FINAL AMENDMENTS TO 314 CMR 4.00:

THE MASSACHUSETTS SURFACE WATER QUALITY STANDARDS

August 13, 2026

Watershed Planning Program
Division of Watershed Management
Bureau of Water Resources
Massachusetts Department of Environmental Protection

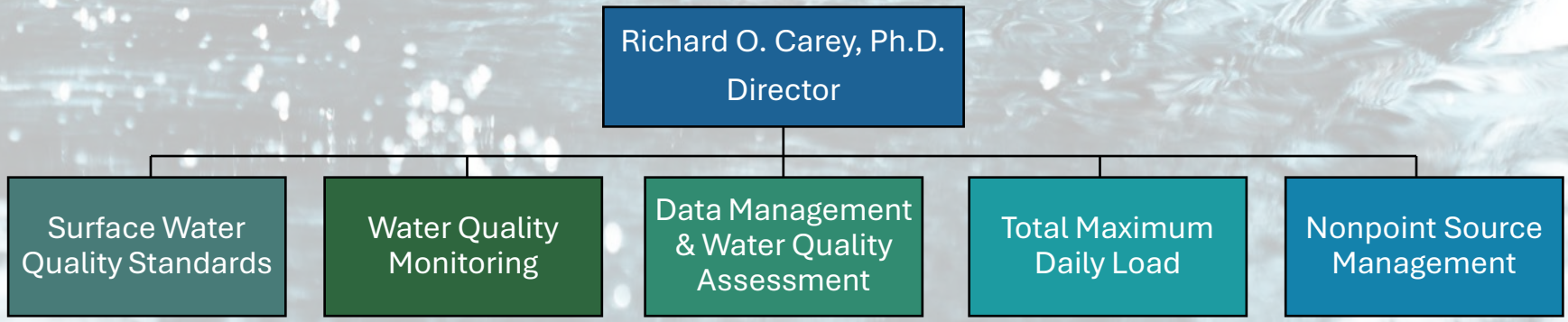
https://www.mass.gov/guides/watershed-planning-program

Outline

- MassDEP Watershed Planning Program (WPP)
- Federal Clean Water Act (CWA) Framework
- MA SWQS Overview
- Final Amendments to the MA SWQS and Revisions Responding to Public Comment

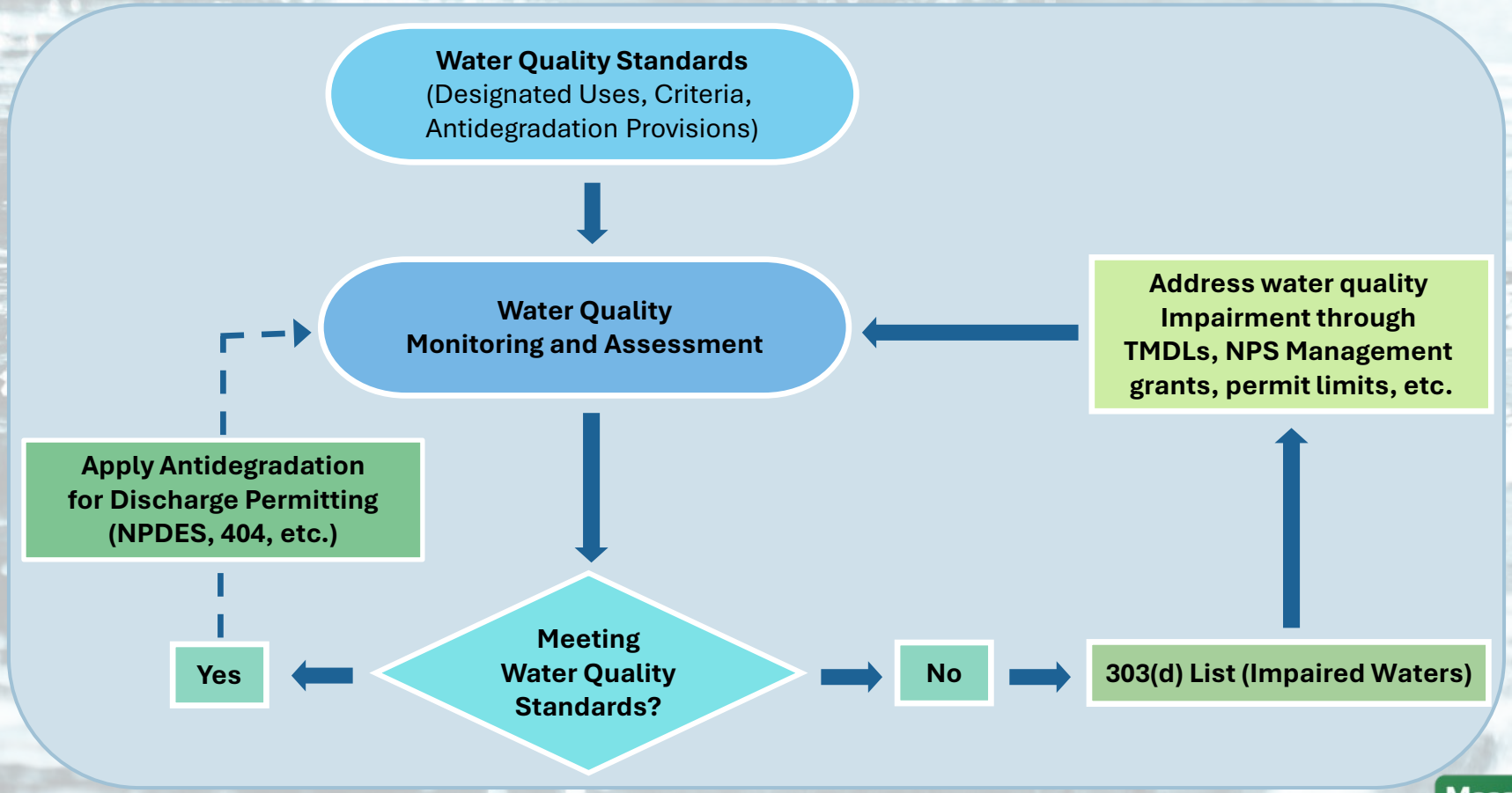
Watershed Planning Program

The mission of the Watershed Planning Program (WPP) in the Massachusetts Department of Environmental Protection is to protect, enhance, and restore the quality and value of the waters of the Commonwealth. Guided by the federal Clean Water Act, WPP implements this mission statewide through five Sections that each have a different technical focus: (1) Surface Water Quality Standards; (2) Surface Water Quality Monitoring; (3) Data Management and Water Quality Assessment; (4) Total Maximum Daily Load; and (5) Nonpoint Source Management. Together with other MassDEP programs and state environmental agencies, WPP shares in the duty and responsibility to secure the environmental, recreational, and public health benefits of clean water for all people of the Commonwealth.



CWA and Federal Water Quality Standards Regulation Framework

33 U.S.C. § 1251 *et seq.* and 40 CFR 131, respectively



MA Surface Water Quality Standards

- Define the water quality goals of a waterbody by designating the use(s) of the waterbody and by establishing criteria necessary to protect those uses
- Core components of surface water quality standards
    1. Designated uses
    2. Water quality criteria
    3. Antidegradation provisions
    4. General policies
- Do not generally apply to ground water

Establishing Surface Water Quality Standards

- The federal CWA requires state promulgation and periodic SWQS reviews
  - ✓ Recent MA SWQS (314 CMR 4.00) amendments were finalized in 2006, 2013, and 2021
- EPA authority
  - ✓ The MA SWQS are not federally enforceable under the Clean Water Act until approved by EPA
  - ✓ EPA has 60 days to approve and 90 days to disapprove after receipt

314 CMR 4.00: Massachusetts SWQS

- The regulation is divided into two parts:
  - Narrative section
  - Tables and figures

Summary of Final Amendments

Narrative:

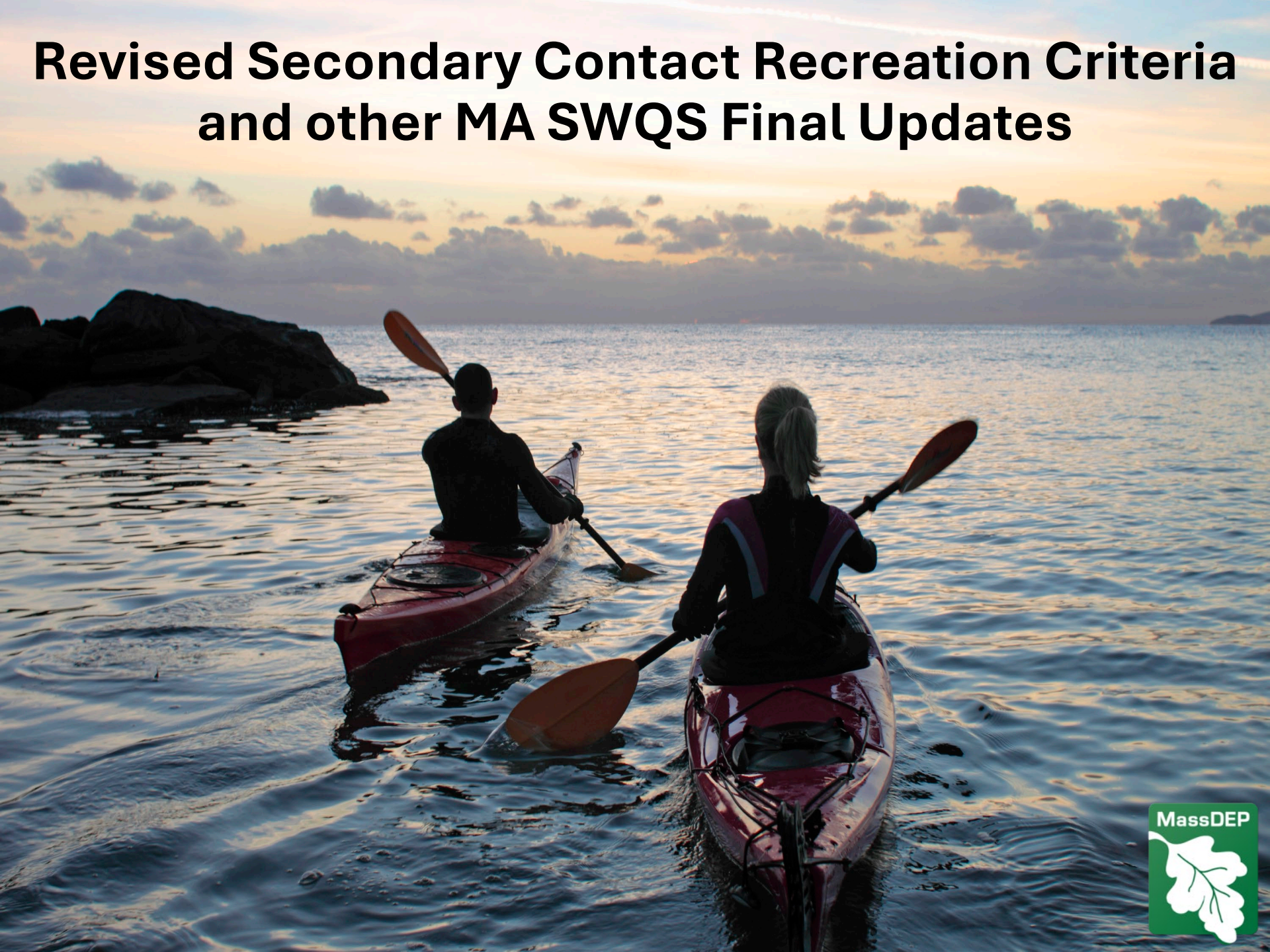
- ✓ Updated and relocated Secondary Contact Recreation criteria;
- ✓ Removed Class C and Class SC;
- ✓ Removed the “Aquatic Life” qualifier;
- ✓ Added a “Public Water Supply – Abandoned” qualifier;
- ✓ Clarified narrative nutrient criteria text

Tables:

- ✓ Tables 1-27: *Classification* -- Improved waterbody descriptions; added, removed, and corrected qualifiers; and corrected the classification of two waters.
- ✓ Table 28: *Site-specific Criteria* -- Added three segments that formerly had the Aquatic Life qualifier
- ✓ Table 29a: *Aquatic Life Criteria* – Updated copper marine criteria adjustment procedures

Three small revisions to certain amendments, highlighted in yellow, were made in response to public comment.

Revised Secondary Contact Recreation Criteria and other MA SWQS Final Updates



Revised Secondary Contact Recreation Criteria

- MassDEP reviewed recreational activities under the SCR use definition in the MA SWQS that includes boating, fishing, and shellfishing.
- Water Ingestion rate for "Kayaking – All Activities" was selected to represent the highest-risk limited-contact activity. Accounts for average water ingestion and occasional capsizing events.
- MassDEP calculated protective SCR criteria using an EPA-recommended equation using PCR and SCR water ingestion rates.

Updated Secondary Contact Recreation Bacterial Criteria (cfu/100mL)*				
Bacterial Indicator	**Geometric Mean***		**Statistical Threshold Value***	
***E. coli* (inland)**	**≤ 244**	≤630**	**≤ 794**	≤1260**
Enterococci (Inland and Coastal and Marine)	**≤ 68**	≤175**	**≤ 252**	≤350**

*The geometric mean for at least one indicator shall not be exceeded in any 90-day or smaller interval. No more than 10% of all samples collected within that interval shall exceed the statistical threshold value for that indicator. The same reduced interval requirements as Primary Contact Recreation criteria apply (30-days for public beach areas and POTW/CSO – impacted segments).
**2021 MassDEP SCR criteria

Removal of Classes C and SC

- **Justification**:
  - No surface waters are designated Class C or Class SC
  - Classes A, B and SA, SB support more sensitive uses
  - Aligns with antidegradation provisions
  - Streamlines the classification system
  - Follows precedent of removing unused classifications (e.g., Class D in 1978)

- **Implications**:
  - 1997 CSO policy would need updating
  - Downgrades require UAA and EPA approval
  - Existing B(CSO) / SB(CSO) classifications in the MA SWQS preferred
  - No variances refer to Class C or Class SC
  - No regulatory conflict with removal





Removal of Aquatic Life Qualifier

- The qualifier referred to DO & temperature criteria for Class C representing natural background conditions
- Applied to four Class B waterbody segments
- DO & temperature criteria for the four segments were moved to Table 28: *Site-specific Criteria*
- Improves clarity and avoids confusion with the Aquatic Life designated use
- Aligns with EPA guidance and supports accurate regulatory implementation

Table and Basin	Surface Water	Surface Water or Segment Boundary	Mile Point	Class	Qualifiers
Table 5 Charles River	Charles River	From Dilla Street, Milford to Milford POTW discharge	75.8 - 72.7	B	Aquatic Life
Table 16 Millers River	Otter River	Source to Gardner POTW discharge	12.2 - 9.7	B	Aquatic Life
Table 24 SuAsCo River	Sudbury River	From outlet of Saxonville Pond to confluence with Hop Brook, Wayland	16.2 - 10.6	B	Aquatic Life High Quality Water
		From confluence with Hop Brook, Wayland to confluence with the Assabet River forming the headwaters of the Concord River	10.6 - 0.00	B	Aquatic Life

Former Aquatic Life Segments: Now Site-specific Criteria Segments in Table 28

DO & temperature criteria for the four segments were moved to Table 28: *Site-specific Criteria:*

- In response to an EPA comment, MassDEP corrected the site-specific criteria for the segments formerly assigned the aquatic life qualifier, now incorporated into 314 CMR 4.06(6)(c): Table 28: Site-specific Criteria, to reflect the mathematical translation of "shall not exceed" and "shall not be less than", respectively (i.e., we changed the "<" [less than] and ">" [greater than] symbols to "≤" [less than or equal to] and "≥" [greater than or equal to]).

Example:

Charles River	From Dilla Street, Milford to Milford POTW discharge (river mile 75.8 - 72.7)	Dissolved Oxygen	≥5.0 mg/L at least 16 hours of any 24-hour period and ≥ 3.0 mg/L at any time.
		Temperature	≤85°F (29.4°C) and ≤5°F (2.8°C) rise due to a discharge.[4]

Corrected Narrative Nutrient Criteria 314 CMR 4.05(5)(c)

MassDEP clarified narrative nutrient criteria at 314 CMR 4.05(5)(c) to more clearly distinguish the criteria in the MA SWQS from targets in nutrient TMDLs. Nutrient criteria in the MA SWQS continue to be the fundamental basis of these TMDLs.

- **In response to comments made by the Massachusetts Water Resources Authority (MWRA), MassDEP made the following final revisions to 314 CMR 4.05(5)(c): *Nutrients*:**

"Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed ~~the site-specific~~ criteria ~~developed in a TMDL or as otherwise~~ established by the Department pursuant to 314 CMR 4.00, including but not limited to those established in 314 CMR 4.06(6)(c): *Table 28: Site-specific Criteria*."

Classification Tables 1-27 Updates 314 CMR 4.06(6)(b)

- **Most tables:** Enhanced boundary descriptions
- **Table 1:** Corrected Mumford River High Quality Water qualifier placement
- **Tables 2 and 5:** Updated footnotes for expired Combined Sewer Overflow (CSO) variances to refer to current variances
- **Tables 11 and 18:** Corrected classification of two reservoirs: Lower Sackett and Ashby Reservoirs from Class B to Class A, Outstanding Resource Water (ORW)
- **Table 17:** Re-inserted Shad Factory Pond Cold Water qualifier
  - ❖ In response to an EPA comment, MassDEP corrected an error and inserted the Cold Water qualifier that was mistakenly not added to Shad Factory Pond at 314 CMR 4.06(6)(b): Table 17 in the proposed draft MA SWQS, despite being discussed in the summary of proposed revisions.



Addition of "Public Water Supply – Abandoned" Qualifier

- Added a new "PWS-Abandoned" qualifier at 314 CMR 4.06(1)(d)2.
- Seven waterbodies with the "PWS-Abandoned" Qualifier in Tables 1-27:
  - Formally abandoned under the Drinking Water regulation
  - Physically disconnected
  - Not maintained as a PWS source as defined at 310 CMR 22.02
- This qualifier does not remove the PWS use under the MA SWQS or change applicable criteria. It simply clarifies the waterbody's status under MassDEP's Drinking Water Program.



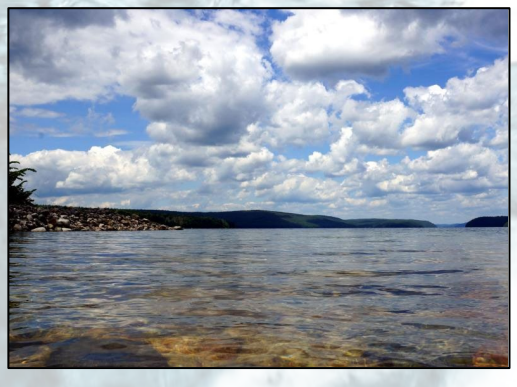


Table 29a: Aquatic Life Criteria Updates

Appendix E

- The Water Effects Ratio (WER) is a method used to adjust aquatic life criteria for metals based on local water conditions.
- Updated copper Streamlined WER procedures for coastal and marine waters:
  - Applies to continuous point source discharges
  - Lists approved marine test species and EPA references
  - Allows flexibility for additional species consistent with EPA guidance



For More Information on 314 CMR 4.00:

https://www.mass.gov/guides/watershed-planning-program-surface-water-quality-standards-review-and-development-activities

Thank you!

Questions?