District of Columbia Water Quality Standards 2021 Triennial Review

Response to Comments for Proposed 2021 Water Quality Standards

DOEE received Comments from:

1. EPA
2. DC Water
3. Anacostia Riverkeeper, Clean Water Action, DC Appleseed Center for Law and Justice, DC Environmental Network, Earthjustice, National Parks Conservation Association, Nature Forward, Potomac Riverkeeper Network, Rock Creek Conservancy, The Nature Conservancy, Waterkeepers Chesapeake

October 2024

EPA

EPA Comment 1

EPA appreciates that DOEE is proposing to adopt aquatic life criteria for diazinon and to clarify that its mercury criteria for the protection of aquatic life is expressed as dissolved. These revisions are consistent with EPA recommendations under CWA Section 304(a).

DOEE Response 1

Comment noted. No edits required.

EPA Comment 2

EPA generally agrees with DOEE's proposal to identify numeric equivalents for ambient turbidity. EPA agrees that identification of such numeric equivalents will facilitate implementation of the turbidity criterion, which is expressed in terms of a turbidity increase greater than 20 NTU above ambient levels, but does not define ambient levels. There are two proposed numeric equivalents for ambient, one each for the two ecoregions in D.C. The derivation of the numeric equivalents for ambient used an EPA method and many years of turbidity data from D.C. surface waters.

DOEE Response 2

Comment noted. No edits required.

EPA Comment 3

In reviewing the proposed WQS revisions, EPA has documented two typographical errors that DOEE may want to review. First, Footnote h to Table 2 refers to Tables 2b and 2c for the numeric ammonia criteria values that account for temperature and pH. This footnote should refer to Tables 2c and 2d. Second, both mercury and hexavalent chromium are missing from Subsection 1105.10. In addition to the constituents listed, the criteria for mercury and hexavalent chromium should be multiplied by a conversion factor. Mercury and hexavalent chromium are correctly presented in Table 2 but not in Subsection 1105.10.

DOEE Response 3

Tables have been correctly relabeled. The typographical errors in the table numbers have been corrected.

DOEE revised the incorrect table references in footnotes g and h to Table 2. Table 2e was incorrectly labeled as such and is now corrected to be Table 2c. Footnote g incorrectly referenced Table 2e when the correct reference is Table 2c.

Footnote h(b) to Table 2 incorrectly referenced Tables 2b and 2c. The correct references are Tables 2d and 2e. Table 2c was incorrectly labeled as such and is now corrected to be Table 2d. Table 2d was incorrectly labeled as such and is now corrected to be Table 2e.

EPA Comment 4

In addition, EPA reminds DOEE that pursuant to 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 since its most recent triennial review, 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). DOEE must submit such an explanation for any criteria identified in this letter that

is not adopted or revised. The only new 304(a) criteria recommendations published by EPA since DOEE's most recent triennial review are the 2021 lakes and reservoirs nutrient criteria.

EPA published revised lakes and reservoirs nutrient criteria recommendations in 2021 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 DOEE consider adopting 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, DOEE 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 pleased to assist DOEE in the use of the models and criteria development.

DOEE Response 4

DOEE will review EPA's recommended criteria in the Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs [EPA-822-R-21-005] for consideration in a future triennial review.

EPA Comment 5

In addition, EPA encourages DOEE to consider adoption of the following 304(a) criteria recommendations for the protection of human health:

- EPA published its 2012 Recreational Water Quality Criteria [EPA 820-F-12-058], which are intended to protect human health in waters designated for primary contact recreation. EPA strongly recommends DOEE consider revisions to its *E. coli* criteria to be consistent with EPA's 2012 recommendations. This revision provides two sets of numeric concentration thresholds (magnitude, duration, and frequency) for two bacterial indicators, either of which would be protective of a primary contact recreation designated use. DOEE's existing criteria, which were adopted in 2008, only have one of the two recommended criteria components and therefore, would benefit from full adoption of EPA's 2012 recommendations in order to protect human health.

- EPA released national recommendations in 2019 for the Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories (AWQC/SA) for Microcystins and 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, the District 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.

DOEE Response 5

DOEE will continue to review EPA's recommended criteria in the 2012 Recreational Water Quality Criteria [EPA 820-F-12-058] and the Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories (AWQC/SA) for Microcystins and Cylindrospermopsin [EPA 822-R-19-001] for consideration in a future triennial review.

EPA Comment 6

Further, EPA recommends that DOEE consider revision of its aquatic life criteria for the following to be consistent with 304(a) criteria recommendations:

- Aquatic Life Ambient Water Quality Criteria for Aluminum (2018) [EPA-822-R-18-001]
- Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater [EPA 822-R-13-001]
- Aquatic Life Ambient Water Quality Criteria for Copper – Freshwater (2007 Revision) [EPA-822-R-07-001]
- Aquatic Life Ambient Water Quality Criteria for Selenium – Freshwater (2021 Revision) [EPA-822-R-21-006]

DOEE Response 6

DOEE will continue to review EPA's recommended criteria and will consider revising the Aquatic Life Ambient Water Quality Criteria for Aluminum (2018) [EPA-822-R-18-001], Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater [EPA 822-R-13-001], Aquatic Life Ambient Water Quality Criteria for Copper – Freshwater (2007 Revision) [EPA-822-R-07-001], and Aquatic Life Ambient Water Quality Criteria for Selenium – Freshwater (2021 Revision) [EPA-822-R-21-006] in a future triennial review.

EPA Comment 7

> EPA will be providing a copy of this letter to the U.S. Fish and Wildlife Service and National Marine Fisheries Service so that the Services may identify any other recommendations for DOEE to consider. We will notify DOEE 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.

DOEE Response 7

Comment noted. DOEE is pleased to assist EPA in meeting this commitment.

DC Water

DC Water Comment 1

1. Turbidity

   The current water quality standards provide for a "Turbidity Increase above Ambient" of 20 nephelometric turbidity units (NTU) for all receiving water classes. The triennial review proposes to define ambient turbidity in a new footnote "f" as follows:

   - 6 NTU for the Potomac River east of the Theodore Roosevelt Bridge and Anacostia River and its tributaries (Coastal Plain)
   - 1 NTU for the Potomac River northwest of the Theodore Roosevelt Bridge and its tributaries, and Rock Creek (Piedmont)

   Our interpretation of the above is that the resulting water quality standard is the new ambient background plus the increment in the standard as follows:

   - Coastal Plain: 6 + 20 = 26 NTU
   - Piedmont: 1 + 20 = 21 NTU

The socio-economic, institutional, technological, and environmental (SITE) study that accompanies the proposed revision indicates the definition of ambient conditions was based on a statistical review of historical data, which are summarized in the SITE document as shown in table below:

Tributary	Region	NTU Average	NTU for Given Percentile				
			10th	25th	50th	75th	90th
Mainstem	Coastal Plain	19.7	4.9	7.7	12.4	20.0	35.0
	Peidmont	14.5	1.5	3.0	5.6	11.8	25.0
Tributary	Coastal Plain	15.8	0.7	2.8	5.3	12.6	29.8
	Peidmont	5.5	0	0.2	0.5	2.4	7.9

The following are comments:

- Actual ambient levels in the data set are significantly higher than the proposed ambient levels in the standard. As an example, the 25th percentile in the data for the Mainstem, Coastal Plain is 7.7 NTU, whereas the proposed ambient background is 6 NTU. The proposed ambient turbidity is exceeded more than 25% of the time. The actual ambient is *double* the proposed ambient standard more than half the time (12.4 NTU actual vs 6 NTU ambient at 50th percentile).

DOEE Response 8

Below is the detailed methodology for how to calculate the ambient numeric equivalent. This information can also be found in the District's 2021 Socioeconomic, Institutional, Technological, and Environmental (SITE) Study. The turbidity section in the SITE Study, including the Tableau charts linked there, will be updated to reduce misinterpretation.

DOEE consulted with EPA to determine how to calculate ambient for turbidity for District surface waters. As advised, DOEE used EPA's recommended methodology found in EPA's guidance document, "Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion IX (EPA 822-B-00-019)."

The District is located within two ecoregions, the coastal plain and the piedmont. EPA's methodology recommends that "Because some parts of the country have naturally higher soil and parent material enrichment, and different precipitation regimes, the application of the criterion development process has to be adjusted by region." (EPA, Page 3).

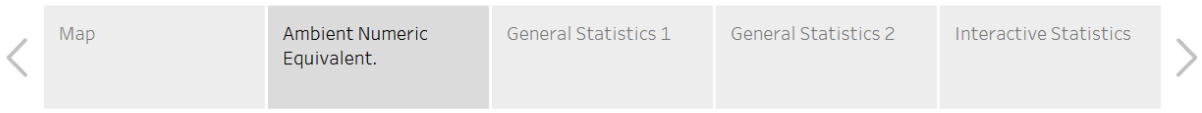
To find ambient turbidity in the District's waters, EPA recommends using reference streams. The District does not have reference streams, as all 39 miles of surface waters in the District are impaired (DOEE, 2020, Integrated Report). In absence of reference streams, EPA states "When reference streams are not identified, the second method is to determine the lower 25th percentile of the population of all streams within a region." (EPA, Page 11).

To calculate this, DOEE took 20 years of data for turbidity and performed an analysis to identify outliers. "Values greater than 41 NTU were identified as outliers. Approximately seven percent

(7%) of the data set were identified as outliers. Rather than delete outliers, DOEE kept outliers in the data set, but censored data greater than 800 NTU. 800 NTU is an impossibly high turbidity value and values greater than this represents one-tenth of one percent (0.1%) of the data set." (SITE, Page 9). The main stems and their tributaries were grouped together per their ecoregion, coastal plain or piedmont. Statistical analyses to find the lower 25th percentile were then performed on the datasets for each ecoregion.

The 25th percentile of the District's waterbodies in the piedmont ecoregion were found to be 6.39 NTU, which is 6 NTU after rounding. The 25th percentile of the District's waterbodies in the coastal plain ecoregion were found to be 1.11 NTU, which is 1 NTU after rounding. The criteria remain "20 NTU above ambient."

The chart below has been renamed. The charts that are linked from the SITE document to Tableau have been renamed to reduce misinterpretations.



Turbidity (NTU) in District Waterbodies and Ecoregion

Region	Count of data	Avg.	10th per centile	25th per centile	50th per centile	75th per centile	90th per centile
Coastal Plain	9,066	18.99	3.64	6.39	11.01	20.00	35.00
Piedmont	2,284	11.82	0.20	1.11	4.40	10.00	20.00

To determine ambient for turbidity, DOEE followed established EPA methodology found in "Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion IX (EPA 822-B-00-019)." Ambient turbidity, which is the lower 25th percentile of the District's water bodies per ecoregion, were calculated to be 6.39 NTU, 6 NTU after rounding, for the Coastal Plain ecoregion and 1.11 NTU, 1 NTU after rounding, for the Piedmont ecoregion.

Please reference the District's 2021 Socioeconomic, Institutional, Technological, and Environmental (SITE) Study."

DC Water Comment 2

- Turbidity in all receiving waters increases substantially in wet weather. DC Water has observed this as part of in-stream post construction monitoring where TSS levels regularly increase from 1 to 5 mg/L in dry weather to more than 30 to 40 mg/L at the DC/MD boundary in the Anacostia River in wet weather. It appears the analyses of appropriate ambient conditions do not include a separate assessment for wet weather events.

DOEE Response 9

The turbidity criteria are "20 NTU above ambient." "Ambient" is defined in Section 1199.1 of the Water Quality Standards as "those conditions existing before or upstream of a source or incidence of pollution." Per the definition, ambient does not need a wet weather analysis.

Any discussion of TSS is outside of the scope of these proposed changes.

DC Water Comment 3

- The SITE document which analyzes impacts of the proposed changes states, "because the proposed revisions only modify existing water quality criteria, they are not expected to require the implementation of major new water or discharge management strategies". DC Water is responsible for discharges from the combined sewer system and Blue Plains Advanced Wastewater Treatment Plant. Discharges from the combined sewer system are being controlled, but not eliminated, via the Clean Rivers Project which is being implemented pursuant to a federal consent decree. Discharges from the combined sewer system will still occur, and EPA and the District have determined that these discharges comply with water quality standards, subject to post construction monitoring. The SITE document does not address changes to the CSO controls that may be required by establishing ambient levels at such low values and establishing ambient levels without considering the impact of wet weather events. The District of Columbia may also be impacted for similar reasons for discharges from the MS4 system, for which the District is responsible.

DOEE Response 10

DOEE is not proposing to rewrite the turbidity criteria, which was adopted in 1981, but clarify "ambient" with a numeric equivalent option. The criteria remain at 20 NTU above ambient. The intent of the ambient numeric equivalent is to provide clarification. The intent is for permit and certification writers of discharges from construction and dredging activities to have as an option 1) upstream and downstream ambient measurement for a water-dependent project (construction and dredging activities) or 2) ambient numeric equivalent in the appropriate ecoregion as the second option, whichever is situationally best. Historically, National Pollutant Discharge Elimination System (NPDES) permits, like the one that DC Water has, have used total suspended solids (TSS), not turbidity. TSS is outside of the scope of these proposed changes. Also, there are TMDLs for TSS and not for turbidity.

DC Water Comment 4

We recommend not establishing a fixed numeric ambient turbidity until an analysis of wet weather conditions separate from dry weather is performed and until the effects of such an analysis on the CSO program and the District's MS4 program are adequately considered in the SITE document. If that is not possible, then we recommend increasing the ambient background to a level that is consistent with the data set and indicating in footnote "f" that it applies to dry weather conditions only.

DOEE Response 11

See Response 9 about wet-weather applicability. As stated in Response 10 above, the turbidity criteria will continue to be used for construction and dredging activities. Other water clarity criteria like total suspended solids (TSS) consider seasonality and/or wet weather and will continue to be used in the CSO Program and the District's MS4 program.

See Response 8 for the correct methodology and data analysis to determine ambient for turbidity.

DC Water Comment 5

2. Mercury

   The preamble to the proposed water quality standards states, "*DOEE is proposing to add mercury to the list of metals requiring an EPA conversion since the numeric criteria were established for total recoverable metals but are being used for dissolved metals. The failure to include mercury in the original table was an oversight that is being corrected…*"

   During the August 23, 2023 public hearing, the presentation indicated that the mercury change described above is incorrect and that instead hexavalent chromium would be deleted from Section 1105.10. We reserve the right to comment on this after seeing the final proposed water quality standards.

DOEE Response 12

The preamble will be updated to reflect that hexavalent chromium is not in Section 1105.10 as was incorrectly stated before in the preamble. There are no changes to regulatory text.

Earth Justice Commenters

Earth Justice Comment 1

A. DOEE Should Clarify and Strengthen Its Turbidity Criterion.

As part of its 2021 Triennial Review update to the District's water quality standards, DOEE proposes to add a numeric equivalent for ambient turbidity.[31] While not changing the standard itself—20 Nephelometric Turbidity Units (NTU) "above ambient primary contact, secondary contact, and aquatic life designated uses"—DOEE proposes adding a numeric equivalent for "ambient turbidity." The District's surface waters are split across two ecoregions, requiring the generation of two separate ambient turbidity values. These two ecoregions are the Piedmont (the Potomac River northwest of the Theodore Roosevelt Bridge and its tributaries, along with Rock Creek), and the Coastal Plain (the Potomac River east of the Theodore Roosevelt Bridge and its tributaries, along with the Anacostia River and its tributaries).[32] The proposed ambient turbidity equivalents are 1 NTU for the Piedmont ecoregion and 6 NTU for the Coastal Plain ecoregion.[33]

Commenters support DOEE's efforts to provide specificity and clarity to the turbidity standard. However, Commenters urge DOEE to clarify and strengthen the proposed amendments in three ways. First, Commenters request that DOEE clarify that the newly proposed numeric ambient values, rather than an onsite sample upstream of a permitted site, must be used for determining compliance with the final turbidity standard. The "Study on the Socioeconomic, Institutional, Technological, and Environmental (SITE) Impacts of Applying and Enforcing Updates to Water Quality Standards" accompanying the 2021 triennial review explains that DOEE is proposing a numeric equivalent for ambient turbidity due to confusion and inconsistent

application of the current standard.[34] DOEE states that, for example, the standard is sometimes incorrectly interpreted to be 20 NTU, rather than 20 NTU above ambient.[35] DOEE further states:

> The turbidity criteria are interpreted correctly for water quality certifications, which DOEE issues. Permittees may be required to take water samples 25 feet upstream and downstream of their project's limit of disturbance in surface waters to ensure that their project complies with the turbidity criterion. In these cases, the criterion is interpreted to mean that if the downstream measurement is 20 NTU above the upstream measurement, then the project is out of compliance.[36]

According to this interpretation, which DOEE states is "correct[ ]," a permittee would be considered in compliance with the turbidity standard as long as there is no greater than a 20 NTU difference between the measurement upstream of the project and the measurement downstream of the project. In-compliance downstream measurements could be 26 NTU (if the upstream measurement is 6 NTU), as well as 70 NTU (if the upstream measurement is 50 NTU), and even higher, with no true limit. While this interpretation could be deemed to be a correct application of the current turbidity standard, it would be an incorrect and nonsensical interpretation of the proposed standard. This type of differential interpretation does little to preserve the water quality of the surface water in question, as it sets no specific, numeric ceiling for the turbidity of water downstream from a project, so long as the turbidity upstream of the project is no more than 20 NTU lower. If the above-outlined approach is applied to the proposed standard, it would render the ambient reference values of 1 NTU for the Piedmont waters and 6 NTU for the Coastal Plain waters essentially meaningless. We ask that DOEE clarify in the final standard that differential sampling is not a permissible compliance method.

DOEE Response 13

The intent of the ambient numeric equivalent is to provide clarification. The intent is for permit and certification writers to have as an option 1) upstream and downstream ambient measurement for a water-dependent project or 2) ambient numeric equivalent in the appropriate ecoregion as the second option, whichever is situationally best. DOEE's wetlands program depends on upstream and downstream measurements to determine ambient for instream projects.

As stated in Response 10, the turbidity standard is to be used for construction and dredging projects to reduce the turbidity levels from the effects of the localized impairment.

Earth Justice Comment 2

> Second, in accordance with the EPA Guidance that DOEE followed, DOEE should account for seasonality in its calculation of the ambient reference value for each ecoregion; doing so may, according to Commenters' assessment, result in a lowering of the reference value for the Piedmont ecoregion from 1 NTU to 0 NTU.[37] A lower ambient reference value puts a lower ceiling on the allowable increase in turbidity from a permittee's activity and helps to better preserve surface water quality. DOEE states that its ambient equivalencies for the Piedmont and Coastal Plain ecoregions were calculated using 20 years of turbidity data and "established EPA

methodology."[38] According to the EPA Guidance that DOEE utilized, the process for generating ambient reference values in absence of actual reference streams (which the District lacks) consists of:

1) Reducing data for all rivers and streams within an ecoregion down to a single median value for each river/stream by season;
2) Combining all river/stream medians by season and selecting the 25th percentile from the distribution of each season's median values, resulting in four median values (winter, spring, summer, fall); and
3) Calculating the median value of the 25th percentile for all four seasons, which is the reference condition calculation for the ecoregion.[39]

However, DOEE's process involved simply combining all river/stream data for the Piedmont ecoregion and all river/stream data for the Coastal Plain ecoregion and selecting the 25th percentile of each as the reference value for that ecoregion, without considering seasonal effect.[40] Commenters request that DOEE revisit its methodology and calculations for the ambient reference values, using the seasonal medians to calculate the median value of the 25th percentile for all four seasons, according to EPA's Guidance.

DOEE Response 14

EPA's guidance document, Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion IX (EPA 822-B-00-019), states on Page 6 that "EPA does not recommend identifying nutrient concentrations that must be met at all times, rather a seasonal or annual averaging period (e.g., based on weekly measurements) is considered appropriate. However, these seasonal or annual central tendency measures should apply each season or each year, except under the most extraordinary of conditions (e.g., a 100 year flood)."

Annual averaging period is considered appropriate. DOEE chose to use the annual averaging period for its more robust dataset, consistency with the current turbidity criteria which is not based on seasonality, and its ease of use since the basis of this update is for clarification.

Please see Response 8 for the correct methodology and data analysis to determine ambient for turbidity.

Earth Justice Comment 3

Finally, Commenters request that DOEE strengthen the standard of 20 NTU above ambient to a threshold of 10 NTU above ambient. Elevated turbidity is harmful to the health of surface waters. One yardstick for surface water health is the presence of submerged aquatic vegetation (SAV). SAV serves many important ecological functions, including providing habitat for juvenile and adult aquatic life, sediment stabilization, and water quality improvement.[41] In 2017, the District had a high of 1,176.15 acres of SAV in its surface waters. By 2021, total SAV acreage had declined precipitously to a total of 6.9 acres, all in the Anacostia River—a mere 1/20th of a single percent of the area it covered four years previously.[42] The District's 2022 Draft Integrated Report pointed to high levels of rainfall and the resulting increase in turbidity and flow as "the major factor" in the decrease of SAV.[43] It is possible to restore SAV in areas where

it has been lost, and limiting the potential for manmade-turbidity to negatively impact SAV growth will help in that restoration. Since natural causes of increased turbidity, such as high rainfall, are outside of DOEE's control, DOEE should seek to more strictly limit the increase of turbidity from manmade causes. Some states have adopted a more protective standard of 10 NTU above ambient threshold, including Delaware and New Hampshire, as well as New Mexico for waters with a background turbidity of 50 NTU or less.[44] Commenters advise that DOEE follow the model of these states and tighten the proposed turbidity standard from 20 NTU above ambient to 10 NTU above ambient.

DOEE Response 15

DOEE is not proposing to rewrite the turbidity criteria, which was adopted in 1981, but clarify "ambient" with a numeric equivalent option. The recommendation of making the current turbidity criteria more stringent, from 20 NTU to 10 NTU above ambient is noted.

As stated in Response 10, the turbidity standard is to be used for construction and dredging projects to reduce the turbidity levels from the effects of the localized impairment.

Earth Justice Comment 4

B. DOEE Should Adopt Numeric Nitrogen and Phosphorus Criteria.

Commenters urge DOEE to adopt numeric nutrient criteria. Nutrient pollution is a major threat to the District's waters, and it is long past time for the District to adopt numeric criteria as recommended by EPA more than twenty years ago. Both the Anacostia and the Potomac are impaired for nutrients and not supporting the aquatic life use as a result.[45] Rock Creek has also been degraded by nutrient loading.[46] And the District contributes to nutrient pollution in the Chesapeake Bay.[47] While the District implements several programs to reduce nutrient pollution, including the Non-Point Source Management Program;[48] the Total Maximum Daily Loads (TMDLs) for the Anacostia River and other waters;[49] the Phase III Watershed Implementation

Plan for the Chesapeake Bay;[50] and the Biosolids Recycling Program,[51] nutrient problems persist.[52]

Thus, DOEE should either adopt EPA's recommended numeric criteria for nitrogen and phosphorus or develop its own standards based on scientifically defensible methods.[53] At a minimum, DOEE must explain why it fails to develop numeric nutrient criteria or adopt EPA's criteria.[54]As described in the prior section, the District has implemented EPA's nutrient guidance to develop numeric standards for turbidity.[55] That the District can set numeric standards for turbidity shows that it can and should set numeric standards for nitrogen and phosphorus as well, relying on the same guidance.[56]

DOEE Response 16

DOEE has reviewed the comment/recommendation and will evaluate it for inclusion in future updates.

Earth Justice Comment 5

C. DOEE Should Adopt a Higher Fish Consumption Rate to Protect Subsistence Fishing Communities.

Commenters urge DOEE to adopt a higher fish consumption rate as part of its water quality standards because a higher rate is needed to sufficiently protect the health of subsistence fishing communities.

The District's assumed fish consumption rate, which underlies many of its water quality standards, is not addressed in its 2021 proposed water quality standards. Elsewhere, however, DOEE has acknowledged it relies on EPA's overall default national recommended fish consumption rate of 22 grams per day.[57] While 22 grams per day may be a reasonable estimate of fish consumption for the general population, it is not protective of communities that practice subsistence fishing.

Subsistence fishing along the Anacostia and Potomac rivers, practiced for generations by many Black residents, continues to be an important way to combat food insecurity in the

District.[58] Generations of Black fishers in the District have fished along the shores of the Potomac and Anacostia Rivers, especially the Anacostia as many Black residents were historically pushed eastward within the City.[59] Many Black fishers describe fishing as part of their familial heritage or legacy, often with grandmothers or other family members teaching the younger generation to fish.[60] Some of the more popular destinations for subsistence fishers in t District include the Anacostia River and its tributaries, Anacostia National Park, and Hains Point.[61]

The District has the highest rate of childhood food insecurity in the country, and fishing provides a critical food source for many impoverished families suffering from food insecurity.[6] Fish harvested from the Anacostia and other District waters is not only consumed by the angler who catch them and their families. Instead, studies show that there is a "widespread" sharing o fish in extended social networks, and it is estimated that fish shared from local waters could be reaching 17,000 people in the DC-Maryland metro region.[63] A 2015 subsistence fishing survey on the lower Anacostia similarly showed that at least 17,000 people in the lower Anacostia watershed eat fish from the river every year, 7% of respondents ate fish from the river every da and 35% ate river fish at least once per week or more.[64] And 39% of all participants reported eating all or most of their catch.[65] These District residents are being exposed to a variety of toxins with each meal of fish, including mercury, arsenic, PCBs, dioxin, and PFOS.[66] Given the prevalence of fish consumption, EPA recommends the use of "default fish consumption rates of . . . 142.4 g/d for subsistence fishers."[67] In fact, because fish consumption rates among subsistence fishing communities often vary significantly, EPA recommends that agencies conduct local studies to identify the consumption rates for "groups that might be at greater risk of exposure to contaminants in fish due to higher consumption rates, such as

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subsistence fishers."[68] By adopting EPA's national default fish consumption rate, which was not developed to protect subsistence fishing communities, DOEE has ensured that subsistence fishing communities along the Potomac and Anacostia—the communities most vulnerable to the effects of fish contamination—will continue to be exposed to unhealthy levels of contamination. DOEE should follow EPA's guidance and recommendations to prioritize adopting its own fish consumption rate based on local data, or at least data from similar geographies and populations, before resorting to EPA's default rate.[69] In the absence of local or similarly situated data, DOEE should rely on national survey estimates that are protective of highly exposed groups – namely EPA's estimated fish consumption rate of approximately 142.4 grams per day for subsistence fishers.[70] In the District, the high rates of subsistence fishing and associated human health impacts obligate the District to adopt a higher fish consumption rate that is based on these local conditions and protective of the most highly exposed populations.[71]

DOEE Response 17

DOEE has reviewed the comment/recommendation and will evaluate it for inclusion in future updates.