 2004 water quality assessment, listing, and reporting pursuant to Sections 305(b) and 303(d) of the federal Clean Water Act*, page 51.

Notably, every assessment cycle since 2004, EPA has approved the DNR's 303(d) listings of Class C waters in Iowa, including those that are impaired using the Binomial Rule.

The DNR does acknowledge EPA's comments on nitrate in the *2022 Decision Document for Iowa's Clean Water Act Section 303(d) List Water Quality Limited Segments Still Requiring TMDLs*. However, these comments were conclusory and lacked sufficient scientific or regulatory rationales, simply stating:

> "However, during its review, the EPA determined the methodology and assessment for nitrate in water bodies designated with a Class C drinking water use **is not consistent** with the Iowa DNR's EPA-approved WQS. Despite this discrepancy, the EPA verified that this **did not impact** the listing or removal of water bodies from the Iowa DNR's 2022

> CWA Section 303(d) List. In order to comply with their EPA-approved WQS, the Iowa DNR should assess nitrate as a toxic and apply the prescribed maximum contaminant level to raw water samples in all future listing cycles."

2022 Decision Document, Page 8 (emphasis in original).

Similarly, EPA's 2024 comment is not supported by new scientific or regulatory rationales.

b. Review of Finished Water Sources

Separate from the Binomial Rule, the DNR assesses Class C waters using a review of finished water. *2024 Methodology*, page 41. This methodology was also contained in the 2004 methodology. *2004 Methodology*, page 51.

By reviewing finished water sources, the methodology assesses whether the water is treatable by a drinking water supply to levels required by the Safe Drinking Water Act. This ensures an assessment of the water relative to the immediate use of the water by Class C public water supply users.

Again, the EPA has approved the DNR's 303(d) listings of Class C waters in Iowa under this assessment methodology for at least twenty years. EPA has not provided new scientific or regulatory rationales to support its request that Iowa change its methodology.

4. Iowans' Reliance on Historical Assessments and Approvals

Iowa's NPDES program and water supply programs, and regulated drinking water and wastewater systems across Iowa, have relied on the DNR's historical assessments and the EPA's historical approvals of the 303(d) list. This reliance has impacted major economic analyses such as growth projections and whether to build treatment technologies. Even if the EPA had provided new scientific or regulatory positions to support its requests, it is not equitable to spontaneously change the foundation of this stakeholder reliance without providing ample opportunity for their input. The DNR notes that no municipal stakeholder is currently requesting such input relative to altering either the Binomial Rule or finished drinking water methodologies.

EPA's comment, when coupled with the EPA's historical approvals of the 303(d) lists, is not sufficient to realign long-implemented, state-wide regulatory and economic decisions on nitrate reduction. The DNR will evaluate if and how to specifically request stakeholder input on EPA's comment for discussion in future 303(d) listing cycles.

5. Other Pollutants

To specifically address EPA's request that the DNR remove "the non-defensible use of the 10% rule in relation to … <u>any other pollutants with toxic effects</u> treated as conventional pollutants," the DNR restates its position above, relative to any such pollutants. The DNR will continue to communicate with EPA on this topic, but to date there has been little discussion on pollutants other than nitrates. In any event, like nitrate, EPA has not provided any new scientific or regulatory rationale to alter the historical methodology by which the DNR assessed pollutants.

6. Conclusion

In summary, EPA requests that the DNR change its assessment methodology from the long-standing practice relied on by Iowa municipalities, industries, and drinking water supplies. Yet the EPA has provided no new scientific evidence nor any new federal regulation in support of such a significant policy change. Iowa's methodology continues to be an effective, logical, scientific method of assessing Class C waters for drinking water supply use relative to the level of nitrates in the water. The DNR therefore takes EPA's requests under advisement for future consideration but respectfully declines to alter the 2024 methodology.

COMMENTER 2: Alicia Vasto, Water Program Director, Iowa Environmental Council
Date Received: April 4, 2024, e-mail & comment letter (PDF)
Comment:

2024 Impaired Waters Comments

1 message

Alicia Vasto <vasto@iaenvironment.org> Thu, Apr 4, 2024 at 1:54 PM
To: "IRcomment@dnr.iowa.gov" <IRcomment@dnr.iowa.gov>
Cc: Michael Schmidt <schmidt@iaenvironment.org>

Hello,

Please see attached for comments on behalf of the Iowa Environmental Council. Feel free to reach out if there are any questions.

Thank you,

Alicia

Alicia Vasto (she/her) | Water Program Director

515-244-1194 x 206 | vasto@iaenvironment.org

Iowa Environmental Council

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IEC comments - 2024 303d draft list.pdf
756K

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April 4, 2024

Iowa Department of Natural Resources
Attn: IR Comments
Water Quality Monitoring & Assessment Section
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319
Email: IRcomment@dnr.iowa.gov

RE: Draft 2024 List of Impaired Waters

Dear Water Quality Monitoring and Assessment Section:

The Iowa Environmental Council (Council or IEC) offers the following comments on the draft 2024 list of the Section 303(d) impaired waters. These comments represent the views of the Iowa Environmental Council, an alliance of 100 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 2024 impaired waters list:

- **A high proportion of assessed waters are impaired.**
  The 2024 303(d) list shows that 50.5% of assessed waters are impaired for one or more designated uses. Only 27% of assessed waters support at least one of their designated uses. While 97 impairments have been proposed for delisting, it is unclear if all of those impairments have actually been improved or if the data period masked an impairment due to drought (see comment on listing and delisting below). **The Council calls on the state to take stronger leadership to improve Iowa's water quality and significantly reduce the number of impairments.**

- **A high proportion the state's A1 primary recreational waters are impaired.**
  Of Iowa's waters that have been assessed for A1 recreational use, 79% (548 of 697) are impaired. Public lands and waters are owned by the people of Iowa under the care of the state. Iowans are not getting the full benefits of the state's primary recreational waters due to poor water quality. The state has done an inadequate job of protecting public lands and waters for public recreational use. **The Council calls on DNR to prioritize TMDL completion for Iowa's recreational waters and improve Iowa's recreational water quality for the benefit of Iowans.**

- **Iowa still does not have numeric nutrient criteria or a microcystin standard.**
  The EPA issued recommendations for microcystin and numeric nutrient water quality standards that would protect recreational users from harmful algae blooms. In fact, the EPA's numeric nutrient criteria recommendations relied heavily on Iowa water quality data. When the DNR released the 2020 and 2022 impaired waters lists, IEC called on the state to adopt microcystin and

numeric nutrient criteria. DNR has not indicated that it will adopt those standards, and no timeline or formal process has been set to begin the process of adopting criteria. DNR left those priorities out of the 2021-2023 Triennial Review. **Again, IEC calls on the state to adopt numeric nutrient and microcystin criteria.** DNR has an opportunity to include these standards in the 2024-2026 Triennial Review, which must be released this year. DNR has all the information it needs to begin the work of adopting criteria, which are necessary to understand the condition of Iowa's waters and make progress on protecting Iowans from negative health impacts.

- **The state's monitoring program is not rigorous and does not allow for comparison over time.**
  When the impaired waters list is released, DNR staff takes the position that the results cannot be interpreted to give Iowans an understanding of Iowa's water quality. This is due at least partially to using data that is collected haphazardly from all available sources instead of being collected through a standardized, rigorous monitoring scheme that allows comparison over time.[1] If the state had a common monitoring plan that used a watershed approach to collect data and assess water quality, the impaired waters list would be a much more useful tool for actually understanding the state's water quality and progress toward meeting water quality standards. **IEC urges the DNR to develop a standardized monitoring plan using the watershed approach that is scientifically rigorous, allows interpretation of results, and is useful to the public.** Such a plan might resemble Minnesota's watershed lake and stream monitoring program, which fully assesses watersheds on a 10-year cycle.

- **DNR's decision to use one cycle to impair and one cycle to delist for all impairments is not rational or practical.**
  DNR's decision to use one cycle to list and delist waters for impairment is not reasonable or practical for the purposes of addressing impairments.[2] The department has not justified this approach. When a waterway does not show signs of an impairment during one cycle, it does not mean that the waterway has actually improved or the impairment has been addressed. As we have seen in recent years, drought has seriously impacted the flows of Iowa's streams and rivers. Reduced flows can mask an impairment due to temporary reductions of pollutants entering waterways. However, the impairment may quickly reappear when flows return to normal. Using one cycle to remove waters from the list could create a situation where a waterway is removed and added to the list, back and forth, in subsequent cycles, leaving it in limbo for receiving a TMDL and causing confusion for watershed groups that are trying to make improvements and install pollution reduction practices.

  An example of this one cycle removal and future relisting is Lake Macbride. The lake has been listed for an indicator bacteria impairment since 2006 but is proposed for delisting this cycle. The lake had a TMDL priority of Tier II, but a TMDL was not written and approved by EPA until 2022. While the lake is proposed for delisting based on 2020-2022 beach monitoring data, five single-sample *E. coli* violations occurred during the 2023 beach monitoring season. This means that Lake Macbride should go back on the 303(d) list in 2026. If the TMDL had not been done two years ago, the delisting would have caused further delay in preparing a TMDL. DNR is already woefully behind on preparing TMDLs for the state's impaired waters. DNR should not risk even further delays on TMDLs because it wants the appearance of increased removals from the impaired waters list.

[1] Iowa DNR. "Methodology for Iowa's 2024 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b), 303(d), and 314 of the Federal Clean Water Act" ("Methodology"). 29 Sept. 2023. Pg. 13-16.
[2] *Id* at 11.

Number of Weeks under *E. coli* Swim Advisory Out of 15 or 16 Week Recreational Season (exceeding single sample 235 MPN/100 mL or 5-week geometric mean 126 MPN/100 mL)[3]								
	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Lake Macbride	5	4	11	2	4	2	1	6

COMMENTS ON OUTSTANDING IOWA WATERS

Iowa's Outstanding Waters are natural treasures that the state has identified as high quality waters of state significance. Under the state's antidegradation implementation procedure, these waters are assigned a Tier 2 ½ protection level, where degradation is prohibited unless the reduction of water quality "is temporary and limited, results from the expansion of existing sources, or serves to maintain or enhance the value, quality, or use of the OIW, as determined by the Director of IDNR on a case-by-case basis."[4]

Commensurate with the specialty antidegradation tier, OIWs should be given priority for development of TMDLs to protect their special status as waters of significance. DNR's TMDL Prioritization Methodology does not include a parameter for status as an OIW.[5] OIWs are classified based on water quality standards, so any violation of a water quality standard should be addressed with urgency by Iowa DNR. Outstanding National Resource Waters, designated as Tier 3 under the state's antidegradation procedure, should also receive special status for TMDL development in the future if such a water is designated. The state's antidegradation procedure says, for Tier 2 ½ and 3:

> No degradation, except for temporary degradation or from the expansion of existing sources, is allowed in the unique waters afforded Tier 2 ½ & 3 protection. If a §305(b) assessment shows that long-term degradation (i.e., not temporary degradation) of an Outstanding National Resource Water or Outstanding Iowa Water is occurring, the department may conduct a special study of the extent and source(s) of degradation to determine likely trends and explore possible antidegradation actions needed to reverse the trend… Such a study is justified even though the water may continue to fully meet state [water quality standards] and is not a likely candidate for addition to the state's §303(d) list.[6]

IEC completed a detailed review of assessment and impairment information for Outstanding Iowa Waters. The results of impairments without TMDLs are summarized in the table below. The state should prioritize development of these TMDLs, especially for impairments related to low biotic index for Bloody Run Creek, Clear Creek, Ludlow Creek, and Waterloo Creek.

Outstanding Iowa Water	**Segment ID**	**Impairment with no TMDL**	**Cycle Added**
Bear Creek	02-CED-523	Indicator bacteria	2014
Bloody Run Creek	01-YEL-433	Indicator bacteria Low aquatic macroinvertebrate biotic index	2010 2024
Clear Creek	01-UIA-235	Low aquatic macroinvertebrate biotic index	2024
Coldwater Creek	01-UIA-280	Indicator bacteria	2008
Dousman Creek	01-YEL-438	Low dissolved oxygen	2008

[3] Iowa DNR. Beach Monitoring Program. Data available at https://programs.iowadnr.gov/aquia/.
[4] Iowa DNR. "Iowa Antidegradation Implementation Procedure." 17 Feb. 2010. Pg. 2.
[5] "Methodology" at 50.
[6] *Id* at 27.

Duck Creek	01-UIA-254	Indicator bacteria	2014
French Creek	01-UIA-248	Indicator bacteria	2008
Grannis Creek	01-VOL-322	Indicator bacteria	2014
Lime Creek	02-CED-524	Indicator bacteria	2014
Ludlow Creek	01-YEL-446	Low fish & invertebrate biotic index	2010
North Bear Creek	01-UIA-255	Indicator bacteria	2008
Twin Springs Creek	01-UIA-273	Indicator bacteria	2012
Waterloo Creek	01-UIA-253	Indicator bacteria Low aquatic macroinvertebrate biotic index	2008 2022
West Okoboji Lake – Emerson's Bay	06-LSR-2066	Indicator bacteria	2006

COMMENTS ON IOWA'S RECREATIONAL LAKES

The Iowa Environmental Council completed detailed reviews of the DNR assessment information for state park recreational beaches. Based on our review, IEC has identified several waterbodies for which the state should to do more to protect and improve our water quality.

Many of the state's premier recreational lakes continue to be impaired due to indicator bacteria.

The following table lists when state park lakes were added to the impaired waters list for indicator bacteria (*E. coli*) and when a TMDL was completed, if any.

Lake	Segment ID	Cycle Added	Year TMDL completed or TMDL Priority Level
Backbone	01-MAQ-20	2004	Tier II
Beeds	02-WFC-818	2002	2006
Big Creek	04-UDM-1242	2006	2011
Black Hawk	04-RAC-1134	2016	Tier II
Brushy Creek	04-UDM-1276	2012	2022
Clear Lake	02-WIN-841	2004	2020
George Wyth	02-CED-465	2020	2008
Hickory Grove	03-SSK-950	2008	2020
Keomah	03-SSK-930	2008	2023
Lake Darling	03-SKU-924	2018	Tier II
Lake Manawa	06-WEM-1711	2024	Tier II
Lake Of Three Fires	05-PLA-1476	2024	2011
Lower Pine	02-IOW-758	2006	Tier II
Nine Eagles	05-GRA-1361	2006	2020
Union Grove	02-IOW-724	2006	2010
West Okoboji – Emerson's Bay	06-LSR-2066	2006	Tier II

Six lakes, one of which is new this cycle, are listed as Tier II priorities for TMDLs that experience chronic *E. coli* contamination, resulting in swim advisories during the summer recreation season that turn visitors away from safely recreating and enjoying Iowa's state parks. Many of the lakes that have TMDLs have been impaired for over a decade, and some have even had a TMDL for over a decade. The state must do more to work to remove these impairments permanently, unlike the delisting of Lake Macbride, by addressing the sources of *E. coli* and implementing water quality improvement plans.

DNR added Backbone Lake to the impaired waters list two decades ago. Backbone was Iowa's first state park, dedicated by the state in 1920. It has many unique features including limestone cliffs and Civilian Conservation Corps buildings constructed in the 1930s. Water quality in Backbone Lake, Iowa's flagship park, has been so poor for 20 years and the beach is under swim advisories more than 75% of the recreational season every summer, yet there is still no TMDL to address this chronic impairment. DNR must investigate the sources of *E. coli* at Backbone and work to mitigate the impairment.

Beeds Lake is another particularly unfortunate example of the state's lack of progress toward meaningfully protecting and improving recreational water quality. Although DNR added Beeds Lake to the impaired waters list in 2002 and completed a TMDL in 2006, the lake continues to be plagued by *E. coli* contamination more than a decade later. For the 2020-2022 reporting period covered by the 2024 assessment, Beeds Lake was under swim advisories for 2-8 weeks every summer.

Number of Weeks under *E. coli* Swim Advisory Out of 15 or 16 Week Recreational Season (exceeding single sample 235 MPN/100 mL or 5-week geometric mean 126 MPN/100 mL)[7]

	2016	2017	2018	2019	2020	2021	2022	2023
Backbone	14	13	14	13	14	11	13	9
Beeds	13	7	8	6	7	2	8	3
Big Creek	4	4	1	0	2	1	9	0
Black Hawk	1	0	0	0	0	0	4	5
Lake Darling	8	2	4	1	10	9	14	8
Lower Pine	9	6	9	1	6	8	8	15
Union Grove	9	6	9	1	6	8	8	15
West Okoboji (Emerson Bay Beach)	7	6	7	3	7	3	6	9

We urge the DNR to not only complete TMDLs for state park beaches without them, but for the state to provide adequate resources to implement water quality improvement plans, demonstrate water quality improvement in these lakes, and remove them from the impaired waters list after consistent improvement over multiple cycles.

Thank you for the opportunity to comment on the draft 2024 impaired waters list. If you have questions or we can clarify these comments further, please feel free to call.

Sincerely,

/s/ Alicia Vasto
Alicia Vasto
Water Program Director
Iowa Environmental Council

[7] Iowa DNR. Beach Monitoring Program. Data available at https://programs.iowadnr.gov/aquia/.

DNR Response:
The DNR thanks Alicia Vasto andIowa Environmental Council for their general and specific comments on the draft 2024 Section 303(d) List and IR methodology.

- **Response to: "A high proportion of assessed waters are impaired."**

All of the segments proposed for impairment delisting in the 2024 IR met the conditions for delisting as specified on pages 43-45 in the *Methodology for Iowa's 2024 Water Quality Assessment, Listing, and Reporting Pursuant to Sections 305(b), 303(d), and 314 of the Federal Clean Water Act* (Methodology). (https://programs.iowadnr.gov/adbnet/Docs/Publications).

- **Response to: "A high proportion [of] the state's A1 primary recreational waters are impaired, TMDL Prioritization, and comments on outstanding Iowa waters."**

Iowa's TMDL Vision 2024 includes numerous priority parameters focused on partnerships with implementation partners, impairments with high social impact (such as recreational impairments), and efficiency. There are significant data requirements to complete TMDLs, which takes time to coordinate and collect. Currently, new sampling for TMDL development is taking place on roughly 30 segments (including rivers and beaches) with recreational impairments, with plans to expand this sampling to the Upper Iowa River and Turkey River basins in 2026 or 2027 pending funding and partner participation. These two basins cover roughly half of the recreational impairments on OIWs. For further information about Iowa's TMDL Vision 2024 and the priority structure, please refer to the document 'Iowa's TMDL Vision 2024' on the WQIP webpage (https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Water-Improvement-Plans).

- **Response to: "Iowa still does not have numeric nutrient criteria or a microcystin standard."**

With respect to the comment on adoption of numeric nutrient criteria, the DNR continues to review the EPA's recently finalized lake numeric nutrient criteria.

Progress to date has involved working with the EPA to use national and Iowa lake data to estimate chlorophyll-a and microcystin relationships. Preliminary results showed that combining state and national data can improve the performance of EPA's new models. The documentation and review of the underlying science is now complete, and the research behind this effort, titled "Combining national and state data improves predictions of microcystin concentration," was published in 2019 (Yuan, et. al., 2019). EPA released the draft lake numeric nutrient criteria document that incorporates this research, in addition to other published research, in May of 2020 for public comment. The DNR submitted comments to the EPA during the comment period. EPA released the finalized lake numeric nutrient criteria document in August of 2021, along with a response to comments. EPA has reached out to states, territories, and tribes to gauge preliminary interest in technical support via EPA's Nutrient Scientific Technical Exchange Partnership & Support (N-STEPS) program for developing numeric nutrient criteria. The DNR continues to participate in the EPA/States Lake NNC Workgroup, which released a lake NNC implementation document (https://www.epa.gov/system/files/documents/2023-10/faqs-implementing-lakes-reservoirs.pdf) in October 2023. The DNR continues to collect and analyze lake nutrient data as part of the ambient lake monitoring and the lake restoration programs. The development of quantitative indicators of lake health,

including nutrient status, remains a high priority within these programs. This continued data collection is anticipated to inform and support the DNR's review of the criteria.

Microcystin Criteria

With respect to the comment on further action on the use of the microcystin values in EPA's 304(a) criteria, the DNR continues to utilize EPA's recommended criteria for beach advisories.

In March of 2019, the EPA issued recommendations for recreational water quality criteria and swimming advisories for cyanotoxins, which included magnitudes (i.e., cyanotoxin concentrations) along with guidance for selecting frequency and duration for the criteria. The DNR, along with other state agencies, submitted comments during the public comment period for this document. The finalized recommended criteria, issued in May of 2019, allows for adoption as state criteria and/or as swimming advisory thresholds, but states are not mandated to adopt the recommended criteria in either capacity. In early 2020, after a detailed review of the criteria and underlying science, the DNR and Iowa Department of Public Health agreed to utilize the microcystin threshold value in its beach monitoring program for the purpose of posting swimming advisories. The DNR is continuing to evaluate the recommended criteria to decide on further future action on the subject.

- **Response to: "The state's monitoring program is not rigorous and does not allow for comparison over time."**

With respect to the general comments about the state's monitoring programs, the DNR continues to implement standardized and robust ambient stream monitoring, ambient lake monitoring, wetland monitoring, shallow lakes monitoring, fish tissue monitoring, stream biological sampling, and beach human health surveillance programs. In addition to the data collected as a part of Iowa's monitoring programs, the DNR utilizes data from external agencies and sources to complete Iowa's Section 303(d) List. The DNR routinely collaborates with many of these external agencies to coalign the needs of the various sampling programs; for example, see Table 2, page 12 of IR methodology.

The DNR houses the majority of its water monitoring data in its public facing water quality database AQuIA (https://programs.iowadnr.gov/aquia/). The DNR does not recommend using the Section 303(d) List for trend analysis due to its threshold-based analysis of the site specific data. AQuIA contains an abundance of data (significantly greater in quantity relative to many states' data) to use in performing long-term trend analysis. Additionally, the AQuIA website contains graphing tools to look at trends for all analytes at each sampling location. In addition to the ambient stream and lakes monitoring programs, the DNR also began collecting water quality information at additional lakes (starting in 2018) on a rotational basis. Additional stream water quality data collection began in 2021. Of note, it takes 3 to 5 years for sufficient data to be collected at new sites prior to inclusion in the IR, and an additional 2 years for the first monitored assessments to be completed. Prior to that time, the additional monitoring data will be assessed as evaluated, and potential impairments will be placed on the Waters in Need of Further Investigation (WINOFI) list.

- **Response to: "DNR's decision to use one cycle to impair and one cycle to delist for all impairments is not rational or practical."**

Each waterbody segment was judged independently during the 2024 IR assessment timeframe. See Table 3 on Page 14 of the 2024 IR methodology for the timeframe requirements for all the types of data. DNR analyzed all readily available data from each segment and determined if the designated uses of each

segment were fully supported, not supported, or could not be assessed. The results of the individual designated use assessments dictated the overall category of the segment.

DNR changed the 2024 IR Methodology to a one cycle to impair and one cycle to delist to better utilize data produced by two new DNR-lead monitoring programs, the supplemental streams and extra lakes program. Data from these programs are collected on an intermittent or rotational basis. If the DNR continued to use the two consecutive cycles to the delist procedure, it would be nearly impossible to delist impairments utilizing data from these programs. By moving to a delisting procedure that requires data from only one cycle, the DNR can effectively use all available data and redirect TMDL, lake restoration, and other watershed improvement resources to waters in a more effective manner. In review of other states 303(d) delisting methodologies that have programs where data is collected on a rotational basis and from other surrounding states (MPCA.2022 and KDHE.2022), the practice of delisting a parameter once the new data shows to be fully supported is widely accepted.

Therefore, the DNR disagrees with this comment's assertion. The DNR's approach with regard to the delisting process is rational and effective relative to the sampling performed in Iowa.

The DNR retains the ability to relist a currently impaired waterbody based on best professional judgment, notably when data shows there is a risk the water will be impaired in the future and sufficient data and resources are available to develop a TMDL. DNR IR staff work very closely with DNR TMDL staff during the IR process to avoid miscommunication related to the creation of TMDLs.

With respect to the Lake MacBride comments and concerns about the potential relisting to IR Category 5 in the 2026 IR, the DNR disagrees with the statement that the lake will go back on to the 303(d) list next listing cycle due to a Class A1 indicator bacteria impairment. Lake Macbride was included in the EPA approved Iowa Statewide Beach Bacteria TMDL Addendum 1 in 2022 and therefore the TMDL for this pollutant has been completed. If the data show a future impairment for this pollutant at Lake MacBride, the Class A1 use would be placed into IR Category 4 (TMDL completed) and not on the 303(d) list. Concerns about TMDL delay have been addressed above.

- **Response to: Comments on recreational lakes and beach TMDLs**

The DNR submitted the first group of lakes for the Statewide Beach Bacteria TMDL in 2020, receiving EPA approval on August 6, 2020. To date the DNR has submitted two addendums to the Statewide Beach Bacteria TMDL. These addendums included six additional lakes: Lake Macbride; Brushy Creek Lake; Lake Ahquabi; Prairie Rose; Lake Keomah; and North Twin Lake. Five of the six lakes were approved. The six lake, North Twin Lake, was accepted as a protective TMDL due to its delisting prior to the submission of the TMDL document. The DNR is currently working on a third addendum of beach TMDLs. As resources allow, DNR plans to evaluate all bacteria impaired beaches including the beaches listed by IEC, and TMDLs for those beaches will be added to the document when collected data are sufficient. As noted above in the response about recreational waters, new sampling for TMDL development is taking place on roughly 30 segments (including rivers and beaches) with recreational impairments. For further information about Iowa's TMDL Vision 2024 and the priority structure, please refer to the document

'Iowa's TMDL Vision 2024' on the WQIP webpage or see page 50 in the 2024 IR Methodology document found on the publications page in Iowa's Water Quality Assessment Database ADBNET.

References

KDHE.2022 2022 Kansas Integrated Water Quality Assessment. Kansas Department of Health and Environment, Division of Environment. 169 p.

Lester L. Yuan, Amina I. Pollard. (2019). Combining national and state data improves predictions of microcystin concentration. Elsevier, Harmful Algae 84 (2019), 75-83.

MPCA.2022 Guidance Manual for Assessing the Quality of Minnesota Surface Waters for Determination of Impairment: 305(b) Report and 303(d) List. Minnesota Pollution Control Agency, Environmental Assessment and Outcomes Division. 70 p.

COMMENTER 3: Pam Mackey Taylor, Director, Iowa Chapter of the Sierra Club
Date Received: April 12, 2024, e-mail & comment letter (PDF)
Comment:

Comments on Iowa's Draft 2024 303(d) list
1 message

Pamela Mackey Taylor <pamela.mackey.taylor@sierraclub.org> Fri, Apr 12, 2024 at 12:43 PM
To: Ircomment@dnr.iowa.gov
Cc: r7actionline@epa.gov

Attached are Sierra Club's comments about Iowa's Draft 2024 303(d) list.

Thank you for considering these comments.

Pam Mackey Taylor
Director
Iowa Chapter of the Sierra Club

LTRon303dList.pdf
415K

SIERRA CLUB
IOWA CHAPTER

April 12, 2024

Iowa Department of Natural Resources
Attention: IR Comments
Water Quality Monitoring & Assessment Section
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319
Via email to IRcomment@dnr.iowa.gov

RE: 2024 303(d) list

Greetings:

The following comments on the 2024 303(d) list are submitted on behalf of the Iowa Chapter of Sierra Club. The Iowa Chapter is the oldest and largest grass roots environmental organization in Iowa, with approximately 7,000 members throughout the state. We have been leaders in advocating for water quality in Iowa for many years. The Iowa Chapter was one of the parties engaged in litigation in 1999-2001 that led to the initiation of the TMDL program in Iowa.

The 303(d) list identifies those water segments that do not meet water quality standards and need a TMDL to be prepared. On the current 303(d) list are numerous water segments that have been on the list since 2006 and 2008, with no TMDL having been prepared. Some of those waters on the list since 2006 and 2008 are designated as Outstanding Iowa Waters pursuant to Iowa's Antidegradation Policy. These waters are entitled to extra protection.

Just as troubling as the many years these Outstanding Iowa Waters have been on the list is the fact that DNR has designated them as low priority for preparing TMDLs. They have been designated as Tier III and Tier IV, putting them at the bottom of the priority list, essentially condemning them to perhaps never having a TMDL prepared. This is a clear violation of the intent, if not the specific language, of the Clean Water Act. Section 303(d) says the priority ranking must be made "taking into account the severity of the pollution and the uses to be made of such waters."

I have reviewed the Department's Prioritization and Scheduling of Waters for TMDL Development document. It does not really describe how the prioritization decisions were made. With special focus on the Outstanding Iowa Waters, most of which are premier trout fishing streams, it would seem that they should receive priority. These waters, given their status and their high social impact as trout streams, are not given their proper priority in the scoring system.

I also note that the scoring for multiple impairments in the water segment is designed to ensure that many waters will not be scored appropriately. It does not appear that any of the waters in the 2024 list have more than 2 impairments. So a water with 5 impairments, which doesn't exist,

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would still only get 1 point. In order to properly score for multiple impairments, more than one impairment should garner 2 points. And perhaps, 3-5 impairment should score 3 points, etc.

The Prioritization and Scheduling document also claims to have been guided by EPA's 2022-2032 Vision document for the 303(d) program. That document emphasizes implementation of TMDLs. But the DNR, as far as I can tell, has done nothing to implement the TMDLs over the last 20 plus years. The 303(d) list and the TMDLs mean nothing if the TMDLs are not implemented.

In summary, it appears over the years, including in the 2024 303(d) list, the DNR is doing just the bare minimum to keep the EPA from taking any action against the Department. We must do better.

/s/ *Wallace L. Taylor*

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ATTORNEY FOR SIERRA CLUB
IOWA CHAPTER

CC: Region 7 Environmental Protection Agency via email to r7actionline@epa.gov

DNR Response:
The DNR thanks Pam Mackey Taylor (Iowa Chapter of the Sierra Club) for commenting on the draft 2024 Section 303(d) List and IR methodology.

- **Response to: TMDL vision and priority response**

Iowa's TMDL Vision 2024 includes numerous priority parameters focused on partnerships with implementation partners, impairments with high social impact (such as recreational impairments), and efficiency. There are significant data requirements to complete TMDLs, which takes time to coordinate and collect. Currently, new sampling for TMDL development is taking place on roughly 30 segments (including rivers and beaches) with recreational impairments, with plans to expand this sampling to the Upper Iowa River and Turkey River basins in 2026 or 2027 pending funding and partner participation. These two basins cover roughly half of the recreational impairments on OIWs. For further information about Iowa's TMDL Vision 2024 and the priority structure, please refer to the document 'Iowa's TMDL Vision 2024' on the WQIP webpage (https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Water-Improvement-Plans).

Specifically, the Vision points to additional priority points for a TMDL applying to multiple impairments, which includes lakes with multiple impairments (ex. Big Hollow Lake with four impairments; 1 priority point) and also watersheds with multiple segments with the same impairment (ex. Upper Iowa River basin with 54 indicator bacteria impairments; 2 priority points.)

COMMENTER 4: Steve Veysey, Private Citizen
Date Received: April 12, 2024, email & comment letter (Microsoft Word)
Comment:

2024 303D list and TMDL process comments

1 message

Steve Veysey <sveysey@gmail.com> Fri, Apr 12, 2024 at 2:42 PM
To: IRcomment@dnr.iowa.gov
Cc: Alicia Vasto <vasto@iaenvironment.org>, Wally Taylor <WTaylor784@aol.com>, Shields.Amy@epa.gov, Pratt.David@epa.gov, Erin Jordan <erin.jordan@thegazette.com>

Hello,

My comments on the 2024 proposed 303D list of impaired waters are attached. Please acknowledge receipt of these comments. Thank you.

Respectfully

Steve Veysey
Protecting Outstanding Iowa Waters
919 Murray Drive
Ames, IA 50010

303D comments final.docx
2156K

April 12, 2024

Comments on the 2024 Iowa 303D List and the TMDL Status of Impaired Waters

Submitted by Steve Veysey

Introduction

In this brief comment document, data referred to generally comes from

- https://www.epa.gov/waterdata/hows-my-waterway,
- https://programs.iowadnr.gov/adbnet/Docs/TMDL,
- https://programs.iowadnr.gov/aquia/.

AgUIA also links to BioNET. GIS data was generally downloaded from https://geodata.iowa.gov/ and used in ArcGIS mapping. This document is not meant to be a rigorous scientific or technical report. These are preliminary comments on the current 303D list and the Iowa TMDL program as it stands in 2024.

I have previously participated in lawsuits against EPA, litigating oversight failures related to Iowa's incorrect or missing CWA water quality standards. I am a water quality advocate, not an attorney. My focus is on streams, particularly cold-water streams.

303D List history

A *circa* 2002 lawsuit against EPA by Sierra Club *et al* resulted in a more substantial and rigorous 305B report and 303D list. I believe the first state-prepared 303D list was presented in 2004. Each two-year cycle continues to reveal impaired waterbodies at a rate of about 50% of waterbodies investigated. TMDL's have lagged far behind. Many "Category 5" waters listed more than 10 years ago still do not have TMDL's. Many waterbodies with "completed" TMDL's continue to be impaired for the same impairments the TMDL was intended to fix. Iowa's TMDL program has failed at the most fundamental level... assess, partition, fix, and verify. EPA must acknowledge this and take action.

In 2022 EPA released the "2022 - 2032 Vision for the Clean Water Act Section 303(d) Program". I was not surprised at the situation presented by the document. Couched in aspirational language was an admission of the States's massive failure to fix impaired waters. Assessments of a small fraction of state waters (about 30% of stream miles) results in some of those waters (about 50%) being put on the 303D list. This is followed by a TMDL "prioritization", which leaves most waters behind (low priority score). Furthermore, many of the high priority waters still do not have TMDLs implemented. Investigation suggests that while TMDL's are successful in immediately removing 303D waters from Category 5, the category normally reported in the

media, most of the Iowa TMDL's implemented have not actually removed the impairment. Take the 2018 TMDL for a large section of the Iowa River basin. More than 55 impaired tributaries and segments were removed from Category 5 because EPA approved the TMDL. I have not been rigorous in my search, but so far, I have found little if any publicly available data that six years later, those 55+ segments are no longer impaired. Many of these streams are in the heart of concentrated industrialized animal production – manure country.

The 2022 – 2032 Vision document celebrates to 50th anniversary of the CWA. But the document states as a **goal**:

> *Evaluating the effectiveness of plan implementation in restoring and protecting water quality, thereby facilitating adaptive management so that plans remain productive.*

A startling admission. Fifty years later EPA is still approving state written TMDLs that do not include the monitoring and data sharing necessary to assess progress and prove that the TMDL implementation is working and that impairments are being removed. It is still just a goal. One might characterize it as a shell game.

Outstanding Iowa Waters History

As a result of the 2006-2008 antidegradation lawsuit, Iowa eventually created the Tier 2.5 category of state-waters of special significance. The category was named "Outstanding Iowa Waters" (OIW's) and populated with 35 waterbodies including 32 stream segments and three lakes. At least 30 of the stream segments are cold water trout streams located in the Paleozoic plateau region of NE Iowa. This is the focus of my remaining comments. The Tier 3 category of Outstanding National Waters was also created but has never been populated.

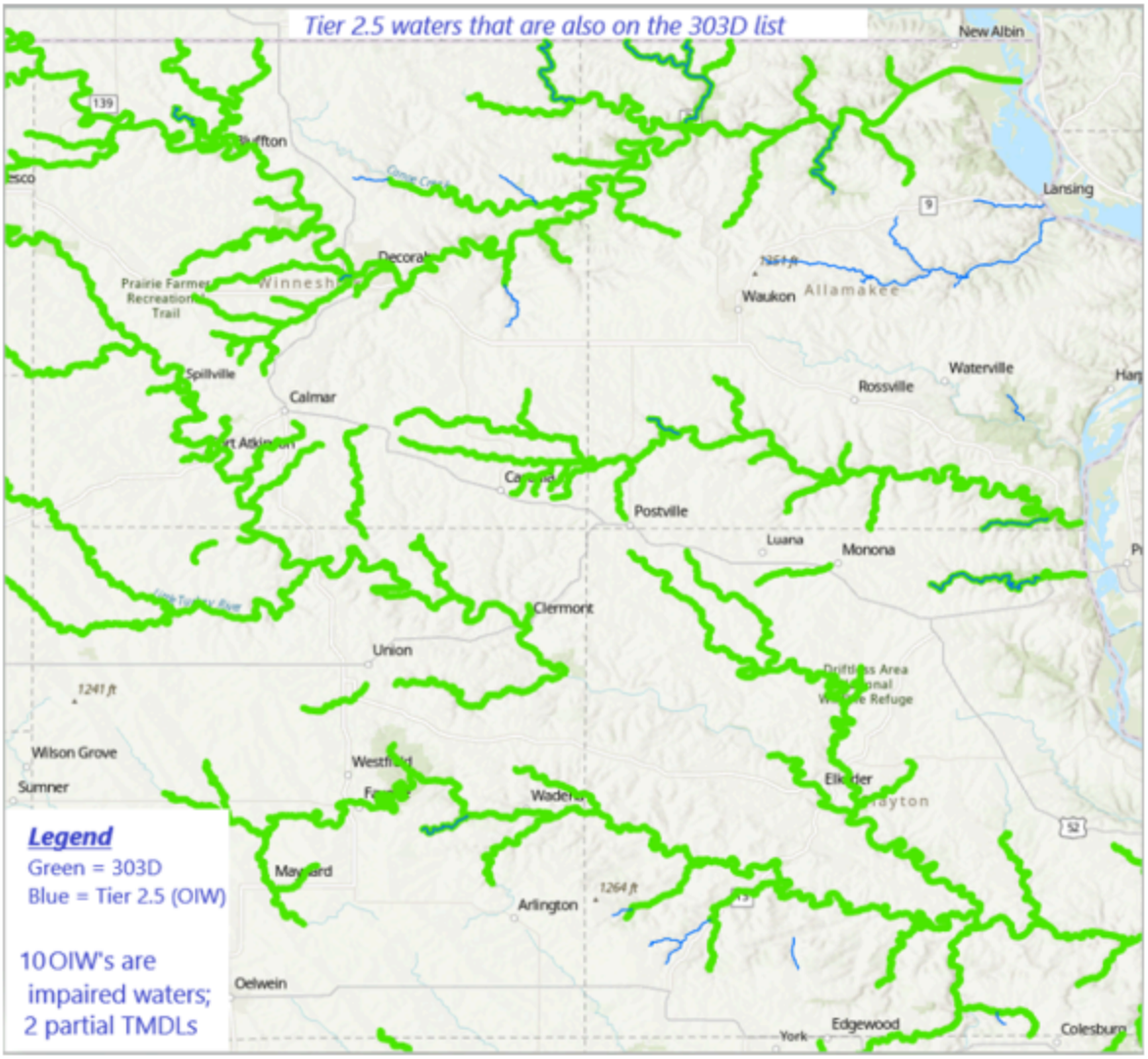
The Pristine-Polluted Nexus Exposed

Eleven of Iowa's Tier 2.5 waters, *more than one-third*, are also on the most recent or proposed 303D list of impaired waters. *How is this possible?* Upon inspection, many have been on the 303D list for years with no corrective action, no TMDL ever written. See the table and map below. Many were originally listed due to high levels of bacteria, ubiquitous in Iowa's manure drenched landscape, but several are also listed for biological impairment.

Snapshot of ADBnet Data for Impaired Outstanding Iowa Waters

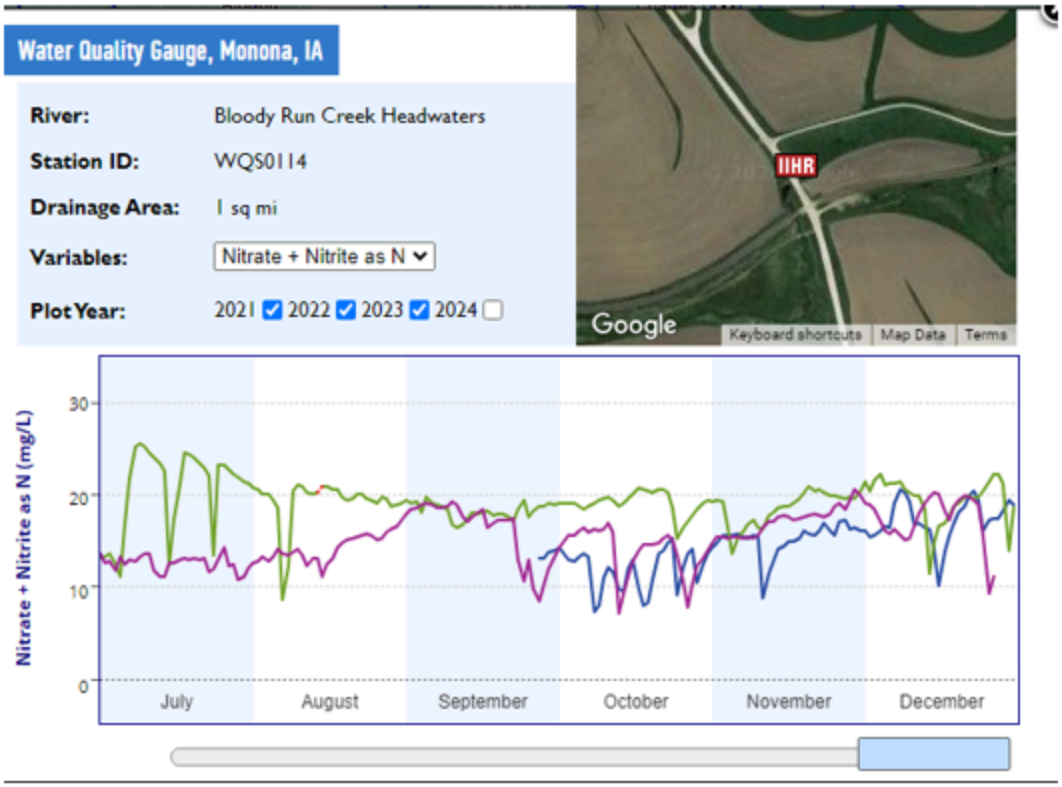
WATERBODY	SEG ID	still Impaired	cycle added to 303D list	TMDL	TMDL Priority Tier	Impairment - Bacteria	Low DO	Fish Kill	Loow BM-IBI	ADB Link
Bloody Run	IA 01-YEL-433	y	2010		3-4	y		y	y	https://programs.iowadnr.gov/adbnet/Segments/433
Dousman Creek	IA 01-YEL-438	y	2008	4a, 5a	4	y	y			https://programs.iowadnr.gov/adbnet/Segments/438
Duck Creek	IA 01-UIA-254	y	2014		3	y				https://programs.iowadnr.gov/adbnet/Segments/254
French Creek	IA 01-UIA-248	y	2008		3	y				https://programs.iowadnr.gov/adbnet/Segments/248
Grannis Creek	IA 01-VOL-322	y	2014		3	y				https://programs.iowadnr.gov/adbnet/Segments/322
Ludlow Creek	IA 01-YEL-446	y	2008	4a	4	y			y	https://programs.iowadnr.gov/adbnet/Segments/446
North Bear Creek	IA 01-UIA-255	y	2008		3	y				https://programs.iowadnr.gov/adbnet/Segments/255
Twin Springs Creek	IA 01-UIA-273	y	2012		3	y				https://programs.iowadnr.gov/adbnet/Segments/273
Unnamed Creek (aka Cold Water Cr.)	IA 01-UIA-280	y	2008		3	y				https://programs.iowadnr.gov/adbnet/Segments/280
Waterloo Creek	IA 01-UIA-253	y	2008		3-4	y			y	https://programs.iowadnr.gov/adbnet/Segments/253

*assessments prior to 2016 were developed under the previousUSEPA guidelines



Most recently Bloody Run Creek in Clayton County has failed to meet the benthic macroinvertebrate threshold and is now on the pending list as biologically impaired as well as bacteria impaired. In 2021-22 a massive cattle containment operation, 20 times larger than the average Clayton County cattle operation and seventh largest in the entire state, began operation in the headwaters of Bloody Run Creek. The massive 39-million-gallon manure storage basin was constructed by excavating an intermittent tributary of Bloody Run Creek. All the manure is spread in Paleozoic plateau karst areas, much of it in the Bloody Run Creek watershed.

Since the fall of 2022 a professional continuous monitoring station located in the headwaters of Bloody Run Creek has shown high and increasing nitrate levels, now averaging above 15 ppm. Nitrate presents a serious human health risk, both acute and chronic. Wells in the Bloody Run Creek watershed have repeatedly shown elevated nitrate levels above 5 ppm, and bacteria contamination. Nitrate is also toxic to both vertebrates (fish) and the benthic macroinvertebrates upon which they feed. Yet Iowa has not adopted nor has EPA required a nitrate standard protective of aquatic vertebrates and invertebrates. EPA must acknowledge this and take action.



Since the fall of 2021 professional benthic macroinvertebrate monitoring at the upper end of the OIW segment of Bloody Run Creek has shown declining BM-IBI levels (benthic macroinvertebrate -index of biotic integrity). All three annual datasets scored low enough for Bloody Run Creek to be assessed as biologically impaired.

Iowa's TMDL Priority Plan referenced previously awards no points for OIW's. There is not even the pretense that our Tier 2.5 waters, Outstanding Iowa Waters, should have a restoration priority or extra protection. EPA must acknowledge this and take action.

The ADBnet data shows that two of the 10 impaired OIW's have been part of TMDL's. Ludlow Creek, bacteria impaired, was covered under a TMDL developed for part of the Yellow River and tributaries in 2012, more than a decade ago. The table below shows that the TMDL failed to fix the Ludlow Creek bacteria impairment.

From AgUIA_ID 15030009 - Ludlow Creek

Sample Date	Project/Task	Fraction	Analyte	Result	Unit	Method	Medium
			Escherichia coli				
09/04/2008	YELLOWR	Total	Escherichia coli	560	MPN/100ml	9223-B	Water
05/19/2009	TMDL	Total	Escherichia coli	10	MPN/100ml	1603	Water
06/01/2009	TMDL	Total	Escherichia coli	1000	MPN/100ml	9223-B	Water
06/15/2009	TMDL	Total	Escherichia coli	280	MPN/100ml	9223-B	Water
06/29/2009	TMDL	Total	Escherichia coli	120	MPN/100ml	9223-B	Water
07/13/2009	TMDL	Total	Escherichia coli	1100	MPN/100ml	9223-B	Water
08/04/2009	TMDL	Total	Escherichia coli	75	MPN/100ml	9223-B	Water
08/17/2009	TMDL	Total	Escherichia coli	95	MPN/100ml	9223-B	Water
08/19/2009	TMDL	Total	Escherichia coli	38000	MPN/100ml	9223-B	Water
08/20/2009	TMDL	Total	Escherichia coli	51000	MPN/100ml	9223-B	Water
08/20/2009	TMDL	Total	Escherichia coli	130000	MPN/100ml	9223-B	Water
08/31/2009	TMDL	Total	Escherichia coli	140	MPN/100ml	9223-B	Water
09/17/2009	TMDL	Total	Escherichia coli	470	MPN/100ml	9223-B	Water

The TMDL failed miserably, and monitoring was ended after two years. If there is any data more recent than 2009, I have not been able to find it.

Other Concerns That Must be Mentioned

It seems that Iowa fails to consider all readily available data when preparing the 303D list. While the State arguably may apply restrictions on data used in the preparation of the 305B report, the State and/or EPA must consider all readily available data in preparing the 303D list. Furthermore, the State and/or EPA must reach out to find that data, not simply react if data is sent to them. For example, the Isaak Walton League has the longest running volunteer water monitoring program in the country, Save Our Streams, including a robust program in Iowa. That data is publicly available at https://www.cleanwaterhub.org/ . The hub also includes most of the IOWATER volunteer data acquired at hundreds of sites in Iowa between 2000 and 2016 when the program was defunded by the Iowa legislature. Conversations lead me to believe that the Clean Water Hub data for Iowa streams and lakes was not reviewed as part of the 2024 303D list preparation.

Another source of water quality data is the past and continuing work of Iowa RC&D offices. These offices were previously funded through the NRCS; many are now privately funded but still do water quality assessments. That data is of the highest quality.

It must be noted that in 1998 the Iowa Legislature established the IOWATER volunteer water monitoring program, funded and administered through the DNR. More than a thousand trained volunteers participated in the collection of chemical, physical, and biological data at hundreds of sites throughout Iowa, including the "Coldwater Snapshot" of more than 80 sites in the Paleozoic plateau portion of NE Iowa, the location of 30 of our Tier 2.5 waters. In 2011 the Iowa legislature imposed restrictions on the use of volunteer data for most regulatory or enforcement purposes. However, compromise language allowed for volunteer data to be used if it was acquired under a state-approved Quality Assurance Project Plan (QAPP). DNR's IOWATER group were to administer the QAPP certification program. However, just a few years later the legislature defunded the IOWATER program. The program is gone, including the QAPP certification part of the program. Volunteer water monitoring groups were left in limbo. Many have now aligned with the IKES Save Our Streams program.

Conclusions

Iowa's protocol for listing and delisting stream segments from the 303D list is problematic. For more detail, I refer you to the detailed comments just submitted by the Iowa Environmental Council.

Iowa's 'prioritization' of waterbodies for TMDL's is problematic. Iowa's Outstanding Iowa Waters, (EPA Tier 2.5 waters) are not given any priority points and continue to languish, impaired, without relief in sight.

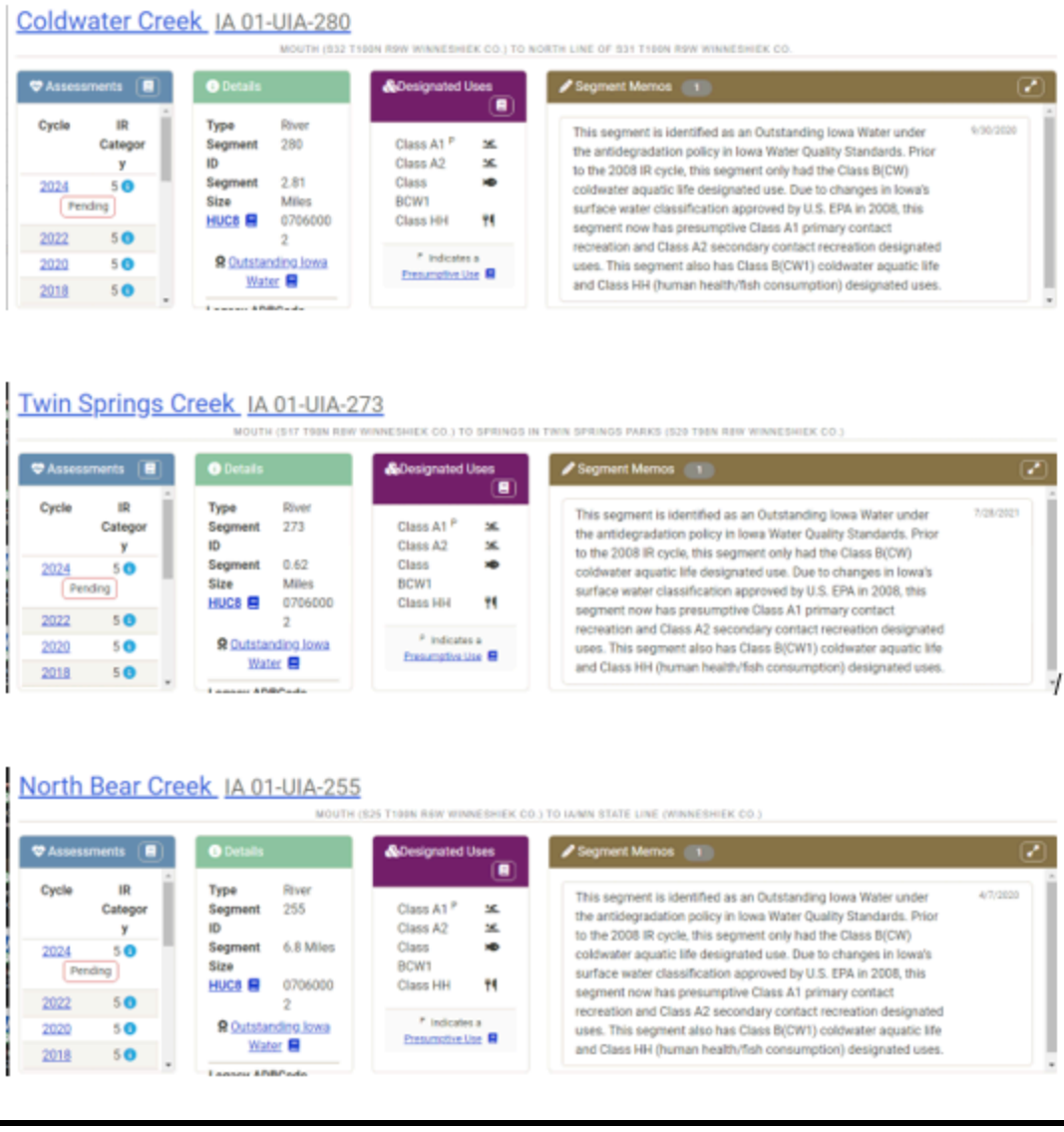
Iowa's TMDL creation and implementation, with EPA complicity, is extremely ineffective, without mandatory metrics to directly measure water quality improvements so that impairments are actually removed, and beneficial uses fully restored.

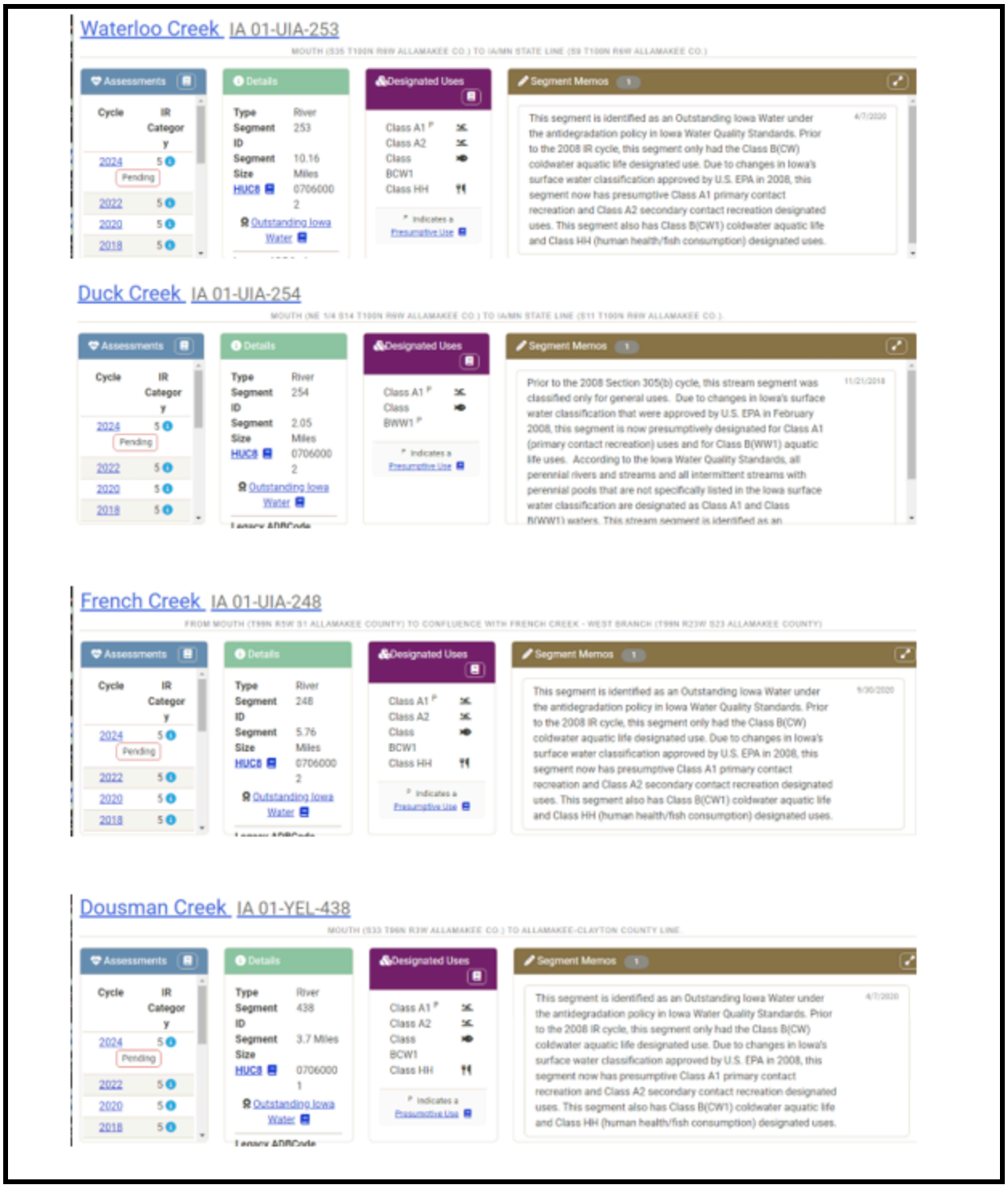
Respectfully submitted,

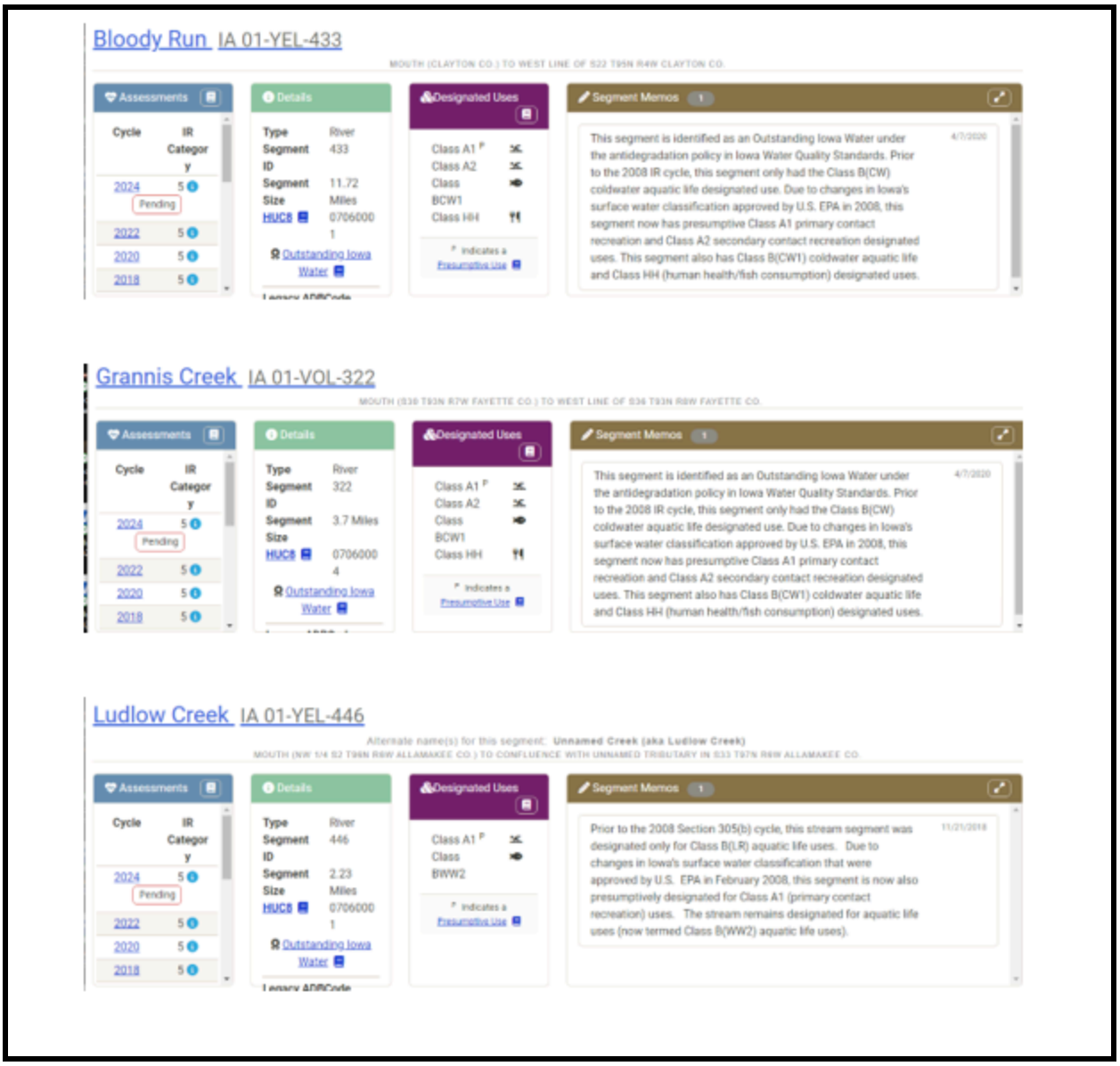
Steve Veysey
Protecting Outstanding Iowa Waters
919 Murray Drive
Ames, IA 50010

APPENDIX A. Screenshots of ADBnet Data for Impaired Outstanding Iowa Waters

Follow the links in the previous table to go directly to the ADBnet data.




Waterloo Creek IA 01-UIA-253
MOUTH (S35 T100N R8W ALLAMAKEE CO.) TO IA/MN STATE LINE (S9 T100N R8W ALLAMAKEE CO.)
Assessments
Cycle
IR Category
2024 5 Pending
2022 5
2020 5
2018 5
Details
Type River
Segment ID 253
Segment Size 10.16 Miles
HUC8 07060002
Outstanding Iowa Water
Designated Uses
Class A1 P
Class A2
Class BCW1
Class HH
P Indicates a Presumptive Use
Segment Memos 1
This segment is identified as an Outstanding Iowa Water under the antidegradation policy in Iowa Water Quality Standards. Prior to the 2008 IR cycle, this segment only had the Class B(CW) coldwater aquatic life designated use. Due to changes in Iowa's surface water classification approved by U.S. EPA in 2008, this segment now has presumptive Class A1 primary contact recreation and Class A2 secondary contact recreation designated uses. This segment also has Class B(CW1) coldwater aquatic life and Class HH (human health/fish consumption) designated uses.
4/7/2020
Duck Creek IA 01-UIA-254
MOUTH (NE 1/4 S14 T100N R8W ALLAMAKEE CO.) TO IA/MN STATE LINE (S11 T100N R8W ALLAMAKEE CO.)
Assessments
Cycle
IR Category
2024 5 Pending
2022 5
2020 5
2018 5
Details
Type River
Segment ID 254
Segment Size 2.05 Miles
HUC8 07060002
Outstanding Iowa Water
Designated Uses
Class A1 P
Class BWW1 P
P Indicates a Presumptive Use
Segment Memos 1
Prior to the 2008 Section 305(b) cycle, this stream segment was classified only for general uses. Due to changes in Iowa's surface water classification that were approved by U.S. EPA in February 2008, this segment is now presumptively designated for Class A1 (primary contact recreation) uses and for Class B(WW1) aquatic life uses. According to the Iowa Water Quality Standards, all perennial rivers and streams and all intermittent streams with perennial pools that are not specifically listed in the Iowa surface water classification are designated as Class A1 and Class B(WW1) waters. This stream segment is identified as an
11/21/2018
French Creek IA 01-UIA-248
FROM MOUTH (T99N R5W S1 ALLAMAKEE COUNTY) TO CONFLUENCE WITH FRENCH CREEK - WEST BRANCH (T99N R23W S23 ALLAMAKEE COUNTY)
Assessments
Cycle
IR Category
2024 5 Pending
2022 5
2020 5
2018 5
Details
Type River
Segment ID 248
Segment Size 5.76 Miles
HUC8 07060002
Outstanding Iowa Water
Designated Uses
Class A1 P
Class A2
Class BCW1
Class HH
P Indicates a Presumptive Use
Segment Memos 1
This segment is identified as an Outstanding Iowa Water under the antidegradation policy in Iowa Water Quality Standards. Prior to the 2008 IR cycle, this segment only had the Class B(CW) coldwater aquatic life designated use. Due to changes in Iowa's surface water classification approved by U.S. EPA in 2008, this segment now has presumptive Class A1 primary contact recreation and Class A2 secondary contact recreation designated uses. This segment also has Class B(CW1) coldwater aquatic life and Class HH (human health/fish consumption) designated uses.
9/30/2020
Dousman Creek IA 01-YEL-438
MOUTH (S33 T96N R3W ALLAMAKEE CO.) TO ALLAMAKEE-CLAYTON COUNTY LINE
Assessments
Cycle
IR Category
2024 5 Pending
2022 5
2020 5
2018 5
Details
Type River
Segment ID 438
Segment Size 3.7 Miles
HUC8 07060001
Outstanding Iowa Water
Designated Uses
Class A1 P
Class A2
Class BCW1
Class HH
P Indicates a Presumptive Use
Segment Memos 1
This segment is identified as an Outstanding Iowa Water under the antidegradation policy in Iowa Water Quality Standards. Prior to the 2008 IR cycle, this segment only had the Class B(CW) coldwater aquatic life designated use. Due to changes in Iowa's surface water classification approved by U.S. EPA in 2008, this segment now has presumptive Class A1 primary contact recreation and Class A2 secondary contact recreation designated uses. This segment also has Class B(CW1) coldwater aquatic life and Class HH (human health/fish consumption) designated uses.
4/7/2020



DNR Response:
The DNR thanks Steve Veysey, private citizen, for commenting on the draft 2024 Section 303(d) List and IR methodology.

- **Response to: Comments on TMDL vision, priority, and OIW response**

Iowa's TMDL Vision 2024 includes numerous priority parameters focused on partnerships with implementation partners, impairments with high social impact (such as recreational impairments), and efficiency. There are significant data requirements to complete TMDLs, which takes time to coordinate and collect. Currently, new sampling for TMDL development is taking place on roughly 30 segments (including rivers and beaches) with recreational impairments, with plans to expand this sampling to the Upper Iowa River and Turkey River basins in 2026 or 2027 pending funding and partner participation. These two basins cover roughly half of the recreational impairments on OIWs. For further information about Iowa's TMDL Vision 2024 and the priority structure, please refer to the document 'Iowa's TMDL Vision 2024' on the WQIP webpage

(https://www.iowadnr.gov/Environmental-Protection/Water-Quality/Watershed-Improvement/Water-Improvement-Plans).

- **Response to: Comments on Aquatic Life Use nitrate standard**

The DNR is just starting its 2024-2026 Triennial Review. As part of this review, the DNR is evaluating various criteria for potential future rulemaking and will be holding a public hearing for comments on topic selection later this year. Currently, EPA has not established recommended aquatic life criteria for nitrate. Any future recommendations from EPA will be reviewed by the DNR for consideration for rulemaking.

- **Response to: Comments on readily available data / credible data**

By IR methodology, the 2024 cycle was required to use credible, readily available data collected between 2020-2022 for rivers and 2018-2022 for lakes. Additionally, in Iowa, volunteer monitoring data must meet Iowa's credible data law (2001 Iowa Code, Section 455B.194, subsection 1) for 303(d) listing purposes. This includes Quality Assurance Project Plans (QAPPs), field audits, samples analyzed by certified laboratories using certified methods, etc. While IOWATER QAPP's were developed and signed in the past, the majority of the QAPPs utilized test strip sampling methods that do not meet the accuracy requirements for performing clean water act assessments. The information on the cleanwaterhub.org appears to be generated by test strip data which does not meet the requirements for assessment. Additionally, the current volunteer monitoring data stored in the cleanwaterhub.org websites database were not collected under any DNR-approved QAPP and therefore the data cannot be used for impairing water and adding them to the 303(d) list.

With respect to the water quality data collected by Iowa RC&D offices, data collected would need to be collected under a DNR or appropriate agency approved QAPP for it to be used for impairing water and adding them to the 303(d) list. In the future IR's, the DNR plans to reach out to Iowa RC&D offices to see if they would like to provide data that may be applicable to use as part of Iowa WINOFI (Waters in need of further investigation) list.

- **Iowa Protocols for Listing and Delisting**

Each waterbody segment was judged independently during the 2024 IR assessment timeframe. See Table 3 on Page 14 of the 2024 IR methodology for the timeframe requirements for all the types of data. DNR analyzed all readily available data from each segment and determined if the designated uses of each segment were fully supported, not supported, or could not be assessed. The results of the individual designated use assessments dictated the overall category of the segment.

DNR changed the 2024 IR Methodology to a one cycle to impair and one cycle to delist to better utilize data produced by two new DNR-lead monitoring programs, the supplemental streams and extra lakes program. Data from these programs are collected on an intermittent or rotational basis. If the DNR continued to use the two consecutive cycles to the delist procedure, it would be nearly impossible to delist impairments utilizing data from these programs. By moving to a delisting procedure that requires data from only one cycle, the DNR can effectively use all available data and redirect TMDL, lake restoration, and other watershed improvement resources to waters in a more effective manner. In

review of other states 303(d) delisting methodologies that have programs where data is collected on a rotational basis and from other surrounding states, the practice of delisting a parameter once the new data shows to be fully supported is widely accepted.

The DNR retains the ability to relist a currently impaired waterbody based on best professional judgment, notably when data shows there is a risk the water will be impaired in the future and sufficient data and resources are available to develop a TMDL. DNR IR staff work very closely with DNR TMDL staff during the IR process to avoid miscommunication related to the creation of TMDLs.

General water quality emails and letters received:
The DNR received the following emails on general water quality during the public comment period. The DNR acknowledges receipt of the comments; however, these comments did not directly apply to Iowa's Draft 2024 Section 303(d) List or IR methodology, or do not require further response.

COMMENTER 5: John Knepper, private citizen
Date Received: March 27, 2024 & April 1, 2024, emails
Comment:

Noah Poppelreiter Street stormwater , soil erosion and watershed violations
1 message

John Knepper <johnknepper47@gmail.com> Wed, Mar 27, 2024 at 7:00 PM
To: "ircomment@dnr.iowa.gov" <ircomment@dnr.iowa.gov>

RE : TH article by Andy Piper 3- 27- 2024 Waterways Impaired

https://youtu.be/27GwLCd5pa0

Please watch my YouTube video and read the comments of ongoing Street Stormwater violations , serious soil erosion damage to my farm field and environmental damage to the Protected Catfish Creek Watershed .
The EPA , DNR and City of Dubuque allowed this large subdivision , Timber Hyrst , next to my farm to send their high volume and fast velocity street stormwater into my farm field . This stormwater is in violation of the Iowa Drainage Act , The Clean Water Act , SWPPP and NPDES Requirements , Dubuque Counties Soil Erosion and Stormwater Ordinance , MS4 Rules and Sediment and Erosion Control rules . Absolutely no stormwater controls were used, no rock checks , no sediment control or retention of any kind .
April 2018 KCRG TV came to my farm after hearing about the many violations and did a live interview with a City Official that showed no concern about the violations . Find it on the internet , Google my name (John Knepper) .
The EPA fined this subdivision $50,000 for the same violations that are still happening on my property . See EPA Docket No. CWA-07-2016-0033 . Shane Dodge with the Manchester DNR came to my farm to see the violations and said " It looks bad he said , but the DNR has no authority to stop stormwater or soil erosion violations or environmental damage to the Protected Catfish Creek Watershed . I also contacted the EPA and they said the same thing , "We don't care about these violations".
Government Officials I have contacted by email or letter that have failed to help or even care to stop these violations are City Manager , Michael Van Milligen , City Engineers Gus Psilhoyos , Bob Schiesl , Deron Muehring , EPA Official Glen Curtis , Dubuque Soil and Water Officials , Chuck Isenhart , Pam Jochum , Brent Groesch US Corps of Engineers , Kayla Lyon Manchester DNR , Norlin Mommsen R-DeWitt lawmaker , Matt Windschitl House Majority Leader on stormwater , Adam Hoffman , University of Dubuque , test water samples for the City , Aric Schmechel RCS (Natural Resource Conservation Service).
As one retired County Official told me " Good luck ,Government Officials protect each other , they are hypocrites . "
Please stop writing articles about the farmer causing these environmental problems and impaired waters when it's the Government Officials that fail to enforce their own stormwater and soil erosion laws .
At some point my property will have to be restored back to usable crop land like it was before the City , DNR and EPA was allowed to turn it into a useless stormwater ditch.
If nothing is done , many more 100's of tons of soil and debris will be washed out of this hillside and farm field and into the Protected Catfish Creek Watershed . Does anybody care ? Stop blaming the farmer .
Hope to hear from you .
John Knepper

Fwd: Working Buffers

1 message

John Knepper <johnknepper47@gmail.com> Mon, Apr 1, 2024 at 10:00 AM
To: ircomment@dnr.iowa.gov

---------- Forwarded message ---------
From: **John Knepper** <johnknepper47@gmail.com>
Date: Sat, Mar 16, 2024 at 7:32 PM
Subject: Working Buffers
To: <daryl@silt.org>

Daryl
I hope you received my YouTube video and watched the massive ongoing soil erosion destroying my farm field caused by the illegal street storm water and the environmental damage it must cause to the Protected Catfish Creek Watershed. Make sure you read all the comments people have made about this issue and how disgusted they are that Environmental Officials do not care about these stormwater and soil erosion violations in Dubuque . KCRG TV Has been to my farm several times to investigate these violations . You can watch and hear what they said by going to the Internet and Google my name . Why do our City , County , State ,and Federal Environment and Conservation Officials condemn anyone that violates these Stormwater and Soil Erosion rules but they protect the City of Dubuque when they commit these crimes ? .Why is everybody protecting the City ?

I will wait to make a decision about the Working Buffers you propose on my farm until something is done about the street stormwater soil erosion problem destroying my property . You being a SILT Official , Conservationist and Environmentalist must be outraged about the violations and environmental damage the City of Dubuque is committing .

I want to make the Dubuque City and County Officials aware I will not be responsible for injuries suffered if a child or person walking , biking or 4 wheeling through my property or a farm worker operating farm machinery should fall into this 10 to 12 foot deep stormwater ditch the City created on my property .

If the City wants to use a piece of my property for their street stormwater runoff and make it useless for farming then I will need to be compensated . Or they can install a storm pipe to stop the erosion . I will not do any " cost share " solutions to these problems as some Officials have suggested .

Please be SURE to tell me what you think about the City violating the EPA ,DNR Laws, The Iowa Drainage Laws , The Clean Water Act , SWPPP and NPDES Stormwater Rules ,The Dubuque County's own " Soil Erosion and Stormwater Ordinance " and MS4 Rules .

You are welcome to stop at my farm to discuss solutions to these environmental problems.

John Knepper

COMMENTER 6: Cameron Aker, private citizen
Date Received: April 4, 2024, email
Comment:

2024 305(b) Assessment Summary - Impaired Water
1 message

Cameron Aker <cameron.lee.aker@gmail.com> Thu, Apr 4, 2024 at 4:33 PM
To: IRcomment@dnr.iowa.gov

Hello,

I'm writing to express my concern about Iowa's impaired waters and the need to fully fund investigations and any remediations needed to bring these waters back to life.

As an outdoorsman and citizen of this great state, I use our waters every day of my life and the quality of them directly affect me.

Please fund any and all resources needed to bring our waters back to a sustainable and healthy environment.

Thank you,
Cameron Aker
Ames, IA