



BERKSHIRE ENVIRONMENTAL ACTION TEAM
29 Highland Ave. Pittsfield, MA 01201 • thebeatnews.org
(413) 230-7321 • team@thebeatnews.org

Protecting the environment for wildlife in support of the natural world that sustains us all.

November 8, 2019

Richard Carey
MassDEP, Watershed Planning Program
8 New Bond Street
Worcester, MA 01606

by email to: richard.carey@mass.gov

RE: Proposed amendments to 314 CMR 4.00, Massachusetts Surface Water Quality Standards

Please accept the following comments from Berkshire Environmental Action Team, Inc. (BEAT). BEAT's mission is to protect the environment for wildlife in support of the natural world that sustains us all.

Generally we are pleased that the proposed amendments designate additional cold water streams, update and clarify certain site-specific criteria, and make the basin tables more clear and consistent.

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. Without this, the public is at a loss to determine the interactions among the various regulations. Unless a citizen is familiar with all of the state regulations that interact, for example, with regard to cold water fisheries, they will be unable to determine the breadth and importance of a particular designation, e.g., "Cold Water Fishery".

We realize that this request for public comment is with regard only to 314 CMR 4.00. However, unless the process of linking these three regulations together begins with 314 CMR 4.00, it may be a decade or more before the intent behind the interactions among these three sets of regulations truly become transparent, and understandable to the public.

Comment 1. 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.

Discussion: In the table we provide (attached), one can see that neither the terminology nor the definitions of Cold Water Fishery among the three regulations is consistent. The Wetlands Protection Act in the Definitions section 310 CMR 10.04 for Cold-water Fishery includes the same definition as the Surface Water Quality Standards, and then goes on to specifically mention those standards as well as the Coldwater Fish Resource (CFR) defined in 321 CMR 5.02 Definitions. **We suggest that the definition in all three regulations should be the same and reference the other two regulations.**

Comment 2. The definition for Cold Water (or Cold-water or Coldwater) is inconsistent among three sets of state regulations.

Discussion: In the table we provide (attached), the three different regulations use different spellings for “Cold Water” which means you cannot search for the same term in each document. The word “Cold” does not even occur in 321 CMR 5.00 Division of Fisheries and Wildlife Coldwater Fish Resources.

- 314 CMR 4.00 Surface Water Quality Standards uses “Cold Water” and provides a definition, but it is not defined in the Definitions section of 314 CMR 4.00 Surface Water Quality Standards, but instead is in 314 CMR 4.06 Basin Classification and Maps (1) Classification (d) Qualifiers 7. Cold Water.
- 310 CMR 10.00 Wetlands Protection Act uses “Cold-water” but never defines it other than as part of the definition of Cold-water Fishery.
- 321 CMR 5.00 Division of Fisheries and Wildlife Coldwater Fish Resources uses “Coldwater”, but it is never defined other than as part of Coldwater Fishery.

In addition to the above, in a press release on revisions to 314 CMR 4.00 with regard to Cold Water (see:

https://www.mass.gov/files/documents/2019/10/04/FactSheet_MassDEP_314CMR4_ColdWaters.pdf) MassDEP describes inter-agency agreements that were made in 2006 where MassDEP

agreed that new waters that meet the following criteria could be added to the existing Cold Water list:

- Sampling occurred between July 1st and August 31st
- The fish population was comprised of greater than 50% cold water fish
- The stream temperature was less than 20°C (68°F), and

- If there is a single species of cold water fish, there must be a documented age distribution indicative of a reproducing population

However, MassDEP did not accept all stream segments that 321 CMR 5.00 Division of Fisheries and Wildlife (DFW) designates as Coldwater Fish Resources (CFRs).

The criteria listed in the press release are different than the criteria - or protocol - stated in DFW's 321 CMR 5.03: Criteria and Procedure for Designating a CFR.

In that same press release, MassDEP says, "CFRs that are not designated as Cold Waters are still protected as "existing uses" (uses attained in a waterbody on or after November 28, 1975). Existing uses are informally tracked; therefore, listing a surface water as a Cold Water in addition to it being a CFR reinforces its protection and assures that if the cold water habitat is impaired (degraded), a Total Maximum Daily Load (TMDL) could be developed to restore it (see 314 CMR 4.03(1)(c))." **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?**

Comment 4. 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.

Discussion: The new regulations must make very clear *in the regulations themselves* what criteria are being used to specify how new stream segments could be evaluated to be added to the existing Cold Water list. It is critical that we make every effort as soon as possible to assess as many stream segments as possible for inclusion on this list to prevent the degradation and loss of many Cold Water streams that have not yet been evaluated.

Because time is critical in having all our waters assessed, perhaps the following wording could be added to the regulations at 314 CMR 4.06 (1) (d) 7.

The Department may, on its own initiative or in response to a reasonably-supported request made pursuant to 4.06 (1) (d) 7. a., assess a waterbody to determine its status as a Cold Water. The Department's determination of whether a waterbody should be designated as a Cold Water shall be based on biological data and other relevant information, including but not limited to, the following considerations:

- a. sampling of the water body segment in question occurred between July 1 and August 31;*
- b. the fish population in the sampling segment was comprised of greater than 50% cold water fish species (as defined at 321 CMR 5.00);*

*c. the stream temperature was less than 20°C (68°F) at the time of sampling; and
d. if there was only a single species of cold water fish in the segment, and that fish was a salmonid, there must be a documented age distribution indicative of a reproducing population; in contrast, a finding of non-salmonid cold water fish in the evaluated segment will be considered indicative of a reproducing population of cold water fish of that species.*

7. (a) Requests that the Department Evaluate the Cold Water Status of a Waterbody or segment:

a. A person may request the Department to reconsider its designation of a waterbody or segment as a Cold Water, or to designate a new waterbody as a Cold Water. Any such request must be made in writing, provide the basis for the request and include supporting biological data and information as outlined at 314 CMR 4.06 (7) a-e.

b. Within 60 days of the filing of a request, the Division will notify the requestor in writing of whether the request is reasonably supported and if the designation change will be submitted in the next round of regulatory revisions. The Department will consider requirements of the Existing Use clause (314 CMR 4.01) in this determination. Before acting on a request, the Department may require the requestor to provide additional supporting biological data or information; and the Department may determine that the segment requires additional data collection by a separate party. If the Department determines that additional information is needed, the Department will also identify a timeframe by which the additional data should be collected. The Department itself may undertake this follow-up determination of the waterbody's Cold Water status. Follow-up data collection will generally take place over the period from July 1 through August 31.

And again, all three sets of regulations - 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 - should be consistent. All three regulations should use the same criteria and protocols to determine new Cold Waters.

Comment 6. Protocols for adding new Outstanding Resource Waters (ORWs) should be provided or referenced in 314 CMR 4.00.

Discussion: 314 CMR 4.06 (1)(d)2. states that:

“An application to nominate a waterbody as an Outstanding Resource Water must be submitted in accordance with applicable Department application procedures and requirements.”

The 314 CMR 4.00 regulations should either outline these procedures and requirements or provide a link to these. Otherwise, the public is kept in the dark regarding what is needed for a successful application for an ORW.

Comment 7. Terms in the Definitions section (413 CMR 4.02) should appear in capital letters throughout the text of the regulations.

Discussion: a number of terms that are used in the regulations have very specific definitions, but are also used in common language. For example the terms “use”, “uses”, “existing use”, and “existing uses” all have very specific definitions and are used throughout the regulation. To denote that these have specific definitions that are outlined in section 4.02, the regulation should have some format for identifying to the reader, the exact nature of the term.

Comment 9: 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.

Discussion: At this point, the use of hyper-links are common and would greatly assist in making the regulation more transparent, and the intent of each term more understandable.

Comment 10: A list of “uses” and “existing uses” should be described somewhere in the regulation. If these are not listed, how is the public to know what are appropriate “uses” and “existing uses” which are to be maintained?

Discussion: Throughout the regulations there is language that states that “uses” or “existing uses” are to be maintained. Accordingly, in response to EPA mandates, TMDLs are required to be developed when either of these are not being maintained. In order to allow transparency of these regulations, a list of these Uses should be shared with the public.

Comment 11: 314 CMR 4.00 should cross-reference 310 CMR 10.00 with regard to “Cold Water” and “Outstanding Resource Waters” and their importance as “Critical Areas” in the latter regulation.

Discussion: 310 CMR 10.04 Definitions defines Critical Areas including Outstanding Resource Waters as designated in 314 CMR 4.00, Special Resource Waters as designated in 314 CMR 4.00, and Cold Water Fisheries (314 CMR 4.00), receive special protections against storm water pollution through regulations outlined in 310 CMR 10.00.

Because 310 CMR 10.00 uses the term Critical Area to then specify what protections are then offered for these areas, BEAT feels strongly that further cross-reference within the 314 CMR 4.00 to 310 CMR 10.04 would inform the public. We feel that 314 CMR 4.00 should adopt the definition for Critical Areas where it applies to surface waters. Also 314 CMR 4.00 should specify that the Critical Area, ORW, and Cold Water Fishery designations carry protections beyond those provided in 314 CMR 4.00, and again provide cross-reference to the other regulations.

Without such a cross-reference, the public may be unaware of the network of protections for these important water resources.

Comment 12: All tributaries to Cold Water streams should be protected as Cold Water streams.

To further protect our existing Cold Water streams, BEAT suggests that all tributaries to Cold Water streams, should be protected as Cold Water streams. Allowing upstream waters to be degraded by warming because of a lack of this protection, will make it impossible to maintain the cold temperatures needed by wildlife in the Cold Water streams.

Comment 13: 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. Once perennial, Always perennial.

In the Berkshires, we have fairly unique calcareous geology that can be very porous. This leads to “sinking” or “losing” streams. When water flows are not high, many of our streams flow strongly where there is a steeper gradient, but travel underground in some places where there is low gradient. You can read about this phenomenon in the books about the history of Pittsfield. These streams, many are cold water streams, deserve protection as perennial streams. We suggest that once a stream is perennial, every segment downstream of that segment should also be considered perennial, and that this should **not be rebuttable**. Once perennial, always perennial.

Comment 14: 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.

Discussion: We believe that the lack of protection for our headwater streams is degrading waterways downstream by starving waterways of natural nutrients and eliminating headwater ecosystems that are unique and important. We need to recognize that the headwaters are the basis of all of our waterways. As development pushes high into our hills, these ecosystems are being destroyed because we fail to sufficiently protect intermittent headwater streams. Thus we starve the entire waterway of essential functions provided by these headwater ecosystems.

Comment 15: The state should develop specific, actionable plans to disconnect Directly Connected Impervious Areas (DCIAs)

Discussion: BEAT feels strongly that we must immediately begin to disconnect our Directly Connected Impervious Areas (DCIAs) from our surface waters. Road, parking lots, and rooftops create a huge share of the pollution going into our surface waters. In addition, DCIAs are responsible for dramatically increasing flooding by dumping much of the stormwater that falls during an intense storm, almost immediately into the nearest waterbody. These huge pulses of stormwater contribute to flooding - especially with our intense storms resulting from the climate crisis. But the problems do not end with flooding. Because all that stormwater did not infiltrate into the ground to make its way slowly to the waterbody, there is much less groundwater to work its way slowly to the waterbody during the drier times of the year, resulting in our streams and rivers unnaturally drying during these lower flow periods. This is a problem that we should have started tackling decades ago. Let's start now!

Thank you for considering our comments. If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink that reads "Jane Winn". The signature is written in a cursive, flowing style.

Jane Winn
Executive Director

314 CMR 4.00 Surface Water Quality Standards	310 CMR 10.00 Wetlands Protection Act	321 CMR 5.00 DFW Coldwater Fish Resources
<p>314 CMR 4.02 Definitions</p> <p>Cold Water Fishery.</p> <p>Waters in which the mean of the maximum daily temperature over a seven day period generally does not exceed 68°F (20°C) and, when other ecological factors are favorable (such as habitat), are capable of supporting a year-round population of cold water stenothermal aquatic life such as trout (salmonidae).</p>	<p>310 CMR 10.04 Definitions</p> <p>Cold-water Fishery means</p> <p>waters in which the mean of the maximum daily temperature over a seven day period generally does not exceed 68°F (20°C) and, when other ecological factors are favorable (such as habitat) are capable of supporting a year round population of cold-water stenothermal aquatic life such as trout.</p> <p>Waters designated as cold-water fisheries by the Department in 314 CMR 4.00: Massachusetts Surface Water Quality Standards</p> <p>and waters designated as cold-water fishery resources by the Division of Fisheries and Wildlife are coldwater fisheries. Waters where there is evidence based on a fish survey that a cold-water fish population and habitat exist are also cold-water fisheries. Cold-water fish include but are not limited to brook trout (<i>Salvelinus fontinalis</i>), rainbow trout (<i>Oncorhynchus mykiss</i>), brown trout (<i>Salmo trutta</i>), creek chubsucker (<i>Erimyzon oblongus</i>) and fallfish (<i>semotilus corporalis</i>).</p>	<p>321 CMR 5.02 Definitions</p> <p>Coldwater Fish Resource (CFR) means</p> <p>a water body that contains Coldwater Fish that were reproduced in that waterbody or a tributary thereto and use such waters to meet one or more of their life history requirements.</p> <p>Coldwater Fish means the following fish species that are sensitive to increases in temperature and require coldwater to fulfill one or more of their life stage requirements:</p> <ul style="list-style-type: none"> (a) Longnose Sucker (<i>Catostomus catostomus</i>); (b) Slimy sculpin (<i>Cottus cognatus</i>); (c) Lake chub (<i>Couesius plumbeus</i>); (d) American Brook Lamprey (<i>Lampetra</i> appendix); (e) Burbot (<i>Lota lota</i>); (f) Rainbow trout (<i>Oncorhynchus mykiss</i>); (g) Rainbow Smelt (<i>Osmerus mordax</i>); (h) Landlocked salmon (<i>Salmo salar</i>); (i) Brown Trout (<i>Salmo trutta</i>); (j) Brook Trout (<i>Salvelinus fontinalis</i>); and (k) Lake Trout (<i>Salvelinus namaycush</i>).

<p>314 CMR 4.06 (1) 7. Cold Water Cold Water - in these waters dissolved oxygen and temperature criteria for cold water fisheries apply. Certain waters not designated as cold water in 314 CMR 4.00 may contain habitat that supports a cold water fish population and, in such cases, the coldwater fish population and habitat shall be protected and maintained as existing uses. TheMassachusetts Division of Fisheries and Wildlife is responsible for identifying cold water fish populations that meet their protocol regardless of whether or not the water meets the cold water criteria in 314 CMR 4.00. Where a cold water fish population has been identified by the Division of Fisheries and Wildlife as meeting their protocol, but the water has not been documented to meet the cold water criteria in 314 CMR 4.00, theDepartment will protect the existing cold water fish population and its habitat as an existing use.</p>	<p>No definition of Cold Water other than as Cold-water Fishery.</p>	<p>No definition of Cold Water other than as Coldwater Fishery. In fact the word “cold” never appears.</p>
<p>No definition of Outstanding Resource Waters in definitions, but in 4.06: Basin Classification and Maps 2. Outstanding Resource Waters - denotes those waters, other than Class A Public Water Supplies and their tributaries, that are designated for protection as Outstanding Resource Waters under 314 CMR 4.04(3). Outstanding Resource Waters are assigned at the discretion of the Department, as appropriate. An application to nominate a waterbody as an Outstanding Resource Water must be submitted in</p>	<p>Outstanding Resource Water means a surface water of the Commonwealth so designated in the Massachusetts Surface Water Quality Standards at 314 CMR 4.00: Massachusetts Surface Water Quality Standards.</p>	<p>No definition or mention of Outstanding Resource Waters.</p>

<p>accordance with applicable Department application procedures and requirements.</p> <p>314 CMR 4.06(2) Wetlands. Wetlands bordering Class A Outstanding Resource Waters are designated Class A Outstanding Resource Waters. Vernal pools are designated Class B Outstanding Resource Waters. All wetlands bordering other Class B, SB or SA Outstanding Resource Waters are designated as Outstanding Resource Waters to the boundary of the defined area.</p> <p>314 CMR 4.06 (3) Active and Inactive Reservoirs. All active and inactive reservoirs approved by the Department's Drinking Water Program after December 29, 2006 as a source of public water supply are designated Class A, Outstanding Resource Waters, regardless of whether they are listed in the tables to 314 CMR 4.00.</p>		
<p>No definition of Critical Areas</p>	<p>Critical Areas mean Outstanding Resource Waters as designated in 314 CMR 4.00, Special Resource Waters as designated in 314 CMR 4.00: Massachusetts Surface Water Quality Standards recharge areas for public water supplies as defined in 310 CMR 22.02: Definitions (Zone Is, Zone IIs, and Interim Wellhead Protection Areas for ground water sources and Zone As for surface water sources), bathing beaches as defined in 105 CMR 445.000: Minimum Standards for Bathing Beaches (State Sanitary Code: Chapter VII), cold-water fisheries and shellfish growing areas.</p>	<p>No definition of Critical Areas</p>