

**06-096 C.M.R. Chapter 584: Surface Water Quality Criteria for Toxic Pollutants
Basis Statement and Response to Comments**

Basis Statement: This statement is adopted by the Department pursuant to the Maine Administrative Procedure Act (APA), 5 M.R.S. § 8052(5), which requires agencies, at the time of adoption of any rule, to also adopt a written statement explaining the basis for the rule.

Maine law, 38 M.R.S. § 420(2), requires the Department of Environmental Protection (Department or DEP) to regulate toxic substances in the surface waters of the State pursuant to state water quality criteria, consisting of levels set forth in federal water quality criteria as established by the United States Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act (CWA) Section 304(a) or pursuant to adoption of alternative statewide or site-specific criteria found to be protective of the most sensitive designated use of the water body.

This rulemaking revises an existing Maine DEP rule, 06-096 CMR ch. 584 (Chapter 584), effective date July 29, 2012, with an original effective date of May 17, 1993. The original rule was established in response to amendments to the CWA in 1987 and amendments to 38 M.R.S. § 420 enacted in 1991, both of which required Maine to develop comprehensive rules dealing with toxic pollutants in licensed wastewater discharges. The Department established and has managed a surface waters toxics control program since at least the effective date of the original rule.

The purpose of these revisions is to: calculate and establish human health criteria for toxic pollutants (HHC) to protect the new sustenance fishing designated use (SFDU) established as a subcategory of the applicable fishing designated use for certain specified segments of waterbodies in the State within Maine's water classification program, 38 M.R.S. 464-470, as specified by P.L. 2019 ch. 463 (An Act to Protect Sustenance Fishing, or LD 1775); institute water effect ratios (WERs) for the Androscoggin and St. Croix rivers; promulgate new ambient water quality criteria (AWQC) for copper in the Little Androscoggin River based on the Biotic Ligand Model (BLM); and introduce carbaryl in the non-priority pollutant list. Further, these revisions also establish updated Maine AWQC for 94 existing human health criteria for all waters not expressly subject to the new SFDU using the methodology and final values from the EPA Human Health Ambient Water Quality Criteria 2015 updates (2015 HHC updates), except for aluminum, copper, and selenium, which are not being updated at this time, and by also using Maine-specific fish consumption rates (FCRs) as applicable. The Department anticipates that the revised rule will operate successfully within the Department's existing program.

Public notice of this rulemaking was initially published on October 2, 2019, to comply with CWA notice requirements, and on October 30, 2019, to comply with the Maine APA notice requirements. These notices were posted on the DEP and the Maine Secretary of State's websites, and published in the Bangor Daily News, Kennebec Journal, Lewiston Sun Journal, Waterville Morning Sentinel, and Portland Press Herald. Notice also was sent to each person who previously had filed a written or electronic request for notice of DEP rulemaking activities. The Board of Environmental Protection (Board or BEP) held a public hearing on the proposed rulemaking on November 21, 2019, and the period for submitting public comments closed on December 6, 2019. The Department received comments on the draft rule as listed below. The draft rule (*was/was not*) subsequently revised based on the public comments as noted in the response to comments below.

During the public comment period, comments were received from the following:

C-1	Ahearn, Beth	Maine Conservation Voters
C-2	Andes, Fredric	Federal Water Quality Coalition
C-3	Bennett, Nick	Natural Resources Council of Maine
C-4	Bernard, Kaitlyn	The Nature Conservancy
C-5	Boulos, Rebecca	Maine Public Health Association
C-6	Burrows, John	Atlantic Salmon Federation
C-7	Burt, Anne D.	Edgecomb, Maine
C-8	Carson, Brownie	Environment and Natural Resources Committee
C-9	Colihan, Dana	Toxics Action Center
C-10	D'Andrea, Karen	Physicians for Social Responsibility Maine Chapter
C-11	Davis, John	Town Manager, Town of Millinocket
C-12	Dieffenbacher-Krall, John	Episcopal Committee on Indian Relations
C-13	Donahue, Eliza	Maine Audubon
C-14	Elliott, Alice	Sierra Club, Maine Chapter
C-15	Eshoo, Amy	350 Maine
C-16	Fetcher, Anya	Environment Maine
C-17	Field, Reverend Jane	Maine Council of Churches
C-18	Frignoea, Ivy	Friends of Casco Bay
C-19	Gallo, Susan	Maine Lakes Society
C-20	Gwinn, Patrick	Integral Consulting Inc.
C-21	Hager, Shirley	Friends Committee on Maine Public Policy
C-22	Hudson, Landis	Maine Rivers
C-23	Kallin, David and Chavaree, Mark A.	Penobscot Indian Nation
C-24	Kallin, Peter L.	Rome, Maine
C-25	Kusnierz, Daniel H.	Penobscot Indian Nation
C-26	Lavertu, Carmen	Thomaston, Maine
C-27	Madore, Michael	Councilor, Town of Millinocket
C-28	Mahoney, Sean	Conservation Law Foundation
C-29	Oltarzewski, Diane	Belfast, Maine
C-30	Osborne, Michael	Our Katahdin
C-31	Phipps, Robert	Oranbega Retreat Center, Friends Meeting of Orland
C-32	Rand, Phyllis Arnold	Greater Augusta Utility District
C-33	Reardon, Jeff	Maine Council Trout Unlimited
C-34	Sabattis, Clarissa	Chief, Houlton Band of Maliseet Indians
C-35	St. Pierre, Jym	RESTORE: The North Woods
C-36	Sawyer, Bradley	Maine Rural Water Association
C-37	Sherman, Gregory F.	Houlton Water Company
C-38	Schwartz, Jerry	American Forest & Paper Association
C-39	Spaulding, Heather	Maine Organic Gardiners and Farmers Association
C-40	Stewart, Jean	New Sharon
C-41	Strauch, Patrick J.	Maine Forest Products Council
C-42	Taylor, William E.	Maine Forest Products Council
C-43	Tucker, Ralph	Environment and Natural Resources Committee
C-44	Wendell, Adrew G.	ClearWater Laboratory
C-45	Wiegand, Paul	National Council for Air and Stream Improvement, Inc.
C-46	Woodbury, Sarah	Environmental Health Strategy Center

The Department received comments from the following after the close of the comment period and did not consider the comments in this rulemaking process:

Altwater, Brian	The Schoodic Riverkeepers
Scott, Matthew	Belgrade

Comments and Responses

This document summarizes and responds to all substantive comments offered on the proposed rulemaking by members of the public at the November 21, 2019 public hearing and in writing during the public comment period of October 2, 2019 through December 6, 2019. The letter in parentheses at the end of the comment corresponds to the person providing the comment and, if applicable, the organization the person represents, as listed above. Comments may be abbreviated, paraphrased, and/or consolidated. Where appropriate, similar comments have been combined. In some cases, typographical or other minor errors in comments have been corrected. The Department has considered the full content of all the comments received in formulating its responses. The comments and responses are arranged by general subject matter of concern to commenters.

Tribal Waters / Sustenance Fishing Issues

Comment: We strongly support continued and ongoing efforts to foster collaboration and trust between Maine's Wabanaki tribal nations, landowners and land trusts, and the State. Tribal sovereignty and sustenance fishing rights must be honored as intended in LD 1775. We encourage BEP to move forward with the original proposed changes to Chapter 584 and to not delay implementation or open these rules to unintended, broader changes or studies. (C-4)

Response: The Department notes that this rulemaking does not address issues of tribal sovereignty or any legal bases for tribal sustenance fishing rights other than the new SFDU pursuant to LD 1775. Moreover, 38 M.R.S. § 466-A(3), as established by LD 1775, provides that nothing in Section 466-A and in the designation of such a SFDU under Title 38, Article 4-A, may be construed to create any other right or protection or limit any right or protection otherwise existing in law. The State's positions on these other tribal issues, alleged rights, and disputes are generally outside of the context of LD 1775 and are set forth in the State's filings related to that litigation, *Maine v. Wheeler*, No. 14-cv-264-JDL (D.Me.), including Maine's Motion For Judgment On The Administrative Record As Supplement With Incorporated Memorandum of Law, ECF No. 118. No changes were made in response to these comments.

Comment: In their comments on the proposed rule, the Penobscot Nation (Nation) expressed its strong preference that all of their tribal waters be covered by the SFDU subcategory and associated HHC. The Nation also noted that for those tribal waters not yet designated for the SFDU subcategory, the proposed HHC for those waters, which (except for arsenic) are based on a 32.4 grams per day fish consumption rate (FCR) and a cancer risk level (CRL) of 1×10^{-6} (1 in one million), effectively protect the Nation at levels that EPA's guidance has stated is appropriate to protect all target populations (i.e., at a CRL of 1×10^{-5} or 1×10^{-6}). Assuming an FCR of 200 grams per day, the Nation asserts that it would be protected by the proposed HHC for non-subcategory waters at an effective CRL of 7×10^{-6} (7 in one million). (See Nation comments, C-23.) The Houlton Band of Maliseet Indians (Houlton Band) also made the observation that in waters not subject to the SFDU subcategory, the proposed HHC would offer protection for sustenance fishers, including tribal fishers, at a CRL appropriate for a target general population level (i.e., close to 7×10^{-6} , assuming a FCR of 200 grams per day day). (See Houlton Band comments, C-34.)(C-23, C-34)

Response: DEP acknowledges the Tribes' hope that additional waters may be added to the SFDU subcategory in the future. In the meantime, DEP confirms and agrees with the Nation and the Houlton Band that the proposed HHC (apart from arsenic) for all other waters would protect tribal and non-tribal sustenance fishers at an effective CRL of approximately 7×10^{-6} , assuming an FCR of 200 grams per day,

and that this level of protection is well within the range that EPA identifies as being appropriate for protection of any target population. Over a decade ago, Maine chose as a risk management policy decision to adopt a 32.4 grams per day FCR and 1×10^{-6} CRL to be used when calculating its general statewide HHC. The 32.4 grams per day FCR is significantly higher than EPA's current default FCR for the general population and is among the highest statewide FCR's in the country for protecting a general target population. In addition, Maine's use of a 1×10^{-6} CRL (except for arsenic) is at the high end of the range recognized by EPA as being appropriate for target population protection. As the Tribes observe, the resulting proposed HHC values also protect sustenance fishers in non-SFDU subcategory waters at a CRL within EPA's recommended range for the protection of all target populations, including sustenance and subsistence fishers. If additional waters are added to the SFDU subcategory, then the applicable HHC for such waters would be those that the Maine Legislature has, in its policy discretion, chosen to apply specifically to protect sustenance fishers at an even higher level. No changes were made in response to these comments.

Comment: LD 1775 expressly recognized that these rules were not intended, and cannot, infringe on any rights of the Nation otherwise guaranteed by law, nor prejudice the Nation's litigation position in any of the pending litigation. To the extent that the State of Maine, its DEP, or any other party places the following issues in controversy, the Nation preserves, and makes a record here to support its position, out of an abundance of caution. The comment goes on to describe several issues that are the subject of separate pending litigation with the State of Maine. (C-23)

Response: 38 M.R.S. § 466-A(3), as established by LD 1775, provides that nothing in Section 466-A and in the designation of such a SFDU under Title 38, Article 4-A, may be construed to create any other right or protection or limit any right or protection otherwise existing in law. The State's positions on the other issues, alleged rights, and disputes referenced by these comments are generally outside of the context of LD 1775 and are set forth in the State's filings related to that litigation, *Maine v. Wheeler*, No. 14-cv-264-JDL (D.Me.), including Maine's Motion For Judgment On The Administrative Record As Supplemented With Incorporated Memorandum of Law, ECF No. 118. These other matters are not dealt with in the present rulemaking. No changes were made in response to these comments.

Comment: The Nation asserts that the BEP should not use outdated bioconcentration factors (BCFs) to recalculate EPA's 2015 HHC updated values rather than currently accepted scientific methods for accounting for contaminants that bioaccumulate. The Nation asserts that BEP should not make this change to EPA's 2015 HHC update values, and should instead either follow the DEP's recommendation, or consider shifting the weighting factors used between the trophic levels to better reflect the fact that Tribal members and other Maine citizens eat fish mostly from Trophic Levels 3 and 4. (C-23)

Response: EPA addressed the rationale for using bioaccumulation factors (BAFs) instead of BCFs where applicable on page 18 of "EPA Response to Scientific Views from the Public on Draft Updated National Recommended Water Quality Criteria for the Protection of Human Health" (EPA 822-R-15-001 dated June 2015) (attached to this Response to Comments as Appendix A). When a state such as Maine adopts EPA's CWA Section 304(a) criteria, as was proposed and is recommended here, EPA allows the state to reference and rely on EPA's supporting science, data, and documents underlying its criteria, instead of creating duplicative or new material for inclusion in its record, as set forth in EPA's Water Quality Standards Handbook. The Department accepts and adopts by reference the underlying science, data, and documents that EPA developed and utilized with respect to its June 2015 HHC updates. The Department also does not have the resources (financial or staff) to complete the separate research and record compilation that would be needed to update the approximately 94 HHC at issue in this rulemaking using science and inputs such as BAFs different from those used by EPA to derive its recommended updated values.

The Department also notes that even if it were to consider modifying EPA's 2015 HHC updated values by developing and using different factors than those used by EPA in developing its 2015 HHC updated values, this would involve development of alternative statewide criteria that would likely require a different record developed by DEP reflecting a sound scientific rationale for such alternative factors that would be separate from EPA's science, data, and documents underlying its 2015 HHC updated values, which may be and are being adopted by reference by the Department.

In addition to lacking the financial and staffing resources to undertake this kind of additional scientific and record compilation work, if the Department attempted to undertake this kind of work at this stage of the rulemaking proceedings it would not be able to meet the Legislative March 1, 2020 deadline for the development of HHC to protect the new SFDU pursuant to LD 1775.

Moreover, existing language in Chapter 584 § 3(A)(2) specifies how proposals for such alternative statewide criteria must be initiated and supported, which did not occur in this rulemaking, making the Department's consideration of factors and inputs different from those used by EPA procedurally inappropriate here.

Furthermore, existing language in Chapter 584 § 3(A)(2) also states that alternative statewide criteria, in addition to being based on sound scientific rationale, must be as protective as EPA's criteria. This would likely not be the case with respect to at least some HHC if the Department considered using the types of input factors proposed by some commenters to develop alternative statewide criteria.

The Department also does not have sufficient research or data to consider changes to weighting of trophic levels.

For each of these reasons, the Department is not changing any of the factors or inputs used by EPA in developing its 2015 HHC updated values. No changes were made in response to these comments.

Comment: The Nation asserts that fish consumption rate of 200 grams per day is not protective in isolation, and only serves its legislative purpose if the other inputs that go into calculating the in-stream criteria are similarly protective. Accordingly, the Nation urges the Board to adopt the recommendations of the Commissioner and the Department Staff that the other inputs be based on EPA's 2015 guidance and other applicable recent guidance, and that the Board reject the comments by others that the Board should weaken any of those other factors. (C-23)

Response: The Department is not changing its recommended HHC or recommending any deviation from EPA's inputs (other than Maine-specific FCRs) used to derive its 2015 HHC updated values.

The Department also agrees with the Nation that the proposed HHC (apart from arsenic) for all waters other than those subject to the new SFDU use Maine's FCR of 32.4 grams per day, which sufficiently protects tribal and non-tribal sustenance fishers at an effective CRL of approximately 7×10^{-6} assuming an FCR of 200 grams per day. This level of protection is well within the range that EPA identifies as being appropriate for protection of any target population. Maine's general 32.4 grams per day FCR is significantly higher than EPA's current default FCR for the general population and is among the highest statewide FCR in the country for protecting a general target population. In addition, Maine's use of a 1×10^{-6} CRL (except for arsenic) is at the high end of the range recognized by EPA as being appropriate for target population protection. The resulting proposed HHC values based on these values, including Maine's general 32.4 grams per day FCR, also protect sustenance fishers in non-SFDU subcategory waters at a CRL within EPA's recommended range for the protection of all target populations. If additional waters are added to the SFDU subcategory, then the applicable HHC for such waters based on

the higher 200 grams per day FCR would be those that the Maine Legislature has, in its policy discretion, chosen to apply specifically to protect sustenance fishers at an even higher level.

No changes were made in response to these comments.

Comment: The Department's recommended standards appear consistent with LD 1775 and the Nation's sustenance fishing rights. Were the BEP to adopt weaker standards than the DEP is currently recommending for any waters in the Nations' Indian Territory, that would violate both the legislative mandate of LD 1775, as well as the Nation's sustenance fishing rights. Accordingly, the BEP should adopt standards at least as protective as those advanced by the DEP, if not more protective. (C-23)

Response: The Department is not changing its proposed HHC or recommending any deviation from EPA's inputs (other than Maine-specific FCRs) used to derive its 2015 HHC updated values.

The Department also agrees with the Nation that the proposed HHC (apart from arsenic) for all waters other than those subject to the new SFDU use Maine's FCR of 32.4 grams per day, which sufficiently protects tribal and non-tribal sustenance fishers at an effective CRL of approximately 7×10^{-6} assuming an FCR of 200 grams per day. This level of protection is well within the range that EPA identifies as being appropriate for protection of any target population. Maine's general 32.4 grams per day FCR is significantly higher than EPA's current default FCR for the general population and is among the highest statewide FCR in the country for protecting a general target population. In addition, Maine's use of a 1×10^{-6} CRL (except for arsenic) is at the high end of the range recognized by EPA as being appropriate for target population protection. The resulting proposed HHC based on these values, including Maine's general 32.4 grams per day FCR, also protect sustenance fishers in non-SFDU subcategory waters at a CRL within EPA's recommended range for the protection of all target populations. If additional waters are added to the SFDU subcategory, then the applicable HHC for such waters based on the higher 200 grams per day FCR would be those that the Maine Legislature has, in its policy discretion, chosen to apply specifically to protect sustenance fishers at an even higher level.

The Department also notes that this rulemaking does not address any legal bases for tribal sustenance fishing rights other than the new SFDU pursuant to LD 1775. Moreover, 38 M.R.S. § 466-A(3), as established by LD 1775, provides that nothing in Section 466-A and in the designation of such a SFDU under Title 38, Article 4-A, may be construed to create any other right or protection or limit any right or protection otherwise existing in law. The State's positions on these other tribal issues, alleged rights, and disputes are generally outside of the context of LD 1775 and are set forth in the State's filings related to that litigation, *Maine v. Wheeler*, No. 14-cv-264-JDL (D.Me.), including Maine's Motion For Judgment On The Administrative Record As Supplemented With Incorporated Memorandum of Law, ECF No. 118.

No changes were made in response to these comments.

Comment: We generally believe that the proposed human health criteria ("HHC") adhere to the letter and spirit of H.P. 1262 – L.D. 1775, An Act to Protect Sustenance Fishing ("L.D. 1775"), which was a compromise—memorialized in Maine state law—between the federally-recognized Tribes in Maine and the State of Maine to protect sustenance fishing and to enable settlement of *Maine v. Wheeler*, No. 1:14-cv-00264-JDL (D. Maine). On the basis of our negotiated compromise and in recognition of the step forward that these HHC represent in terms of Tribe-State relations and state progress toward the protection of sustenance fishing, we support the proposed rule. (C-34)

Response: The Department is not changing its proposed HHC or recommending any deviation from EPA's inputs (other than Maine-specific FCRs) used to derive its 2015 HHC updated values.

The Department also notes that this rulemaking does not address any legal bases for tribal sustenance fishing rights other than the new SFDU pursuant to LD 1775. Moreover, 38 M.R.S. § 466-A(3), as established by LD 1775, provides that nothing in Section 466-A and in the designation of such a SFDU under Title 38, Article 4-A, may be construed to create any other right or protection or limit any right or protection otherwise existing in law. The State's positions on these other tribal issues, alleged rights, and disputes are generally outside of the context of LD 1775 and are set forth in the State's filings related to that litigation, *Maine v. Wheeler*, No. 14-cv- 264-JDL (D.Me.), including Maine's Motion For Judgment On The Administrative Record As Supplemented With Incorporated Memorandum of Law, ECF No. 118. LD 1775 was not a negotiated compromise or settlement, but a separate action by the Maine Legislature unrelated to *Maine v. Wheeler* or any other dispute that may enable the parties to resolve the pending *Maine v. Wheeler* litigation.

No changes were made in response to these comments.

Comment: We believe that the proposed criteria generally comport with the intent of L.D. 1775 and the requirements of the Clean Water Act and Maine law. These conclusions are based in large part on the fact that DEP employed the updated inputs from EPA's 2015 304(a) guidance, in conjunction with the 200 grams per day fish consumption rate and one in a million cancer risk rate required under Maine law. Should DEP deviate from the currently applicable EPA guidance or reduce the stringency of the currently proposed criteria in some way, the Band would not be able to support the criteria, nor would they comport with the requirements of the Clean Water Act. (C-34)

Response: The Department is not changing its recommended HHC or recommending any deviation from EPA's inputs (other than Maine-specific FCRs) used to derive its 2015 HHC updated values.

As noted in a prior response, the Department also agrees with the Nation that the proposed HHC (apart from arsenic) for all waters other than those subject to the new SFDU use Maine's FCR of 32.4 grams per day, which sufficiently protects tribal and non-tribal sustenance fishers at an effective CRL of approximately 7×10^{-6} assuming an FCR of 200 grams per day. This level of protection is well within the range that EPA identifies as being appropriate for protection of any target population. Maine's general 32.4 grams per day FCR is significantly higher than EPA's current default FCR for the general population and is among the highest statewide FCR in the country for protecting a general target population. In addition, Maine's use of a 1×10^{-6} CRL (except for arsenic) is at the high end of the range recognized by EPA as being appropriate for target population protection. The resulting proposed HHC based on these values, including Maine's general 32.4 grams per day FCR, also protect sustenance fishers in non-SF DU subcategory waters at a CRL within EPA's recommended range for the protection of all target populations. If additional waters are added to the SF DU subcategory, then the applicable HHC for such waters based on the higher 200 grams per day FCR would be those that the Maine Legislature has, in its policy discretion, chosen to apply specifically to protect sustenance fishers at an even higher level.

The Department also notes that this rulemaking does not address any legal bases for tribal sustenance fishing rights other than the new SFDU pursuant to LD 1775. Moreover, 38 M.R.S. § 466-A(3), as established by LD 1775, provides that nothing in Section 466-A and in the designation of such a SFDU under Title 38, Article 4-A, may be construed to create any other right or protection or limit any right or protection otherwise existing in law. The State's positions on these other tribal issues, alleged rights, and disputes are generally outside of the context of LD 1775 and are set forth in the State's filings related to that litigation, *Maine v. Wheeler*, No. 14-cv- 264-JDL (D.Me.), including Maine's Motion For Judgment On The Administrative Record As Supplemented With Incorporated Memorandum of Law, ECF No. 118.

No changes were made in response to these comments.

Science Behind the 2015 EPA Update of HHC

Comment: Several comments raised issues regarding the science supporting the EPA 2015 HHC updates. These comments include:

- Changes to HHC based on change in policy vs. change in science (pg. 6)
- Overly conservative for protection of human health (compounded conservatism) (pgs. 8, 13)
- Probabilistic risk assessment approach (PRA) vs. deterministic approach (pg. 9)
- Body weight (pg. 9)
- Drinking water intake (and duration of residence) (pg. 11)
- FCR (pg. 15)
- BAF (pg. 18)
- Relative source contribution (pg. 23)
- State flexibility of implementation/adoption (pgs. 34, 36)
(C-2, C-45, C-42, C-41, C-38)

Response: These issues were previously raised during the public comment process associated with EPA's 2015 HHC updates. EPA addressed such comments in "EPA Response to Scientific Views from the Public on Draft Updated National Recommended Water Quality Criteria for the Protection of Human Health" (EPA 822-R-15-001 dated June 2015), attached hereto as Appendix A. The page references in the list above refer to the pages in that document where EPA's response to each of these issues can be found.

When a state such as Maine adopts EPA's CWA Section 304(a) criteria, as is recommended here, EPA allows the state to reference and rely on EPA's supporting science, data, and documents underlying its criteria, instead of creating duplicative or new material for inclusion in its record, as set forth in EPA's Water Quality Standards Handbook. The Department does not have the resources (financial or staff) to complete the separate research and record compilation that would be needed to update the approximately 94 HHC at issue in this rulemaking using science and inputs different from those used by EPA to derive its recommended updated values. The Department notes that, based on EPA estimates reflected in email correspondence with EPA, it took EPA approximately 2.5 years with three full-time EPA staff, 1 part time fellow, and contractor support to bring forth the 2015 EPA HHC update. The HHC updates in this rulemaking are largely based on the 2015 EPA HHC updates, modified to use local FCRs. The Department has reviewed the scientific rationale behind the HHC updates and finds the EPA responses to these issues to be adequate and appropriate. The Department hereby accepts and adopts by reference the EPA responses to these issues as expressed in Appendix A at the pages referenced above. The Department also accepts and adopts by reference the underlying science, data, and documents that EPA developed and utilized with respect to its June 2015 HHC updates.

The Department also notes that even if it were to consider modifying EPA's 2015 HHC updated values by developing and using different factors than those used by EPA as inputs in developing EPA's 2015 HHC updated values, or a different type of criteria development such as a PRA as opposed to a deterministic approach, this would involve development of alternative statewide criteria that would likely require an independent record developed by DEP reflecting a sound scientific rationale for such alternative factors that would be separate from EPA's science, data, and documents underlying its 2015 HHC updated values, which may be adopted by reference by the Department.

In addition to lacking the financial and staffing resources to undertake this kind of additional scientific and record compilation work, if the Department attempted to undertake such work at this stage it would

not be able to meet the Legislative March 1, 2020 deadline for the development of HHC to protect the new SFDU pursuant to LD 1775.

Moreover, existing language in Chapter 584 § 3(A)(2) specifies how proposals for such alternative statewide criteria must be initiated and supported, which did not occur as part of this rulemaking, making the Department's consideration of factors and inputs different from those used by EPA procedurally inappropriate in this rulemaking.

Furthermore, existing language in Chapter 584 § 3(A)(2) also states that alternative statewide criteria, in addition to being based on sound scientific rationale, must be as protective as EPA's criteria. This would likely not be the case with respect to at least some HHC if the Department considered using the types of input factors or alternative PRA approach proposed by some of the commenters to develop alternative statewide criteria.

For each of these reasons, the Department is not changing any of the factors or inputs used by EPA, or the type of criteria development approach used by EPA, in developing its 2015 HHC updated values. No changes were made in response to these comments.

Choice of 200g FCR for Sustenance Fishing

Comment: The rule should reflect the actual sustenance fishing practices not a hypothetical number that results in an adverse health effect upon the angler. (C-37)

Response: This rulemaking implements the legislatively promulgated FCR established for those waters expressly subject to a SFDU pursuant to LD 1775. Use of a 200 grams per day FCR to protect the new SFDU was directed by the Maine Legislature in LD 1775, and was not developed in response to actual sustenance fishing practices. This rulemaking does not address the basis for the 200 grams per day FCR chosen by the Maine Legislature in LD 1775. No changes were made in response to these comments.

Lab Testing and Reporting Issues

Comment: Changes in Chapter 584 as a result of this rulemaking will result in criteria values lower than current lab reporting limits. (C-11, C-36, C-37, C-44)

Response: Based on the most recent and best science from EPA, some HHC values will be increasing and some will be decreasing. Currently, there already are HHC lower than lab reporting limits (RLs), and this will continue after this rulemaking. As noted below, the Department has long standing procedures in place to deal with this issue. No changes were made in response to these comments.

Comment: The lab testing is expensive. (C-36, C-11)

Response: With this rulemaking, the Department is not changing any testing requirements, frequency, or methodology. With the exception of carbaryl, the Department is not introducing any new chemical. No changes were made in response to these comments.

Comment: Concern that as lab methodology improves and detection levels get lower, results exceeding the criteria will increase. (C-42, C-41)

Response: With this rulemaking, the Department is not making any changes to the RLs for any chemical. Lab methodology improves based on scientific advances in many different fields. The Department cannot guess when or how future lab methodology will change. However, the most recent changes to

Department RLs was finalized on April 25, 2012, and resulted in the *increase* of 11 laboratory reporting limits. If lab methodology improves such that chemicals can reliably be detected at decreased concentrations with a method that is approved by EPA and the Department, then compliance with those improved detection levels will be required. No changes were made in response to these comments.

Comment: Concern that changes to Chapter 584 may result in more permit violations for individual chemicals. (C-37)

Response: Violations occur when lab results exceed a permit limit. A detection of a pollutant above the RL does not mean it is a violation, because dilution has not yet been taken into consideration at that point in the analysis. As stated in 06-096 CMR Ch. 530 (2)(C)(6) “When chemical testing results are reported as less than, or detected below the Department’s specified detection limits, those results will be considered as not being present for the purposes of determining exceedances of water quality criteria.” No changes were made in response to these comments.

Comment: Concern that reduced HHC will result in laboratory false positives for chemicals. (C-36, C-11)

Response: This rulemaking is not changing any RLs for any chemicals. The fact that a criterion for a chemical may be below the RL is not a new situation as this occurs with numerous chemicals at this time. The changes proposed in the rule will not make false positives more likely. No changes were made in response to these comments.

Comment: The Department did not consider the impacts from changes to lab detection limits. (C-42, C-41)

Response: The Department is not proposing any changes to lab detection limits with this rulemaking. No changes were made in response to these comments.

Cost Impact of the Rule

Comment: Several commenters questioned if the state evaluated or recognized the cost of the proposed changes in this rulemaking. (C-2, C-36, C-30, C-38, C-42, C-41)

Response: With this rulemaking, the Department is not changing any testing requirements, frequency, or methodology. The Department is not changing any RLs, and with the exception of carbaryl, the Department is not introducing any new chemical for testing. The Department is also not changing its protocol in how it deals with lab results that are above, or below, the reporting limits.

Currently, there are only three facilities that have limits for HHC and all are able to meet their limits. One facility has a HHC limit for antimony, and two facilities have HHC limits for bis(2-ethylhexyl)phthalate. Based on the most recent five years of chemical data that has been submitted to the Department, it is expected that these facilities will continue to be able to meet any reduced limit as a result of the proposed rule.

In 2019, the Department conducted evaluations using the appropriate 32.4 grams/day or 200 grams/day proposed in this rulemaking for all freshwater dischargers who are required to test for toxic pollutants. These evaluations took into consideration the previous 5 years of chemical data that had been submitted to the Department.

Under these conditions, the Department's evaluations showed that only one additional facility was identified as having a human health criteria (bis(2-ethylhexyl)phthalate) allocation under the proposed SFDU HHC values (no additional facilities were identified under the 32.4 grams/day evaluation). This does not mean that the facility would be given a permit limit, only that they would have detectable amounts of this chemical.

No changes were made in response to these comments.

Carbaryl

Comment: Several commentators indicated that the State should delay the implementation of the carbaryl AWQC to gather more information. (C-11, C-36)

Response: Maine statutes at 38 M.R.S. § 420 (2)(A) states: "Except as naturally occurs or as provided in paragraphs B and C, the department shall regulate toxic substances in the surface waters of the State at the levels set forth in federal water quality criteria as established by the United States Environmental Protection Agency pursuant to the Federal Water Pollution Control Act, Public Law 92-500, Section 304(a), as amended."

The Department has no data that would invalidate the EPA water quality criteria for carbaryl and therefore is adopting it in accordance with the statute cited above. No changes were made in response to these comments.

Standards should allow for discharging at background levels

Comment: The Department should address background concentrations that may be present when evaluating a discharge. (C-11)

Response: The Department has an existing procedure for addressing background concentration in Surface Water Toxics Program 06-096 CMR Ch. 530 § 4.C. The proposed rule does not alter this procedure. A discharger is not permitted to cause or contribute to a water quality excursion in the receiving water pursuant to *Waste Discharge License Conditions* 06-096 CMR Ch. 523 §5(d)(1)(iii) which states: "When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant." In unique cases where the existing natural background of a receiving water exceeds a criterion the Department would establish limits on a case-by-case basis to ensure the discharge does not contribute to non-attainment of the receiving water. No changes were made in response to these comments.

Not Enough Review Time/Need Stakeholder Process

Comment: Several commenters remarked that there was not enough time allowed to review the changes proposed in this rulemaking and that the rulemaking should be the subject of a stakeholder process. Some suggested, in recognition of the legislative deadline of March 1, 2020 imposed by LD 1775, that the Department should move forward with just that portion of the changes necessary to implement LD 1775 and undertake further studies and stakeholder processes regarding the rest of the changes. (C-30, C-36, C-38, C-41, C-42)

Response: In accordance with the 5 M.R.S., Ch. 375, Maine Administrative Procedures Act, a minimum of a 30-day public comment period must be provided for rulemaking. As noted in the basis statement

above, the initial public notice for this rulemaking was posted on October 2, 2019, a public hearing was held on November 21, 2019, and the comment period was held open until December 6, 2019. This provided a 65-day comment period or more than twice the length of the minimum required. In addition, most of the proposed changes are based either on the 2015 EPA HHC update or the recent Maine legislation (LD 1775) regarding sustenance fishing. Both of these initiatives involved their own opportunities for public comment. The Department finds these issues have been adequately noticed and there have been multiple opportunities for public comment.

With this rulemaking, the Department is not changing any testing requirements, frequency, or methodology. The Department is not changing any reporting limits and, with the exception of carbaryl, the Department is not introducing any new chemical for testing. The Department is also not changing its protocol in how it deals with lab results that are above, or below, the reporting limits.

The Department is implementing HHC with a 200 grams per day FCR in waters that are expressly designated for sustenance fishing at the direction of the Maine Legislature pursuant to LD 1775. These new HHC to protect the SFDU along with Maine's existing HHC for the remainder of the State are also being updated consistent with EPA's 2015 HHC updates and based on the most recent EPA data, science, and documents supporting those 2015 EPA updates, which are accepted and adopted by reference. EPA allowed a 90-day public comment period for review of its proposed criteria in its 2015 HHC updates. EPA announced the final recommended AWQC for the protection of human health for 94 chemicals in the Federal Register, 80 FR 36986, dated June 29, 2015. The Department emphasizes that the foundational science behind the EPA 2015 HHC updates was peer reviewed, publicly scrutinized and reviewed, and promulgated over 4 years ago. The Department accepts and adopts by reference the science, data, and documents underlying EPA's June 2015 criteria updates.

The Department also notes that separating out the portions of the rule necessary to the implementation of LD 1775 would require a lengthy rewriting of the rule and could not be accomplished in time to meet the March 1 deadline imposed in LD 1775.

No changes were made in response to these comments.

State should allow for Variances

Comment: Several commenters expressed interest in the application of "WQS variances" and "variances" that may be allowed as part of the permitting process. (C-11, C-36, C-42, C-41, C-38)

Response: Variance from water quality standards for the HHC would not be necessary since data shows most dischargers do not discharge these chemicals and those that do, can comply with the criteria. However, 40 CFR §131.14 does allow for variance from a water quality standard subject to EPA review. No changes were made in response to these comments.

State should adopt Aluminum, Copper, and Selenium methodology

Comment: DEP's revision to Chapter 584 should reflect the latest and best science for aluminum by adopting EPA's 2018 aluminum criteria. DEP should adopt the 2007 copper criteria in Chapter 584, and collect the necessary water quality data to generate state-specific criteria for freshwater copper. Chapter 584 should be revised to reflect EPA's 2016 revision to the freshwater selenium criteria. (C-20)

Response: The Department would like to clarify that the criteria for aluminum, copper, and selenium referenced by these comments are aquatic life criteria with such inputs as pH, dissolved organic carbon

(DOC), salinity, hardness, and temperature, etc. as variables, as opposed to HHC which rely on such inputs as BAF's relative to trophic levels, cancer slope factors, relative source contributions, etc. in their calculations. EPA has determined that the toxicity of certain aquatic life criteria such as copper, aluminum, selenium and ammonia are highly dependent on receiving water chemistry. EPA has developed these criteria using methodologies that rely on site-specific receiving water data being input to derive the most precise criteria possible for a specific receiving water. The Department intends to adopt these criteria at a later date after acquiring watershed specific data from throughout the state. No changes were made in response to these comments.

Legal References and Citations

Comment: A commenter noted the citation for the fish consumption rate of 32.4 grams/day was erroneously stated in section 5(C). (C-20)

Response: The Department agrees with the comment but finds the citation is unnecessary here and so strikes it and also corrects a clerical error in the title of the section, modifying section 5(C) as shown with double strikeout below:

- C. ~~**Human health assumptions. Human health assumptions.**~~ In accordance with Human Health Ambient Water Quality Criteria: 2015 Update. EPA 820-F-15-001 (see Table I Footnote qq for a list of pollutants that were not included in this update due to ongoing research), ~~H~~human health criteria are determined assuming consumption of ~~2~~ 2.4 Liters of water and ~~32.4 grams of organisms per day taken from surface waters of the State by a person weighing 70~~ 80 kg, and a fish consumption rate of 32.4 grams per day ~~taken from surface water of the State (in accordance with the Maine Center for Disease Control (CDC) 1990 survey of Maine anglers).~~ Notwithstanding the above, when calculating human health criteria for inorganic arsenic (which is governed by 38 M.R.S. § 420(2)(J)), the Department shall utilize a state-wide fish consumption value-rate of 138 grams of ~~organisms~~ per day. It is also noted that inorganic arsenic was not included in the 2015 EPA Human Health Ambient Water Quality Criteria document and therefore its criteria is calculated using 2 Liters of water and 70 kg for drinking water intake and body weight, respectively.

Comment: The Department previously noted an inaccuracy in the second paragraph of section 5(C) and added a clarification regarding the cancer risk level of inorganic arsenic in accordance with LD 1775 and existing law, as indicated by double underlining below:

In waters subject to a designated use of sustenance fishing, human health criteria will be determined assuming consumption of 2.4 Liters of water, by a person weighing 80 kg, and a fish consumption rate of 200 grams per day, except for those parameters that did not change with EPA's criteria recommendations referenced in EPA 820-F-15-001 for which the human health criteria will be determined assuming consumption of 2 Liters of water by a person weighing 70 kg, a fish consumption rate of 200 grams per day, and a cancer risk level of one in 1,000,000 (except for the cancer risk level for inorganic arsenic, which is governed by 38 M.R.S. § 420(2)(J)). Waters subject to a designated use of sustenance fishing are specified under 38 M.R.S. § 465-A(1)(D), 38 M.R.S. § 467(7)(A)(B)(D), 38 M.R.S. § 467(13), 38 M.R.S. § 467 (15)(C), 38 M.R.S. § 467(15)(A)(E)(F), 38 M.R.S. § 468(8), 38 M.R.S. § 469(7).

Response: This clarification was circulated at the Board posting meeting on September 25, 2019 and is being noted again in this Response to Comments.

Comments in Support of the Proposed Changes

Comment: DEP's proposed changes are measured and appropriate. The rationale for all of DEP's proposed changes is clear, and we urge the BEP to approve them as drafted. We find it sad and ironic that industry lobbyists chose a hearing to implement an overwhelming bipartisan legislative mandate to improve water quality protection for tribal waters, both for tribal members and the many other Maine citizens who use them, to attack nearly every other aspect of Maine's methodology for calculating water quality criteria. We urge the BEP to accept DEP's proposed Chapter 584 changes as written and reject this industry effort to undermine clean water protections in Maine. (C-1, C-3, C-5, C-6, C-9, C-10, C-12, C-13, C-14, C-15, C-16, C-17, C-18, C-19, C-21, C-28, C-33, C-35, C-39, C-46.)

Response: The Department is proposing to adopt the proposed changes with only minor edits as noted above. The Department is proposing no substantive changes to the proposal. No changes were made in response to these comments.

Comment: We strongly support updating Maine's water quality criteria with changes that are required to implement the new sustenance fishing use passed by the Legislature in LD 1775. These changes will be more protective of human health and take into consideration the higher consumption rate of Maine's tribal members. We urge BEP to focus on the proposed changes incorporated from the USEPA 2015 assessment and directed by LD 1775. Opening this process to broader changes unintended by the USEPA assessment or LD 1775 is inappropriate at this time. (C-4)

Response: The Department notes that the HHC developed to protect the new SFDU pursuant to LD 1775 for waters so designated use a FCR of 200 grams per day at the direction of the Maine Legislature in LD 1775, and not in response to any evidence of actual established higher consumption rates. No changes were made in response to these comments.

Comment: We view requests to the Board that could weaken Chapter 584 as out of step with the Energy and Natural Resources Committee's, the Legislature's, and our own commitment to the protection and improvement of Maine waters. In sum, we request that the Department and the Board comply with the March 1, 2020 rulemaking deadline as required by Public Law 2019, chapter 463 (the enactment of LD 1775) to adopt the 200 gram per day fish consumption rate for tribal waters. In addition, we urge the Board not to accept any proposals offered in testimony at the hearing that could potentially weaken Chapter 584. (C-8, C-43)

Response: The Department is proposing to adopt the proposed changes with only minor edits as noted above. The Department is proposing no substantive changes to the proposal. No changes were made in response to these comments.

Comment: Several comments expressed similar strong support for adopting the proposed changes to Chapter 584 as originally proposed, in accordance with the EPA 2015 HHC updates and with LD 1775. (C-7, C-21-C-22, C-24, C-26, C-29, C-31, C-40)

Response: The Department is proposing to adopt the proposed changes with only minor edits as noted above. The Department is proposing no substantive changes to the proposal. No changes were made in response to these comments.