



Maryland
Department of
the Environment

Water Quality Standards Public Hearing - 2025 Triennial Review of Water Quality Standards

Hybrid Meeting:

Virtual attendance via Google Meet

In-person attendance at Catonsville Public Library

[Please note that this hearing is being recorded.](#)

October 29 2026, 5:30 pm - 7:30 pm

Maryland Department of the Environment

Melinda Cutler and Matthew Stover

Water Quality Standards and Analysis Division



Housekeeping Items

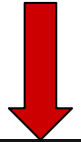
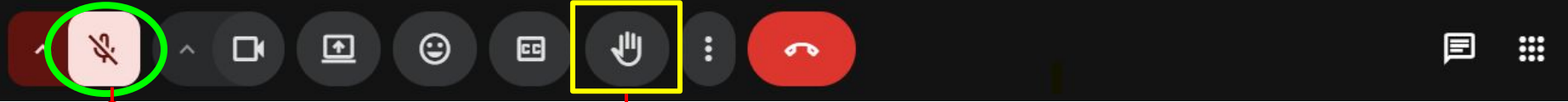
- Recording of today's hearing and this presentation will be available at:
<https://tinyurl.com/WQS-2025>



GOOGLE MEET

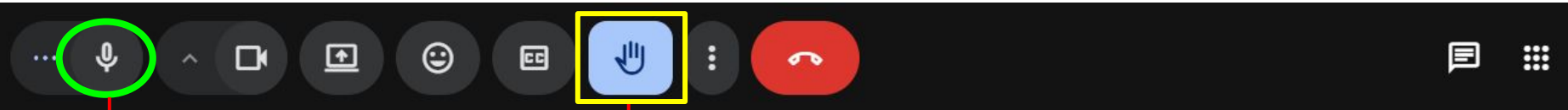
VIRTUAL ATTENDEE MEETING CONTROLS

Chat box - use for
technical issues



Mic off

Hand not raised



Mic on

Hand raised

*Attendees calling in by phone for audio will be prompted to dial *6 to unmute their phones*



Format of Today's Hearing

Hearing Duration: 5:30 PM – 7:30 PM

1. Powerpoint presentation describing the proposed water quality standards changes.
2. Opportunity for Oral Testimony
 - Please hold all questions/comments until the presentation is over.



Oral Testimony: Speaking Order

Recognize
elected
officials

In-person
attendees
(order of
sign-up
sheet)

In-person
attendees
(order of
raised
hand)

Virtual
attendees
(order of
Google
Form)

Virtual
attendees
(order of
“raised
hand”)



Providing Comments

- State your name and affiliation (if applicable)
- Limit speaking to **3-5 min**
- All comments, written or spoken, will be given the same consideration
- Comment Response Document to be published after public comment period
- End of public comment - **November 18, 2026**



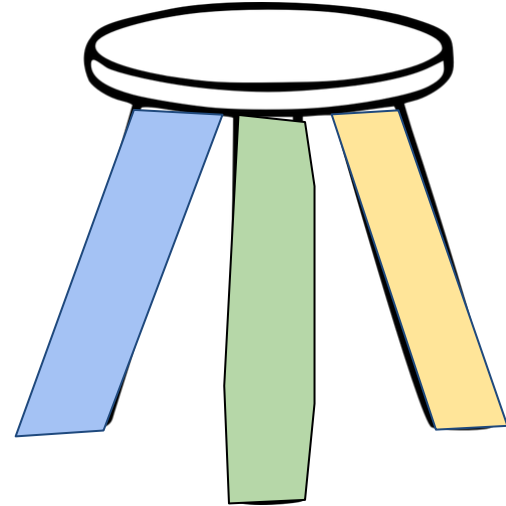
1. Presentation



Water Quality Standards 101

The 3 main parts are:

- Designated use(s)
- Water Quality Criteria to protect those uses
- Antidegradation Policy - prevent degradation



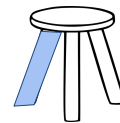


Overview of Triennial Review of Water Quality Standards

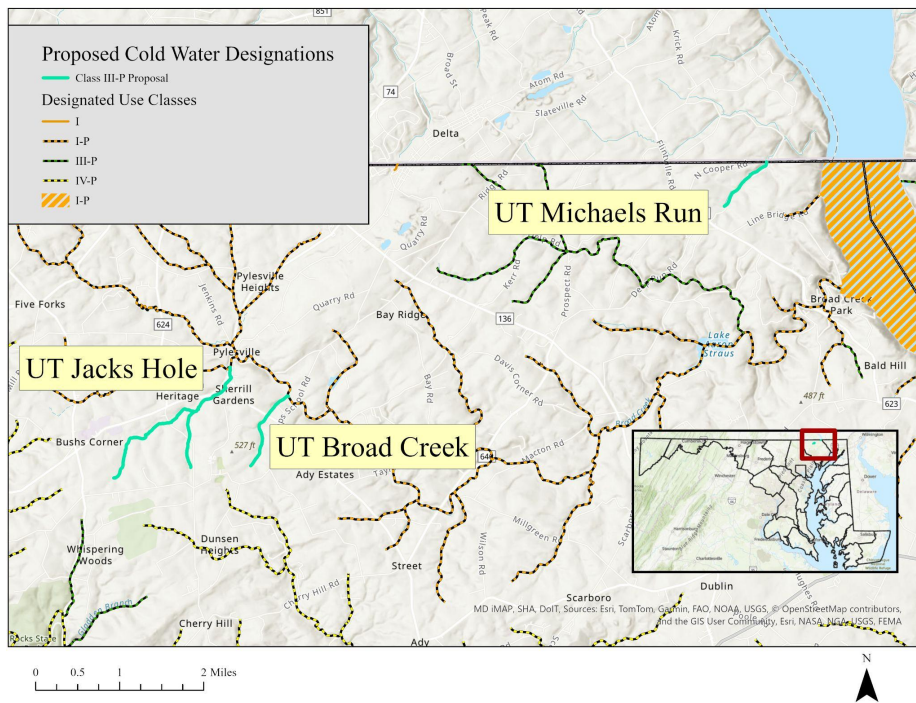
- What is a Triennial Review?
 - Clean Water Act requirement (CFR 131.20)
 - Requires States to review WQS every three years and provide the public opportunity to comment
- 2025 Triennial Review Cycle
 - Reviewed COMAR 26.08.02 (Water Quality)
 - Regulations: .03-2, .03-3, .04, .04-2, and .08
 - Will summarize proposed changes to these regulations in this presentation
- Supporting Documentation can be found on the Triennial Review webpage at: tinyurl.com/WQS-2025



Designated Uses: Cold Water Designations

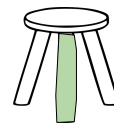


- **COMAR 26.08.02.08** - Stream Designations.
- 3 Streams in Harford County being proposed for Nontidal Cold Water (Use Class III(-P))
- Previously recognized for cold water existing uses based on cold water biology and temperatures
- Existing Use Determination reports are posted to Dept. webpage: tinyurl.com/WQS-2025





Criteria: Human Health



COMAR 26.08.02.03-2 - Numerical Criteria for Toxic Substances in Surface Water

HUMAN HEALTH CRITERIA

Represent levels of chemicals that protect against adverse human health effects.

Protect against two types of exposure routes:

Water + Organism Ingestion



Organism Only Ingestion



AWQC (ug/L) =

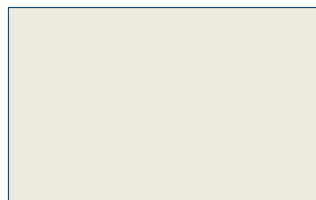
Toxicity value
mg/kg-d



Body weight kg



1,000 ug/mg



$\sum_{i=2}^4$

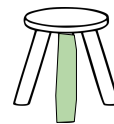


Fish consumption rate i
kg/d

Bioaccumulation
factor i
L/kg



Criteria: Human Health



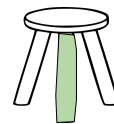
- 2015 - EPA updated 94 human health criteria recommendations
 - Latest toxicity science and census population data
- 2019 - MDE Adopted 69 of the 94 recommended criteria
- Current proposal - remaining 25 human health criteria recommendations.

$$\text{AWQC (ug/L)} = \frac{\text{Toxicity value mg/kg-d} \times \text{Body weight kg} \times 1,000 \text{ ug/mg}}{\text{Drinking water intake L/d} + \sum_{i=2}^4 \left[\text{Fish consumption rate } i \text{ kg/d} \times \text{Bioaccum. factor } i \text{ L/kg} \right]}$$

The diagram illustrates the formula for calculating the Ambient Water Quality Criterion (AWQC) in ug/L. The numerator consists of three terms: a toxicity value (represented by a warning triangle icon), body weight (represented by a scale icon), and a conversion factor of 1,000 ug/mg (represented by a green 'X' icon). The denominator consists of two main terms: drinking water intake (represented by a glass icon) and a summation from i=2 to 4 of fish consumption rate (represented by a fish icon) multiplied by bioaccumulation factor (represented by a bar chart icon). The summation is also preceded by a green plus sign and a green 'X' icon.



Criteria: Human Health



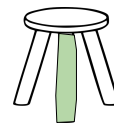
PROPOSED ADOPTION OF 25 HUMAN HEALTH CRITERIA

Chemicals to be updated in Maryland regulations during Triennial Review

1,1,1-Trichloroethane	1,3-Dichlorobenzene	2,4-Dinitrotoluene	Chlorobenzene	Ethylbenzene
1,1,2-Trichloroethane	1,3-Dichloropropene	2,4,6-Trichlorophenol	Chrysene	Hexachlorobutadiene
1,1,2,2-Tetrachloroethane	2-Chlorophenol	Acrolein	Cyanide	Hexachloroethane
1,2-Dichloropropane	2,4-Dichlorophenol	Benzene	Dichlorobromomethane	Pentachlorophenol
1,2,4-Trichlorobenzene	2,4-Dinitrophenol	Bromoform	Endrin	Toluene



Criteria: PFOA & PFOS Freshwater Aquatic Life



COMAR 26.08.02.03-2 - Numerical Criteria for Toxic Substances in Surface Water

AQUATIC LIFE CRITERIA

Represent levels of chemicals that protect against adverse health effects for aquatic organisms

What are **PFOA** and **PFOS**?

- Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS)
- Man-made chemicals used in fire-fighting foams and numerous household products
- EPA recommended criteria for freshwater aquatic life protection in 2024.

EPA recommended PFOS and PFOA freshwater aquatic life criteria:

Chronic & Acute Water Column

Concentrations within the water that protect aquatic life health

Fish and Invertebrate Tissue Criteria

Concentrations within aquatic life tissues that protect aquatic life health



Criteria: PFOA & PFOS Freshwater Aquatic Life

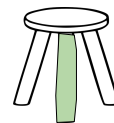


Table 1. Final Recommended Freshwater Aquatic Life Water Quality Criteria for PFOA and PFOS

Criteria Component	Acute Water Column (CMC) ¹ (mg/L)	Chronic Water Column (CCC) ² (mg/L)	Invertebrate Whole-Body (mg/kg ww ³)	Fish Whole-Body (mg/kg ww ³)	Fish Muscle (mg/kg ww ³)
PFOA Magnitude	3.1	0.10	1.18	6.49	0.133
PFOS Magnitude	0.071	0.00025	0.028	0.201	0.087
Duration	1-hour average	4-day average	Instantaneous	Instantaneous	Instantaneous
Frequency	Not to be exceeded more than once in three years, on average	Not to be exceeded more than once in three years, on average	Not to be exceeded	Not to be exceeded	Not to be exceeded

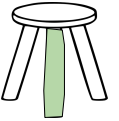
¹ Criterion Maximum Concentration.

² Criterion Continuous Concentration.

³ Wet Weight.



Criteria: Freshwater Ammonia

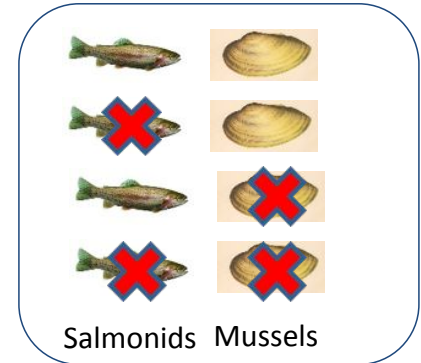


COMAR 26.08.02.03-2 - Numerical Toxics

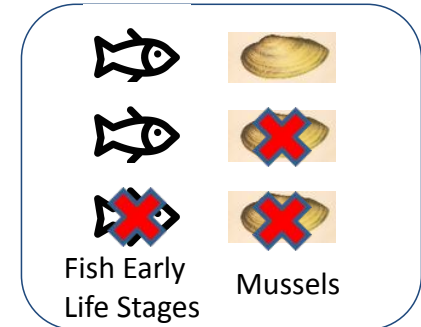
- 2013 - Criteria finalized by USEPA
 - Incorporated freshwater mussel toxicity data
 - Magnitude is function of pH and temperature
 - Series of equations based on presence / absence of certain aquatic organisms
- 2019 Triennial Review
 - MDE adopted freshwater ammonia criteria
 - Incorporated by reference the “Procedures for Applying Mussel Absent Ammonia Criteria in Maryland Surface Waters”
 - Site-specific mussel absent criteria eligibility

Equations based on
Presence / Absence

Acute
criteria

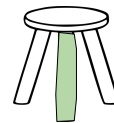


Chronic
criteria



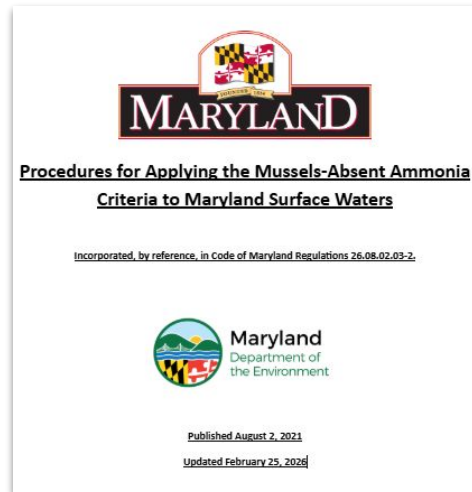


Criteria: Freshwater Ammonia

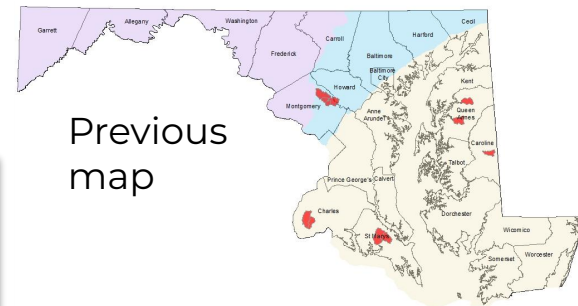


COMAR 26.08.02.03-2 - Numerical Toxics

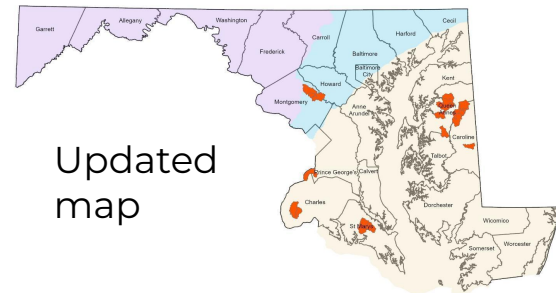
- Propose updates to the Procedures for Mussels Absent Ammonia Criteria
 - Typographical corrections
 - Map updates for freshwater mussel observations in the State
- Typographical corrections to criteria footnotes in COMAR 26.08.02.03-2



[Procedures for Applying the Mussel-Absent Ammonia Criteria in Maryland Surface Waters](#)



Previous map

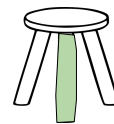


Updated map

-  Federally Endangered / Threatened Mussel Watersheds
-  Highlands
-  Piedmont
-  Coastal



Criteria: Recreational Criteria for Microcystin & Cylindrospermopsin



COMAR 26.08.02.03-3 - Water Quality Criteria Specific to Designated Uses

RECREATIONAL CRITERIA

Represent levels of pollutants that protect against adverse health effects for people recreating in or on the water.

Microcystin, Cylindrospermopsin, and Harmful Algal Blooms (HABs)

- **Harmful Algal Blooms (HABs)** - excessive blue-green algae growth that can produce harmful cyanotoxins
- **Microcystin and cylindrospermopsin** - cyanotoxins produced by certain HABs
 - Cause health impacts to humans, pets, and livestock from ingestion and exposure to contaminated water
- EPA recommended recreational criteria in 2019



EPA recommended Microcystin and Cylindrospermopsin recreational criteria:

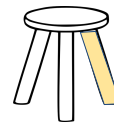
Microcystin
8 ug/L

Cylindrospermopsin
15 ug/L

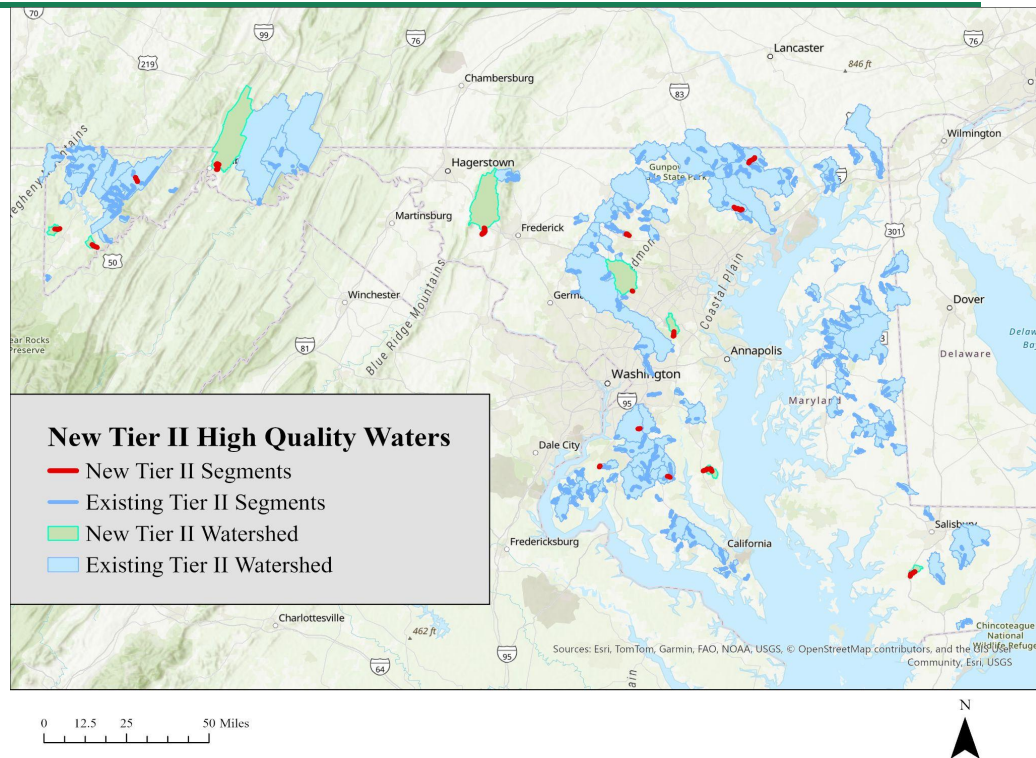
*Not to be exceeded in more than three 10-day assessment periods in more than one year



Antidegradation: Tier II High Quality Waters

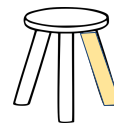


- Regulatory text updates
 - Clearer Antidegradation Review diagram
 - Align language with federal regulations
- 15 streams proposed for Tier II High Quality Waters Protection
 - Identified through high quality fish and benthic macroinvertebrate communities
 - [Report](#) on MDE's website provides details on assessed information.





Antidegradation: Tier II High Quality Waters



Important information for permittees

- Permit applications that have initiated their Tier II review prior to the proposed regulation changes taking effect will be grandfathered under the current Tier II map for the remainder of their review.
- **“Initiated”** means
 1. Tier II Review was open and ongoing prior to the regulatory effective date.
 2. Submission of a **complete** Preliminary Tier II Report, meaning
 - All questions on the report have a sufficient answer provided.
 - Required supplementary documentation is provided (ie. requested site plans and maps)



Triennial Review Timeline

- Public comment period: **October 16, 2026 - November 18, 2026**
- After close of public comment, Department will:
 - Respond to comments and publish these responses
 - Depending on substantive comments, prepare a notice of final action in MD Register
 - Submit Triennial Review to USEPA for final approval
 - EPA approval needed to finalize WQS changes

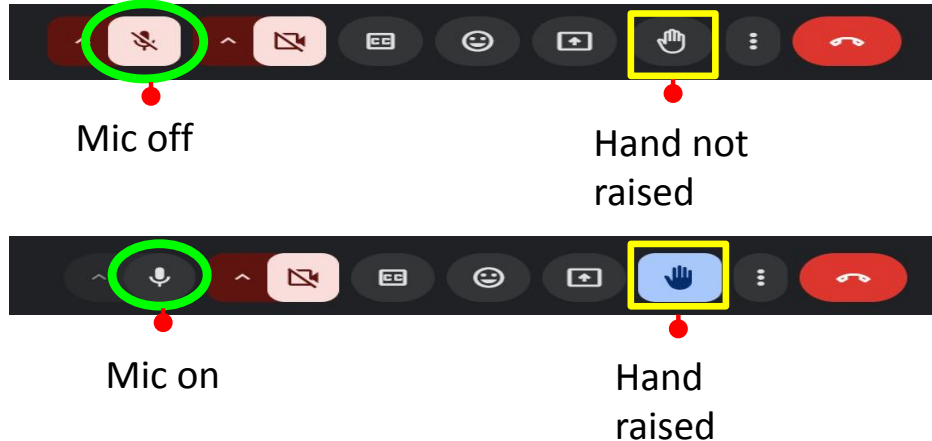


2. Opportunity for Oral Testimony



Opportunity for Oral Testimony

- Order of commenters
 - Elected officials
 - In person attendees (order of sign-up sheet, then raised hands)
 - Virtual attendees (order of Google Form, then “raised hands”)
- Please state your name and affiliation.
- Written comments may be sent to melinda.cutler@maryland.gov



*Attendees calling in by phone for audio will be prompted to dial *6 to unmute their phones*



Thank you

Contact us:

melinda.cutler@maryland.gov

Maryland Department of the Environment

1800 Washington Blvd.

Baltimore, MD 21230