



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Four Penn Center
1600 John F Kennedy Blvd
Philadelphia, Pennsylvania 19103-2852

May 4, 2022

Ms. Lisa Vest, Hearing Officer
DNREC – Office of the Secretary
89 Kings Highway
Dover, DE 19901

Dear Ms. Vest:

The U.S. Environmental Protection Agency (EPA), Region III has reviewed proposed amendments to Delaware's "7 DE Admin. Code 7401 Surface Water Quality Standards" and is providing these comments during the public comment period.

The proposed revisions to Delaware's Water Quality Standards (WQS) regulation are being considered for public review and comment as part of the triennial review process required by the Clean Water Act (CWA) Section 303(c), as was announced for public review and comment in the *Delaware Register of Regulations* on March 1, 2022. The purpose of this letter is to provide EPA's comments on the proposed revisions to Delaware's WQS. Please note that the comments and recommendations contained in this letter are strictly for the Department of Natural Resources and Environmental Control's (DNREC) consideration and do not constitute approval or disapproval decisions under CWA §303(c), or a determination by the EPA Administrator under CWA §303(c)(4)(B) and 40 CFR §131.22(b) that revised or new WQS are necessary to meet the requirements of the Act. This letter includes comments on the proposed revisions, as well as additional revisions EPA would recommend Delaware consider adopting.

In its proposed WQS revisions during this triennial review, EPA is pleased that Delaware is updating the majority of its current human health criteria; adopting 10 additional human health criteria; adopting revised aquatic life criteria for cadmium and ammonia; and, adopting new nonylphenol criteria for the protection of aquatic life. These revisions are consistent with EPA recommendations.

Delaware should also consider revision of its "Organism Only" and "Water + Organism" human health criteria for the following to be consistent with national recommended water quality criteria:

- Update of Human Health Ambient Water Quality Criteria: Benzo(a)anthracene [EPA 820-R-15-011]
- Update of Human Health Ambient Water Quality Criteria: Benzo(a)pyrene [EPA 820-R-15-012]
- Update of Human Health Ambient Water Quality Criteria: Benzo(b)fluoranthene [EPA 820-R-15-013]
- Update of Human Health Ambient Water Quality Criteria: Benzo(k)fluoranthene [EPA 820-R-15-014]



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Delaware should also consider adoption of human health criteria consistent with national recommended water quality criteria for the following:

- Update of Human Health Ambient Water Quality Criteria: Dibenz(a,h)anthracene [EPA 820-R-15-032]

Delaware should also consider adopting the “Organism Only” component of the national recommended water quality criteria for the following:

- Update of Human Health Ambient Water Quality Criteria: Chlorophenoxy Herbicide (2,4-D) [EPA 820-R-15-028]
- Update of Human Health Ambient Water Quality Criteria: Chlorophenoxy Herbicide (2,4,5-TP. Silvex) [EPA 820-R-15-029]

EPA recently revised its aquatic life national recommended criteria for aluminum and selenium. Thus, Delaware should also consider the following documents and revise these aquatic life criteria accordingly:

- Aquatic Life Ambient Water Quality Criteria for Aluminum (2018) [EPA-822-R-18-001]
- Aquatic Life Ambient Water Quality Criteria for Selenium – Freshwater (2021 Revision) [EPA-822-R-21-006]

EPA notes that Delaware is proposing to revise its WQS by deleting human health criteria for fluoride, silver, lead and total trihalomethanes. Federal regulations require states to “adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use.” 40 CFR §131.11(a)(1). State water quality criteria can be based on EPA’s §304(a) guidance or other scientifically defensible methods. EPA acknowledges that there are no national recommended water quality criteria for the protection of human health for these parameters. However, as required by 40 CFR §131.20, DNREC must provide a rationale for why these revisions are appropriate, with any supporting analyses.

In addition to the above criteria, EPA encourages DNREC to consider adoption of recommended recreational water quality criteria or swimming advisories for cyanotoxins. EPA released national recommendations in 2019 for the Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories (AWQC/SA) for Microcystins Cylindrospermopsin (EPA 822-R-19-001). These recommendations are intended as guidance to states to consider when developing water quality standards. Alternatively, these recommendations can be used as the basis of swimming advisories for notification purposes in recreational waters to protect the public. Currently, Delaware does not have recreational water quality criteria for microcystins and cylindrospermopsin in place; therefore, EPA strongly recommends the adoption of these values for the protection of human health.

Finally, in August 2021, EPA published revised lakes and reservoirs nutrient criteria recommendations in the document *Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs* [EPA-822-R-21-005]. The 2021 document replaces the previous recommended numeric nutrient criteria published by EPA in 2000 and 2001, which were reference-based, ecoregion specific and derived using monitoring data available at the time. Scientific understanding of the relationships between nutrient concentrations and deleterious effects in lakes has increased since 2001, and standardized, high-quality data collected from lakes across the United States have become available. The 2021 document provides statistical



stressor-response models that generate numeric nutrient criteria based on national data and state risk management decisions that can also incorporate local and/or state data. These criteria can be refined to apply at any scale that the state chooses and can be derived to apply statewide, to certain ecoregions, and/or site-specifically. Further, these criteria derivations can take into account waterbody classes as determined by depth and/or ecoregion. Using this guidance, criteria can be derived to protect the following designated uses: aquatic life, human health-based recreational uses (e.g. swimming) and drinking water source waters.

EPA recommends that DNREC consider adopting, in the regulations proposed during this triennial review, nutrient criteria for the protection of lakes and reservoirs derived using the models found in the 2021 lakes and reservoirs nutrient criteria document described above. Alternately, Delaware could adopt the models, and then develop criteria using a performance-based approach. The models can be used to develop chlorophyll-a, total phosphorus and total nitrogen criteria. EPA would be happy to assist DNREC in the use of the models and criteria development.

EPA reminds DNREC that pursuant 40 CFR §131.20(a), if a state does not adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations, then the state shall provide an explanation when it submits the results of its triennial review to the Regional Administrator consistent with CWA section 303(c)(1) and the requirements in 40 CFR §131.20(c). DNREC must submit such an explanation for any criteria highlighted in this letter that is not adopted or revised.

EPA will be providing a copy of this letter to the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA Fisheries) so that the Services may identify any other recommendations for DNREC to consider. We will notify DNREC of any recommendations raised by the Services. This coordination with the Services will help to facilitate EPA's CWA Section 303(c) action and fulfillment of EPA's obligations under the Endangered Species Act once this rulemaking is finalized and submitted to EPA for review.

Thank you for this opportunity to provide comments on Delaware's triennial review of its water quality standards regulation. EPA would be happy to assist the State as necessary to complete this triennial review. If you have any questions concerning this letter, please contact me at (215)814-5737, or have your staff contact Natalie Sanchez Gonzalez at (215)814-2078 or Denise Hakowski at (215)814-5726.

Sincerely,

Gregory Voigt, Chief
Standards and TMDLs Section
Water Division

cc: Bhanu Paudel (DNREC)

