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Summary of Final Revisions to the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and Response to Comments

A. Overview

The purpose of 314 CMR 4.00: Massachusetts Surface Water Quality Standards (the “Regulation”) is to restore, enhance, and protect the chemical, physical, and biological integrity of surface waters in Massachusetts. The Regulation is comprised of a narrative section, figures, and tables. In October 2019, the Massachusetts Department of Environmental Protection (MassDEP) requested public comments on proposed revisions to the Regulation. Twenty-five comment letters were submitted by email and five people delivered oral comments during public hearings.

The final Regulation includes revisions that were proposed before public comment and revisions after public comment. The revisions after public comment were either made in response to the comments received or were minor corrections and clarifications. The information below describes all revisions included in the final Regulation.

Federal regulations require the U.S. Environmental Protection Agency (EPA) to approve the final Regulation for the revisions to become federally enforceable.

B. Summary of Revisions Before Public Comment (Retained in Final Regulation)

1) Pollutant Criteria

- i. The Clean Water Act (CWA) Section 303(c)(2)(B) requires states to adopt ambient water quality criteria for pollutants listed pursuant to CWA Section 307(a)(1) for which EPA has published criteria under 304(a), where these pollutants could reasonably be expected to interfere with the designated uses of surface waters. MassDEP adopted all of the current recommended federal 304(a) criteria, with the exception of the updated selenium criteria (EPA 822-R-16-006, 2016), the new cyanotoxin (microcystins and cylindrospermopsin) criteria (823-R-19-001, 2019), and the updated nutrient criteria for lakes (EPA-822-R-21-005, 2021). These recently recommended criteria will be considered for adoption in future triennial reviews.
- ii. Generally Applicable Aquatic Life Criteria (Table 29a). This table lists aquatic life criteria that were previously included in the Regulation by reference only; additionally, this table now includes updated criteria for four of the previously

- referenced pollutants. Criteria for five new pollutants are also included in the table. Most criteria in this table are absolute values but some criteria are based on models or equations. Table 29a contains multiple appendices, including Appendix A: Default Fresh Water Aluminum Criteria by Watershed (River Basin or Coastal Drainage Area). These default criteria are based on 5th or 10th percentile calculations, with the 5th percentile used to protect state and federal endangered species. Water chemistry data (pH, dissolved organic carbon (DOC), and hardness) are required for the revised aluminum criteria. If DOC data were unavailable to derive default criteria, MassDEP converted total organic carbon (TOC) data to DOC data using the relationship between TOC and DOC in fresh water, as developed by the United States Geological Survey (USGS) using Massachusetts data only. A technical memorandum is included on MassDEP's website that describes methods used to derive these default criteria.
- iii. Generally Applicable Human Health Criteria (Table 29b). This table lists human health criteria that were previously included in the Regulation by reference only; additionally, this table now includes updated criteria for 104 of the previously referenced pollutants. Criteria for four new pollutants are also included in the table. MassDEP updated its bacteria criteria to be consistent with EPA's 2012 guidance for protecting human health in waters designated for primary contact recreation. Bacteria criteria in the Massachusetts Department of Public Health's (MDPH) regulation, 105 CMR 445.031, are not changing and will continue to apply to beach closure decisions. Adoption of EPA's updated bacteria criteria into the Regulation will ensure that MDPH continues to receive federal Beaches Environmental Assessment and Coastal Health Act grants.
- 2. Additional Cold Water Stream Designations.** The Massachusetts Division of Fisheries and Wildlife (MassWildlife) designates certain streams as Coldwater Fish Resources (CFRs). To better align the Regulation with MassWildlife's CFR list, and to strengthen protection of these waters, MassDEP designated 153 CFRs as additional cold water streams in the Regulation.
- 3. Updates to Site-Specific Criteria for Copper, Zinc and Nitrogen.** In 2013, MassDEP adopted site-specific copper criteria for 14 surface water segments and site-specific zinc criteria for a single segment. These copper criteria were not approved by EPA, and therefore were not federally enforceable. MassDEP removed all 14 site-specific copper criteria and revised the zinc site-specific criteria in accordance with EPA's recommendations. MassDEP also updated nitrogen site-specific criteria for segments within the Cape Cod Drainage Area in accordance with final total maximum daily load (TMDL) reports.
- 4. Other Updates to the Tables and Figures.** MassDEP added certain definitions as footnotes to the tables, modified the structure of the tables, and made corrections and other updates. These changes increase the clarity and usability of the regulation, and they are necessary to make the regulation consistent with EPA guidance.

C. Summary of Revisions After Public Comment (Included in Final Regulation)

Summary of Revisions Impacting the Entire Regulation

- 1. Numeric Criteria.** The Regulation includes numeric criteria that are either fixed (not dependent on water chemistry) or variable (dependent on water chemistry). Variable numeric criteria rely on models or equations and water chemistry inputs from a specific location. MassDEP clarified that these models or equations are the criteria, and concentrations calculated by using the models or equations are “criteria values.”
- 2. Application of Criteria.** All information from the previously proposed Appendix F in Table 29a, regarding application of criteria where fresh and salt waters mix, was moved to the narrative at 314 CMR 4.05(6). Appendix F in the final Regulation was previously Appendix G in the proposed revisions (“Conversion Factors (CF) to Convert from Total to Dissolved or from Dissolved to Total Concentrations”).
- 3. Additional Revisions.** Regulatory citations and associated language were updated in accordance with state regulatory guidelines.

Summary of Revisions to the Narrative

- 1. Bacteria Criteria.** MassDEP moved details of the revised bacteria criteria to the *Additional Minimum Criteria Applicable to All Surface Waters* section (314 CMR 4.05(5)). Additional revisions include new language stating that the criteria are protective of primary contact recreation. MassDEP also removed the Bathing Season and Bathing Water definitions, and instead referred to the Department of Public Health definitions within the bacteria criteria section (314 CMR 4.05(5)(f)). More details were also provided on seasonal application of the criteria.
- 2. 314 CMR 4.01: General Provisions.** MassDEP moved Section 314 CMR 4.01(5): *Severability* to 314 CMR 4.07. To accommodate this change, all figures and tables were incorporated into section 314 CMR 4.06, which was renamed to accurately reflect the information contained therein: *Classification, Figures, and Tables*. MassDEP also removed section 314 CMR 4.01(3): *Authority* and retained the existing Regulatory Authority information at the end of the Regulation (after section 314 CMR 4.07) based on state regulatory guidelines.
- 3. Additional Revisions to the Narrative.** MassDEP added language in 314 CMR 4.03(7) to maintain the Commonwealth’s authority under § 401 of the CWA. Section 401 authorizes states to conduct an independent review of the water-quality impacts of projects that require a federal permit or license ensuring that those projects do not violate state water quality laws and other appropriate requirements of state law. MassDEP also clarified sampling methodology for equation- and model-based criteria. The previously proposed revisions to the naturally occurring background concentrations statement in 314 CMR 4.05(5)(e): *Toxic Pollutants* were also removed. The original language in the previous version of the Regulation (promulgated in 2013) was retained.

Summary of Revisions to the Tables

- 1. Information on Variances.** Explanatory footnotes were added to Table 2 (Boston Harbor Drainage Area) and Table 5 (Charles River Basin) that provide information on the combined sewer overflow variances for the Mystic River/Alewife Brook/Little River and the Charles River, respectively.
- 2. Table 29a, Appendix A: Default Freshwater Aluminum Criteria.**
 - a. In the Regulation issued for public comment, Appendix A included 10th percentile default criteria for a watershed group containing the Taunton River Basin, Buzzards Bay Coastal Drainage Area, Narragansett Bay and Mount Hope Bay Drainage Area, and Ten Mile River Basin. Information obtained from MassWildlife's Natural Heritage and Endangered Species Program identifies the Taunton River as having known habitat for the endangered Atlantic Sturgeon. The Taunton River Basin was therefore separated from the watershed group and default criteria specific to this basin were calculated using 5th percentiles. For the remaining basins and drainage areas in the previous watershed group (Buzzards Bay/Narragansett Bay/Mt Hope Bay and Ten Mile River Basin), default criteria were calculated using 10th percentiles.
 - b. After the Regulation was issued for public comment, USGS revised the TOC to DOC relationship. All default criteria in Appendix A were re-calculated to reflect this minor revision.
- 3. Table 29b: Human Health Criteria.** Table 29: Generally Applicable Criteria includes Table 29b: Human Health Criteria. Four organoleptic effect (taste and odor) criteria (sodium, sulfate, methyl tertiary-butyl ether (MTBE), and ammonia) were removed from Table 29b because these criteria were based solely on EPA Drinking Water Advisories. In addition, the drinking water plus organism criterion for MTBE, based solely on the Massachusetts Office of Research and Standards Guideline (ORSG), was removed. Massachusetts is not adopting these criteria based on EPA advisories or ORSGs because they are not CWA Section 304(a) water quality criteria.
- 4. Table 30: Organoleptic Effect Criteria.** All remaining organoleptic effect criteria that were previously listed in Table 29b: Human Health Criteria were moved to a new Table 30: Organoleptic Effect Criteria. The organoleptic effect criteria were moved to a new table because they are fundamentally different criteria than those listed in Table 29b. Human health criteria are based on toxicity to humans over a lifetime of exposure, whereas organoleptic effect criteria are not based on toxicological assessments, but rather on taste and odor effects.
- 5. Additional Revisions to the Tables.** For all the tables in the Regulation, MassDEP implemented minor non-substantive corrections to footnoting and appendices.

D. Technical Guidance Documents

The final Regulation includes new or updated water quality criteria. MassDEP developed technical guidance documents to aid implementation of revised freshwater aluminum criteria,

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freshwater copper criteria, and recreational bacteria criteria. These guidance documents are available on MassDEP's website.

E. Response to Comments (see additional pages)

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Buzzards Bay Coalition Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Association of Conservation Commissions Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that MassDEP includes language in the Standards describing the agency’s longstanding practice of considering related state regulations in addition to the Standards when issuing Water Quality Certifications...[I]t is paramount that MassDEP’s practices are clarified and it is made evident the critical need for state review when issuing Water Quality Certifications.</p>	<p>4.01</p>	<p>The Massachusetts Department of Environmental Protection (“MassDEP”) included additional language for 401 Water Quality Certifications in the Surface Water Quality Standards (the “Regulation”) at 314 CMR 4.03(7).</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that in Section 314 CMR 4.03(6): <i>Procedures for Sampling and Analyses</i>, MassDEP clarifies what is intended by the use of “greater applicability” for the new or modified procedure that MassDEP would approve as a preferred alternative to a promulgated method.</p>	<p>4.03(6)</p>	<p>MassDEP modified 4.03(6)(b)3 to explain that the term “greater applicability” refers to methods that are more specific to sampling conditions.</p>
<p>Massachusetts Water Resources Authority</p>	<p><u>4.03(6): Procedures for Sampling and Analyses</u> MassDEP proposes revising this section to reference a more current version of Standard Methods. MWRA notes that EPA has stopped referencing individual revisions to the hard copy version of Standard Methods. Instead, EPA lists the specific revision date for each method in 40 CFR 136, which may not be the same as the most recent hard copy of the book. By referencing a specific hardcopy revision, this section will eventually not match the EPA regulation. MassDEP risks getting out of sync with EPA as the referenced revision becomes outdated.</p> <p>MassDEP also proposes revising this section to reference the most recent final Methods Update Rule (2017). EPA recently published a draft revision to the Methods Update Rule in the Federal Register, and the reference to the 2017 Methods Update Rule may be out of date when the Methods Update Rule revisions are finalized.</p>	<p>4.03(6)</p>	<p>MassDEP does not agree that referencing a specific revision date for a method, rather than a hardcopy version of the <i>Standard Methods for the Examination of Water and Wastewater</i>, in the Regulation is necessary. Flexibility to approve additional or alternate methods (and therefore keeping in sync with USEPA) is addressed by the evaluation criteria at 314 CMR 4.03(6)(b)1. thru 3. Also, MassDEP cannot adopt draft versions of methods into the Regulation.</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that the definitions of “Bathing Season” and “Bathing Water” are removed. These definitions are relevant to the Department of Public Health regulations at 105 CMR 445: <i>Minimum Standards for Bathing Beaches</i>, not the Surface Water Quality Standards. Under the Surface Water Quality Standards, ALL waters should be protected as bathing waters, even if they do not have the same sampling requirements as bathing waters regulated under 105 CMR 445.</p>	<p>4.02, 4.05(3), 4.05(4), 4.05(5)(f)</p>	<p>MassDEP removed the definitions of “Bathing Season” and “Bathing Water” from 314 CMR 4.02: <i>Definitions</i>. In the amended Regulation, these terms are defined within the Minimum Criteria Section at 4.05(5)(f)(3)(b) by reference to the relevant Department of Public Health regulation. The amended Regulation also clarifies how the two agencies’ regulations complement each other. MassDEP revised 314 CMR 4.05(3)(a)4.b. and (b)4., and 314 CMR 4.05(4)(a)4.b. and (b)4.b., clarifying that the revised bacteria criteria for all classes of water, with the exception of Classes C and SC (for which no waters are designated), are protective of primary contact recreation.</p>

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<p>Berkshire Environmental Action Team Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that the Massachusetts Wetlands Protection Act regulations pertaining to cold water fisheries (WPA; 310 CMR 10.04: Definitions; Critical Areas) be referenced in the Surface Water Quality definition of “Cold Water.” The Wetlands Protection Act provides a different suite of protections to cold water fisheries than the Surface Water Quality Standards. These two regulations do interact with one another and 314 CMR 4.00 is referenced in 310 CMR 10.04 (Definitions: both under “Critical Areas” and under “Cold Water Fisheries”). The Standards should reference the WPA Definitions Section, specifically to “Critical Areas” and “Cold Water Fisheries” at 310 CMR 10.04 to make clear the regulatory implications beyond the Standards of this designation.</p>	<p>4.02</p>	<p>This proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Berkshire Environmental Action Team</p>	<p>However, we suggest that there needs to be greater transparency, consistency, and cross-referencing among the Departments’ regulations; specifically, among 314 CMR 4.00 Surface Water Quality Standards, 310 CMR 10.00 Wetlands Protection Act, and 321 CMR 5.00 Division of Fisheries and Wildlife Coldwater Fish Resources.</p>	<p>4.02</p>	<p>This proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that in Section 314 CMR 4.03(3): <i>Hydrologic Conditions</i>, MassDEP includes the period of record that will be used for these flow determinations. We recommend that MassDEP uses the most recent 30 years of hydrologic record, similar to the National Weather Service calculation of “climate normals.” The existing caveat should remain in place for water bodies that have been severely depleted by water withdrawals and require other modeling techniques, surrogate flow data, or other historical data to estimate flows.</p>	<p>4.03(3)</p>	<p>This proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews. We note, though, that the Regulation currently allows flexibility to calculate flow determinations using the most appropriate period of record, which may vary depending on available data and the 7Q10 (or other) calculation method.</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that in Section 314 CMR 4.05(5)(e)2.: <i>Use of Toxic Pollutant Criteria in Surface Water Discharge Permits</i>, subsection e “Unlisted Pollutants; Combinations of Pollutants,” MassDEP should clarify the process by which MassDEP will determine and assess which discharges the agency will prevent that may “exceed safe exposure levels for aquatic life” or “cause adverse human health effects.”</p>	<p>4.05(5)(e)2.e.</p>	<p>MassDEP does not agree that further explanation in 314 CMR 4.00 is necessary because these determinations are conducted through other State and federal programs.</p> <p>The process to determine and assess whether the standards established in 4.05(5)(e) are met is set forth in USEPA’s National Pollutant Discharge Elimination System (“NPDES”) regulation at 40 CFR 122 and the Massachusetts Surface Water Discharge Permit Program regulation at 314 CMR 3.00. If USEPA or MassDEP become aware that a facility’s discharge contains a pollutant for which there are no applicable criteria in 314 CMR 4.05, 4.06(6)(c), or 4.06(6)(d), and there are concerns that the pollutant may be harmful to aquatic life or human health, steps may be taken to assess the toxicity or risk, respectively, associated with the discharge.</p>
<p>Environmental Protection Agency</p>	<p>EPA has concerns with MassDEP’s proposed addition of language for each class of waters allowing recreational bacteria criteria to be applied seasonally at the discretion of MassDEP.</p> <p>In the proposed construction it isn’t clear when the <i>E. coli</i> criteria would be in effect. Citizens should be able to tell from their states’ water quality standards what criteria are in effect for a given waterbody at any given time.</p> <p>EPA recommends that the language be revised to specify that decisions about whether criteria apply seasonally will be made via water quality standards rulemaking and submittal to EPA for CWA section 303(c) action. For example, the clause for each class of waters “unless the Department exercises its discretion to apply these criteria seasonally” could be replaced with “unless specified in Tables 1-27 that these criteria apply seasonally.”</p>	<p>4.05(5)(f)</p>	<p>In the previous USEPA-approved Regulation at 314 CMR 4.05: <i>Classes and Criteria</i>, every class of water allowed for seasonal discretion in the application of recreational bacteria criteria. In the amended Regulation, these provisions were consolidated and moved to the Minimum Criteria Section at 314 CMR 4.05(5)(f)4.: <i>Seasonal Exception</i>, except for Classes C and SC. Those provisions were retained in their respective sections. MassDEP also clarified that all determinations of seasonal exception shall be documented in writing through a permitting or approval process and made publicly available for review in accordance with applicable regulations.</p>

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Environmental Protection Agency	<p>EPA recommends revising the following proposed new text at 4.05(5)(e)1. EPA recommends that MA replace the clause “shall be the criteria for those waters, subject to written verification from MassDEP based upon ambient water quality monitoring” with something like “shall be submitted to EPA as site-specific criteria and shall become the applicable criteria for those waters if approved by EPA.”</p> <p>In addition, per EPA’s November 5, 1997 Memorandum “Establishing Site Specific Criteria Equal to Natural Background,” since, unlike aquatic life, humans cannot adapt to natural conditions, EPA further recommends that MADEP add language to clarify that this provision may not be applied to human health criteria.</p>	4.05(5)(e)1.	MassDEP retained the original language relating to background concentrations. The proposed changes to language regarding background concentrations at 314 CMR 4.05(5)(e)1. were removed.
Environmental Protection Agency	<p><u>4.05(5)(e)2.d.: Methods for Data Collection and Calculation of Instantaneous and Final Equation- and Model-Based Criteria Values</u> EPA commends MassDEP for proposing new language to facilitate the use of the most up-to-date model-based criteria. EPA has two recommendations to improve the clarity and precision of this language:</p> <p>a. EPA is concerned that “within and around the receiving water in the area of the discharge location” could be too vague and open to interpretation. EPA recommends that model input data be collected from the water body at a location that represents complete mix with the effluent. It can also be helpful to collect model input data upstream of the discharge, especially if the discharge hasn’t commenced yet or is going to change, to model the complete mix. EPA recommends that MADEP replace this text with something like “in the receiving water from an area representing complete mix, or upstream of the proposed discharge if effluent is not yet being discharged.”</p> <p>b. In clause ii EPA recommends clarifying the term “final criteria.” For equation or model-based criteria adopted as a performance-based approach, i.e. where the resulting numeric values will not be submitted individually to EPA for review, the criteria = the equation/model. EPA recommends that MADEP consider replacing this term with a more precise term, e.g. “criteria calculations” or “numeric values,” or similar to clarify that the resulting number is not the criterion.</p>	4.05(5)(e)2.d	<p>MassDEP modified 4.05(5)(e)2.d.i and ii to improve language clarity and precision concerning the sampling of receiving waters in the area of discharges. These changes include the addition of the term “instantaneous criteria values” to clarify that criteria values are the output of the equations or models that constitute the criteria. These changes also include the addition of the term “final criteria values” to clarify that final criteria values are calculated by MassDEP from multiple instantaneous criteria values.</p> <p>MassDEP also notes that its website includes guidance documents for the implementation of the revised freshwater aluminum and copper criteria in NPDES and Massachusetts Surface Water Discharge permits.</p>
Berkshire Environmental Action Team	Terms in the Definitions section (314 CMR 4.02) should appear in capital letters throughout the text of the regulations.	4.02	The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.
Berkshire Environmental Action Team	In addition, to being capitalized, each term in the text of 314 CMR 4.00 that is defined in section 4.02 should have a hyper-link to the definition for that same term in 4.02.	4.02	The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.
Berkshire Environmental Action Team	A list of “uses” and “existing uses” should be described somewhere in the regulation.	4.05, 4.06(6)(b)	Designated uses are listed for each type and class of water at 314 CMR 4.05: <i>Classes and Criteria</i> and 4.06: <i>Classification, Figures, and Tables</i> . In addition, MassDEP specifies designated and/or existing uses for specific segments within its Integrated List of Waters report (“Integrated Report”) that is submitted to the USEPA pursuant to Sections 305(b), 314, and 303(d) of the Clean Water Act. A copy of the latest Integrated Report is available on MassDEP’s website.
Berkshire Environmental Action Team	<p><u>Procedures for Sampling and Analyses</u> To ensure that water quality data like that collected by the Coalition are not excluded from evaluating SWQS, MassDEP should add criteria for the approval of additional or alternative procedures in a new Section 4.03(6)(b)4.: A procedure that has been approved as part of a Quality Assurance Project Plan for water quality monitoring.</p>	4.03(6)(b)	MassDEP does not agree that additional criteria for the approval of additional or alternative procedures in 314 CMR 4.03(6) in the Regulation are necessary. MassDEP-approved Quality Assurance Project Plans (“QAPPs”) will not be impacted by the regulation revision. For new QAPPs and QAPP renewals, MassDEP will continue to evaluate the methods referenced in QAPPs to ensure that procedures for sampling and analyses are consistent with 314 CMR 4.03(6).

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<p>Berkshire Environmental Action Team Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that in Section 314 CMR 4.06(1)(d)2., MassDEP clarifies the process by which a waterbody can be nominated as an Outstanding Resource Water.</p>	<p>4.06(1)(d)2</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Massachusetts Water Resources Authority</p>	<p>The proposed revisions do not include changes to section 4.03(2): <i>Mixing Zones</i>. However, MWRA suggests that MassDEP take this opportunity to explicitly allow mixing zones for bacteria in marine waters, subject to appropriate conditions that could include distance of more than one tidal excursion from shore, distance from bathing beaches and shellfish beds, and an initial dilution of 50:1 or more.</p>	<p>4.03(2)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Massachusetts Coalition for Water Resources Stewardship</p>	<p>Also, on the aluminum issue, MCWRS asks that MassDEP take a stand regarding anti-backsliding and how it applies in cases where a new, more scientifically valid standard is adopted that may be less restrictive than the previous standard. The new standard should be applied across the board, including to existing permittees that may be meeting the old standard.</p>	<p>4.04</p>	<p>The proposal is outside the scope of the Regulation.</p>
<p>Massachusetts Water Works Association</p>	<p>Finally, MWWA recognizes that antidegradation and anti-backsliding requirements are embedded in the federal Clean Water Act, but we feel compelled to state that new science should always be applicable in permitting decisions and permittees should not be held to stringent standards just because they were unlucky if the timing of their permit came under an older scientific understanding.</p>	<p>4.04</p>	<p>Changes to the Commonwealth’s antidegradation provisions at 314 CMR 4.04: <i>Antidegradation Provisions</i> are outside the scope of the current revisions. Anti-backsliding matters are outside the scope of the Regulation.</p>
<p>Citizen – Hogan, Paul</p>	<p>The new aluminum criteria (either from use of default values or site specific values) will have an effect upon permit limits for both water and wastewater treatment facilities through conditions in NPDES discharge permits; MassDEP should evaluate the impact that anti-backsliding and antidegradation provisions could have on these permits; clarification on how those polices will be utilized is critical.</p>	<p>4.04, 4.06(6)(d)</p>	<p>Changes to the Commonwealth’s antidegradation provisions at 314 CMR 4.04: <i>Antidegradation Provisions</i> are outside the scope of the current revisions. Anti-backsliding matters are outside the scope of the Regulation.</p>
<p>Hall & Associates on behalf of the City of Taunton</p>	<p>The proposed language for 314 CMR 4.04 limits water-quality-based limit backsliding for only two circumstances: (1) for waters not meeting existing standards, a revised TMDL or WLA is provided or (2) for waters meeting applicable standards, state antidegradation requirements are met. The proposed language does not accurately or fully reflect the applicable circumstances under the Clean Water Act where modification of an existing water quality-based limitation is allowed. Therefore, the section should also reference that an exception to anti-backsliding may also apply pursuant to a provision of Section 402(o).</p>	<p>4.04</p>	<p>Anti-backsliding matters are outside the scope of the Regulation.</p>
<p>Hall & Associates on behalf of the City of Taunton</p>	<p>The response to comments should also note that [the Copper WER], as criteria adjustments, is not subject to anti-backsliding or antidegradation considerations. Those concerns only apply to the establishment of specific effluent limitations, not the criteria themselves.</p>	<p>4.04, 4.06(6)(d)</p>	<p>Changes to the Commonwealth’s antidegradation provisions at 314 CMR 4.04: <i>Antidegradation Provisions</i> are outside the scope of the current revisions. Anti-backsliding matters are outside the scope of the Regulation.</p>

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<p>Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that the 90-day-or-smaller interval for bacteria data collection is changed to the current six-month interval, the minimum sample requirement is restored and that a sample frequency definition is established. We also ask that MassDEP clarify whether wet weather data will be considered in making determinations for exceedances. We strongly encourage MassDEP to consider both dry and wet weather data in making any determinations.</p>	<p>4.05(5)(f)</p>	<p>MassDEP does not agree that reverting to the six-month interval and minimum sample requirement in the Regulation is more protective. All 90-day intervals during the calendar year (not just a single 90-day period) must meet both the geometric mean and statistical threshold value bacteria criteria. Further, MassDEP does not specify required weather conditions for data collection in the amended Regulation as the criteria apply during all weather conditions.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Massachusetts Water Resources Authority</p>	<p>One concern with the revision as written is the interval defined for evaluating the geometric mean and whether more than 10% of the samples exceed the statistical threshold value. The draft regulation specifies this interval as “30-day-or-smaller” for bathing waters (in the bathing season) and in waters subject to influence of Combined Sewer Overflows (CSOs) or Publicly Owned Treatment Works (POTWs), otherwise “90-day-or-smaller”. It is not clear how these intervals will be applied in setting NPDES permit limits. Is the intention that “30-day-or-smaller” will relate to a monthly limit?</p>	<p>4.05(5)(f)</p>	<p>MassDEP anticipates that the 30-day-or-smaller interval for bacteria criteria will be implemented in NPDES and Massachusetts Surface Water Discharge permits such that the monthly average effluent limit will be equal to the geometric mean, and the maximum daily effluent limit will be equal to the statistical threshold value.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Neponset River Watershed Association</p>	<p>Propose that if the 90-day-or-smaller interval for bacteria data collection is retained, that MassDEP clarify which 90-day-or-smaller interval will be applied. It is unclear if it will be the immediately preceding 90 days, or determined on a rolling basis, etc.</p>	<p>4.05(5)(f)</p>	<p>MassDEP does not agree that further explanation in the Regulation is necessary. However, MassDEP has revised the Regulation to clarify that the bacteria criteria must be met during any 90-day interval throughout the year.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Neponset River Watershed Association</p>	<p>Propose that to prevent backsliding, MassDEP apply the current <i>E. coli</i> criteria of ≤ 235 cfu/100ml when the STV is calculated using fewer than 10 samples.</p>	<p>4.05(5)(f)</p>	<p>MassDEP does not agree that reverting to prior <i>E. coli</i> criteria when using fewer than 10 samples is necessary in the Regulation. For any data collected, the samples must meet both the statistical threshold value and the geometric mean, which ensures the criteria are protective even in cases with fewer than 10 samples.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Charles River Watershed Association Connecticut River Conservancy</p>	<p>As noted above, there is no need for the water quality standards to have a sub-class of waterways defined as bathing waters where higher standards will be applied, protections appropriate for bathing should be applied to all Class A and Class B.</p> <p>CRC recommends that MassDEP use the same interval for all water bodies; specifically, we recommend that DEP use a 30-day interval for all surface waters, deleting the mention of a 90-day interval.</p>	<p>4.05(5)(f)</p>	<p>MassDEP disagrees. The USEPA’s 2012 recommended <i>Recreational Water Quality Criteria</i> are protective of primary contact recreational use (see USEPA 2012, Section 3.6.5), and MassDEP adopted these criteria to apply to all Class A, B, SA, and SB waters. In addition, the amended Regulation reflects that in most cases, a 90-day interval is protective of primary contact recreation, and, in cases with a potential for increased bacterial exposure, that a 30-day interval is protective.</p> <p>MassDEP notes in new language for Class C and SC waters that the bacteria criteria are protective of secondary contact recreation. In addition, MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Connecticut River Conservancy</p>	<p>We would recommend that 314 CMR 4.05(5) be re-arranged so that the bacteria standards come before the lengthy toxic pollutants subsection.</p>	<p>4.05(5)</p>	<p>MassDEP has streamlined the format of the recreational bacteria criteria in the amended Regulation. See changes made to 314 CMR 4.05(3), 4.05(4), and 4.05(5)(f). It is not feasible for MassDEP to rearrange the bacteria and toxic pollutants subsections in the amended Regulation at this time, although MassDEP may consider this proposal in future triennial reviews.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Connecticut River Conservancy</p> <p>Conservation Law Foundation</p>	<p>Neither 314 CMR 4.00 nor the 2018 CALM describe whether MassDEP considers bacteria results from both wet weather and dry weather in its assessment of whether a water body attains the primary contact recreation use. CRC recommends that DEP make this more explicit and transparent to the public how the bacteria criteria will be used for listing, and how wet vs. dry data are used in bacteria analysis.</p> <p>MassDEP should clarify use of wet weather data in exceedance determinations.</p>	<p>4.05(5)(f)</p>	<p>MassDEP does not specify required weather conditions for data collection in the amended Regulation as the criteria apply during all weather conditions.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Mystic River Watershed Association</p>	<p>In particular, we note one potential consequence of abandoning single sample criteria for impairment by bacteria. We understand that the use of geometric mean or STV standards can in principle better represent a wider range of conditions. But as written, the absence of a minimum sample frequency for bacteria data collection—coupled with the higher numeric threshold—could result, if we understand the proposal correctly, in a single sample serving as the basis of a geometric mean or STV calculation, effectively allowing single-sample monitoring, but weakening the public health protection of the standard.</p>	<p>4.05(5)(f)</p>	<p>MassDEP disagrees that this approach weakens the public health protection of the standard because, in cases where a single sample serves as the basis of a geometric mean and a statistical threshold value evaluation, the sample must meet the more stringent of the two.</p> <p>MassDEP notes that its website includes a technical guidance document that provides more information on the implementation of the revised bacteria criteria.</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that in Section 314 CMR 4.05(5): <i>Additional Minimum Criteria Applicable to all Surface Waters</i>, MassDEP develops numeric nutrient criteria.</p>	<p>4.05(5)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Hall & Associates on behalf of the City of Taunton</p>	<p>Clarify that nutrient objective (narrative and numeric) will be applied as a growing season average and identify ranges of acceptable and unacceptable plant growth based on MEP system evaluations.</p>	<p>4.05(5)(c), 4.06(6)(c)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that criteria be developed for Per- and polyfluoroalkyl substances (PFAS).</p>	<p>4.05(5)(e)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Neponset River Watershed Association</p> <p>Charles River Watershed Association</p> <p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Association of Conservation Commissions Massachusetts Rivers Alliance Merrimack River Watershed Council Nantucket Land Council, Inc. Neponset River Watershed Association</p> <p>Berkshire Environmental Action Team</p> <p>Buzzards Bay Coalition</p> <p>Charles River Watershed Association</p>	<p>Why were none of the Neponset River’s Cold Water Resources included in this update? Could MassDEP clarify which Cold Water Resources were adopted, which were not, and why?</p> <p>CRWA request the other 8 Coldwater Fishery Resources identified in the Charles Basin by MassWildlife (Stony Brook, Cherry Brook, Seaverns Brook, Noanet Brook, Trout Brook, Dix Brook, Miscoe Brook, and Unnamed Tributary (UNT) to Rosemary Brook) also be listed with a Coldwater qualifier.</p> <p>Propose that MassDEP revisits and makes reference to the full list of proposed Coldwater Fisheries Resources (CFR’S) as presented by the Massachusetts Department of Fish and Game.</p> <p>MassDEP describes inter-agency agreements that were made in 2006 where MassDEP agreed that new waters that meet certain criteria could be added to the existing Cold Water list. MassDEP did not accept all stream segments that 321 CMR 5.00 Division of Fisheries and Wildlife (DFW) designates as Coldwater Fish Resources (CFRs). If CFRs are protected as “existing uses”, why are they not all accepted to be put on the Cold Waters list, thereby ensuring their protection?</p> <p>Where streams are not listed specifically in the SWQS, but the Massachusetts Division of Fisheries and Wildlife has designated a stream a “cold water fishery resource”, the Coalition expects that those streams will have the same protections as those specifically listed in the SWQS based on section 4.06 (1) (d) 7. of the SWQS.</p> <p>The fact sheet says that Mass Wildlife-designated cold water streams that are not designated by DEP are still protected as “existing uses,” which are informally tracked - this is vague and unclear, at the very least these should be formally tracked and tracking should be made public.</p>	<p>4.06(6)(b)</p> <p>4.06(6)(b)</p> <p>4.06(6)(b)</p> <p>4.06(6)(b)</p> <p>4.06(1)(d)7.</p> <p>4.06(1)(d)7.</p>	<p>The Division of Fisheries and Wildlife (“MassWildlife”) within the MA Department of Fish and Game provided a list of all Coldwater Fish Resources (“CFRs”) meeting MassDEP requirements for designation of Cold Waters, pursuant to an agreement with MassDEP (Proposed CW List). MassDEP designated all CFRs on this list as Cold Waters in the amended Regulation, except for those which evidenced surface water identification discrepancies between the agencies, which will be addressed in the future. The CFRs identified by certain commenters (those referenced within the Charles and Neponset River Basins) were not designated because they were not on the Proposed CW List.</p> <p>MassDEP notes that it is a long-term goal to designate all CFRs meeting MassDEP’s Cold Water requirements in Tables 1 to 27, as appropriate. However, even in the absence of such designation, as noted by one commenter, all CFRs are protected as existing uses pursuant to 314 CMR 4.06(1)(d)7. We further note that MassWildlife maintains a CFR list and map that are updated annually, and that the CFR map is available on MassWildlife’s website.</p>
<p>Citizen – Hogan, Paul</p>	<p>The addition of 153+ segments as cold water fisheries seems to be protective and pays attention to MAF&W’s expertise- does this listing take into account the trend of increasing ambient water temperatures due to climate change?</p>	<p>4.06(1)(d)7,4.06(6)(b)</p>	<p>Ambient surface water temperature for Cold Waters and CFRs is addressed in the Regulation in two ways. First, all designated Cold Waters must meet the definition of Cold Water Fishery at 314 CMR 4.02, which includes both temperature requirements and a year-round supportive habitat. Second, any CFR identified by MassWildlife based on fish populations, whether or not the water meets the Cold Water Fishery criteria in the Regulation, is also protected as an existing use pursuant to 314 CMR 4.06(1)(d)7.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Massachusetts Coalition for Water Resources Stewardship Massachusetts Water Works Association</p>	<p>MCWRS agrees that it only makes sense for cold water designated resources to be consistently identified between the two state agencies, MassDEP and DFW, charged with managing these waters. Going forward, it appears to that the DFW criteria, based on the actual presence of a reproducing population of cold water fish species, should be applied by both agencies rather than the MassDEP criteria which is based strictly on water temperature. If the regulated community is to be impacted by a cold water designation it should be because there are actually cold water species present and utilizing the waterway and not just because the water is cold. While it is understood that water temperature plays a key role in determining whether certain species can survive, other factors can make a temperature-suitable waterway uninhabitable for some fish species. Temperature should not stand alone as a determinative measure of habitat suitability.</p>	<p>4.02</p>	<p>The proposals are outside the scope of the current revisions to the Regulation. However, MassDEP may consider them in future triennial reviews. Also, to clarify for one commenter, Cold Waters are not designated based upon temperature, alone. The definition of Cold Water Fishery at 314 CMR 4.02 includes both temperature requirements and a year-round supportive habitat.</p>
<p>Berkshire Environmental Action Team</p>	<p>The definition for Cold Water (or Cold-water or Coldwater) is inconsistent among three sets of state regulations.</p>	<p>4.02</p>	
<p>Berkshire Environmental Action Team Massachusetts Association of Conservation Commissions</p>	<p>The definition for “Cold Water Fishery” (or Cold-water Fishery or Coldwater Fish Resource) needs to be consistent with other state regulations dealing with these fisheries.</p>	<p>4.02</p>	
<p>Berkshire Environmental Action Team</p>	<p>All three sets of regulations - 314 CMR 4.00: <i>Massachusetts Surface Water Quality Standards</i>, 310 CMR 10.00: <i>Wetlands Protection</i>, and 321 CMR 5.00: <i>Coldwater Fish Resources</i>, Division of Fisheries and Wildlife - should be consistent. All three regulations should use the same criteria and protocols to determine new Cold Waters.</p>	<p>4.06(1)(d)7.</p>	
<p>Berkshire Environmental Action Team</p>	<p>The new regulations should define what criteria are used to determine whether or not a water will be designated as “Cold Water” and should outline the protocols to be used in applying for consideration of a waterbody for Cold Water status.</p>	<p>4.02, 4.06(1)(d)7.</p>	<p>The Cold Water qualifier at 314 CMR 4.06(1)(d)7.: <i>Cold Water</i> identifies the criteria used to determine Cold Waters.</p> <p>The proposal to outline protocols is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Berkshire Environmental Action Team</p>	<p>All tributaries to Cold Water streams should be protected as Cold Water streams.</p>	<p>4.06(1)(d)7, 4.03(1)(a)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p> <p>MassDEP notes that 314 CMR 4.03(1)(a): <i>Establishment of Effluent Limitations</i> requires that discharges not interfere with the attainment of designated uses in downstream and adjacent segments (which to a certain extent provides protection for tributaries to Cold Waters).</p> <p>MassDEP further notes that the Consolidated Assessment and Listing Methodology (“CALM”) 2018 Guidance Manual, available from the MassDEP website describes, <i>inter alia</i>, the data evaluation procedures used to assess water quality conditions of surface waters in the State. These procedures state:</p> <p>In addition, as a rebuttable presumption, MassDEP will assume that any tributary, perennial or intermittent, entering a Tier 1 or Tier 2 segment upstream of the point where the fish sample used to identify a particular cold water fishery “Existing Use” was collected, is of the same Tier as the water into which it flows. <i>CALM 2018 Guidance Manual at page 36.</i></p>

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<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that criteria be developed for cyanobacteria concentrations (cells/ml) and/or toxin levels (µg/L). Cyanobacteria criteria should apply to all classes of surface waters (314 CMR 4.05: <i>Classes and Criteria</i>) and should be developed for Aquatic Life and Human Health criteria (Tables 29a, 29b). MassDEP should make a commitment to incorporate these criteria in the Surface Water Quality Standards by 2022 at the latest.</p>	<p>4.05(5)(e)2.e, 4.06(6)(d)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Connecticut River Conservancy Charles River Watershed Association</p>	<p>CRC recommends that MassDEP launch a water quality standards advisory panel.</p> <p>First, we request that in future surface water quality update processes MassDEP begin the outreach much earlier in the process.</p> <p>Also requests the DEP hold a series of listening sessions across the state to collect input specifically on pollutants and toxics that are not in the state water quality standards.</p>	<p>4.00</p>	<p>The proposal is outside the scope of the Regulation.</p> <p>MassDEP notes that it is currently exploring options for obtaining public input for future triennial reviews.</p>
<p>Berkshire Environmental Action Team</p>	<p>The state should consider much greater protection for headwater streams – the small, intermittent streams that have unique ecosystems built around the fact that these streams many have a great deal of water with snow melt and heavy rains in the spring, but remain mostly dry the rest of the year.</p>	<p>4.00</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Berkshire Environmental Action Team</p>	<p>The state should develop specific, actionable plans to disconnect Directly Connected Impervious Areas.</p>	<p>4.00</p>	<p>The proposal is outside the scope of the Regulation.</p>
<p>Charles River Watershed Association</p>	<p>CRWA requests that the updated CALM be put out for public comment. We have noted a current discrepancy in the CALM in which the DO standard being applied to warm water fisheries is not completely in line with existing water quality standards.</p>	<p>4.05(3)(a)1.</p>	<p>The proposal is outside the scope of the Regulation.</p> <p>MassDEP guidance and policy documents, such as the CALM 2018 Guidance Manual, are not subject to the public comment process applicable to regulations. However, MassDEP routinely reviews and updates its guidance and policy documents and takes the comment under advisement.</p>
<p>Massachusetts Department of Transportation, Highway Division</p>	<p>Given the new guidance, MassDOT suggests that the sampling and notification requirements for public water suppliers contained in 310 CMR Section 22.06A: <i>Special Monitoring for Sodium, Reporting and Analytical Methods and Frequency</i> be changed to reflect the new sodium threshold instead of the current 20 mg/L threshold.</p>	<p>4.06(6)(d)</p>	<p>The proposal is outside the scope of the Regulation.</p> <p>MassDEP notes that the proposed organoleptic sodium criteria listed in Table 29b at 314 CMR 4.06(6)(d): <i>Table 29: Generally Applicable Criteria</i> has been removed from the amended Regulation.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Massachusetts Water Resources Authority</p> <p>Environmental Protection Agency</p>	<p>MWRA recommends that Table 2 be revised to once again incorporate the “Little River” as part of the Alewife Brook. MassDEP recently extended the water quality standards Variance for Combined Sewer Overflow discharges to the Alewife Brook/Upper Mystic River Basin. Defining a section of the Little River separately from the Alewife Brook makes it unclear whether the Little River is included in the Variance area, as we believe MassDEP intended, and based upon a conversation with DEP staff regarding this item. Furthermore, the upstream end of the Little River—from Little Pond to the upstream end of the new CSO qualified segment—is now missing from the table.</p> <p>Addition of CSO designation to Little River:</p> <p>EPA notes that the proposed revision from unqualified primary contact to a CSO-impacted recreation designated use for Little River appears to propose a downgrade to a 101(a)(2) use that requires a supporting use attainability analysis per 40 CFR 131.10(g). In the final submission of this water quality standard revision to EPA, please either explain how the previous UAA for the Boston Harbor waterways applies to the Little River or provide a new use attainability analysis to support the downgrade.</p>	<p>4.06(6)(b)</p>	<p>MassDEP has separated the 2-mile Alewife Brook Combined Sewer Overflow (“CSO”) segment listed in Table 2 (formerly Table 15): Boston Harbor Drainage Area at 314 CMR 4.06(6)(b): <i>Figure A, Figures and Tables 1 through 27</i> into two parts in the amended Regulation. The original segment description included both the Alewife Brook CSO and a portion of the Little River CSO, even though Little River was not explicitly listed in the Table. The CSO discharges within both segments were subject to the variance, as correctly noted by one commenter.</p> <p>To improve clarity and because the Little River is a distinct water body from Alewife Brook, MassDEP has separated these segments in what is now Table 2 (formerly Table 15) in the amended Regulation. Table 2 also includes a footnote indicating that CSO discharges in the segments are subject to the variance. (Accordingly, there has been no substantive change and a supporting use attainability analysis is unnecessary.)</p>
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Connecticut River Conservancy Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that MassDEP exercises its discretion to designate special resource waters (SRWs) in Massachusetts.</p>	<p>4.06(1)(d)3</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Environmental Protection Agency</p>	<p>Per 40 CFR 131.10(k)(3), the proposal to remove the public water supply use from Cold Brook Reservoir and any other waterbodies for which the PWS use is proposed for removal appears to be a proposed removal of a non-101(a)(2) designated use that must be supported by documentation justifying how the state’s consideration of the use and value of water for the public water supply use appropriately supports the State's action.</p>	<p>4.06(6)(b)</p>	<p>Any required documentation will be provided to the USEPA during the federal approval process of the promulgated Regulation.</p>
<p>Berkshire Environmental Action Team</p>	<p>BEAT requests that the state protect all streams as perennial downstream of any stream segment that is perennial, and that this definition is NOT rebuttable.</p>	<p>4.00</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Charles River Watershed Association</p>	<p>CRWA requests that MassDEP remove the CSO qualifier for the Lower Charles River Basin. Alternatively, the qualifier should include the end date of the water quality variance.</p>	<p>4.06(6)(b)</p>	<p>MassDEP retained the combined sewer overflow (CSO) qualifier for the Lower Charles River Basin (as well as the segment immediately upstream of the Basin), as shown in Table 5 at 314 CMR 4.06(6)(b): <i>Figure A, Figures and Tables 1 through 27</i> of the amended Regulation.</p> <p>However, MassDEP has added a footnote in Table 5 for these two Charles River CSO segments which refers to the applicable variance. This footnote includes the date through which the variance is effective.</p>
<p>Worcester Department of Public Works & Parks</p>	<p>I noted that Table 1 for the Blackstone River Basin had the entire lengths of Beaver Brook and Weasel Brook in Worcester as being qualified as “High Quality Waters”. Could you have someone look into whether these brooks should be high quality waters and correct it before these revisions are finalized?</p>	<p>4.06(6)(b)</p>	<p>The proposal to review High Quality Water qualifiers is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Charles River Watershed Association</p>	<p>CRWA requests a site-specific criteria be added for Charles River Basin for Total Phosphorous and/or Chlorophyll-a based on the Charles River watershed Nutrient TMDLs to ensure the TMDLs are implemented as intended.</p>	<p>4.06(6)(c)</p>	<p>The proposal to add new site-specific criteria is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Charles River Watershed Association Chicopee Rivers Watershed Council Conservation Law Foundation Massachusetts Rivers Alliance Merrimack River Watershed Council Mystic River Watershed Association Nantucket Land Council, Inc. Neponset River Watershed Association</p>	<p>Propose that site specific criteria be applied to all water bodies which have final TMDLs.</p>	<p>4.06(6)(c)</p>	<p>The proposal to add new site-specific criteria is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Citizen – Hogan, Paul Massachusetts Coalition for Water Resources Stewardship</p>	<p>Fifteen segments were removed from the water quality standards after rejection by EPA. These segments had site-specific limits for copper. While it is understood that MassDEP has no choice but to rescind these limits, we do encourage the state to pursue these site-specific limits again using an approach acceptable to EPA.</p>	<p>4.06(6)(c)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Connecticut River Conservancy</p>	<p>We would recommend that Table 28 be modified such that at the beginning of each basin that has a specific aluminum criteria, there be a row added that refers readers to Appendix A of Table 29a for aluminum criteria.</p>	<p>4.06(6)(c), 4.06(6)(d)</p>	<p>MassDEP does not agree that further modification in the Regulation is necessary. The distinction between Table 28 site-specific criteria and Table 29a Appendix A default criteria for aluminum is that the site-specific criteria in Table 28 always apply, but the default criteria in Table 29a Appendix A for aluminum would only apply if the data required to calculate Aluminum criteria values specified in Appendix D are unavailable.</p>
<p>Charles River Watershed Association</p>	<p>CRWA request MassDEP update Copper site-specific criteria for the Charles River Basin based on the EPA’s Biotic Ligand Model (BLM).</p>	<p>4.06(6)(c)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Charles River Watershed Association</p>	<p>Site specific criteria need to be updated on a regular basis.</p>	<p>4.06(6)(c)</p>	<p>MassDEP regularly reviews available data to support updates to site-specific criteria in the Regulation as part of triennial reviews.</p>
<p>Mystic River Watershed Association</p>	<p>We strongly urge that MassDEP support incorporation of phosphorus limits for Mystic River waterways.</p>	<p>4.06(6)(c)</p>	<p>The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.</p>
<p>Massachusetts Water Resources Authority</p>	<p>Footnote 10 on page 166 states that the referenced EPA publications can be found on MassDEP’s website. We were not able to locate these documents on MassDEP’s website; perhaps they will be posted when the regulation is finalized. Otherwise, the footnote should be corrected. We were able to find the documents on EPA’s website, although the “Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989,” EPA 440/5-88-004, is a poor-quality scan.</p>	<p>4.06(6)(d)</p>	<p>The USEPA publication has been posted on MassDEP’s website using a high-quality scan of the document.</p>
<p>Massachusetts Water Resources Authority</p>	<p>BHC-gamma (Lindane) (Table 29a, page 176) – MWRA recommends adding a footnote that states, “The 1980 EPA CMC criterion was divided by 2 to obtain values more comparable to derivations using the 1985 EPA Guidelines.”</p>	<p>4.06(6)(d)</p>	<p>MassDEP has added a footnote to gamma-Hexachlorocyclohexane (also known as gamma-HCH; gamma-BHC; or Lindane) in Table 29a at 314 CMR 4.06(6)(d), to indicate that the 1980 USEPA Criterion Maximum Concentration was divided by 2 to obtain values more comparable to derivations using the 1985 USEPA Guidelines.</p>
<p>Environmental Protection Agency</p>	<p>40 CFR § 131.20(a) was amended as part of the EPA’s 2015 water quality standards (WQS) regulation revision. The amended regulation requires any state that chooses not to adopt new or revised criteria for any parameters for which the EPA has published new or updated criteria recommendations under CWA § 304(a) to explain its decision when reporting the results of its triennial review to the EPA. Please note that the more recently published national 304(a) recommended aquatic life criteria for selenium (2016 – Freshwater) and cyanotoxins (2019-Freshwater) are not listed in this table.</p>	<p>4.06(6)(d)</p>	<p>As per federal regulation, MassDEP will explain its rationale for not adopting USEPA’s recommended selenium (2016 - Freshwater), cyanotoxins (2019 - Freshwater) criteria, and nutrient criteria (2021 – Lakes and Reservoirs) into the amended Regulation as part of the approval package submittal to the USEPA.</p>

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Hall & Associates on behalf of the City of Taunton	For all existing aquatic life criteria, provide an acute and chronic designation so that the appropriate averaging period may be applied. Clarify that any chronic “not to exceed” criteria will be applied in consideration of the appropriate averaging period for such criteria as identified in the corresponding EPA criteria for that parameter.	4.06(6)(d)	The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.
Charles River Watershed Association	With regards to the aluminum criteria, we are glad to see that the criteria are more protective of threatened and endangered species, but it’s unclear to us why the Charles, Mystic, and Neponset Rivers don’t have distinct criteria, and we’re interested in seeing the data behind this calculation and maybe that is something that would be in the technical support document that was referenced earlier.	4.06(6)(d)	Sufficient data to develop default watershed criteria for every watershed were not available. As a result, watersheds with insufficient data to derive default criteria were grouped with adjacent watersheds with sufficient data to develop such criteria, and default criteria were developed for the combined watershed group. For simplicity, adjacent watersheds with similar derived criteria were also grouped. (For purposes of these groupings, adjacent watershed determinations were based upon the watersheds being in the same USEPA Level III ecoregion.) MassDEP notes that its website includes a technical memorandum that describes methods used to group watersheds and to derive watershed default criteria for aluminum in fresh water.
Charles River Watershed Association	With regards to the aluminum criteria...We also understand that these were developed using a long-term data set, which is good, but we are concerned that data from decades ago prior to certain restrictions being in place could potentially result in a high value, so again, we’re interested to see the data on that and hope that it will be released.	4.06(6)(d)	MassDEP took a conservative approach in developing the aluminum default watershed criteria such that any potentially higher older values would not skew the criteria. MassDEP notes that its website includes a technical memorandum that describes methods used to derive watershed default criteria for aluminum in fresh water.
Charles River Watershed Association	CRWA is concerned that the change from 87 ug/L to 390 ug/L for the Chronic Criterion and change from 750 ug/L to 970 ug/L for the Acute Criterion jeopardizes the health of aquatic life. Without the ability to see the underlying data and calculations that lead to this change, we cannot fully assess this change and request that the existing standard stay in place until the underlying data is made public.	4.06(6)(d)	The watershed default criteria for the Charles River Basin and for the Boston Harbor Drainage Area were derived using the USEPA aluminum calculator published in 2018, using data from facilities reporting to MassDEP and data collected by US Geological Survey (USGS). USEPA designed the aluminum calculator to generate protective acute and chronic criteria for a given set of water quality input conditions. Accordingly, MassDEP’s default criteria determined using the aluminum calculator are intended to be protective of the watershed group as a whole, in the absence of local data needed to develop site-dependent criteria. MassDEP notes that where sufficient data are available, site-dependent criteria values would supersede default criteria. MassDEP notes that its website includes a technical memorandum that describes methods to derive watershed default criteria for aluminum in fresh water.
Connecticut River Conservancy	<p>NPDES permittees in the Connecticut River watershed have commonly objected to their existing aluminum permit limits. One problem has been high background levels, requiring permittees to treat their effluent better than what is in the receiving water... While CRC agrees that the old Al criteria could be a burden on NPDES permittees when background Al levels were high, we would be concerned about allowing significantly higher Al loadings.</p> <p>We’re also not sure if the Connecticut River basin default would be appropriate for Belchertown’s permit, given the number of water bodies the effluent discharge goes through before reaching the CT River, especially when we look at the range of other default criteria for tributaries to the CT River such as the Deerfield, Millers, Westfield, Chicopee, and Farmington Rivers.</p> <p>Without seeing the underlying data that MassDEP used to derive the basin-specific numbers, we aren’t able to evaluate the numbers MassDEP proposes for each basin compared to the tables provided for various pH, hardness, and dissolved organic carbon (DOC) levels in Appendix K of the EPA Final Aquatic Life Ambient Water Quality Criteria for Aluminum published in 2018.</p>	4.06(6)(d)	Clarification of NPDES and Massachusetts Surface Water Discharge permits is outside the scope of the Regulation. Decisions regarding facilities’ aluminum effluent limitations will be made by the USEPA and MassDEP, respectively, as permits are renewed or developed. MassDEP notes that its website includes a technical memorandum that describes methods used to group watersheds and to derive watershed default criteria for aluminum in fresh water.

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
<p>Citizen – Hogan, Paul Massachusetts Water Works Association</p>	<p>MassDEP has indicated that they will release the data and protocol used in developing the default values for aluminum after the standards are final; will there be any process available to the public if after review of the data, if there seems to be need of a change or revision of any of the default values?</p>	<p>4.06(6)(d)</p>	<p>MassDEP may consider revisions to default values in future triennial reviews, which undergo a public review process.</p> <p>MassDEP notes that it released on its website a technical memorandum that describes methods used to group watersheds and to derive watershed default criteria for aluminum in fresh water.</p>
<p>Charles River Watershed Association</p>	<p>CRWA requests any Aluminum data collected by MassDEP in the Charles River Basin to evaluate the new standards.</p>	<p>4.06(6)(d)</p>	<p>MassDEP notes that it periodically collects and publishes water quality data, once validated, on its website. Validated water quality data for aluminum are currently available on MassDEP’s website.</p>
<p>Massachusetts Coalition for Water Resources Stewardship Massachusetts Water Works Association</p>	<p>We remain troubled, however, with the overly cautious approach to certain default watershed values that utilize 5th and 10th percentiles of water chemistry data for setting aluminum standards regionally. Utilizing median values of water chemistry data for setting default watershed aluminum limits would be more than protective for even sensitive species. We suggest there is no need to employ the 5th, or even, the 10th percentile approach.</p> <p>MWWA requests that MassDEP rescind the 5th percentile approach proposed in the Chicopee, Connecticut, Farmington/Westfield, Merrimack/Shawsheen and Nashua watersheds, as it does not appear to be necessary to protect freshwater mussels.</p>	<p>4.06(6)(d)</p>	<p>MassDEP does not agree with the characterization that MassDEP used 5th or 10th percentile values of water chemistry (DOC, hardness and pH) data for deriving watershed default criteria. That characterization suggests MassDEP used such values as <i>inputs</i> to the aluminum calculator, when in fact MassDEP used the 5th or 10th percentile values of the calculated criteria <i>output</i> values. In addition, MassDEP disagrees with the proposal of using median values for setting default watershed aluminum criteria, whether for inputs or outputs, because half the time median values would not be protective or consistent with 314 CMR 4.05(5)(e): <i>Toxic Pollutants</i>: "All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife."</p> <p>For watersheds with known endangered species (<i>e.g.</i>, freshwater mussels), use of the 5th percentile value of the calculated criteria output values is warranted to ensure protective conditions.</p> <p>MassDEP notes that its website includes a technical memorandum that describes methods used to group watersheds and to derive watershed default criteria for aluminum in fresh water, including an explanation of how and when the 5th or 10th percentile was applied.</p>
<p>Massachusetts Coalition for Water Resources Stewardship Massachusetts Water Works Association</p>	<p>MWWA would like to also comment on the ability of a system to use default criteria when site-specific data is available. Because there are regulatory implications, we request MassDEP give those Public Water Systems in the USGS study the option of using either their site-specific data or the default criteria.</p>	<p>4.06(6)(d)</p>	<p>MassDEP does not agree with providing the option of using either site-dependent criteria or default criteria for aluminum in fresh water. Site-dependent criteria more closely reflect local water conditions in a specific waterbody compared to the default criteria. Accordingly, where sufficient data are available to generate site-dependent criteria values, site-dependent criteria supersede default criteria.</p>
<p>Environmental Protection Agency</p>	<p>Aluminum criteria -- EPA is providing a few recommendations to clarify and refine the language related to the new criteria.</p> <p>In Table 29a, the CCC and CMC are stated as default or “the calculated concentration using EPA’s aluminum criteria calculator.” EPA is concerned that this could be read to imply that the criteria could be equivalent to a single multiple linear regression (MLR) output for a site, whereas the narrative at 4.05(5)(e)2.d.: <i>Methods for Data Collection and Calculation of Instantaneous and Final Equation- and Model-Based Criteria Values</i> refers to derivation of criteria using “appropriate statistical procedures,” implying the requisite use of multiple datapoints.</p> <p>EPA recommends revising:</p> <p>a. Table column Notes 2: Related to comment #3 above, EPA recommends revising to include an explanatory sentence about the calculator along the lines of: “the aluminum calculator is used to develop criteria implementation values for aluminum.”</p> <p>b. Table column Note 3: EPA recommends rewording the last part to something like: “the numeric values derived using the aluminum calculator and appropriate statistical procedures shall be the values used for criteria implementation.”</p>	<p>4.06(6)(d)</p>	<p>MassDEP amended the language in the notes for the aluminum criteria in Table 29a at 314 CMR 4.06(6)(d) to increase clarity and to ensure consistency with the narrative at 314 CMR 4.05(5)(e)2.d.ii: <i>Methods for Data Collection and Calculation of Instantaneous and Final Equation- and Model-Based Criteria Values</i>.</p>

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
Environmental Protection Agency	All river basin defaults Appendix A – In the final triennial review submission to EPA, please confirm whether these are the same numbers as previously discussed with EPA. If not, please explain why they differ.	4.06(6)(d)	MassDEP will provide documentation and explanation for changes to Table 29a, Appendix A at 314 CMR 4.06(6)(d) in the Regulation approval package to be submitted to USEPA following promulgation of these revisions.
Environmental Protection Agency	<u>All river basins without defaults</u> - For the two river basins for which insufficient data are available to provide a default, EPA recommends that DEP consider ecoregional and any other available data that may be useful to develop defaults. EPA recommends that DEP develop a publicly available procedure for calculating criteria implementation values for waters with insufficient data to use the calculator. EPA recommends this procedure be adopted into MA WQS.	4.06(6)(d)	<p>MassDEP disagrees with the proposed alternative approach for developing default aluminum criteria for the Cape Cod and the Islands Coastal Drainage Areas. Although data outside these Drainage Areas are available (e.g., from other adjacent states), use of such data would be inconsistent with how watershed default criteria have been derived for other watersheds in Massachusetts lacking sufficient data from within the watershed. In such cases, MassDEP uses data from adjacent watersheds in the same Level III ecoregion collected from within Massachusetts.</p> <p>MassDEP notes that its website includes implementation guidance for collecting appropriate water quality data in Massachusetts (including for these drainage areas) in accordance with 314 CMR 4.05(5)(e)2.d., and explains how MassDEP calculates freshwater aluminum criteria values in accordance with 314 CMR 4.05(5)(e)2.d. using the collected data.</p> <p>MassDEP may consider default values for these drainage areas in future triennial reviews.</p>
Citizen – Hogan, Paul Massachusetts Water Works Association	We also think that MassDEP should establish protocols and/or guidance for utilities to use for site-specific data collection and a draft of the proposed protocols should be released for public review and comment.	4.06(6)(d)	MassDEP notes that its website includes implementation guidance for collecting appropriate water quality data in Massachusetts in accordance with 314 CMR 4.05(5)(e)2.d., and explains how MassDEP calculates freshwater aluminum criteria values in accordance with 314 CMR 4.05(5)(e)2.d. using the collected data.
Merrimack River Watershed Council	I have one technical comment at this point in time on Table 29a: the ammonia criteria. The acute standard refers to the EPA Tables 5a and 5b. The chronic criteria also refer to Table 5a and 5b, and I believe it should be referring to Table 6 in the EPA document.	4.06(6)(d)	MassDEP corrected the language to refer to Table 6 of the USEPA’s recommended 2013 ammonia criteria guidance document (EPA 822-R-18-002) for the chronic criterion.
Massachusetts Water Resources Authority	Ammonia (Table 29a, Appendix B,) – the formula for CCC is missing a close parenthesis in the exponent “0.028(20–(T,7).” It should be “0.028(20–M(T,7)).”	4.06(6)(d)	MassDEP corrected the equation.
Charles River Watershed Association	CRWA requests clarification of the sample frequency and averaging period of pH and temperature data for a given water body to calculate the ammonia standard.	4.06(6)(d)	<p>The Criterion Maximum Concentration (CMC) averaging period for pH and temperature data are addressed in footnote 12 to Table 29a at 314 CMR 4.06(6)(d). The Criterion Continuous Concentration (CCC) averaging period for pH and temperature data are explained in the CCC column of the ammonia entry in Table 29a. 314 CMR 4.03(6) addresses procedures for sampling and analyses.</p> <p>MassDEP notes that the 2018 Consolidated Assessment and Listing Methodology (CALM), available on MassDEP’s website, includes guidance on procedures for implementing the ammonia criteria.</p>
Charles River Watershed Association	Recommend MassDEP develops minimum standard criteria for ammonia in the absence of adequate pH and temperature data.	4.06(6)(d)	Development of default ammonia criteria values for fresh water is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.
Citizen – Hogan, Paul	I urge the Department, if possible, to develop copper default values.	4.06(6)(d)	The proposal is outside the scope of the current revisions to the Regulation; however, MassDEP may consider this in future triennial reviews.
Hall & Associates on behalf of the City of Taunton	The City supports the amendment that would allow the use of the Simplified WER procedures to establish appropriate copper criteria for marine waters. This clarification confirms that only dissolved, bioavailable forms of copper are intended to be regulated by the current criteria. The City requests that MassDEP expressly recognize that scientific fact in finalizing the rule – since this change is a clarification of the form of copper that was always intended to be regulated by EPA criteria listed in the 2002 reference document, not a relaxation of the criteria.	4.06(6)(d)	The copper criteria are expressed as dissolved metal in the water column, as stated in Note 1 in Table 29a at 314 CMR 4.06(6)(d) of the amended Regulation. For coastal and marine waters, the WER may be used to adjust the criteria.

Commenter	Public Comment	Regulatory Provision(s)	MassDEP Response
Hall & Associates on behalf of the City of Taunton	The correct averaging period for the acute copper criterion is 24 hours, not 1 hour.	4.06(6)(c), 4.06(6)(d)	EPA's latest recommendation is a 1-hour duration for all acute criteria. MassDEP therefore retains the 1-hour duration for acute fresh water and coastal and marine copper criteria in the amended Regulation at 314 CMR 4.06(c): <i>Table 28: Site-Specific Criteria</i> and 4.06(d): <i>Table 29a: Aquatic Life Criteria</i> .
Hall & Associates on behalf of the City of Taunton	The proposed BLM approach is likely to lead to unintended consequences based on experiences in other states (e.g., Delaware). It is suggested that MassDEP provide additional flexibility to utilize the simplified WER methodology for specific cases in freshwater environments, on a case by case basis. If this option is not available, conservative assumptions and statistical procedures embedded in EPA's BLM method will cause unnecessary and inappropriate regulation of municipal entities.	4.06(6)(d)	Because the Biotic Ligand Model (BLM) includes consideration of bioavailability, MassDEP does not agree that additional flexibility in deriving freshwater copper criteria is needed by providing an option to apply the streamlined Water Effects Ratio (WER) procedure.
Charles River Watershed Association	Recommend MassDEP prioritizes data collection of parameters required for BLM so it can be implemented.	4.06(6)(d)	The proposal is outside the scope of the Regulation.
Massachusetts Water Resources Authority	1,4-Dichlorobenzene (Table 29b) – There is an unexplained asterisk in the Drinking Water Plus Fish & Shellfish Consumption column – this should be explained in the “Notes” column.	4.06(6)(d)	MassDEP removed the unexplained asterisk in the amended Regulation.
Massachusetts Water Resources Authority	Zinc (Table 29b,) – There is an unexplained asterisk in the Organoleptic Effect (Taste and Odor) column.	4.06(6)(d)	MassDEP removed the unexplained asterisk in the amended Regulation.
Massachusetts Department of Transportation, Highway Division	<p>The proposed changes in drinking water guidance thresholds for sodium appear to be adopting EPA's most recent guidance that suggests using a range of 30 to 60 mg/L to minimize taste effects. MassDOT recommends using the higher value of 60 mg/L to avoid confusion and since, as indicated in the table notes, the guidance addresses taste and not health effects and thus the higher value sees more appropriate.</p> <p>MassDOT suggests that this proposed sodium threshold have a reduced level of enforceability in comparison to human health and aquatic life standards since the sodium threshold is based on aesthetics/taste and not health and toxicity effects.</p>	4.06(6)(d)	The proposed criterion for sodium is one of four drinking water advisory thresholds for which MassDEP had been considering adopting as organoleptic effect criteria in the amended Regulation. The other three are thresholds for sulfate, ammonia, and methyl tertiary butyl ether (MTBE). MassDEP has removed the proposed organoleptic effect criteria for these four pollutants from Table 29b at 314 CMR 4.06(6)(d), pending further review and possible future consideration.
Environmental Protection Agency	MassDEP is adopting water quality criteria for some pollutants for which EPA has not published National Water Quality Criteria Recommendations under Section 304(a) of the Clean Water Act. For a few of these pollutants, DEP is adopting 1993 MMCLs as surface water criteria to protect human health, including cadmium. To facilitate EPA's review of these criteria, in the final submission to EPA, please provide supporting documentation identifying whether each MMCL is based on an MCL or an MCLG.	4.06(6)(d)	MassDEP's amended Regulation approval package to the USEPA will include supporting documentation identifying the basis for each Massachusetts Maximum Contaminant Level.
<p>National Council for Air and Stream Improvement, Inc.</p> <p>American Chemistry Council American Forest & Paper Association Seaman Paper Company of Massachusetts</p>	<p>These comments relate specifically to the DEP's need to consider revisions to HHWQC during the current triennial review cycle. NCASI and its members support the DEP's need to carefully consider the scientific underpinnings of EPA's 2015 criteria recommendations and evaluate alternatives that may provide an improved basis for managing surface waters in Massachusetts. We hope that the DEP will carefully review the technical information we are providing and consider using a more appropriate scientific basis for deriving HHWQC that are appropriate for waters in Massachusetts.</p> <p>A. States are not required to adopt EPA's national HHWQC B. EPA previously reiterated state flexibility in adopting HHWQC C. The national HHWQC are unnecessarily conservative and based on unrealistic default values D. The national HHWQC could be extremely expensive or impossible to comply with E. The national HHWQC are not necessarily applicable to Massachusetts' water F. There is a more scientifically advanced way to calculate human health criteria: Probabilistic Risk Assessment (PRA)</p>	4.06(6)(d)	The USEPA provides recommended human health criteria under Section 304(a) of the Clean Water Act. MassDEP plans to continue to rely upon USEPA's recommended human health criteria, where applicable, at this time.