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Ref: 8WD-CWQ

SENT VIA EMAIL
DIGITAL READ RECEIPT REQUESTED

Mr. Peter Wax
Division of Water Quality
North Dakota Department of Environmental Quality
918 East Divide Avenue, 4th Floor
P.O. Box 1947
Bismarck, North Dakota 58501-1947

Re: EPA Comments on Triennial Review of North Dakota's Water Quality Standards

Dear Mr. Wax:

This letter provides comments of the U.S. Environmental Protection Agency for the public comment period on the triennial review of North Dakota's water quality standards (WQS). We offer the following recommendations for your consideration as you complete the triennial review.

In the last triennial review in 2018, the North Dakota Department of Environmental Quality (DEQ) focused on new and revised criteria including the adoption of 87 human health criteria for the protection of human health, the adoption of new narrative nutrient criteria, and the adoption of updated aquatic life criteria for cadmium. During the current triennial review, the DEQ is proposing to update aquatic life criteria for ammonia to reflect EPA's 304(a) recommendations, and is proposing to adopt selenium fish flesh criteria. The EPA encourages North Dakota to continue to make progress towards improving its WQS and offer the following recommendations for the state's consideration.

New or Updated Section 304(a) Criteria Recommendations

Since North Dakota's last triennial review, the EPA has published recommendations for aluminum aquatic life criteria[1] and for human health recreational ambient water quality criteria/swimming

[1] See www.epa.gov/sites/production/files/2018-12/documents/aluminum-final-national-recommended-awqc.pdf

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advisories for two cyanotoxins: microcystins and cylindrospermopsin.[2] [3] The EPA WQS regulation requires states to provide an explanation if not adopting new or revised criteria for parameters for which the EPA has published new or updated Clean Water Act (CWA) section 304(a) criteria recommendations (40 CFR § 131.20(a)).

Selenium criteria

DEQ proposes to adopt EPA's recommended criterion for selenium in fish flesh without EPA's accompanying recommended water column values. The proposed approach of retaining the state's existing selenium water column values and linking those to EPA's recommended fish tissue values would not be defensible and protective, unless the state can provide data and information to explain why it is appropriate to link the existing water column values with our national recommended fish tissue values. EPA understands that state-specific data may indicate that water column values different from EPA's national recommendations may be appropriate for the state, and therefore encourages the state to continue to work on revisions to its selenium criterion and is willing to assist and help advise DEQ on conducting future studies and sampling design."

Downstream Use Protection

We recommend that North Dakota include language in the water quality standards to address downstream use protection. Pursuant to sections 303 and 101(a) of the Clean Water Act, 40 CFR § 131.10(b) requires that "In designating uses of a water body and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters." This provision requires states and authorized tribes to consider and ensure the attainment and maintenance of downstream[4][HYPERLINK "https://outlook.office365.com/mail/inbox/id/AAQkAGJjNmRjNGYwLWNjZmEtNGQzYS1iNGY5LTUzMDEwZjRmZTQ1NAAQAK0ebBvf00W2r8O56mNHVas%3D" \l "_ftn1"] WQS during the establishment of designated uses and water quality criteria in upstream[5][HYPERLINK "https://outlook.office365.com/mail/inbox/id/AAQkAGJjNmRjNGYwLWNjZmEtNGQzYS1iNGY5LTUzMDEwZjRmZTQ1NAAQAK0ebBvf00W2r8O56mNHVas%3D" \l "_ftn2"] waters. In 2014, the EPA developed Frequently Asked Questions and a Decision Tool that includes customizable templates for narrative downstream protection criteria to assist states/tribes with this effort.[6][HYPERLINK

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[2] See [HYPERLINK "http://www.epa.gov/sites/production/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf"]

[3] Please note that the EPA also published national drinking water health advisories for these cyanotoxins. Fact sheets and FAQs are available. See [HYPERLINK "http://www.epa.gov/ground-water-and-drinking-water/harmful-algal-blooms-and-cyanotoxins-drinking-water-factsheets-and"]

[4] The EPA interprets the term "downstream" to include both intra- and interstate waters, as well as waters that form a boundary between adjacent jurisdictions. See EPA "Protection of Downstream Waters in Water Quality Standards: Frequently Asked Questions" (June 2014) page 1, FN 1 available at: [HYPERLINK "http://www.epa.gov/sites/production/files/2018-10/documents/protection-downstream-wqs-faqs.pdf"]

[5] The term "upstream" includes "instream" when referring to the water body(ies) for which states/tribes are developing designated uses/water quality criteria that will ensure the attainment and maintenance of downstream WQS. See id. at page 1, FN 2.

[6] See https://www.epa.gov/wqs-tech/decision-tool-downstream-water-quality-protection

"https://outlook.office365.com/mail/inbox/id/AAQkAGJjNmRjNGYwLWNjZmEtNGQzYS1iNGY5LTUzMDEwZjRmZTQ1NAAQAK0ebBvf00W2r8O56mNHVas%3D" \l "_ftn3"] These templates may be used to develop a narrative provision that applies to all waters in the state as well as a variety of tailored narratives that can be developed to address specific water bodies, pollutants, and/or water body types.

Domestic Drinking Water Designation

In Table 1, under the heading "Substance or Characteristic," the designation for "b" of "domestic drinking water" is somewhat unclear. We recommend that the reference be clarified to explain what it is referring to as related to the limits listed in Table 1. Such clarification would be helpful to understand implementation for these limits in permits.

Table 2 – Water Quality Criteria

We recommend clarifying footnote 1 at the bottom of p. 16. As written, it is confusing. It reads: "Except for the aquatic life values for metals, the values given in this appendix refer to the total (dissolved plus suspended) amount of each substance. For the aquatic life values for metals, the values refer to the total recoverable method for ambient metals analyses." EPA recommends that aquatic life criteria be implemented with the dissolved fraction with a few exceptions, for example aluminum.

- If it is North Dakota's intent to implement most aquatic life metals criteria as a dissolved fraction, footnote 1 could read "Except for the aquatic life values for metals, the values given in this appendix refer to the total (dissolved plus suspended) amount of each substance. For the aquatic life values for metals, the values refer to the ~~total recoverable method for ambient metals analyses~~ dissolved fraction unless otherwise noted."
- If it is North Dakota's intent to implement most aquatic life metals criteria as a total fraction, footnote 1 could read "~~Except for the aquatic life values for metals, t~~The values given in this appendix refer to the total (dissolved plus suspended) amount of each substance unless otherwise noted. ~~For the aquatic life values for metals, the values refer to the total recoverable method for ambient metals analyses.~~"

Additionally, the footnote's parenthetical definition of total metals may need clarification.

We note that North Dakota's proposed revisions to the hardness-based aquatic life metals criteria do not include conversion factors found in [HYPERLINK "https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table" \l "a" \t "_blank"]. These conversion factors convert the total fraction of the metals to the dissolved fraction of the metals, consistent with EPA recommendation. If it is North Dakota's intent to implement its aquatic life metals criteria as a dissolved fraction, we recommend adding the metal-specific conversion factor for each metal.

We thank the Division of Water Quality for its efforts to maintain and improve water quality in North Dakota. Please note that our positions are preliminary in nature and should not be interpreted as final EPA decisions under CWA 303(c). If you have any questions, please contact Holly Wirick of my staff at (303) 312-6238 or [HYPERLINK "mailto:wirick.holiday@epa.gov"].

Sincerely,

Dr. Andrew Todd, Chief
Water Quality Section