Maine Department of Environmental Protection
2025 Triennial Review of Water Quality Standards

DEPARTMENT RECOMMENDATIONS

August 11, 2025

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MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2025 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

DEPARTMENT RECOMMENDATIONS

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MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2025 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

Background and Department Recommendations

Introduction

Maine's Water Quality Standards (WQS) are one of the principal foundations for the protection of water quality in Maine in accordance with federal and state clean water laws. Maine's Water Classification Program and the WQS contained therein are designed to restore and maintain the chemical, physical, and biological integrity of the State's waters and to preserve certain pristine state waters. Maine's WQS describe what uses, such as fishing or recreation in and on the water, are appropriate for which waterbodies, and which criteria and antidegradation measures are in place to protect those uses. More information on Maine's standards can be accessed on the Maine Department of Environmental Protection (Department or DEP) Water Quality Standards page, which provides links to existing Maine statutes and rules.

The federal Clean Water Act (CWA) (§ 303(c)(1); 40 CFR Part 131.20) requires that states periodically, but at least once every 3 years, hold public hearings for the purpose of reviewing WQS and, as appropriate, modifying and developing standards. Maine Statute contains similar language in 38 M.R.S. § 464.3.B. This process, known as the Triennial Review, requires consultation with the public and interested state and federal agencies.

The Department is now in the process of conducting a Triennial Review, which is expected to extend into 2026 for any required legislation. To start the process, on March 18, 2024, a request to submit proposals on changes to Maine's WQS was sent to recipients at non-governmental organizations (NGOs), municipalities, tribes, state and federal agencies, and other potentially interested persons. Submission guidelines including a timetable were included in the mailings. Following internal review, the Department developed draft recommendations for changes to existing WQS and invited public comment on those recommendations in the spring and summer of 2025. The Department considered all comments received in developing the revised recommendations contained in this document. During the public comment period, the Department also invited the public to submit additional proposals for changes to Maine's WQS. The Department received three proposals requesting revised segments for water quality classification upgrades during that period.

The Board of Environmental Protection (BEP) is required to conduct hearing(s) to provide an opportunity to hear comments from the public on the recommendations made by the Department. To this end, on August 21, 2025, the Department will request that the Board of Environmental Protection schedule a public hearing and receive public comment before making recommendations on changes to existing WQS to members of the second regular session of the 132nd Maine Legislature for their consideration. If a bill is developed, an additional public hearing would be conducted by the Legislature as the branch of government responsible for making statutory changes. Ultimately, the U.S. Environmental Protection Agency (EPA) must approve any changes to WQS made by the State of Maine before those WQS may be implemented or enforced.

Purpose of Water Quality Classification

Maine's water classification system is used to direct the State in the management of its surface waters, protect the quality of those waters for the purposes intended by the Legislature, and where standards are not achieved, restore the quality to achieve those purposes. As required by the federal CWA, the classification standards establish designated uses, related characteristics of those uses, the criteria necessary to protect those uses, and an antidegradation policy.

While it is desirable for the actual quality of a water to achieve the standards in any proposal to upgrade a classification, upgrades may be proposed where there is a reasonable expectation for higher uses and quality to be attained. Upgrades to classification may be appropriate where it is socially or ecologically desirable to attain higher standards and where the technological and financial capacity exists to achieve those higher standards within a reasonable time. Once a classification assignment is made, and the uses and criteria are achieved, that goal is protected by the antidegradation provisions of the water quality statute, thus the law provides a mechanism for the State to continually move forward in the improvement and protection of water quality. Downgrades to classification have been infrequent and, as directed in State and federal law, are limited to situations where existing conditions do not afford the possibility to achieve the assigned class.

Water Quality Classes

The State has four classes for freshwater rivers and streams (AA, A, B and C), three classes for marine and estuarine waters (SA, SB and SC), and one class for lakes and ponds (GPA). A summary of the designated uses and criteria that apply to these classes is in Appendix A.

The classification system is a goal-oriented one in which the Maine Legislature has designated desired uses within water quality standards arrayed in a hierarchy of assigned classes. Considerations in assigning waterbodies to a class include existing water quality and technical capability, economic and social aspects. A further consideration is the risk of degradation of a waterbody due to natural or human-caused events. The highest classes, AA, SA, and GPA, support the broadest range of uses, have the most restrictive limits on wastewater discharges and other human activities, and thus support the best water quality. Because of extensive restrictions on human activities, these waters experience a very small risk of degradation due to natural or human-caused events. Each successively lower class (Class B and SB, and C and SC) supports a narrower range of uses, has less restrictive limits on wastewater discharges and other human activities, and thus supports slightly lower water quality. The risk of degradation of a water body increases as limits on human activities decrease. The Department's mandate under Maine's Water Classification Program is to manage water quality to meet the classification standards through application of its rules and programs.

Department Proposals and Recommendations

Between March 18 and June 27, 2024, the Department actively sought input through surveys of staff at DEP and other natural resource agencies including the Maine Departments of Inland Fisheries and Wildlife (MDIFW), Marine Resources (DMR), and Agriculture, Conservation and Forestry (DACF). Many water quality interest groups were also directly contacted, including Tribes in Maine, numerous environmental and conservation groups, watershed associations, and municipalities (including all Maine cities and towns). In addition, the EPA submitted requests for changes. A total of 23 proposals for changes to water quality standards were received as well as 11 proposals for water quality classification upgrades (Fig. 1). All information obtained was reviewed and used to make decisions regarding recommendations for WQS changes.

Proposals for updates to water quality standards (WQS). The EPA and five stakeholders submitted the following proposals, which are available on DEP's Triennial Review web page:

- EPA
  - Update regulations for surface water quality criteria for toxic pollutants relating to the protection of aquatic life (aluminum, copper, selenium; ambient water physical characteristics; minor corrections regarding ammonia and arsenic).
  - Add freshwater and estuarine/marine pH criteria to fresh surface waters, lakes and ponds, and estuarine and marine waters.
  - Correct equation used for calculating Secchi Disk Trophic State Index.
  - Expand existing recreational WQS for Class GPA by adopting federal standards for cyanotoxins.
  - Update recreational water quality criteria for Classes B, C, SB and SC to be applicable year-round.
  - Expand regulations relating to water temperature in tidal waters.
  - Eliminate applicability of natural conditions clause to water quality criteria intended to protect human health (toxics, bacteria).
  - Expand mixing zone policy related to discharges.
- Androscoggin River Watershed Council
  - Create a new water quality class by renaming the current 'Class B' with existing standards to 'Class BB'. Maintain the existing 'Class B' classification but update the dissolved oxygen criteria with less stringent standards.
  - Provide a limited exemption for topographic areas regarding measurement of dissolved oxygen in riverine impoundments.
- Conservation Law Foundation
  - Prohibit discharges that impart odor.
  - Expand descriptors for general condition of surface waters.
  - Specify dissolved oxygen criteria for Class AA and SA waters.
  - Amend dissolved oxygen criteria for Class A and B waters.
- Frenchman Bay United
  - Amend and expand finfish aquaculture permitting provisions.
- Friends of Casco Bay
  - Amend dissolved oxygen criteria for Class A and B waters.
  - Add narrative nitrogen criteria to Class SB and SC waters.
- Hancock County Soil & Water Conservation District
  - Add pH criteria for Class AA, A and B waters.
  - Develop turbidity criteria for Class AA, A and B waters.
  - Adopt nutrient criteria for Class AA, A, B and C waters.

Supplementary documents, including letters by sponsors and supporters, for all proposals are available on request.

The Department developed two proposals:

- Clarify aquatic life standards for Class GPA (lakes and ponds) waters.
- Update dissolved oxygen criteria in Class B (fresh surface waters) waters.

Proposals for upgrades of water quality classifications. Seven stakeholders (Androscoggin River Watershed Council, Eastern Maine Conservation Initiative, Friends of the Presumpscot River and American Rivers, Grow L+A, Hancock County Soil and Water Conservation District, Midcoast Conservancy) and the Department propose a total of 11 classification upgrades (Table 1), which are available on DEP's Triennial Review web page. Numbers in Table 1 refer to items in Figure 1, below:

Table 1. Overview Table Providing Locations of Upgrade Proposals.

Key	Segment	Current Class	Proposed Class
1	Abbott Brook, one unnamed tributary	A	AA
2	Androscoggin River (base of Gulf Island Pond to Worumbo Dam)	C	B
3	Androscoggin River (confluence with Ellis River to Worumbo Dam)	C	B
4	Chandler Bay	SB	SA
5	Mount Blue Stream and tributaries	A	AA
6	Pleasant River, Middle Branch and tributaries	A	AA
7	Presumpscot River (Saccarappa Falls to Head of Tide at Presumpscot Falls)	C	B
8	Sandy River and tributaries	B	A
9	Sheepscot River (Rt. 17 crossing/Whitefield to Somerville/Palermo townline)	B	A
10	Temple Stream and tributaries	B	A
11	Upper Union River: West Branch, Middle Branch, East Branch and associated tributaries	A	AA

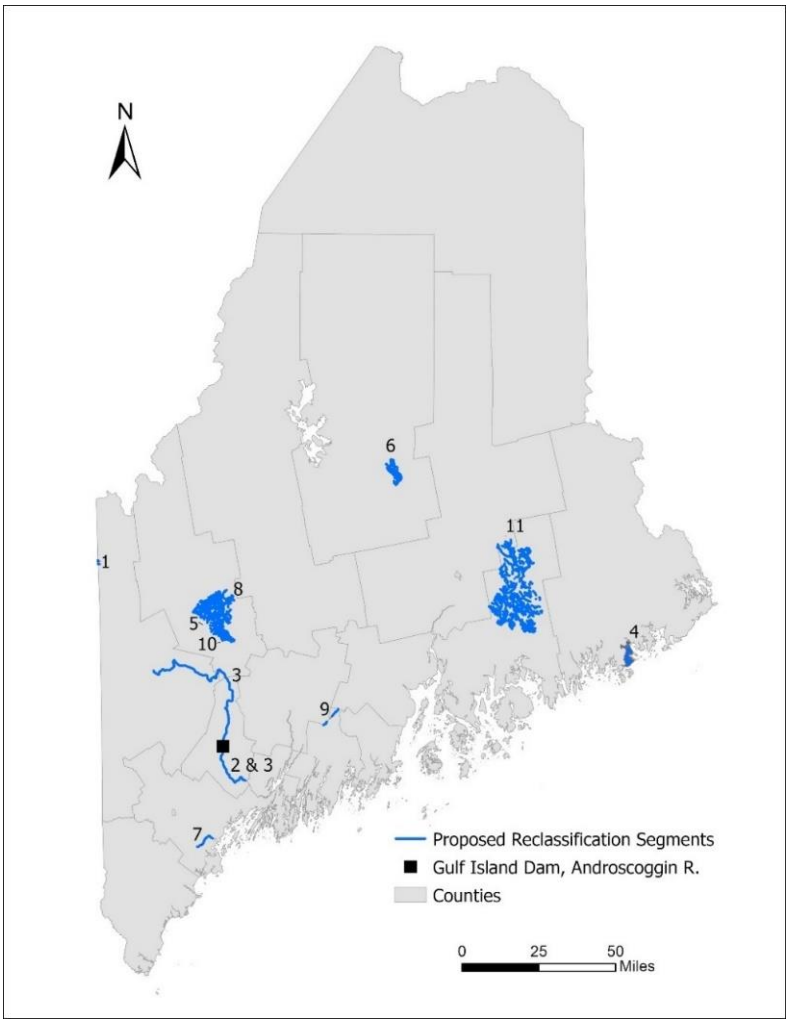

Figure 1. Overview Map Showing Locations of Upgrade Proposals.

All proposals were evaluated in detail, which included a review of the recommendations made by the entities submitting the initial proposals (as listed above), and information from water quality studies conducted in recent years (e.g., Biennial Integrated Water Quality Monitoring and Assessment Report required by Sections 305(b) and 303(d) of the CWA, wasteload studies, permitting activities, etc.), management activities such as the construction of wastewater treatment facilities, and the acquisition of lands for recreation and conservation purposes surrounding certain waters. The Department also consulted with DEP staff and external entities as necessary. Evaluations formed the basis for the draft recommendations for WQS changes that the Department put out for public comment in the spring of 2025. With its recommendations, the Department seeks to achieve all the purposes and objectives described in Maine's water classification program including "promoting general welfare; preventing disease; promoting health; providing habitat for fish, shellfish and wildlife; as a source of recreational opportunity; and as a resource for commerce and industry" by improving general water quality standards and upgrading water quality classifications.

Between May 28 and June 30, 2025, the Department invited the public to provide input on draft recommendations. At a virtual meeting held on Monday, June 23, 2025, the Department provided an overview of the draft recommendations and offered an opportunity to provide input. Eleven individuals provided oral comments at the public meeting and twenty-three written comments were received during the public comment period. The Department considered all comments in developing the revised recommendations contained in this document. During the public comment period, the Department also invited the public to submit additional proposals for changes to Maine's WQS. The Department received three proposals requesting revised segments for water quality classification upgrades during that period.

It is noted that the Department's revised recommendations contained in this document differ from the draft recommendations the public previously commented on. The Department now recommends two upgrade proposals to Class A in modified form. The waters in question are the Sandy River and tributaries and Temple Stream and tributaries listed in Table 2, section on 'Proposals recommended for upgrade', page 12. More information on the reasons for the change in the Department's position is available in the document section 'UPGRADES OF CLASSIFICATION', pages 64-67. The Department also notes that several upgrade proposal recommendation summaries contained in this document include additional information associated with further investigations and analyses conducted in response to public comments received, and therefore, differ from the draft recommendations.

As of August 2025, the Department recommends:

- 7 proposals for statutory changes;
- 3 proposals for changes to rules via deferred rulemaking;
- 2 proposals for development of a new rule;
- 2 proposals for further investigation; and
- 5 proposals for upgrade of water quality classification.

At the same time, the Department recommends against:

- 9 proposals for statutory changes; and
- 6 proposals for upgrade of water quality classification.

In addition, the Department proposes to correct three statutory errors:

- Designated use clarification
    - In 38 M.R.S. § 465-B(3)(A) (designated use section for Class SC), add the phrase shown with underline: "A. Class SC waters must be of such quality that

they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and restricted harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as a habitat for fish and other estuarine and marine life."

- Location clarification
  - In 38 M.R.S. § 467(7)(F)(5), add an alternative road name as shown with underline: "Olamon Stream and its tributaries above the bridge on Horseback Road/Spring Bridge Road - Class A."
- Waterbody name clarification
  - In 38 M.R.S. § 467(4)(H)(2)(a), add the alternative names shown in parentheses: "Sebasticook River, East Branch from the outlet of Corundel Lake (also known as East Branch Sebasticook River Reservoir, and Corundel Bog) to its confluence with the West Branch - Class C."

Details on the individual upgrade proposals, as well as the Department's recommendations, are provided in Table 2.

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Table 2. List of Proposals for Upgrades of Water Quality Classifications

Proposals recommended for upgrade

Class Change	Waterbody	Town(s)	Proposed by	Background for Proposal and Department Recommendations
Androscoggin River Basin				
A to AA	Abbott Brook and Tributary	Parkertown Township	Maine DEP	Background: Abbott Brook and its tributaries in Lincoln Plantation are tributaries to the Magalloway River and were upgraded to Class AA in 2009. Two very short segments of Abbott Brook (combined ~0.3 miles) and a portion of one unnamed tributary (~0.6 miles) located upstream in Parkertown Township were inadvertently omitted from the upgrade and remained Class A. It is expected that these upstream waters provide similarly valuable brook trout habitat as the waters downstream in Lincoln Plantation and they serve to protect water quality for downstream Class AA waters. *DEP recommendation*: *The Department recommends an upgrade to Class AA for Abbott Brook and Tributary.*
Kennebec River Basin				
A to AA	Mt Blue Stream and Tributaries	Avon and Weld	Maine DEP	Background: Mount Blue Stream and tributaries are Class A and contain high quality habitat for endangered Atlantic salmon and have been designated as critical habitat for Atlantic salmon by National Oceanic and Atmospheric Administration (NOAA) Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. The watershed is 90% forested with little development activity and 13% of the watershed is protected as conservation land as part of Mount Blue State Park, lending scenic and recreational importance to these waters. External data indicate good water quality and a macroinvertebrate community indicative of excellent water quality in Mount Blue Stream. DEP monitoring data for Mount Blue Stream indicate attainment of Class A aquatic life criteria (which are the same as Class AA criteria) and good water quality for salmonids. *DEP recommendation*: *The Department recommends an upgrade to Class AA for Mount Blue Stream and tributaries.*

Class Change	Waterbody	Town(s)	Proposed by	Background for Proposal and Department Recommendations
B to A	Sandy River and Tributaries	Avon, Farmington, Freeman Twp., Madrid Twp, New Vineyard, Phillips, Salem Twp, Strong, Temple, Township 6 North of Weld, Weld	Maine DEP	Background: Sandy River from Phillips to Farmington and its tributaries are Class B and provide high quality habitat for federally endangered Atlantic salmon. Data indicate that Class A aquatic life criteria for macroinvertebrates were attained in 2022, and the river provides good water quality for salmonids. Although the watershed is predominately forested (84%), there are also roads, residential and commercial development, and agricultural and industrial logging uses. A variety of discharges (overboard discharge and stormwater) and land development permits were identified. Although nutrient data are limited for this watershed, total phosphorus values at two sites on an unnamed tributary in Avon in 2022 did not meet Class A standards. *DEP recommendation: The Department recommends an upgrade for all tributaries entering the Sandy River in Avon between Avon Valley Road and Mount Blue Pond Road west of Rt. 4., a predominantly forested area with minimal development pressures where waters are expected to attain Class A criteria. Further investigation and supporting data are needed for other parts of the watershed to evaluate Class A attainment.*
B to A	Temple Stream and Tributaries	Avon, Temple, Wilton, Farmington	Maine DEP	Background: Temple Stream and tributaries are Class B and provide high quality habitat for federally endangered Atlantic salmon. Following removal of the Walton's Mill Dam, DMR documented evidence of wild sea run Atlantic salmon adults spawning upstream of the former dam in 2023. Over 87% of the watershed is forested and 2% of the watershed is in conservation land. Agricultural areas, roads, and residential and commercial development are concentrated in the lower watershed along Temple Stream and road from Edes Brook downstream to the Rt. 2 crossing. DEP macroinvertebrate data for two sites in the lower watershed collected in 2020 and 2023 attained Class A criteria. However, one site in the lower watershed only attained Class C criteria in 2020 based on algae, and one site in the lower watershed did not meet Class A freshwater nutrient criteria in 2023. *DEP recommendation: The Department recommends an upgrade for the main stem of Temple Stream and associated tributaries above the confluence with Edes Brook and all tributaries to Drury Pond and the stream between Drury Pond and Temple Stream. These are predominantly forested areas in the upper headwaters with minimal development pressures where waters are expected to attain Class A*

Class Change	Waterbody	Town(s)	Proposed by	Background for Proposal and Department Recommendations
				criteria. Further investigation and supporting data are needed for other parts of the watershed to evaluate Class A attainment.
Penobscot River Basin				
A to AA	Pleasant River Middle Branch and Tributaries	Brownville, Williamsburg Twp., Ebeemee Twp., Katahdin Iron Works Twp., and TB R11 WELS	Maine DEP	Background: Pleasant River Middle Branch and tributaries provide high quality habitat for federally endangered Atlantic salmon and have been designated as critical habitat for Atlantic salmon by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. Over 80% of the watershed is forested with little development activity and 76% of the watershed is protected as conservation land as part of the Appalachian Mountain Club's Pleasant River Headwaters Forest, lending scenic and recreational importance to these waters. DEP monitoring data for Pleasant River Middle Branch indicate attainment of Class A aquatic life criteria (which are the same as Class AA criteria) in 2024 and good water quality for salmonids. *DEP recommendation*: *The Department recommends an upgrade to Class AA for Pleasant River Middle Branch and tributaries.*

Proposals not recommended for upgrade

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
Androscoggin River Basin				
C to B	Androscoggin River, Confluence with Ellis River to Worumbo Dam	Albany Twp, Auburn, Avon, Bethel, Buckfield, Byron, Canton, Carthage, Casco, Chesterville, Dixfield, Durham, Fayette, Freeport, Greene, Greenwood, Hartford, Hebron, Jay, Leeds, Lewiston, Lisbon, Livermore, Livermore Falls, Mechanic Falls,	Androscoggin River Watershed Council	Background: The Androscoggin River is Class C from the confluence with the Ellis River (at Rumford Point) to Worumbo Dam (at Lisbon Falls) (~85 miles), has a total of nine dams, eight discharges, urban centers (including Rumford, Lewiston, and Auburn) and a significant amount of agriculture. Department and external data document that Class B criteria for dissolved oxygen (DO) are usually, but not always, attained in the segment in question. For the upper river (Ellis River to Gulf Island Pond (GIP) dam), data are very limited. Discrete DO data collected by Maine DEP's Volunteer River Monitoring Program (VRMP) (2020-2024) and continuous DO data collected by the Department at the Turner Center Bridge (2001-2024) meet current Class C criteria, but data occasionally do not meet current Class B criteria. GIP DO data do not meet Class B criteria based

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
		Mexico, Milton Twp, Minot, Monmouth, Mount Vernon, New Gloucester, New Sharon, Norway, Otisfield, Oxford, Paris, Perkins Twp, Peru, Phillips, Poland, Raymond, Readfield, Roxbury, Rumford, Sabattus, Sumner, Temple, Township 6 North of Weld, Township C, Township D, Township E, Turner, Vienna, Wales, Washington Twp, Wayne, Weld, West Paris, Wilton, Woodstock		on 38 M.R.S. § 464(1)(3). Macroinvertebrate data collected in the upper river since 2000 mostly meets Class B criteria, but the data are relatively old, and no data are available for the river between Livermore Falls and Lewiston. Bacteria data are not available for the upper river. For the lower river (GIP Dam to Worumbo Dam), 2020 to 2024 discrete and continuous DO data also indicate that the lower river meets current Class C criteria but occasionally does not meet Class B criteria. Macroinvertebrate data indicate that this segment meets Class C criteria; however, only two of the five stations meet Class B criteria. Limited bacteria data indicate that the lower river does not meet either Class B or Class C criteria. No recent ambient freshwater nutrient data are available for the upper or lower river to assess those criteria. Based on the review of water quality data, the proposed segment of the Androscoggin River meets its current Class C criteria, but it does not fully meet all Class B water quality criteria. *DEP recommendation: Based on the review of water quality data, the segment meets its current Class C criteria, but it does not fully meet all Class B water quality criteria. Furthermore, the Department's analysis indicates that the river cannot meet Class B criteria at all times during critical conditions. Additional data are needed for the upper river to assess attainment of criteria and make an assessment of the potential implications to existing waste discharge licenses. For these reasons, the Department does not recommend an upgrade to Class B for either proposed segment.*
C to B	Androscoggin River, Gulf Island Pond Dam to Worumbo Dam	Lewiston, Auburn Lisbon, Durham	Grow L+A	*Background:* The Androscoggin River from GIP Dam to Worumbo Dam is designated as Class C. Grow L+A states that an upgrade of this segment would reflect water quality improvements, the attainment of Class B standards most of the time, and benefit users of the river and the local economy. The segment proposed for upgrade has a total of 14 dams, multiple discharges, urban centers (including Lewiston, Auburn, Brunswick, and Topsham), and a significant amount of agriculture. A 2011 report summarizing Department data showed that Class B criteria for DO and aquatic life were not always attained. Water quality models indicated that Class B DO criteria would not be attained in much of the segment in

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
				question during critical conditions[1], which the Department considers when reissuing waste discharge licenses. The GIP impoundment above the segment in question is only required to meet Class C DO criteria. Because flow from this impoundment accounts for 97% of the flow in the segment in question, continued Class C DO conditions of 5 ppm in GIP would prevent attainment of Class B DO conditions of 7 ppm downstream. Recent water quality monitoring data including discrete DO data collected by DEP's Volunteer River Monitoring Program (VRMP) indicate that this segment meets current Class C criteria, but it occasionally does not meet current Class B criteria. Continuous DO data show that Class C criteria are met, but on occasion DO concentrations do not meet Class B criteria for short periods. Macroinvertebrate data indicate that this segment meets Class C criteria but does not consistently meet Class B criteria. Based on limited available bacteria data, this segment does not meet either Class B or Class C criteria. No recent freshwater nutrient data are available to adequately assess those criteria. *DEP recommendation: Based on the review of water quality data, the Lower Androscoggin River meets its current Class C criteria, but it does not fully meet all Class B water quality criteria for bacteria, aquatic life (biomonitoring), and dissolved oxygen. Furthermore, the Department's analysis indicates that the river cannot meet Class B DO criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. The status of phosphorus criteria attainment is unknown. For these reasons, the Department does not recommend and upgrade to Class B for the proposed segment.*
Presumpscot River Basin				
C to B	Presumpscot River Mainstem from Saccarappa Falls to Head of Tide at Presumpscot Falls	Westbrook, Portland, Falmouth	Friends of the Presumpscot River, American Rivers	Background: The Presumpscot River is Class C from Saccarappa Falls to Head of Tide at Presumpscot Falls. Actions to improve water quality and aquatic habitat include, but are not limited to, the reduction of pollutant discharges to the river; the removal of two dams (Smelt Hill Dam in 2002 and the Saccarappa Dam in 2019); ongoing efforts to reduce combined sewer overflows (CSOs); planned discharge reductions to the Pleasant River; numerous regulatory actions; and the creation of fishways and

[1] Critical conditions consist of high water temperature, low flow, and maximum licensed discharge levels.

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
				improved runs of migratory fish species. Discrete DO data collected by DEP's VRMP indicate that this segment meets current Class C criteria, but it occasionally does not meet current Class B criteria at all sites. Similarly, continuous DO data show that Class C DO criteria are met, but on occasion DO concentrations do not meet Class B criteria for short periods. Bacteria (*E. coli*) data indicate this segment does not meet either Class B or Class C criteria. Biomonitoring data indicate Class B criteria are occasionally, but not always, met. Limited phosphorus data indicate that Class C criteria are met, and one sample was slightly above Class B criteria. *DEP recommendation: Based on the review of water quality data, the lower Presumpscot River meets its current Class C criteria, but it does not fully meet all Class B water quality criteria for bacteria, aquatic life (biomonitoring), DO, and possibly phosphorus. Furthermore, the Department's analysis indicates that the river cannot meet Class B DO or phosphorus criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. For these reasons, the Department does not recommend an upgrade to Class B for the lower Presumpscot River.*
Sheepscot River Basin				
B to A	Sheepscot River, Rt. 17 Crossing in Whitefield to Somerville/Palermo Town Line	China, Freedom, Hibberts Gore, Jefferson, Liberty, Montville, Palermo, Somerville, Washington, Whitefield, Windsor	Midcoast Conservancy	Background: The Sheepscot River from Sheepscot Lake to Route 17 in Whitefield is designated as Class B, and its waters provide habitat to endangered Atlantic salmon and other native sea-run fish. The removal of Coopers Mills Dam in 2018 has restored free-flowing conditions and the DMR has documented evidence of Atlantic salmon spawning and the presence of other native sea-run fish upstream following the removal. Most but not all bacteria and DO data attain Class A criteria and biomonitoring data below the former Coopers Mills Dam show attainment of Class A criteria. Over 68% of the watershed is forested and 6.6% of the watershed is in conservation land. Although Class A standards aren't always attained, Midcoast Conservancy requests this Class A designation because of recent restoration efforts and the ecological and economic importance of this segment. As recently as 2024, the Department renewed a wastewater discharge permit (ME0001074) for the Palermo Rearing Station authorizing discharges to the Class B segment of the Sheepscot River just below the outlet of Sheepscot Pond above the segment proposed for upgrade. There

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
				are no water quality data available for the segment proposed for upgrade to evaluate any effects of this discharge on water quality. *DEP recommendation: As set forth in 38 M.R.S. § 465(2)(C), Class A waters are incompatible with discharges except for in certain cases, and existing discharges are allowed to continue only until practical alternatives exist. Further, the Department does not foresee the ability to ensure attainment of Class A standards in any portion of the proposed segment under critical conditions of low flow, high water temperature, and maximum licensed discharge levels. For these reasons, the Department does not consider either proposed segment of the river to be consistent with Class A water quality standards and does not recommend an upgrade to Class A for either proposed segment.*
Union River Basin				
A to AA	Upper Union River (West Branch, Middle Branch, East Branch) and Tributaries	Amherst, Aurora, Clifton, Eastbrook, Grand Falls Twp, Great Pond, Greenfield Twp, Mariaville, Osborn, T16 MD, T22 MD, T28 MD, T32 MD, T34 MD, T39 MD, T40MD, Waltham	Hancock County Soil and Water Conservation District	Background: The upper Union River including the West Branch, Middle Branch, and East Branch and Tributaries are designated as Class A and contain high quality habitat for endangered Atlantic salmon and other endangered species. The River is a Priority Water for Trout Unlimited and is part of the Downeast Species Habitat Recovery Unit for Atlantic salmon. Hancock County Soil and Water Conservation District requests an upgrade from Class A to Class AA to acknowledge the good water quality of the upper Union River and generate support to restore and protect lower reaches of the river. Although 62% of the watershed is forested and nearly 12% of the watershed is in conservation land, agricultural areas, roads, and residential and commercial development are concentrated in the middle portion of the watershed. There are no biological monitoring data available for the West, East, or Middle Branch main stems and no recent data for tributaries. DO concentrations met Class A criteria for the majority of sites sampled with the exception of a tributary in the East Branch. There are no *E. coli* bacteria data available for the segments proposed for upgrade to evaluate attainment. Existing freshwater nutrient data are insufficient to assess nutrient criteria attainment. *DEP recommendation: The Department believes that further watershed investigation and supporting data are needed and does not recommend an upgrade to Class AA for the West, Middle, and East Branches of the Upper Union River and tributaries. The Department commits, as resources allow, to evaluating which areas of the watershed may be appropriate for*

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
				a potential upgrade to Class AA and coordinating with local partners and collecting new data as deemed necessary, and as resources allow.
Washington County				
SB to SA	Chandler Bay	Jonesport	Eastern Maine Conservation Initiative	Background: Chandler Bay in Washington County is designated as Class SB. Eastern Maine Conservation Initiative requests an upgrade to Class SA because Chandler Bay is an important ecosystem to protect in eastern Maine and an upgrade would have a beneficial effect on the immediate marine environment and the communities that surround it. Although approximately half of the watershed is forested and 2.4% of the watershed is in conservation land, there are a variety of land uses including agriculture, developed areas, and areas with forestry activities in the watershed. Roads and residential and commercial development are concentrated in the lower watershed and along the coast and a licensed stormwater discharge in the watershed that flows into Beaver Brook (Class B) and then into Chandler Bay. Monitoring data indicate attainment of Class SB numeric DO criteria and the expectation is that these waters also attain Class SA narrative DO criteria of "as naturally occurs." These data also indicate that habitat is free-flowing and natural. Fecal coliform bacteria data (2008 and 2019) indicate good water quality for the designated use of shellfish harvesting. Data are not available for the designated uses of recreation in and on the water (enterococcus) and shellfish propagation. According to Maine statute (38 M.R.S. § 465-B(1)), the highest estuarine and marine water classification (Class SA) should be applied to waters that are considered “outstanding natural resources and which should be preserved because of their ecological, social, scenic, economic or recreational importance.” Class SA criteria include “natural” habitat and aquatic life "as naturally occurs" (38 M.R.S. § 465-B(1)(A) and (B). Additionally, in accordance with 38 M.R.S. § 464(4)(F)(2), all SA waters are considered outstanding national resources unless otherwise specified under Section 469. In 2021, the Department issued a wastewater discharge permit (ME0037559) for Kingfish Maine, Inc. to construct and operate a land-based aquaculture facility in Jonesport, Maine, that would discharge into Chandler Bay. At this time, Kingfish Maine remains fully permitted with all

Class Change	Waterbody	Towns	Proposed by	Background for Proposal and Department Recommendations
				required local, state, and federal permits, and the Department expects construction activities to proceed for this facility. *DEP recommendation: Chandler Bay's watershed includes a variety of land uses including 2.4% conserved land, agriculture, developed areas, and areas with forestry activities. Given these factors, the Department's position is that Chandler Bay does not meet statutory requirements for Class SA waters, including the high bar as an "outstanding national resource." Additionally, based on the current status of the wastewater discharge permit held by Kingfish Maine, Chandler Bay does not meet statutory requirements in 38 M.R.S. § 465-B(1)(C) stating there may be no direct discharges of pollutants to Class SA waters, with specifically delineated exceptions not relevant here. For these reasons, the Department does not recommend an upgrade for Chandler Bay to Class SA.*

BACKGROUND TO EPA-REQUESTED CHANGES

In 2015, the U.S. Environmental Protection Agency issued three letters dated February 2, 2015, March 16, 2015, and June 5, 2015, which contained a number of approvals and disapprovals of State water quality standards that the Department had previously submitted for review and approval as required under the federal Clean Water Act. If EPA disapproves a new or revised State WQS, and the State fails to timely adopt specified changes that meet CWA requirements, then EPA shall promptly propose and promulgate such a standard.

Because the Department did not take timely action on the WQS disapproved by EPA, EPA proposed and promulgated certain federal Maine WQS in 40 CFR Section 131.43, which became effective in January 2017. Since that time, the Department has revised certain Maine standards and rules to be consistent with the WQS promulgated by EPA for Maine, and they have been reviewed and approved by EPA. However, the Department has not yet revised all of the WQS that were disapproved by EPA in 2015. All items in this Triennial Review (TR) package that are identified as 'Change requested by: U.S. Environmental Protection Agency (EPA)' arose in response to either the 2015 disapprovals and the 2017 EPA federal WQS promulgation, or a letter from EPA that it submitted at the start of the TR process.

PROPOSALS TO UPDATE WATER QUALITY STANDARDS

38 M.R.S. SECTION 465

Dissolved Oxygen Criteria for Class A Waters

Update Dissolved Oxygen Criteria for Class A Waters.
Proposal submitted by: Friends of Casco Bay (FOCB) and Conservation Law Foundation (CLF).

Basis for proposal: FOCB and CLF request that the Department consider revising Maine's existing dissolved oxygen (DO) criteria for Class A waters (38 M.R.S. § 465(2)(B)) to clarify the Department's application of the criteria in water quality assessments, to reflect the now widespread use of continuous monitoring methods, and to account for naturally fluctuating conditions. Maine's existing dissolved oxygen criteria for Class A waters was derived prior to the widespread use of continuous monitoring data collection methods. Continuous DO monitoring data are now routinely available, which has highlighted a rigidity to the existing criteria that does not accommodate the natural variability and diurnal fluctuations that occur in many waters across the State for brief periods during the warmest times of the year, and which are likely due to natural cycles rather than impairments caused by human-induced pollution.

FOCB and CLF assert that the statutory language, as written, indicates that a body of water must either meet 7.0 ppm or 75% saturation, whichever is higher, to achieve water quality attainment, and since 7.0 ppm is more stringent than achieving 75% saturation, it is important that the Department clarifies how those criteria are applied. If percent saturation is not routinely considered by the Department, FOCB and CLF recommend removing the percent saturation component. If the Department retains the percent saturation component, FOCB recommends specifying when percent saturation will be considered. To reflect the now widespread use of continuous monitoring methods and to account for naturally fluctuating conditions, FOCB and CLF recommend implementing either a daily average or a daily allowance period during which DO concentration excursions below 7.0 ppm may occur. FOCB and CLF also recommend the addition of the language "except as naturally occurs" to the criteria. FOCB and CLF explain that proposed revisions will ensure Maine's DO criteria remain protective of designated uses while making them easier to apply and understand.

Issues to be considered for this proposal: Developing a new water quality standard is typically a significant undertaking. Modifying existing standards can be easier but must still be done thoughtfully. WQS have far-reaching implications for several issues (such as pollution prevention, permitting, enforcement, remediation) and must therefore be developed carefully. Due consideration must be given to numerous factors to ensure that WQS are appropriate for preventing impacts on designated uses, such as aquatic life. Because the Department doesn't expect significant negative impacts to licensed waste discharge permit holders if the proposed criteria are adopted given only limited direct discharges are allowed to Class A waters (38. M.R.S. § 465(2)(C)), the Department has focused efforts during this TR process on proposed revisions to Class B DO criteria. To perform a thorough evaluation of the impacts of revising Class A DO criteria will require a significant effort that exceeds what can be done during this TR process.

No issues are anticipated with clarifying the Department's practice to apply both the concentration and percent saturation components of the DO criteria in water quality attainment assessments because the proposed statutory changes are a clarification only and reflect the Department's existing and longstanding interpretations and practice with respect to the existing statutory language. The Department anticipates potential issues with removing percent saturation

component from Maine's DO criteria. Various Department programs and external partners routinely collect percent saturation data, and upon review of available data, the Department identified instances when the DO concentration was met, but the percent saturation criterion was not met. Retaining percent saturation will be appropriately protective for such cases and, when appropriate, those data will continue to be evaluated as part of water quality assessments.

DEP recommendation: As part of the TR process, Department staff discussed the proposals submitted by FOCB and CLF; considered EPA's 1986 Ambient Water Quality Criteria for Dissolved Oxygen which established recommended DO criteria to protect aquatic life; evaluated DO criteria implemented by other states with coldwater fish species; and considered possible options. After due consideration of all factors, the Department proposes to retain percent saturation as part of Maine's existing criteria while clarifying the Department's longstanding practice to apply both the concentration and percent saturation components of the criteria in water quality attainment assessments. Additional time and resources are needed for Department staff to fully evaluate the potential impacts of, and consider how to most appropriately implement, any revisions to Maine's DO concentration criteria for Class A waters. For this reason, the Department proposes to retain 7.0 ppm as the numeric concentration with no allowances for excursions below 7.0 ppm. Maintaining a more stringent criteria for Class A waters compared to Class B waters is consistent with Maine's tiered approach for aquatic life water quality criteria and ensures those criteria are protective of the designated uses assigned to this Class. The proposals submitted by FOCB and CLF recommend implementing the same DO criteria revisions to Class B as are being proposed for Class A. The Department commits to studying the overall issue as resources allow, and if DO criteria revisions currently proposed for Class B are adopted as part of this TR process, the Department will also evaluate and consider any relevant findings associated with implementation of the new criteria.

Recommend revising 38 M.R.S. § 465(2)(B) as follows:

465. Standards for classification of fresh surface waters.

2. Class A waters.

   B. The dissolved oxygen content of Class A waters may not be less than 7 parts per million ~~or~~ and 75% of saturation, ~~whichever is higher,~~ except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. The aquatic life and bacteria content of Class A waters must be as naturally occurs, except that the numbers of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

Note: Also see the related proposal (next two items) regarding revisions to DO criteria for Classes B and C to clarify the Department's application of freshwater DO criteria.

38 M.R.S. SECTION 465

Dissolved Oxygen Criteria for Class B Waters

Update Dissolved Oxygen Criteria for Class B Waters.
Proposal submitted by: Maine DEP, Friends of Casco Bay, and Conservation Law Foundation.

Basis for proposal: The Maine DEP, FOCB, and CLF recommend revising Maine's existing dissolved oxygen (DO) criteria for Class B waters (38 M.R.S. § 465(3)(B)) to clarify the Department's application of criteria in water quality assessments, to reflect the now widespread use of continuous monitoring methods, and to account for naturally fluctuating conditions. Maine's existing dissolved oxygen criteria for Class B waters was derived prior to the widespread use of continuous monitoring data collection methods. Continuous DO monitoring data are now routinely available, which has highlighted a rigidity to the existing criteria that does not accommodate the natural variability and diurnal fluctuations that occur in many waters across the State for brief periods during the warmest times of the year, and which are likely due to natural cycles rather than impairments caused by human-induced pollution.

FOCB and CLF assert that the statutory language as written indicates that a body of water must either meet 7.0 ppm or 75% saturation, whichever is higher, to achieve water quality attainment and since 7.0 ppm is more stringent than achieving 75% saturation, it is important that the Department clarifies how those criteria are applied. If percent saturation is not routinely considered by the Department, FOCB and CLF recommended removing the percent saturation component. If the Department retains the percent saturation component, FOCB recommends specifying when percent saturation will be considered. To reflect the now widespread use of continuous monitoring methods and to account for naturally fluctuating conditions, FOCB and CLF recommend implementing either a daily average or a daily allowance period during which DO concentration excursions below 7.0 ppm may occur. FOCB and CLF also recommend the addition of the language, "except as naturally occurs" to the criteria. FOCB and CLF explain that proposed revisions will ensure Maine's DO criteria remain protective of designated uses while making them easier to apply and understand.

Issues to be considered for this proposal: The Department and external partners have found that Maine's existing DO standard for Class B waters of 7.0 ppm or a saturation of 75% is not always met even in natural reference streams and rivers. The strict 7.0 ppm criterion has led to challenges for DEP, the regulated community, and other stakeholders when evaluating water quality and permit limit attainment, particularly when continuous data sets are available. For example, discharges have been implicated in situations where the current 7.0 ppm standard has not been met, but there is no suggestion that the discharge is the cause of the excursion. The proposed revisions would eliminate these false positives by integrating a daily average for both the concentration and percent saturation criteria components and allow for excursions below 7.0 ppm as long as concentrations do not drop below 6.0 ppm.

In the past, non-governmental organizations have advocated for water classification upgrades that the Department has not recommended because continuous datasets have highlighted brief periods of non-attainment in the apparent absence of significant anthropogenic stressors. The new criteria would provide more clarity for upgrade evaluations and may allow for additional classification upgrades where there is a reasonable expectation that higher uses and quality will be attained.

The Department anticipates potential issues with removing the percent saturation component from Maine's DO criteria. Various Department programs and external partners routinely collect percent saturation data, and upon review of available data, the Department identified instances when the DO concentration was met but the percent saturation criterion was not met. Retaining percent saturation will be appropriately protective for such cases and, when appropriate, those data will continue to be evaluated as part of water quality assessments.

Regarding the proposed addition of "except as naturally occurs," EPA recommends referencing Maine's natural conditions clause 38 MRS § 464(4)(C).

The effect of DEP's proposal below on stakeholders depends in part on the methods used by those stakeholders for collecting water quality data. Those who exclusively collect discrete DO data may need to adjust their monitoring protocols and equipment to also collect continuous data to align with modified criteria.

The Department notes that as a result of revising DO criteria for Class B waters, DEP's Consolidated Assessment and Listing Methodology (CALM) describing how water quality impairments are determined and subsequently listed in Maine's Integrated Report will need to be updated. Any such updates would occur in conjunction with a regular Integrated Report cycle rather than the TR process.

DEP recommendation: As part of the criteria development process, Department staff discussed proposals submitted; considered EPA's 1986 Ambient Water Quality Criteria for Dissolved Oxygen, which established recommended DO criteria to protect aquatic life; performed a literature review to ensure any proposed revised criteria would be protective of aquatic life for all life-stages; evaluated DO criteria implemented by other states with coldwater fish species; and consulted with Maine's Department of Inland Fisheries and Wildlife. The Department also conducted an intensive review and analysis of available continuous datasets to evaluate proposal recommendations and ensure that criteria would be adequately protective (e.g., not allow waters with known anthropogenic impairments to meet proposed criteria) and appropriate for Class B waters ranging from small streams to large rivers.

After due consideration of all factors, the Department recommends revising Maine's DO criteria for Class B waters to include a daily average of the existing 7.0 ppm and 75% percent saturation components and the inclusion of a lower threshold of 6.0 ppm below which no excursions are allowed. The Department intends to retain percent saturation as part of the existing criteria while clarifying the Department's longstanding practice to apply both the concentration and percent saturation components of the criteria in water quality attainment assessments. The Department also proposes including a reference to the existing natural conditions clause located in 38 MRS § 464(4)(C).

A body of literature, including EPA's 1986 Criteria, support exposure to DO concentrations from 6.0 to 7.0 ppm as being protective of fish and other aquatic life, including sensitive species such as Atlantic salmon. When exposed to DO concentrations below 6.0 ppm for sustained periods of time, coldwater fish and other aquatic species can experience critical stress and production

impairments.[2,3] Implementing a daily average of 7.0 ppm will prevent significant episodes of regularly recurring exposure to low DO concentrations. The proposed revisions are intended to clarify the Department's application of DO criteria for Class B waters and to accommodate brief expected excursions below the current instantaneous standard. Proposed revisions are significantly more conservative than those provided in EPA's 1986 criteria for coldwater species (7 day mean minimum of 5.0 mg/L and 1 day minimum of 4.0 mg/L) and would ensure protections for aquatic life designated uses for all life-stages of sensitive species without providing significant allowances for DO excursions caused by anthropogenic loadings of Biological Oxygen Demand (BOD) or nutrients.

Recommend revising 38 M.R.S. § 465(3)(B) as follows:

465. Standards for classification of fresh surface waters.

3. Class B waters.

B. Class B waters must be of sufficient quality to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community. Except as provided in section 464, subsection 4, paragraph C, ~~T~~the dissolved oxygen content of Class B waters may not be less than 7 parts per million ~~or~~ and 75% of saturation, based on a daily average, and may not fall below 6.0 parts per million at any time. ~~whichever is higher, except that f~~For the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

Note: Also see the related proposals (preceding and next items) regarding revisions to DO criteria for Classes A and C to clarify the Department's application of freshwater DO criteria.

[2] EPA (1986) provided 6.0 as the limit to avoid acute mortality of salmonid embryo and larval stages and the limit associated with only slight production impairment of other life stages. "Slight impairment" represents a high level of protection of important fishery resources, risking only slight impairment of production in most cases. Aquatic invertebrates were shown to experience some production impairments at 5.0, but, it is generally believed that if all life stages of fish are protected, there should be adequate protections for aquatic insects as acutely lethal concentrations for DO appear to be higher for many aquatic insects compared to fish species.

[3] Oxygen concentrations near saturation are needed for optimal development and growth of Atlantic salmon (Stanley and Trial 1995). Embryo and larval development requires a minimum of 6 mg/L of dissolved oxygen (Elson 1975). Mortalities occur if embryos are exposed to oxygen concentrations of less than 6-7 mg/L (DeCola 1970). In the laboratory at 14.5° C, Atlantic salmon juveniles select the highest oxygen concentration available - 7.5 mg/L or 72% saturation (Trial and Stanley 1984).

38 M.R.S. SECTION 465

Dissolved Oxygen Criteria for Class C Waters

Update Dissolved Oxygen Criteria for Class C Waters.
Proposal submitted by: Maine DEP.

Basis for proposal: Maine's existing dissolved oxygen (DO) criterion for Class C waters (38 M.R.S. § 465(4)(B)) states that 'the dissolved oxygen content of Class C water may not be less than 5 parts per million (ppm) or 60% of saturation, whichever is higher.' The Department has historically interpreted this statutory language as requiring both the dissolved oxygen concentration of 5 ppm and the percent saturation of 60% to be attained. The revision of the DO criteria applicability clarifies the Department's existing interpretation and application of the criteria. A separate proposal submitted by Friends of Casco Bay also recommended this change for Class A and B waters, noting that the existing language is confusing.

Issues to be considered for this proposal: None are expected because the proposed statutory changes are a clarification only and reflect the Department's existing and longstanding interpretations and practice with respect to the existing statutory language. Proposed changes to Class C align with statutory changes also proposed for Classes A and B in separate proposals.

Recommend revising 38 M.R.S. § 465(4)(B) as follows:
465. Standards for classification of fresh surface waters.

4. Class C waters.

   B. Class C waters must be of sufficient quality to support all species of fish indigenous to those waters and to maintain the structure and function of the resident biological community. The dissolved oxygen content of Class C water may not be less than 5 parts per million ~~or~~ and 60% of saturation, ~~whichever is higher,~~ except that in identified salmonid spawning areas where water quality is sufficient to ensure spawning, egg incubation and survival of early life stages, that water quality sufficient for these purposes must be maintained. In order to provide additional protection for the growth of indigenous fish, the following standards apply.

Note: Also see the related proposals (preceding two items) regarding revisions to DO criteria for Classes A and B to clarify the Department's application of freshwater DO criteria.

38 M.R.S. SECTIONS 465 AND 465-A

Clarification of Narrative Aquatic Life Criteria

Clarification of Narrative Aquatic Life Criteria for Water Classes AA, A, and GPA.
Proposal submitted by: Maine DEP.

Basis for proposal: For water quality Class GPA, Maine statute stipulates that these waters must provide natural habitat for aquatic life. Under its existing and longstanding interpretations and practice with respect to the existing language, the Department has treated the existing statutory provisions as containing enforceable narrative aquatic life criteria for Class GPA waters. The Department therefore proposes adding language to the criteria section of Class GPA to clarify and reaffirm the Department's current and longstanding interpretations and practice of using the existing language to provide for the support and protection of aquatic life. Addition of the language 'except for state agency-approved activities associated with fish stocking and management' to Class AA, Class A, and Class GPA, clarifies the Department's existing interpretations and provides an allowance for the state's historic management of game fish, which includes some non-native but well-established species. The proposed restructuring of Class A language to include aquatic life criteria at the start of 2.B provides alignment of aquatic life criteria language across Maine's freshwater classes in Section 465.

Issues to be considered for this proposal: None are expected because the proposed statutory changes are a clarification only and reflect the Department's existing and longstanding interpretations and practice with respect to the existing statutory language. Proposed changes to Section 465-A would also align with statutory changes made to Class B, C, SB, and SC waters in the previous Triennial Review.

Recommend revising 38 M.R.S. § 465 as follows:

465. Standards for classification of fresh surface waters.

1. Class AA waters.

   B. The aquatic life~~,~~ of Class AA waters must be as naturally occurs, except for state agency-approved activities associated with fish stocking and management. The dissolved oxygen and bacteria of Class AA waters must be as naturally occurs, except that the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

2. Class A waters.

   B. The aquatic life of Class A waters must be as naturally occurs, except for state agency-approved activities associated with fish stocking and management. The dissolved oxygen content of Class A waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. The ~~aquatic life and~~ bacteria content of Class A waters must be as naturally occurs, except that the numbers of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

Recommend revising Section 465-A as follows:

465-A. Standards for classification of lakes and ponds.

1. Class GPA waters.

B. Class GPA waters must be described by their trophic state based on measures of the chlorophyll "a" content, Secchi disk transparency, total phosphorus content and other appropriate criteria. Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations, and must be free of culturally induced algal blooms that impair their use and enjoyment. The aquatic life of Class GPA waters must be as naturally occurs, except for state agency-approved activities associated with fish stocking and management. The number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 29 CFU per 100 milliliters over a 90-day interval or 194 CFU per 100 milliliters in more than 10% of the samples in any 90-day interval.

38 M.R.S. SECTION 465

Add Criteria for pH of Fresh Surface Waters

Propose to Add Numeric Criteria for Freshwater pH of 6.5 to 9.0.
Change requested by: EPA and Hancock County Soil and Water Conservation District (HCSWCD).

Basis for change: Maine statutes currently only include numeric pH criteria in relation to discharge provisions (38 M.R.S. § 464(4)(A)(5)) of 6.5 to 9.0. EPA recommends adding numeric pH criteria to all freshwater water quality classes, including Classes AA, A, B, C, and GPA, because this range of pH is protective of freshwater aquatic life, particularly sensitive aquatic life such as developing Atlantic salmon eggs and smolts. HCSWCD's requests that freshwater pH criteria of 6.5 to 9.0 be adopted for freshwater water quality Classes A, B, and C, to protect sensitive life stages of Atlantic salmon, protect aquatic life, and protect treaty fishing rights. HCSWCD further proposes adding narrative pH criteria to Class AA waters indicating the pH content of those waters must be as naturally occurs.

Issues affected by this change: No impacts to licensees are anticipated if the proposed criteria are adopted because the same numeric criteria are already in effect for discharges under 38 M.R.S. § 464(4)(A)(5). The proposed numeric pH criteria of 6.5 to 9.0 for all freshwater water quality Classes (38 M.R.S. § 465) would be similar to the pH criteria of 6.5 to 8.5 promulgated by EPA to protect aquatic life for fresh waters on Tribal lands.

The Department notes that as a result of adding pH criteria to freshwater water quality classes, listing of waterbodies as impaired with respect to aquatic life criteria in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) may be appropriate. Furthermore, the addition of numeric pH criteria would require an update to the Consolidated Assessment and Listing Methodology (CALM), which describes how impairments are determined and subsequently listed in the Integrated Report. Any such updates would also include considerations of natural conditions and regional pollution sources and would occur in conjunction with a regular Integrated Report cycle rather than the TR process.

DEP recommendation: After due consideration of all factors, the Department proposes to add numeric pH criteria of 6.5 to 9.0 recommended by EPA and HCSWCD to water quality Classes A, B, C, and GPA. The Department believes that further evaluation is needed to determine the appropriate pH criteria for Class AA waters and commits to evaluating available data, and when feasible, collecting additional data to support this effort. The progress with this data gathering effort will largely depend on the availability of Department resources, which are limited at this time. The Department also intends to develop evaluation methods for natural conditions as part of the CALM revision mentioned above, which will include considerations for Class AA waters. For waters in Tribal lands, where pH criteria of 6.5 to 8.5 has been promulgated by EPA and is in effect, that standard is the applicable standard for Clean Water Act purposes unless it is withdrawn by EPA.

38 M.R.S. § 465. Standards for classification of fresh surface waters

2. Class A waters.

B. The dissolved oxygen content of Class A waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts

per million in identified fish spawning areas. The pH of Class A waters shall be 6.5 to 9.0, except as provided in section 464, subsection 4, paragraph C. The aquatic life and bacteria content of Class A waters must be as naturally occurs, except that the numbers of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

3. Class B waters.

B. Class B waters must be of sufficient quality to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community. The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the one-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. The pH of Class B waters shall be 6.5 to 9.0, except as provided in section 464, subsection 4, paragraph C. Between April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

4. Class C waters.

B. Class C waters must be of sufficient quality to support all species of fish indigenous to those waters and to maintain the structure and function of the resident biological community. The dissolved oxygen content of Class C water may not be less than 5 parts per million or 60% of saturation, whichever is higher, except that in identified salmonid spawning areas where water quality is sufficient to ensure spawning, egg incubation and survival of early life stages, that water quality sufficient for these purposes must be maintained. In order to provide additional protection for the growth of indigenous fish, the following standards apply.

(1) The 30-day average dissolved oxygen criterion of a Class C water is 6.5 parts per million using a temperature of 22 degrees centigrade or the ambient temperature of the water body, whichever is less, if:

(a) A license or water quality certificate other than a general permit was issued prior to March 16, 2004 for the Class C water and was not based on a 6.5 parts per million 30-day average dissolved oxygen criterion; or

(b) A discharge or a hydropower project was in existence on March 16, 2005 and required but did not have a license or water quality certificate other than a general permit for the Class C water.

This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.

(2) In Class C waters not governed by subparagraph (1), dissolved oxygen may not be less than 6.5 parts per million as a 30-day average based upon a temperature of 24 degrees centigrade or the ambient temperature of the water body, whichever is less. This criterion for the water body applies to licenses and water quality certificates issued on or after March 16, 2004.

The department may negotiate and enter into agreements with licensees and water quality certificate holders in order to provide further protection for the growth of indigenous fish. Agreements entered into under this paragraph are enforceable as department orders according to the provisions of sections 347-A to 349.

The pH of Class C waters shall be 6.5 to 9.0, except as provided in section 464, subsection 4, paragraph C. Between April 15th and October 31st, the number of Escherichia coli bacteria in Class C waters may not exceed a geometric mean of 100 CFU or MPN per 100 milliliters over a 90-day interval or 236 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval. The board shall adopt rules governing the procedure for designation of spawning areas. Those rules must include provision for periodic review of designated spawning areas and consultation with affected persons prior to designation of a stretch of water as a spawning area.

Recommend revising 38 M.R.S. § 465-A as follows:

465-A. Standards for classification of lakes and ponds

1. Class GPA waters.

B. Class GPA waters must be described by their trophic state based on measures of the chlorophyll "a" content, Secchi disk transparency, total phosphorus content and other appropriate criteria. Class GPA waters must have a stable or decreasing trophic state, subject only to natural fluctuations, and must be free of culturally induced algal blooms that impair their use and enjoyment. The pH of Class GPA waters shall be 6.5 to 9.0, except as provided in section 464, subsection 4, paragraph C. The number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 29 CFU or MPN per 100 milliliters over a 90-day interval or 194 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval.

Note: Also see related proposal (next item) regarding adding numeric and narrative criteria for pH for marine water classes.

38 M.R.S. SECTION 465-B

Add Criteria for pH of Marine Surface Waters

Propose to Add Numeric Criteria for Marine pH of 7.0 to 8.5.
Change requested by: EPA.

Basis for change: Maine statutes currently only include numeric pH criteria in relation to discharge provisions (38 M.R.S. § 464(4)(A)(5)) of 7.0 to 8.5. EPA recommends adding numeric pH criteria to all marine water quality classes, including Classes SA, SB, and SC, as this range of pH is protective of estuarine and marine water aquatic life.

Issues affected by this change: No impacts to licensees are anticipated if the proposed criteria are adopted because the same numeric criteria are already in effect for discharges under 38 M.R.S. § 464(4)(A)(5). Adding numeric criteria to 38 M.R.S. Section 465-B38 M.R.S. § 465-B would make criteria consistent with EPA's 304(a) recommendation in Quality Criteria for Water – 1986 (EPA 440/5-86-001).

The Department notes that as a result of adding pH criteria to marine and estuarine water quality Classes, listing of waterbodies as impaired with respect to aquatic life criteria in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) may be appropriate. The addition of numeric pH criteria would require an update to the Consolidated Assessment and Listing Methodology (CALM), which describes how impairments are determined and subsequently listed in the Integrated Report. Any such updates would occur in conjunction with a regular Integrated Report cycle rather than the TR process.

DEP recommendation: After due consideration of all factors, the Department proposes to add Maine's pH criteria of 7.0 to 8.5 currently in effect for discharges under 38 M.R.S § 464(4)(A)(5) to Class SB and SC waters. The Department believes that further evaluation is needed to determine the appropriate pH criteria for Class SA waters and commits to evaluating available data, and when feasible, collecting additional data to support this effort. Progress with this effort will largely depend on the availability of Department resources, which are limited at this time. The Department also intends to develop evaluation methods for natural conditions as part of the CALM revision mentioned above, which will include considerations for Class SA waters.

Recommend revising 38 M.R.S. § 465-B as follows:
465-B. Standards for classification of estuarine and marine waters
2. Class SB waters.

B. Class SB waters must be of sufficient quality to support all estuarine and marine species indigenous to those waters without detrimental changes in the resident biological community. The dissolved oxygen content of Class SB waters may not be less than 85% of saturation. The pH of Class SB waters shall be 7.0 to 8.5, except as provided in section 464, subsection 4, paragraph C. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 8 CFU or MPN per 100 milliliters in any 90-day interval or 54 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval. The number of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration as set forth in its publication "Guide for the Control of Molluscan Shellfish" (2019 revision) or any successor publication.

3. Class SC waters. Class SC waters shall be the 3rd highest classification.

B. Class SC waters must be of sufficient quality to support all species of fish indigenous to those waters and to maintain the structure and function of the resident biological community. The dissolved oxygen content of Class SC waters may not be less than 70% of saturation. The pH of Class SC waters shall be 7.0 to 8.5, except as provided in section 464, subsection 4, paragraph C. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 14 CFU or MPN per 100 milliliters in any 90-day interval or 94 CFU or MPN per 100 milliliters in more than 10% of the samples in any 90-day interval. The number of total coliform bacteria or other specified indicator organisms in samples representative of the waters in restricted shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration as set forth in its publication "Guide for the Control of Molluscan Shellfish" (2019 revision) or any successor publication.

Note: Also see related proposal (preceding item) regarding adding numeric and narrative criteria for pH in freshwater.

PROPOSALS TO UPDATE WATER QUALITY STANDARDS THAT ARE NOT BEING RECOMMENDED BY THE DEPARTMENT

38 M.R.S. SECTIONS 420 and 464

Natural Conditions Provision for Certain Criteria

Amend Natural Conditions Provisions for Criteria Designated to Protect Human Health
Change requested by: EPA

Basis for change: EPA recommends that 38 M.R.S. §§ 420(2)(A) and 464(4)(C) be modified or clarified to state that these provisions "do[] not apply to water quality criteria intended to protect human health." Maine statute (38 M.R.S. § 420(2)(A)) includes a provision that excludes naturally occurring toxic substances from regulation. Under a complementary statute (38 M.R.S. § 464(4)(C)), natural conditions may cause certain water quality criteria (for bacteria and some other factors) in a waterbody to fall below minimum standards without the waterbody being considered to be failing classification attainment. By letter to the DEP dated June 5, 2015, EPA disapproved the natural conditions clause for toxic substances and bacteria for waters in Tribal lands based on its position that high concentrations of these pollutants, even if they are natural in origin, may be harmful to humans. Therefore, in EPA's view, application of the natural conditions clauses fails to protect designated human health uses, including fish consumption and recreation in and on the water. While this disapproval was limited to waters in Tribal lands, EPA recommended that Maine revise these statutes with applicability to waters throughout the State. In December 2016, EPA promulgated a federal regulation for Maine waters in Tribal lands that clarifies that the State statutes in question do not apply to water quality criteria intended to protect human health.

Issues to be considered for this change: The issue to be considered for natural conditions is the impairment status of waters in the biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report). If the natural conditions provisions, for example, for bacteria were eliminated, waterbodies where bacteria concentrations exceed applicable criteria due to wildlife impacts may have to be listed as impaired in the Integrated Report. Impairments are typically addressed by either writing a Total Maximum Daily Load (TMDL) report or limiting pollutant discharges via the permitting process. For natural sources, such as beavers, deer or waterfowl, neither of these approaches is appropriate. Alternatively, the Department could remove or modify the designated uses of recreation in and on the water on a case-by-case basis. Either of these approaches would be time-consuming, lead to little or no water quality improvement, and draw limited Department resources away from impaired waters where real improvements can be made.

DEP recommendation: The natural conditions provisions in 38 M.R.S. §§ 420(2)(A) and 464(4)(C) were previously approved by EPA for all applicable waters without qualification, including in letters dated July 16, 1986, and December 20, 1990. The Department's position is that EPA's prior approvals, including these particular approvals, applied statewide to all waters throughout Maine. However, the Department acknowledges that in June 2015 EPA disapproved these provisions for waters in Tribal lands where they would affect water quality criteria intended to protect human health. EPA promulgated clarifying language in 2016, as noted above. In light of this background, and in view of concerns over the practicality of implementing the statutes if amended as requested, the Department proposes to retain the existing provisions in their current form for all Maine waters outside of Tribal lands.

For waters in Tribal lands, existing federal standards at 40 CFR Section 131.43[4] will remain in effect. The Department will continue to evaluate how to reconcile natural conditions provisions in Maine statute (38 M.R.S. §§ 420(2)(A) and 464(4)(C) with EPA's recommendations based on their interpretation of the relationship between natural conditions and the protection of designated human health uses.

[4]Federal water quality standard for Maine per 40 CFR Section 131.43:
(e) Natural conditions provisions for waters in Tribal lands.

(1) The provision in Title 38 of Maine Revised Statutes 464(4)(C) which reads: "Where natural conditions, including, but not limited to, marshes, bogs and abnormal concentrations of wildlife cause the dissolved oxygen or other water quality criteria to fall below the minimum standards specified in section 465, 465-A and 465-B, those waters shall not be considered to be failing to attain their classification because of those natural conditions," does not apply to water quality criteria intended to protect human health.

(2) The provision in Title 38 of Maine Revised Statutes 420(2)(A) which reads "Except as naturally occurs or as provided in paragraphs B and C, the board 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 U.S. Environmental Protection Agency pursuant to the Federal Water Pollution Control Act, Public Law 92-500, Section 304(a), as amended," does not apply to water quality criteria intended to protect human health.

38 M.R.S. SECTION 464

Finfish Aquaculture Permitting Provisions

Amend and Expand Finfish Aquaculture Permitting Provisions.
Proposal submitted by: Frenchman Bay United (FBU).

Basis for proposal: FBU requests that the Department consider revising the regulatory framework for reviewing and approving aquaculture discharge permit applications to ensure Maine's statutory and rulemaking obligations are met. Recommendations include the integration of updated analysis tools; eliminating the use of a higher Total Nitrogen (TN) concentration threshold for any assimilative capacity calculations in favor of a more stringent threshold typically applicable to areas with eelgrass populations; improved processes to ensure financial and technical capacity requirements for permittees; changes to the permit application process to require DMR and Department projects to be filed and reviewed before an application is complete; and improved public notice and public hearing processes. Additionally, FBU suggests that the Department ban all ocean-based finfish net pens. FBU asserts that the Department should regulate closed net pens as solid waste treatment facilities or, at a minimum, as wastewater treatment facilities, and that open net finfish pens should be regulated by different standards than closed pens.

According to FBU, the Department should also consider revising its current general permit approach and, at a minimum, require individual Maine Pollutant Discharge Elimination System (MEPDES) permit applications for each proposed lease to ensure adequate protections to support water quality and existing permitted uses. At minimum, FBU also suggests that climate change be included as a required criterion for understanding the impact of waste discharges. FBU asserts that Maine's Antidegradation Policy should be included in specific statutes to provide better consideration of combined and cumulative impacts of discharges and further suggests that to comply with Maine's Antidegradation Policy, the Department should deny leases that lower the existing water quality of any portion of a waterbody, not just the entire classified body of water.

Issues to be considered for this proposal: The recommendations provided by FBU largely pertain to the Department's Net Pen Aquaculture General Permit and revisions to Maine's waste discharge permitting and licensing processes. Such recommendations are more appropriately addressed through regular permit renewal or development processes, which follow a separate public process. These requests do not pertain to the development or revision of water quality standards and are thus outside the scope of this TR process. Note that recommendations pertaining to the application processing procedures and requirements for discharge licenses are addressed through regular rulemaking efforts. Applicable rules governing the application procedures and requirements include definitions (Ch. 520), applications for licenses (Ch. 521), public hearings (Ch. 2 and Ch. 522), conditions for licenses (Ch. 523), license criteria and standards (Ch. 524), effluent guidelines and standards (Ch. 525), general permits for wastewater discharges (Ch. 529), and certification of wastewater treatment operators (Ch. 531).

Although outside the scope of the TR, it is noted that the Department is in the process of revising Maine's Net Pen Aquaculture General Permit with the intent to reissue it. As part of this renewal process, the Department will consider the recommendations submitted by FBU and provide opportunities for comment during the draft permit review process. The Department will also work closely with the federal Services (U.S. Fish and Wildlife Service and the National Marine Fisheries Service) throughout the permit renewal process to ensure permitted actions do not cause or contribute to adverse impacts to wild Atlantic Salmon and associated habitats.

Maine statute (38 M.R.S. § 464(4)(F)) details the State's antidegradation policy that addresses, among other things, protection of water quality for existing uses, protection of high-quality waters, and Outstanding National Resource Waters. The Department maintains a separate Antidegradation Waste Discharge Program Guidance document (Appendix B)[5] used to implement the provisions of the State's antidegradation policy with respect to the licensing of point source discharges of wastewater. This implementation guidance is not included in statutory language.

Maine's tiered water classification system is comprised of three estuarine and marine water classes (SA, SB, and SC) with distinct differences between the designated uses, criteria, and discharge allowances in each class. As required by the federal Clean Water Act, Maine's water classification system is used to direct the State in the management of its surface waters, protect the quality of those waters for the purposes intended by the Legislature, and where standards are not achieved, restore the quality to achieve those purposes. As specified in Maine statute (38 M.R.S. §464(4)(F)(3)), a license for a discharge to a waterbody in which classification standards are not met may only be issued if the project does not cause or contribute to the failure of the waterbody to meet standards.

When assigned designated uses are not met due to cultural eutrophication resulting from excess nutrients such as nitrogen, Maine's existing narrative aquatic life criteria provide the Department with the ability to list estuarine and marine receiving waters as impaired in DEP's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report). Details for this listing methodology are provided in the Department's Consolidated Assessment and Listing Methodology (CALM).

DEP recommendation: As part of the TR process, Department staff discussed the proposal submitted by FBU in relation to the scope of a TR; considered the applicability of Maine's existing statutory language; and consulted with WQS staff from EPA, the federal Services, and other New England states. The Department's recommendations regarding TR-related items are provided below.

Regarding Maine's antidegradation policy, after due consideration of all factors, the Department does not intend to revise Maine's antidegradation policy language in 38 M.R.S. § 464(4)(F) to include additional information contained in the Department's Antidegradation Waste Discharge Program Guidance because this level of detail is more appropriately the subject of Department guidance. The inclusion of the applicable version of the implementation guidance in statute would require the Department to update the statute whenever a new version of the guidance is released rather than providing flexibility to revise guidance as needed and appropriate. This approach aligns with the approach of other New England states.

FBU recommendations related to nitrogen criteria and modeling will be considered as part of the Department's nitrogen criteria development process. The Department is currently working on a draft rule and anticipates sharing a concept draft and convening a stakeholder meeting in the coming year. The draft rule will be further refined during the stakeholder and rulemaking processes in consultation with stakeholders and EPA. In the meantime, the Department's Marine Environmental Monitoring Program (MEMP) will continue collecting statewide data, which will be invaluable to future considerations related to this rule. Until the rule is developed and approved, Maine's current approach will remain in effect for coastal waters.

[5]See DEP Antidegradation Waste Discharge Program Guidance, June 13, 2001, prepared in consultation with EPA, the DEP Division of Environmental Assessment, and the Maine Attorney General's Office.

The Department acknowledges the potential impact of climate change on Maine's water quality resources. As staff resources allow, the Department commits to evaluating available data, and when feasible, collecting or supporting the collection of additional data to better understand climate-related effects that should be considered as part of the wastewater permitting process and water quality standards. Progress with this data gathering and evaluation effort will largely depend on the availability of Department resources, which are limited at this time.

38 M.R.S. SECTION 464

Prohibition on Discharges that Impart Odor

Amend Statute to Include a Prohibition on Discharges that Impart Odor.
Proposal submitted by: Conservation Law Foundation.

Basis for proposal: CLF requests that the Department amend 38. M.R.S. § 464(4)(A)(4) to include odor in the list of properties that the Department must consider before issuing a wastewater discharge license. According to CLF, adding "odor" to statutory language would improve the clarity of Maine's WQS and improve the health of Maine's waterbodies as odors can negatively impact the health of humans and aquatic species and can cause impairments to designated uses related to recreation, aquatic life, fishing, and drinking water. CLF states that the proposed change would require the Department to consider whether a proposed discharger intends to discharge pollutants imparting odors that would cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class, and where appropriate, may result in the Department not issuing a discharge permit or adding odor-related conditions to a discharge permit.

Issues to be considered for this proposal: Currently, 38. M.R.S. § 464(4)(A)(4) specifies "Discharge of pollutants to waters of the State that imparts color, taste, turbidity, toxicity, radioactivity or other properties that cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class[]." The Department considers odor to be one of the "other properties" referenced in the existing statute.

The CLF proposal asserts that hydrogen sulfide is a foul-smelling odor associated with finfish aquaculture net pens. The Department's Net Pen Aquaculture General Permit requires permittees to conduct sulfide monitoring during periods of peak biomass. Sulfide levels are used as an indicator of potential benthic impact, triggering more extensive benthic sampling if limits of the general permit are exceeded. These provisions focus on aquatic life but also serve to address discharge-related odors. Monitoring requirements for net pen aquaculture permittees also include evaluations of sediment odor. Additionally, the Department's industrial and multi-sector stormwater permits require permittees to inspect sites and discharges for characteristics including odor.

DEP recommendation: As part of the TR process, Department staff discussed the proposal submitted by CLF, consulted with WQS staff from other New England states to learn how their statutory language is applied when implementing water quality criteria for odors, and considered the applicability of Maine's existing statutory language. After due consideration of all factors, the Department does not agree that the addition of "odor" to 38. M.R.S. § 464(4)(A)(4) is necessary because the Department considers odor to be included in the "other properties" referenced in the current statute. The Department will continue to apply existing licensing requirements for the discharge of pollutants imparting odors that would cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class, such as odor-related permit requirements for net pen aquaculture facilities covered under the Net Pen Aquaculture General Permit.

38 M.R.S. SECTION 464

Expand Descriptors for General Condition of Surface Waters

Expand Descriptors for General Descriptors for General Condition of Surface Waters to Include Those Related to Oil and Grease, Color, Taste, Odor, Turbidity, Toxicity, Radioactivity, and Nutrients.
Proposal submitted by: Conservation Law Foundation.

Basis for proposal: CLF requests that the Department expand 38. M.R.S. § 464(4)(B) to include additional standards related to oil and grease, color, taste, odor, turbidity, toxicity, radioactivity, and nutrients. CLF explains that it is important to implement prohibitions on oil and grease petrochemicals in Maine's water quality standards, including those produced from aquaculture feed used by net pen aquaculture facilities, to ensure humans, fish, and other aquatic life are protected from associated impairments, including exposure to toxic properties, the destruction of critical habitats and shorelines, and the resulting impacts to recreation and local economies. According to CLF, adding standards related to aesthetics, taste, odor[6], toxicity, and radioactivity to 38. M.R.S. § 464(4)(B) to align with existing discharge provisions in 38. M.R.S. § 464(4)(A)(4) would ensure impermissible discharges to all waters do not occur.

CLF states that the increasing threat of nutrient pollution has widespread impacts on the health of Maine's waters, the severity of which will increase as climate-related issues intensify. For example, excess nutrients such as nitrogen and phosphorous contribute to excess growth of nuisance plants, plankton, and algae that can result in increased amounts of toxic algae and the development of red tides that can poison humans and aquatic life. Excess growth of these organisms also contributes to decreased dissolved oxygen levels and can impair recreational and aesthetic uses of waterbodies when nuisance plants and algae interfere with recreational activities or contribute to increased turbidity. Increased turbidity and decreased oxygen levels also threaten the survival of aquatic life and native plants essential to the function of aquatic ecosystems.

Although Maine's existing wastewater discharge provisions prohibit the Department from issuing a water discharge license for discharges that may impart color, taste, turbidity, toxicity, and radioactivity that would cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class, as well as certain prohibitions on discharges that may contribute to oil sheens and grease, CLF asserts that adding requirements relating to those properties, as well as those relating to odor and nutrient pollution not currently provided in existing statutes, would ensure water quality protections are guaranteed for all waters, not just those with discharges, and bring Maine's standards in line with other New England states.

Issues to be considered for this proposal: Maine's existing statutes, rules, and permits address oil, grease, toxics, freshwater nutrients, and potentially other characteristics noted in CLF's proposal. General provisions provided in 38. M.R.S. § 464(4)(B) state, "All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class." Oil and grease, for example, are considered "floating substances," and protections provided by this provision are applicable to all water quality classes. Additionally, as noted by CLF, the Department recognizes the discharge-related impact oil sheens

[6] A separate proposal submitted as part of this TR by CLF requests that the Department amend 38. M.R.S. § 464(4)(A)(4) to include odor in the list of properties that DEP must consider before issuing a wastewater discharge license (see page 39).

generated from net pen aquaculture facilities may have on the designated uses of associated receiving waters. For this reason, the Department's Net Pen Aquaculture General Permit prohibits the discharge of "pollutants that cause a visible oil sheen, foam, or floating solids at any time that would impair the uses designated by the classification of the receiving waters." The Net Pen Aquacultural General Permit also includes provisions related to odor and requires sulfide monitoring during periods of peak biomass and evaluations of sediment odor. These provisions focus on aquatic life but also serve to address discharge-related odors.

Department rule Chapter 584 establishes ambient water quality criteria for toxic pollutants in the surface waters of the State. Department rule Chapter 583, which was approved by the Maine Board of Environmental Protection in March 2025, establishes nutrient criteria for fresh surface water Classes AA, A, B, and C to assess and protect the designated and existing uses of aquatic life support, habitat, and recreation in and on the water. This rule will become effective upon the approval of the EPA, pursuant to 40 CFR § 131.21. The Department is in the process of developing numeric nutrient criteria for estuarine and marine waters and anticipates starting the rulemaking process in the coming year.

Waters with characteristics mentioned in the CLF proposal may be listed as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) using existing criteria. Details for listing methodologies are provided in the Department's Consolidated Assessment and Listing Methodology (CALM). For example, lake trophic state assessments and impairment listings would address associated color, nutrient, and odor issues associated with lake algae blooms. In estuarine and marine waters, Maine's existing narrative aquatic life criteria provide the Department with the ability to list waters due to aquatic life impairments resulting from cultural eutrophication.

Developing a new WQS is typically a significant undertaking, and modifying existing standards can be easier but must still be done thoughtfully. WQS have far-reaching implications on several issues (such as pollution prevention, permitting, enforcement, and remediation) and must therefore be developed carefully. At this time, the Department is evaluating several new or modified WQS proposed as part of this TR process, and the evaluation of the applicability of revisions to 38. M.R.S. § 464(4)(B) to include any aspect of CLF's proposal that is not already covered by existing WQS would require a significant effort that exceeds what can be done during this TR.

DEP recommendation: The Department has not identified potential instances where there have been water quality impairments as a result of pollutants imparting color, taste, odor, turbidity, toxicity, radioactivity, oil and grease, and excess nutrients that may cause those waters to be unsuitable for the designated uses and characteristics ascribed to their class that are not either addressed through existing discharge permitting provisions or where the Department was unable to list the waterbody as impaired, when appropriate, in Maine's Integrated Report using existing water quality criteria. The Department believes that further investigation is required and commits to study the overall issue and consider the topics identified as staff resources allow. Progress with this task will largely depend on the availability of Department resources, which are limited at this time.

The Department will continue to apply existing criteria and regulatory requirements for the discharge of pollutants including oil and grease, and of pollutants that impart color, taste, odor, turbidity, toxicity, radioactivity, or other properties as appropriate. Such actions include implementing odor and oil sheen permitting requirements for net pen aquaculture facilities covered under the Department's Net Pen Aquaculture General Permit.

38 M.R.S. SECTION 465

Development of a New Water Quality Class

Establish a New Water Quality Class for Class B Waters.
Proposal submitted by: Androscoggin River Watershed Council (ARWC).

Basis for proposal: ARWC requests that the Department establish a new water quality class for Class B waters by dividing the existing Class B into two classifications. In their proposal, ARWC suggests renaming the current Class B to "Class BB" (or possibly "B Prime") and establishing a new Class B that includes all applicable water quality criteria as the existing Class B, with the exception of dissolved oxygen criteria. ARWC suggests a revised minimum DO of 6.0 mg/L[7] for this new Class B rather than the existing 7.0 mg/L minimum DO limit. ARWC explains that DO concentrations required for Class A and Class B waters are similar, including those required for spawning and egg incubation, but DO criteria for Class C waters are much lower than those required for the current Class B. ARWC asserts that data collected by ARWC staff as part of the Department's Volunteer River Monitoring Program (VRMP) indicate a number of Class B waters do not consistently meet the required 7.0 mg/L DO standard. ARWC suggests that lowering the DO criteria for this newly established Class B to include a minimum limit of 6.0 mg/L would allow waters with very good water quality that meet current Class B DO standards the majority of the time to be assigned a higher water quality class than the current Class C. Aside from DO, no other water quality criteria revisions are proposed for this class.

Issues to be considered for this proposal: Maine's water classification system was originally established in the 1950s, and since that time has undergone several revisions, the most comprehensive of which occurred in the 1980s in response to significantly improved water quality throughout the state and new federal law requirements. Since 1985, Maine's existing tiered water classification system has been comprised of four freshwater classes (AA, A, B, and C). There are differences between the designated uses, criteria, and discharge allowances in each class. Revising the existing classification system to develop a new water quality class would require a significant, multi-year effort on the part of the Department to collect sufficient data and perform extensive analyses to determine the appropriate criteria for any new or revised classes. Water quality standards have far-reaching implications for several issues (such as pollution prevention, permitting, enforcement, remediation) and must be developed carefully. Therefore, the request to develop a new water quality class exceeds what can be done during this triennial review.

The Department and external partners have found that Maine's existing DO standard for Class B waters of 7.0 ppm or a saturation of 75% is not always met even in natural reference streams and rivers. The strict 7.0 ppm criterion has led to challenges for the Department, the regulated community, and other stakeholders when evaluating water quality and permit limit attainment, particularly when continuous data sets are available. For example, discharges have been implicated in situations where the current 7.0 ppm standard has been violated but there is no suggestion that the discharge is the cause of the violation. The revisions proposed by the Department as indicated under 'Department recommendation' below for existing DO criteria for Class B waters would eliminate these false positives by integrating a daily average for both the concentration and percent saturation criteria components and allow for excursions below 7.0 ppm as long as concentrations do not drop below 6.0 ppm.

[7] Note that mg/L is equivalent to ppm.

In the past, non-governmental organizations have advocated for water classification upgrades that the Department has not recommended because continuous datasets have highlighted brief periods of non-attainment in the apparent absence of significant anthropogenic stressors. The new criteria indicated below would provide more clarity for upgrade evaluations and may allow for additional classification upgrades where there is a reasonable expectation that higher uses and quality will be attained.

DEP recommendation: As part of the TR process, the Department and two additional external entities (FOCB and CLF) also submitted proposals recommending revisions to Class B DO criteria to reflect the now widespread use of continuous monitoring methods and to account for natural variability and diurnal fluctuations that occur in many waters across the State for brief periods during the warmest times of the year, and which are likely due to natural cycles rather than impairments caused by human-induced pollution. Department staff reviewed the proposals submitted; considered EPA's 1986 Ambient Water Quality Criteria for Dissolved Oxygen, which established recommended DO criteria to protect aquatic life; performed a literature review to ensure any proposed revised criteria would be protective of aquatic life for all life-stages; evaluated DO criteria implemented by other states with coldwater fish species; and consulted with Maine's Department of Inland Fisheries and Wildlife. The Department also conducted an intensive review and analysis of available continuous datasets to evaluate proposal recommendations and ensure that criteria would be adequately protective (e.g., not allow waters with known anthropogenic impairments to meet proposed criteria) and appropriate for Class B waters ranging from small streams to large rivers.

After due consideration of all factors, the Department does not recommend dividing the existing Class B standard into two classifications for the reasons explained in 'Issues to be considered for this proposal' above. However, the Department does recommend revising Maine's existing Class B DO criteria to include a daily average of the 7.0 ppm and 75% percent saturation criteria components and the inclusion of a lower threshold of 6.0 ppm below which no excursions are allowed.

Note: For additional information regarding proposed revisions to existing freshwater Class B DO criteria, see the related proposal (pages 23-25) in response to the requests submitted by the Department, FOCB, and CLF.

38 M.R.S. SECTIONS 465 AND 465-B

Numeric Dissolved Oxygen Criteria for Class AA and SA Waters

Develop Numeric Dissolved Oxygen Criteria for Class AA and SA Waters.
Proposal submitted by: Conservation Law Foundation.

Basis for proposal: CLF requests that the Department develop a numeric DO standard for Class AA and SA waters. CLF explains that Maine's current Class AA and SA narrative dissolved oxygen standards are vague, open to interpretation and relaxation, and create confusion given naturally decreasing DO levels over time. According to CLF, Maine's waters and communities are experiencing the effects of climate change, including impacts from increased rainfall, which delivers additional sediment and nutrients to waterbodies and can encourage growth of harmful algal blooms (HABs), decreases oxygen levels, and damages aquatic communities. CLF asserts that the addition of numeric DO standards to Class AA and SA waters would provide clearer and more protective limits to support the protection of Maine's waters and associated aquatic life. Further, numeric DO standards would remove existing uncertainty, help prevent impacts of climate change to these waters, and help mitigate economic impacts and concerns from decreased DO concentrations that the current narrative DO standard may not address.

Issues to be considered for this proposal: Class AA and SA waters are defined as those that are 'outstanding natural resources and which should be preserved because of their ecological, social, scenic, and recreational importance' (38. M.R.S. § 465(1) and 38. M.R.S. Section 465-B(1)). Additionally, the habitat of Class AA and SA waters must be characterized as free-flowing and natural. With the exception of *E. coli* (for Class AA) and enterococcus (for Class SA) bacteria, narrative criteria are provided for Class AA and SA waters. The expectation that these waters attain natural conditions is high and the potential for degradation is low. For this reason, Class AA and SA waterbodies are used as reference waters by the Department to assess and inform human-related impacts in other fresh and marine water classes.

Maine's existing narrative DO criteria for Class AA and SA waters provide the Department with the ability to evaluate impacts resulting from land use and other anthropogenic impacts, which may be exacerbated by climate change, and when appropriate, list waters as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) when designated uses are not being met due to DO impairments. Details for this listing methodology are provided in the Department's Consolidated Assessment and Listing Methodology (CALM).

Developing numeric DO standards for Class AA and SA waters would likely require a significant, multi-year effort on the part of the Department to collect sufficient data and perform analyses to determine the appropriate values for Maine. No issues related to discharges are expected if the Department were to develop numeric DO criteria because direct discharges to Class AA and SA waters are limited (38 M.R.S. § 465(1)(C) and 38. M.R.S. § 465-B(1)(C)). However, water quality standards have far-reaching implications for several issues (such as pollution prevention, permitting, enforcement, remediation) and must therefore be developed carefully. Due consideration must be given to numerous factors to ensure that WQS are appropriate for preventing impacts on designated uses, such as aquatic life or recreation. Such factors include, for example, natural versus anthropogenically induced levels; differences amongst waterbody types; spatial and temporal variability; frequency and duration of low DO levels; and instantaneous versus continuous concentrations.

DEP recommendation: As part of the TR process, Department staff discussed the proposal submitted by CLF; considered EPA's 1986 Ambient Water Quality Criteria for Dissolved Oxygen, which established recommended DO criteria to protect aquatic life; evaluated DO criteria implemented by other states with coldwater fish species; and considered the applicability of Maine's existing statutory language. After due consideration of all factors, the Department does not recommend the addition of numeric dissolved oxygen criteria for Classes AA and SA waters at this time. Given the 'outstanding natural resource' designation, free-flowing and natural requirement, and limited direct discharges allowed (38. M.R.S. §§ 465(1)(C) and 465-B(1)(C)), narrative DO criteria are protective of the designated uses assigned to these Classes. Applying narrative rather than numeric DO criteria is also consistent with Maine's approach for other water quality criteria for Class AA and SA waters, with the exception of *E. coli* (for Class AA) and enterococcus (for Class SA) bacteria.

The Department acknowledges the potential impact of climate change on Maine's water quality. At this time, however, the Department is not aware of any existing long-term continuous or discrete datasets that would allow staff to evaluate DO changes that may be attributable to climate change for waters in Classes AA and SA. As staff resources allow, the Department commits to evaluating available data, and when feasible, collecting or supporting the collection of additional data to better understand climate-related effects on natural DO concentrations. The progress with this data gathering effort will largely depend on the availability of Department resources, which are limited at this time. In the meantime, the Department will continue collecting DO data, which will be invaluable to future considerations related to DO criteria development.

38 M.R.S. SECTIONS 465 AND 465-B

Seasonal Applicability of Certain Bacteria Criteria

Review Seasonal Applicability of Recreational Bacteria Criteria in Water Quality Classes B, C, SB and SC.
Change requested by: EPA.

Basis for change: EPA recommends that the Department consider revising the bacteria criteria for Class B, C, SB, and SC waters to be applicable year-round. By letter dated March 16, 2015, EPA disapproved Maine's recreational bacteria criteria for waters in Tribal lands. In December 2016, EPA promulgated a federal regulation that includes recreational bacteria criteria for Maine waters in Tribal lands that correspond to EPA's federal 2012 Recreational Water Quality Criteria (RWQC). These criteria apply on a year-round basis. According to EPA, this is because EPA had received comments from Maine tribes that they use waters in Tribal lands year-round.

In 2018, Maine revised some of its recreational bacteria criteria for waters statewide to be largely consistent with EPA's federal 2012 RWQC. In water quality Classes AA, A, GPA, and SA, Maine criteria apply year-round like EPA's December 2016 federally promulgated criteria. In Classes B, C, SB, and SC, however, Maine retained the previously existing seasonal applicability of bacteria criteria but expanded the applicability period by 2 months (updated to April 15 – October 31). In August 2020, EPA approved Maine's revised bacteria criteria for each water quality class for waters outside of Tribal lands, and for Classes AA, A, GPA, and SA for all Maine waters, including those in Tribal lands. EPA did not take action on Maine's revised bacteria criteria for Classes B, C, SB, and SC for waters in Tribal lands. As a consequence, EPA's 2016 criteria stay in effect for those waters.

Issues to be considered for this change: An issue related to bacteria criteria that needs to be considered here is their effect on water discharge licenses (the terms license and permit are used interchangeably). The Department issues licenses with bacteria limits to facilities whose effluent contains bacteria to ensure that the effluent does not lower existing water quality in the receiving water. Maine law (38 M.R.S. § 344(1-A) requires that permits must comply with State statutory or regulatory requirements that take effect prior to final issuance of that permit. Therefore, any EPA-approved changes in bacteria criteria must be incorporated into permits at the next regular renewal date, and into new permits. But where a more stringent water quality standard has been promulgated by EPA and is in effect, that standard is the applicable standard for Clean Water Act purposes until it is withdrawn by EPA.

Following EPA's 2020 approval of Maine's recreational bacteria criteria with seasonal applicability for Class B, C, SB, and SC waters outside of Tribal lands, and year-round applicability for Class AA, A, GPA, and SA waters throughout the State, there are now two separate sets of recreational bacteria criteria in effect in the State of Maine depending on whether the applicable waters are in Tribal lands or outside of those lands and depending on their classification. The Department can either retain these separate sets of recreational bacteria criteria based on the location and class of the applicable waters or update Maine's existing criteria for Class B, C, SB, and SC waters to have the same year-round applicability as the federal criteria on a statewide basis. If the Department chooses the former route, discharge permits will need to be written to account for the criteria applicable to the location of a discharger. If the Department chooses the latter route, a change to year-round applicability may require some facilities to undertake potentially costly upgrades, and incur additional expenses, such as those to comply with chlorination and dechlorination requirements. Upgrades may include new heated buildings or other structures to

allow for chlorination and dechlorination during colder months and expanded chlorine contact chambers to allow for required contact times during higher spring flows. Additional expenses may include increased chemical use. A related concern is that chlorine is a toxic chemical that poses potential health and safety risks for wastewater facility workers and can cause aquatic toxicity at certain levels. (However, it is noted that existing regulations and procedures generally minimize this risk.) Therefore, a statewide change to year-round applicability of bacteria criteria may potentially create additional expenses for some facilities and increase the risk associated with the use of toxic chemicals.

DEP recommendation: After due consideration of all factors, the Department proposes to continue to retain Maine's EPA-approved criteria with seasonal applicability for Class B, C, SB, and SC waters outside of Tribal lands. Under this proposal, two different sets of recreational bacteria criteria will be in effect in the State of Maine. In upcoming permitting actions for facilities that have bacteria limits in their permits, the Department will account for this situation as follows:

1) For Class AA, A, GPA, and SA waters throughout the State, the Department will use Maine's EPA-approved criteria with year-round applicability when renewing current permits or issuing new permits for facilities that discharge to these waters. It is noted that there are very few licensed discharges to these waters.

2) For Class B, C, SB, and SC waters outside of Tribal lands, the Department will use the approved Maine criteria with seasonal applicability when renewing current permits or issuing new permits for facilities that discharge to these waters. It is noted that Maine permits include standard language that allows the Department to require bacteria limits to be in effect year-round on a case-by-case basis to protect the health, safety, and welfare of the public. The Department has done this on a number of occasions and will continue to do so on a case-by-case basis in connection with individual permits. Such a permit modification can be made if comments received from stakeholders during the permitting process indicate that year-round water contact occurs in the area affected by the discharge.

3) For Class B, C, SB, and SC waters in Tribal lands, the Department will use the existing federal criteria at 40 CFR Section 131.43[8] promulgated in December 2016 for permit renewals or new

[8] Federal water quality standard for Maine per 40 CFR Section 131.43:
(a) Bacteria criteria for waters in Tribal lands.
(1) The bacteria content of Class AA and Class A waters shall be as naturally occurs, and the minimum number of Escherichia coli bacteria shall not exceed a geometric mean of 100 colony-forming units per 100 milliliters (cfu/100 ml) in any 30-day interval; nor shall 320 cfu/100 ml be exceeded more than 10% of the time in any 30-day interval.
(2) In Class B, Class C, and Class GPA waters, the number of Escherichia coli bacteria shall not exceed a geometric mean of 100 colony forming units per 100 milliliters (cfu/100 ml) in any 30- day interval; nor shall 320 cfu/100 ml be exceeded more than 10% of the time in any 30-day interval.
(3) The bacteria content of Class SA waters shall be as naturally occurs, and the number of Enterococcus spp. bacteria shall not exceed a geometric mean of 30 cfu/100 ml in any 30-day interval, nor shall 110 cfu/100 ml be exceeded more than 10% of the time in any 30-day interval.
(4) In Class SA shellfish harvesting areas, the numbers of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration, as set forth in the Guide for the Control of Molluscan Shellfish, 2015 Revision. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from the U.S. Food and Drug Administration Center for Food Safety and Applied Nutrition, Shellfish and Aquaculture Policy Branch, 5100 Paint Branch Parkway (HFS-325), College Park, MD 20740 or http://www.fda.gov/Food/Guidance Regulation/

permits for facilities that discharge to these waters. If it is determined that a facility will need to modify its operations to meet new permit requirements, the Department will work with the facility to determine the best path, which may include developing a compliance schedule.

FederalStateFoodPrograms/ucm2006754.htm. You may inspect a copy at the U.S. Environmental Protection Agency Docket Center Reading Room, William Jefferson Clinton West Building, Room 3334, 1301 Constitution Avenue NW., Washington, DC 20004, (202) 566-1744, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

(5) In Class SB and SC waters, the number of Enterococcus spp. bacteria shall not exceed a geometric mean of 30 cfu/100 ml in any 30-day interval, nor shall 110 cfu/100 ml be exceeded more than 10% of the time in any 30-day interval.

38 M.R.S. SECTION 465-B

Narrative Nitrogen Criteria for Class SB and SC Waters

Develop Narrative Nitrogen Criteria for Class SB and SC Waters.
Proposal submitted by: Friends of Casco Bay.

Basis for proposal: FOCB requests that Maine add narrative nitrogen water quality criteria to water Classes SB and SC based on increasing signs of nutrient impairments, particularly in Casco Bay, and the need to control nitrogen pollution and protect coastal waters from further impairments. FOCB cites the 2007 Resolve enacted by the 123rd Maine Legislature, Resolve, Regarding Measures to Ensure the Continued Health and Commercial Viability of Maine's Seacoast by Establishing Nutrient Criteria for Coastal Waters (Resolve 2007, ch. 49). This resolve directed the Department to develop a conceptual plan to establish nutrient criteria for all coastal areas of Maine, with an initial focus on the waters of Casco Bay. The Resolve states that nutrient pollution contributes to water quality degradation, contributing to nuisance algal growth, harmful red tide, habitat impacts, and oxygen depletion in these waters. Although FOCB recognizes the Department's intent to develop statewide numeric nitrogen criteria for estuarine and marine waters during a future rulemaking process, FOCB urges the Department to move forward with adding narrative nitrogen criteria to Classes SB and SC and later adopt numeric thresholds by rule for specific coastal embayments or regions following a two-step approach used by other states to regulate nutrient pollution in coastal waters.

Issues to be considered for this proposal: From 2016 to 2020, the Department and FOCB collaborated to monitor summer water quality in the Portland area. From 2020 to 2022, the Department received support from the EPA's Nutrient Scientific Technical Exchange Partnership & Support (N-STEPS) program to conduct data analyses and a stakeholder process for derivation of nitrogen targets in the Class SC area in the vicinity of Portland. Since then, the Department has continued to develop and refine a draft rule and work towards future rulemaking.

Many issues will continue to be considered prior to and during the rulemaking process. The Department will consider EPA's "Guiding Principles on an Optional Approach for Developing and Implementing a Numeric Nutrient Criterion that Integrates Causal and Response Parameters," the N-STEPS project summary report, and other reports and data. The Department will also evaluate alignment with existing estuarine and marine criteria, assess the effects on wastewater discharge permits and the fiscal impact of the rule, conduct outreach to entities potentially affected by the rule, consult with EPA and other stakeholders, and convene a public stakeholder process.

Estuarine and marine waters include Class SA, SB, and SC waters, and each class has different designated uses and aquatic life and habitat criteria. The FOCB proposal applies the same narrative criteria to Class SB and Class SC, which is inconsistent with existing statutory language. For example, 'detrimental changes in the resident biological community' applies only to Class SB, and narrative criteria for 'decreases in dissolved oxygen' may not be consistent with existing numeric criteria and narrative criteria for Class SB and SC. Numeric nitrogen criteria will need to be carefully crafted to ensure that it aligns with existing criteria.

Until numeric nitrogen criteria are adopted, the Department has the ability to address impacts of discharges to Class SB and SC waters containing nutrients in concentrations that would cause or contribute to cultural eutrophication through existing discharge laws and programs. For point source discharges, 38 M.R.S. §§ 414-A(1)(D) and 414-A(1)(B) require permittees to implement effluent limitations that require application of best practicable treatment, and nitrogen thresholds

apply to the ambient waters in the vicinity of wastewater discharge outfalls for the purposes of Reasonable Potential (RP) analyses to address aquatic life use of Maine's marine and estuarine waters. To address nonpoint sources (NPS), the Department implements the State's NPS Management Program (38 M.R.S. §§ 410-H to 410-K) and coordinates with other State agencies to implement programs and regulations that address NPS sources.

Maine's existing narrative aquatic life criteria provide the Department with the ability to list Class SB or SC waters as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) due to aquatic life impairments resulting from cultural eutrophication. Details for this listing methodology are provided in the Department's Consolidated Assessment and Listing Methodology (CALM). The 2018/2020/2022 Integrated Report lists two marine segments (Piscataqua River, Portsmouth Harbor) for aquatic life impairment, one of which has been attributed to a cause of "nutrients/eutrophication biological indicators." In the Draft 2024 IR (pending EPA approval) a cause of "nutrients/eutrophication biological indicators" was added to an existing impairment in the Mousam River due to elevated chlorophyll. These listings demonstrate that existing narrative criteria provide the ability to create listings based on cultural eutrophication.

DEP recommendation: As part of the TR process, Department staff discussed FOCB's proposed narrative criteria, the Department's draft numeric criteria, and how to best move forward. After due consideration of all factors, the Department does not plan to move forward with adopting narrative criteria because the proposed language may not align with the final desired numeric criteria currently in development and may conflict with existing water quality criteria. The Department views the development of numeric nitrogen criteria as a top priority now that the Chapter 583 Freshwater Nutrient Criteria rulemaking process has concluded.[9] As noted above, Department staff have continued to work on a draft nitrogen rule following the 2022 N-STEPS process and associated stakeholder meetings and anticipate sharing a concept draft and convening a stakeholder meeting in the coming year. The draft nitrogen rule will be further refined during the stakeholder and rulemaking processes in consultation with stakeholders, including EPA, and FOCB's proposed language will be considered in the development of the rule. In the meantime, the Department's Marine Environmental Monitoring Program (MEMP) will continue collecting statewide data, which will be invaluable to future considerations related to this rule. Until the rule is developed and approved, Maine's current approach will remain in effect for coastal waters.

[9] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.

Development of New Water Quality Standards

Develop Water Quality Standards to Address Turbidity Problems.
Proposal submitted by: Hancock County Soil and Water Conservation District.

Basis for proposal: Maine does not have numerical standards for turbidity and defaults to the narrative standards applying to discharge provisions (38 M.R.S. § 464(4)(A)(4)). According to HCSWCD, turbidity is the number one pollutant worldwide and is the most common cause for waters not meeting their water quality classification in the United States. HCSWCD asserts that the standard for Maine should be "clean and clear and free of settleable solids" and that having numerical standards will allow the Department to address pollutants at their source. For Maine's highest water quality classification for freshwaters, Class AA, HCSWCD proposes that Maine adopt narrative turbidity criteria of 'as naturally occurs.' For Class A and B waters, HCSWCD proposes that Maine adopt narrative turbidity criteria of 'as naturally occurs' except where baseline data is not available. Where baseline data isn't available, HCSWCD proposes numeric turbidity criteria of ≤3 NTU (nephelometric turbidity units), a point at which turbidity becomes visible to the un-aided eye.

Issues to be considered for this proposal: Developing new numeric WQS for turbidity would likely require significant effort and resources on the part of the Department to collect sufficient data and perform extensive analyses to determine the appropriate values for Maine. WQS have far-reaching implications on several issues (such as pollution prevention, permitting, enforcement, remediation) and must therefore be developed carefully. Turbidity is a complex topic, and due consideration must be given to numerous factors to ensure that WQS are appropriate for preventing impacts on designated uses, such as aquatic life or recreation. Such factors include, for example, natural versus anthropogenically induced levels; the effect of natural waterbody sediment types (e.g., sand versus silt); absolute versus relative turbidity concentrations; magnitude, frequency, and duration of elevated turbidity levels; instantaneous versus average concentrations; flow conditions (i.e., baseflow versus stormflow); differences amongst waterbody types; and implementation regulations. Additional factors to consider include the cost and efficacy of turbidity monitoring equipment. In the Department's experience, turbidity monitoring equipment can be relatively expensive compared to monitoring equipment for other parameters, and staff have experienced issues with the reliability and accuracy of available turbidity sensors.

DEP recommendation: The Department received a similar proposal during the preceding TR recommending the addition of numeric turbidity criteria to all water classes, either in statute or rule. The Department initiated investigations into the topic, including an extensive literature review, and undertook efforts to obtain additional resources and support to increase data collection and availability. As part of the current TR process, Department staff evaluated the proposal submitted by HCSWCD, reviewed criteria used by other New England states and their approaches to addressing turbidity issues, and considered the feasibility of developing numeric turbidity criteria.

Due to the numerous challenges listed above and the existing approaches to address turbidity issues listed below, the Department does not anticipate prioritizing the pursuit or adoption of numeric turbidity criteria. The Department will continue to apply regulations to address industrial and construction-related turbidity impacts and plans to explore potential compliance approaches using 38 M.R.S. § 413 of Maine's waste discharge law for a broader range of turbidity discharges. In cases where turbidity conditions result in the non-attainment of existing aquatic life or habitat criteria and cause those waters to be unsuitable for their assigned designated use(s) as provided

in 38 M.R.S. §§ 464(4)(B) and 465, waters may be listed as impaired as appropriate in Maine's Integrated Report.

The Department will continue to evaluate, implement, and support approaches and programs intended to mitigate agricultural runoff and resulting turbidity issues. For example, Department staff and Clean Water Act Section 319 Nonpoint Source grants will continue to support the implementation of Best Management Practices that reduce erosion on cropland and other land uses. Additionally, two Maine Department of Agriculture, Conservation and Forestry programs, including the Maine Healthy Soils Program (12 M.R.S. Section 352) and the Maine Farmers Drought Relief Grant program (7 M.R.S. Section 220-A), were developed in the last several years to provide farmers with technical assistance and grants to implement soil and water conservation practices.

PROPOSALS FOR DEFERRED RULE MAKING

Deferred Rulemaking Note
06-096 Code of Maine Rules

In its 2015 disapproval of certain Maine water quality standards and December 2016 promulgation of WQS for Maine, and its 2020 and 2024 Triennial Review letters, the EPA included two sets of provisions that are contained in Maine rules, not statutes. These provisions pertain to tidal water temperature criteria and toxics criteria; for more information see page 20, above. Rulemaking is a robust public process that typically takes a significant amount of time. In the interest of not delaying the TR process while procedurally distinct rulemaking efforts are completed, the Department will not address the items in question as part of the TR. Instead, the Department explains below how the relevant rulemaking efforts will proceed at a later point in time. *The Department also proposes to address the EPA-requested update to Maine's Trophic State Index equation in Chapter 581 via upcoming rulemaking and Maine's mixing zone law in 38 M.R.S. § 451 via deferred rulemaking for a new rule, see pages 53 and 58 of this document.*

06-096 Code of Maine Rules, Chapter 581

Regulations Relating to Water Quality Evaluations

Revise Secchi Disk Trophic State Index Equation to Correct Typographical Error.
Change requested by: EPA.

Basis for change: EPA recommends that the Department correct a typographical error in Section 6.A of Chapter 581 for the equation for Secchi Disk Trophic State Index (TSI) which is used to estimate the trophic state of a body of water as a function of its nutrient content.

Issues to be considered for this change: None. No substantive change in rule would be made, the proposal would serve only to correct a typographical error.

DEP recommendation: The Department intends to initiate the rulemaking process to revise Chapter 581 in the next year and plans to correct the typographical error in the Secchi Disk TSI equation in Section 6.A as part of that rulemaking effort.

06-096 Code of Maine Rules, Chapter 582

Regulations Relating to Temperature

Amend Regulations Relating to Tidal Temperature.
Change requested by: EPA.

Basis for change: This rule provides safeguards for fresh and saltwater fauna in lakes, rivers, and tidal waterbodies of the State by establishing instream limits on temperature changes resulting from thermal discharges. By letter dated June 5, 2015, EPA disapproved section 5 of this rule (Tidal Water Thermal Discharges) for waters in Tribal lands because the criteria were not protective of designated uses, in particular those involving indigenous species such as Atlantic salmon, blueback herring, alewife, and American shad. EPA recommended that Maine adopt new tidal waters temperature criteria statewide. In December 2016, EPA promulgated a federal regulation that includes temperature criteria for tidal Maine waters in Tribal lands.

Issues to be considered for this change: The criteria promulgated by EPA differed from those in Chapter 582, section 5, in several respects, including the acceptable increase in year-round temperature due to artificial sources and the maximum summer temperature. They also included a new stipulation concerning natural temperature cycles. In order to determine how to update the rule appropriately for all tidal waters in Maine, the Department will need to commit considerable resources to, for example, investigating natural temperature cycles, the availability of suitable reference locations and their conditions, and which averaging periods should be used in calculating an allowable temperature increase. Any changes to the rule, either for waters in Tribal lands only or statewide, will potentially impact discharge license holders whose effluent may alter the temperature of the receiving water.

DEP recommendation: As part of the TR process, Department staff discussed the criteria as promulgated by EPA and how to best implement them either for waters in Tribal lands or statewide. A number of questions and potential issues revolving around the topics listed in the preceding paragraph were identified, and the Department believes that further research and investigation are required. Because of these unresolved issues, the Department is currently unable to predict how the existing rule will be revised.

As staff resources allow, the Department intends to investigate how to reconcile Chapter 582, section 5, with EPA's promulgated criteria to inform future rulemaking. Department staff will need to conduct the necessary research indicated under 'Issues be considered for this change,' above and address other issues that may come to light during the investigation. Final details of the rule update will be determined during the actual rulemaking process in consultation with stakeholders, including EPA. EPA comments that, until the existing rule is revised, EPA's promulgated temperature criteria will remain in effect for tidal Maine waters in Tribal lands. The schedule for rulemaking will largely depend on the availability of Department resources, which are limited at this time. The Department is currently undertaking a number of rulemaking updates related to its water quality standards and MEPDES program and will pursue updates to Chapter 582 as resources allow. In the meantime, the Department's Marine Environmental Monitoring Program (MEMP) will continue collecting statewide data, which will be invaluable to future considerations related to this rule.

06-096 Code of Maine Rules, Chapter 584

Regulations Relating to Toxic Pollutants

Amend Surface Water Quality Criteria for Toxic Pollutants Relating to the Protection of Aquatic Life.
Change requested by: EPA.

Basis for change: EPA has updated aquatic life criteria for aluminum (EPA-822-R-18-001), ammonia (EPA-822-R-13-001), copper (EPA-822-R-07-001) and selenium (EPA-822-R-21-006) to reflect the latest science. In its water quality standards promulgation for Maine in December 2016, EPA included ammonia criteria for fresh waters in Tribal lands. In early 2020, Maine updated its ammonia criteria in Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, but, as EPA notes, additional changes are needed. Maine has not yet updated Chapter 584 for aluminum but has made one initial change for selenium. EPA recommends that the Department update Chapter 584 to make additional changes for ammonia and selenium criteria and incorporate updated aluminum criteria.

EPA's aquatic life criterion for copper uses the biotic ligand model (BLM). Chapter 584 allows for the use of the BLM but does not prescribe it. EPA recommends that Maine consider adopting EPA's freshwater copper criteria and clarify in Chapter 584 that Water Effects Ratios (WERs) do not apply to BLM results.

EPA's aquatic life criterion for aluminum uses a multiple linear regression (MLR) to model the interactive effects of three water quality parameters; pH, hardness, and dissolved organic carbon. EPA recommends that Maine consider adopting EPA's freshwater aluminum criteria and clarify that WERs do not apply to MLR results.

Section 5(B) in Chapter 584 establishes default values for hardness, temperature, pH, and salinity to be used in calculations of certain water quality criteria. EPA recommends that Maine delete the section and instead use actual ambient values for criteria calculations.

EPA also recommends the addition of footnote aME regarding the appropriate fish consumption rate to the two arsenic sustenance fishing criteria in Chapter 584, Appendix A, Table I.

Issues to be considered for this change: Toxics criteria in Chapter 584 are used to set waste discharge permit limits. Therefore, any changes to this rule will likely also involve evaluation of the effects on future permits. Once the Department has a good understanding of how the criteria identified above may be changed, effects on permitting actions will likely be investigated. This effort may include an analysis of data in the Department's Toxscan database. Depending on the anticipated change and the number of affected facilities, the investigation may require significant time and staff resources. Until Chapter 584 has been updated, permits will continue to be developed based on the criteria in effect at the time a permit is issued, using default values or ambient data if available.

In order to determine which changes should be made to Chapter 584, a variety of issues would likely need to be considered, depending on the item in question. For criteria updates for aluminum and ammonia, and the potential deletion of Section 5(B) in Chapter 584, the predominant issue is the need for ambient water quality data. EPA's 2018 aluminum criteria update introduced a new methodology of criteria calculation that uses pH, hardness, and dissolved organic carbon as critical input parameters. The Department needs to evaluate ambient water quality data collected

for these parameters to determine the appropriate ranges for Maine waters so that adequately protective aluminum criteria can be developed. To allow further updates to ammonia criteria and make them adequately protective, ambient water quality data for pH, temperature, and/or salinity must be evaluated. These data evaluation efforts will inform consideration of the potential deletion of Section 5(B) in Chapter 584. The Department collected ambient data for these parameters during 2020 and 2021 at 20 freshwater ambient sites. Sites were selected to provide representation statewide, and data were collected once per month for a full year to capture the entire range of conditions. The data have been summarized, and there is a significant degree of variability. Additional analysis and potentially additional data are needed to determine how to implement the proposed criteria.

As part of the 2020 update of Chapter 584, Maine made one change to the selenium criteria (addition of a footnote), but a further update (to a criterion value) is necessary. The Department and EPA will need to engage in further discussions to determine the best way to update the criteria. Likewise, a decision regarding the statewide adoption in Chapter 584 of the copper BLM will require discussions within the Department and with EPA. At this point, the range of issues to be considered for future permits for these items is unknown.

No issues are anticipated with respect to the addition of footnote aME to the two arsenic sustenance fishing criteria. The sustenance fishing criteria were newly added to Chapter 584 as part of the 2020 update, and the omission of the footnote at that time may have been an oversight.

DEP recommendation: Department staff will analyze existing data, and collect additional data if necessary, to determine how to best update Chapter 584 in accordance with EPA's new federal criteria for aluminum and ammonia, and those promulgated for Maine in December 2016 for ammonia. These actions will inform the rulemaking process, the schedule for which will largely depend on the availability of Department resources, which are limited at this time. The Department is currently undertaking a number of rulemaking updates related to its water quality standards and MEPDES program and will pursue updates to Chapter 584 as resources allow. During the rulemaking process, the Department will also investigate and consider a further update to the selenium criteria based on the new federal criteria, adoption of the BLM, and the potential elimination of Section 5(B) in Chapter 584. The Department plans to recommend that the updated version of Chapter 584 considered in the future rulemaking include the additional footnote aME. Details of the rule update will be determined during the rulemaking process in consultation with stakeholders, including EPA.

PROPOSALS FOR DEVELOPMENT OF A NEW RULE

06-096 Code of Maine Rules, Chapter 583

Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters

Include Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters.
Proposal submitted by: Hancock County Soil and Water Conservation District.

Basis for proposal: HCSWCD requests that the Department adopt freshwater nutrient criteria for Classes AA, A, B, and C, as described in the Department's draft Chapter 583 rule. According to HCSWCD, EPA has identified nitrogen and phosphorus as two of the most widespread stressors across the country, including the ecological region assigned to Maine. With criteria adopted, Maine's waters can then be evaluated based on those criteria. As stated in Chapter 583, "nutrient enrichment can cause negative environmental impacts to surface waters, such as algal blooms, low dissolved oxygen concentrations, excessive growths of filamentous algae or bacteria, generation of cyanotoxins, or affect the resident biological community."

Issues to be considered for this proposal: Many issues were considered through a pre-rulemaking stakeholder process and numerous discussions with EPA. EPA's "Guiding Principles on an Optional Approach for Developing and Implementing a Numeric Nutrient Criterion that Integrates Causal and Response Parameters" was also considered in developing the rule. A description of the rule, its development, applicable waters, decision framework and potential impacts to permits and licenses is included in the Department's report, Description of Draft Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters (Chapter 583). As part of the rulemaking process, which started in December 2024, the Department estimated the fiscal impact of the rule, conducted outreach to entities potentially affected by the rule, considered and responded to public comments, and developed a final proposed rule.

DEP recommendation: The Board of Environmental Protection (BEP) adopted the rule on March 20, 2025. This rule became effective upon approval by the EPA on June 11, 2025, pursuant to 40 CFR § 131.21. Chapter 583, *Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*, combines numeric concentration values for total phosphorus with values for response indicators such as chlorophyll *a*, algal cover, and sewage fungus in a decision framework for determining attainment of the criteria. The rule also provides for establishing site-specific criteria for total phosphorus and other nutrients through additional rulemaking.

Mixing Zones

Update Mixing Zone Law.
Change requested by: EPA.

Basis for change: EPA recommends that the Department update its current mixing zone policy to include specific restrictions on the scope and extent of mixing zones adequate to protect designated uses. A mixing zone is a limited area or volume of water where initial dilution of a discharge takes place and where certain numeric criteria may be exceeded as long as designated uses are protected. By letter dated June 5, 2015, EPA observed that Maine's mixing zone law (38 M.R.S. § 451) did not contain such safeguards, and EPA disapproved Maine's law for waters in Tribal lands. EPA recommended that Maine revise its statute or promulgate a regulation that contains explicit conditions on the scope and extent of mixing zones adequate to protect designated uses. EPA also recommended that any revised or new provisions be adopted for use statewide. In December 2016, EPA promulgated a federal regulation that includes a mixing zone policy for Maine waters in Tribal lands.

Issues to be considered for this change: The effect on stakeholders of a revised mixing zone policy, either in law or rule, that is adequate to protect designated uses depends in part on its applicability. If it is limited to waters in Tribal lands, it would not affect MEPDES dischargers to such waters because of the existing EPA regulation, which the Department has to consider when renewing discharge permits. If it is applicable statewide, it is not expected to negatively impact most MEPDES dischargers, as currently only three out of 458 dischargers rely on a permit-established mixing zone to meet water quality criteria. At least one of these discharges, a thermal discharge with a shore-hugging plume, would potentially be prohibited[10] under the EPA promulgated mixing zone policy. Such situations may require alternative approaches, such as the development of site-specific criteria. The full range of issues to be considered for this change can only be determined during the development of a revised policy but, overall, the Department does not expect significant negative impacts.

DEP recommendation: As part of the TR process, Department staff discussed Maine's existing mixing zone law and the mixing zone rule promulgated by EPA for waters in Tribal lands, and how to best reconcile the two requirements either for waters in Tribal lands or statewide. After due consideration, the Department intends to develop a new mixing zone rule as part of a future rulemaking process rather than revising Maine's existing mixing zone law to be consistent with the federal mixing zone rule promulgated by EPA for Maine waters in Tribal lands. The primary reason for this decision is the length and detail of EPA's mixing zone rule. This level of regulatory detail is generally more appropriately the subject of Department rules, rather than statutes.

The new mixing zone rule will contain explicit conditions on the scope and extent of mixing zones adequate to protect designated uses. As part of the future rulemaking process, Department staff will need to fully review EPA's rule and consider how to most appropriately implement it for Maine, either for waters in Tribal lands or statewide. Details of the rule will be determined during the rulemaking process in consultation with stakeholders, including EPA. During this process, the Department will also consider what, if any, updates to 38 M.R.S. § 451 may be necessary. EPA comments that, until the existing law is revised or a new rule is adopted, EPA's promulgated mixing zone regulation will remain in effect for Maine waters in Tribal lands. The schedule for rulemaking will largely depend on the availability of Department resources, which are limited at this time. The Department is currently undertaking a number of rulemaking updates related to its water quality standards and MEPDES program and will pursue the development of a new mixing zone policy as resources allow.

[10] Unless permitted via a grandfathering clause.

PROPOSALS REQUIRING FURTHER INVESTIGATION

38 M.R.S. SECTION 464

Exemption for Topographic Areas in Riverine Impoundments

Provide a Limited Exemption for Topographic Areas Regarding Measurement of Dissolved Oxygen in Riverine Impoundments.
Proposal submitted by: Androscoggin River Watershed Council.

Basis for proposal: ARWC proposes that the Department revise 38 M.R.S. § 464(13) to provide a limited exemption for topographic areas regarding the measurement of dissolved oxygen in riverine impoundments. ARWC states that the combination of low flows, high temperatures, and topography cause stratification and lead to very low DO levels in the Deep Hole (the water below 13 meters) in the Gulf Island Pond (GIP) impoundment on the Androscoggin River. ARWC explains that as a result, the Deep Hole cannot reasonably be expected to meet DO requirements of surrounding waters. Proposed revisions would apply a special designation for the Deep Hole that recognizes the stratification during periods of low flow and designates these waters as both thermally and topographically isolated. With this designation, ARWC asserts the low DO conditions of the Deep Hole would not contribute to the inability of the Androscoggin River to meet DO criteria. ARWC also shared their belief that the GIP aeration system has not contributed to significant improvements in DO in the Deep Hole.

Issues to be considered for this proposal: Statutory provisions related to the measurement of DO in riverine impoundments provide that DO criteria compliance may not be measured below the higher of the point of thermal stratification (if stratification occurs) or the point proposed by the Department as an alternative depth associated with a use attainability analysis (UAA) (38 M.R.S § 464(13)(B)(2)). Because ARWC's proposal recommends DO compliance for GIP above the point of stratification, a UAA would be required. A UAA is a tool in the Clean Water Act that states can utilize if certain provisions are met to revise designated uses for a waterbody. It has very rarely been used in Maine because of the extensive resources required for the UAA study, and recommended revised uses must be approved by the Board of Environmental Protection, the Maine Legislature, and EPA. This approach may be considered in the future but would not be possible within the scope of this triennial review.

To date, GIP's DO compliance has been based on the point of thermal stratification (as defined in 38 M.R.S § 464(13)(B)) and not natural topographical features that inhibit mixing (38 M.R.S. Section 464(13)(C)). Extensive monitoring data for GIP highlight the dynamic nature of water column stratification and its connection to the varying flow conditions in the river. The data indicate that stratification tends to become established during periods of lower river flow. Hydraulically induced stratification sets up in topographically isolated pockets of water that get trapped in localized depressions along the river bottom. Higher flows following rain events promote mixing and remove stratification. The distinctive temperature and DO stratification that results during these lower flow periods is the signal that this hydraulic phenomenon has taken place. Data from other riverine impoundments have shown this same type of hydraulic stratification signature. Existing statutes relating to measurement of DO in riverine impoundments (38 M.R.S. § 464(13)) may not fully consider these specific stratification dynamics. Additional time is needed to consider all provisions in 38 M.R.S. § 464(13) in relation to GIP and potential different interpretations and/or statutory changes.

GIP and numerous other riverine impoundments are subject to hydropower and discharge license provisions. In GIP, regulated entities formed the Gulf Island Pond Oxygenation Partnership (GIPOP) to install and operate an aeration system to comply with permit requirements and meet water quality standards. As a result of reductions in upstream discharges, permit modifications are currently being pursued to adjust aeration system operations.

DEP recommendation: As part of the TR process, Department staff discussed the proposal submitted by ARWC; considered water quality standards for impoundments in other states; reviewed existing statutory language and permits related to GIP and other impoundments; analyzed available data for GIP and other impoundments; and considered ways to move forward. A number of questions and potential issues were identified, including those discussed in the preceding section, and the Department believes that further research is required. As staff resources allow, the Department commits to study the overall issue, consider the topics identified above, and explore possible statutory changes for GIP or all riverine impoundments, if needed. The Department expects that additional data may also be needed for other impoundments. Progress with this effort will depend on the complexities identified and on the availability of Department resources, which are limited at this time.

Development of New Water Quality Standards

Development or Adoption of Recreational Criteria for the Cyanotoxins Microcystin and Cylindrospermopsin.
Proposal submitted by: EPA.

Basis for proposal: EPA recommends that the Department consider adopting EPA's nationally recommended recreational criteria for the freshwater cyanotoxins microcystin and cylindrospermopsin released in May of 2019 to identify water quality impairments related to harmful algal blooms (HABs). Freshwater HABs occur when subpopulations of cyanobacteria that have the genetic capacity to produce toxins produce those toxins in excessive concentrations, which can cause adverse impacts to human health. EPA's criteria were developed to protect the public from the risks associated with incidental ingestion of water containing these algae while recreating in freshwaters experiencing HABs. EPA recommends that states adopt these criteria for use as the basis for swimming advisories in recreational freshwaters.

Issues to be considered for this proposal: EPA recommends that criteria include magnitude, frequency, and duration considerations. A significant issue the Department anticipates lies in the development of the frequency and duration components of the recreational criteria for both cyanotoxins, including the amount of time the evaluation and subsequent adoption of the federal criteria (if deemed appropriate) or development of alternative criteria (if deemed necessary) may require, and the current availability of Department and other agency resources to accomplish these tasks. Although recreational criteria fall under the Department's jurisdiction, collaboration with the Maine Center for Disease Control and Prevention (MECDC) will be an integral part of criteria adoption.

The Department has analyzed existing data, and no significant issues are anticipated in terms of Maine adopting the magnitude component of the federal criteria for both microcystin and cylindrospermopsin. The classification standards for Maine lakes and ponds, Class GPA, already address trophic impairments that result in nuisance algal blooms. Microcystin data collected from Maine lakes over the past 15 years suggest that even lakes that bloom on an annual basis and are already listed as impaired on Maine's 303(d) list are highly unlikely to exceed the federal magnitude criterion in open water, although scums accumulating along the shoreline may exceed the criterion by several orders of magnitude. Pilot studies conducted 14-15 years ago did not indicate that cylindrospermopsin was produced in measurable concentrations in blooming Maine lakes, and Maine lake samples submitted under EPA Region 1's BloomWatch program yielded results from both open water and scum samples well under the EPA level of concern.

DEP recommendation: The Department commits to taking the following steps as resources become available: evaluate existing data to establish how much of an issue microcystin production is in Maine lakes to determine the need for recreational water quality criteria for microcystin and cylindrospermopsin; understand current worst-case scenario concentrations and how these concentrations change over time to help develop appropriate frequency and duration components of the criteria; consider approaches used by other states that have adopted these criteria, particularly approaches used to establish and implement frequency and duration components; determine the feasibility of establishing implementation procedures given existing Department resources; and, in collaboration with the MECDC, draft a proposal to adopt the EPA criteria or stricter criteria if deemed necessary. Progress within the Department regarding the advancement of this proposal will depend on the complexities identified and will proceed as limited staff and resources allow. Consultation with EPA, other agencies, and stakeholders will eventually occur as needed prior to criteria adoption, which will follow standard procedures.

UPGRADES OF CLASSIFICATION

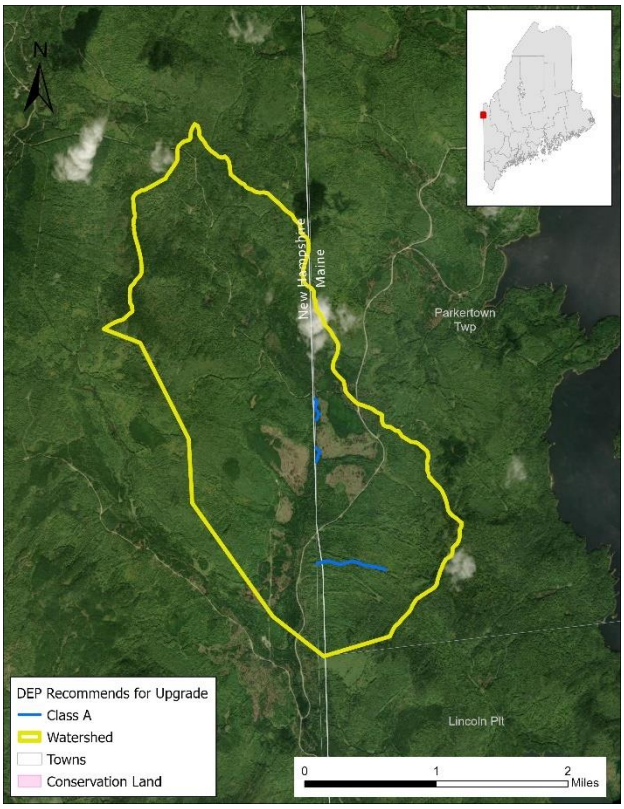
38 M.R.S. SECTION 467

Androscoggin River Basin

Abbott Brook and Tributary, Parkertown Township.
Propose Class A to Class AA (0.9 miles approx.).
Proposal submitted by: Maine DEP.

Basis for proposal: Abbott Brook and its tributaries in Lincoln Plantation are tributaries to the Magalloway River. The waters were upgraded to Class AA in 2009 based on a proposal from the Maine Department of Inland Fisheries & Wildlife because they contain very high-value brook trout spawning and rearing habitat for the Magalloway River fishery, which is of statewide significance. Two very short segments of Abbott Brook (combined ~0.3 miles) and a portion of one unnamed tributary (~0.6 miles) located upstream in Parkertown Township were inadvertently omitted from the upgrade and remained Class A. It is expected that these upstream waters provide similarly valuable brook trout habitat as the waters downstream in Lincoln Plantation. The upstream waters proposed for upgrade serve to protect water quality for the Class AA waters downstream and are expected to also attain Class AA standards.

Issues to be considered for this reclassification: There are no known existing water control structures, stormwater sites, licensed wastewater discharges, or overboard discharges on the short segments proposed for upgrade. There are no Department records of land-development permits and the Department is not aware of any existing water withdrawal activities or permits or of any anticipated construction projects for water control structures in this watershed. Hydroelectric power generation is not a designated use in Class AA waters, and statutory standards require that "habitat must be characterized as free-flowing and natural." An upgrade will thus preclude future construction of dams or other water control structures. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.



Recommend revising 38 M.R.S. § 467(1)(C)(4-A) as follows:
C. Androscoggin River, Upper Drainage; that portion within the State lying above the river's most upstream crossing of the Maine-New Hampshire boundary - Class A unless otherwise specified.

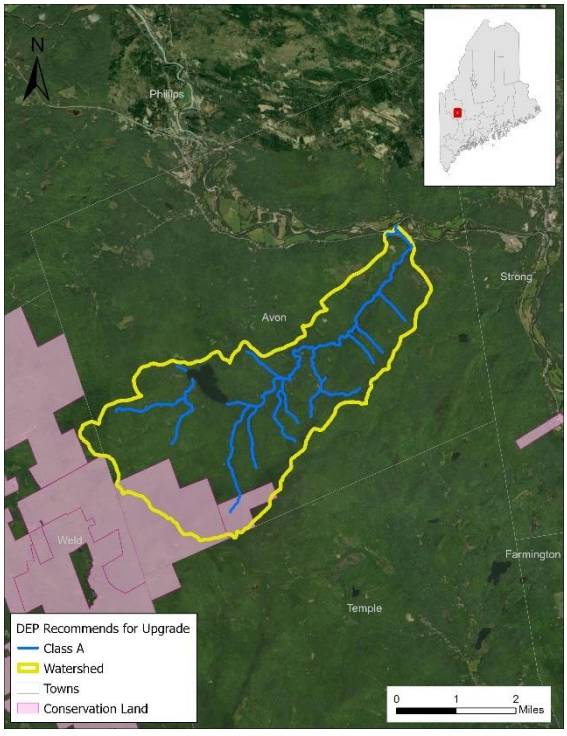
(4-A) Abbott Brook and its tributaries ~~in Lincoln Plantation~~ - Class AA.

Kennebec River Basin

Mount Blue Stream and Tributaries, Avon and Weld.
Propose Class A to Class AA (19 miles approx.).
Proposal submitted by: Maine DEP.

Basis for proposal: Mount Blue Stream and tributaries are designated as Class A. The stream and associated tributaries contain high quality habitat for endangered Atlantic salmon according to the Maine Department of Marine Resources, with evidence of spawning documented in the lower portion of the watershed in 2022. The streams have been designated as critical habitat for Atlantic salmon by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. Mount Blue Pond supports brook trout and brown trout populations. The watershed is 90% forested with little development activity and 13% of the watershed is protected as conservation land as part of Mt. Blue State Park, lending scenic and recreational importance to these waters. Data from a 2012 undergraduate thesis and DMR data showed that Mount Blue Stream had good water quality and a macroinvertebrate community indicative of excellent water quality. DEP monitoring data for Mount Blue Stream indicate attainment of Class A aquatic life criteria (which are the same as Class AA criteria) in 2020 and good water quality for salmonids. Mount Blue Stream and tributaries proposed for upgrade are expected to attain Class AA standards.

Issues to be considered for this reclassification: In accordance with 38 M.R.S. § 464(4)(F)(2), all Class AA waters are considered outstanding national resources unless otherwise specified under 38 M.R.S. §§ 467 or 468. Except for certain cases as specified in 38 M.R.S. § 465(1)(C), there may be no direct discharges of pollutants to Class AA waters. There are no existing water control structures, no stormwater sites, licensed wastewater discharges, or overboard discharges in the watershed. There are no Department records of recent land-development permits, and the Department is not aware of any existing water withdrawal activities or permits or of any anticipated construction projects for water control structures in this watershed. Hydroelectric power generation is not a designated use in Class AA waters, and statutory standards require that "habitat must be characterized as free-flowing and natural." An upgrade will thus preclude future construction of dams or other water control structures. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.



Recommend revising 38 M.R.S. § 467(4)(G)(2) as follows:

G. Sandy River Drainage

(2) Sandy River, tributaries - Class B unless otherwise specified.

(c) Mount Blue Stream and its tributaries – Class AA.

Sandy River and Tributaries, Avon, Freeman Twp., Phillips, Strong, and Other Towns and Townships.
Propose Class B to Class A (167 miles approx.).
Proposal submitted by: Maine DEP.

Basis for proposal: Sandy River from Phillips to Farmington and its tributaries are designated as Class B. The main stem provides high-quality habitat for federally endangered Atlantic salmon according to the Maine Department of Marine Resources and is considered a high priority in the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU). The main stem has been designated as critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act. The watershed is mostly forested with development concentrated primarily along the main stem in Avon, Phillips, and Strong, including residential, agricultural areas, and timber harvest. Industrial forestry activities may occur in the upper watershed. DEP biological monitoring data for one site along the main stem in Avon and two sites along an unnamed tributary in Avon indicate that Class A aquatic life criteria for macroinvertebrates were attained in 2022. Additional DEP monitoring data for those stations indicate good water quality for salmonids.

Issues to be considered for this reclassification: There is one licensed overboard discharge on Lambert Hill Road in Strong, and two licensed stormwater discharges in Strong near the main stem. There is one recent Department issued land-development permit for a solar development project encompassing nearly 20 acres off Norton Hill Road in Strong. For the unorganized portions of the watershed, Maine Land Use Planning Commission (LUPC) permitting records indicate there are a number of recently approved nonresidential development permits in the watershed. A historic discharge to an unnamed tributary in Avon from a fish hatchery was discontinued in 2010.

Watershed land uses were evaluated to inform the likelihood of meeting the Class A criteria for natural habitat and aquatic life "as naturally occurs." Over 84% of the watershed is forested and 6.6% of the watershed is in conservation land. Although the watershed is predominately forested, roads and some residential and commercial development are concentrated along the main stem and in tributaries north of the main stem in Strong. Agricultural uses are present primarily along the main stem and include hayfields, cropland such as blueberry barrens, and some livestock. Industrial logging activities occur throughout the watershed. Forestry activities are not expected to be affected by an upgrade because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.

The Department's Chapter 583 rule establishes nutrient criteria for fresh surface water Classes AA, A, B, and C to assess and protect the designated and existing uses of aquatic life support, habitat, and recreation in and on the water.[11] Although available nutrient data are limited for this watershed, total phosphorus (TP) values collected by the Department at two sites on an unnamed tributary in Avon in 2022 did not meet Class A standards. Available biomonitoring data indicate Class A attainment for macroinvertebrates at stations in Avon along the main stem and an unnamed tributary, but there are no stations in the remaining portions of the water to assess criteria attainment. *E. coli* data were not available for assessment. Additional in-stream and biological monitoring data are needed, particularly in portions of the watershed located in Strong, to determine the likelihood of attainment of Class A standards.

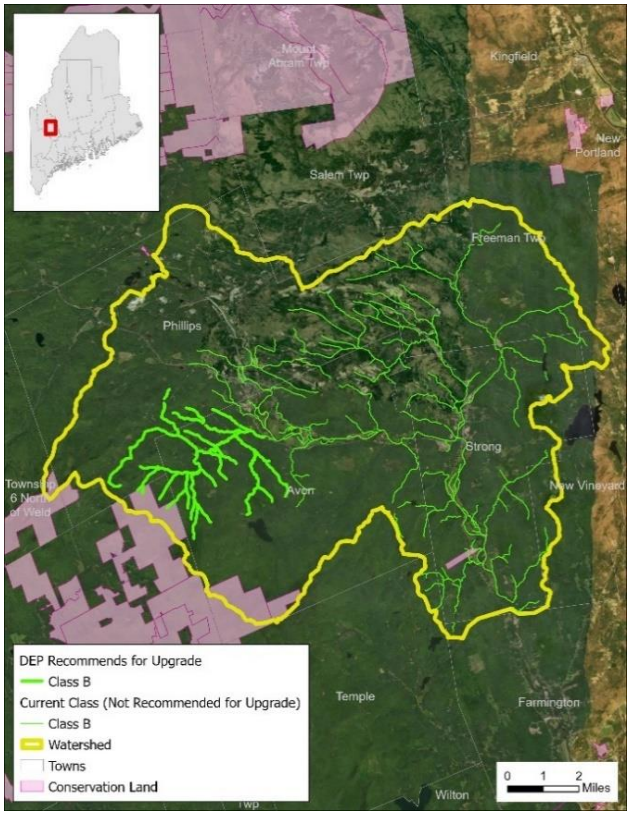
[11] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.

DEP recommendation: The Department recognizes state and local salmon restoration efforts and appreciates the information provided about the proposed segment's critical habitat designations.[12] As with externally submitted TR proposals, the Department conducted a comprehensive review of this initial internal proposal. Department staff discussed the proposal submitted, evaluated available water quality data to determine the attainment of Class A and B standards, and considered statutory requirements for Class A waters.

After due consideration of all factors including input provided during the public comment period, the Department does not recommend an upgrade for all waters originally proposed but does recommend an upgrade for all tributaries entering the Sandy River in Avon between Avon Valley Road and Mount Blue Pond Road west of Route 4. This area in the western portion of the watershed is predominantly forested, there is little to no existing residential development, and future development pressures are likely minimal. Although there are no known monitoring data in this area of the watershed to determine water quality attainment, these tributary waters are expected to attain Class A criteria based on existing land use.

The Department believes that further investigation and supporting data are needed for other parts of the watershed to allow for a comprehensive assessment of attainment for all narrative and numeric criteria for Class A waters, including recently adopted freshwater nutrient criteria. Although available data indicate good water quality overall, Class A criteria are not met at some sites, and data gaps exist in some developed parts of the watershed.

As resources allow, the Department commits to evaluating other areas of the watershed that may be appropriate for a potential upgrade to Class A based on watershed land use, considerations of stormwater discharge and land development permits, and other potential nonpoint watershed pollution sources. Once evaluated, the Department commits to reviewing available data and collecting new data as deemed necessary and as resources allow, including additional biological monitoring, phosphorus, and environmental indicator data.



Recommend revising 38 M.R.S. § 467(4)(G)(2) as follows:

G. Sandy River Drainage

(2) Sandy River, tributaries - Class B unless otherwise specified.

(e) All tributaries entering the Sandy River in Avon between Avon Valley Road and Mount Blue Pond Road west of Route 4. – Class A.

[12] According to NOAA, over 12,000 miles of Maine river, stream, and estuarine habitat, and 308 square miles of lake habitat, have been designated as critical habitat for the Atlantic salmon Gulf of Maine Distinct Population Segment (GOM DPS). *See* https://www.fisheries.noaa.gov/action/critical-habitat-gulf-maine-dps-atlantic-salmon and https://www.fisheries.noaa.gov/s3/dam-migration/atlanticsalmon-accessible.pdf.

Temple Stream and Tributaries, Avon, Temple, Wilton, and Farmington.
Propose Class B to Class A (66.9 miles approx.).
Proposal submitted by: Maine DEP.

Basis for proposal: Temple Stream and tributaries are designated as Class B. In 2022, the Walton's Mill Dam was removed, allowing fish passage upstream and converting a 1-mile impoundment into a free-flowing stream. The stream and associated tributaries provide high-quality habitat for federally endangered Atlantic salmon according to the Maine Department of Marine Resources (DMR) and is considered a high priority in the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU). Following removal of the Walton's Mill Dam, DMR documented evidence of spawning upstream of the former dam in 2023, indicating successful fish passage by wild sea run Atlantic salmon adults. The streams have been designated as critical habitat for Atlantic salmon by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act. The watershed is mostly forested, with some development along the lower half of the stream, including residential, agricultural areas, and timber harvest. Industrial forestry activities may occur in the upper watershed, especially above the confluence with Edes Brook. DEP monitoring data in the lower watershed indicate good water quality for salmonids.

Issues to be considered for this reclassification: No issues related to discharges. There are no known licensed wastewater discharges in the watershed. Watershed land uses were evaluated to inform the likelihood of meeting the Class A criteria for natural habitat and aquatic life "as naturally occurs." Over 87% of the watershed is forested and 2% of the watershed is in conservation land. Agricultural areas, roads, and residential and commercial development are concentrated in the mid and lower portions of the watershed. Agricultural uses include hayfields, cropland, and some livestock. Industrial logging activities occur in the upper portion of the watershed. Forestry activities are not expected to be affected by an upgrade because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.

DEP macroinvertebrate monitoring data for two sites in the lower portion of the watershed (S-1183 (2020) and S-1242 (2023)) both indicate attainment of Class A aquatic life criteria, however station S-1183 only attained Class C in 2020 based on algae. Site S-1110 in the upper watershed attained Class A for algae in 2017. Station S-1242 was sampled for algae in 2023, but data are not yet available.

Department rule Chapter 583 establishes nutrient criteria for fresh surface water Classes AA, A, B, and C to assess and protect the designated and existing uses of aquatic life support, habitat, and recreation in and on the water.[13] Although available nutrient data are limited for this watershed, total phosphorus values collected by the Department at one site along Temple Road in the lower, more developed part of the watershed in 2023 did not meet Class A standards. *E coli* data were not available for assessment.

DEP recommendation: The Department recognizes state and local salmon restoration efforts and appreciates the information provided about the proposed segment's critical habitat designations.[14]

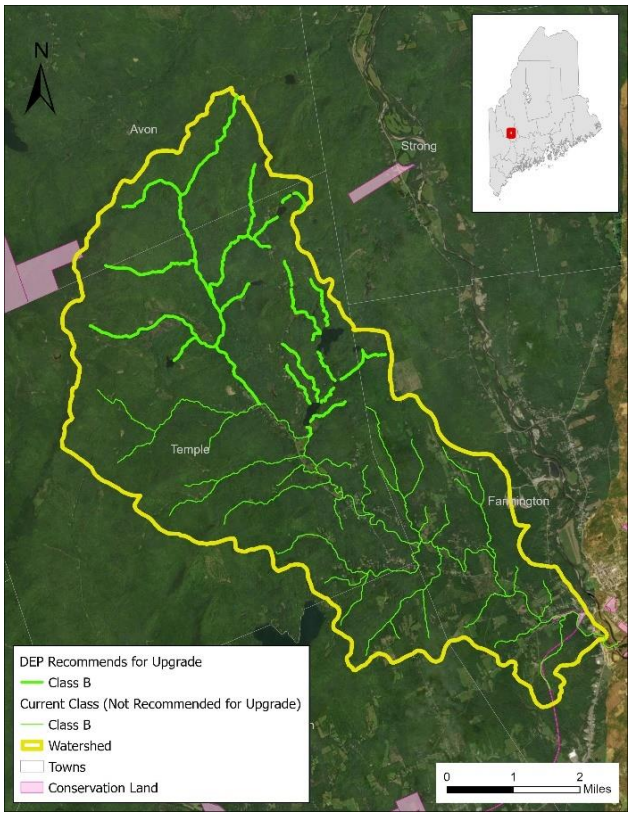
[13] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.
[14] According to NOAA, over 12,000 miles of Maine river, stream, and estuarine habitat, and 308 square miles of lake habitat, have been designated as critical habitat for the Atlantic salmon Gulf of Maine Distinct Population Segment (GOM DPS). *See* https://www.fisheries.noaa.gov/action/critical-habitat-gulf-maine-dps-atlantic-salmon and https://www.fisheries.noaa.gov/s3/dam-migration/atlanticsalmon-accessible.pdf.

As with externally submitted TR proposals, the Department conducted a comprehensive review of this initial internal proposal. Department staff discussed the proposal submitted, evaluated available water quality data to determine the attainment of Class A and B standards, and considered statutory requirements for Class A waters.

After due consideration of all factors, including input provided during the public comment period, the Department does not recommend an upgrade for all waters originally proposed but does recommend an upgrade for two predominantly forested areas in the upper headwaters of the watershed where there is little to no existing residential development and where future development pressures are likely minimal. These areas include the main stem of Temple Stream and associated tributaries above the confluence with Edes Brook and all tributaries to Drury Pond and the stream between Drury Pond and Temple Stream. DEP monitoring data at S-1110, which is located on Temple Stream just above the confluence with the outlet stream of Drury Pond, indicates attainment with Class A aquatic life criteria for algae and phosphorus.

The Department believes that further investigation and supporting data are needed for other parts of the watershed to allow for a comprehensive assessment of attainment for all narrative and numeric criteria for Class A waters, including recently adopted freshwater nutrient criteria. Although available data indicate very good water quality overall, Class A criteria are not met at some sites, and data gaps exist in some developed parts of the watershed.

As resources allow, the Department commits to evaluating any additional areas of the watershed that may be appropriate for a potential upgrade to Class A based on watershed land use, considerations of stormwater discharge and land development permits, and other potential nonpoint watershed pollution sources. Once evaluated, the Department commits to reviewing available data and collecting new data if deemed necessary and as resources allow. In 2023, the Department's biological monitoring program collected algae data at one location in the lower portion of the segment proposed for upgrade. These data will complement data collected at one other location in this segment.



<u>Recommend revising 38 M.R.S. § 467(4)(G)(2) as follows:</u>

G. Sandy River Drainage

(2) Sandy River, tributaries - Class B unless otherwise specified.

<u>(f) Temple Stream and all its tributaries above the confluence with Edes Brook – Class A.</u>

<u>(g) All tributaries to Drury Pond and the stream between Drury Pond and Temple Stream – Class A.</u>

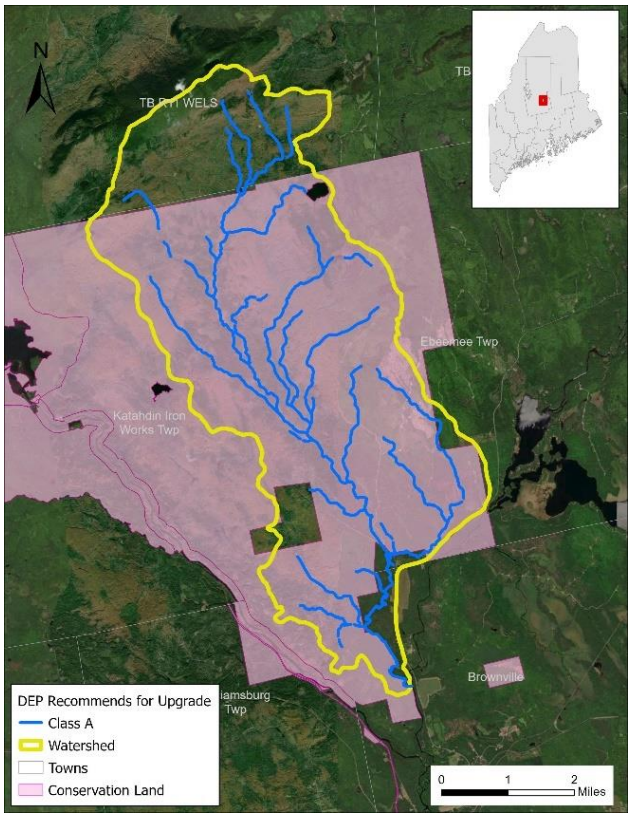
Penobscot River Basin

Pleasant River Middle Branch and Tributaries, Ebeemee Twp., Katahdin Iron Works Twp., TB R11 WELS, and Other Towns and Townships.
Propose Class A to Class AA (46.1 miles approx.).

Proposal submitted by: Maine DEP.

Basis for proposal: Pleasant River Middle Branch and tributaries are designated as Class A. The stream and associated tributaries provide high-quality habitat for federally endangered Atlantic salmon according to the Maine Department of Marine Resources, with evidence of spawning documented in some portions of the watershed in 2023. The streams have been designated as critical habitat for Atlantic salmon by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. Over 80% of the watershed is forested with little development activity and 76% of the watershed is protected as conservation land as part of the Appalachian Mountain Club's Pleasant River Headwaters Forest, lending scenic and recreational importance to these waters. DEP monitoring data for Pleasant River Middle Branch indicate attainment of Class A aquatic life criteria (which are the same as Class AA criteria) in 2024 and good water quality for salmonids. Pleasant River Middle Branch and tributaries proposed for upgrade are expected to attain Class AA standards.

Issues to be considered for this reclassification: In accordance with 38 M.R.S. § 464(4)(F)(2), all Class AA waters are considered outstanding national resources unless otherwise specified under sections 467 or 468. Except for certain cases as specified in 38 M.R.S. § 465(1)(C), there may be no direct discharges of pollutants to Class AA waters. There are no known existing water control structures, stormwater sites, licensed wastewater discharges, or overboard discharges in the watershed. There are no Department records of recent land-development permits, and the Department is not aware of any existing water withdrawal activities or permits or of any anticipated construction projects for water control structures in this watershed. Hydroelectric power generation is not a designated use in Class AA waters, and statutory standards require that "habitat must be characterized as free-flowing and natural." An upgrade will thus preclude future construction of dams or other water control structures. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.



Recommend revising 38 M.R.S. § 467(7)(E)(2) as follows:

E. Piscataquis River Drainage.

(2) Piscataquis River, tributaries – Class B unless otherwise specified

(c) Pleasant River, East Branch and its tributaries – Class A

(c-1) Pleasant River, Middle Branch and its tributaries – Class AA

UPGRADE PROPOSALS THAT ARE NOT BEING RECOMMENDED BY THE DEPARTMENT

38 M.R.S. SECTION 467 AND 469

Androscoggin River Basin

Androscoggin River from confluence with Ellis River to Worumbo Dam (Lisbon Falls), Auburn, Canton, Dixfield, Durham, Greene, Jay, Leeds, Lewiston, Lisbon, Livermore, Livermore Falls, Mexico, Peru, Rumford, Turner, and Other Towns and Townships. Propose Class C to Class B (approx. 83.8 miles).
Proposal submitted by: Androscoggin River Watershed Council.

Basis for proposal: The Androscoggin River from the confluence with the Ellis River to Worumbo Dam is designated as Class C. ARWC requests that this section of the Androscoggin River in Maine be upgraded from Class C to Class B based on very good dissolved oxygen (DO) levels throughout the reach. According to ARWC, continuous monitoring DO data collected at the head of Gulf Island Pond (GIP) at the Turner Center Bridge meet Class B standards the majority of the time, but DO levels at the Deep Hole in GIP are more complicated to assess due to the stratification that occurs in GIP at low flows and high temperatures. ARWC also notes that data collected by the Department's Volunteer River Monitoring Program (VRMP) indicate very good water quality, although current Class B standards aren't always attained. ARWC asserts that these water quality trends are seen for both Class B sections of the river and those designated as Class C, and that DO levels and aquatic communities are likely experiencing the impacts of climate change, including the warming of Maine's waters, combined with the effects of rainfall acidification and changes in morphological shape of the river, which contribute to low DO levels.

Issues to be considered for this reclassification: The Androscoggin River is Class C from the confluence with the Ellis River (at Rumford Point) to Worumbo Dam (at Lisbon Falls) (~85 miles), has a total of nine dams, eight discharges, urban centers (including Rumford, Lewiston, and Auburn) and a significant amount of agriculture. There is an in-river oxygen injection system approximately 2.5 miles above the GIP dam. The oxygen injection is managed through the Gulf Island Pond Oxygenation Partnership (GIPOP) and is required to meet the Class C DO criterion of 5 ppm, as specified in the Gulf Island Dam water quality certification and the discharge licenses for the paper mills in Gorham, NH, Rumford, and the former mill in Jay. The necessity of oxygen injection to attain water quality standards is extremely rare and is only used in a few other locations nationally, which indicates the unique challenges of creating a condition of 5 ppm for the current Class C standard, or the proposed Class B standard of 7 ppm DO, within GIP. It is noted that paper production has ceased at the former paper mill in Jay. The current owner is evaluating new uses for the property. While it is unclear what the new uses will be, it is expected that the pollutant load from the facility will be significantly less than historic levels. It is also noted that the Department is in discussions with GIPOP on how the current system might be modified in the future given the significant loading reductions from the former Jay mill.

ARWC's proposal was accompanied by Androscoggin River DO data compiled by ARWC for Turner Center Bridge from 2021 to 2023 and GIP data from 2015 to 2023. These data show that Class B criteria for DO are usually, but not always, attained in the segment in question. The Department analyzed these and other recent water quality monitoring data to determine whether Class B and Class C criteria are attained.

For the upper river (Ellis River to GIP dam), data are very limited. Discrete DO data collected by VRMP at four monitoring sites (2020-2024) and continuous DO data collected by the Department at the Turner Center Bridge (2001-2024) meet current Class C criteria, but data occasionally do not meet current Class B criteria. GIP DO data were also reviewed, and data do not meet Class B criteria based on 38 M.R.S. § 464(13). Macroinvertebrate data collected in the upper river since 2000 mostly meets Class B criteria, but the data are relatively old, and no data are available for the river between Livermore Falls and Lewiston. Bacteria data are not available for the upper river. For the lower river (GIP Dam to Worumbo Dam), 2020 to 2024 discrete and continuous DO data also indicate that the lower river meets current Class C criteria but occasionally does not meet current Class B criteria. Macroinvertebrate data collected at five stations in 2021 and 2022 indicate that this segment meets Class C criteria; however, only two of the five stations meet Class B criteria. Limited bacteria data indicate that the lower river does not meet either Class B or Class C criteria. *Note that the discrete and continuous DO data (except for GIP and Lewiston Falls) would meet the Department's revised Class B DO criteria proposed under a separate TR proposal (see pages 23-25).*

The Department's Chapter 583, *Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*, provides numerical criteria for total phosphorus and environmental indicators (including percent nuisance algae cover, presence of sewage fungus, and chlorophyll a).[15] Most of the available phosphorus data for the Androscoggin River were collected in 2010, and very little data have been collected since that time. Results indicate that the river meets Class C freshwater nutrient criteria and mostly meets Class B criteria. However, data for several sites in both the upper and lower river segments exceeded the Class B phosphorus criteria of 30 ppb. Additional data are needed to determine phosphorus criteria attainment.

If waters do not meet the criteria of their assigned class, they may be listed as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated) Report with a requirement to complete a Total Maximum Daily Load (TMDL). Such listings and TMDLs may also impact discharges if the discharges cause or contribute to such impairments.[16]

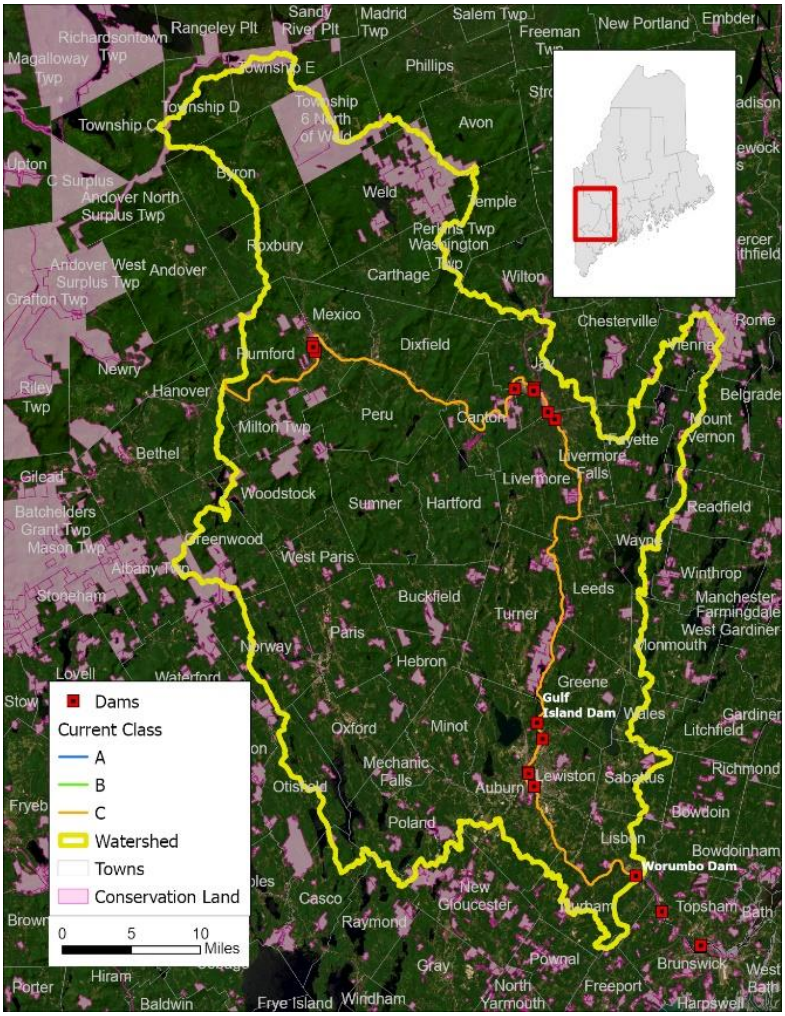
The Department evaluated the potential implications of a Class B upgrade to existing waste discharge licenses under critical conditions of high water temperature, low flow, and maximum licensed discharge levels as required by 38 M.R.S. § 464(4)(D). and Department rule, Chapter 523, *Waste Discharge License Conditions*. Additional effluent and ambient data are needed to fully evaluate potential implications to existing waste discharge licenses for the upper river. The Department's analysis conducted for the lower river is provided in the proposal summary for the Lower Androscoggin River upgrade proposal (pages 72-76).

DEP recommendation: The Department evaluated available water quality data for the upper river (Ellis River to GIP), including the revised segment proposed by ARWC (Ellis River to Turner Center Bridge) during the preliminary public comment period, and the lower river (GIP Dam to Worumbo Dam). Based on the review of water quality data, the Androscoggin River segment meets its current Class C criteria, but it does not fully meet all Class B water quality criteria. Furthermore, the Department's analysis indicates that this segment of the river cannot meet Class B criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. Additional data are needed for the upper river to assess attainment of

[15] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.
[16] It is noted that waste discharge is not a designated use nor an existing use under Maine law. Information on potential impacts to licensed discharges is included to provide full context for any upgrade decisions.

criteria and make an assessment of the potential implications to existing waste discharge licenses. The Department's analysis of discharge limits for the lower river is provided in the next section. For these reasons, the Department does not recommend an upgrade for either segment proposed by ARWC.

As resources allow, the Department will collect DO, biological monitoring, phosphorus and environmental indicator data in the Androscoggin River, particularly where there are data gaps. These data will inform whether the Androscoggin meets Class B criteria and help evaluate potential impacts of an upgrade on discharges.



Androscoggin River from Gulf Island Pond Dam to Worumbo Dam (Lisbon Falls), Lewiston, Auburn, Lisbon, Durham.
Propose Class C to Class B (approx. 19.4 miles).
Proposal submitted by: Grow L+A.

Basis for proposal: The Androscoggin River from Gulf Island Pond (GIP) Dam to Worumbo Dam is designated as Class C. Grow L+A requests that this segment of the Androscoggin River be upgraded from Class C to Class B based on water quality improvements over many years, the attainment of Class B standards most of the time, and the benefits an upgrade would bring to users of the river and the local economy. Grow L+A states that improvements to the river should be celebrated and recognized through a classification upgrade, which would reflect actual ambient conditions. Grow L+A asserts that Maine's water quality classification system is goal based and that classifications must be based on ambient river conditions. According to Grow L+A, the river segment in question must be upgraded under the antidegradation provisions of Maine statute and the federal Clean Water Act because it attains Class B water quality standards. Multiple communities, organizations, and legislators support the upgrade.

Issues to be considered for this reclassification: The proposal was accompanied by Androscoggin River data reports for 2009 to 2018. These reports are based on Friends of Merrymeeting Bay (FOMB) data and were compiled by the Department's Volunteer River Monitoring Program (VRMP) for FOMB. They document that Class B criteria for dissolved oxygen (DO) and bacteria are usually, but not always, attained in the segment in question; this fact is acknowledged in the upgrade proposal. Other data reports spanning additional years are not informative because data were pooled across sites, thus precluding analysis of water quality standards attainment at each monitoring location.

Looking at the river more comprehensively, it is Class C from the confluence with the Ellis River (at Rumford Point) to Worumbo Dam (at Lisbon Falls) (~85 miles), has a total of 14 dams, multiple discharges, urban centers (including Lewiston, Auburn, Brunswick, and Topsham), and a significant amount of agriculture. There is an in-river oxygen injection system approximately 2.5 miles above GIP dam. The oxygen injection is managed through the Gulf Island Pond Oxygenation Partnership (GIPOP) and is required to meet the Class C DO criterion of 5 ppm, as specified in the Gulf Island Dam water quality certification and the discharge licenses for the paper mills in Gorham, NH, Rumford, and the former mill in Jay. The necessity of oxygen injection to attain water quality standards is extremely rare and is only used in a few other locations nationally, which indicates the unique challenges of creating a boundary condition of 7 ppm DO at the GIP Dam for the lower section of the river that is proposed for upgrade. It is noted that paper production has ceased at the former paper mill in Jay. The current owner is evaluating new uses for the property. While it is unclear what the new uses will be, it is expected that the pollutant load from the facility will be significantly less than it had been. It is also noted that the Department is in discussions with GIPOP on how the current system might be modified in the future given the significant loading reductions from the former Jay mill.

In 2010, Department staff collected a range of data on the segment in question; results from both in-stream sampling and modeling efforts were summarized in the 2011 'Lower Androscoggin River Basin Water Quality Study Modeling Report.' In-stream data for DO showed that Class B criteria were not always attained, confirming findings from VRMP data. Aquatic life criteria were also not always attained. Water quality models indicated that Class B DO criteria would not be attained in much of the segment in question during critical water quality conditions, including low flow, high water temperature, and licensed loading from point source discharges. Non-attainment of Class B DO criteria was even predicted at a DO condition as high as 7.69 ppm at the upper boundary (i.e., below GIP Dam).

The Department analyzed recent water quality monitoring data to determine whether Class B and Class C criteria were attained. For DO, discrete data collected by the VRMP at three monitoring sites from 2020 to 2024 indicate that this segment meets current Class C criteria, but it occasionally does not meet current Class B criteria at all sites. Continuous DO data collected by Brookfield White Pine Hydro in 2022 as part of the Lewiston Falls Water Quality Study Report (2023) show that Class C DO criteria are met, but on occasion DO concentrations do not meet Class B criteria for short periods. *Note that these discrete and continuous data (except for GIP and Lewiston Falls) would meet the Department's revised Class B DO criteria proposed under a separate TR proposal (see pages 23-35).*

Macroinvertebrate data collected at five stations in 2021 and 2022 indicate that this segment meets Class C criteria; however, only two of the five stations meet Class B criteria. There is very limited bacteria data for this river segment. Based on the six VRMP sampling events at one site in 2021, this segment does not meet either Class B or Class C criteria. Chapter 583, *Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*, provides numerical criteria for total phosphorus and environmental indicators (including percent nuisance algae cover and chlorophyll a).[17] Most of the available phosphorus data for the Androscoggin River were collected in 2010, and very little data have been collected since that time. Results indicate that the river meets Class C freshwater nutrient criteria and mostly meets Class B criteria. However, data for three sites were above the Class B phosphorus criteria of 30 ppb. Additional data are needed to determine phosphorus criteria attainment.

If waters do not meet the criteria of their assigned class, they may be listed as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) with a requirement to complete a Total Maximum Daily Load (TMDL).[18] Such listings and TMDLs may also impact discharges if the discharges cause or contribute to such impairments.

Maine's antidegradation policy (38 M.R.S. § 464(4)(F)(4)) provides, "When the actual quality of any classified water exceeds the minimum standards of the next highest classification, that higher water quality must be maintained and protected. The board shall recommend to the Legislature that that water be reclassified in the next higher classification." The Department's longstanding interpretation of this statute, based on its expertise and authority to interpret the water quality standards it is charged with implementing, continues to be that the antidegradation provision must be read in the full context of water quality laws, including those pertaining to waste discharge licensing. Under this interpretation, which is reflected in the Department's Antidegradation Program Guidance (Appendix B), exceeding the minimum standards of the next highest classification, such as for DO, must occur under critical water quality conditions to trigger the reclassification requirement pursuant to 38 M.R.S. § 464(4)(F)(4). (And, as explained earlier, modeling indicates that Class B DO criteria would not be attained in much of the segment in question during critical water quality conditions.) The Department's interpretation of the antidegradation policy does not consider a wastewater discharge to be an existing use, but it does recognize the legal conditions created when a waste discharge license is issued. Licenses are issued based, in part, on a determination by the Department that a discharge will not lower the water quality of the receiving water below its classification. That determination is in part based on statutory provisions (38 M.R.S. § 464(4)(D) and Department rule, Chapter 523, *Waste Discharge License Conditions*) that specify consideration of critical flow conditions and full licensed loads in

[17] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.
[18] It is noted that waste discharge is not a designated use nor an existing use under Maine law. Information on potential impacts to licensed discharges is included to provide full context for any upgrade decisions.

discharge permitting. Therefore, the Department's position is and has been that monitoring data showing that Class B criteria are sometimes, but not always, attained in the lower Androscoggin River during non-critical flow conditions does not trigger the requirements of 38 M.R.S. § 464(4)(F)(4). The Department's position regarding the issuance of waste discharge licenses was confirmed in consultation with EPA in June 2021, when EPA stated that discharge licenses must be written to ensure that applicable water quality standards are attained during critical conditions.[19]

In reviewing this proposal, the Department also considered the feasibility of creating conditions under which Class B criteria could be attained by setting more stringent discharge limits in existing waste discharge licenses. Maine statute (38 M.R.S. § 464(4)(A)(8)) stipulates that a license may not be issued for a discharge for which the imposition of conditions cannot ensure compliance with applicable water quality requirements. In addition, Maine statute (38 M.R.S. § 464(4)(F)(3)) stipulates that a license for a discharge to a waterbody in which classification standards are not met may only be issued if the project does not cause or contribute to the failure of the waterbody to meet standards. As described above, standards currently are not met at all times and in all locations of this segment of the river. Because flow from the GIP impoundment immediately upstream of the segment proposed for upgrade accounts for 97% of the flow in the segment proposed for upgrade, Class C DO conditions of 5 ppm in GIP would prevent attainment of Class B DO conditions of ppm downstream. Studies conducted by the Department in 2005 and 2010 indicated that 13 miles of the GIP impoundment immediately upstream of the segment proposed for upgrade would not meet Class B criteria during critical conditions even in the absence of any point sources and without the presence of an in-river oxygenation system.

It has been the Department's longstanding position that upgrades to classification may be appropriate where it is socially or ecologically desirable to attain higher standards and where the technological and financial capacity exists to achieve those higher standards within a reasonable time. The Department has derived, via existing computer models and best professional judgement, potential reductions in discharge limits for certain entities in the river above GIP, and in the river in the segment proposed for upgrade, that would be required in order to license these discharges to meet Class B criteria under critical conditions of high water temperature, low flow, and maximum licensed discharge levels as required by 38 M.R.S. § 464(4)(D) and Department rule, Chapter 523, *Waste Discharge License Conditions*. There are a variety of license limit allocation scenarios that are possible, and the final limits would be derived through a formal licensing process. An example allocation based on a 54% reduction in biochemical oxygen demand (BOD_5) limits for all three mills above Gulf Island Pond is summarized below. Note that operational changes at the former Jay mill will affect this allocation and limits.[20]

Example reduction in BOD_5 limits that would be required to ensure water flowing over or through Gulf Island Dam contains 7 ppm of dissolved oxygen during critical low flow (7Q10) river flows. Reductions based on a 54% reduction for limits for all three facilities.

Facility	**Current Permit Limit** (lbs/day weekly average)	**New Permit Limit** (lbs/day weekly average June1 - Sept. 30)	**Actual weekly discharge for last 3 years at 95th percentile** (June 1 - Sept. 30)
JGT2 Redevelopment LLC (former Jay mill)	6,400	2,944	400

[19] It is noted that the BEP can recommend an upgrade, and the Legislature can upgrade a water classification, even if the requirement to do so under 38 M.R.S. § 464(4)(F)(4) is not triggered.
[20] Relicensing of the former Jay Mill for revised operation is pending and the type of future operation at the site is currently uncertain.

Nine Dragons (Rumford)	12,500	5,750	9,000
White Mountain Paper Co. (Gorham, NH)	10,298	4,737	5,000[21]

If the lower Androscoggin is upgraded to Class B, the Department will be required to lower existing discharge limits on certain discharges. The Lewiston Auburn Clean Water Authority (LACWA) is the wastewater treatment facility that serves Lewiston and Auburn. To address the predicted impacts of the LACWA discharge on dissolved oxygen levels, a BOD_5 limit reduction of 33% is expected to be required.

Facility	**Current Permit Limit** (lbs/day weekly average)	**New Permit Limit** (lbs/day weekly average June1 - Sept. 30)	**Actual weekly discharge for the last 3 years at 95th percentile** (June 1 - Sept. 30)
LACWA	5,329	3,570	1,900
	Current Permit Limit lbs/day monthly avg.	New Permit Limit lbs/day monthly avg. (June 1 - Sept. 30)	Actual monthly discharge for last 3 years at 95th percentile (June 1 - Sept. 30)
	3,553	2,380	2,230

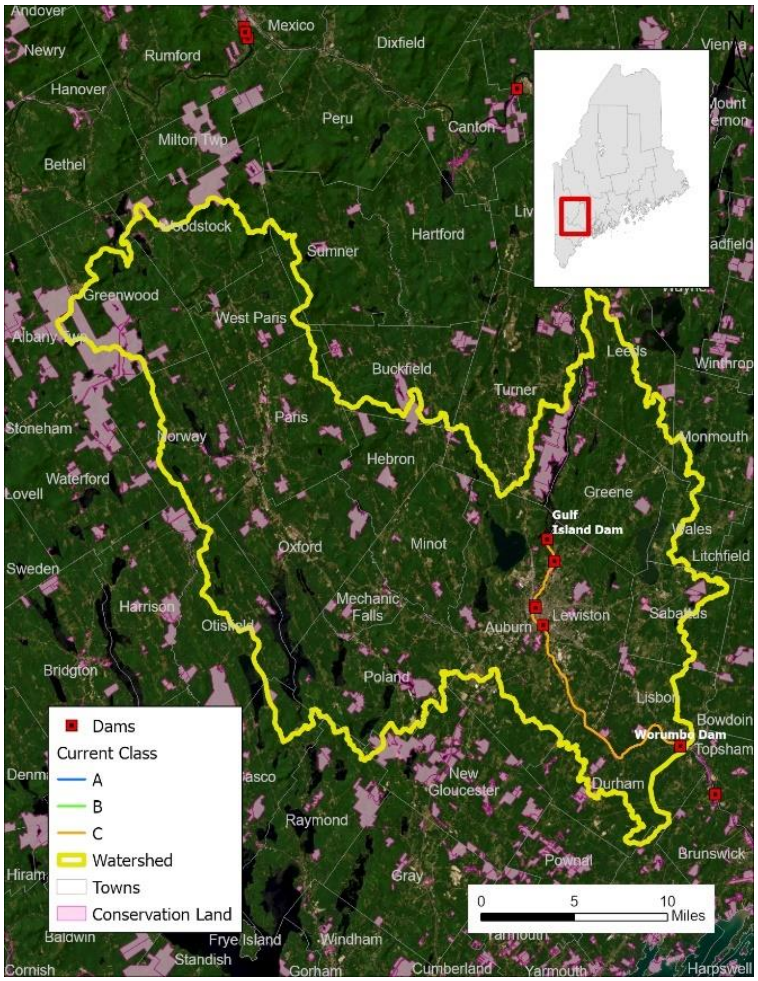
Additional effluent and ambient phosphorus data are needed to determine any phosphorus limits that would be required.

DEP recommendation: Based on the review of water quality data, the Lower Androscoggin River meets its current Class C criteria, but it does not fully meet all Class B water quality criteria for bacteria, aquatic life (biomonitoring), and dissolved oxygen. Furthermore, the Department's analysis indicates that the river cannot meet Class B criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. For these reasons, the Department does not recommend an upgrade for the Lower Androscoggin River.

The Department notes that the Lower Androscoggin River has been considered for a classification upgrade to Class B several times in recent years, and there continues to be strong advocacy for an upgrade for this section. If the Lower Androscoggin River were to be upgraded to Class B, the Department determined that a 54% reduction in BOD_5 may be required for the three discharges above GIP and a 33% reduction in BOD_5 for LACWA. Additional effluent and ambient phosphorus data are needed to determine any phosphorus limits that may be required.

The Department will collect additional biological monitoring, phosphorus, and environmental indicator data for this river segment as resources allow. These data will inform whether the Lower Androscoggin River meets biological and freshwater nutrient criteria and help further evaluate potential impacts on discharges.

[21] Recent data were not available for White Mountain Paper Co. Value provided was determined in May 2021.


Andover
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Bridgton
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New Gloucester
Durham
Raymond
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Frye Island
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Cumberland
Yarmouth
Harpswell
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Dams
Current Class
A
B
C
Watershed
Towns
Conservation Land
0
5
10
Miles

Presumpscot River Basin

Presumpscot River from Saccarappa Falls to Head of Tide at Presumpscot Falls, Westbrook, Portland, and Falmouth.
Propose Class C to Class B (approx. 8 miles).
Proposal submitted by: Friends of the Presumpscot River (FOPR) and American Rivers (AR).

Basis for proposal: FOPR and AR request that the lower Presumpscot River from Saccarappa Falls to Presumpscot Falls be upgraded from Class C to Class B based on notable water quality improvements in this section of the river. Actions to improve water quality and aquatic habitat include, but are not limited to, the reduction of pollutant discharges to the river; the removal of two dams (Smelt Hill Dam in 2002 and the Saccarappa Dam in 2019); ongoing efforts to reduce combined sewer overflows (CSOs); planned discharge reductions to a tributary of the segment proposed for upgrade; numerous regulatory actions; and the creation of fishways and improved runs of migratory fish species. According to FOPR and AR, water quality data collected under the Department's Volunteer River Monitoring Program (VRMP) between 2019 and 2023 in the segment proposed for upgrade show that dissolved oxygen (DO) levels met Class B standards most of the time. Additionally, the proposal states that *E. coli* bacteria levels are generally good but increase after rain events, primarily as a result of CSOs in Westbrook and impaired tributaries in upper portions of the watershed. FOPR and AR note that the character and habitat in this section of the river is very close to being natural again and that reclassifying the lower river to Class B will allow resources and attention to be focused on taking additional measures to ensure Class B standards are being met at all times. FOPR and AR request that the Department makes the current temporary moratorium on new direct discharges permanent if the Department does not recommend a classification upgrade as part of this TR. One additional non-profit organization submitted a strong letter of support for this proposal.

Issues to be considered for this reclassification: The Department analyzed available water quality monitoring data for the segment proposed for upgrade to determine whether Class B and Class C criteria were attained. Discrete DO data collected by VRMP at four monitoring sites from 2000 to 2024 indicate that this segment meets current Class C criteria, but it occasionally does not meet current Class B criteria at all sites. Similarly, continuous DO data collected by the Department (2021) and Friends of Casco Bay (2022) show that Class C DO criteria are met, but on occasion DO concentrations do not meet Class B criteria for short periods. *Note that the discrete and continuous data would meet the Department's revised Class B DO criteria proposed under a separate TR proposal (see pages 23-25).*

Bacteria (*E. coli*) data collected by VRMP from 2020 to 2024 indicate this segment does not meet either Class B or Class C criteria. At least one of the four monitoring stations regularly exceeded the *E. coli* geometric mean and/or the Statistical Threshold Value (STV) criteria. For the four biomonitoring sites located in the segment proposed for upgrade, two were sampled three times since 2005 with the last sampling event in 2023, one site was sampled in 2023 only, and one was sampled in 2000 only. Of the nine macroinvertebrate samples collected at these sites, all met Class C criteria and just four met Class B criteria. Only two of the four stations have met Class B criteria since 2000, and of the three sites sampled in 2023, just one met Class B criteria. If this segment was upgraded to Class B, additional data would be needed to determine if the segment would be listed as impaired in Maine's Integrated Water Quality Monitoring and Assessment Report (Integrated Report) with a requirement to complete a Total Maximum Daily Load (TMDL). Such listings and TMDLs may also impact discharges if the discharges cause or contribute to such impairments.

Chapter 583, *Nutrient Criteria for Class AA, A, B, and C Fresh Surface Waters*, provides numerical criteria for total phosphorus and environmental indicators (including percent nuisance algae cover and chlorophyll a).[22] Limited recent ambient data are available, but four TP measurements were collected in 2021 and 2023. All values met Class C criteria, and three met Class B criteria of 30 ppb, with values of 12 ppb, 19 ppb, and 23 ppb (the remaining value was 31 ppb).

The watershed has densely populated areas, which are known to affect water quality. Additionally, a number of sources of pollution and other stressors exist in the watershed that may have an impact on water quality, such as nonpoint source pollution, dams and impoundments (mostly upstream of the segment proposed for upgrade), and some point source discharges, including CSOs. Two licensed facilities, Sappi North America and the Portland Water District Westbrook Wastewater Treatment Facility, discharge effluent to the lower Presumpscot River.

Maine's antidegradation policy (38 M.R.S. § 464(4)(F)(4)) provides, "When the actual quality of any classified water exceeds the minimum standards of the next highest classification, that higher water quality must be maintained and protected. . . .[t]he board shall recommend to the Legislature that that water be reclassified in the next higher classification." The Department's longstanding interpretation of this statute, based on its expertise and authority to interpret the water quality standards it is charged with implementing, continues to be that the antidegradation provision must be read in the full context of water quality laws, including those pertaining to waste discharge licensing. Under this interpretation, which is reflected in the Department's Antidegradation Program Guidance (Appendix B), exceeding the minimum standards of the next highest classification, such as for DO, must occur under critical water quality conditions to trigger the reclassification requirement pursuant to 38 M.R.S. § 464(4)(F)(4). The Department's interpretation of the antidegradation policy does not consider a wastewater discharge to be an existing use, but it does recognize the legal conditions created when a waste discharge license is issued. Licenses are issued based, in part, on a determination by the Department that a discharge will not lower the water quality of the receiving water below its classification. That determination is in part based on statutory provisions (38 M.R.S. § 464(4)(D) and Department rule, Chapter 523, *Waste Discharge License Conditions*) that specify consideration of critical flow conditions and full licensed loads in discharge permitting. Therefore, the Department's position is and has been that monitoring data show that Class B criteria are sometimes, but not always, attained in the lower Presumpscot River during non-critical flow conditions and do not trigger the requirements of 38 M.R.S. § 464(4)(F)(4). The Department's position regarding the issuance of waste discharge licenses was confirmed in consultation with EPA in June 2021, when EPA stated that discharge licenses must be written to ensure that applicable water quality standards are attained during critical conditions.[23]

The Department considered the feasibility of creating conditions under which Class B criteria could be attained by setting more stringent discharge limits in existing waste discharge licenses. Maine statute (38 M.R.S. Section 464(4)(A)(8)) stipulates that a license may not be issued for a discharge for which the imposition of conditions cannot ensure compliance with applicable water quality requirements. In addition, Maine statute (38 M.R.S. § 464(4)(F)(3)) stipulates that a license for a discharge to a waterbody in which classification standards are not met may only be issued if the project does not cause or contribute to the failure of the waterbody to meet standards. As described above, standards currently are not met at all times and in all locations of this segment of the river.

[22] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.
[23] It is noted that the BEP can recommend an upgrade, and the Legislature can upgrade a water classification, even if the requirement to do so under 38 M.R.S. § 464(4)(F)(4) is not triggered.

It has been the Department's longstanding position that upgrades to classification may be appropriate where it is socially or ecologically desirable to attain higher standards and where the technological and financial capacity exists to achieve those higher standards within a reasonable amount of time. In the case of the lower Presumpscot, an upgrade to Class B will, at the very least, require regulated facilities to undertake operational modifications to meet stricter discharge limits associated with a higher water quality class. The Department evaluated the potential implications of a Class B upgrade to existing waste discharge licenses under critical conditions of high water temperature, low flow, and maximum licensed discharge levels as required by 38 M.R.S. § 464(4)(F)(4) and Department rule, Chapter 523, *Waste Discharge License Conditions*. There are a variety of license limit allocation scenarios that are possible, and the final limits would be derived through a formal licensing process. That said, the Department determined that a 25% reduction in biochemical oxygen demand (BOD) may be required for the discharges to have a negligible effect on DO. In terms of nutrient criteria, a reasonable potential analysis based on limited available data indicates that a 55% reduction in phosphorus may be needed to maintain concentrations in the river at or below the Class B criterion of 30 ppb. Available effluent data indicates that there may not be adequate dilution to meet the Class B phosphorus criterion under critical conditions without impacts to Sebago Lake's water levels or requiring expensive modifications to existing treatment facilities. Chapter 583 allows site-specific nutrient criteria to be developed in some cases, but additional data would be needed to determine if this would be an option.

Another related consideration is that Sappi has discharged at levels well below its licensed load since one of its paper machines was shut down in 2021. Since then, the discharge has not had a measurable influence on DO in the river; however, there may be a measurable influence on DO at full licensed load. License conditions will be revisited during the next renewal, which the Department plans to begin in early 2026.

If waters do not meet the criteria of their assigned class, they may be listed as impaired in the Department's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report) with a requirement to complete a Total Maximum Daily Load (TMDL). Such listings and TMDLs may also impact discharges if the discharges cause or contribute to such impairments.[24]

If the Department does not recommend the proposed classification upgrade for this section of the Presumpscot River, FOPR and AR request that the Department consider making permanent the existing temporary moratorium enacted by the Maine Legislature in 2023 that prohibited new direct discharges to the Presumpscot River from Saccarappa Falls to tidewater until January 1, 2028.[25] A similar proposal for a discharge prohibition for this section of the Presumpscot River was considered by the Board of Environmental Protection in 2021 during the last triennial review. In its final recommendations to the Legislature, the Board did not recommend the discharge prohibition.

In the Department's testimony on L.D. 1926, the existing temporary discharge moratorium, staff explained that new discharges and increased discharges to any waterbody are subject to antidegradation requirements in accordance with 38 M.R.S. § 464(4)(F)(5) and the Department's Antidegradation Program Guidance (Appendix B). As part of the discharge license evaluation process, any new or increased discharge can only be licensed if the Department can make a

[24] It is noted that waste discharge is not a designated use nor an existing use under Maine law. Information on potential impacts to licensed discharges is included to provide full context for any upgrade decisions.

[25] L.D. 1926, P.L. 2023, ch. 295. https://legislature.maine.gov/legis/bills/getPDF.asp?paper=HP1231&item=1&snum=131

finding that the discharge, by itself or in combination with other discharges, under critical conditions of low river flow and high water temperature, does not cause or contribute to the failure of the waterbody to meet standards (such as DO). Then, the Department must evaluate if the new or increased discharge will consume more than 20% of the remaining assimilative capacity of the receiving water. If the proposed new or increased discharge is projected to use more than 20% of the remaining assimilative capacity, the Department can only approve the discharge if it finds, after opportunity for public participation, that the action is necessary to achieve important social and economic benefits to the State (Appendix B). This process is designed to evaluate and manage the environmental, economic, and social benefits the remaining assimilative capacity provides to the State.

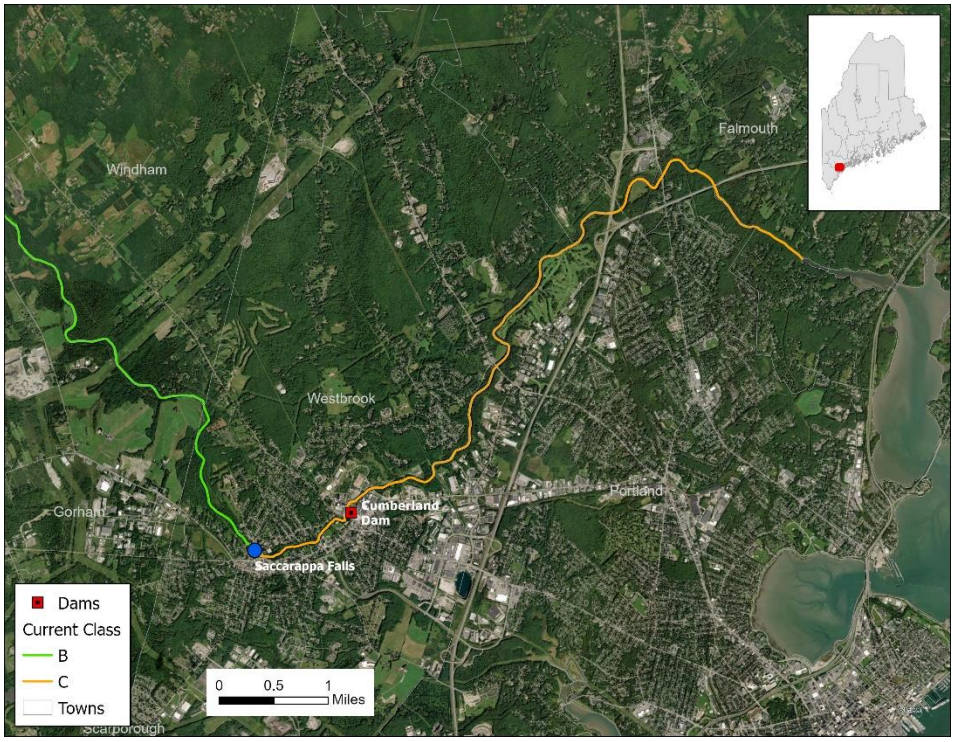
The explicit prohibition on any new discharges, above and beyond antidegradation requirements, is an important and seldom-used policy decision of the Legislature.[26] The existing discharge moratorium on this Class C water is more restrictive than the discharge prohibitions found in requirements for Class AA and Class A waters. Creating a permanent discharge moratorium would likely be of interest to the communities in this area of the river.

DEP recommendation: Based on the review of water quality data, the lower Presumpscot River meets its current Class C criteria, but it does not fully meet all Class B water quality criteria for bacteria, aquatic life (biomonitoring), DO, and possibly phosphorus. Furthermore, the Department's reasonable potential analysis indicates that the lower Presumpscot River cannot meet Class B DO or freshwater nutrient criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. For these reasons, the Department does not recommend an upgrade for the lower Presumpscot River.

The Department notes that the lower Presumpscot River has been considered for a classification upgrade to Class B several times in recent years, and there continues to be strong advocacy for an upgrade for this section of the river. If the lower Presumpscot River were to be upgraded to Class B, the Department determined that a 25% reduction in biochemical oxygen demand (BOD_5) may be required for the discharges to have a negligible effect on DO. In terms of nutrient criteria, a reasonable potential analysis based on limited available data indicates that a 55% reduction in phosphorus may be needed. Available effluent data indicates that there may not be adequate dilution to meet the Class B phosphorus criterion under critical conditions without impacts to Sebago Lake's water levels or requiring expensive modifications to existing treatment facilities. The Department plans to collect additional phosphorus and environmental indicator data for this river segment in 2025. These data will inform whether the lower Presumpscot meets freshwater nutrient criteria and will help further evaluate potential impacts of a reclassification on discharges.

The Department does not recommend an amendment to make permanent the existing temporary moratorium on new discharges to the Presumpscot River from Saccarappa Falls to tidewater for the reasons discussed in the above section. The Department believes that the continuing application of existing processes under Maine's Water Quality Laws and the Clean Water Act are appropriate and sufficient to ensure attainment of water quality standards, in the Presumpscot River and in all waters of the State.

[26] The only two waters with similar prohibitions are a three-mile segment of the upper Presumpscot River from the confluence with the Pleasant River to US Route 202 (enacted in 1999 during a discussion about upgrading that segment from Class B to Class A) and the Mattaceunk impoundment on the East Branch of the Penobscot River (a separate type of prohibition to correct a drafting error in a prior reclassification).


Windham
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Sheepscot River Basin

Sheepscot River (Rt. 17 Crossing/Whitefield to Somerville/Palermo Town Line), Jefferson, Somerville, Whitefield, Windsor, and Other Towns.
Propose Class B to Class A (5.6 miles approx.).
Proposal submitted by: Midcoast Conservancy.

Basis for proposal: The Sheepscot River from Sheepscot Lake to Route 17 in Whitefield is designated as Class B. Midcoast Conservancy requests an upgrade for the segment of the Sheepscot River beginning at Route 17 upriver to the Somerville/Palermo town line based on the removal of the Coopers Mills Dam, water quality and other data supporting attainment, and the high value habitat these waters provide to endangered Atlantic salmon and other native sea-run fish. Midcoast Conservancy asserts that with the removal of Coopers Mills Dam, this segment of the river has been restored to natural free-flowing conditions and can now be categorized as riffle-run habitat. Midcoast Conservancy notes that the Maine Department of Marine Resources has documented evidence of Atlantic salmon spawning and the presence of other native sea-run fish upstream of the former Coopers Mills Dam following its removal in 2018, indicating successful fish passage upstream. According to data submitted with this proposal, most, but not all, bacteria and dissolved oxygen data attain Class A criteria, and data collected by the Department's biological monitoring program below the former Coopers Mills Dam show attainment of Class A aquatic life criteria. Midcoast Conservancy acknowledges that Class A standards aren't always attained but asserts that the river deserves protections associated with a Class A designation because of recent restoration efforts and the ecological and economic importance of this segment.

Issues to be considered for this reclassification: In accordance with 38 M.R.S. § 465(2)(C), except for in certain cases, direct discharges to Class A waters licensed prior to January 1, 1986, are permitted to continue only until practical alternatives exist. As recently as 2024, the Department renewed a wastewater discharge permit (ME0001074) for the Department of Inland Fisheries and Wildlife's Palermo Rearing Station authorizing discharges to the Class B segment of the Sheepscot River just below the outlet of Sheepscot Pond at a point just over a half a mile above the segment proposed for upgrade to Class A. There are no water quality data available for the segment proposed for upgrade, particularly the segment above Long Pond, to evaluate any effects this discharge may currently have on water quality. There are no known licensed stormwater discharges or overboard discharges affecting the segment proposed for upgrade. There are no Department records of recent land-development permits.

Watershed land uses were evaluated to inform the likelihood of meeting the Class A criteria of natural habitat and aquatic life "as naturally occurs." Over 68% of the watershed is forested and 6.6% of the watershed is in conservation land. In addition to natural areas, the watershed includes agriculture, developed areas, and areas with industrial logging activities. Forestry activities are not expected to be affected by an upgrade because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification. Roads are dispersed throughout the watershed and residential and commercial development are primarily concentrated near the lower reach of the segment proposed for upgrade.

According to the Maine DMR, the mainstem of the Sheepscot River from the confluence with the West Branch of the Sheepscot River is considered a high priority in the Merrymeeting Bay Habitat Recovery Unit.

Midcoast Conservancy's proposal was accompanied by 2019-2023 data collected from May to September by the Sheepscot Samplers, a group of volunteer citizen-scientists managed by the Midcoast Conservancy. All data were collected at a site at the southernmost reach of the segment

proposed for upgrade below the former Coopers Mills Dam. Rolling 90-day geomean calculations indicate bacteria criteria are usually, but not always, attained in the segment in question, with just one geomean calculation from 2023 that exceeded the Class A 64 MPN geomean criterion. DO data provided were collected using a mix of discrete and continuous monitoring methods and consist of concentration and percent saturation measurements. Results indicate DO concentration and percent saturation criteria are often, but not always, attained for the segment proposed for upgrade.

Ambient monitoring data for the segment proposed for upgrade are limited. Continuous DO data were collected by the Midcoast Conservancy in 2021-2023 at the site below the former Coopers Mills Dam and in 2022 at another site about 600 feet upstream of the segment proposed for upgrade and about 0.7 miles below the Palermo Rearing Station. DO concentration and percent saturation criteria were often, but not always, attained for the segment proposed. Data collected by the Department in the spring of 2019 and 2023 at one site just above the former Coopers Mills Dam and one just above the segment proposed for upgrade indicate attainment of Class A DO criteria.

The limited data the Department has for lakes and ponds in the Sheepscot River watershed suggests that most lakes have a moderate level of productivity, indicating some NPS impacts from land use in the watershed. The Department's Chapter 583 rule establishes nutrient criteria for fresh surface water Classes AA, A, B, and C to assess and protect the designated and existing uses of aquatic life support, habitat, and recreation in and on the water.[27] Although available nutrient data are limited for this watershed, total phosphorus (TP) collected by the Department just above the start of the proposed upgrade segment did not meet Class A standards in 2022. Biological communities attained Class A aquatic life criteria in 2022 at a site below the former Coopers Mills Dam but only attained Class C criteria for macroinvertebrates and Class B criteria for algae at a site located below the Palermo Rearing Station and just above the segment proposed for upgrade. There are no stations in the remaining portions of the segment proposed for upgrade to assess criteria attainment.

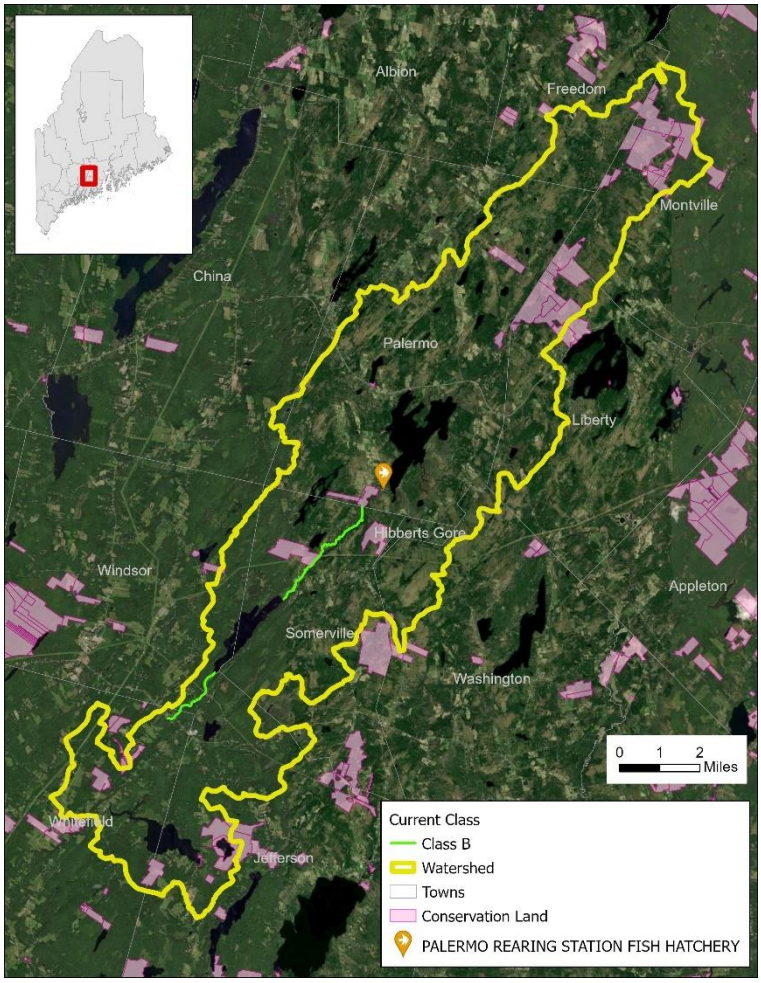
If this segment of the Sheepscot River were to be upgraded to Class A, there would likely be an impact to effluent discharge limits for the Palermo Rearing Station to ensure the facility is in compliance with more stringent discharge limits for phosphorous based on recently-adopted freshwater nutrient criteria for Class A waters. Additionally, if these waters are upgraded but do not meet Class A nutrient (or other) criteria, they may be listed as impaired in the Department's Integrated Report with a requirement to complete a Total Maximum Daily Load (TMDL). Such listings and TMDLs may also impact discharges if the discharges cause or contribute to such impairments.

DEP recommendation: The Department recognizes state and local salmon restoration efforts and appreciates the information provided about the proposed segment's critical habitat designations[28] and habitat protection and restoration work. As part of the TR process, Department staff discussed the proposal submitted by Midcoast Conservancy; evaluated available water quality data and watershed land uses to determine the likelihood of attainment of Class A and B standards, including the revised segment proposed by Midcoast Conservancy during the Department's public comment period (from Route 17 in Whitefield to Long Pond); and considered statutory

[27] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.

[28] According to NOAA, over 12,000 miles of Maine river, stream, and estuarine habitat, and 308 square miles of lake habitat, have been designated as critical habitat for the Atlantic salmon Gulf of Maine Distinct Population Segment (GOM DPS). *See* https://www.fisheries.noaa.gov/action/critical-habitat-gulf-maine-dps-atlantic-salmon and https://www.fisheries.noaa.gov/s3/dam-migration/atlanticsalmon-accessible.pdf.

requirements for Class A waters. Based on the current status of the wastewater discharge permit held by the Palermo Rearing Station, this segment of the river is not consistent with Class A water quality standards. As defined in 38 M.R.S. § 465(2)(C), Class A waters are incompatible with discharges except for in certain cases, and existing discharges are allowed to continue only until practical alternatives exist. Further, the Department does not foresee the ability to ensure attainment of Class A standards in any portion of the proposed segment under critical conditions of low flow, high water temperature, and maximum licensed discharge levels. For these reasons, the Department does not recommend that this segment be upgraded to Class A.



Union River Basin

Union River (West, Middle, and East Branches) and Tributaries, Amherst, Aurora, Great Pond, Mariaville, Osborn, T39 MD, T40MD, and Other Towns and Townships. Propose Class A to Class AA (385.4 miles approx.).
Proposal submitted by: Hancock County Soil and Water Conservation District.

Basis for proposal: The upper Union River including the West Branch, Middle Branch, and East Branch and tributaries are designated as Class A. HCSWCD requests a classification upgrade for these waters from Class A to Class AA because they contain high-quality habitat for endangered Atlantic salmon and other endangered species. According to HCSWCD, the Union River is a Priority Water for Trout Unlimited and is part of the Downeast Species Habitat Recovery Unit for Atlantic salmon. HCSWCD notes the West Branch of the Union River has been designated by the Maine Department of Conservation and the National Park Service as a Tier B water, is listed by Beginning with Habitat as a Focus Area of Statewide Ecological Significance, and contains over half of the Atlantic salmon habitat in the Union River. HCSWCD asserts that based on water quality data collected in 2015, the West, East, and Middle Branches met minimum water quality criteria for pH, alkalinity, and calcium. Additional data from a 2005 survey indicate overall good water quality but noted some low dissolved oxygen conditions and elevated bacteria in some portions of the watershed. HCSWCD's proposal indicates aquatic life is good for this region but is not "as naturally occurs" due to the loss of anadromous fish species and that habitat is natural and mostly free flowing with the exception of some water level control dams. HCSWCD notes that an upgrade from Class A to Class AA will acknowledge the good water quality of the upper Union River and will help generate support to restore and protect lower reaches of the river. Many individuals and organizations support the upgrade.

Issues to be considered for this reclassification: In accordance with 38 M.R.S. § 464(4)(F)(2), all Class AA waters are considered outstanding national resources unless otherwise specified under sections 467 or 468. Except for certain cases as specified in 38 M.R.S. § 465(1)(C), there may be no direct discharges of pollutants to Class AA waters and no dams or other water control structures. There are no known stormwater sites, licensed wastewater discharges, or overboard discharges affecting the segments of the watershed proposed for upgrade. There are no Department records of recent land-development permits. For the unorganized portions of the watershed, Maine Land Use Planning Commission permitting records indicate there are a number of approved nonresidential development permits in the watershed including projects to develop solar energy generation facilities and those for wind energy development projects.

Watershed land uses were evaluated to inform the likelihood of meeting the Class AA criteria for natural habitat and aquatic life of "as naturally occurs" and the high bar as an "outstanding national resource." The watershed includes a variety of land uses. Approximately 62% of the watershed is forested and nearly 12% of the watershed is in conservation land. Agricultural areas, roads, and residential and commercial development are concentrated in the middle portion of the watershed, predominately along the West and Middle Branches in Aurora and to a lesser extent in Amherst. Agricultural uses include several blueberry barrens, hayfields, and some livestock and cropland. Industrial logging activities occur throughout the watershed. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification.

According to the Maine Department of Marine Resources and the Maine Department of Inland Fisheries and Wildlife, the Upper Union River and associated tributaries contain high-quality

habitat for a number of aquatic species in all branches, including endangered Atlantic salmon and wild brook trout, particularly the West Branch for Atlantic salmon.

There are no biological monitoring data available for the West, East, or Middle Branch main stems and the most recent data for tributaries to these branches are from 2011 and 2014. Of the nine biomonitoring sites located on tributaries, five met Class A, one met Class B, one met Class C, and two were indeterminate. Biological criteria attainment may be affected by agricultural land use, particularly in the West Branch, but available monitoring data are limited and do not provide a full assessment of criteria attainment for the segments proposed for upgrade.

Ambient monitoring data for the three branches proposed for upgrade are limited. Based on available water quality data, DO concentrations met Class A criteria for the majority of sites sampled with the exception of a tributary in the East Branch. The limited data the Department has for lakes and ponds in the Upper Union River watershed suggests that most lakes have low to moderate productivity. There are no *E. coli* bacteria data available for the segments proposed for upgrade to evaluate Class A and AA bacteria attainment. The Department's Chapter 583 rule establishes nutrient criteria for fresh surface water Classes AA, A, B, and C to assess and protect the designated and existing uses of aquatic life support, habitat, and recreation in and on the water.[29] Existing data are insufficient to assess whether nutrient criteria would be met. Additional in-stream monitoring data are needed to determine the likelihood of attainment of Class AA standards.

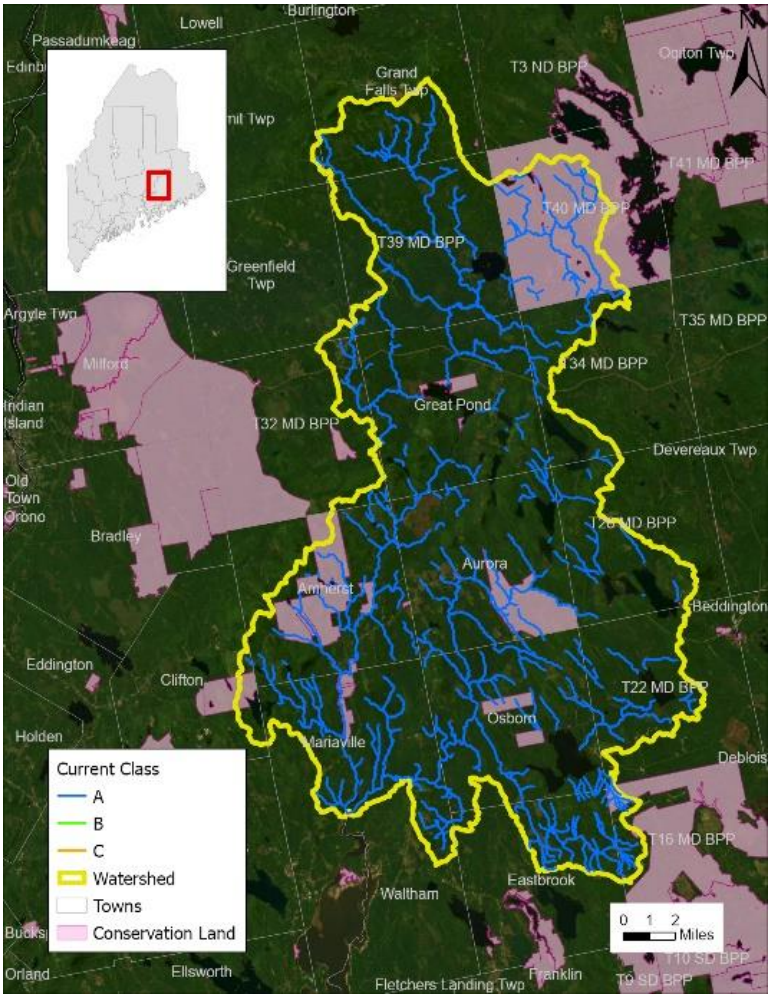
The Department is not aware of any existing water withdrawal activities or permits or of any anticipated construction projects for water control structures for the waters proposed for upgrade. The Department's Chapter 587, *In-stream Flows and Lake and Pond Water Levels*, which establishes river and stream flows and lake and pond water levels, includes water withdrawal provisions that limit the alteration of natural flows in Class AA waters. If upgraded to Class AA, more stringent limits would be placed on water withdrawal in these segments, which may affect agriculture operations in the watershed. There is one non-hydropower dam in the watershed on the Leighton River, a tributary to the Middle Branch. Hydroelectric power generation is not a designated use in Class AA waters, and statutory standards require that "habitat must be characterized as free-flowing and natural." An upgrade will thus preclude future construction of dams or other water control structures, and the Leighton River segment is not consistent with the Class AA standard due to the existing dam.

DEP recommendation: The Department recognizes state and local salmon restoration efforts and appreciates the information provided about the proposed segment's critical habitat designations[30] and habitat protection and restoration work. As part of the TR process, Department staff discussed the proposal submitted by HCSWCD, consulted with staff at DMR IF&W, evaluated available water quality data, including data for just the West Branch as requested by HCSWCD during the preliminary public comment period, to determine the attainment of Class AA and A standards, and considered statutory requirements for Class AA waters. After due consideration of all factors, the Department believes that further watershed investigation and supporting data are needed to allow for a comprehensive assessment of attainment for all narrative and numeric criteria for Class

[29] Chapter 583 was approved by the Board of Environmental Protection and the U.S. Environmental Protection Agency and became effective June 11, 2025, pursuant to 40 CFR § 131.21.
[30] According to NOAA, over 12,000 miles of Maine river, stream, and estuarine habitat, and 308 square miles of lake habitat, have been designated as critical habitat for the Atlantic salmon Gulf of Maine Distinct Population Segment (GOM DPS). *See* https://www.fisheries.noaa.gov/action/critical-habitat-gulf-maine-dps-atlantic-salmon and https://www.fisheries.noaa.gov/s3/dam-migration/atlanticsalmon-accessible.pdf.

AA waters, including recently adopted freshwater nutrient criteria, and the high bar as an "outstanding national resource." For these reasons, the Department does not recommend an upgrade of the West Branch, Middle Branch, and East Branch of the Upper Union River and tributaries from Class A to Class AA.

The Department commits, as resources allow, to evaluating which areas of the watershed may be appropriate for a potential upgrade to Class AA based on watershed land use, protected areas, and 'outstanding' qualities. Once evaluated, the Department commits to coordinating with local partners and collecting new data as deemed necessary, and as resources allow, for areas, if any, with the potential to meet Class AA upgrade conditions, including additional biological monitoring and phosphorus and environmental indicator data.



Washington County

Chandler Bay, Jonesport.
Propose Class SB to Class SA (approx. 14.8 sq mi).
Proposal submitted by: Eastern Maine Conservation Initiative.

Basis for proposal: Chandler Bay in Washington County is designated as Class SB. EMCI requests a classification upgrade for Chandler Bay from Class SB to Class SA because waters proposed for upgrade appear to meet Class SA water quality standards and Maine's Class SA statutory qualifications for waters with outstanding ecological importance. EMCI asserts that Chandler Bay meets the definition of waters of “outstanding ecological, social, scenic, economic or recreational importance” as defined in 38 M.R.S. § 465-B(1) based on recent water quality data, the designation of the Bay as essential fish habitat by the NOAA, the abundance of eelgrass habitat in the Bay, and the use of the Bay as an important resource for commercial and economic activities. According to data reports submitted with this proposal, dissolved oxygen percent saturation values meet Class SB standards and are presumed to meet the SA standard of "as naturally occurs." EMCI notes that bacteria data collected from the Maine Department of Marine Resources indicate attainment of bacteria standards. EMCI acknowledges that although water quality results reported by the University of Maine indicate the system is pristine, free-flowing, and provides excellent habitat, there are existing human activities in the Bay that may contribute to non-attainment of standards, such as overboard discharges from boats, pesticides, nutrient loading from agriculture, and leaky septic systems. EMCI notes that Chandler Bay is an important ecosystem to protect in eastern Maine and contends that an upgrade to Class SA would have a beneficial effect on the immediate marine environment and the communities that surround it. Multiple individuals and organizations support the upgrade.

Issues to be considered for this reclassification: Since 1985, Maine’s existing tiered water classification system has been comprised of three marine water classes (SA, SB, and SC) with differences between the designated uses, criteria, and discharge allowances in each class. According to Maine statute (38 M.R.S. § 465-B(1) the highest estuarine and marine water classification (Class SA) should be applied to waters that are considered “outstanding natural resources and which should be preserved because of their ecological, social, scenic, economic or recreational importance.” Class SA criteria include “natural” habitat and aquatic life "as naturally occurs" (38 M.R.S. § 465-B(1)(A) and (B)). Additionally, in accordance with 38 M.R.S. § 464(4)(F)(2), all Class SA waters are considered outstanding national resources unless otherwise specified under Section 469.

Through historical reclassification efforts, the Department has designated certain marine waters and tidal estuaries as Class SA for their exceptional ecological, economic, scenic, or social value. As part of this process, the Department established conservative boundaries around Class SA waters to ensure adjacent discharges and activities would not impact waters assigned to this highest class. The majority of Class SA waters in existence today were originally designated as Class SA during the mid to late-1980s reclassification process. As part of subsequent reclassification processes, the Department has periodically reevaluated waters and, when applicable, recommended waters for upgrade that meet statutory requirements for the next highest class. Presently, 8.8% of Maine’s marine and estuarine waters are designated as Class SA, 90.2% as Class SB, and 1.0% as Class SC.

Most Class SA waters share a significant portion of coastline with State and Federal conservation lands, while a few are associated with longstanding private preserves or other small preserves,

lending significant scenic and recreational importance to these waters.[31] Protected status and watershed land uses also inform the likelihood of meeting Class SA criteria for “natural” habitat and aquatic life of "as naturally occurs." Watershed land uses for Chandler Bay were evaluated to inform the likelihood of meeting the Class SA criteria for natural habitat and aquatic life of "as naturally occurs" and the high bar of an "outstanding national resource." The watershed draining to Chandler Bay includes a variety of land uses. Approximately half of the watershed is forested, and 2.4% of the watershed is in conservation land. In addition to natural areas, the watershed includes agriculture, developed areas, and areas with forestry activities. Forestry activities are not expected to be affected because under Maine’s Forest Practices Act, forestry activities are generally subject to the same regulatory requirements regardless of water classification. Roads and residential and commercial development are concentrated in the lower watershed and along the coast. There is a licensed stormwater discharge in the watershed that flows into Beaver Brook (Class B) and then into Chandler Bay.

In 2021, the Department issued a wastewater discharge permit (ME0037559) for Kingfish Maine, Inc., to construct and operate a land-based aquaculture facility in Jonesport, Maine, that would discharge into Chandler Bay. The Department approved Kingfish’s application for a combined Site Location of Development and Natural Resources Protection Act permit on November 12, 2021 (Kingfish Permit). An appeal of the waste discharge license to the Board of Environmental Protection was dismissed. The Kingfish Permit was appealed by various parties to the BEP, Superior Court, and the Maine Supreme Judicial Court sitting as the Law Court. On April 10, 2025, the Law Court upheld the Department’s issuance of the Kingfish Permit. This decision exhausted any further opportunity for appeals. At this time, Kingfish Maine remains fully permitted with all required local, state, and federal permits, and the Department expects construction activities to proceed for this facility. If approved, an upgrade for Chandler Bay to Class SA would prohibit Kingfish Maine from executing the aforementioned discharge permit.

The proposal was accompanied by a data report for 2023 compiled by the University of Maine, under contract to Kingfish Maine, as a condition of the Kingfish Permit requiring Kingfish Maine to monitor ambient water quality prior to and continuing through the buildout and operation of the permitted facility. Kingfish Maine and the University of Maine have conducted required seasonal water column sampling from May through October for the years 2022 through 2024 at four sites selected by the Department, as well as two voluntary sites located closer to the head of Chandler Bay. The four sites selected by the Department allow characterization of representative water quality conditions bounding the permitted discharge location in the main direction of tidal flow and adjacent to sensitive shallow water habitat to the east and west of the discharge location. Ambient data collection has included water column temperature, salinity, pH, dissolved oxygen, turbidity, and chlorophyll, as well as extracted chlorophyll a and phaeophytin, total nitrogen, total phosphorus, nitrate+nitrite, and ammonia. The Department evaluated all available information for the area monitored as required by the Kingfish Permit. These data indicate attainment of Class SB numeric DO criteria and the expectation is that these waters also attain Class SA narrative DO criteria of "as naturally occurs." These data also indicate that habitat is free-flowing and natural.

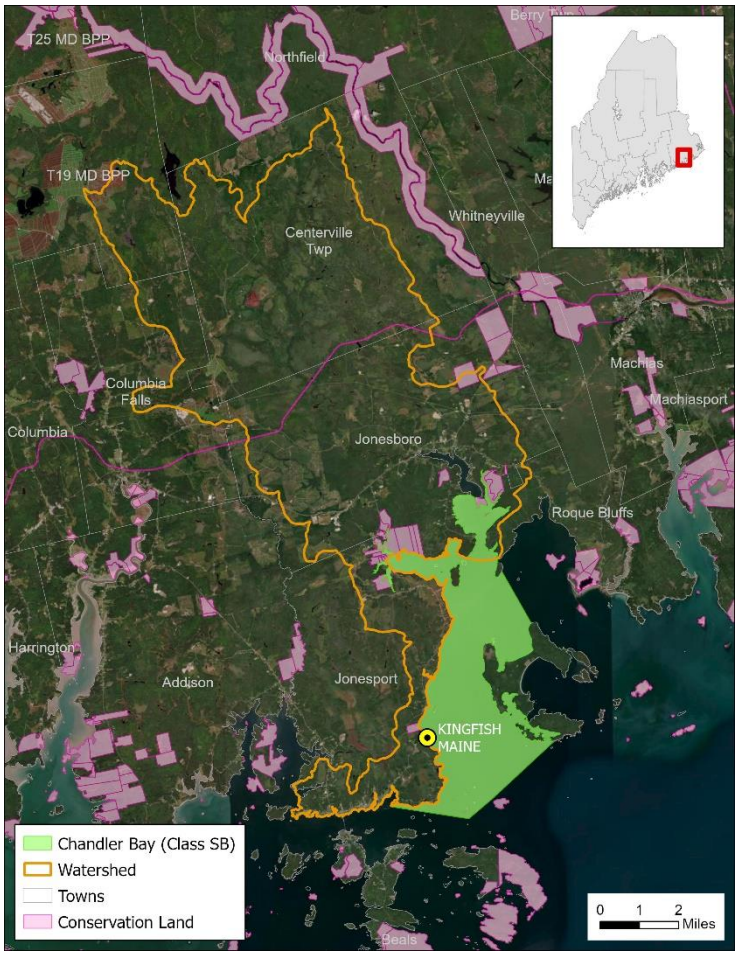
Fecal coliform bacteria data collected between 2008 and 2019 by the Maine DMR Shellfish Program were also provided as part of EMCI’s proposal and indicate good water quality for the

[31] The Department’s geographic analysis indicates that there are 32 distinct Class SA polygons with a total area of 251 square miles. Of these, 28 (or 234 sq. mi) share a large portion of coastline with at least one State or Federal conservation land and the remaining four are associated with local preserved lands. A webmap visually illustrating Maine’s marine water classes in relation to these conserved lands is available here: https://maine.maps.arcgis.com/apps/mapviewer/index.html?webmap=78b1bfe1adf743b9a6842286eed1a506.

designated use of shellfish harvesting. Data are not available for the designated uses of recreation in and on the water (enterococcus) and shellfish propagation.

DEP recommendation: As part of the TR process, Department staff discussed the proposal submitted by EMCI; evaluated available water quality data and watershed land uses to determine the likelihood of attainment of Class SA and SB standards; and considered the statutory requirements for Class SA waters.

As described in the Department's recommendations, Chandler Bay's watershed includes a variety of land uses including 2.4% conserved land, agriculture, developed areas, and areas with forestry activities. Given these factors, the Department's position is that Chandler Bay does not meet statutory requirements for Class SA waters, including the high bar as an "outstanding national resource." Additionally, based on the current status of the wastewater discharge permit to Chandler Bay, Chandler Bay does not meet statutory requirements in 38 M.R.S. § 465-B(1)(C), which states that there may be no direct discharges of pollutants to Class SA waters, with specifically delineated exceptions not relevant here. For this reason and for the reasons stated above, the Department does not recommend an upgrade for Chandler Bay to Class SA.



STATUTORY ERROR CORRECTIONS AND CLARIFICATIONS

38 M.R.S. SECTION 465-B

Clarify Designated Uses in Classification Statute

Update Statute for Standards for Classification of Estuarine and Marine Waters - Class SC Waters to Clarify Designated Uses.
Proposed by: Maine DEP.

Basis for proposal: Currently 38 M.R.S. § 465-B(3)(A) reads "A. Class SC waters must be of such quality that they are suitable for recreation in and on the water…." In all other water quality classes in Sections 465 (fresh surface waters), 465-A (lakes and ponds), and 465-B (estuarine and marine waters), the corresponding text reads "Class (xxx) waters must be of such quality that they are suitable for **the designated uses of** *(for example)* recreation in and on the water", i.e. they include the phrase shown in bold.

Within each water quality class, section (A) provides the applicable designated uses, section (B) the applicable criteria, and section (C). the applicable antidegradation provisions. For clarification and consistency with other designated uses sections, DEP proposes to add the phrase shown in bold above to the designated uses section (A) in the Class SC provision.

Issues to be considered for this proposal: None, this change merely provides clarification and consistency among corresponding statutory sections.

Recommend revising 38 M.R.S. § 465-B(3)(A) as follows:
465-B Standards for classification of estuarine and marine waters

3. Class SC waters. Class SC waters shall be the 3rd highest classification.
   A. Class SC waters must be of such quality that they are suitable for the designated uses of recreation in and on the water, fishing, aquaculture, propagation and restricted harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as a habitat for fish and other estuarine and marine life.

38 M.R.S. SECTION 467

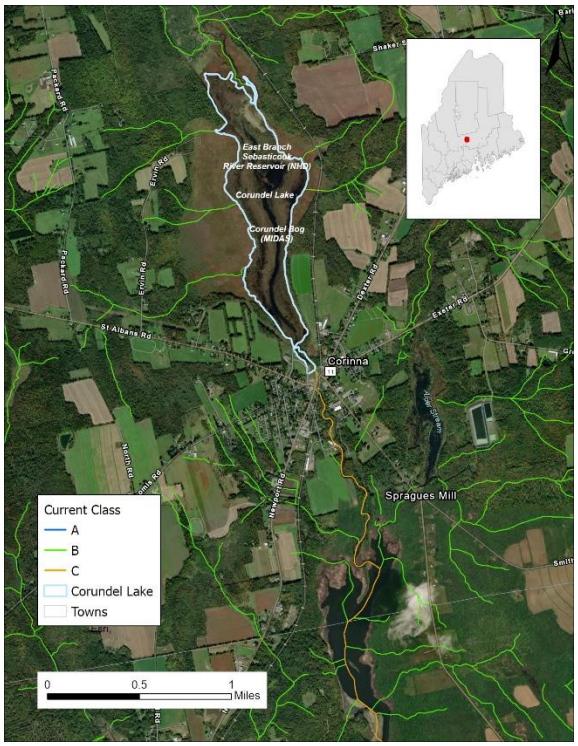
Kennebec River Basin

Clarify Waterbody Name in Location Description.
Corundel Lake, Corinna.
Proposed by: Maine DEP.

Basis for proposal: Maine's classification of major river basins statute, 38 M.R.S. § 467, provides one name for the waterbody 'Corundel Lake' in subsection 467(4)(H)(2)(a). Other publications use alternative names, namely 'East Branch Sebasticook River Reservoir' (USGS Geographic Names Information System – GNIS – which standardizes geographic names in the United States) and 'Corundel Bog' (MIDAS – ME DIF&W lake identification number – and Lakes of Maine). For clarification, DEP proposes to add those two alternative names to the statute.

Issues to be considered for this proposal: None, this is merely a clarification of a waterbody name.

Recommend revising 38 M.R.S. § 467(4)(H)(2)(a) as follows:
467 Classification of major river basins
4. Kennebec River Basin.
H. Sebasticook River Drainage.
(2) Sebasticook River, tributaries - Class B unless otherwise specified.
(a) Sebasticook River, East Branch from the outlet of Corundel Lake (also known as East Branch Sebasticook River Reservoir and Corundel Bog) to its confluence with the West Branch - Class C.



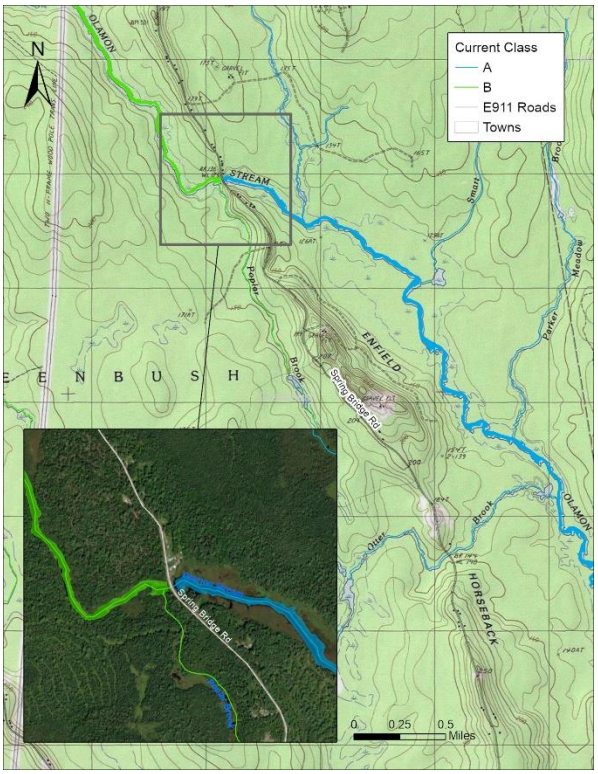
Penobscot River Basin

Clarify Road Name in Location Description.
Horseback Road, Greenbush.
Proposal submitted by: Maine DEP.

Basis for proposal: Maine's classification of major river basins statute, 38 M.R.S. § 467, describes the location of a waterbody and its tributaries by using one road name: 'Olamon Stream … above the bridge on Horseback Road…' Research by DEP has shown that no Horseback Road exists in Greenbush but that instead that there is a local geological feature by the name of 'Enfield Horseback'. It appears that Horseback Road may be used as a local name. The road referred to as Horseback Road in statute is in fact called Spring Bridge Road. For clarification, DEP proposes to add that road name to the statute.

Issues to be considered for this proposal: None, this is merely a clarification of a location description.

Recommend revising 38 M.R.S. § 467(7)(F)(5) as follows:
467 Classification of major river basins
7. Penobscot River Basin.
F. Penobscot River, minor tributaries - Class B unless otherwise specified.
(5) Olamon Stream and its tributaries above the bridge on Horseback Road/Spring Bridge Road - Class A.



APPENDIX A

APPENDIX A

Designated Uses and Criteria for Maine River and Stream Classifications

***Note**: See 38 M.R.S. § 464 Classification of Maine waters and 38 M.R.S. § 465 Standards for classification of fresh surface waters for complete text. Federal water quality standards for Maine can be found at 40 CFR Section 131.43.*

Class	Designated Uses*	Dissolved Oxygen Numeric Criteria	Bacteria (*E. coli*) Numeric Criteria	Habitat Narrative Criteria	Aquatic Life (Biological) Narrative Criteria** and Discharge	Nutrient Criteria***
Class AA	Habitat for fish and other aquatic life; Drinking water after disinfection; Fishing*; Agriculture; Recreation in/on the water; Navigation	As naturally occurs	As naturally occurs but may not exceed geometric mean of 64/100 ml over 90-day interval or 236/100 ml in more than 10% of samples in any 90-day interval	Free flowing and natural	As naturally occurs**; No direct discharge of pollutants***	Total phosphorous ≤ 19.0 ppb
Class A	Habitat for fish and other aquatic life; Drinking water after disinfection; Fishing*; Agriculture; Recreation in/on the water; Navigation; Hydropower unless prohibited by 12 M.R.S. § 403; Industrial process/cooling water	Not less than 7 ppm or 75% saturation From 10/1 to 5/14, 7-day mean concentration not less than 9.5 ppm and 1-day minimum concentration not less than 8.0 ppm in identified fish spawning areas	As naturally occurs but may not exceed geometric mean of 64/100 ml over 90-day interval or 236/100 ml in more than 10% of samples in any 90-day interval	Natural	As naturally occurs**; Limited direct discharges***	Total phosphorous ≤ 19.0 ppb
Class B	Habitat for fish and other aquatic life; Drinking water after treatment; Fishing*; Agriculture; Recreation in/on the water; Navigation; Hydropower unless prohibited by 12 M.R.S § 403; Industrial process/cooling water	Not less than 7 ppm or 75% saturation From 10/1 to 5/14, 7-day mean concentration not less than 9.5 ppm and 1-day minimum concentration not less than 8.0 ppm in identified fish spawning areas	From 4/15 to 10/31, may not exceed geometric mean of 64/100 ml over 90-day interval or 236/100 ml in more than 10% of samples in any 90-day interval	Unimpaired	Waters must be of sufficient quality to support all indigenous aquatic species without detrimental changes to the resident biological community**; Discharges may not cause adverse impact to aquatic life	Total phosphorous ≤ 30.0 ppb
Class C	Habitat for fish and other aquatic Life; Drinking water after treatment; Fishing*; Agriculture; Recreation in/on the water; Navigation; Hydropower unless prohibited by 12 M.R.S. § 403; Industrial process/cooling water	Not less than 5 ppm or 60% saturation but must maintain WQ sufficient for spawning, incubation, and survival in identified fish spawning areas 6.5 ppm (30-day average) at 22° and 24°C	From 4/15 to 10/31, may not exceed geometric mean of 100/100 ml over 90-day interval or 236/100 ml in more than 10% of samples in any 90-day interval	Habitat for fish and other aquatic life	Waters must be of sufficient quality to support all species of indigenous fish and maintain the structure and function of the resident biological community**; Discharges may cause some changes to aquatic life	Total phosphorous ≤ 44.0 ppb

* 38 M.R.S. §§ 466(10-A).10-A and 466-A establish a sustenance fishing use as a subcategory of the applicable Fishing designated use. The sustenance fishing subcategory is applicable to certain waters as specified in 38 M.R.S. §§ 467 and 468.

** Numeric biocriteria in Maine rule Chapter 579, *Classification Attainment Evaluation Using Biological Criteria for Rivers and Streams.*

*** Limited exceptions apply.

*** *See* Chapter 583 for full criteria.

Designated Uses and Criteria for Maine Lake and Pond Classification

***Note**: See 38 M.R.S. § 464 Classification of Maine waters and 38 M.R.S. § 465-A Standards for classification of lakes and ponds for complete text.*

Class	Designated Uses*	Bacteria (*E. coli*) Numeric Criteria	Habitat Narrative Criteria	Aquatic Life (Biological) Narrative Criteria
Class GPA	Habitat for fish and other aquatic life Drinking water after disinfection Fishing* Agriculture Recreation in/on the water Navigation Hydropower Industrial process/cooling water	May not exceed geometric mean of 29/100 ml over 90-day interval or 194/100 ml in more than 10% of samples in any 90-day interval	Natural	As naturally occurs; Stable or improving trophic state; Free from culturally induced algal blooms; Shoreline and watershed activities must not cause trophic degradation No direct discharge of pollutants**

* 38 M.R.S. §§ 466(10-A) and 466-A establish a sustenance fishing use as a subcategory of the applicable Fishing designated use. The sustenance fishing subcategory is applicable to certain waters as specified in 38 M.R.S. §§ 465-A and 467.

** Limited exceptions apply.

Designated Uses and Criteria for Maine Estuarine and Marine Classifications

***Note**: See 38 M.R.S. § 465-B Standards for classification of estuarine and marine waters for complete text. Federal water quality standards for Maine can be found at 40 CFR Section 131.43.*

Class	Designated Uses*	Dissolved Oxygen Numeric Criteria	Bacteria Numeric Criteria	Habitat Narrative Criteria	Estuarine and Marine Life Narrative Criteria
Class SA	Habitat for fish and other estuarine and marine life Recreation in/on the water Fishing* Aquaculture Shellfish propagation and harvesting Navigation	As naturally occurs	As naturally occurs but enterococcus may not exceed geometric mean of 8/100 ml in any 90-day interval or 54/100 ml in more than 10% of samples in any 90-day interval Not to exceed criteria of National Shellfish Sanitation Program for shellfish harvesting	Free flowing and natural	As naturally occurs; No direct discharge of pollutants**
Class SB	Habitat for fish and other estuarine and marine life Recreation in/on the water Fishing* Aquaculture Shellfish propagation and harvesting Navigation Industrial process/cooling water Hydropower	Not less than 85% of saturation	From 4/15 to 10/31, Enterococcus may not exceed geometric mean of 8/100 ml in any 90-day interval or 54/100 ml in more than 10% of samples in any 90-day interval Not to exceed criteria of National Shellfish Sanitation Program for shellfish harvesting	Unimpaired	Waters must be of sufficient quality to support all indigenous estuarine and marine species without detrimental changes in the resident biological community; Discharges may not cause adverse impact to aquatic life; Discharges may not cause closure of shellfish areas
Class SC	Habitat for fish and other estuarine and marine life Recreation in/on the water Fishing* Aquaculture Shellfish propagation and restricted harvesting Navigation Industrial process/cooling water Hydropower	Not less than 70% of saturation	From 4/15 to 10/31, Enterococcus may not exceed geometric mean of 14/100 ml in any 90-day interval or 94/100 ml in more than 10% of samples in any 90-day interval Not to exceed criteria of National Shellfish Sanitation Program for restricted shellfish harvesting	Habitat for fish and other estuarine and marine life	Waters must be of sufficient quality to support all species of indigenous fish and maintain the structure and function of the resident biological community; Discharges may cause some changes to aquatic life

* 38 M.R.S. §§ 466(10-A) and 466-A establish a sustenance fishing use as a subcategory of the applicable Fishing designated use. The sustenance fishing subcategory is applicable to certain waters as specified in 38 M.R.S. § 469.

** Limited exceptions apply.

APPENDIX B

Waste Discharge Program Guidance

TO: Water Licensing & Compliance Staff

FR: Brian Kavanah, DWRR Director

DA: 06/13/2001 **FINAL**

RE: **Antidegradation**

****

The purpose of this memo is to provide guidance in implementing the provisions of the State's antidegradation policy with respect to the licensing of point source discharges of waste water (either an existing discharge or a new or expanded discharge). This memo has been prepared in consultation with EPA, the DEP Division of Environmental Assessment, and the Maine Attorney General's Office.

This program guidance supercedes all previous memos and draft rulemaking proposals dealing with this topic.

Meeting the requirements of antidegradation is usually easy, because most licensing actions involve receiving waters that meet their assigned classification standards and that do not meet any higher standards. It is only infrequently—where a new or expanded discharge will lower water quality or where a receiving water meets the standards of a higher classification—that determining compliance with antidegradation becomes more involved.

WATER CLASSIFICATION PROGRAM

The objectives of Maine's water classification program, of which the State's antidegradation policy is a part, are set forth in State law at 38 MRSA § 464(1) as follows:

> The Legislature declares that it is the State's objective to restore and maintain the chemical, physical and biological integrity of the State's waters and to preserve certain pristine state waters. The Legislature further declares that in order to achieve this objective the State's goals are:

A. That the discharge of pollutants into the waters of the State be eliminated where appropriate;

B. That no pollutants be discharged into any waters of the State without first being given the degree of treatment necessary to allow those waters to attain their classification; and

C. That water quality be sufficient to provide for the protection and propagation of fish, shellfish and wildlife and provide for recreation in and on the water.

ANTIDEGRADATION POLICY

The State's antidegradation policy is set forth in State law at 38 MRSA § 464(4)(F). In summary, the provisions of the antidegradation policy are as follows:

(1) Existing in-stream uses and the level of water quality necessary to protect those existing uses must be maintained and protected. [NOTE: 38 MRSA § 464(4)(F)(1) provides that existing uses are those uses which have actually occurred in or on a water body on or after November 28, 1975, whether or not the uses are included in the standards of the assigned classification.]

(2) The existing water quality of outstanding national resource waters must be maintained and protected. [NOTE: 38 MRSA § 464(4)(F)(2) designates the following as outstanding national resource waters in Maine: waters in national and state parks and wildlife refuges; waters in public reserved lands; and waters classified as Class AA or Class SA.]

(3) The DEP may only issue a discharge license or approve water quality certification if the standards of classification of the water body and all provisions of the antidegradation policy are met. [NOTE: 38 MRSA § 464(4)(F)(3) provides that a license may be issued where the discharge does not cause or contribute to the failure of the water body to meet standards.]

(4) When the actual quality of any classified water exceeds the minimum standards of the next highest classification, that higher water quality must be maintained and protected. [NOTE: 38 MRSA § 464(4)(F)(4) provides that, when this provision is met, the Board of Environmental Protection shall recommend to the Legislature that the water body be reclassified.]

(5) The DEP may only issue a discharge license or approve water quality certification which would result in lowering the existing quality of any water body after making the finding, following opportunity for public participation, that the action is necessary to achieve important economic or social benefits to the State. [NOTE: 38 MRSA § 464(4)(F)(5) provides that, in approving any lowering of existing water quality, the DEP must still find that the standards of classification of the water body and all other provisions of the antidegradation policy are met.]

The State's antidegradation policy has been duly and fully approved by EPA (letters dated July 16, 1986; May 21, 1987; and December 20, 1990) as being in conformance with the requirements of the Clean Water Act and EPA's Water Quality Standards regulation (40 CFR Section 131.12).

ANTIDEGRADATION PROCEDURES AND CONSIDERATIONS

When issuing any discharge license, the DEP will include appropriate findings and conclusions regarding antidegradation. In cases involving a new or increased discharge, the DEP will include specific findings and determinations with respect to whether the discharge will result in a significant lowering of existing water quality and whether the lowering of water quality is necessary to achieve important economic or social benefits to the State.

EPA has provided guidance on the interpretation and implementation of state antidegradation policy. This guidance includes *Chapter 4 (Antidegradation) of EPA's Water Quality Standards Handbook (Second Edition, August 1994)*; "Questions and Answers on: Antidegradation" (August 1985), which has been published as Appendix G of EPA's Water Quality Standards Handbook; and "Region 1 Guidance for Antidegradation Policy Implementation for High Quality Waters" (March 10, 1987).

Drawing from the statutory language and EPA's guidance documents, the Department will base its implementation of the State's antidegradation policy in waste discharge licensing actions on the following considerations:

1. DETERMINATION OF EXISTING USES. In accordance with the provisions of 38 MRSA § 464(4)(F)(1), existing in-stream uses are those uses which have actually occurred on or after November 28, 1975, in or on a water body whether or not the uses are included in the standards of classification of the particular water body. The determination of what constitutes an existing in-stream water use on a particular water body will be made by the DEP on a case-by-case basis. In making its determination of uses to be protected and maintained, the DEP shall consider designated uses for the water body and the following:

(a) Aquatic, estuarine and marine life present in the water body;

(b) Wildlife that utilize the water body;

(c) Habitat, including significant wetlands, within a water body supporting existing populations of wildlife or aquatic, estuarine or marine life, or plant life that is maintained by the water body;

(d) The use of the water body for recreation in and on the water, fishing, water supply, or commercial activity that depends directly on the preservation of an existing level of water quality. Use of the water body to receive or transport waste water discharges is not considered an existing use for purposes of this antidegradation policy; and

(e) Any other evidence that, for considerations (a), (b) and (c) above, demonstrates their ecological significance because of their role or importance in the functioning of the ecosystem or their rarity (for example, threatened or endangered species) and, for consideration (d) above, demonstrates its historical or social significance.

2. EXISTING USES MAINTAINED AND PROTECTED. The determination of whether existing in-stream water uses and the level of water quality necessary to protect those existing uses is maintained and protected will be made by the DEP on a case-by-case basis. In accordance with the provisions of 38 MRSA § 464(4)(F)(1-A), the DEP may only issue a waste discharge license or approve water quality certification when it finds that:

(a) The existing in-stream use involves use of the water body by a population of plant life, wildlife, or aquatic, estuarine or marine life, or as aquatic, estuarine, marine, wildlife, or plant habitat, and the applicant has demonstrated that the proposed activity would not have a significant impact on the existing use. "Significant impact" here means impairing the viability of the existing population, including significant impairment to growth and reproduction or an alteration of the habitat which impairs viability of the existing population; or

(b) The existing in-stream use involves use of the water body for recreation in and on the water, fishing, water supply or commercial enterprises that depend directly on the preservation of an existing level of water quality and the applicant has demonstrated that the proposed activity would not result in significant degradation of the existing use.

In accordance with the provisions of 38 MRSA § 464(4)(F)(1-A), the DEP shall determine what constitutes a population of a particular species based upon the degree of geographic and reproductive isolation from other individuals of the same species.

3. OUTSTANDING NATIONAL RESOURCE WATERS. No license will be issued or renewed for any new, increased or existing point source discharge to outstanding national resource waters, as designated under 38 MRSA § 464(4)(F)(2).

4. STANDARDS OF CLASSIFICATION MET. In order to issue a discharge license, the DEP must find that (a) the standards of the assigned classification of the receiving water are met, or (b) where the standards of the assigned classification are not met, that the discharge does not cause or contribute to the failure of the receiving water to meet standards. The receiving water includes all waters, however distant, for which an effect from a discharge can be measured or modeled.

5. WATER QUALITY EXCEEDS CLASSIFICATION. Where any criterion of water quality (for example, dissolved oxygen, or bacteria, or aquatic life) exceeds the minimum standards of the next highest classification under critical water quality conditions, then that higher water quality criterion must be maintained and protected.

   Critical water quality conditions include, but are not limited to, conditions of low flow, high water temperature, maximum loading from point source and non-point source discharges, and conditions of acute and chronic effluent toxicity.

6. EXISTING DISCHARGE. Where a licensing action involves an existing discharge for which no increase is proposed, and where the DEP determines that (1) existing in-stream water uses will be maintained and protected, and (2) the discharge is not to an outstanding national resource water, and (3) the standards of the assigned classification will be met in all receiving waters affected by the discharge or that the discharge will not cause or contribute to the failure of the receiving waters to meet standards, and (4) actual water quality is maintained and protected where any criterion of water quality exceeds the minimum standards of the next highest classification, then the requirements of the State's antidegradation policy will be deemed to be met.

7. NEW OR INCREASED DISCHARGE. Water quality that exceeds the minimum applicable standards will be managed by the DEP for the environmental, economic and social benefit of the State. Where a new or increased discharge is proposed, the DEP will determine whether the discharge will result in a significant lowering of existing water quality. For purposes of antidegradation:

   - "New discharge" means a discharge that does not now exist or that is not currently licensed.

   - "Increased discharge" means a discharge that would add one or more new pollutants to an existing effluent, increase existing levels of pollutants in an effluent, or cause an effluent to exceed one or more of its current licensed discharge flow or effluent limits, after the application of applicable best practicable treatment technology, as defined at 38 MRSA § 414-A(1)(D), or new source performance standards to the discharge.

   - "Existing water quality" means the water quality that would exist under critical water quality conditions. Critical water quality conditions include, but are not limited to, conditions of low flow, high water temperature, maximum loading from point source and non-point source discharges, and conditions of acute and chronic effluent toxicity.

8. DETERMINATION OF SIGNIFICANT LOWERING OF WATER QUALITY. In making a determination as to whether a new or increased discharge will result in a significant lowering of existing water quality, the DEP shall consider the following:

   A. The predicted change in ambient water quality, concentrations of chemical pollutants, or mass loading of pollutants under critical water quality conditions.

   B. The predicted consumption of the remaining assimilative capacity of the receiving water. The remaining assimilative capacity is the increment of existing water quality above the minimum standards of the assigned classification under critical water quality conditions.

   C. The predicted change in the ability of the receiving water to support aquatic life and to meet applicable aquatic life and habitat criteria.

D. The possible additive or synergistic effects of the discharge in combination with other existing discharges.

E. The cumulative lowering over time of water quality resulting from the proposed discharge in combination with previously approved discharges.

Based on the above considerations, the DEP will make a case-by-case determination as to whether a new or increased discharge will result in a significant lowering of existing water quality. However, in any case where the new or increased discharge will consume 20% or more of the remaining assimilative capacity for dissolved oxygen or other water quality parameter, the resulting lowering of water quality will be determined to be significant.

9. NO SIGNIFICANT LOWERING OF WATER QUALITY. Where the DEP determines that a new or increased discharge will not result in a significant lowering of existing water quality, and where the DEP further determines that (1) existing in-stream water uses will be maintained and protected, and (2) the discharge is not to an outstanding national resource water, and (3) the standards of the assigned classification will be met in all receiving waters affected by the discharge or that the discharge will not cause or contribute to the failure of the receiving waters to meet standards, and (4) actual water quality is maintained and protected where any criterion of water quality exceeds the minimum standards of the next highest classification, then the requirements of the State's antidegradation policy will be deemed to be met.

The posting of public notice, the opportunity to request a public hearing, and the opportunity for public comment on an application or draft license in which a determination is made that a new or increased discharge will not result in a significant lowering of water quality shall be provided in accordance with existing DEP rules (see Chapter 2 “Rules Concerning the Processing of Applications” and Chapter 522 “Application Processing Procedures for Waste Discharge Licenses”).

10. DETERMINATION OF ECONOMIC OR SOCIAL NECESSITY. Where the DEP determines that a new or increased discharge will result in a significant lowering of existing water quality, the DEP will then determine whether the lowering of water quality is necessary to achieve important economic or social benefits to the State. In making this determination, the DEP shall consider the following:

A. Whether the lowering of water quality is necessary to accommodate new or increased commercial activity or industrial production while providing that (1) the discharge consistently complies with applicable effluent limitations requiring application of best practicable treatment or new source performance standards and (2) any existing treatment facility is appropriate and is optimally maintained.

B. Whether the lowering of water quality is necessary to accommodate operation of a new publicly owned treatment works or increased loading to an existing publicly owned treatment works while providing that the discharge consistently complies with applicable effluent limitations requiring application of best practicable treatment, as defined at 38 MRSA § 414-A(1)(D), and that any existing treatment facility is appropriate and is optimally maintained. Evidence that increased loading to a POTW is necessary may include, but is not limited to, population growth projections from a municipal comprehensive plan, additional waste water treatment requirements based on a combined sewer overflow (CSO) master plan, and the extension of public sewers to previously unsewered areas.

C. The economic and social benefits that would result from the lowering of water quality. These benefits may include, but are not limited to, increases in employment, increases in local or regional income or purchasing power, increases in the community tax base, correction of an environmental or public health problem or nuisance situation (e.g., removal of overboard discharges or failing or substandard septic systems) and improved community stability. In the case of a lowering of water quality due to community growth, benefits may include an assessment of the economic and social consequences that would result if the new or increased discharge and the resulting lowering of water quality were not approved.

D. The technical availability, economic feasibility, and environmental effectiveness of alternatives that could reduce or eliminate the lowering of water quality. Alternatives may include, but are not limited to, alternative discharge locations, non-discharging alternatives, alternative methods of production, improved process controls, waste water minimization technologies, improved waste water treatment facility operation and maintenance, alternative waste water treatment methodologies, and advanced treatment beyond applicable technology requirements.

E. Public comments received in response to the public notice of an application for a waste discharge license, or as part of the official record of any public hearing held by the DEP on the application, or in response to any draft waste discharge license prepared by the DEP.

The posting of public notice, the opportunity to request a public hearing, and the opportunity for public comment on an application or draft license in which a determination is made as to whether a lowering of water quality resulting from a new or increased discharge is necessary to achieve important economic or social benefits to the State shall be provided in accordance with the DEP's existing rules (see Chapter 2 "Rules Concerning the Processing of Applications" and Chapter 522 "Application Processing Procedures for Waste Discharge Licenses").

Based on the above considerations, the DEP will make a case-by-case determination as to whether the lowering of existing water quality resulting from a new or increased discharge is necessary to achieve important economic or social benefits to the State.

11. LOWERING OF WATER QUALITY NOT APPROVED. Where the DEP determines that the lowering of water quality resulting from a new or increased discharge is not necessary to achieve important economic or social benefits to the State, then this lowering of water quality will not be approved, and the new or increased discharge will be denied or conditioned to prevent any lowering of water quality.

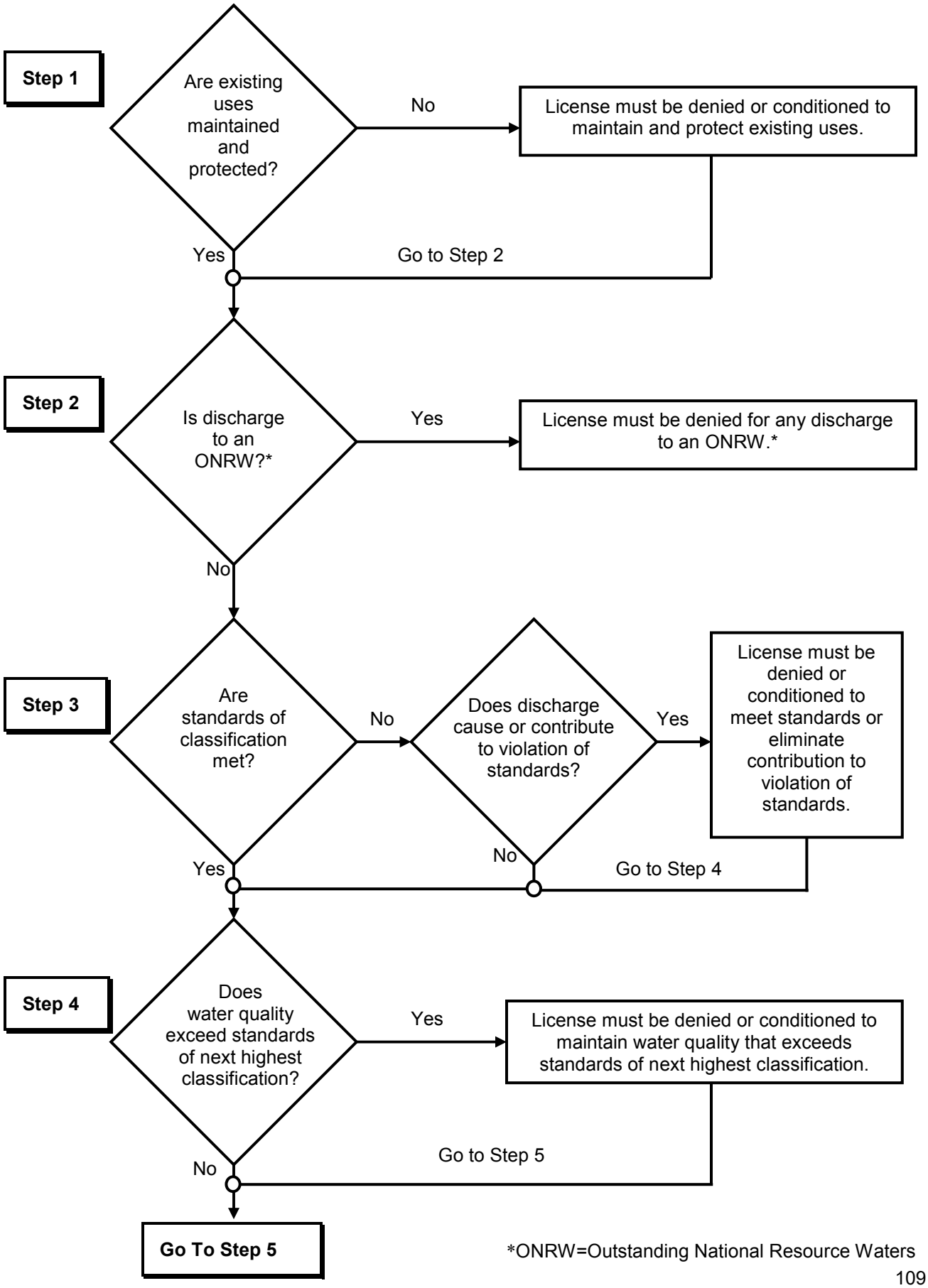
Where the DEP denies or conditions a new or increased discharge to prevent any lowering of water quality, and where the DEP determines that (1) existing in-stream water uses will be maintained and protected, and (2) the discharge is not to an outstanding national resource water, and (3) the standards of the assigned classification will be met in all receiving waters affected by the discharge or that the discharge will not cause or contribute to the failure of the receiving waters to meet standards, and (4) actual water quality is maintained and protected where any criterion of water quality exceeds the minimum standards of the next highest classification, then the requirements of the State's antidegradation policy will be deemed to be met.

12. LOWERING OF WATER QUALITY APPROVED. Where the DEP determines that that the lowering of water quality resulting from a new or increased discharge is necessary to achieve important economic or social benefits to the State, and where the DEP further determines that (1) existing in-stream water uses will be maintained and protected, and (2) the discharge is not to an outstanding national resource water, and (3) the standards of the assigned classification will be met in all receiving waters affected by the discharge or that the discharge will not cause or contribute to the failure of the receiving waters to met standards, and (4) actual water quality is maintained and protected where any criterion of water quality exceeds the minimum standards of the next highest classification, then the requirements of the State's antidegradation policy will be deemed to be met, and the lowering of water quality will be approved. In approving the lowering of water quality, the DEP will assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for non-point source control, as stipulated in 40 CFR 131.12(a)(2).

A flow chart for implementing antidegradation review in the waste discharge licensing process is attached to this guidance.

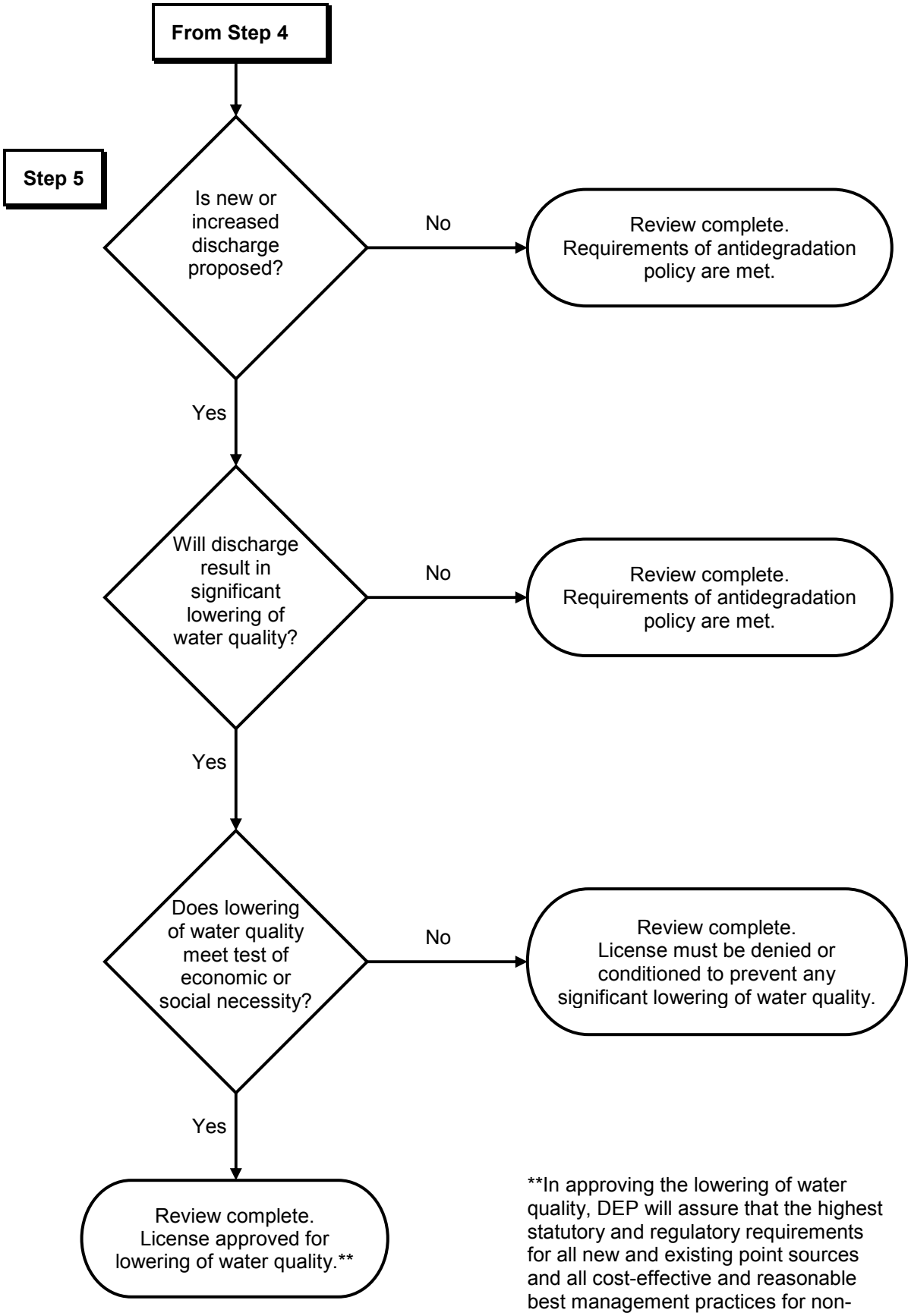
\antideg guidance

Antidegradation Review Flow Chart for Waste Discharge Licensing



*ONRW=Outstanding National Resource Waters

Antidegradation Review Flow Chart for Waste Discharge Licensing



**In approving the lowering of water quality, DEP will assure that the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for non-point source control are achieved.

APPENDIX C

Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands

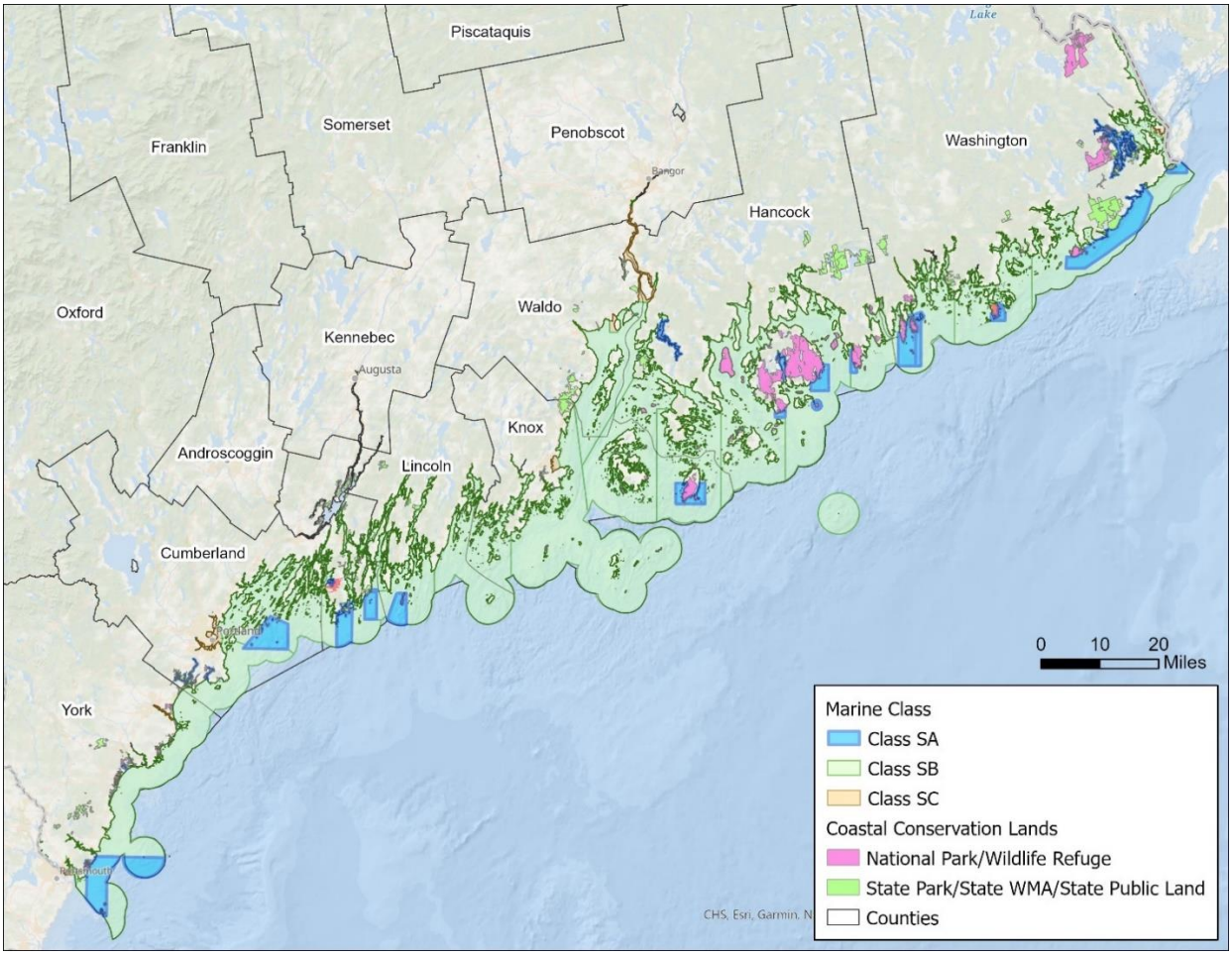


Figure 1. Statewide Overview of Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands.

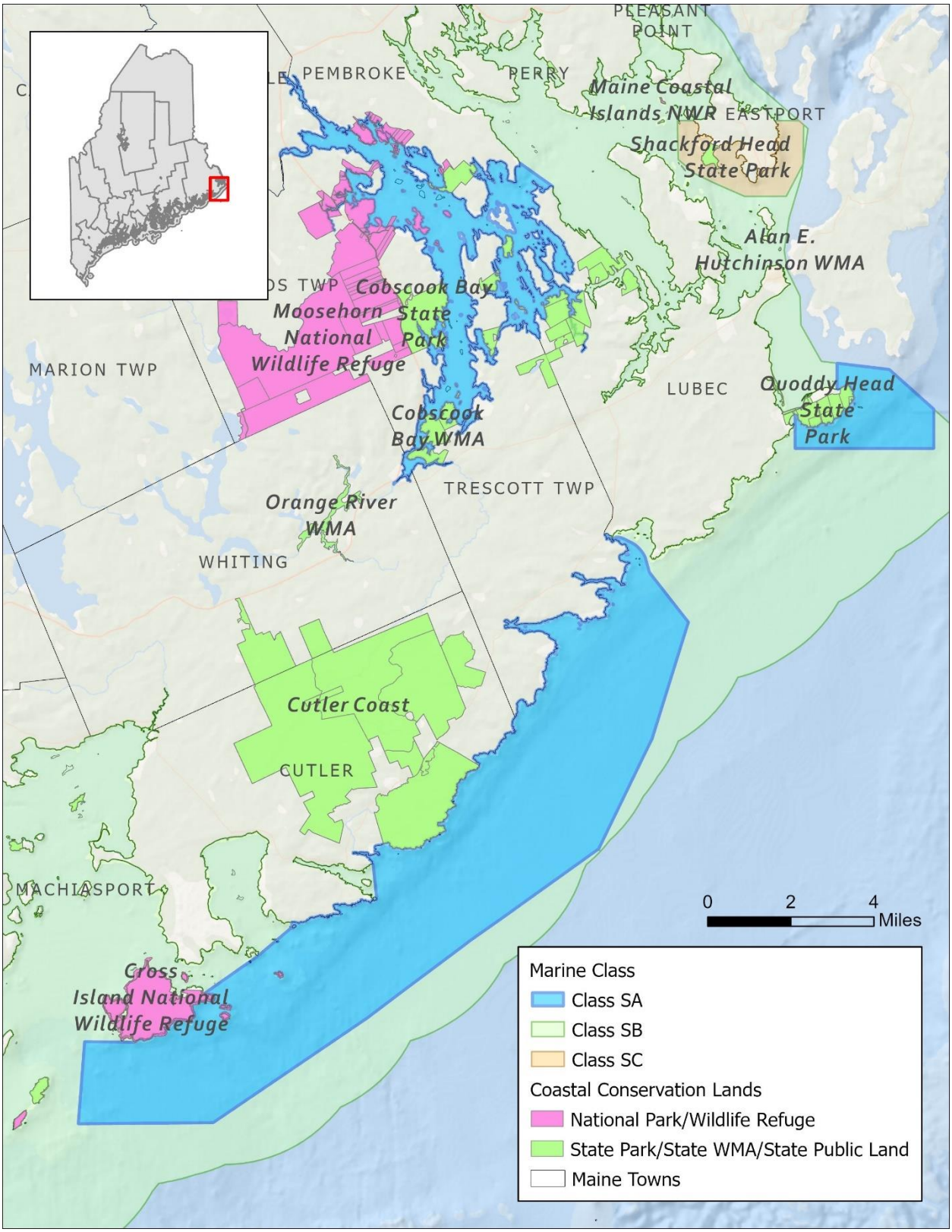


Figure 2. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Cutler Coast to Quoddy Head State Park.

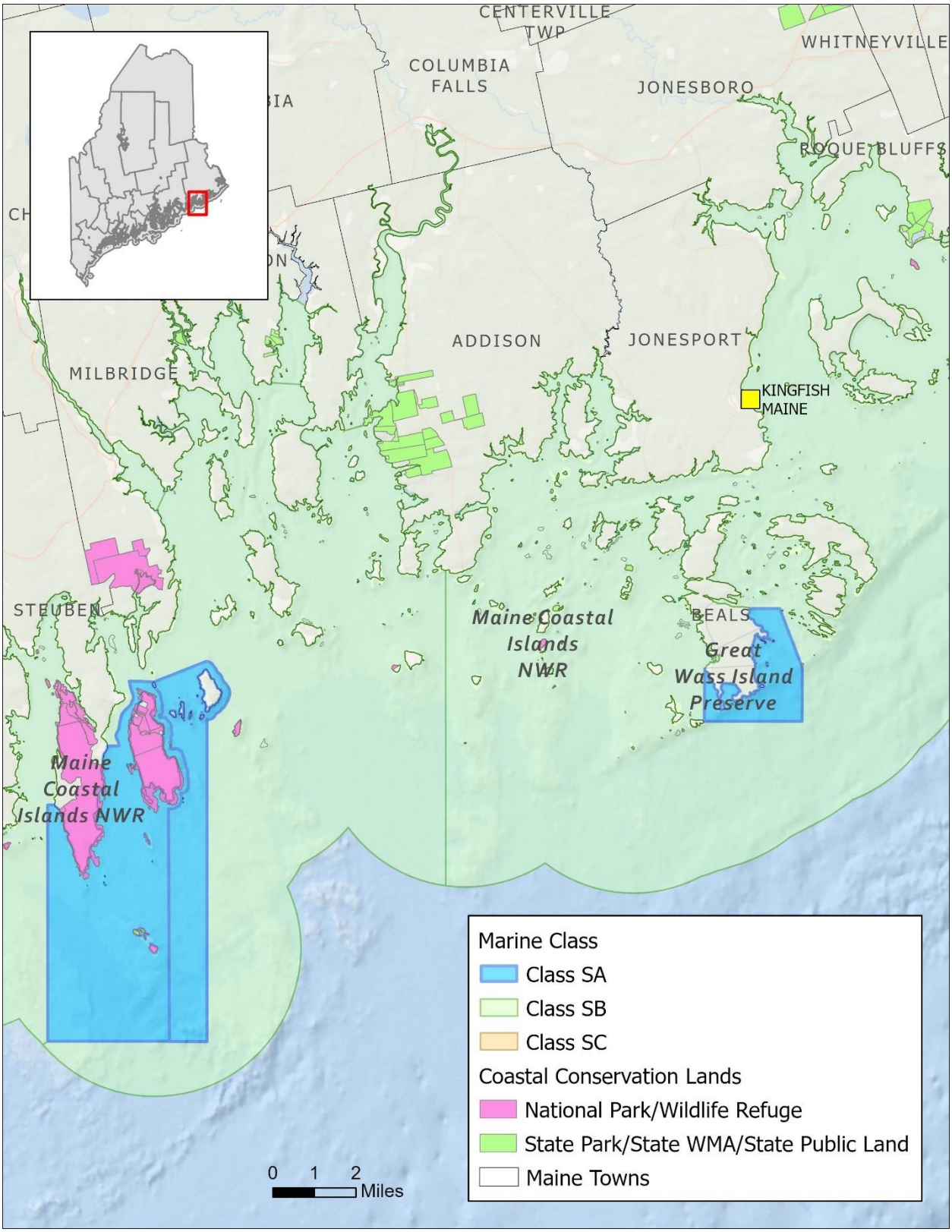


Figure 3. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Steuben to Jonesport.

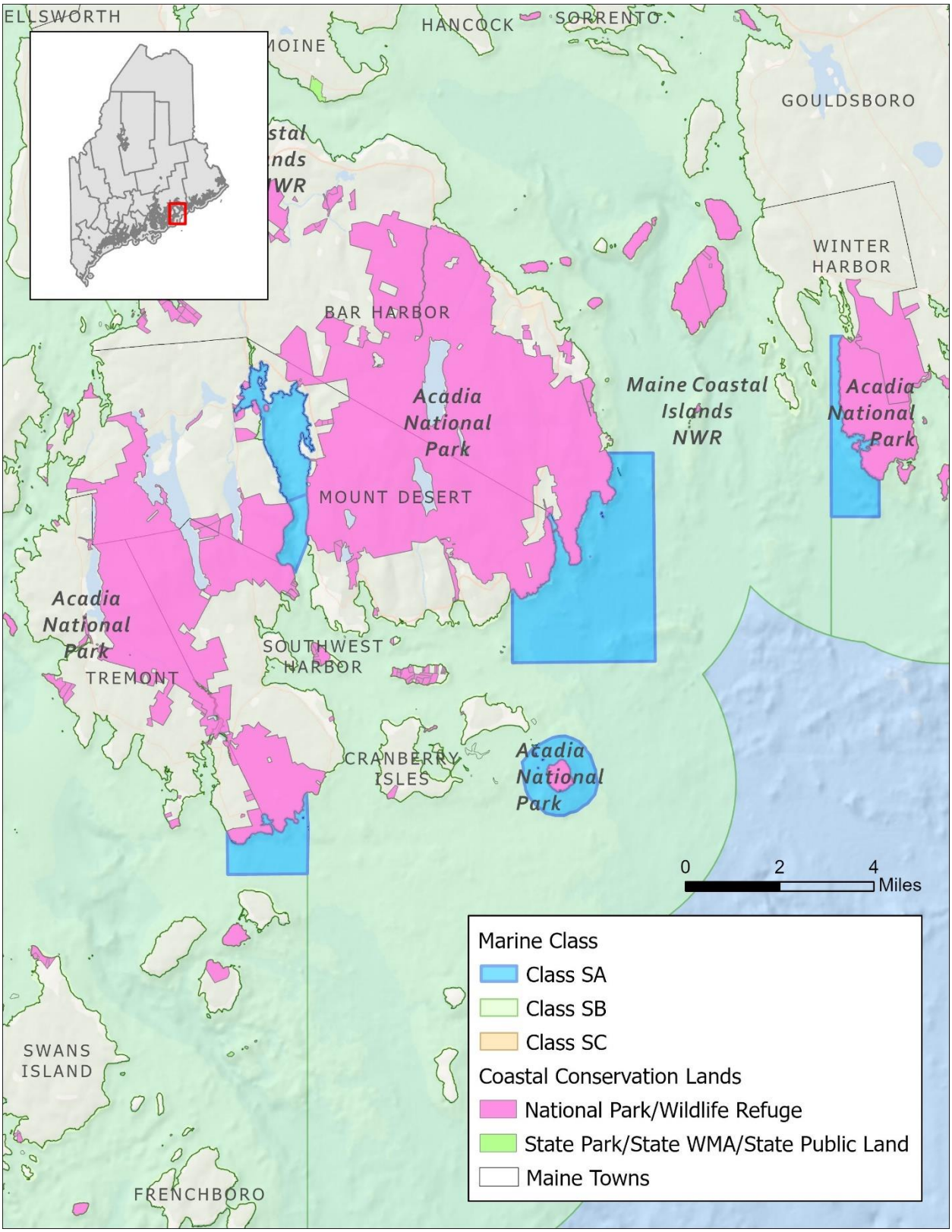


Figure 4. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Acadia National Park.

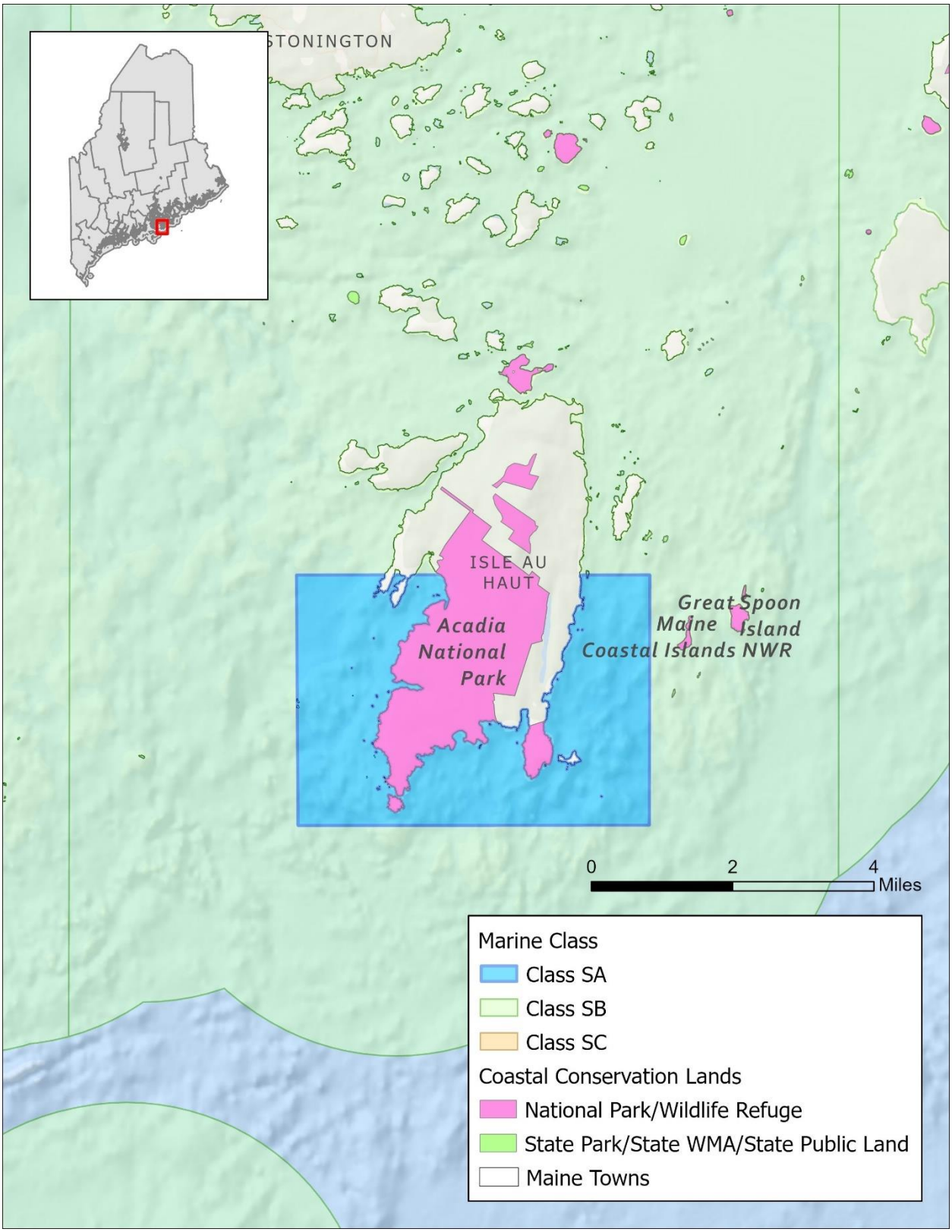


Figure 5. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Isle Au Haut (Acadia).

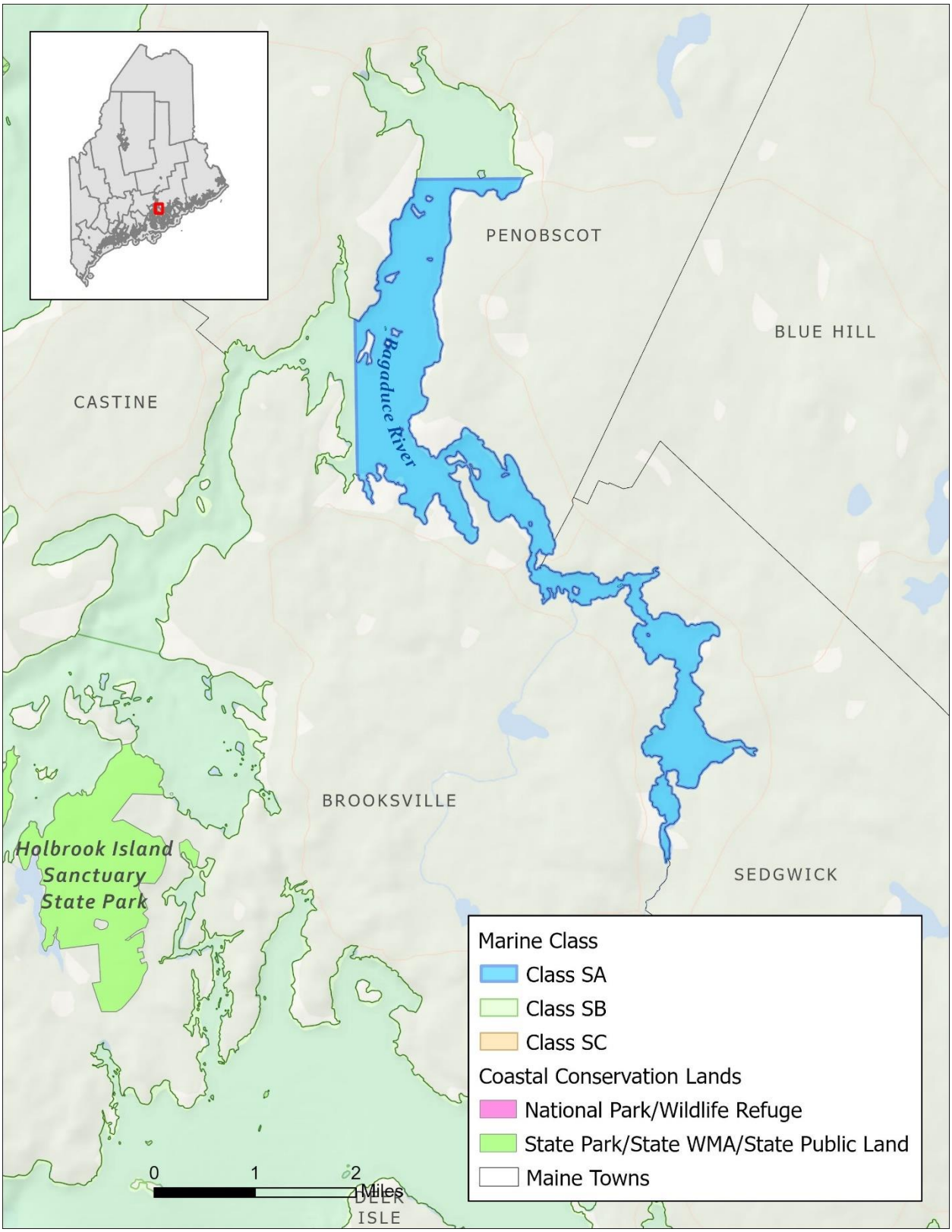


Figure 6. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Bagaduce River.

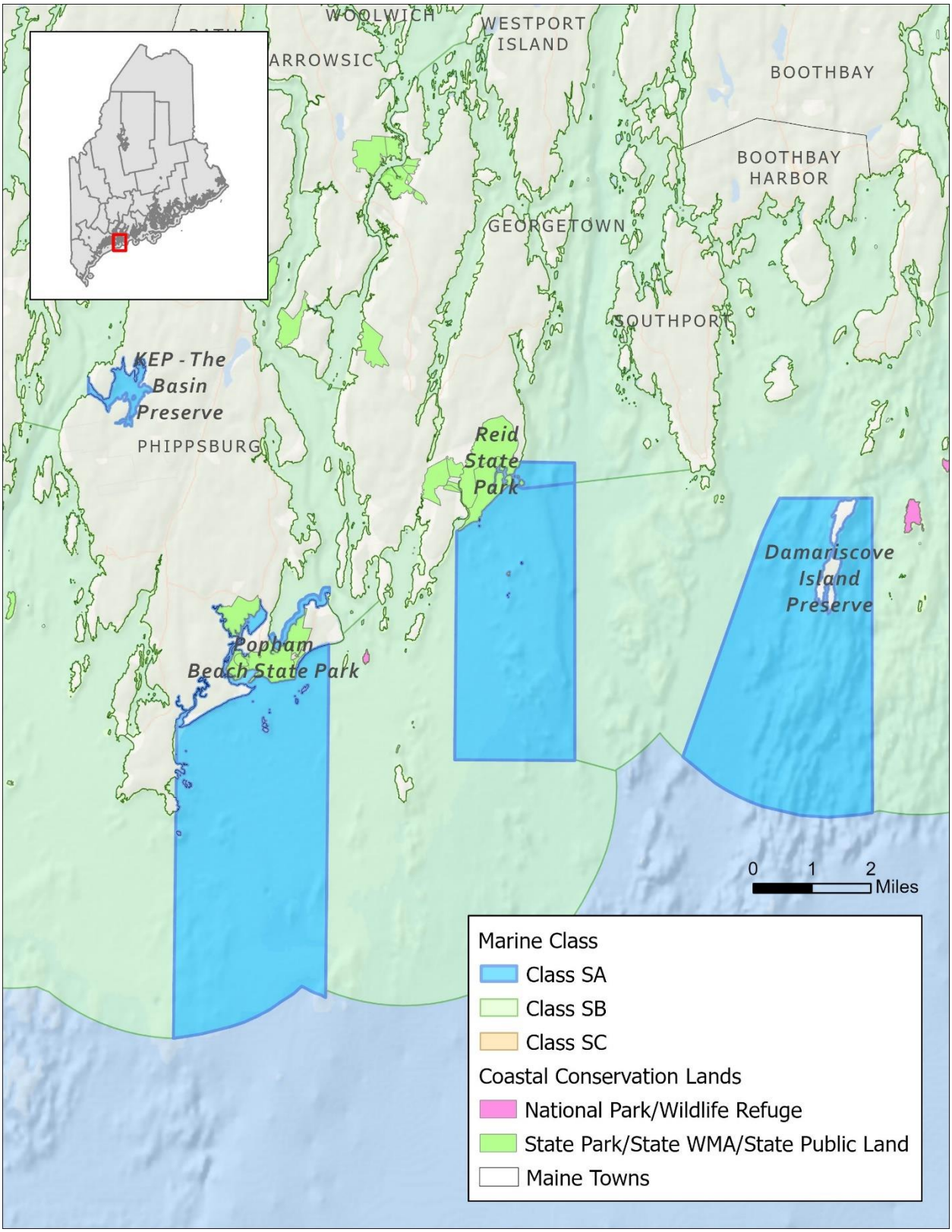


Figure 7. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Phippsburg to Boothbay.

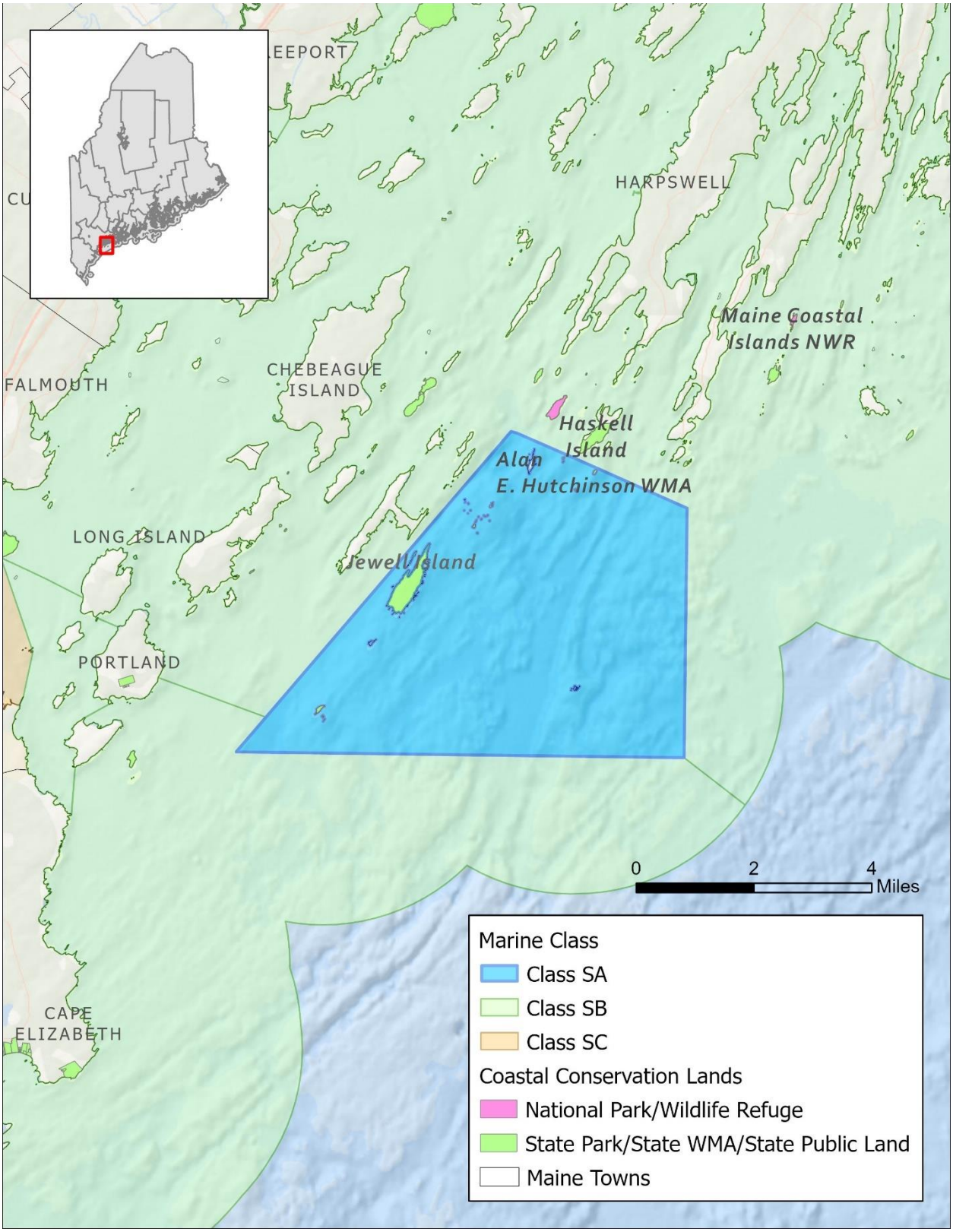


Figure 8. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Casco Bay.

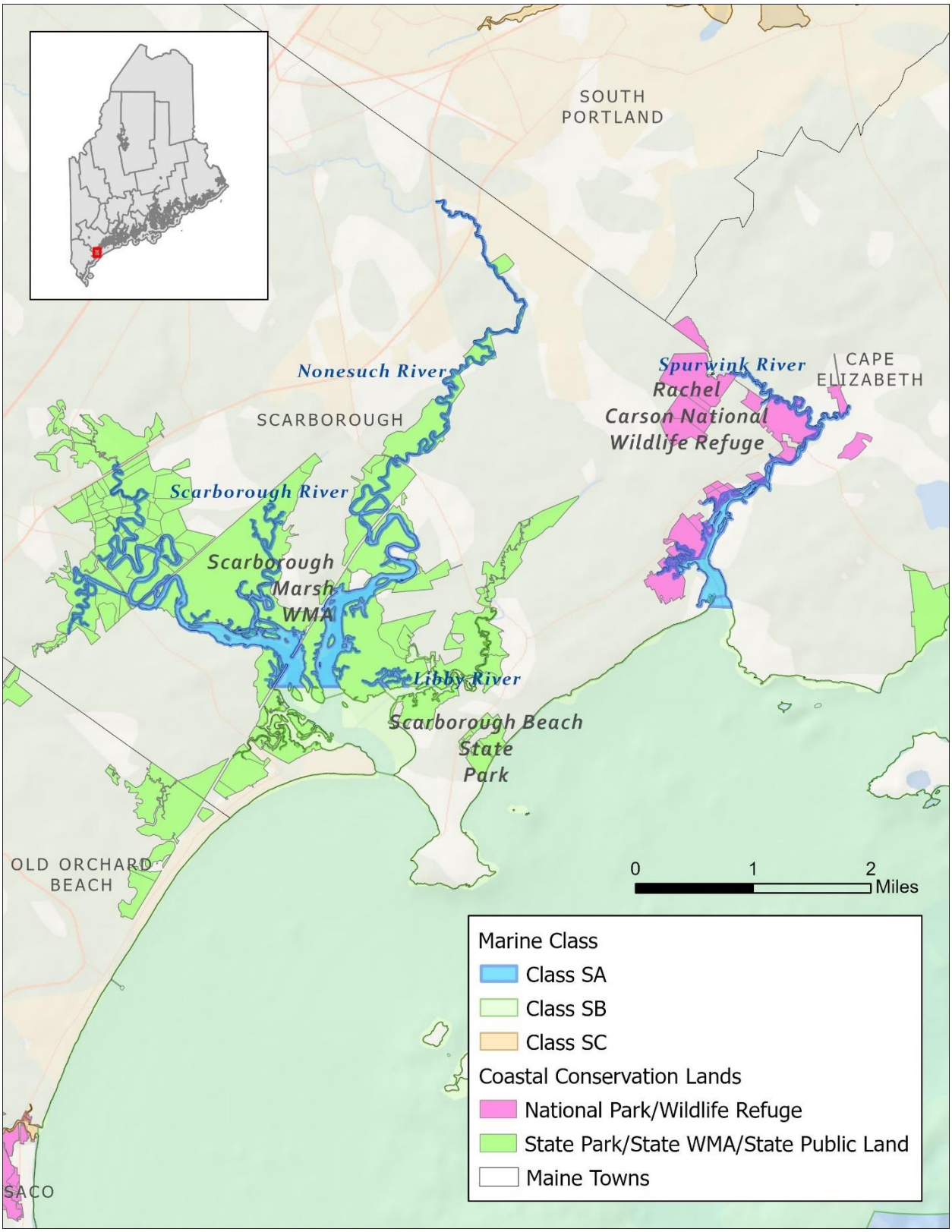


Figure 9. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Scarborough to Cape Elizabeth.

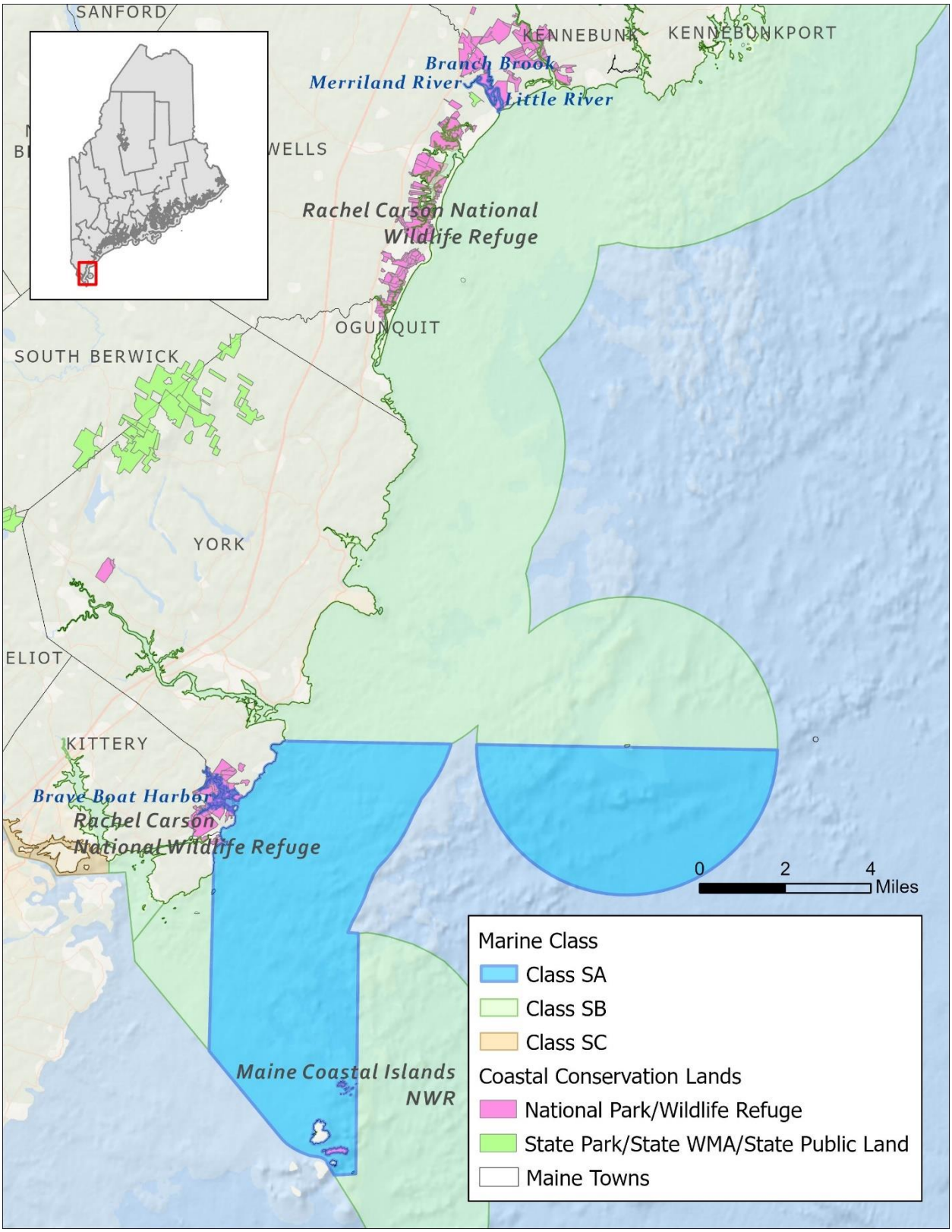


Figure 10. Maine's Existing Class SA Waters in Relation to Coastal State and Federal Conservation Lands – Kittery to Wells.