Recommendations to the Joint Standing Committee on Environment and Natural Resources

Board of Environmental Protection Recommendations to the Legislature for Certain Changes to Water Quality Classifications and Related Standards 2021 Triennial Review

January 2022

Contact: William F. Hinkel, Board Executive Analyst
bill.hinkel@maine.gov
(207) 314-1458

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 State House Station | Augusta, Maine 04333-0017
www.maine.gov/dep

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2021 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

REVISED FINAL RECOMMENDATIONS
December 16, 2021

Table of Contents

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2021 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

Final Recommendations by the Board of Environmental Protection

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 DEP's Water Quality Standards page, which provides links to existing Maine statutes and rules.

The federal Clean Water Act (Section 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. Section 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 2022 for any required legislation. To start the process, on January 6, 2020 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, etc. 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 of 2021. 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; none were received.

The Board of Environmental Protection (Board) 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 5, 2021, the Department requested that the Board schedule a public hearing and receive public comment before making recommendations on changes to existing WQS to the members of the second regular session of the 130th Maine Legislature for their consideration. The public hearing on the revised recommendations occurred on October 7, 2021 in Augusta and by remote means. The public comment period extended from August 18 through October 25, 2021. As part of the public comment period, the public was also invited to submit additional proposals for changes to Maine's WQS; one proposal was received. For more information please see 'Revised draft recommendations – August 2021', page 8, below.

In response to public comments received, the Department developed revised draft recommendations, dated December 2, 2021. For more information, please see 'Revised draft recommendations – December 2, 2021', page 8 below. The Board and Department staff held a deliberative session on December 2 on the revised draft recommendations in Augusta and by remote means. Based on the deliberative session, the final revised recommendations contained in this document were developed; for more information, please see 'Final Board Recommendations', page 9 below.

During a regular Board meeting on December 16, 2021, the Board conducted further deliberations on the recommendations and changed the prior final recommendation to not upgrade the lower Androscoggin River at all to a recommendation that upgrades an amended and more limited portion of that segment. For more information, please see 'Final Revised Board Recommendations', pages 9-10 below. The Board then voted on these amended recommendations at the December 16, 2021 Board meeting.

If the Board recommends statutory changes and a bill is developed and accepted for consideration in the second session of the 130th Legislature, an additional public hearing would be conducted by the Legislature as the institution responsible for making statutory changes. Ultimately, the U.S. Environmental Protection Agency (EPA) must give final approval to any changes to WQS made by the State of Maine.

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 Clean Water Act, 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 January 6 and March 31, 2020, 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, Marine Resources (DMR), and Agriculture, Conservation and Forestry. Many water quality interest groups were also directly contacted, including Native American tribes in Maine, numerous environmental and conservation groups (including Friends of Merrymeeting Bay, Friends of Casco Bay, the Natural Resources Council of Maine, The Nature Conservancy, Maine Rivers and its affiliates), watershed associations and municipalities (including all Maine cities and towns). In addition, the EPA also submitted requests for changes. The Department received 15 proposals for WQS changes and 20 proposals for water quality classification upgrades (Figure 1, below).

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

- EPA
  - Update lower end of freshwater range for pH from 6.0 to 6.5.
  - Eliminate applicability of natural conditions clause to water quality criteria intended to protect human health (toxics, bacteria).
  - Update recreational water quality criteria for Classes B, C, SB and SC to be applicable year-round.
  - Add National Shellfish Sanitation Program shellfishing criteria to Class SA.
  - Clarify that statute on waiver or modification of protection and improvement laws does not apply to WQS.
  - Expand existing recreational WQS for Class GPA by including standards for cyanotoxins.
  - Update regulations for surface water quality criteria for toxic pollutants relating to the protection of aquatic life (aluminum, ammonia, copper and selenium, ambient water physical characteristics).
  - Expand regulations relating to water temperature in tidal waters.
  - Expand mixing zone policy.
- Citizen Proposal
  - Develop acid rain-based WQS.
- Friends of Graham Lake
  - Develop turbidity WQS.
- IDEXX
  - Expand bacteria reporting units in all classifications to include 'MPN'.

The Department developed 3 proposals:

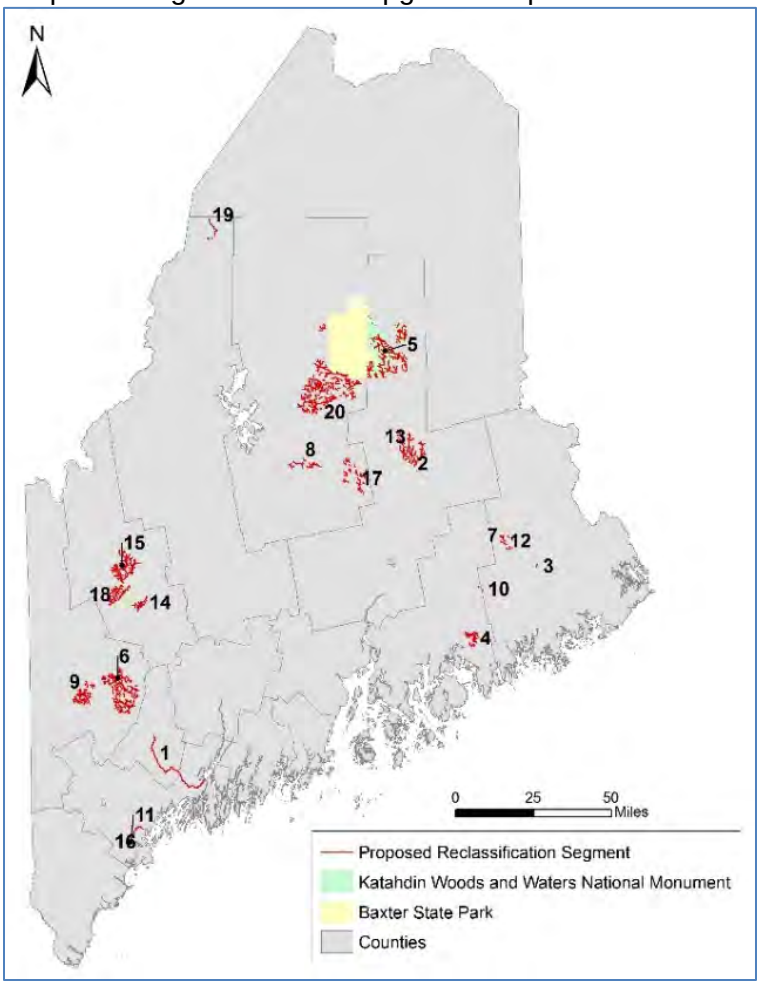
- Update upper end of freshwater range for pH from 8.5 to 9.0.
- Expand definition of Outstanding National Resource Waters to include waters in national monuments.
- Clarify aquatic life standards for Class B, C, GPA, SB and SC waters.

Proposals for upgrades of water quality classifications. The EPA, three stakeholders (Friends of Merrymeeting Bay, Grow L/A, FOMB/GLA; The Nature Conservancy, TNC; Friends of the Presumpscot River, FOPR) and the Department submitted proposals for a total of 20 classification upgrades, which are available on DEP's Triennial Review web page. Numbers in the following table refer to items in Figure 1, below:

Key	Segment	Proposed by	Current Class	Proposed Class
1	Androscoggin River (below Gulf Island Pond)	FOMB/GLA	C	B
2	Cambolasse Stream (below Rt. 2)	DEP	C	B

Key	Segment	Proposed by	Current Class	Proposed Class
3	Chain Lakes Stream	DEP	A	AA
4	Donnell Pond tributaries	TNC	B	A
5	East and West Branch Penobscot River tributaries in Katahdin Woods and Waters National Monument	TNC	A	AA
6	East and West Branches Nezinscot River tributaries	DEP	B	A
7	Fletcher Brook and tributaries	DEP	A	AA
8	Houston Brook and tributaries	DEP	A	AA
9	Little Androscoggin River (upper) tributaries	DEP	B	A
10	Little Narraguagus River	DEP	A	AA
11	Long Creek (Westbrook)	EPA	C	B
12	Magazine Brook	DEP	A	AA
13	Medunkeunk Stream tributaries	DEP	B	A
14	Mount Blue Stream and tributaries	DEP	B	A
15	Orbeton Stream above Toothaker Pond Rd and tributaries	DEP	A	AA
16	Presumpscot River (below Saccarappa Falls)	FOPR	C	B
17	Schoodic Stream and Scutaze Stream tributaries	DEP	B	A
18	South Branch Sandy River and Cottle Brook and tributaries	DEP	A	AA
19	Southwest Branch St. John River	TNC	A	AA
20	West Branch Penobscot River and tributaries	TNC	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 Clean Water Act, 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 2021. 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.

Draft recommendations. Between April 26 and May 26, 2021, the Department invited the public to provide input on draft recommendations and to submit additional proposals for changes to Maine's WQS. Twenty-one written and three oral comments[1] were received and the Department considered them, and new information obtained, in developing the revised recommendations the Board invited public comment on. No additional proposals for changes to Maine's WQS were received.

Revised draft recommendations – August 2021. Between August 18 and October 25, 2021, the Board invited the public to provide input on the revised recommendations and to submit additional proposals for changes to Maine's WQS. A public hearing on the revised recommendations was held on October 7, 2021 in Augusta and by remote means. Twenty-three written and five oral comments[2] were received and the Department considered them in developing the revised recommendations to be presented to the Board at the November 18, 2021 deliberative session. During the public comment period, one additional proposal for changes to Maine's WQS was submitted and one amendment to an existing proposal. The new proposal and the amendment together with the Department's recommendations have been incorporated below in sections ''PROPOSAL FOR FUTURE CONSIDERATION', 'Development of a New Water Quality Class', page 46, and 'UPGRADE PROPOSALS THAT ARE NOT BEING RECOMMENDED BY THE DEPARTMENT AT THIS TIME', 'Presumpscot River from Saccarappa Falls to Head of Tide at Presumpscot Falls, Westbrook, Portland and Falmouth', pages 83-84, respectively.

Revised draft recommendations – December 2, 2021. Based on public comments received, the Department amended the recommendation to the upgrade proposal to Class AA for Nahmakanta Stream and tributaries from 'not recommended' to 'recommended' (pages 69-70). The proposal for a new water quality class was incorporated into the list of proposals requiring further investigation, and the proposal for an upgrade amendment into the list of proposals not recommended by the Department. As of December 2, 2021, the Department recommended:

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

[1] Five out of eight oral comments were subsequently submitted in writing and are not included in this tally of 'oral' comments.

[2] Nine out of fourteen oral comments were subsequently submitted in writing and are not included in this tally of 'oral' comments.

At the same time, the Department did not recommend:

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

Final Board Recommendations

On December 2, the Board and Department held a deliberative session on the revised draft recommendations dated December 2, 2021. Deliberations occurred during a regular Board meeting that was held in Augusta and by remote means. Brief public comments were accepted at that time. As a result of the deliberations, the December 2, 2021 draft recommendations on 7 upgrade proposals to Class AA were amended from 'not recommended' to 'recommended' (pages 54-55, 57-65, 71-72). The Board also supported an additional minor amendment to statutory language, presented following the two bulleted lists below and on page 87. No other changes were made. On December 16, 2021, the Department presented the Board with the following recommendations:

- 7 proposals for statutory changes;
- 2 proposals for changes to rules via deferred rulemaking;
- 1 proposal for development of a new rule;
- 3 proposals for further investigation;
- 1 proposal for future consideration; and
- 18 proposals for upgrades of water quality classification.

At the same time, the Department did not recommend:

- 2 proposals for statutory changes;
- 2 proposals for upgrades of water quality classification.

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

- Correct erroneous statutory section and clarify name:
  - 38 M.R.S. Sections 467.1.B.2.d and 467.1.B.2.e: Cushman Stream and Meadow Brook in Woodstock are incorrectly listed as tributaries to the Little Androscoggin River when they are in fact tributaries to the Androscoggin River; move to Sections 467.1.D.10 and 467.1.D.11.
  - 38 M.R.S. Section 467.1.D.10 (previously 38 M.R.S. Section 467.1.B.2.d): correct 'Cushman Stream' to 'Cushman Stream (unnamed tributary to Meadow Brook at Cushman Hill Road)'.
- 38 M.R.S. Sections 467.9.A.3. and 4: provide an alternative spelling for 'Sacarappa', i.e. 'Saccarappa'. *(new December 16, 2021)*
- Correct spelling mistake in waterbody name: 38 M.R.S. Section 468.1.C.2: correct 'Finnard Brook' to 'Finnerd Brook'.

Final Revised Board Recommendations

On December 16, the Board further deliberated the final recommendations dated December 16, 2021 as received from the Department staff. These further Board deliberations occurred during a regular Board meeting that was held in Augusta and by remote means. The Board agreed with all recommendations presented to them by the Department staff with the exception of the upgrade of the lower Androscoggin, which the Department staff did not support. Following deliberations, the Board amended the recommendation such that the lower portion of the Androscoggin River segment in question, namely the more limited segment from Worumbo Dam in Lisbon Falls to Merrymeeting Bay, would be upgraded from Class C to Class B, while the upper portion of the segment, from the Gulf Island Pond Dam to the Worumbo Dam, would remain Class C (pages

48-51 and 79-82, respectively). The Board then voted on the following amended recommendations:

- 7 proposals for statutory changes;
- 2 proposals for changes to rules via deferred rulemaking;
- 1 proposal for development of a new rule;
- 3 proposals for further investigation;
- 1 proposal for future consideration; and
- 19 proposals for upgrades of water quality classification (including a partial upgrade of the lower Androscoggin River).

At the same time, the Board voted to not recommend:

- 2 proposals for statutory changes;
- 2 proposals for upgrades of water quality classification (including a partial upgrade of the lower Androscoggin River).

The Board also voted to support certain error corrections as presented under 'Final Board Recommendations', on page 9.

Details on the individual proposals as well as the Board's recommendations are provided in the following table summarizing upgrade proposals and narrative for all proposals.

Susanne Meidel
Water Quality Standards Coordinator in the Bureau of Water Quality
Maine Department of Environmental Protection
Augusta, ME 04333
Phone: 207 / 441-3612
Susanne.K.Meidel@maine.gov

Maine Department of Environmental Protection
2021 Triennial Review of Water Quality Standards

Table 1 List of Proposals for Upgrades of Water Quality Classifications

Proposals recommended for upgrade

December 16, 2021 note: for the upgrades to Class AA indicated in italics below (including Nahmakanta Stream and tributaries in the West Branch Penobscot River and Tributaries item), the following information is important: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. This statutory provision is under review with EPA and may be amended or eliminated at some point in the future, which could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions. The Department and EPA have crafted proposed stormwater legislation to resolve this issue by narrowing the existing stormwater exemption, thereby eliminating any regulatory uncertainty. These upgrade proposals are being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on these upgrade proposals as part of the Triennial Review bill. That way, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately approves this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for these upgrades to go forward. Further details are included in each item in the body of this document.

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
Androscoggin River Basin				
C to B	Androscoggin River, Worumbo Dam (Lisbon Falls) to Merrymeeting Bay (line between Pleasant Pt., Topsham and North Bath)	Lisbon, Durham, Topsham, Brunswick	Friends of Merrymeeting Bay, Grow L/A	Department and external data document that Class B criteria for dissolved oxygen (DO) and bacteria are largely, but not always, attained in the segment in question. A number of sources of pollution and stressors exist both within and upstream of the segment: in the 100-mile, entirely Class C segment between the confluence with the Ellis River (in Rumford) and Merrymeeting Bay (Bath), there are 14 dams with impoundments, multiple discharges, urban centers and extensive 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 question during critical conditions, which the Department considers when reissuing

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
				waste discharge licenses. See page 51. Finally, the Gulf Island Pond (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. For more detailed information on this proposal and the Department's recommendation please see pages 48-51, below. In light of the available information, the current upgrade proposal has not been supported by Department staff. On December 16, 2021, however, the Board voted to upgrade from Class C to Class B this more limited portion of the originally proposed segment while leaving the other remaining portion of the original segment from the Gulf Island Pond Dam to Worumbo Dam as Class C, Note: a legislative proposal (LD 676, An Act to Reclassify Part of the Androscoggin River to Class B) identical to the original upgrade proposal for the entire segment was submitted to the 130th Maine Legislature. The Environment and Natural Resources Committee voted to carry LD 676 over to the next legislative session. The Department testified in opposition to LD 676 on 5/3/2021.
B to A	Tributaries to Upper Little Androscoggin River	Greenwood, Woodstock, Albany TWP	Maine DEP	The upper Little Androscoggin River is Class A and waterbodies proposed for upgrade are Class B. The watershed is primarily forested with little agriculture and few residential areas. DEP biological monitoring samples indicate attainment of Class A aquatic life criteria. Upgrading the tributaries would maintain their quality and the quality of the Little Androscoggin River itself.
B to A	Tributaries to East and West Branches Nezinscot River	Buckfield, Hartford, Paris, Peru, Sumner, West Paris, and Woodstock	Maine DEP	The East and West Branches Nezinscot River are Class A and their tributaries are Class B. The watershed is primarily forested with little development. DEP biological monitoring samples indicate attainment of Class A aquatic life criteria in the East and West Branches Nezinscot River and Bunganock Stream. Upgrading the tributaries would maintain their quality and the quality of the East and West Branches.

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
Kennebec River Basin				
A to AA	*South Branch Sandy River and Cottle Brook and their Tributaries*	*TWP 6 North of Weld, Phillips*	*Maine DEP*	*These streams are class A waters flowing into Class AA Sandy River. The watersheds contain high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to these waters. The South Branch Sandy River and Cottle Brook are high-priority waters for Maine DMR and have been stocked many times over the past 10 years. DEP data indicate very good water quality the South Branch Sandy River, and external data indicate the same for Cottle Brook. Both watersheds are primarily forested.*
B to A	Mount Blue Stream and Tributaries	Weld, Avon	Maine DEP	Mount Blue Stream and tributaries contain high quality habitat for endangered Atlantic salmon and have been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act. Mount Blue Pond supports brook trout and brown trout populations. The watershed is 90% forested. DEP data for Mt. Blue Stream indicate attainment of Class A aquatic life criteria and good water quality for salmonids. External data for Mt. Blue Stream showed similar results.
A to AA	*Orbeton Stream and Tributaries*	*Mount Abram TWP, Redington TWP, Madrid TWP, Sandy River Plt, Phillips*	*Maine DEP*	*These streams are class A waters flowing into Class AA Sandy Stream. The watershed contains high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to these waters. Orbeton and Perham Streams are high-priority waters for Maine DMR and have been stocked many times over the past 10 years and salmon redds[3] are frequently found. DEP monitoring indicates excellent water quality in Orbeton Stream and one tributary, and attainment of Class A aquatic life criteria. The watershed is primarily forested and 32% is protected as conservation land, lending the waters scenic and recreational importance.*
Machias River Basin				
A to AA	*Chain Lakes Stream*	*Wesley*	*Maine DEP*	*Chain Lakes Stream in Day Block TWP was upgraded to Class AA in 2003 but the segment in Wesley was inadvertently omitted*

[3] Spawning nests made by a fish, especially a salmon or trout.

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
				from the upgrade. The entire stream contains high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to these waters. Much of the immediate and upstream watershed is protected and 75% is forested.
A to AA	*Fletcher Brook and Tributaries*	*T37 MD BPP, T42 MD BP*	*Maine DEP*	*One segment of Fletcher Brook is Class AA, two other segments are Class A with no significant changes in watershed characteristics or water quality between segments. The Brook and its tributaries contain high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to these waters. 80% of the watershed is forested.*
A to AA	*Magazine Brook*	*T37 MD BPP, T42 MD BP*	*Maine DEP*	*One segment of Magazine Brook was upgraded to Class AA in 2003 but two other segments were inadvertently omitted from the upgrade. The entire brook contains high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to this brook. Almost 70% of the watershed is forested.*
Narraguagus River Basin				
A to AA	*Little Narraguagus River*	*T28 MD BPP*	*Maine DEP*	*One segment of the Little Narraguagus River was upgraded to Class AA in 2003 but two other segments were inadvertently omitted from the upgrade. The entire river, and especially the upper section, contains high-quality, critical habitat for endangered Atlantic salmon, lending significant ecological importance to this river. More than 80% of the watershed is forested. Some resource extraction activities are taking place in Beddington and the River below Chalk Pond is thus excluded from this proposal.*
Penobscot River Basin				
A to AA	Tributaries to East and West Branches Penobscot River in Katahdin Woods and Waters National Monument (KWWNM)	WELS: T5 R7, T5 R8, T4 R7, T4 R8, T3 R7, T3 R8, T2 R8; Soldiertown TWP/T2 R7 WELS	The Nature Conservancy	Portions of the East Branch Penobscot River and many tributaries are Class AA due to their high value for endangered Atlantic salmon restoration, and scenic and recreation character. Many of these waters are in the new KWWNM but many smaller tributaries, which serve as high-quality water sources to the River and important habitat for salmon, brook trout and other species, are Class A. Upgrading these waters to Class AA will protect their water quality and that of the River.

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
				Portions of some tributaries to the West Branch Penobscot River are located in KWWNM. These waters are also proposed for an upgrade from Class A to AA, which would make management of all waters within KWWNM consistent and recognize their high values.
A to AA	West Branch Penobscot River and Tributaries, from 1,000 Feet Below Ripogenus Dam Powerhouse to Confluence with Ambajejus Lake, and *Nahmakanta Stream and Tributaries*	WELS: T5 R11, T4 R10, T4 R11, T3 R10, T3 R11, T2 R9, T2 R10, T2 R12, T1 R9, T1 R10, T1 R11, T1 R12, TA R11; Nesourdnahunk TWP, Mt. Katahdin TWP, Rainbow TWP, Shawtown TWP	The Nature Conservancy	This segment of the West Branch Penobscot River is a world-class landlocked salmon fishery; hosts native brook trout and many other important species; and supports a vibrant recreation industry. Its forested shoreline and backdrop of Mount Katahdin make it arguably the most scenic waterway in the state. These and other reasons demonstrate the ecological, social, scenic and recreational importance of these waters. This segment has not previously been proposed for Class AA distinction because a large hydroelectric facility was proposed in the 1980s. Permit applications were denied, and the project was never revived. This proposal leaves a 1,000-foot segment downstream of the McKay powerhouse in its present Class A status, consistent with other Class AA waters located downstream of hydropower stations. *This proposal also includes tributaries to the river segment in question and Nahmakanta Stream and its tributaries. These waters are largely located in conservation lands and are valued for their ecological, scenic, and recreational values. The Nahmakanta watershed is important to the local recreation economy, supporting commercial sporting camps and running alongside and intersecting the Appalachian Trail. Upgrading these tributaries would maintain their quality and ensure the continued quality and character of the West Branch.*
A to AA	*Houston Brook and Tributaries*	*Elliotsville TWP, T7 R9 NWP, Katahdin Iron Works TWP*	*Maine DEP*	*These streams are class A tributaries to Class AA West Branch Pleasant River. The streams contain high-quality, critical habitat for endangered Atlantic salmon with evidence of spawning documented in 2019, lending significant ecological importance to these waters. Big and Little Houston Ponds support brook trout populations. Almost 80% of the watershed is forested and 60% is protected as conservation land, lending scenic and recreational importance to these waters.*

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
B to A	Tributaries of Schoodic Stream and Scutaze Stream	T4 R9 NWP, Ebeemee TWP, Lake View Plt, Brownville, Medford	Maine DEP	Schoodic and Scutaze Streams are Class A and their tributaries are Class B. The landscape is primarily forested with little development. Monitoring data indicate good water quality. Schoodic and Scutaze Streams are tributaries to the Piscataquis River and contain critical habitat for endangered Atlantic Salmon. The Piscataquis River itself is a priority watershed for salmon restoration in the Penobscot watershed, making its tributaries important for the protection of salmon. Upgrading the tributaries would maintain their quality and the quality of both mainstems and Schoodic Lake.
C to B	Cambolasse Stream	Lincoln	Maine DEP	A lumber yard and sawmill located just upstream of this segment of the stream used to affect water quality. The business closed many years ago and water quality meets Class B standards as indicated in long-term monitoring data collected by the Penobscot Nation.
B to A	Tributaries to Medunkeunk Stream	Medway, TA R7 WELS, Woodville, T2 R9 NWP, Chester, T2 R8 NWP	Maine DEP	Medunkeunk Stream is Class A and all tributaries are Class B. The watershed is primarily forested with some agriculture and few residential areas. The Maine Army National Guard (MEARNG) owns a significant amount of the Medunkeunk Stream watershed and has a Site Location of Development Law permit authorizing impervious/structural development near some streams proposed for upgrade. The permitted work is not expected to be affected by an upgrade because the MEARNG did not propose any discharge to any stream proposed for upgrade as part of the permitted development. Upgrading the tributaries would maintain their quality as well as the quality of Medunkeunk Stream.
St. John River Basin				
A to AA	Southwest Branch St. John River, Confluence with Baker Branch to Confluence with Northwest Branch	T9 R17 WELS, T10 R16 WELS, Big Ten TWP	The Nature Conservancy	The entire St. John River system from the Upper First St. John Pond to near the Allagash village area has always been intended as Class AA. The waters between Upper First St. John Pond and the Northwest Branch of the St. John River, where the St. John River mainstem begins, are called Baker Stream and Baker Branch of the St. John River and Southwest Branch St. John River. Due to historic uncertainties in labeling the segment of the Southwest Branch between its confluence with the Baker Branch and its confluence with the Northwest Branch, Maine

Class Change	Waterbody	Town(s)	Proposed by	Basis for Proposal
				statute inadvertently designated that segment as Class A. This segment falls 100% within TNC's ownership and conservation management along the St. John River and is thus fully protected. This proposal clarifies that the Southwest Branch is Class AA from a point located 5 miles downstream of the international boundary to its confluence with the Northwest Branch.
Minor Drainages - Cumberland County				
C to B	Long Creek	Westbrook	U.S. Environmental Protection Agency	In 2009, Maine changed the classification of the 0.3 mile segment of Long Creek in Westbrook from Class B to Class C, making it the same as the remainder of Long Creek in Portland and South Portland. The change was made to correct a legislative bill drafting error made in 1990. In 2015, EPA disapproved the 2009 reclassification because Maine had not performed a Use Attainability Analysis (UAA) as required under the Clean Water Act for classification downgrades. EPA recommended that Maine either revise the classification back to Class B or perform a UAA. DEP proposes to revise state regulations to clarify that Long Creek is Class B.
Minor Drainages - Hancock County				
B to A	Tributaries to Donnell Pond	T9 SD BPP, T10 SD BPP, Franklin, Sullivan	The Nature Conservancy	Donnell Pond is a water of high ecological and recreational value largely surrounded by the State's Donnell Pond Public Reserved Land, an important conservation area in eastern Maine. Tributary waters draining to Donnell Pond, the majority of which are within the public lands, were inadvertently left in Class B when waters in the eastern side of the Reserved Land draining to Tunk Lake and Tunk Stream were upgraded to Class A in 2019. We recommend that waters within the Reserved Land be consistently managed as Class A to protect their natural qualities and the quality of Donnell Pond. This proposal would make management of all waters within the Donnell Pond Public Reserved Land consistent and recognize their high values.

Proposals not recommended for upgrade at this time

Class Change	Waterbody	Towns	Proposed by	Justification
Androscoggin River Basin				
C to B	Androscoggin River, Gulf Island Pond Dam to Worumbo Dam (Lisbon Falls)	Lewiston, Auburn Lisbon, Durham	Friends of Merrymeeting Bay, Grow L/A	Department and external data document that Class B criteria for dissolved oxygen (DO) and bacteria are largely, but not always, attained in the segment in question. A number of sources of pollution and stressors exist both within and upstream of the segment: in the 100-mile, entirely Class C segment between the confluence with the Ellis River (in Rumford) and Merrymeeting Bay (Bath), there are 14 dams with impoundments, multiple discharges, urban centers and extensive 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 question during critical conditions, which the Department considers when reissuing waste discharge licenses. See pages 80-81. Finally, the Gulf Island Pond (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. For more detailed information on this proposal and the Department's recommendation please see pages 79-82, below. In light of the available information, the current upgrade proposal has not been supported by the Department staff. On December 16, 2021, however, the Board voted to upgrade from Class C to Class B a more limited portion of the originally proposed segment from Worumbo Dam to Merrymeeting Bay while leaving this remaining portion of the original segment as Class C. Note: a legislative proposal (LD 676, An Act to Reclassify Part of the Androscoggin River to Class B) identical to the original upgrade proposal for the entire segment was submitted to the 130th Maine Legislature. The Environment and Natural Resources Committee voted to carry LD 676vover to the next legislative session. The Department testified in opposition to LD 676 on 5/3/2021.

Class Change	Waterbody	Towns	Proposed by	Justification
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	Continuous dissolved oxygen (DO) data collected by Department staff in the summer of 2021 showed some non-attainment of Class B DO criteria. Data were collected under conditions that were much more favorable than the critical conditions[3] the Department must consider when reissuing waste discharge licenses. These DO excursions under non-critical conditions indicate that the lower Presumpscot River is currently not a good candidate for an upgrade. For more details on this proposal and the Department's recommendation please see pages 83-85, below.

BACKGROUND TO EPA-REQUESTED CHANGES

In 2015, the U.S. Environmental Protection Agency (EPA) 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 (WQS) that the Department had previously submitted for review and approval as required under the federal Clean Water Act (CWA). 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 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 Triennial Review process.

PROPOSALS TO UPDATE WATER QUALITY STANDARDS

38 M.R.S. SECTION 363-D

Waiver or Modification of Protection and Improvement Laws

Update Statute to Exclude Applicability to Water Quality Standards.
Change requested by: U.S. Environmental Protection Agency (EPA).

Basis for change: This statute allows the Department to waive any provisions of Chapter 3, Protection and Improvement of Waters, which includes water quality standards (WQS) to assist in oil spill response activities. By letter dated June 5, 2015, EPA disapproved this statute for waters throughout Maine because waivers or modifications of WQS require certain procedures under the Clean Water Act. Such procedures are not part of this statute, which is therefore not consistent with minimum federal requirements. In its water quality standards promulgation for Maine in December 2016, EPA promulgated a federal regulation to indicate that the provisions in Title 38 M.R.S. Section 363-D do not apply to state or federal water quality standards applicable to waters in Maine, including designated uses, criteria to protect existing and designated uses, and antidegradation policies.

Issues to be considered for this change: None.

Recommend revising Section 363-D as follows:

363-D. Waiver or modification of protection and improvement laws

The commissioner or the commissioner's designee may waive or modify any of the provisions of this chapter if that waiver or modification promotes or assists any oil spill response activity conducted in accordance with the national contingency plan, a federal contingency plan, the state marine oil spill contingency plan, or as otherwise directed by the federal on-scene coordinator, the commissioner or commissioner's designee. A waiver issued by the commissioner under this section must be in writing. This section does not apply to state or federal Water Quality Standards (WQS) applicable to waters in Maine, including designated uses, criteria to protect existing and designated uses, and antidegradation policies.

38 M.R.S. SECTION 464

Update the Criteria for pH of Freshwaters due to Discharge of Pollutants

Propose to Increase the Lower Limit of Freshwater pH from 6.0 to 6.5.
Change requested by: U.S. Environmental Protection Agency (EPA).

Basis for change: EPA recommends 6.5 as the lower end of the pH range that is protective of freshwater aquatic life. By letter dated June 5, 2015, EPA disapproved Maine's lower-end value of 6.0 for waters in Indian lands as not being adequately protective of sensitive aquatic life such as developing Atlantic salmon eggs. In 2016, EPA promulgated a federal regulation that includes a value of 6.5 for Maine waters in Indian lands.

Issues affected by this change: Increasing the pH criterion from 6.0 to 6.5 will prevent any permitted discharges from lowering the receiving waters below 6.5. Current licensed Maine wastewater discharge pH limits are 6.0 to 9.0. However, because discharged effluent is diluted upon mixing with the receiving water, the Department deems it unlikely that a discharge would reduce the pH in the receiving water below a value of 6.5, and thus no impacts on licensees are expected.

Recommend revising Section 464.4.A.5. as follows:

4. General provisions. The classification system for surface waters established by this article shall be subject to the following provisions.

A. Notwithstanding section 414-A, the department may not issue a water discharge license for any of the following discharges:

(5) Discharge of pollutants to any water of the State that violates sections 465, 465-A and 465-B, except as provided in section 451; causes the "pH" of fresh waters to fall outside of the ~~6.0~~ 6.5 to 8.5 range; or causes the "pH" of estuarine and marine waters to fall outside of the 7.0 to 8.5 range;

Note: Also see DEP's related proposal (next item) regarding increasing the upper limit of the existing freshwater pH criteria from 8.5 to 9.0.

Propose to Increase the Upper Limit of Freshwater pH from 8.5 to 9.0.
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: EPA recommends an upper pH limit of 9.0 as protective of freshwater aquatic life. Several studies starting in 2016 and continuing through 2019 have characterized the natural geological influence on pH and determined that in certain areas in Maine, pH levels naturally rise above 8.5. Supporting the studies are results from continuous monitoring equipment that confirmed a higher pH in numerous water bodies throughout this geology. A significant body of literature supports 9.0 as protective of trout/salmonids.

Issues affected by the proposal as submitted: Increasing the pH criterion from 8.5 to 9.0 will prevent any permitted discharges from raising the receiving waters above pH 9.0. Many current Maine wastewater discharge licenses include an upper pH limit of 9.0, which is considered best practicable treatment, and thus no negative impacts on licensees are anticipated.

Recommend revising Section 464.4.A.5. as follows:

4. General provisions. The classification system for surface waters established by this article shall be subject to the following provisions.

A. Notwithstanding section 414-A, the department may not issue a water discharge license for any of the following discharges:

(5) Discharge of pollutants to any water of the State that violates sections 465, 465-A and 465-B, except as provided in section 451; causes the "pH" of fresh waters to fall outside of the 6.0 to ~~8.5~~ 9.0 range; or causes the "pH" of estuarine and marine waters to fall outside of the 7.0 to 8.5 range;

Note: Also see the related proposal (preceding item) regarding increasing the lower limit of the existing freshwater pH criteria from 6.0 to 6.5 as requested by the EPA.

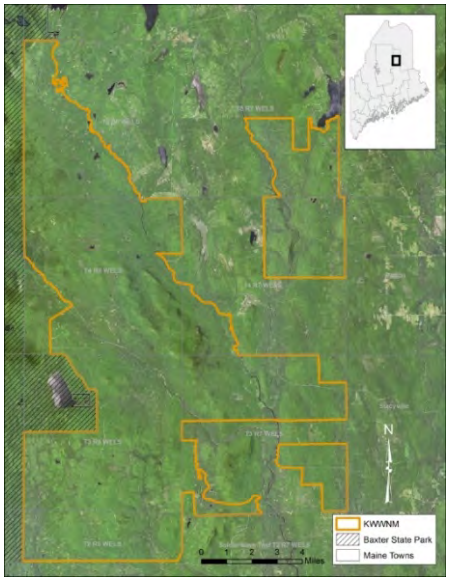
Expand Definition of Outstanding National Resource Waters

Inclusion of National Monument in ONRW Definition.
Proposal submitted by: Maine Department of Environmental Protection.

Basis for proposal: The Clean Water Act incorporates the concept of Outstanding National Resource Waters (ONRWs), which are waters that have unique characteristics to be preserved, for example waters of exceptional recreational, environmental, or ecological significance. Maine statute contains provisions for ONRWs in 38 M.R.S. Section 464.4.F.2. and affords them special protections. Amongst the waters designated as ONRWs are those in national and state parks and other protected areas. Similar to those areas, national monuments are protected to ensure their natural, historical, cultural, or scientific values. With the creation of the Katahdin Woods and Waters National Monument (KWWNM) in 2016, it is desirable to extend ONRW status to that area.

Issues to be considered for this change: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to ONRWs. *It is important to note that the current statutory allowance for stormwater discharges to ONRWs is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in ONRW watersheds.* Hydroelectric power generation is not a designated use in these waters and inclusion of the KWWNM in Maine's definition of ONRWs will thus preclude future construction of water control structures in this area. There are no pollutant discharge licenses to the waters within the KWWNM, and the Department is not aware of any anticipated construction projects for water control structures.

The East Branch Penobscot River within the KWWNM is currently Class AA and thus already qualifies as an ONRW; the same is true for certain tributaries. Other tributaries to the East or West Branches Penobscot River, or the Seboeis River, within the NM are currently Class A. All of these waters are proposed for an upgrade to Class AA during the triennial review, see pages 67-68 of this document.



Recommend revising Section 464.4.F.2 as follows:

4. General provisions. The classification system for surface waters established by this article shall be subject to the following provisions.

F. The antidegradation policy of the State is governed by the following provisions.

(2) Where high quality waters of the State constitute an outstanding national resource, that water quality must be maintained and protected. For purposes of this paragraph, the following waters are considered outstanding national resources: those water bodies in national and state parks and wildlife refuges, and in Katahdin Woods and Waters National Monument; public reserved lands; and those water bodies classified as Class AA and SA waters pursuant to section 465, subsection 1; section 465-B, subsection 1; and listed under sections 467, 468 and 469.

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: U.S. Environmental Protection Agency (EPA)

Basis for change: Maine statute (38 M.R.S. Section 420.2.A) includes a provision that excludes naturally occurring toxic substances from regulation. Under a complementary statute (38 M.R.S. Section 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 dated June 5, 2015, EPA disapproved the natural conditions clause for toxic substances and bacteria for waters in Indian 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 Indian 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 Indian 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. 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 proposal: The natural conditions provisions in 38 M.R.S. Sections 420.2.A and 464.4.C were previously approved by EPA for all applicable waters without qualification, including in letters dated 7/16/1986 and 12/20/1990. 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 Indian lands where they would affect water quality criteria 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, DEP proposes to retain the existing provisions in their current form for all Maine waters outside of Indian lands. For waters in Indian lands, federal standards (see below) will remain in effect.

Federal water quality standard for Maine per 40 CFR Section 131.43:
(e) Natural conditions provisions for waters in Indian 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. SECTIONS 465, 465-A AND 465-B

Clarification of Narrative Aquatic Life Criteria

Clarification of Narrative Aquatic Life Criteria for Water Quality Classes B, C, GPA, SB and SC.
Proposal submitted by: Maine Department of Environmental Protection.

Basis for proposal: For water quality Classes B, C, SB and SC, Maine statutes currently include language providing for the protection of aquatic life in relation to discharge provisions[4]. For 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 all Classes, including Classes B, C, SB and SC. The addition of the proposed language to the criteria sections of these water quality classes would thus 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.

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.

Recommend revising Section 465 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. 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. Between April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU per 100 milliliters over a 90-day interval or 236 CFU 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. *(No other changes to this section are proposed.)* In order to provide additional protection for the growth of indigenous fish, the following standards apply. (…)

[4] In 38 M.R.S. Sections 465.3.C, 465.4.C, 465-B.2.C and 465-B.3.C. Definitions of terms used in these sections are provided in 38 M.R.S. Section 466, Maine Rule Ch. 579 and Technical Bulletin 208, Biological Water Quality Standards to Achieve Biological Condition Goals in Maine Rivers and Streams: Science and Policy.

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 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. The aquatic life of Class GPA waters must be as naturally occurs.

Recommend revising Section 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. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 8 CFU per 100 milliliters in any 90-day interval or 54 CFU 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.

3. Class SC waters.

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. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 14 CFU per 100 milliliters in any 90-day interval or 94 CFU 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.

38 M.R.S. SECTIONS 361-A, 465, 465-A, 465-B

Expand Bacteria Units in Water Quality Standards

Add Reportable Bacteria Unit 'MPN'.
Proposal submitted by: IDEXX Laboratories, Inc., Westbrook, ME.

Basis for proposal: Depending on the approved test method a laboratory uses for bacterial detection, the test result would be assigned either as the Most Probable Number (MPN) per 100 mL or Colony Forming Units (CFU) per 100 mL. The EPA has approved both methods, and thus both units, for bacterial analysis. By including only CFU in Maine's WQS, a laboratory obtaining results in MPN would have to report data with an incorrect unit.

Issues to be considered for this change: None.

Recommend revising Section 361-A. as follows:
361-A. Definitions

1-M. MPN. "MPN" means most probable number.

Recommend revising Section 465 as follows:
465. Standards for classification of fresh surface waters

1. Class AA waters.

B. The aquatic life, dissolved oxygen and bacteria content 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 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.

3. Class B waters.

B. 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. 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. (…) 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 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 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.

Recommend revising Section 465-B. as follows:

465-B. Standards for classification of estuarine and marine waters.

1. Class SA waters[5].

B. The estuarine and marine life, dissolved oxygen and bacteria content of Class SA waters must be as naturally occurs, except that 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.

2. Class SB waters.

B. The dissolved oxygen content of Class SB waters may not be less than 85% of saturation. 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.

3. Class SC waters.

B. The dissolved oxygen content of Class SC waters may not be less than 70% of saturation. 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

[5] See also the related proposal that expands Class SA criteria to include criteria recommended under the National Shellfish Sanitation Program on page 35, below.

may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration.

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: U.S. Environmental Protection Agency (EPA) and Anonymous

Basis for change: By letter dated March 16, 2015, EPA disapproved Maine's recreational bacteria criteria for waters in Indian lands. In December 2016, EPA promulgated a federal regulation that includes recreational bacteria criteria for Maine waters in Indian 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 Indian 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. In August 2020, EPA approved Maine's revised bacteria criteria for each water quality class for waters outside of Indian lands, and for Classes AA, A, GPA and SA for all Maine waters, including those in Indian lands. EPA did not take action on Maine's revised bacteria criteria for Classes B, C, SB and SC for waters in Indian lands. As a consequence, EPA's 2016 criteria stay in effect for those waters.

One anonymous commenter expressed concerns about seasonal applicability of bacteria criteria when partially treated sewage discharges from treatment plants pose risks to people, wildlife and the environment. The commenter also noted increased year-round recreation in and on the water and people getting sick due to exposure to bacteria and viruses. The commenter expressed the hope that Maine's water quality criteria may aid in promoting infrastructure updates and ultimately protecting recreational uses year-round.

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 permits/licenses ('permits'). The Department issues permits 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. Section 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 recent approval of Maine's recreational bacteria criteria with seasonal applicability for Class B, C, SB and SC waters outside of Indian 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 Indian 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, to comply with chlorination and de-chlorination requirements. Upgrades may include new heated buildings or other structures to allow for chlorination and de-chlorination 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.

DEP proposal: After due consideration of all factors, the Department proposes to retain Maine's EPA-approved criteria with seasonal applicability for Class B, C, SB and SC waters outside of Indian 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 Indian 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 must be noted that Maine permits include standard language that allows the Department to require bacteria limits to be in effect year-round 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. This provision allows the Department to address the concerns voiced by the anonymous commenter.
3) For Class B, C, SB and SC waters in Indian lands, the Department will use the federal criteria promulgated in December 2016 (see below) for permit renewals or new 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.
   EPA has identified 14 POTWs that, according to EPA, discharge to or upstream of waters that are subject to the year-round bacteria criteria EPA promulgated via rulemaking effective 1/18/17. The list of these 14 POTWs, along with other point source dischargers to waters in Indian lands or their tributaries in Maine, can be found in Exhibit 4-1 of EPA's *Economic Analysis for Promulgation of Certain Federal Water Quality Standards Applicable to Maine (August 26, 2016)*: This document may be found here: https://www.regulations.gov/document?D=EPA-HQ-OW-2015-0804-0419.

Federal water quality standard for Maine per 40 CFR Section 131.43:
(a) Bacteria criteria for waters in Indian 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/GuidanceRegulation/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

Shellfish Criteria in Class SA

Add Numeric Criteria by Reference.
Change requested by: U.S. Environmental Protection Agency (EPA).

Basis for change: By letter dated June 5, 2015, EPA disapproved Maine's narrative criterion "as naturally occurs" for bacteria in Class SA waters in Indian Lands because it does not adequately protect propagation and harvesting of shellfish in Class SA waters. In December 2016, EPA promulgated a federal regulation for Maine waters in Indian lands that expands Maine's existing narrative criterion by adding a reference to numeric criteria from the National Shellfish Sanitation Program (NSSP); this reference was already included in Maine's criteria for Class SB and SC waters. EPA's regulation also includes the applicable version of the NSSP criteria because of legal constraints on incorporating recommendations using a general reference.

Issues to be considered for this change: No issues related to discharges. There are no direct discharges of effluent containing bacteria to Class SA waters. There are three active overboard discharges to such waters but they are exempt from discharge restrictions per 38 M.R.S. Section 465-B.1.C.3. Inclusion of the applicable version of the NSSP criteria in statute will require the Department to update the statute whenever a new version of the criteria is released. Historically that has occurred at 2-year intervals. The Department expects that such updates can be made via an omnibus bill whenever required. If a new version of the NSSP criteria is released during the Triennial Review process, the statutory language below will be updated accordingly.

Recommend revising Section 465-B as follows[6]:
465-B. Standards for classification of estuarine and marine waters.

1. Class SA waters.

   B. The estuarine and marine life, dissolved oxygen and bacteria content of Class SA waters must be as naturally occurs, except that the number of enterococcus bacteria in these waters may not exceed a geometric mean of 8 CFU per 100 milliliters in any 90-day interval or 54 CFU 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 the Guide for the Control of Molluscan Shellfish, 2019 Revision.

Classes SB and SC already include a reference to numeric criteria from the NSSP but without a specific reference to the applicable NSSP version. To create consistency across all classes, DEP recommends adding the version to Classes SB and SC as follows:

2. Class SB waters.

   B. The dissolved oxygen content of Class SB waters may not be less than 85% of saturation. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 8 CFU per 100 milliliters in any 90-day interval or 54 CFU 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

[6] See also the related proposal that expands reportable bacteria units to include 'MPN' on pages 29-31, above.

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, 2019 Revision.

3. Class SC waters.

B. The dissolved oxygen content of Class SC waters may not be less than 70% of saturation. Between April 15th and October 31st, the number of enterococcus bacteria in these waters may not exceed a geometric mean of 14 CFU per 100 milliliters in any 90-day interval or 94 CFU 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 the Guide for the Control of Molluscan Shellfish, 2019 Revision.

PROPOSALS FOR DEFERRED RULEMAKING

Deferred Rulemaking Note
06-096 Code of Maine Rules

In its 2015 disapproval of certain Maine water quality standards (WQS) and December 2016 promulgation of WQS for Maine, and its 2020 Triennial Review letter, the U.S. Environmental Protection Agency (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 highly structured process that typically takes a significant amount of time. In the interest of not holding up the Triennial Review (TR) process with rulemaking efforts, 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. *Please note that the Department also proposes to address the EPA-requested update to Maine's mixing zone law in 38 M.R.S. Section 451 via deferred rulemaking for a new rule, see pages 41-42 of this document.*

06-096 Code of Maine Rules, Chapter 582

Regulations Relating to Temperature

Amend Regulations Relating to Tidal Temperature.
Change requested by: U.S. Environmental Protection Agency (EPA)

Basis for change: This rule provides safeguards for fresh and salt water 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 Indian 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 Indian lands.

Issues to be considered for this change: The criteria promulgated by EPA differed from those in Ch. 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 Indian lands only or statewide, will potentially impact discharge license holders whose effluent may alter the temperature of the receiving water.

DEP proposal: 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 Indian 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 investigations are required. Because of these unresolved issues, the Department is currently unable to predict how the existing rule will be revised.

The Department commits to investigating how to reconcile Ch. 582, section 5 with EPA's promulgated criteria to inform rulemaking tentatively scheduled for 2023. This timeline will allow Department staff to conduct the necessary research indicated under 'Issues be considered for this change', above and others 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 Indian lands.

December 2, 2021 update: This rulemaking is tentatively scheduled to begin in the fall of 2022.

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: U.S. Environmental Protection Agency (EPA)

Basis for change: Over the past several years, EPA has updated aquatic life criteria for the pollutants aluminum, ammonia, copper and selenium to reflect the latest science. In its water quality standards (WQS) promulgation for Maine in December 2016, EPA included ammonia criteria for fresh waters in Indian lands. In early 2020, Maine updated its ammonia criteria in Rule *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 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 methodology for criteria calculation for copper relies on the use of 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 copper criteria and clarify in Chapter 584 that Water Effects Ratios (WERs) do not apply to BLM 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.

Issues to be considered for this change: Toxics criteria in rule Chapter 584 are used to set waste discharge permit limits. Therefore any changes to this rule will likely also involve evaluation of 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 written 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 collect ambient water quality data for these parameters to determine the appropriate ranges for Maine waters so 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 obtained. These data collection efforts will inform consideration of the potential deletion of Section 5.B. in Chapter 584. Data collection activities are resource intensive and need to extend over a

full year to capture the entire range of conditions. Collection of this data is underway and is expected to be completed by November 2021.

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 proposal: The Department commits to take the following steps. Once data collection activities for all required parameters, which began in October 2020 and are expected to continue through November 2021, are concluded and the data is available, Department staff will analyze it and 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, which is tentatively scheduled to begin in 2022. During that 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.

December 16, 2021 update: Data collection activities concluded in November 2021 but laboratory results are outstanding. Rulemaking is tentatively scheduled to begin in the fall of 2022.

PROPOSAL FOR DEVELOPMENT OF A NEW RULE

Mixing Zones

Update Mixing Zone Law.
Change requested by: U.S. Environmental Protection Agency (EPA).

Basis for change: 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. EPA guidance on mixing zones includes specific recommendations that a mixing zone policy should include to ensure the protection of designated uses. By letter dated June 5, 2015, EPA observed that Maine's mixing zone law (38 M.R.S. Section 451) did not contain such safeguards, and EPA disapproved Maine's law for waters in Indian lands. EPA recommended that Maine revise its statute or promulgate a regulation which 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 Indian 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 Indian 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 four 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[7] 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 Indian lands, and how to best reconcile the two requirements either for waters in Indian lands or statewide. After due consideration, the Department decided against revising Maine's existing mixing zone law consistent with the federal mixing zone rule promulgated by EPA for Maine waters in Indian 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 Department commits to developing a new mixing zone rule that contains explicit conditions on the scope and extent of mixing zones adequate to protect designated uses. Rulemaking is tentatively scheduled for 2023. This timeline will allow Department staff to fully review EPA's rule and consider how to most appropriately implement it for Maine, either for waters in Indian 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 which if any updates to 38 M.R.S. Section 451 may be necessary. EPA comments that, until the existing

[7] Unless permitted via a grandfathering clause.

law is revised or a new rule is adopted, EPA's promulgated mixing zone regulation will remain in effect for Maine waters in Indian lands.

December 2, 2021 update: this rulemaking is tentatively scheduled to begin in the fall of 2022.

PROPOSALS REQUIRING FURTHER INVESTIGATION

Development of New Water Quality Standards

Development or Adoption of Harmful Algal Bloom Criteria.
Proposal submitted by: U.S. Environmental Protection Agency (EPA).

Basis for proposal: In May of 2019, EPA released nationally recommended recreational criteria for the freshwater cyanotoxins microcystin and cylindrospermopsin to identify water quality impairments related to harmful algal blooms (HABs). HABs occur when toxic algae, such as cyanobacteria, occur in excessive concentrations that can have 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: A significant issue the Department anticipates lies in the actual development of HAB criteria, including the amount of time the evaluation and subsequent adoption of the federal criteria (if deemed appropriate) or the development of alternative criteria (if deemed necessary) may require, and the current availability of Department and other agency resources to accomplish these tasks. Collaboration with the Maine Center for Disease Control and Prevention (MECDC) will be an integral part of criteria adoption. Currently MECDC is fully occupied by demands presented by the Covid-19 pandemic and it is difficult to predict that agency's availability to address this issue. The Covid-19 pandemic has also caused a reduction in available staff in the Department's Lake Assessment Section, which will lead this project on behalf of the Department but currently lacks the resources to undertake criteria development.

No other significant issues are anticipated in terms of Maine adopting the federal criteria. The classification standards for Maine lakes and ponds, Class GPA, already focus on trophic impairments that result in nuisance algal blooms. Microcystin data collected over the past 4 years suggest that even lakes that bloom on an annual basis and are already listed as impaired on Maine's 303(d) list, may not exceed the federal criterion in open water, although scums accumulating along the shoreline may exceed the criterion by several orders of magnitude. Pilot studies conducted 8-10 years ago did not indicate that cylindrospermopsin was produced in measurable concentrations in blooming Maine lakes.

DEP proposal: The Department commits to taking the following steps as resources become available: organize and analyze existing data to establish how much of an issue microcystin production is in Maine lakes; understand current worst-case scenario concentrations and how concentrations change over time; and, in collaboration with the MECDC, draft a proposal to adopt the EPA criteria or stricter criteria if deemed necessary. Consultation with EPA, other agencies and stakeholders will eventually occur as needed prior to criteria adoption, which will follow standard procedures.

Development of Acid Rain-Based Water Quality Standards and Listing of Impaired Waters.

Proposal submitted by: Mark Whiting

Basis for proposal: The proposal cites DEP's 2006 305(b) report, which notes that of the approximately 80% of lakes (by surface area) that have been assessed for acidity, approximately 1% of lakes and 0.08% of the lake surface area are acidic (ANC <0). The proposal also suggests that there is evidence of massive aquatic life and water quality impairment in Downeast Maine waters. However, due to a lack of acid rain assessment methods, the DEP has no way of assessing attainment of applicable water quality standards when the impairment is due to acid rain. The proposal suggests that a wadeable stream Index of Biotic Integrity (IBI) for fish communities and a macroinvertebrate assessment methodology sensitive to acidification variables are critically needed, as well as water quality standards (WQS) for pH[8], calcium, alkalinity and aluminum. The proposal states that when waters are identified as being impacted by acid rain, they must be listed as impaired in DEP's biennial Integrated Water Quality Monitoring and Assessment Report (Integrated Report). The purpose of developing these WQS and then identifying impaired waters is to protect Maine endangered Atlantic salmon and aquatic communities in general, communicate the problem to State and federal agencies, and provide a legal basis for restoration projects.

Issues identified by DEP regarding the proposal as submitted: Developing new WQS for the identified parameters would likely require a significant, multi-year effort on the part of DEP 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. Acid rain 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. Such factors include, for example, natural versus anthropogenically induced levels of acidity; interactions between a number of water quality parameters (including calcium, alkalinity, and aluminum, as well as temperature); magnitude, frequency and duration of change in these parameters; instantaneous versus average concentrations; flow conditions (i.e. baseflow versus stormflow); differences amongst watershed characteristics (i.e., riparian forest composition, bedrock geology); and implementation regulations. The development of numeric acid rain standards will thus require a significant effort that exceeds what could be done during this triennial review (TR) process.

The Department notes that listing of waterbodies may be appropriate with respect to aquatic life criteria based upon consideration of site-specific circumstances on a case-by-case basis. Listing of acid-rain impaired waters under such circumstances may 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: Following discussion within the Department, with external researchers and with WQS staff from other New England states on their approaches to addressing acid rain concerns, 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. The Department commits to study the overall issue and consider the topics identified above, and began this effort in the winter of 2020/2021. The Department expects that field sampling may

[8] Water quality standards for pH changes due to wastewater discharges already exist in Maine statute in 38 M.R.S. Section 464.4.A.5.

also be needed. Progress within the Department regarding advancement of this proposal will depend on the complexities identified and will proceed as limited staff and resources allow. Water quality standards for pH changes due to wastewater discharges already exist in Maine statute in 38 M.R.S. Section 464.4.A.5. EPA recommends a chronic criterion for alkalinity of 20 mg/L except where alkalinity is naturally lower (EPA 1986, 304(a)). DEP has not adopted that criterion.

In addition, DEP's biological monitoring program will continue to develop a bioassessment model for stream fish, an effort that began in 2016. When assessing attainment of narrative biocriteria by algal assemblages, the biomonitoring program currently uses four metrics based on diatom tolerance of pH. These metrics are not indicators for overall pollution and therefore are not included in the current algal bioassessment model[9]. Instead, they are only used as diagnostic metrics to help determine causes of impairment. DEP will consider creating metrics or indices based on species composition of macroinvertebrate assemblages as resources permit. It should be noted that diatoms are probably more sensitive to pH and thus a better indicator of acidity effects than macroinvertebrates, especially when macroinvertebrates are aggregated to the genus level as is done in the current biocriteria model. Finally, DEP is currently developing aluminum criteria for aquatic life using a multiple linear regression (MLR) based on pH, hardness, and dissolved organic carbon.

[9] This model has not yet been incorporated into biocriteria in Maine Rule Chapter 579. Currently, the model is used to inform expert judgment when assessing attainment of narrative aquatic life criteria.

Development of Water Quality Standards to Address Turbidity Problems.
Proposal submitted by: Friends of Graham Lake (FOGL)

Basis for proposal: Maine does not have numerical standards for turbidity and defaults to the narrative standards. According to FOGL, this has the effect of preventing turbidity enforcement and the clean-up of long-term problems, such as those caused by the hydropower operation on Graham Lake in Ellsworth. Maine's highest water quality classifications (Classes AA, A and GPA) should be clean and clear. Class B and C waters may have some seasonal turbidity, and estuaries and coastal waters can be naturally influenced by wave action on extensive mud flats. FOGL asserts that some action threshold is needed so that anthropogenic sedimentation can be controlled. FOGL requests that the Department develop numeric turbidity criteria for all water quality classes, either in statute or rule.

Issues to be considered for this proposal: Developing a new water quality standard (WQS) is typically a significant undertaking. 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. The development of numeric turbidity standards will thus require a significant effort that exceeds what can be done during this triennial review (TR).

Department recommendation: As part of the TR process, Department staff discussed the proposal submitted by FOGL, consulted with WQS staff from other New England states on their approaches to addressing turbidity concerns, 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. The Department commits to study the overall issue and consider the topics identified above. This effort began in the fall of 2020 and will continue as limited staff and resources allow. During the winter of 2020/2021, DEP conducted a literature search and collated nearly 100 articles that review and discuss the nuances of turbidity data collection and use in management and regulation. In addition, the Department has purchased two new Manta sondes with turbidity probes to conduct field sampling. Initial deployment of these sondes will likely be in agricultural stream watersheds. Staff members have contacted the University of Maine and EPA regarding the possibility of collaborating on an aesthetics/recreational use study. The Department will focus on rivers and streams, where some relevant information already exists. Progress within the Department regarding advancement of this proposal will depend on the complexities identified and will proceed as limited staff and resources allow.

PROPOSAL FOR FUTURE CONSIDERATION

Development of a New Water Quality Class.
Proposal submitted by: Fergus Lea, Androscoggin River Watershed Council

Basis for proposal: We would suggest that the entire Class C section of the Androscoggin River be considered for a new standard possibly designated as Bx. We suggest that a standard for dissolved oxygen of between 6.0 and 6.5 mg/L or 70% saturation, whichever is lower, for a monthly average be considered with instantaneous drops to 5.0 mg/L being permitted. This would account for periods of high temperatures, necessary as the climate warms and for any upsets in treatment plant processes which are only natural in biological treatment systems. A review of literature indicates that fish and aquatic life can do quite well above 6.0 mg/L and occasional drops to 5 mg/L do not adversely impact diversity, but, depending on their duration, may impact their thriving.

Issues to be considered for this proposal: Developing a new water quality standard (WQS) is typically a significant undertaking. 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, remediation) and must therefore be developed carefully. At this time, the Department is evaluating several new or modified WQS that were proposed at the start of the Triennial Review process. These proposals create a challenging workload.

Department recommendation: Due to the circumstances explained in the preceding paragraph, any additional modifications to WQS would need to be proposed in a future Triennial Review process or via legislation.

UPGRADES OF CLASSIFICATION

38 M.R.S. SECTIONS 467 and 468

Androscoggin River Basin

Androscoggin River from Worumbo Dam (Lisbon Falls) to the Mouth of the River in Merrymeeting Bay, Lisbon, Durham, Topsham, Brunswick.
Propose Class C to Class B (approx. 14.6 miles).
Proposal submitted by: Proposed by Friends of Merrymeeting Bay (FOMB) and Grow L/A (Lewiston/Auburn).

Update resulting from Board meeting on December 16, 2021: Following additional deliberation on December 16, 2021, the Board voted to accept all of the Department staff's recommendations as presented with one exception: The Board voted to consider an amended proposal to upgrade the lower Androscoggin River, which had not been recommended by Department staff for the reasons outlined in this document, and then voted to approve this alternate amended proposal (an upgrade from Class C to Class B) for a more limited downstream stretch of the lower Androscoggin River – namely from the Worumbo Dam to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction (this item) – while also retaining the Department staff's existing analysis for the benefit of the Legislature as it considers the Board's recommendations. Given the circumstances surrounding the lower Androscoggin upgrade proposals as outlined in the staff's analysis in this document, the Board expressed an interest in having the Legislature consider this more limited upgrade recommendation alongside the Department staff's analysis.

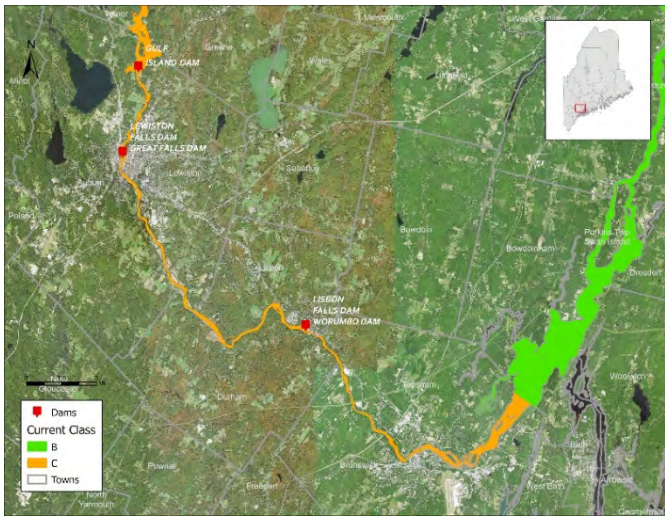
Basis for proposal: According to the data reports submitted with this proposal, water quality on this section of the Androscoggin River meets Class B standards and has largely done so since 2006. The submitters stress the benefits an upgrade would bring to both recreational users of the river and the local economy, as well as wildlife utilizing the river and downstream Merrymeeting Bay. They also note that an upgrade would lock in water quality improvements that have occurred over many years. They maintain that 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.

Note: a legislative proposal (LD 676, An Act to Reclassify Part of the Androscoggin River to Class B) identical to the original upgrade proposal for the entire segment submitted for consideration under the TR was submitted to the 130th Maine Legislature. The Environment and Natural Resources Committee voted to carry LD 676 over to the next legislative session. Relevant materials, including the Department's testimony[10] in opposition to the bill can be found here: http://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280079141.

Issues to be considered for reclassification: The proposal was accompanied by Androscoggin River data reports for 2009-2018. These reports are based on FOMB data and were compiled by DEP'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

[10] Also included as Appendix C in this document.

segment in question; this fact is acknowledged in the upgrade proposal[11]. Other data reports spanning additional years are not informative as data were pooled across sites, thus precluding analysis of water quality standards attainment at each monitoring location.



VRMP reports also document that a number of sources of pollution and stressors exist in the watershed, such as various point-source discharges, non-point source (NPS) pollution, impoundments, and natural wetlands. The watershed also contains densely populated areas. These stressors exist not only within the segment itself but also upstream of the segment. The upgrade proposal acknowledged all of these stressors, and more[12]. Looking at the River more comprehensively, it is entirely Class C from the confluence with the Ellis River (at Rumford Point) to Merrymeeting Bay (at Bath) (~100 miles), has a total of 14 dams, multiple discharges, urban centers (including Lewiston, Auburn, Brunswick and Topsham) and a significant amount of agriculture. The upper section also has an in-river oxygen injection system approximately 2.5 miles above Gulf Island Pond (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 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 mg/L DO at the Gulf Island Dam for the lower section of the river that is proposed for upgrade.

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 mg/L at the upper boundary (i.e. below GIP Dam). In 2018 and 2019, Department staff collected additional data, which met or exceeded Class B criteria, but the 2019 DO data were not collected during critical conditions. While reports submitted by FOMB and FOMB data for the last five years (i.e. 2016-2020; morning samples taken every four weeks, or approximately 3.6% of the days during the sample period) show frequent attainment of Class B DO criteria, the data does not show Class B DO attainment during critical water quality conditions of critical low flows or critical high temperatures or currently licensed loads (with the exception of data for September and October 2020 when river flow dropped below critical flow, but temperature was 22^0C, well below critical levels). In addition, included in the data set is data that show Class B non-attainment at water

[11] Item 5. states, "Many years of monitoring data for DO and E. coli show a steady overall compliance with Class B standards…"
[12] In item 6.

quality conditions that are not critical low flows or critical high temperatures and that are not at currently licensed loads. This data, in combination with prior Department modeling and the Department's understanding of the extremely limited assimilative capacity beyond 7.0 mg/L DO at critical temperature, indicates that this particular waterbody is not a good candidate for reclassification to Class B.

Maine's antidegradation policy (38 M.R.S. Section 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 long-standing interpretation of this statute is that it 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 DEP's Antidegradation Program Guidance (Appendix B), attainment or exceedance of a water quality criterion, such as for DO, must occur under critical water quality conditions to trigger the reclassification requirement pursuant to 38 M.R.S. Section 464.4.F.4. (And, as explained in the preceding paragraph, modeling indicates that Class B DO criteria would not be attained in much of the segment in question during critical water quality conditions; FOMB in-stream data confirm a certain degree of Class B non-attainment.) 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 another statutory provision (38 M.R.S. Section 464.4.D) that specifies critical flow conditions. Therefore, the Department's position is that monitoring data showing that Class B criteria are largely (but not always, see preceding paragraph) attained in the lower Androscoggin River during non-critical flow conditions does not trigger the requirements of 38 M.R.S. Section 464.4.F.4. The Department's position regarding the issuance of waste discharge licenses was confirmed in consultation with EPA in June 2021, where EPA stated that discharge licenses must be written to ensure that applicable water quality standards are attained 100% of the time during critical conditions.

In taking its position regarding 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. Section 464.4.A.8) stipulates that a license may not be issued if compliance with applicable water quality requirements is not ensured. 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 are currently not met at all times and in all locations of this segment of the river. Because flow from the Gulf Island Pond (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 7 ppm downstream. Studies conducted by the Department in 2005 and 2010 indicated that 13 miles of the Gulf Island Pond (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, potential reductions in

discharge limits for certain entities in the river above Gulf Island Pond 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. However, these potential reductions are very significant and it is unclear that these limit reductions are technologically or financially feasible.

Given statutory requirements and the findings of existing Department studies and models, the Department does not foresee the ability to ensure attainment of Class B standards under critical conditions. The segment of river should therefore not be reclassified pursuant to 38 M.R.S. Section 464.4.F.4.

For more detailed information on the factors presented above, please see a Department letter dated October 25, 2019 to Senators Libby and Claxton as well as Department testimony submitted in opposition to LD 676 on May 3, 2021 (Appendix C). In light of the information presented above, the Department does not support the current upgrade proposal.

In 2021, DEP's biological monitoring program collected macroinvertebrate data at two locations in the segment proposed for upgrade. These data will complement data collected in 2018 at one other location within that segment.

December 16, 2021 updates: Results from the 2021 DEP macroinvertebrate sampling are not yet available.

Update resulting from Board meeting on December 16, 2021: Following additional deliberation on December 16, 2021, the Board voted to accept all of the Department staff's recommendations as presented with one exception: The Board voted to consider an amended proposal to upgrade the lower Androscoggin River, which had not been recommended by Department staff for the reasons outlined in this document, and then voted to approve this alternate amended proposal (an upgrade from Class C to Class B) for a more limited downstream stretch of the lower Androscoggin River – namely from the Worumbo Dam to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction – while also retaining the Department staff's existing analysis for the benefit of the Legislature as it considers the Board's recommendations. Given the circumstances surrounding the lower Androscoggin upgrade proposals as outlined in the staff's analysis in this document, the Board expressed an interest in having the Legislature consider this more limited upgrade recommendation alongside the Department staff's analysis.

Recommend revising Section 467.1.A. as follows:

A. Androscoggin River, main stem, including all impoundments.

(2) From its confluence with the Ellis River to ~~a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction~~ Worumbo Dam (Lisbon Falls) - Class C.

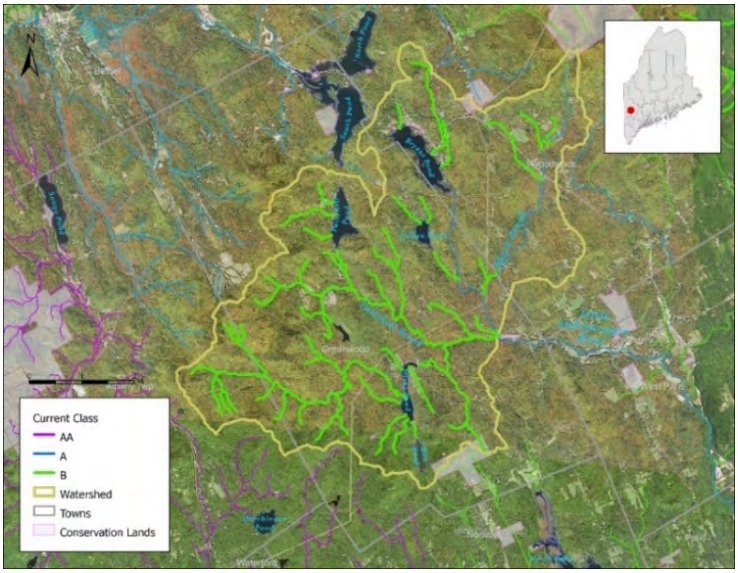
(3) From Worumbo Dam (Lisbon Falls) to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction – Class B.

Tributaries to the Upper Little Androscoggin River, Greenwood, Woodstock and Albany TWP.
Propose Class B to Class A (52 miles approx.).
Proposed by: Department of Environmental Protection.

Basis for proposal: The upper Little Androscoggin River is designated as Class A from the outlet of Bryant Pond to the railroad bridge in South Paris and waterbodies proposed for upgrade are all designated Class B. Black Brook in Woodstock is already Class A and this proposal would make the segment in Greenwood Class A as well. The watershed is primarily forested with little agriculture and few residential areas. DEP biological monitoring samples from Twitchell Brook and the Little Androscoggin River attained Class A aquatic life criteria for macroinvertebrates and algae. It is expected that other waters proposed for upgrade also attain Class A, and an upgrade would maintain their quality as well as the quality of the Little Androscoggin River. Adjacent river basins to the south, west, and north are designated as Class AA and A, so the proposed upgrade fits into the regional approach of managing water quality.

Issues to be considered for this reclassification: None. No discharges exist in the watershed but forestry activities occur. Such 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 Section 467.1.B. as follows:
B. Little Androscoggin River Drainage.
(2) Little Androscoggin River, tributaries - Class B unless otherwise specified.
~~(c) Black Brook in Woodstock - Class A.~~
(g) Twitchell Brook and its tributaries in Greenwood and Albany TWP - Class A.
(h) Tributaries upstream of the confluence with Twitchell Brook in Greenwood – Class A.

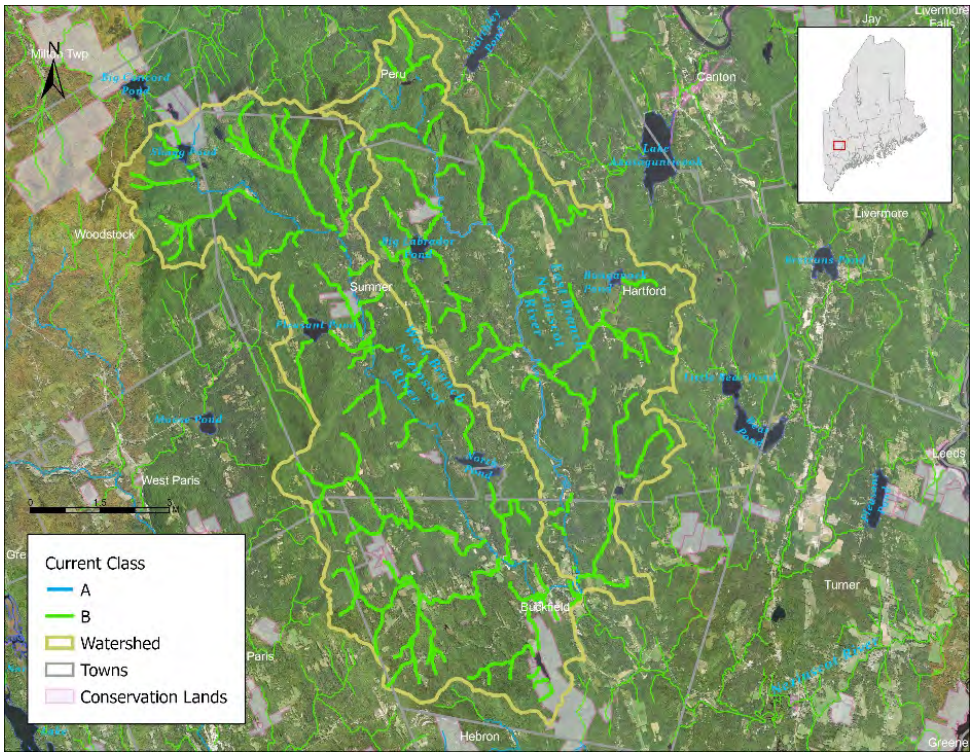


Tributaries to East and West Branches Nezinscot River, Sumner and Other Towns. Propose Class B to Class A (135 miles approx.).
Proposed by: Department of Environmental Protection.

Basis for proposal: The East and West Branches Nezinscot River are designated as Class A and their tributaries are all designated Class B. The watershed is primarily forested with little development. DEP collected biological monitoring samples from the East and West Branches Nezinscot River and Bunganock Stream and all samples attained Class A aquatic life criteria. It is expected that other tributaries also attain Class A, and upgrading them would maintain their quality and the quality of the East and West Branches.

Issues to be considered for this reclassification: None. No discharges exist in the watersheds but forestry activities occur. Such 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 Section 467.1.D. as follows:
D. Androscoggin River, minor tributaries - Class B unless otherwise specified.
(6) Nezinscot River, east and west branches above their confluence in Buckfield, and their tributaries - Class A.



Kennebec River Basin

South Branch Sandy River and Tributaries, and Cottle Brook and Tributaries, Phillips and TWP 6 North of Weld.
Propose Class A to Class AA (47 miles approx.).
Proposal: Department of Environmental Protection.

Basis for proposal: The South Branch Sandy River, Cottle Brook and their tributaries are class A waters flowing into Class AA Sandy River. The watersheds contain high-quality habitat for endangered Atlantic salmon and have been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. For the Maine DMR, the South Branch Sandy River is priority number 4 within the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU) and Cottle Brook is priority number 5. Maine DMR has stocked the South Branch Sandy River for the past 10 years, and Cottle Brook 7 times since 2010. DEP data from one site on the South Branch Sandy River in 2002 and 2020 indicate very good water quality and algae and macroinvertebrates attained Class A aquatic life criteria in 2002 and 2020, respectively. Data from a 2012 undergraduate thesis and DMR data showed that Cottle Brook had good water quality and a macroinvertebrate community indicative of excellent water quality. Other streams proposed for upgrade are expected to attain Class AA standards. Both watersheds are primarily forested.

Issues to be considered for reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in these watersheds. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, such activities are generally subject to the same regulatory requirements regardless of water classification.

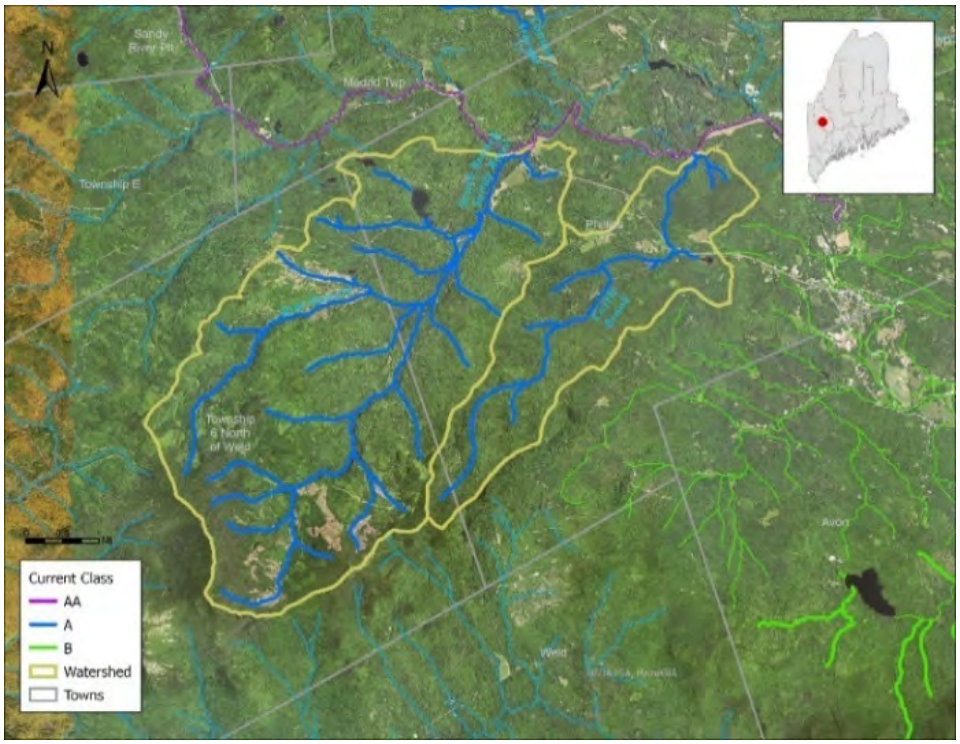
Recommend revising Section 467.4.G.2. as follows:

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

(a) All tributaries entering above the Route 142 bridge in Phillips – Class A unless otherwise specified.

(a-1) South Branch Sandy River and its tributaries – Class AA.

(a-2) Cottle Brook and its tributaries – Class AA.

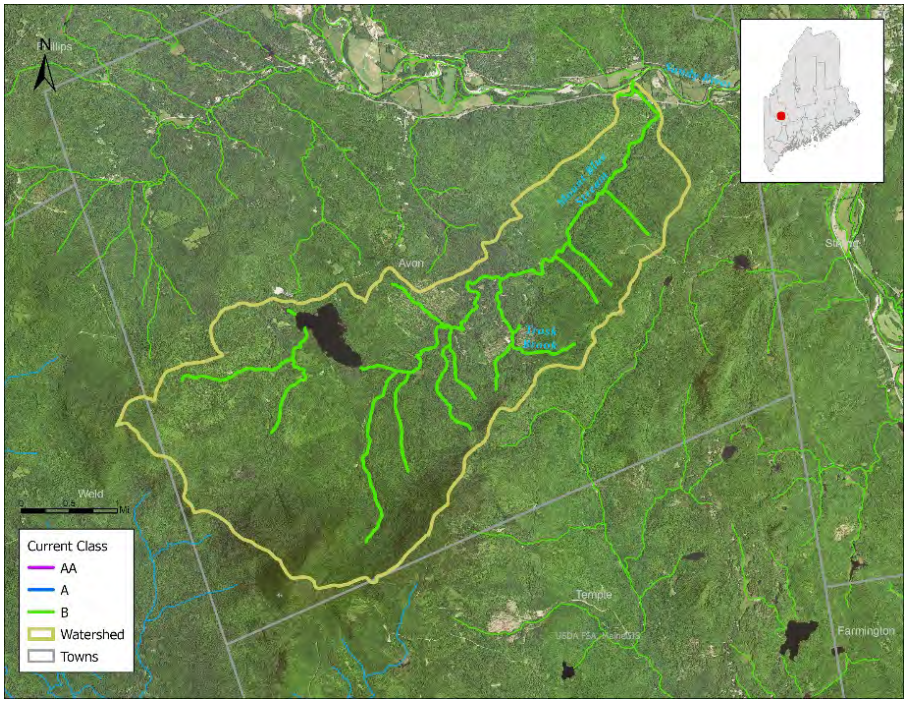


Mount Blue Stream and Tributaries, Avon and Weld.
Propose Class B to Class A (19 miles approx.).
Proposal: Department of Environmental Protection.

Basis for proposal: Mount Blue Stream and tributaries contain high quality habitat for endangered Atlantic salmon and have been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act. Mount Blue Pond supports brook trout and brown trout populations. The watershed is 90% forested. Data from a 2012 undergraduate thesis and DMR data showed that Mt. Blue Stream had good water quality and a macroinvertebrate community indicative of excellent water quality. DEP monitoring data for Mount Blue Stream indicate that Class A aquatic life criteria were attained in 2020, and that the water quality was good for salmonids. It is expected that the other streams proposed for upgrade also attain Class A.

Issues to be considered for reclassification: None. No discharges exist in the watersheds but some forestry activities may be occurring. Such 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 Section 467.4.G.2. as follows:
(2) Sandy River, tributaries - Class B unless otherwise specified.
(c) Mount Blue Stream and its tributaries – Class A.



Orbeton Stream above Toothaker Pond Rd and Tributaries, Phillips, Madrid TWP Redington TWP and Mount Abram TWP.
Propose Class A to Class AA (146 miles approx.).
Proposal: Department of Environmental Protection.

Basis for proposal: Orbeton Stream and its tributaries are class A waters flowing into Class AA Sandy River. The watershed contains high quality habitat for federally endangered Atlantic salmon, and NOAA Fisheries and the US Fish and Wildlife Service have designated the streams critical salmon habitat under the federal Endangered Species Act, lending significant ecological importance to these waters. For the Maine DMR, Orbeton and Perham Streams are priorities number 2 and 3, respectively, within the Merrymeeting Bay Salmon Habitat Recovery Unit (SHRU). Maine DMR has stocked Orbeton and Perham Streams for 9 years and salmon redds[13] are frequently found. DEP monitoring indicates excellent water quality in Orbeton Stream and one tributary, and attainment of Class A aquatic life criteria (which are evaluated jointly with Class AA criteria); all waterbodies are expected to attain Class AA standards. The watershed is primarily forested and 32% of it is protected as conservation land, some of which is held by the National Park Service, lending the waters scenic and recreational importance.

Issues to be considered for reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

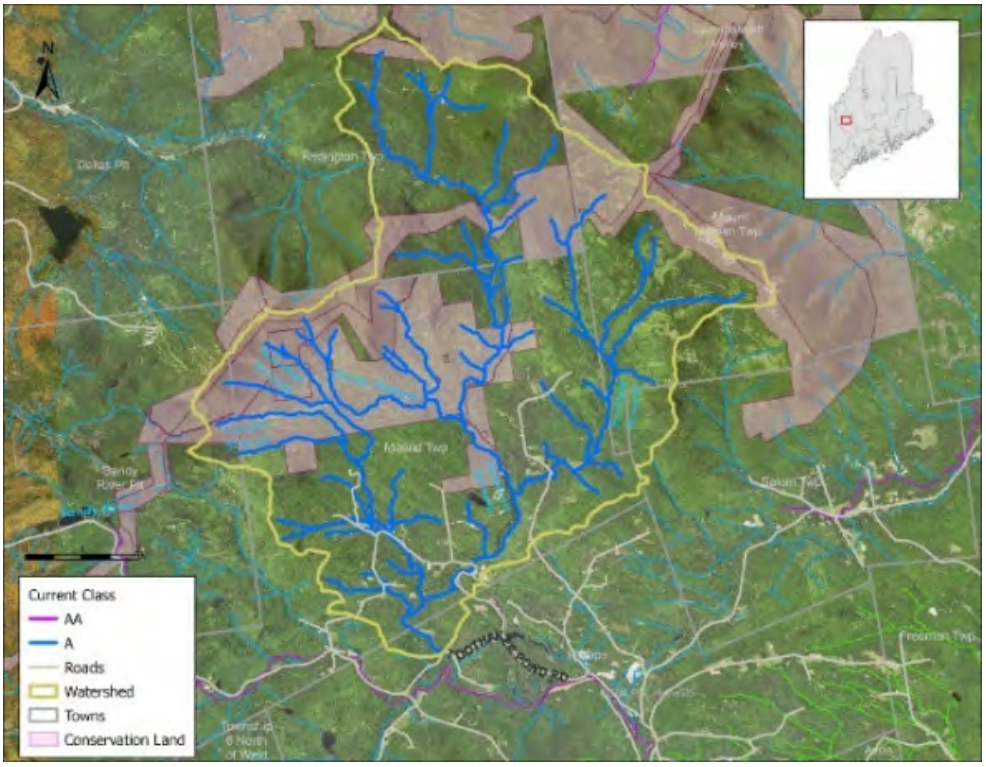
Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed. Forestry activities are not expected to be affected because under Maine's Forest Practices Act, such activities are generally subject to the same regulatory requirements regardless of water classification.

[13] Spawning nests made by a fish, especially a salmon or trout.

Recommend revising Section 467.4.G.2. as follows:

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

(d) Orbeton Stream above Toothaker Pond Road and its tributaries – Class AA.



Machias River Basin

Chain Lakes Stream, Wesley.
Propose Class A to Class AA (1 mile approx.).
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: Chain Lakes Stream is a tributary to Class AA Old Stream. The lower portion in Day Block TWP (0.9 miles) was upgraded to Class AA in 2003 based on a proposal from the local watershed council, Downeast Salmon Federation and Project S.H.A.R.E; the segment in Wesley was inadvertently omitted from the upgrade. The entire stream contains high-quality habitat for endangered Atlantic salmon and has been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to the stream. Much of the immediate and upstream watershed of the Stream is protected, adding scenic and recreational importance to this waterbody. 75% of the watershed is forested. The stream is expected to attain Class AA standards.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

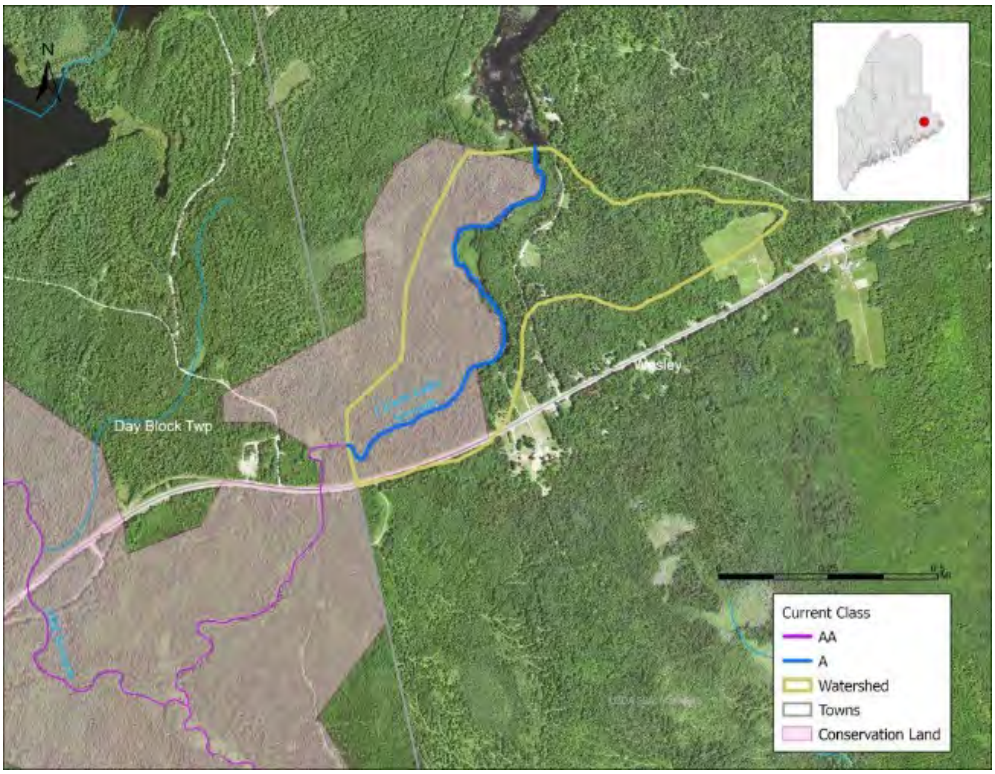
Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed. Forestry activities that may be occurring in the watershed 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 Section 467.5.B. as follows:

B . Machias River, tributaries - Class A unless otherwise specified.

(10) Chain Lakes Stream, also known as Chain Lake Stream ~~in Day Block Township~~ – Class AA.



Fletcher Brook and Tributaries, T36 MD BPP, T37 MD BPP and T42 MD BPP. Propose Class A to Class AA (10 miles approx.).
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: Fletcher Brook is a tributary to Class AA Machias River. The majority of the Brook (in T36 MD BPP) is Class AA, but the upper (T42 MD BPP; 3.1 linear mi.) and lower (T37 MD BPP; 0.3 linear mi.) portions are Class A, even though there are no significant changes in watershed characteristics or water quality between the towns. Both sections and their tributaries (especially Hadley Brook) contain high-quality habitat for endangered Atlantic salmon and have been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to these waters. 80% of the watershed is forested. Available water quality data indicate good conditions.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

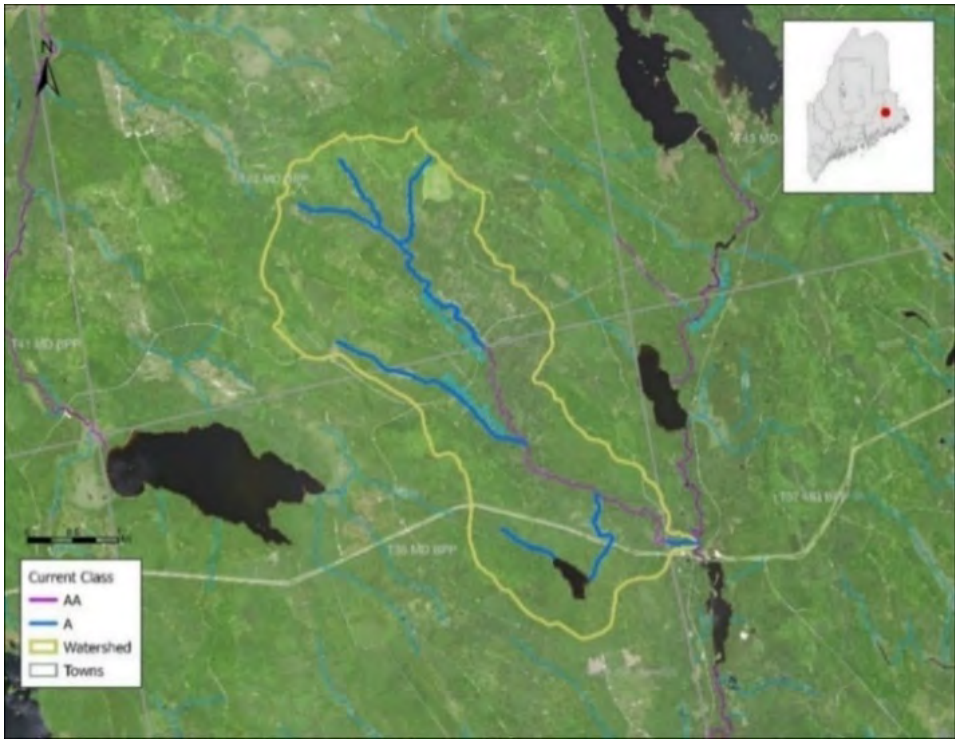
Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this 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.

Recommend revising Section 467.5.B. as follows:

B. Machias River, tributaries - Class A unless otherwise specified.

(7) Fletcher Brook and its tributaries ~~in Township 36 Middle Division~~ – Class AA.



Magazine Brook, T37 MD BPP and T42 MD BPP.
Propose Class A to Class AA (1.5 miles approx.).
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: Magazine Brook is a tributary to Class AA Machias River. The middle section in T43 MD BPP (1.0 miles) was upgraded to Class AA in 2003 based on a proposal from the local watershed council, Downeast Salmon Federation and Project S.H.A.R.E; the upper (1.2 miles) and lower (0.3 miles) segments in T42 MD BPP and T37 MD BPP, respectively, were inadvertently omitted from the upgrade and remained Class A. The entire brook contains high-quality habitat for endangered Atlantic salmon and has been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to this waterbody. The lower section of the brook is in conserved land and almost 70% of the watershed is forested. Magazine Brook is expected to attain Class AA standards.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this 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 has no effect on forestry activities that may be occurring in the watershed.

Recommend revising Section 467.5.B. as follows:

B. Machias River, tributaries - Class A unless otherwise specified.

(8) Magazine Brook ~~in Township 43 Middle Division~~ – Class AA.

Narraguagus River Basin

Little Narraguagus River, T28 MD BPP.
Propose Class A to Class AA (0.4 mile approx.).
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: The Little Narraguagus River is a tributary to Class AA Narraguagus River. The middle segment in T22 MD BPP (2.2 miles) was upgraded to Class AA in 2003 based on a proposal from the local watershed council, Downeast Salmon Federation and Project S.H.A.R.E; the upper and lower segments in T28 MD BPP and Beddington (0.4 and 0.6 miles, respectively) were inadvertently omitted from the upgrade and remained Class A. The entire river, and especially the upper section, contains high-quality habitat for endangered Atlantic salmon and has been designated critical habitat for this species by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, lending significant ecological importance to the river. More than 80% of the watershed is forested. The streams are expected to attain Class AA standards.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

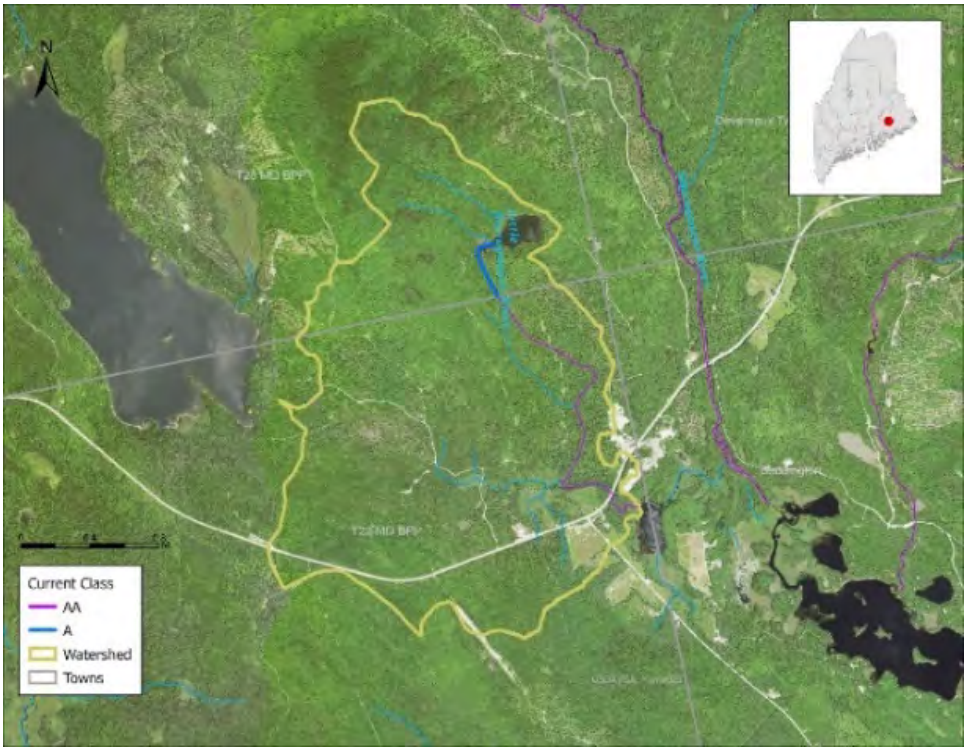
Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses or land-development permits affecting any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed. Forestry activities that may be occurring in the watershed 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. Some resource extraction activities are taking place in Beddington and the 0.6-mile segment of the River in that town (below Chalk Pond) is excluded from this proposal.

Recommend revising Section 467.6-A.B. as follows:

B. Narraguagus River, tributaries - Class A unless otherwise specified.

(12) Little Narraguagus River in Township 22 Middle Division and Township 28 Middle Division – Class AA



Penobscot River Basin

Tributaries to East and West Branches Penobscot River in Katahdin Woods and Waters National Monument, T4 R8 WELS and Other Townships.
Propose Class A to Class AA (142 miles approx.).

Proposed by: The Nature Conservancy (TNC), modified in consultation with the Department of Environmental Protection.

Basis for proposal: Portions of the East Branch Penobscot River and many of its tributaries have already been designated as Class AA due to their high value for endangered Atlantic salmon restoration as well as valued scenic and recreation character. The new Katahdin Woods and Waters National Monument (KWWNM) now encompasses many of these waters. However, many smaller tributaries, which serve as high-quality water sources to the river as well as important habitat for salmon, brook trout and other species, are still Class A. Upgrading these waters to Class AA will protect their water quality and that of the East Branch Penobscot River.

Portions of some tributaries to the West Branch Penobscot River are located in the National Monument. These waters are currently designated as Class A and are also proposed for an upgrade to Class AA. The proposed upgrades would make management of all waters within the National Monument consistent and recognize their high values.

Issues to be considered for this reclassification: The great majority of waters proposed for upgrade (93%) are within the National Monument. Most waters proposed for upgrade outside the Monument (in T3 R7 WELS and Soldiertown TWP T2 R7 WELS) cross through private forest land. Forestry activities that may be occurring in the watershed 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. Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in AA watersheds. Because the great majority of waters proposed for upgrade are within conservation land and the remainder is very unlikely to be considered for development , the stormwater discharge issue is not relevant.

Hydroelectric power generation is not a designated use in these waters and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed.

Both the federal Clean Water Act and Maine statutes incorporate the concept of Outstanding National Resource Waters (ONRWs), which are waters that have unique characteristics to be preserved. As part of the Triennial Review the Department is proposing to expand the definition of ONRWs to include the KWWNM, see page 24, above.

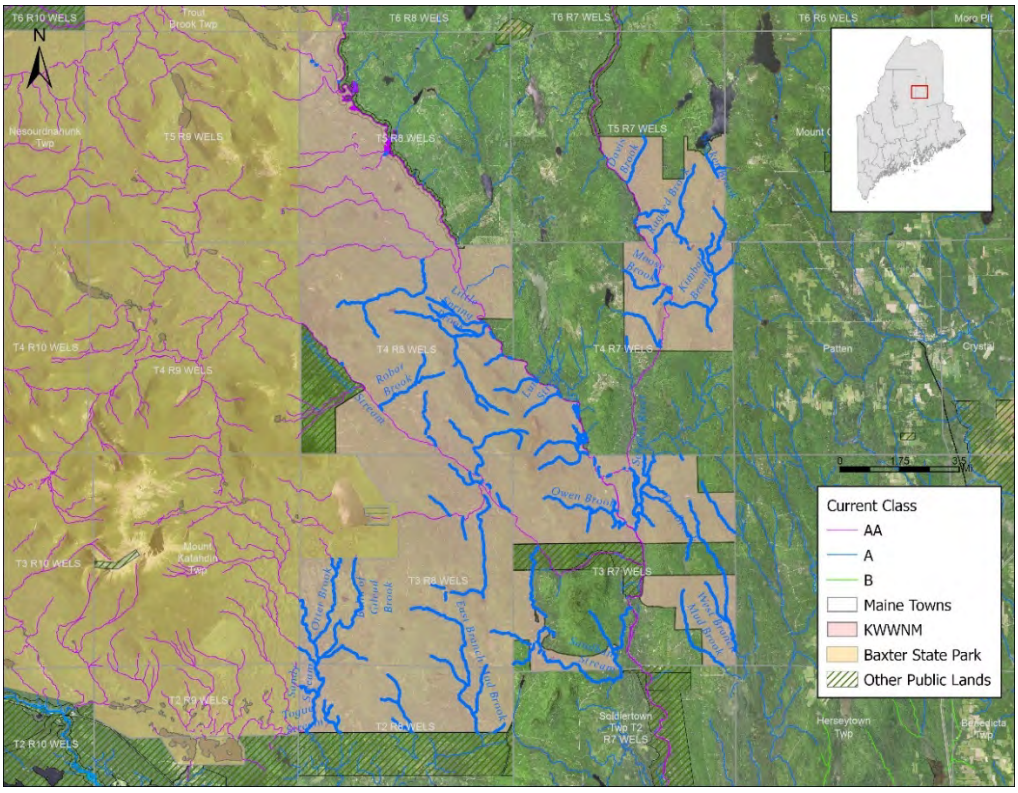
Recommend revising Section 467.7.B and C as follows:

B. Penobscot River, East Branch Drainage.

(2) East Branch of the Penobscot River, tributaries - Class A unless otherwise specified.

(f) All tributaries entering the East Branch Penobscot River from the west, any portion of which is located within the boundaries of the Katahdin Woods and Waters National Monument - Class AA.
(g) Those segments of any tributary to the Seboeis River that are within the boundaries of the Katahdin Woods and Waters National Monument - Class AA.
(h) Dry Brook, East Branch and West Branch Mud Brook and other tributaries located in T3 R7 WELS that enter the East Branch Penobscot River from the east, any portions of which are located within the boundaries of the Katahdin Woods and Waters National Monument - Class AA.

C. Penobscot River, West Branch Drainage[14].
(2) West Branch of the Penobscot River, tributaries - Class A unless otherwise specified.
(a) Those segments of any tributary that are within the boundaries of Baxter State Park or the Katahdin Woods and Waters National Monument - Class AA.

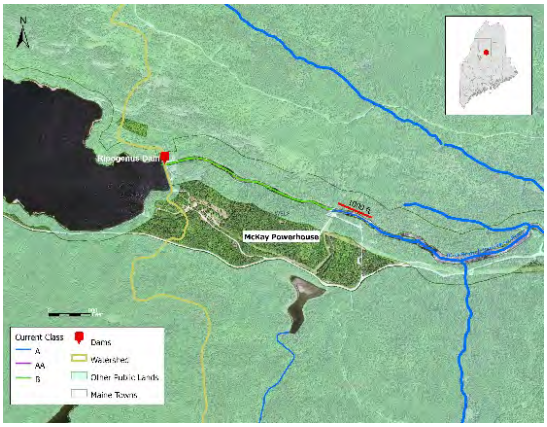


[14] Other waters within the West Branch drainage of the Penobscot River are also proposed for upgrade, see the next item in this document.

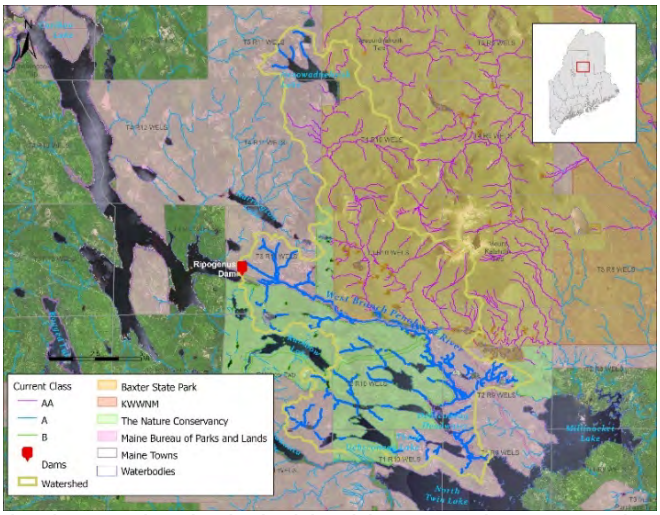
West Branch Penobscot River and Tributaries above Ambajejus Lake, and Nahmakanta Stream and Tributaries, T2 R10 WELS and Other Townships.
Propose Class A to Class AA (98 miles approx.).
Proposed by: The Nature Conservancy (TNC).

Basis for proposal: The West Branch Penobscot River downstream of Chesuncook and Ripogenus Lakes to its confluence with Ambajejus Lake is one of Maine's most iconic stretches of water. It is a world-class landlocked salmon fishery; hosts native brook trout and many other important species; and supports a vibrant recreation industry. Its forested shoreline and backdrop of Mount Katahdin make it arguably the most scenic waterway in the state. For these reasons and more, we believe it meets the threshold of "ecological, social, scenic or recreational importance" required of Class AA waters.

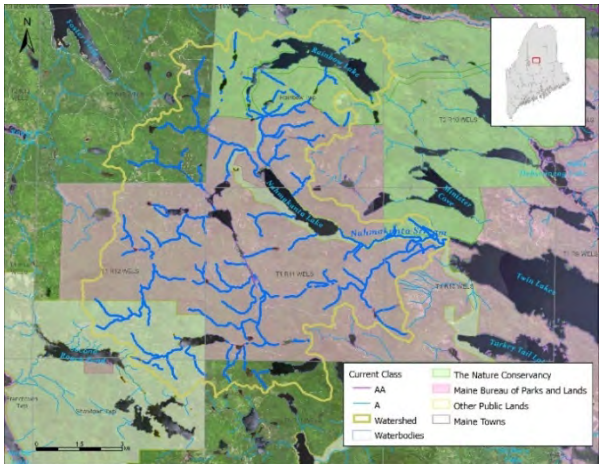
This segment has not previously received the Class AA distinction because it had been proposed as the site of a large hydroelectric facility, "Big A," in the 1980s. However, permit applications for Big A were denied, and no attempts have been made to revive the proposal, leaving the river in its present exceptional and highly valued condition. This proposal leaves a 1,000-foot segment downstream of the McKay powerhouse (red line in map at right) in its present Class A status, consistent with other Class AA waters located downstream of hydropower stations that may cause localized effects due to flow manipulation (e.g. Kennebec, Rapid, Saco, East Branch Penobscot Rivers).



This proposal would also upgrade tributaries to this segment of the West Branch Penobscot River to Class AA. These tributaries are now largely protected within conservation ownership, and upgrading these waters will ensure the continued quality and character of the West Branch. TNC's Debsconeag Lakes Wilderness Area and the State's Nahmakanta Public Reserved Land comprise much of the watershed south of this segment of the West Branch, while Baxter State Park occupies much of the watershed to the north. Each of these lands are valued for their ecological, scenic, and recreational values.



Nahmakanta Stream and its tributaries (map below) are also included in this upgrade proposal since their watershed is also located primarily within the Debsconeag Lakes Wilderness Area and the Nahmakanta Reserve. This watershed is important to the local recreation economy, supporting commercial sporting camps and running alongside and intersecting the Appalachian Trail.



Issues to be considered for this reclassification: 99% of the West Branch Penobscot River watershed is in conservation land, and 87% of the Nahmakanta Stream watershed. Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in AA watersheds. Because 99% of the West Branch Penobscot River watershed is in conservation land and thus precluded from development, the stormwater discharge issue is not relevant. The Nahmakanta Stream watershed is 87% in conservation land and the remaining 13%, which contains small headwater streams, is highly unlikely to see development, or where development may not even be permitted. Thus, again, the stormwater discharge issue is not relevant.

Hydroelectric power generation is not a designated use in these waters and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed. Forestry activities that may be occurring in the watershed 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 Section 467.7.C as follows:

C. Penobscot River, West Branch Drainage[15].

(1) West Branch of the Penobscot River, main stem.

(d) From the McKay powerhouse to a point located 1,000 feet downstream ~~its confluence with Ambajejus Lake~~ - Class A.

(d-1) From a point located 1,000 feet downstream of the McKay powerhouse to its confluence with Ambajejus Lake – Class AA.

(2) West Branch of the Penobscot River, tributaries - Class A unless otherwise specified.

(b) Those tributaries entering between Ripogenus Dam and ~~above~~ the confluence with Ambajejus Lake ~~the Debsconeag Deadwater, any portion of which is located within the boundaries of Baxter State Park~~ - Class AA.

(e) Nahmakanta Stream and its tributaries, including tributaries to Nahmakanta Lake and upstream lakes – Class AA.

[15] Other waters within the West Branch drainage of the Penobscot River are also proposed for upgrade, see the preceding item in this document.

Houston Brook and Tributaries, Katahdin Iron Works TWP, T7 R9 NWP and Elliotsville TWP.
Propose Class A to Class AA (25 miles approx.).
Proposal submitted by: Department of Environmental Protection.

Basis for proposal: Houston Brook and its tributaries, including Indian Stream, are class A tributaries to Class AA West Branch Pleasant River. The streams contain high-quality habitat for endangered Atlantic salmon according to the Maine Department of Marine Resources, with evidence of spawning documented in 2019. The streams have been designated critical habitat for Atlantic salmon by NOAA Fisheries and the US Fish and Wildlife Service under the federal Endangered Species Act, and therefore have significant ecological importance. Big and Little Houston Ponds support brook trout populations. Almost 80% of the watershed is forested and 60% is protected as conservation land, lending scenic and recreational importance to these waters. The streams are expected to attain Class AA standards.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in Class AA watersheds. This situation creates regulatory uncertainty for future stormwater permitting actions.

Over the past several months, the Department and EPA have crafted proposed stormwater legislation to resolve this issue. If approved, the legislation will narrow the existing stormwater exemption, and resolve any regulatory uncertainty. This upgrade proposal is being recommended to the legislature with the caveat that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on this upgrade proposal as part of the Triennial Review bill. If done in this order, the Committee will have an understanding of how existing, and potentially future, stormwater discharges to Class AA (and SA) waters will be regulated. Although the issue would not be fully resolved until the full legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, if the ENR committee votes 'ought to pass' on the stormwater bill that would be sufficient for this upgrade to go forward.

Hydroelectric power generation is not a designated use in Class AA and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed. Forestry activities that may be occurring in the watershed are not expected to be affected because under Maine's Forest Practices Act, such activities are generally subject to the same regulatory requirements regardless of water classification.

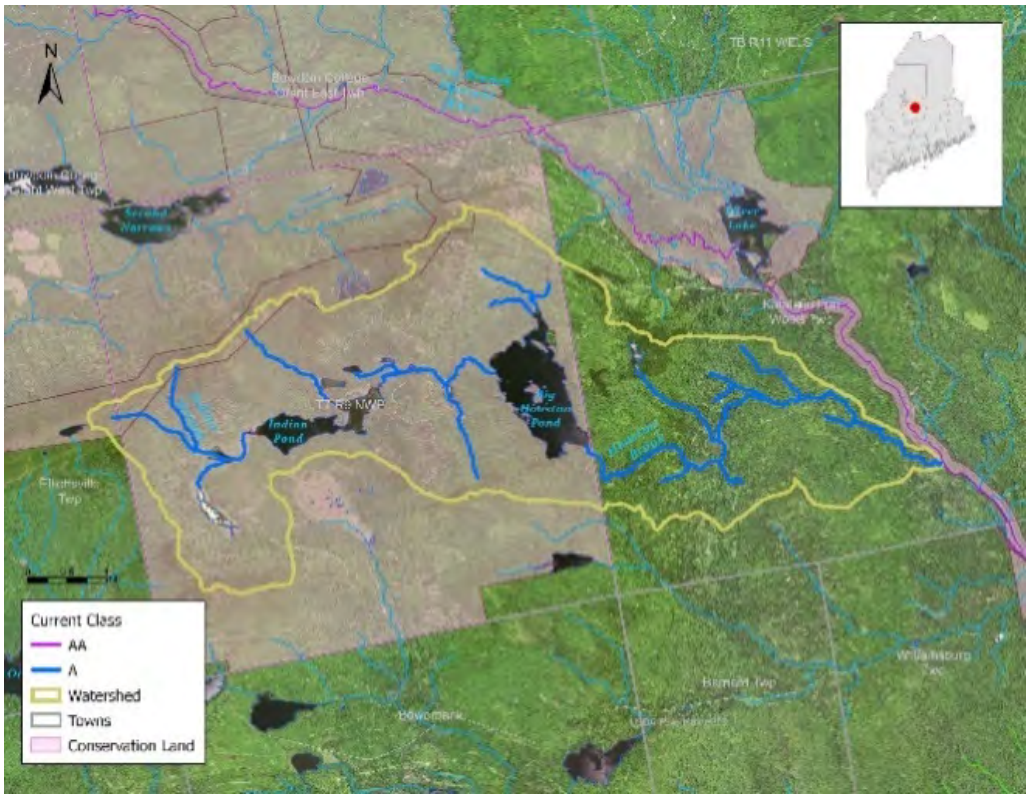
Recommend revising Section 467.7.E. as follows:

E. Piscataquis River Drainage.

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

(e) Pleasant River, West Branch tributaries – Class A unless otherwise specified.

(e-1): Houston Brook and its tributaries – Class AA.

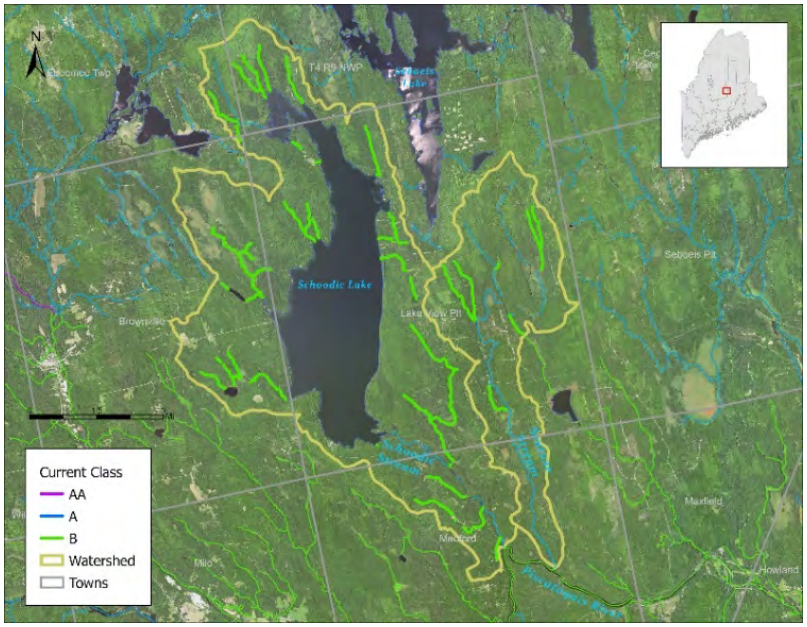


Tributaries to Schoodic Stream and Scutaze Stream, Lake View Plantation and Other Towns and Townships.
Propose Class B to Class A (37 miles approx.).
Proposed by: Department of Environmental Protection.

Basis for proposal: Schoodic Stream and Scutaze Stream are designated as Class A and their tributaries are all designated as Class B. The landscape is primarily forested with little development. Monitoring of some streams in the watersheds by DEP and Maine Department of Inland Fisheries and Wildlife staff indicates good water quality, and attainment of Class A standards in other waters can be expected. Schoodic and Scutaze Streams, which are tributaries to the Piscataquis River, contain critical habitat for endangered Atlantic Salmon. The Piscataquis River itself is one of the priority watersheds for salmon restoration in the Penobscot watershed, making its tributaries important for the protection of salmon. It is desirable to designate the tributaries to Schoodic and Scutaze Streams as Class A to maintain their quality as well as the quality of both mainstems and Schoodic Lake. Adjacent river basins to the north are designated as Class A, so the proposed upgrade fits into the regional approach of managing water quality.

Issues to be considered for this reclassification: None. No discharges exist in the watersheds but forestry activities occur. Such 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 Section 467.7.E. as follows:
E. Piscataquis River Drainage.
(2) Piscataquis River, tributaries – Class B unless otherwise specified.
(k) Schoodic Stream and its tributaries - Class A.
(l) Scutaze Stream and its tributaries - Class A.



Cambolasse Stream, Lincoln
Propose Class C to Class B (0.2 miles approx.).
Proposal: Department of Environmental Protection.

Basis: A lumber yard and sawmill located just upstream of the Class C segment of the stream used to affect water quality. The business closed many years ago and water quality meets Class B standards as indicated in long-term monitoring data collected by the Penobscot Nation.

Issues to be considered for this reclassification: None. There are no discharge permits in or above the segment in question.

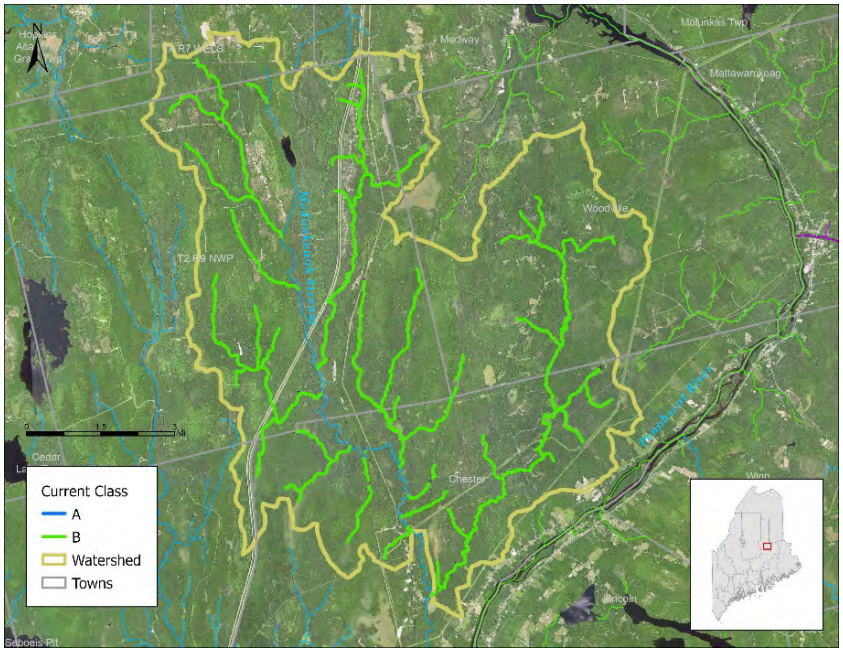
Recommend revising Section 467.7.F. as follows:
F. Penobscot River, minor tributaries - Class B unless otherwise specified.
~~(1) Cambolasse Stream (Lincoln) below the Route 2 bridge - Class C.~~

Tributaries to Medunkeunk Stream, Woodville, T2 R9 NWP, Chester and Other Towns and Townships.
Propose Class B to Class A (75 miles approx.).
Proposed by: Department of Environmental Protection.

Basis for proposal: Medunkeunk Stream is designated as Class A and all tributaries are designated Class B. The watershed is primarily forested with some agriculture and few residential areas. Given the watershed characteristics, it is expected that the tributaries to Medunkeunk Stream attain Class A, and an upgrade would maintain their quality as well as the quality of Medunkeunk Stream. Adjacent river basins to the west and north are designated as Class A, so the proposed upgrade fits into the regional approach of managing water quality.

Issues to be considered for this reclassification: None. No discharges exist in the watershed but forestry activities occur. Such 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. Extensive wetlands in the watershed will likely cause low dissolved oxygen (DO) levels in some waterbodies, and limited data exist to confirm this situation in the Trout Brook sub-watershed. Under Maine statute (38 M.R.S. Section 464.4.C.), waters with naturally low DO levels due to wetlands are not considered to be failing to attain their classification because of those natural conditions. The Maine Army National Guard (MEARNG) owns a significant amount of the Medunkeunk Stream watershed and has a Site Location of Development Law permit authorizing impervious/structural development near some streams proposed for upgrade. The permitted work is not expected to be affected by an upgrade because the MEARNG did not propose any discharge to any stream proposed for upgrade as part of the permitted development.

Recommend revising Section 467.7.F. as follows:
F. Penobscot River, minor tributaries - Class B unless otherwise specified.
(12) Medunkeunk Stream and its tributaries - Class A.



St. John River Basin

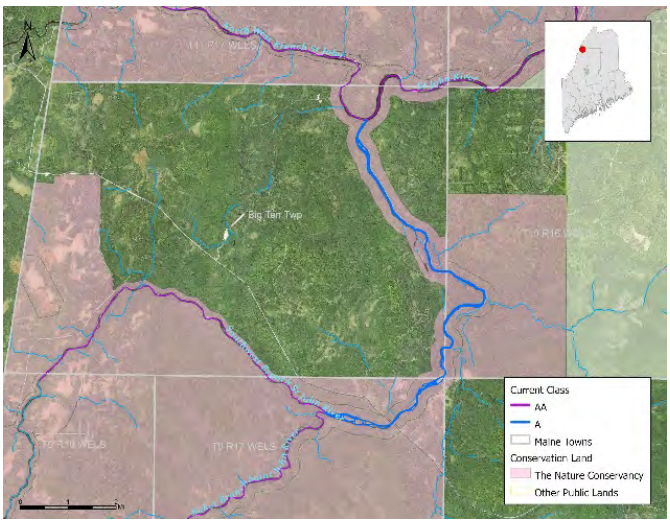
Southwest Branch St. John River, T9 R17 WELS, T10 R16 WELS and Big Ten TWP. Propose Class A to Class AA (7 miles approx.).

Proposed by: The Nature Conservancy (TNC), modified in consultation with the Department of Environmental Protection.

Basis for proposal: The entire St. John River system from the Upper First St. John Pond in T4 R17 WELS to near the Allagash village area has always been intended as Class AA. The waters between Upper First St. John Pond and the Northwest Branch of the St. John River in Big Ten Township, where the St. John River mainstem begins, are called Baker Stream and Baker Branch of the St. John River and Southwest Branch St. John River. Due to historic uncertainties in labeling the segment of the Southwest Branch between its confluence with the Baker Branch in T9 R17 WELS and its confluence with the Northwest Branch in Big Ten Township, Maine statute (38 M.R.S. Section 467.15.F.6) inadvertently designated that segment as Class A. This segment falls 100% within TNC's ownership and conservation management along the St John River and is thus fully protected. This proposal clarifies that the Southwest Branch is classified as Class AA all the way from a point located 5 miles downstream of the international boundary to its confluence with the Northwest Branch in Big Ten Township.

Issues to be considered for this reclassification: Except for certain cases as defined in Maine statutes, there may be no direct discharge of pollutants to Class AA waters. The current statutory allowance for stormwater discharges to Class AA waters is under review with EPA (as a result of EPA's 6/5/15 decision letter to DEP Commissioner Patricia W. Aho, pp. 6 and 29) and may be amended or eliminated at some point in the future. Amendment or elimination of the current statutory allowance could limit or prohibit certain types of stormwater discharges and associated development in AA watersheds. Because the entire length of the Southwest Branch St. John River segment proposed for upgrade is within conservation land and thus precluded from development, the stormwater discharge issue is not relevant.

Hydroelectric power generation is not a designated use in these waters and an upgrade will thus preclude future construction of water control structures. There are no pollutant discharge licenses to any waters proposed for upgrade and the Department is not aware of any anticipated construction projects for water control structures. More stringent limits may be placed on water withdrawal in these segments that may affect agriculture operations in the area; the Department is not aware of any existing water withdrawal activities or permits in this watershed.



Recommend revising Section 467.15.F as follows:

F. St. John River, minor tributaries, those waters lying within the State - Class A unless otherwise specified.

(6) Southwest Branch, from a point located 5 miles downstream of the international boundary to its confluence with the ~~Baker~~ Northwest Branch - Class AA.

Minor Drainages - Cumberland County

Long Creek, Westbrook.
Propose Class C to Class B (0.3 miles approx.).
Change requested by: U.S. Environmental Protection Agency (EPA).

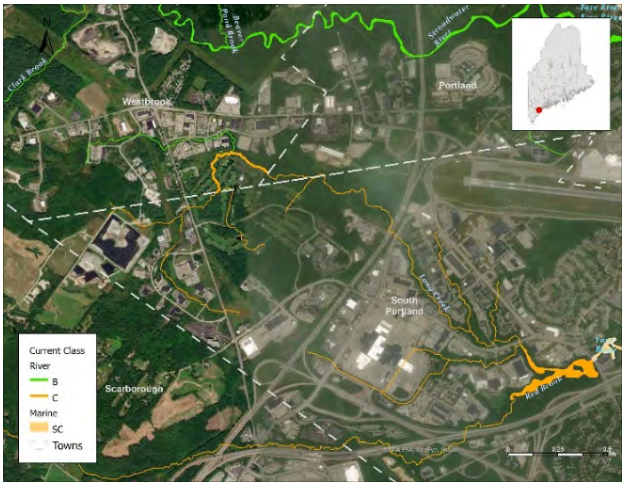
Basis for change: As part of the 2009 reclassification initiative, Maine changed the classification of a 0.3 mile segment of Long Creek that flows through Westbrook from Class B to Class C, making it the same as the remainder of Long Creek in Portland and South Portland. The change was made to correct a legislative bill drafting error made in 1990. EPA did not take action on this classification change in its 2010 response to the suite of 2009 reclassifications. In March 2015, EPA disapproved the 2009 reclassification of Long Creek in Westbrook to Class C, taking the position that Maine had not performed a Use Attainability Analysis (UAA) pursuant to 40 CFR Part 131.10 demonstrating that Class B aquatic life uses were unattainable. Accordingly, based on the information presented, EPA did not agree with the Department's proposal to reclassify the segment. EPA recommended that Maine either revise the classification back to Class B or perform a UAA. Under the CWA and implementing regulations at 40 CFR Part 131.21, revisions to water quality standards adopted after May 30, 2000 do not become effective for CWA purposes until approved by EPA. Therefore, under EPA's position and for CWA purposes, this segment of Long Creek remains Class B. DEP proposes to revise state regulations to clarify that Long Creek is Class B.

Issues to be considered for this reclassification: The segment of Long Creek in Westbrook has not been attaining Class C or Class B. DEP staff believe that restoration work could allow the segment to attain Class C in the future. By returning the segment to Class B, Department staff believe the probability is high that the segment will remain listed as impaired despite restoration efforts that have taken place as part of implementing the Long Creek Watershed Management Plan. Thus, returning the segment to Class B increases the likelihood that a Use Attainability Analysis will be needed in the future.

Recommend revising Section 468.1.J. as follows:
1. Cumberland County. Those waters draining directly or indirectly into tidal waters of Cumberland County, with the exception of the Androscoggin River Basin, the Presumpscot River Basin, the Royal River Basin and tributaries of the Androscoggin River Estuary and Merrymeeting Bay entering above the Chops (Woolwich and Bath, Sagadahoc County) - Class B unless otherwise specified.

~~J. Westbrook.~~

~~(1) Long Creek, main stem - Class C.~~



Minor Drainages - Hancock County

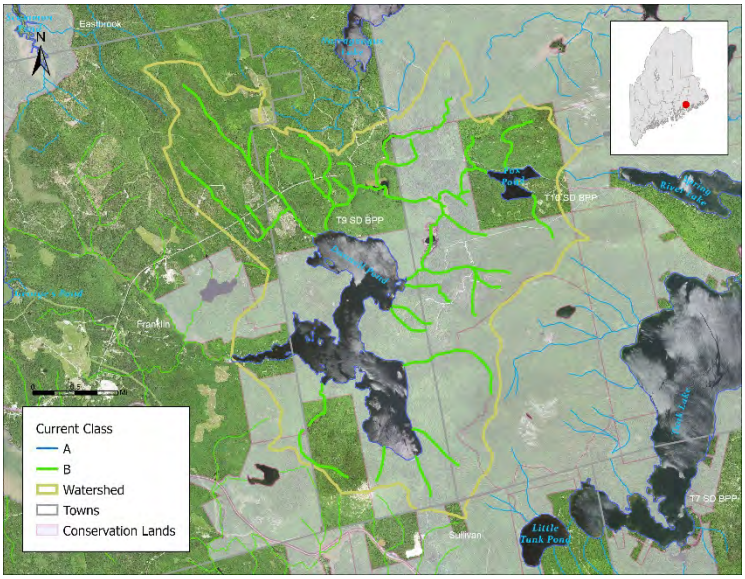
Tributaries to Donnell Pond, T9 SD BPP, T10 SD BPP, Franklin and Sullivan. Propose Class B to Class A (25 miles approx.).
Proposed by: The Nature Conservancy (TNC).

Basis for proposal: Donnell Pond is a water of high ecological and recreational value largely surrounded by the State's Donnell Pond Public Reserved Land, an important conservation area in eastern Maine. Tributary waters draining to Donnell Pond, the majority of which are within the public lands, were inadvertently left in Class B when waters in the eastern side of the Reserved Land draining to Tunk Lake and Tunk Stream were upgraded to Class A in 2019. We recommend that waters within the Reserved Land be consistently managed as Class A to protect their natural qualities and the quality of Donnell Pond. This proposal would make management of all waters within the Donnell Pond Public Reserved Land consistent and recognize their high values.

Issues to be considered for this reclassification: None. No discharges exist in the watershed but some forestry activities may be occurring. Such 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. Tributaries are expected to attain Class A standards.

Recommend revising Section 468.2. as follows:
2. Hancock County. Those waters draining directly or indirectly into tidal waters of Hancock County, with the exception of the Union River Basin - Class B unless otherwise specified.

O. Sullivan.
(2) Tributaries to Donnell Pond - Class A.
P. Township 10 Southern Division.
(2) Tributaries to Donnell Pond - Class A.
Q. Township 9 Southern Division.
(1) Tributaries to Donnell Pond - Class A.
R. Franklin.
(1) Tributaries to Donnell Pond - Class A.



UPGRADE PROPOSALS THAT ARE NOT BEING RECOMMENDED AT THIS TIME

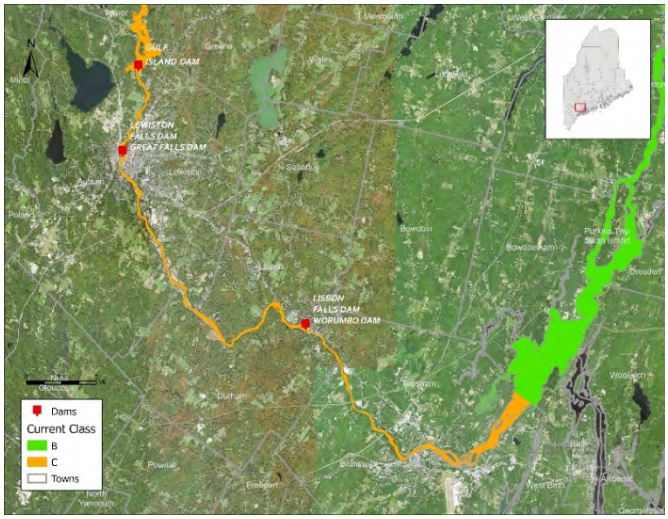
Androscoggin River Basin

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: Proposed by Friends of Merrymeeting Bay (FOMB) and Grow L/A (Lewiston/Auburn).

Basis for proposal: According to the data reports submitted with this proposal, water quality on this section of the Androscoggin River meets Class B standards and has largely done so since 2006. The submitters stress the benefits an upgrade would bring to both recreational users of the river and the local economy, as well as wildlife utilizing the river and downstream Merrymeeting Bay. They also note that an upgrade would lock in water quality improvements that have occurred over many years. They maintain that 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.

Note: a legislative proposal (LD 676, An Act to Reclassify Part of the Androscoggin River to Class B) identical to the original upgrade proposal for the entire segment submitted for consideration under the TR was submitted to the 130th Maine Legislature. The Environment and Natural Resources Committee voted to carry LD 676 over to the next legislative session. Relevant materials, including the Department's testimony[16] in opposition to the bill can be found here: http://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280079141.

Issues to be considered for reclassification: The proposal was accompanied by Androscoggin River data reports for 2009-2018. These reports are based on FOMB data and were compiled by DEP'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[17]. Other data reports spanning additional years are not informative as data were pooled across sites, thus precluding analysis of water quality standards attainment at each monitoring location.



[16] Also included as Appendix C in this document.
[17] Item 5. states, "Many years of monitoring data for DO and E. coli show a steady overall compliance with Class B standards…"

VRMP reports also document that a number of sources of pollution and stressors exist in the watershed, such as various point-source discharges, non-point source (NPS) pollution, impoundments, and natural wetlands. The watershed also contains densely populated areas. These stressors exist not only within the segment itself but also upstream of the segment. The upgrade proposal acknowledged all of these stressors, and more[18]. Looking at the River more comprehensively, it is entirely Class C from the confluence with the Ellis River (at Rumford Point) to Merrymeeting Bay (at Bath) (~100 miles), has a total of 14 dams, multiple discharges, urban centers (including Lewiston, Auburn, Brunswick and Topsham) and a significant amount of agriculture. The upper section also has an in-river oxygen injection system approximately 2.5 miles above Gulf Island Pond (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 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 mg/L DO at the Gulf Island Dam for the lower section of the river that is proposed for upgrade.

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 mg/L at the upper boundary (i.e. below GIP Dam). In 2018 and 2019, Department staff collected additional data, which met or exceeded Class B criteria, but the 2019 DO data were not collected during critical conditions. While reports submitted by FOMB and FOMB data for the last five years (i.e. 2016-2020; morning samples taken every four weeks, or approximately 3.6% of the days during the sample period) show frequent attainment of Class B DO criteria, the data does not show Class B DO attainment during critical water quality conditions of critical low flows or critical high temperatures or currently licensed loads (with the exception of data for September and October 2020 when river flow dropped below critical flow, but temperature was 22^0C, well below critical levels). In addition, included in the data set is data that show Class B non-attainment at water quality conditions that are not critical low flows or critical high temperatures and that are not at currently licensed loads. This data, in combination with prior Department modeling and the Department's understanding of the extremely limited assimilative capacity beyond 7.0 mg/L DO at critical temperature, indicates that this particular waterbody is not a good candidate for reclassification to Class B.

Maine's antidegradation policy (38 M.R.S. Section 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 long-standing interpretation of this statute is that it 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 DEP's Antidegradation Program Guidance (Appendix B), attainment or exceedance of a water quality criterion, such as for DO, must occur under critical water quality conditions to trigger the reclassification requirement pursuant to 38 M.R.S. Section 464.4.F.4. (And, as

[18] In item 6.

explained in the preceding paragraph, modeling indicates that Class B DO criteria would not be attained in much of the segment in question during critical water quality conditions; FOMB in-stream data confirm a certain degree of Class B non-attainment.) 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 another statutory provision (38 M.R.S. Section 464.4.D) that specifies critical flow conditions. Therefore, the Department's position is that monitoring data showing that Class B criteria are largely (but not always, see preceding paragraph) attained in the lower Androscoggin River during non-critical flow conditions does not trigger the requirements of 38 M.R.S. Section 464.4.F.4. The Department's position regarding the issuance of waste discharge licenses was confirmed in consultation with EPA in June 2021, where EPA stated that discharge licenses must be written to ensure that applicable water quality standards are attained 100% of the time during critical conditions.

In taking its position regarding 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. Section 464.4.A.8) stipulates that a license may not be issued if compliance with applicable water quality requirements is not ensured. 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 are currently not met at all times and in all locations of this segment of the river. Because flow from the Gulf Island Pond (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 7 ppm downstream. Studies conducted by the Department in 2005 and 2010 indicated that 13 miles of the Gulf Island Pond (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, potential reductions in discharge limits for certain entities in the river above Gulf Island Pond 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. However, these potential reductions are very significant and it is unclear that these limit reductions are technologically or financially feasible.

Given statutory requirements and the findings of existing Department studies and models, the Department does not foresee the ability to ensure attainment of Class B standards under critical conditions. The segment of river should therefore not be reclassified pursuant to 38 M.R.S. Section 464.4.F.4.

For more detailed information on the factors presented above, please see a Department letter dated October 25, 2019 to Senators Libby and Claxton as well as Department testimony submitted in opposition to LD 676 on May 3, 2021 (Appendix C). In light of the information presented above, the Department does not support the current upgrade proposal.

In 2021, DEP's biological monitoring program collected macroinvertebrate data at two locations in the segment proposed for upgrade. These data will complement data collected in 2018 at one other location within that segment.

Update resulting from Board meeting on December 16, 2021: Following additional deliberation on December 16, 2021, the Board voted to accept all of the Department staff's recommendations as presented with one exception: The Board voted to consider an amended proposal to upgrade the lower Androscoggin River, which had not been recommended by Department staff for the reasons outlined in this document, and then voted to approve this alternate amended proposal (an upgrade from Class C to Class B, see pages 48-51) for a more limited downstream stretch of the lower Androscoggin River – namely from the Worumbo Dam to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction – while also retaining the Department staff's existing analysis for the benefit of the Legislature as it considers the Board's recommendations. Given the circumstances surrounding the lower Androscoggin upgrade proposals as outlined in the Department staff's analysis in this document, the Board expressed an interest in having the Legislature consider the more limited upgrade recommendation alongside the Department staff's analysis.

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).

November 2021 update: During the August 18 through October 25, 2021 public comment phase, FOPR proposed an amendment to the original proposal of an upgrade to Class B. The amendment consisted of adding a new sentence (underlined) to existing statutory language in 38 M.R.S. Section 9.A.4:

A. Presumpscot River, main stem

(4) From Sacarappa[19] Falls to tidewater - Class C. Further, there may be no new direct discharges to this segment after January 1, 2023.

Basis for proposal: According to FOPR, water quality in this section of the Presumpscot River has improved greatly over time due to a reduction in discharges of pollutants to the river and the removal of the Smelt Hill Dam in 2002 and the Saccarappa Dam in 2019. Water quality data collected under DEP's Volunteer River Monitoring Program (VRMP) between 2009 and 2019 in the segment proposed for upgrade show that dissolved oxygen and bacteria levels meet Class B standards almost all the time. FOPR notes that it is critical to protect the current water quality through a classification upgrade. The habitat in this section of the river is very close to being natural again. All tributaries below Sebago Lake and the Presumpscot River mainstem above Saccarappa Falls are all Class B. An upgrade of the lower freshwater segment of the river would benefit the estuary, Casco Bay, and the Gulf of Maine. Two non-profit organizations submitted strong letters of support for this proposal, and two others encouraged the Department to work towards an upgrade.

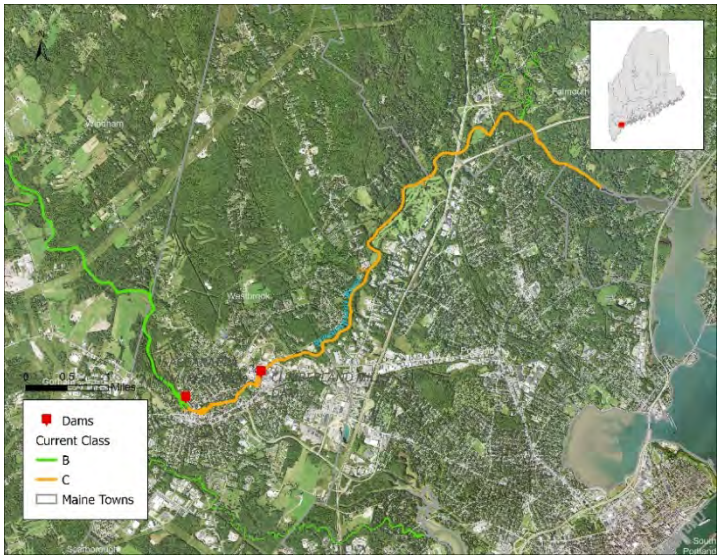
Issues to be considered for this reclassification: The analysis of 2009-2019 VRMP water quality data submitted by FOPR show that on occasion early morning dissolved oxygen levels as well as mean and single-sample bacteria concentrations do not meet Class B criteria. Annual reports compiled by the VRMP also document that a number of sources of pollution and other stressors exist in the watershed that may have an impact on water quality, such as non-point source (NPS) pollution, dams and impoundments (mostly upstream of the segment proposed for upgrade), wetlands and some point-source discharges including Combined Sewer Overflows (CSOs). The watershed has densely populated areas, which are known to affect water quality.

Two licensed facilities discharge effluent to the lower Presumpscot River. An upgrade to Class B may require these facilities to undertake operational modifications to meet stricter discharge limits associated with a higher water quality class.

In 1995, the Department developed a water quality model for the Presumpscot River, from Little Falls dam to the estuary at Martin Point Bridge. Instream monitoring data and the model output indicated that the lower reaches of the Presumpscot River from Cumberland Mills dam to the estuary were not in attainment of Class C water quality criteria. Due to a combination of factors, water quality improved significantly in the early 2000s, and in 2011 the Department recalibrated the existing model with new instream monitoring data collected in 2008 and 2010 and an adjusted

[19] Unusual spelling of Saccarappa in statute. The alternative, and more common spelling, of 'Saccarappa' is proposed to be added to statute, see 'Provide Alternative Spelling in River Segment Location Description', page 87 below.

extent from Cumberland Mills dam to Presumpscot Falls. The model predicted that Class C dissolved oxygen criteria would be met in the lower river.



A 2006-2007 study by Chris Yoder, Midwest Research Institute, and a 2007-2009 study by DEP's Surface Water Ambient Toxic (SWAT) monitoring program of fish communities in the river below Cumberland Mills both noted lower habitat quality and reduced fish populations in the segment in question.

DEP recommendation: The Department does not have enough information at this point to fully evaluate whether the lower Presumpscot River could meet Class B criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels. These critical conditions are what the Department considers when reissuing waste discharge licenses. No current continuous dissolved oxygen data or in-stream nutrient data are available for low flow, high water temperature conditions. The department will need to collect and evaluate data taken during these conditions before making a determination on a classification upgrade. For this reason, the Department is unable to support the upgrade proposal at this time.

The Department commits to collecting new data as deemed necessary and as possible[20], and began this effort in the summer of 2020 and will continue it in 2021. 2021 sampling includes the collection of biological monitoring data at two locations in the segment proposed for upgrade and at one reference site upstream, as well as the collection of continuous water quality data at one location in the lower river. Data from 2021 will allow an initial assessment of the effect of Sappi North America in Westbrook shutting down a paper machine, and thus reducing their discharge, by the end of 2020. The new data will be used to update the existing model. The new model output, which is expected to be available in 2021/2022, together with other relevant new data (for example from the VRMP) will allow the Department to evaluate the proposed upgrade to inform an upgrade decision to be made at the next opportunity for re-classification. This opportunity may arise during the next Triennial Review, during an independent Reclassification Initiative, or in response to a legislative proposal.

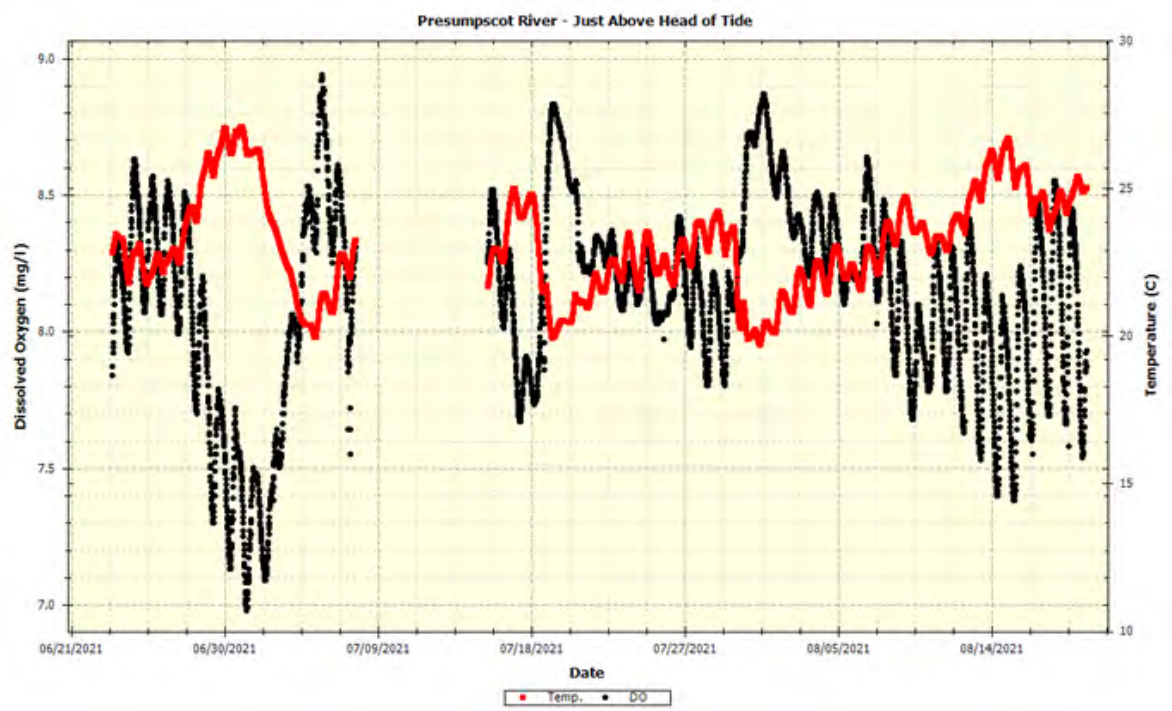
December 2, 2021 updates:

1) *Proposed amendment: New discharges (as well as increased discharges) to any waterbody are subject to antidegradation requirements in accordance with 38 M.R.S. Section 464.4.F.5. and the Department's interpretation of those requirements as outlined in the Department's Waste Discharge Program Guidance (see Appendix B). The explicit prohibition on any new discharges, above and beyond antidegradation requirements, would be an important and seldom-used policy decision of the Legislature and likely be of interest to the communities in this area of the river. The Department does not recommend this amendment at this time to allow for consideration of the implications of this change.*

[20] Data collection must occur under low flow conditions, which are weather-dependent. Rainy conditions may impede DEP's ability to collect data and update the existing model within the timeline noted above.

2) *DEP data: Results from the 2021 biological monitoring events are not yet available. DEP staff deployed a continuous data collection instrument ('sonde') just above the falls/rapids very near head of tide where the most critical river conditions are expected to occur. The sonde was in place between 6/23/21 and 8/19/21 and thus captured summer 2021 conditions. As can be seen in the graph below[21], the majority of data is above the 7.0 mg/L Class B Standard for dissolved oxygen (DO). The DO sag below 7.0 mg/L in early July is fairly typical of most years.*

The Department notes that point source loadings to the river were at historic lows during the summer of 2021 primarily due to limited operations at the Sappi North America mill. Thus point source loadings were not a significant driver of the ambient conditions represented in the graph. The Department also notes that river flows were higher than during critical conditions (based on personal observation during sonde deployment and retrieval) due to frequent rains, and water temperatures moderate as evidenced in the graph below. Therefore, the conditions under which these data were collected do not represent the critical conditions of high water temperature, low flow, and maximum licensed discharge levels the Department considers when reissuing waste discharge licenses. Most summers would be expected to have more extended and more pronounced warmer periods, which the Department expects would produce more DO excursions below 7.0 mg/L. Yet even during the summer of 2021, the data highlights the unavoidable summertime conditions which provide no assimilative capacity. No amount of point source controls can overcome this situation. Assimilative capacity is necessary to leverage potential modeling solutions. The dataset collected in the summer of 2021 thus suggests that the lower Presumpscot River is currently not a good candidate for an upgrade.



[21] The gap in the data reflects a period where the sonde was not deployed due to concerns about potential flood flows.

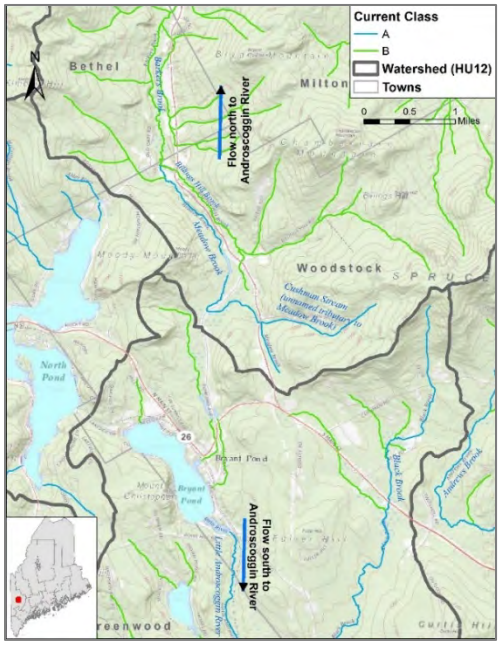
STATUTORY ERROR CORRECTIONS

38 M.R.S. SECTION 467 and 468

Androscoggin River Basin

Correct Erroneous Statutory Section and Clarify Waterbody Name.
Cushman Stream and Meadow Brook, Woodstock.
Proposed by: Department of Environmental Protection.

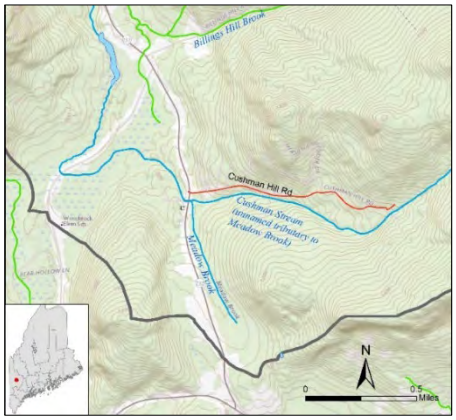
Basis for proposal: Cushman Stream and Meadow Brook were both upgraded from Class B to Class A in 2003. At that time, both streams were incorrectly placed into the statutory section classifying tributaries to the Little Androscoggin River, 38 M.R.S. 467.1.B.2., subsections (d) and (e), respectively. Based on hydrologic information from the United States Geologic Survey (USGS), it has been determined that both waterbodies flow directly into the Androscoggin River, not the Little Androscoggin River (which itself flows into the Androscoggin River). The Department proposes to correct the erroneous statutory placement of both streams by transferring both items without changes to 38 M.R.S. Section 467.1.D., minor tributaries to the Androscoggin River.



In addition, it has been determined that Cushman Stream is a locally used name that is not recognized by the Geographic Names Information System (GNIS), which standardizes geographic names. Cushman Stream is an unnamed stream that flows along Cushman Hill Road. The Department proposes to add clarifying language to better identify the waterbody in question.

Issues to be considered for this reclassification: None. No change in classification is made, this is merely a correction of an erroneous statutory placement and clarification of a stream name.

Recommend revising Section 467.1.B.2 as follows:
B. Little Androscoggin River Drainage.
(2) Little Androscoggin River, tributaries - Class B unless otherwise specified.
~~(d) Cushman Stream in Woodstock - Class A.~~
~~(e) Meadow Brook in Woodstock - Class A.~~



Recommend revising Section 467.1.D. as follows:
D. Androscoggin River, minor tributaries - Class B unless otherwise specified.
(10) Cushman Stream (unnamed tributary to Meadow Brook at Cushman Hill Road) in Woodstock - Class A.
(11) Meadow Brook in Woodstock - Class A.

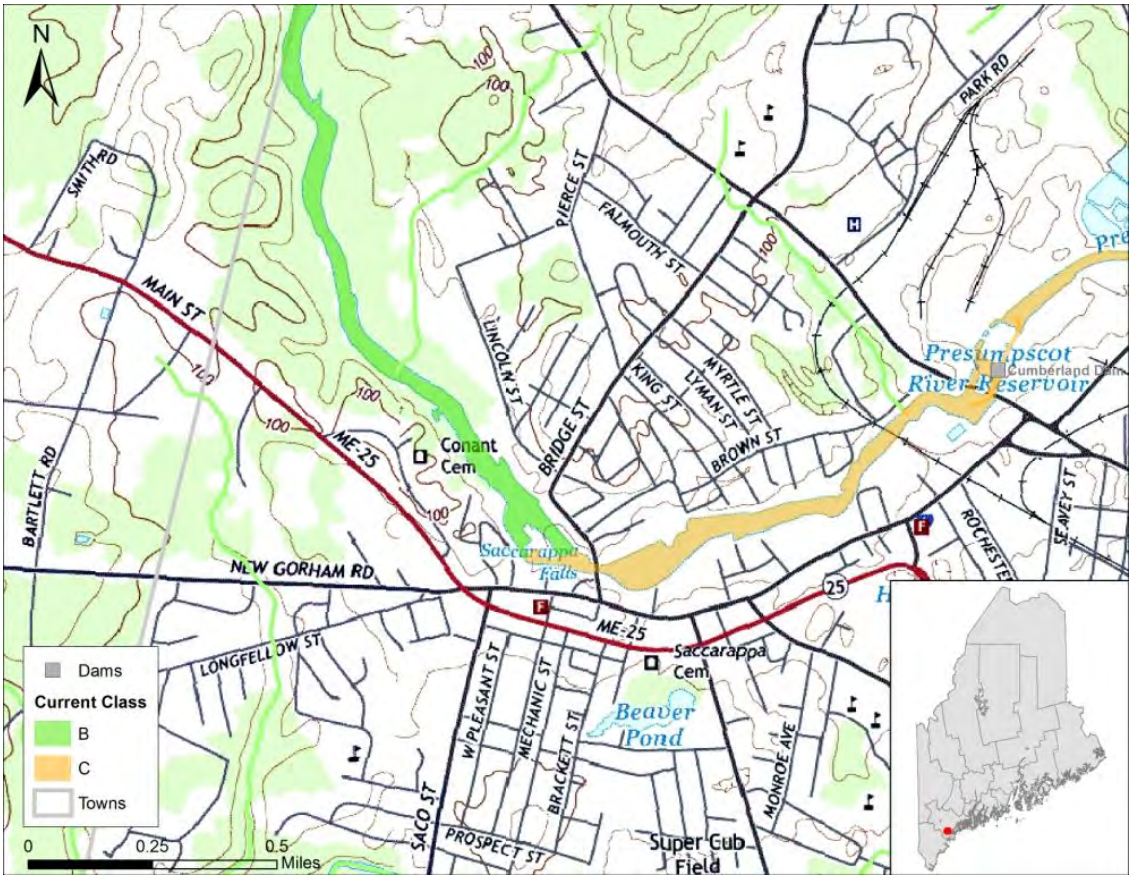
Presumpscot River Basin

Provide Alternative Spelling in River Segment Location Description.
Sacarappa Falls, Westbrook.
Proposed by: Department of Environmental Protection.

Basis for proposal: Maine's classification statute for major river drainages 38 M.R.S. Section 467 contains an unusual spelling in subsections 9.A.3. and 4. for Sacarappa Falls. More typically, the name is spelled with two 'c', i.e. 'Saccarappa'. The Department proposes to clarify the location by inserted an alternative spelling of the name.

Issues to be considered for this reclassification: None.

Recommend revising Sections 467.9.A.3. and 4. as follows:
A. Presumpscot River, main stem.
(3) From U.S. Route 202 to Saccarappa (also known as Sacarappa) Falls - Class B.
(4) From Saccarappa (also known as Sacarappa) Falls to tidewater - Class C.



Minor Drainages - Cumberland County

Correct Spelling Mistake in Waterbody Name.
Finnerd Brook, Scarborough.
Proposed by: Department of Environmental Protection.

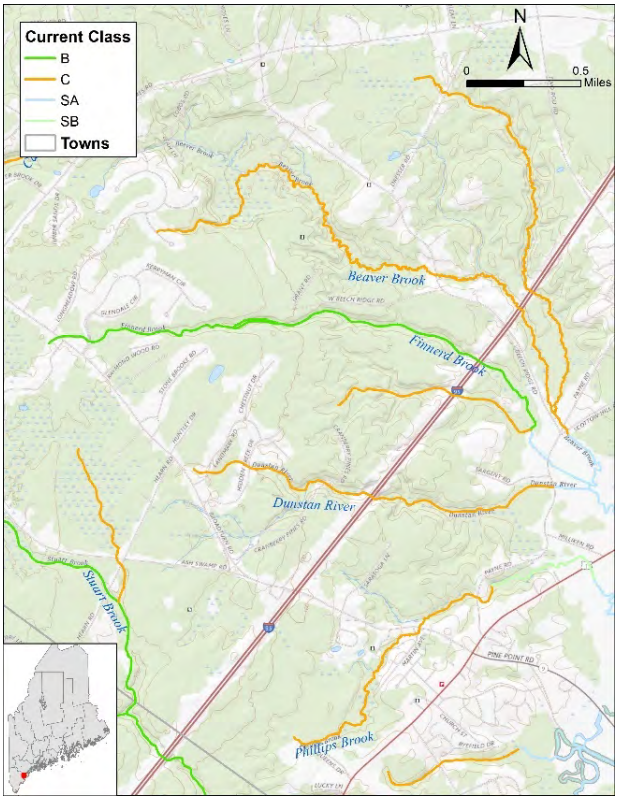
Basis for proposal: Maine's classification statute for minor drainages 38 M.R.S. Section 468 contains a spelling mistake in subsection 1.C.2. for Finnerd Brook. It has been determined that the statutory spelling of Finnard Brook is in error and that the correct name as recognized by the Geographic Names Information System (GNIS), which standardizes geographic names, is Finnerd Brook.

Issues to be considered for this reclassification: None, this is merely a correction of a spelling error.

Recommend revising Section 468.1.C as follows:
1. Cumberland County. Those waters draining directly or indirectly into tidal waters of Cumberland County, with the exception of the Androscoggin River Basin, the Presumpscot River Basin, the Royal River Basin and tributaries of the Androscoggin River Estuary and Merrymeeting Bay entering above the Chops (Woolwich and Bath, Sagadahoc County) - Class B unless otherwise specified.

C. Scarborough

(2) Finnerd~~Finnard~~ Brook - Class B.



APPENDIX A

APPENDIX A

Designated Uses and Criteria for Maine River and Stream Classifications

***Note**: See 38 M.R.S. Article 4-A Section 464 Classification of Maine waters and 38 M.R.S. Article 4-A Section 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**
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 CFU/ 100 ml over 90-day interval or 236 CFU/100 ml in more than 10% of samples in any 90-day interval	Free flowing and natural	No direct discharge of pollutants***; as naturally occurs**
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. Section 403 Industrial process/cooling water	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 CFU/ 100 ml over 90-day interval or 236 CFU/100 ml in more than 10% of samples in any 90-day interval	Natural	As naturally occurs**
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. Section 403 Industrial process/cooling water	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	May not exceed geometric mean of 64 CFU/100 ml over 90-day interval or 236 CFU/100 ml in more than 10% of samples in any 90-day interval from 4/15 to 10/31	Unimpaired	Discharges may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all indigenous aquatic species without detrimental changes to the resident biological community.**
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. Section 403 Industrial process/cooling water	5 ppm or 60% saturation but must maintain WQ sufficient for spawning in identified fish spawning areas 6.5 ppm (monthly average) at 22° and 24°C	May not exceed geometric mean of 100 CFU/100 ml over 90-day interval or 236 CFU/100 ml in more than 10% of samples in any 90-day interval from 4/15 to 10/31	Habitat for fish and other aquatic life	Discharges may cause some changes to aquatic life, but the receiving waters must be of sufficient quality to support all species of indigenous fish and maintain the structure and function of the resident biological community.**

* 38 M.R.S. Article 4-A Sections 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. Article 4-A Sections 467 and 468.

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

*** Limited exceptions apply.

Designated Uses and Criteria for Maine Lake and Pond Classification

***Note**: See 38 M.R.S. Article 4-A Section 464 Classification of Maine waters and 38 M.R.S. Article 4-A Section 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 CFU/100 ml over 90-day interval or 194 CFU/100 ml in more than 10% of samples in any 90-day interval	Natural	No direct discharge of pollutants**; as naturally occurs Stable or improving trophic state Free from culturally induced algal blooms Shoreline and watershed activities must not cause trophic degradation

* 38 M.R.S. Article 4-A Sections 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. Article 4-A Sections 465-A and 467.

** Limited exceptions apply.

Designated Uses and Criteria for Maine Estuarine and Marine Classifications

***Note**: See 38 MRS Article 4-A Section 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 CFU/100 ml in any 90-day interval or 54 CFU/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**
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	*Enterococcus* may not exceed geometric mean of 8 CFU/100 ml in any 90-day interval or 54 CFU/100 ml in more than 10% of samples in any 90-day interval from 4/15 to 10/31. Not to exceed criteria of National Shellfish Sanitation Program for shellfish harvesting.	Unimpaired	Discharges may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all indigenous estuarine and marine species without detrimental changes in the resident biological community. Discharge not to 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	*Enterococcus* may not exceed geometric mean of 14 CFU/100 ml in any 90-day interval or 94 CFU/100 ml in more than 10% of samples in any 90-day interval from 4/15 to 10/31. Not to exceed criteria of National Shellfish Sanitation Program for restricted shellfish harvesting.	Habitat for fish and other estuarine and marine life	Discharges may cause some changes to estuarine and marine life but the receiving waters must be of sufficient quality to support all species of indigenous fish and maintain the structure and function of the resident biological community.

* 38 M.R.S. Article 4-A Sections 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. Article 4-A Section 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.

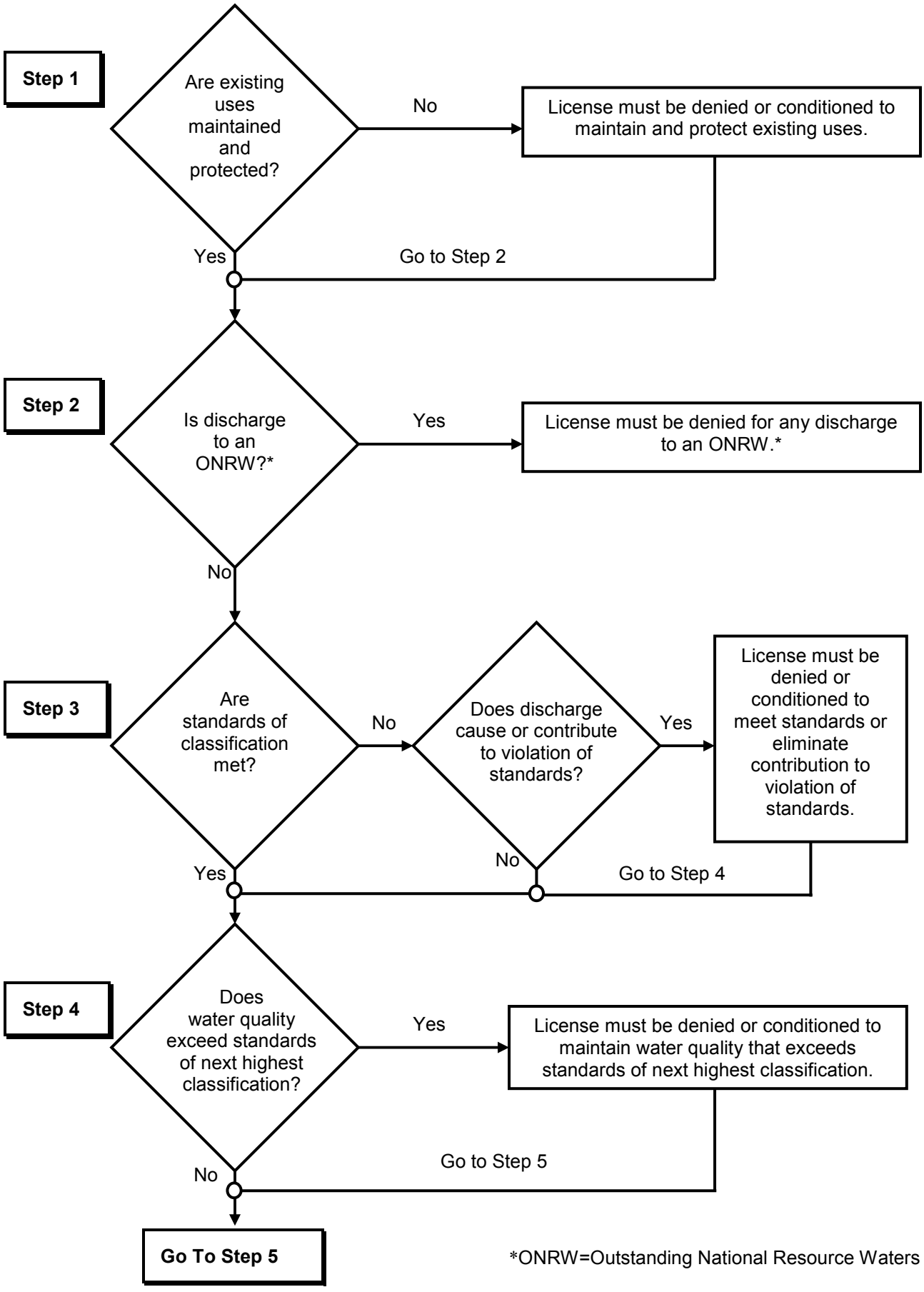
Where the DEP denies or conditions a new or increased discharge to prevent any lowering of water quality, and where the DEP determines that (1) existing in-stream water uses will be maintained and protected, and (2) the discharge is not to an outstanding national resource water, and (3) the standards 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.

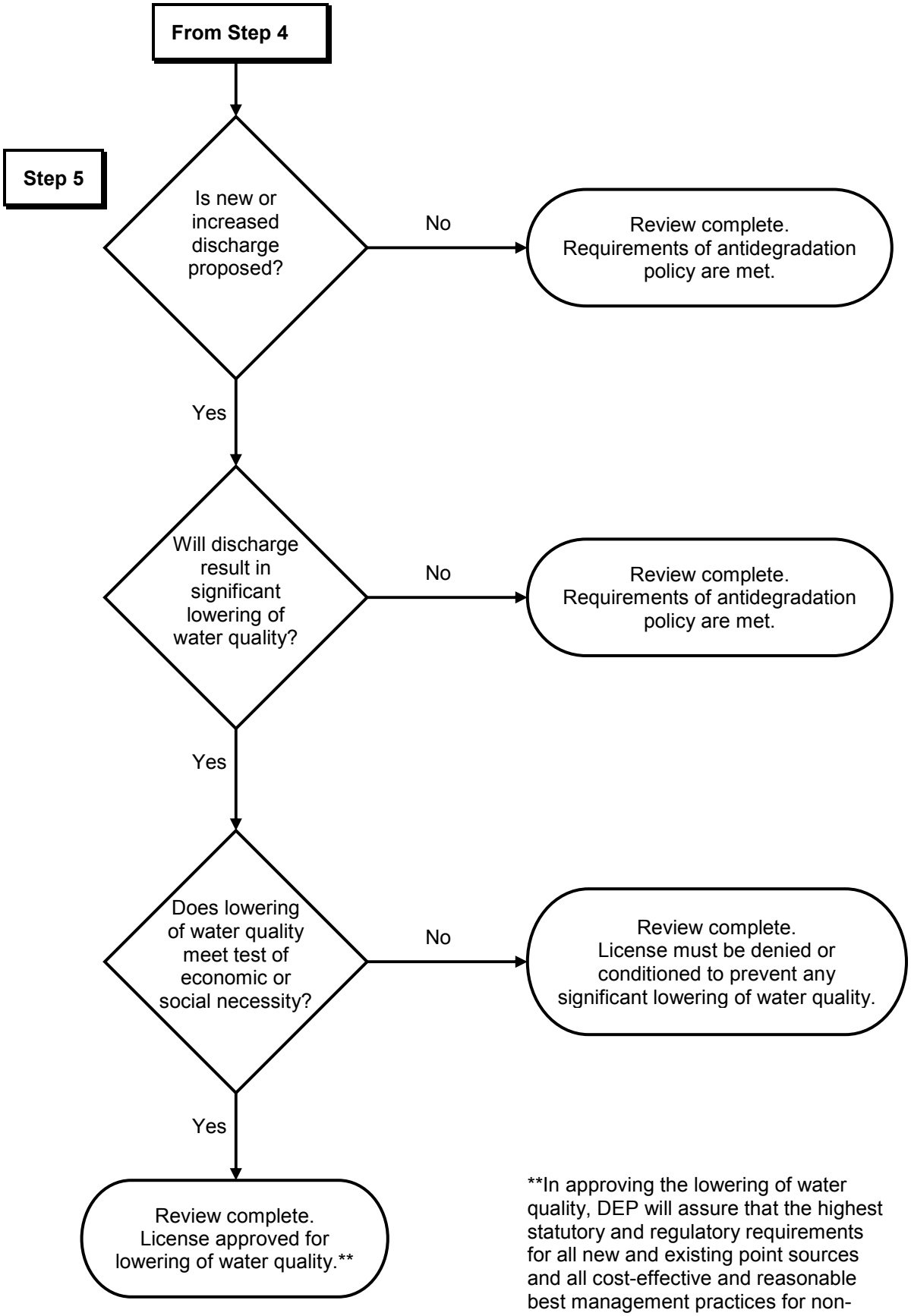
\antideg guidance

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

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

TESTIMONY OF

BRIAN KAVANAH, DIRECTOR
BUREAU OF WATER QUALITY
MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

SPEAKING IN OPPOSITION OF L.D. 676

AN ACT TO RECLASSIFY PART OF THE ANDROSCOGGIN RIVER TO CLASS B

SPONSORED BY SENATOR CLAXTON

BEFORE THE JOINT STANDING COMMITTEE
ON
ENVIRONMENT AND NATURAL RESOURCES

DATE OF HEARING:

May 3, 2021

Senator Brenner, Representative Tucker, and members of the Committee, I am Brian Kavanah, Director of the Bureau of Water Quality at the Department of Environmental Protection. I am speaking in opposition to L.D. 676. This is the same position the Department has taken on similar bills in 2011 and 2013. While I really wish I could be here speaking in support of the bill, after evaluating all the issues as outlined in my testimony, the Department did not believe that would be an appropriate position to take.

First, I want to commend the many individuals and organizations that are advocating for the Androscoggin River today. They have dedicated a tremendous amount of time and resources to

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

ebsite: www.maine.gov/dep

monitor the river, provide public educational events, and advocate for improvements in water quality. Their work is important, and the Department appreciates all their efforts.

Secondly, I want to recognize that the Department understands the important symbolism of the Androscoggin River and its place in the development of the Clean Water Act through Senator Edmund Muskie. The Androscoggin River is an incredible example of how badly we as a society can abuse our natural resources given that this was once one of the most highly polluted rivers in the country. But, it is also an incredible example of how good policy, proper regulation, and the work of many, can make tremendous improvements in water quality. The Androscoggin River now has very good water quality, vastly different from the bad old days of rafts of foam and fish kills, and we can all be proud of that.

I also want to note that my written testimony and supporting material is extensive at 16 pages. Obviously, I will not be reading all my testimony today, but I hope that you can read it to fully understand the issues I will summarize today, and to assist you with the discussions at the work session. It is extensive because the issue of reclassifying a river like the Androscoggin is a very important policy decision and it is a legally and technically complex issue. The role of the Department in this issue is to provide you with the most complete and accurate information that we can so that you can make a fully informed decision. My full written testimony includes background information on important issues related to L.D. 676 including water quality standards, the waste discharge permitting process, water quality modeling, and the legislative history of similar proposals to upgrade the lower Androscoggin.

In the interest of time I'll summarize the Department's position with the expectation of more detailed discussion at work session. Water classifications are essentially a directive to the Department on how to manage the water quality. The Department has historically supported upgrades where we see a path forward to ensure that the classification can be fully attained, with reasonable controls, under critical water quality conditions established in law. Based on our evaluation of all the information available to us we don't see a clear path forward to ensure that happens. What we do see is that a reclassification would likely create significant regulatory uncertainty.

I encourage you to carefully consider the additional details in the Department's full written testimony, as well as all the other testimony you will receive. I'm happy to answer any questions now or at the work session.

Thank you.

Additional Testimony on L.D. 676, An Act to Reclassify Part of the Androscoggin River to Class B

Some important issues to consider include:

1). This is not a new issue. This issue has been considered several times since at least 2009 by the Department, the Board of Environmental Protection, and the Legislature. The Department reluctantly opposed an upgrade in all of the previous proceedings for many of the same reasons summarized below. In addition, at the request of interested parties, the Department is currently evaluating the same proposal via the Triennial Review Process which is a public process, including a comment period and public hearing, whereby changes in water quality standards are evaluated by the Department and the Board of Environmental Protection (BEP). As a result of that process it is possible the BEP may, or may not, recommend to the Legislature in the second session a reclassification of the Lower Androscoggin.

2). Reclassification upgrades are likely permanent. It is relatively easy to upgrade a waterbody. The legislature can do that with a simple vote. However, the requirements of the Clean Water Act and state law make it extremely difficult to downgrade a waterbody's classification. Therefore, you should consider any decision to upgrade a waterbody as if it is permanent. To be clear, none of the potential issues raised in the Department's testimony prevent the legislature from upgrading the Lower Androscoggin. Neither, are you obligated by law to approve this upgrade. This is a policy decision and you can vote on whatever you believe to be the best policy for the state.

3). Each classification sets in motion specific legal requirements. You may hear the classification system described as a goal-based or aspirational system. That is true, but only in limited sense. It is a goal in that the legislature can upgrade a waterbody's classification even if it is not currently meeting all of the requirements for that higher classification. The Department believes it is more accurate to consider a waterbody's classification as a directive to the Department on how to manage that waterbody in relation to a variety of interconnected requirements of the Clean Water Act and state law. These interconnected requirements include: licensing of existing discharges such as

municipal wastewater treatment facilities and industries, licensing of any new or increased discharges, water quality certification and licensing of dams, and regulatory actions that must be taken if water quality standards are not met. The specifics of these regulatory requirements are established in federal and state laws and rules, are not discretionary, and are driven largely by the classification of a water body. To be clear, none of the potential implications to these, or other regulatory programs, prevent the legislature from upgrading the Lower Androscoggin. However, the Department recommends that you understand and consider the potential implications of these programs as part of a fully informed decision making process.

4). There are significant differences between the criteria for Class C and Class B waters. The most significant difference between these classifications is that Class C waters have a dissolved oxygen criterion of 5 parts per million (ppm). Class B has a higher dissolved oxygen criterion of 7 ppm. The Class B criterion is harder to attain. 5 ppm implies a reasonable amount of assimilative capacity, whereas 7 ppm implies very little assimilative capacity. A summary comparison of the two classes is shown below:

Comparison of Class B and Class C Water Quality Standards				
Class	**Dissolved Oxygen**	**Bacteria (*E.coli*)**	**Habitat**	**Aquatic Life (Biological)**
B	Not less than 7 ppm; or 75% of saturation.	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 from 4/15 to 10/31.	Habitat for fish and other aquatic life; unimpaired.	Support all aquatic species indigenous to the receiving water; no detrimental changes to the resident biological community.
C	Not less than 5 ppm; or 60% of saturation.; 30-day avg. 6.5 ppm.	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 from 4/15 to 10/31.	Habitat for fish and other aquatic life.	Support indigenous fish; maintain the structure and function of the resident biological community.

5). Water quality in the lower section of the Androscoggin River is significantly influenced by water quality in the upper section of the Androscoggin River. 97% of the water in the lower section of the river originates by flowing over or through the Gulf Island Dam at the upper boundary of the river section proposed for reclassification. The proposed upgrade of the lower section to Class B would require the lower section to have a dissolved oxygen level of 7 ppm. The upper section of the river is classified as C which requires a dissolved oxygen level of only 5 ppm. While the actual dissolved oxygen level of water flowing over or through the Gulf Island Dam is often higher than 5 ppm, there are currently no regulatory controls in place that require it to be higher than 5 ppm. If the lower Androscoggin is upgraded to Class B the Department will be required to establish regulatory controls in waste discharge licenses, and potentially future water quality certifications for the Gulf Island Dam, to ensure the water flowing over or through the dam meets the 7 ppm dissolved oxygen criterion.

6). The upper section of the Androscoggin is unique. Water quality in the upper Androscoggin above Gulf Island Dam is influenced by the discharges from 3 paper mills (Gorham, NH; Rumford; and Jay,) and the presence of the Gulf Island Dam which creates a large deep impoundment. Attainment of Class C standards is met through a combination of water quality-based discharge limits on the paper mills and the injection of oxygen into the river approximately 2.5 miles above the dam. The oxygen injection is managed through the Gulf Island Pond Oxygenation Partnership (GIPOP) as specified in the mill's discharge licenses and the Gulf Island Dam water quality certification. The necessity of oxygen injection to attain water quality standards is extremely rare and is only used in a few other locations nationally.

7). If the lower Androscoggin is upgraded to Class B the Department will be required to lower existing discharge limits on certain discharges above Gulf Island Dam. The Department can only issue a waste discharge license if a finding can be made that the discharge, either by itself or in combination with other discharges, will not lower the quality of the waterbody below its classification, during critical low flow river conditions as specified in law. We are aware that the mill discharges above Gulf Island Dam can influence dissolved oxygen levels all the way to Gulf Island Dam and potentially beyond. Through water quality modeling we have evaluated potential reductions to license limits and requirements for instream oxygen injection that would ensure water flowing over or through the dam

meets 7 ppm of dissolved oxygen. 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 is summarized below.

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 mills.

Facility	Current Permit Limit lbs/day weekly avg. (June 1 - Sept. 30)	New Permit Limit lbs/day weekly avg. (June 1 - Sept. 30)	Actual discharge for last 3 years at 95th percentile
Pixelle (Jay)	6,400	2,944	1,700
Nine Dragons (Rumford)	12,500	5,750	7,800
White Mountain Paper Co. (Gorham, NH)	10,298	4,737	5,000

8). Water quality in the lower section of the Androscoggin is also influenced by activities and discharges in the watershed of the lower section. 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 Water Pollution Control Authority (LAWPCA) is the wastewater treatment facility that serves Lewiston and Auburn. To address the predicted impacts of the LAWPCA discharge on dissolved oxygen levels, a BOD_5 limit reduction of 33% is expected to be required.

Facility	Current Permit Limit lbs/day weekly avg.	New Permit Limit lbs/day weekly avg. (June 1 - Sept. 30)	Actual discharge for last 3 years at 95th percentile (June 1 - Sept. 30)
LAWPCA	5,329	3,570	1,800
	Current Permit Limit lbs/day monthly avg.	New Permit Limit lbs/day monthly avg. (June 1 - Sept. 30)	Actual discharge for last 3 years at 95th percentile (June 1 - Sept. 30)
	3,553	2,380	1,000

It is noted that a potential regionalization project to eliminate the Sabattus wastewater treatment facility and send the wastewater from Sabattus to LAWPCA is in the preliminary discussion phase. If

completed this project would eliminate the Sabattus wastewater discharge to the Sabattus River. It is expected that the elimination of this discharge would improve water quality in a ten-mile segment of the Sabattus River from Sabattus to the Androscoggin River. It is possible the potential for this project to proceed would be diminished if the limits for LAWPCA are reduced by 33%.

In addition, at a dissolved oxygen criterion of 7 ppm under critical conditions there is essentially no assimilative capacity remaining in the river. This condition would likely prohibit any new or increased discharge that requires a waste discharge license.

9). Water quality in the lower section of the Androscoggin may also be influenced by dams in the lower section. The following dams exist in the section proposed for reclassification and are subject to relicensing requirements of the Federal Energy Regulatory Commission (FERC) and water quality certification requirements of the Department. Relicensing begins with a 3-to-5 year pre- application consultation process during which applicants, agencies and other interested parties identify environmental issues, address information needs, and explore mitigation options. Any necessary studies are then conducted, and a draft application is prepared for review and comment. At this point it is unclear if a reclassification would affect relicensing or water quality certifications for these dams.

Dam	**Owner**	**License Expiration**
Gulf Island Dam	Brookfield	2036
Deer Rips/Andro 3	Brookfield	2036 (with Gulf Island Dam)
Lewiston Falls Dam	Brookfield	2026
Worumbo Dam	Eagle Creek	2025
Pejepscot Dam	Brookfield	2022
Brunswick Dam	Brookfield	2029

10). In closing, from the Department's perspective, this is a complex issue. Some reclass proposals are relatively simple and straightforward. This one is not. Department staff have spent a significant amount of time analyzing and discussing the legal and technical issues in relation to this upgrade. Our intent is to provide you with the most complete and accurate information that we can so that you can make a fully informed decision. But some of the legal and technical issues related to the potential implications of this reclassification could be interpreted differently by the Department, the Environmental Protection Agency, interested parties in a waste discharge licensing proceeding, interested parties in a dam relicensing proceeding, and the Board of Environmental Protection and the courts if licensing decisions were challenged on appeal. The Department does not see a clear path forward to ensure Class B water quality standards would be attained under the conditions required by law. Therefore, an upgrade to Class B would likely cause significant regulatory uncertainty.

The table below summarizes the issues discussed above:

Comparison of Issues for Current Class C and Proposed Class B for Lower Androscoggin River		
Issue	**Class C**	**Class B**
Environmental benefit / changes in water quality. (See "Comparison of Class B and Class C Water Quality Standards" table above in #4 for full comparison of classes.)	Class C meets all requirements of CWA and state law. It allows lower dissolved oxygen levels, higher bacteria levels, and more impacts to habitat and aquatic life than Class B.	Class B meets all requirements of CWA and state law. Requires higher dissolved oxygen levels, lower bacteria levels, and less impacts to habitat and aquatic life than Class C.
Current attainment relative to Class.	Fully attains Class C by meeting or exceeding minimum requirements of all criteria.	Attains Class B most of the time. Projected to not meet Class B dissolved oxygen criteria during critical conditions of low flow and high temperature.
Remaining assimilative capacity for dissolved oxygen under critical conditions of low flow and high temperature.	Approximately 1.6 ppm.	Approximately 0 ppm.
Potential regulatory impacts to new or increased discharges that require a waste discharge license.	Due to remaining assimilative capacity, new or increased discharges could be allowed if antidegradation requirements are met by demonstrating important social or economic benefit.	The lack of remaining assimilative capacity would likely prevent any new or increased discharges.
Potential regulatory impacts to current licensed discharges in upper and lower river.	None. Current license limits ensure attainment of Class C standards and all discharges currently meet license limits.	Significant reduction of license limits for BOD_5 would be needed for mills in Gorham, NH; Rumford; and Jay, and a 33% reduction for LAWPCA to ensure attainment of Class B dissolved oxygen criteria. Regulatory uncertainty for all dischargers is likely.
Potential regulatory impacts to dams.	None known.	Uncertain.

Additional background information related to L.D. 676, An Act to Reclassify Part of the Androscoggin River to Class B

Water Quality Standards:

State water quality standards (standards) are generally established pursuant to Maine law, including provisions in Maine's water classification program, 38 M.R.S. §§464-470. Standards are comprised of the following three components: designated uses, criteria, and an antidegradation policy. Standards may be established in law or rule and must be consistent with the Clean Water Act and approved by the Environmental Protection Agency.

Designated uses are the uses specified in law that water quality must support such as supporting aquatic life and human activities, such as swimming and fishing. They are used to determine water quality criteria, which must protect designated uses and serve as the basis for water quality-based discharge permit limits. The following are the designated uses specified at 38 M.R.S. §465 for Class B and C waters. Most uses are similar. Differences in uses are underlined.

- **Class B:** drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.

- **Class C:** drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as a habitat for fish and other aquatic life.

Water quality criteria are limits on conditions in a water body. Criteria protect particular designated uses, such as habitat for fish and other aquatic life, recreation, and drinking water supply. Criteria can be expressed as acceptable levels (constituent concentrations) or as narrative statements. [1]

For context, as a percentage, Maine's rivers and streams are classified as follows:

Class	%
AA	6.3
A	47.2
B	45.4
C	1.1

[1] *See* 38 M.R.S. §§465.3 and 465.4 for a full description of the statutory criteria in those provisions applicable to Class B and C waters.

The Class C waters are generally located in areas with a relatively large population and/or industrial base relative to the size of the water body. All the rivers below the remaining six pulp and paper mills are classified as Class C for at least some portion of the river. These are the St. John, St. Croix, Androscoggin, Kennebec, and Presumpscot.

The state's Antidegradation Policy, 38 M.R.S. §464.4.F, addresses among other things protection of water quality for existing uses, protection of high-quality waters, and Outstanding National Resource Waters.

The following provision found at 38 M.R.S. §464.4.F.4. has been previously discussed in the context of a reclassification of the lower Androscoggin River.

> "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 recognizes that under certain conditions, and in certain locations, the lower Androscoggin River meets the criteria for Class B waters. However, the Department's long-standing interpretation of 38 M.R.S. §464.4.F.4. is that it must generally be read in the full context of the water quality laws including the sections of law that establish the conditions under which a discharge may be licensed. [2] The Department's interpretation is where any criterion of water quality (for example, dissolved oxygen) 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, and licensed loading from point source discharges.

This interpretation does not consider a wastewater discharge to be an existing use, but it does recognize the legal condition that exists when a waste discharge license is issued. In addition, it recognizes the findings that the Department had to make to issue any waste discharge license, in particular the finding that, "The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification."[3] This finding is based in part on the critical flow condition specified at 38 M.R.S. §464.4.D, "Except as otherwise provided in this paragraph, for the purpose of computing whether a discharge will violate the classification of any river or stream, the assimilative capacity of the river or stream must be computed using the minimum 7-day low flow that can be expected to occur with a frequency of once in 10 years."

---

[2] 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.

[3] 38 M.R.S. §414-A.1.A.

Based on the above, the Department's position remains that 38 M.R.S. §464.4.F.4. does not require the Board of Environmental Protection (BEP) "recommend to the Legislature that that water be reclassified in the next higher classification" solely based on monitoring data that is not representative of critical conditions. However, the Legislature is not precluded from enacting a reclassification if it chooses to do so.

Permitting Process:
The Department is authorized by the Environmental Protection Agency (EPA) to implement the waste discharge licensing requirements of the Clean Water Act. The Department also implements the waste discharge licensing requirements established in Maine law at 38 M.R.S. §§411-424-B. and 38 M.R.S. §464.4., and various Department regulations.

As specified at 38 M.R.S. §464.4.A.8., the Department may not issue a waste discharge license for, "Discharges for which the imposition of conditions cannot ensure compliance with applicable water quality requirements of this State or another state". This is an important requirement when a reclassification is being evaluated. Licenses that contain discharge limits that currently ensure attainment of Class C criteria, may not be adequate to ensure Class B criteria are attained under the conditions required by law. If that is the case, the license limits would need to be made more stringent to ensure the new Class B criteria can be attained. In some cases, depending on the specific conditions of the water body, it may not be possible to create a licensed condition that ensures attainment of a higher classification. As explained below, this is the situation with the Androscoggin River.

The important summary of the above is that a reclassification to a higher class creates legally binding licensing requirements that must be met. <u>These are not only goals, they also carry legal requirements.</u> Also, in water bodies that are not attaining their classification, the licensing of any new or increased discharge would be prohibited if the discharge would contribute to the non-attainment. It is highly recommended that the Legislature fully understands any new licensing requirements that will be imposed on any discharge prior to a reclassification decision being made.

History of Lower Androscoggin Reclassification Requests:

- 2009 – During a water reclass review process the Department made recommendations to the BEP to not upgrade the Lower Androscoggin due to lack of data. The Lower Androscoggin was not included in the BEP upgrade recommendations to the Legislature. The Friends of Merrymeeting Bay testified in favor of the upgrade during a public hearing on the reclassification bill. The Legislature requested the Department conduct necessary studies "to determine if the section of the Androscoggin River from Worumbo Dam in Lisbon Falls to the line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction meets, or can reasonably be expected to meet, the criteria for reclassification from Class C to Class B."

- 2010 – The Department completed river sampling.

- 2011 – The Department completed *Lower Androscoggin River Basin Water Quality Study Modeling Report (March 2011).* The Report findings did not support reclassification as there was not an identified way to ensure that the more stringent dissolved oxygen standard of 7 mg/L for Class B could be met even with the complete elimination of the wastewater discharges from the Lewiston Auburn Water Pollution Control Authority (LAWPCA) and the Town of Lisbon.[4]

- 2011 - L.D. 154, *An Act to Change the Classification of the Lower Androscoggin River.* The Department testified in opposition to this L.D. based on model results. The bill was placed in Legislative files (DEAD) pursuant to Joint Rule 310.3.

- 2013 - L.D. 845, *An Act to Change the Classification of the Lower Androscoggin River.* The Department testified in opposition to this L.D. based on model results. The ENRC voted ONTP 11-2 and ultimately the bill was not passed.

- 2018 – Statewide reclassification proceedings. The Department recommended to the BEP that the lower Androscoggin River not be included with upgrade reclassifications for ten other water bodies. (In addition to the lower Androscoggin, the Department also did not recommend two other water bodes for upgrade). The BEP agreed with this recommendation.

Department Water Quality Models for the Upper and Lower Androscoggin River:
Water quality models are computer models that use inputs of water quality monitoring data, discharge data, and various input parameters to simulate and predict water quality conditions under various scenarios. They are very useful to determine potential attainment status when considering a change in water classification. Models can be used to simulate attainment status of water quality criteria such as dissolved oxygen at critical conditions that are required as part of the waste discharge licensing process. The models used by the Department are developed and supported by EPA.

The Department has developed two water quality models for the Androscoggin River. The upper Androscoggin model was completed in 2005 and was used as the basis for the issuance of renewal waste discharge licenses for discharges in the upper Androscoggin from New Hampshire to Gulf Island Dam, and for the relicensing of the Gulf Island Dam in 2005.

The lower Androscoggin model was developed in 2011 as noted above.

[4] See additional discussion of model findings below under the heading Department Water Quality Models for the Upper and Lower Androscoggin River.

Upper Androscoggin Model

The upper Androscoggin is Class C from the confluence with the Ellis River at Rumford Point to the Gulf Island Dam. One of the primary issues with the 2005 relicensing process was the non-attainment of the dissolved oxygen criterion in the lower portions of the impoundment (Gulf Island Pond) created by Gulf Island Dam and non-attainment with the designated use of "recreation in and on the water" due to periodic algal blooms within the pond. This licensing process was the most technical and legally complex waste discharge licensing process the Department has ever undertaken. In the end, renewal permits were issued to the pulp and paper mills in Jay and Rumford and the municipal wastewater facility in Livermore Falls, and a water quality certification was issued for Gulf Island Dam that included various water quality-based limits and operating conditions that would allow Class C criteria to be met.

An important aspect of this process was the finding that the Class C dissolved oxygen standard could not be attained without the use of an instream oxygenation system. This system is in the upper reaches of Gulf Island Pond (at upper and lower narrows) and injects oxygen into the water column from June 1 – September 30. This type of "in stream" treatment system is extremely rare. There are no other systems like it in Maine and very few others in the country. Under federal and state regulations, it can only be used to meet water quality based limits if, among other things, the technology-based treatment requirements are not sufficient to achieve the standards, and the alternative selected has been demonstrated to be a preferred environmental and economic alternative to achieve the standard after consideration of alternatives such as advanced treatment, recycle and reuse, land disposal, changes in operating modes and other available methods.

The findings of this model are explained in the Department reports: *Androscoggin River Total Maximum Daily Load – Final (May 2005)* and *Addendum to the Androscoggin River 2005 Total Maximum Daily Load (May 2010).*

The findings of these documents are important to any discussion of upgrading the lower Androscoggin because the water that flows from Gulf Island Pond into the lower Androscoggin contributes 97% of the boundary condition flow for any modeling of the lower Androscoggin. It is important to note that as a Class C water the upper Androscoggin is only required to attain the criterion of 5 ppm for dissolved oxygen. There are currently no regulatory controls in place to ensure it attains higher than 5 ppm. In order to ensure a boundary condition of 7 ppm dissolved oxygen flowing over or through the dam signification reductions in license limits for the three mills would be required. An example of these reductions is summarized in the #7 of the Department's testimony.

Lower Androscoggin Model

Important findings of the lower Androscoggin model that indicate there is no feasible approach to ensure attainment of proposed Class B dissolved oxygen criteria include:

Within the lower section of the river, during critical low flow conditions, 97% of the flow is from the main stem of the river (Class C), 2.5% is from the Little Androscoggin River (Class C), 0.4% is from the Sabattus River, and 0.1% is from the Little River.

The increased depth, volume, and decreased velocity in the impoundments diminish the reaeration rate and depress the overall dissolved oxygen concentration. These impoundments also create slow moving segments that accumulate organic sediment, which also decreases the dissolved oxygen concentration.

During critical water quality conditions of low river flow, high water temperature, and maximum licensed discharge from the Publicly Owned Treatment Works, the model predicts dissolved oxygen concentrations will be below the Class B criterion of 7.0 mg/L in eight of the twelve river segments from the confluence with the Little Androscoggin River in Auburn to the Brunswick-Topsham Dam. Predicted dissolved oxygen concentrations were below the Class B criterion of 7.0 mg/L for all segments from the Worumbo Dam to the Brunswick-Topsham Dam. This model run was based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L. When using a modeled dissolved oxygen boundary condition of 7.0 mg/L all twelve segments indicate non-attainment. When using the most appropriate boundary condition of 5.0 mg/L that reflects the current Class C dissolved oxygen criteria of the upper Androscoggin and the Little Androscoggin River that comprise the boundary condition, all twelve segments indicate non-attainment, with five of the segments more than 0.5 mg/L below the Class B criteria. Non-attainment is primarily driven by periphyton respiration during non-daylight hours. (Periphyton are algae that grow attached to submerged objects such as logs, rocks, plants and debris.)

The river sampling showed a nutrient loading from sources upstream of the study area. A separate model run was performed to assess the effect of these upstream sources relative to the point source discharges within the study area. After completely removing the discharges from the Lewiston-Auburn Water Pollution Control Authority and the Lisbon Wastewater Treatment Facility, the water quality model predicted dissolved oxygen concentrations would still be below the Class B criterion of 7.0 mg/L in two of the twelve fresh water river segments based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L.

While the sampling data showed nutrient loading from sources upstream of the study area, these loads are not considered excessive. 39 of the 42 phosphorus samples taken during the 2010 sampling period indicate phosphorus levels below the numeric ambient criteria for Class B waters the Department is considering for rulemaking. The diurnal swings in dissolved oxygen of approximately 1 mg/L driven by periphyton respiration during non- daylight hours are also not considered excessive.

Summary:
In summary, the existing models provide enough information to support the Department's previous assessment that there is no practical approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River under critical low flow conditions. Based on these studies, the Department does not recommend that the lower Androscoggin River be upgraded to Class B at this time.

APPENDIX D

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2021 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

REVISED SUMMARY OF PUBLIC COMMENTS TO THE BOARD OF ENVIRONMENTAL PROTECTION, AND MDEP RESPONSES

Table of Contents

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2021 TRIENNIAL REVIEW OF WATER QUALITY STANDARDS

REVISED SUMMARY OF PUBLIC COMMENTS TO THE BOARD OF ENVIRONMENTAL PROTECTION, AND MDEP RESPONSES

Introduction

The Maine Board of Environmental Protection (Board) published recommendations for water quality standards (WQS) changes, including water quality classification upgrades, considered under the Triennial Review (TR) for public comment on August 18, 2021. The recommendations were posted on the Maine Department of Environmental Protection's (Department or MDEP) website www.maine.gov/dep/water/wqs/triennial-review.html and public notice was provided as described below. One public hearing was held on October 7, 2021, both in-person at the Augusta Civic Center and online via Zoom. The Board accepted written public comments via MDEP until October 25, 2021. If the Legislature accepts a TR bill for consideration, an additional opportunity for comment will be available in that venue.

Notice of the public hearing and public comment period was published on August 18, 2021 in the Bangor Daily News, Kennebec Journal, Morning Sentinel, Portland Press Herald, and Sun Journal. Notice was also sent by e-mail on the same date to subscribers to Department Opportunities for Comment, all Maine legislators, and approximately 2,200 persons and organizations on various Department contact lists. These contact lists included all entities that had provided TR proposals in early 2020 or supported them or provided public comment to the Department in April/May 2021; officials from all cities and towns in Maine; the Land Use Planning Commission (for unorganized towns); State natural resource agencies; a number of non-profit organizations; the four federally recognized Indian tribes in Maine; businesses that are potentially affected by proposals (e.g. dischargers, hydropower owners); Soil and Water Conservation Districts; County commissioners; consultants; and a number of citizens. Follow-up e-mails noting the relevance of the 8/18 e-mail to recipients were sent to any cities and towns located in the watershed of any upgrade candidate as well as any umbrella organization included in the prior mailing.

The Board received a number of comments during the official public comment period and wishes to thank all persons who provided input. In its consideration of Department recommendations, the Board considered all comments, which are briefly listed in Table 1, and presented fully in the remainder of the document in the order and with the status that proposals were included in the August 18, 2021 recommendations document. Where applicable, comments are grouped by proposal and position, and within each group they are arranged in the order received. In some cases, typographical or other minor errors in comments were corrected. Responses are provided at the end of each topic that received both supporting and opposing comments, or that raised a point requiring a response. No response is provided for comments that either supported recommendations or were of a general nature.

Table 1. List of public comments received between August 18 and October 25, 2021.
Listed in the order received (written comments) or presented (oral comments).

#	Affiliation	Proposal	Support/Oppose DEP Recommendation
Written comments received			
1	Citizen	Lower Presumpscot River upgrade	Oppose
2	Maine Trout Unlimited Council	Lower Androscoggin River upgrade	Oppose
3	Citizen	Lower Androscoggin River upgrade	Oppose
4	Friends of Graham Lake	Turbidity standards Donnell Pond tribs	Support
5	Friends of the Presumpscot River	Lower Presumpscot River upgrade	Oppose
6	Senator, Senate District 18	Lower Androscoggin River upgrade	Support
7	Maine Rivers	Most upgrades, including Lower Presumpscot River	Support/Oppose
8	Portland Trails	Lower Presumpscot River upgrade	Oppose
9	Citizen	All proposals	Support
10	Transcript of October 7, 2021 Board hearing		
10-1	Grow L+A	Lower Androscoggin River upgrade	Oppose
10-2	ND Paper, Rumford	Lower Androscoggin River upgrade	Support
10-3	Pixelle, Jay	Lower Androscoggin River upgrade	Support
10-4	Rumford Sewer District	Lower Androscoggin River upgrade	Support
10-5	Pierce Atwood, Portland	Lower Androscoggin and Presumpscot Rivers upgrades	Support
10-6	The Sells Law Firm, Portland	Lower Androscoggin River upgrade	Oppose
10-7	Friends of the Presumpscot River	Lower Presumpscot upgrade	Oppose
10-8	Citizen	Lower Presumpscot River upgrade	Oppose
10-9	Maine Rivers	Most upgrades	Support/Oppose
10-10	The Nature Conservancy	Most upgrades	Support/Oppose
10-11	Friends of the Presumpscot River	Lower Presumpscot River upgrade	Oppose
10-12	Friends of Merrymeeting Bay	Lower Androscoggin River upgrade	Oppose
10-13	Friends of the Presumpscot River	Lower Presumpscot River upgrade	Oppose
10-14	Town of Rumford	Lower Androscoggin River upgrade	Support
11	Friends of Casco Bay	Lower Presumpscot River upgrade	Oppose
12	Grow L+A River Working Group	Lower Androscoggin River upgrade	Oppose
13	The Nature Conservancy	Multiple upgrades, including Lower Presumpscot River	Support/Oppose
14	City of Auburn	Lower Androscoggin River upgrade	Oppose
15	Brookfield Renewable	Lower Androscoggin River upgrade	Support
16	Friends of the Presumpscot River	Lower Presumpscot River upgrade	Oppose
17	Citizen	Lower Presumpscot River upgrade	Oppose
18	Natural Resources Council of Maine	Not recommended AAs Lower Presumpscot River upgrade	Oppose

#	Affiliation	Proposal	Support/Oppose DEP Recommendation
19	Androscoggin River Watershed Council	Lower Androscoggin River upgrade	Neither
20	Friends of Merrymeeting Bay	Lower Androscoggin River upgrade	Oppose
21	The Sells Law Firm for FOMB	Lower Androscoggin River upgrade	Oppose
22	Penobscot Nation	Water quality standards, multiple upgrades	Support/Oppose
23	ND Paper, Rumford	Lower Androscoggin River upgrade	Support

COMMENTS RECEIVED

COMMENT ON ALL TRIENNIAL REVIEW RECOMMENDATIONS

Comment in support of all recommendations:

- Matthew Scott, citizen (Aquatic Biologist, Emeritus) (written comment)

I do support the staff recommendations for the three year review and proposed changes.

- Ed and Anne Damm, Diane and Brad Perry, Mark Whiting and Catherine Fox, Friends of Graham Lake (FOGL) (written comment)

We wish to state for the record that we agree with the revised recommendations by DEP staff for changes in state water quality standards.[1]

COMMENTS ON PROPOSALS FOR CHANGES TO WATER QUALITY STANDARDS

Names provided in parentheses after each item identify the organization(s) that made the original proposal.

Use of EPA Bacteria Criteria, Update to pH Standards, Expansion of Reportable Bacteria Units (EPA, EPA/MDEP, IDEXX)

Comments in support of original proposals:

- Dan Kusnierz, Penobscot Nation (written comment)

PIN supports the ME DEP using the EPA promulgated year-round applicable bacteria criteria for B, C, SB and SC waters in Indian lands and encourages Maine to have year-round bacteria criteria for all waters. Use of waters by Tribal citizens is not a seasonal occurrence. Tribal people use water throughout the year for gathering wild foods, ceremonial purposes, and other cultural uses. Bacteria criteria should be protective of these uses and the health of the people that carry out those uses.

PIN also supports the proposed change in the upper and lower pH range from 6.0 – 8.5 to EPA's recommended range of 6.5 to 9.0 to be protective of developing salmon eggs.

[1] The commenters disagreed with MDEPs recommendation to not upgrade Donnell Pond tributaries. This comment was based on a misunderstanding – MDEP recommended this particular upgrade, see page 9, below.

PIN also supports the proposal to expand the reportable bacteria units to MPN. The PIN Water Resources Program laboratory uses the US EPA approved IDEXX Coli-lert method that provides MPN per 100 ml results and therefore it is important that we are able to report data with correct units.

Development of New Water Quality Standards - Development of Water Quality Standards to Address Turbidity Problems (Friends of Graham Lake)

Comments in support of original proposal:

- Ed and Anne Damm, Diane and Brad Perry, Mark Whiting and Catherine Fox, Friends of Graham Lake (FOGL) (written comment)

FOGL is a community organization with 200 members from 4 towns that abut the lake (Ellsworth, Mariaville, Waltham and Fletcher's Landing). We are the founding members of the FOGL lake association, the acting officers, and most of us are direct abutters to the lake. We are pleased that the DEP has committed to formulating turbidity water quality criteria. We understand that this will take some time and appreciate that work has already begun. This decision will greatly improve the water quality, protect recreational and property values, and enhance wildlife and fishery habitat for the lake. We ask that the Board support this recommendation.

GENERAL COMMENT ON WATER QUALITY CLASSIFICATION UPGRADES

- Landis Hudson, Maine Rivers (written and hearing comment)

This is the first reclassification to be seen by the Maine Board of Environmental Protection in over 10 years, although the process is organized to occur every three years. As such we believe that this is an exceptional opportunity for the Board to engage in the process, and offer the leadership and direction necessary to solidify hard-won restoration gains and take advantage of appropriate conservation opportunities. Maine's success in preserving exceptional conditions and incrementally improving conditions stems from the explicit articulation that optimizing and preserving high quality waters is the goal of the State (§464.1 and §464.4.F(4)). Reclassification is vital to this process. We note that reclassification is an action by the Board of Environmental Protection (§464.2.A-D) to make recommendations to the Legislature.

MDEP Response:

The Department most recently conducted a reclassification initiative in 2017 through 2019. A prior reclassification initiative had concluded in 2009. The current Triennial Review began in January 2020. The Department and Board use these opportunities to review, and as appropriate update, water quality standards, including water quality classifications, to "restore and maintain the chemical, physical and biological integrity of the State's waters and to preserve certain pristine state waters" as required by Maine statute (38 M.R.S. Section 464.1). Public engagement is an integral part of any water quality standards review. The Board has the responsibility of making recommendations on changes to existing standards to the Maine Legislature as the institution responsible for making statutory changes. Ultimately, the U.S. Environmental Protection Agency must give final approval to any changes made by the State of Maine.

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

TNC appreciates the opportunity to comment on the Maine Department of Environmental Protection 2021 Triennial Review of Water Quality Standards. Reclassification is an essential tool for adjusting the State's water quality management goals to reflect improving conditions on the ground and the value of Maine's waters for people and wildlife. We appreciate the efforts by staff and the Department to solicit input and carefully evaluate recommendations over the last several months.

COMMENTS ON PROPOSALS FOR WATER QUALITY CLASSIFICATION UPGRADE – RECOMMENDED

Names provided in parentheses after each item identify the organization(s) that made the original proposal.

Note: Because comments are presented in this document in the order and with the status that proposals were included in the August 18, 2021 recommendations document, comments on proposals that were later recommended for upgrade are not included in this section but below under COMMENTS ON PROPOSALS FOR WATER QUALITY CLASSIFICATION UPGRADE – NOT RECOMMENDED.

Upgrades Recommended - Miscellaneous Upgrades (The Nature Conservancy and MDEP)

Comments in support of original proposals:

- Landis Hudson, Maine Rivers (written and hearing comment)

Maine Rivers greatly appreciates the Department's support for a number of upgrades, most notably the West Branch Penobscot River and East Branch Penobscot River tributaries in the new KWW National Monument. We note that these upgrades, while long overdue, will provide value and tangible benefits for future generations. We are pleased to support them and believe that their inclusion offers long-term benefits to the state Maine and our waters.

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

TNC supports and appreciates the Department's recommendation to upgrade the following water bodies:

- *Tributaries to East & West Branches Penobscot River in KWWNM, T4 R8 WELS and Other Townships. Upgrading from Class A to Class AA would make management of all waters within the National Monument consistent and recognize their high values.*
- *Southwest Branch St. John River, T9 R17 WELS, T10 R16 WELS and Big Ten TWP.. This segment falls fully within TNC's ownership and conservation management and is thus fully protected. This section was inadvertently designated as Class A even though it was always intended as Class AA.*

- *We appreciate the recommendation to upgrade the section of the West Branch Penobscot River and Tributaries above Ambajejus Lake (T2 R10 WELS and Other Townships) from Class A to Class AA*

- Nick Bennett, Natural Resources Council of Maine (NRCM) (written comment)

NRCM supports DEP's proposed upgrades in the package.

- Dan Kusnierz, Penobscot Nation

1) *Cambolasse Stream (Upgrade C to B) – Annual water quality monitoring conducted by the PIN Water Resources Program shows that class B water quality criteria are met at this stream segment. The closure of the sawmill and business upstream, and a return from an impoundment to a free-flowing stream have led to water quality improvements.*
2) *East and West Branch Penobscot River tributaries in KWWNM (A to AA) – The creation of the KWWNM provides additional protections to these tributaries that flow into AA waters of the East and West Branch Penobscot. These waters are important and high value for cold water fish spawning including wild brook trout and Atlantic salmon*
3) *Medunkeunk Stream tributaries – (B to A). This would help maintain water quality in these tributaries as well as the Class A Medunkeunk Stream.*
4) *Schoodic Stream and Scutaze Stream tributaries – These waters are important for cold water fish spawning for Atlantic salmon.*
5) *West Branch Penobscot River segments and tributaries (A – AA). These waters are very important to the history and culture of the Penobscot Nation with significant ecological, scenic, social, and recreational importance. These waters support high quality native brook trout and landlock salmon habitat. This upgrade would prevent future hydropower development that would degrade these uses.*

<u>Upgrade Recommended</u> - Tributaries to Donnell Pond, T9 SD BPP, T10 SD BPP, Franklin and Sullivan (The Nature Conservancy)

<u>Comments in support of original proposal:</u>

- Ed and Anne Damm, Diane and Brad Perry, Mark Whiting and Catherine Fox, Friends of Graham Lake (FOGL) (written comment)

We are concerned that the revised staff recommendations do not currently support a water classification upgrade for the tributaries to Donnell Pond. We understand the uncertainty with respect to EPA's concern about licensed stormwater discharges and protection of Class A/AA and Outstanding Natural Resource Waters. However, these streams are mainly in BPL lands and unorganized territories and in some cases extend into Franklin and Sullivan. These streams do not receive any stormwater discharges and never will. We agree with The Nature Conservancy that these should be upgraded to Class A to make them consistent with other water resources in the Tunk – Donnell Pond Public Reserve Lands.

MDEP Response:

This comment is based on a misunderstanding as these waters are being recommended for an upgrade by MDEP. In the revised draft recommendations, they are included in the Table 1 section "Proposals recommended for upgrade" (page 12), and also in the section "UPGRADES OF CLASSIFICATION" in the body of the document (page 56). The concern about licensed stormwater discharges to Class AA waters does not apply here because tributaries to Donnell Pond are proposed to be upgraded to Class A, not AA.

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

TNC supports and appreciates the Department's recommendation to upgrade the following water bodies:

- *Tributaries to Donnell Pond, T9 SD BPP, T10 SD BPP, Franklin and Sullivan. This upgrade from Class B to Class A would make management of all waters within the Donnell Pond Public Reserved Land unit consistent. The tributary waters draining into Donnell Pond were inadvertently left in Class B and this upgrade would protect their natural qualities and the quality of Donnell Pond.*

COMMENTS ON PROPOSALS FOR WATER QUALITY CLASSIFICATION UPGRADE – NOT RECOMMENDED

Names provided in parentheses after each item identify the organization(s) that made the original proposal.

Note: Because comments are presented in this document in the order and with the status that proposals were included in the August 18, 2021 recommendations document, comments on proposals that were later recommended for upgrade are included in this section.

Upgrade Not Recommended - Androscoggin River from Gulf Island Pond Dam to the Mouth of the River in Merrymeeting Bay, Lewiston, Auburn Lisbon, Durham, Topsham and Brunswick (Friends of Merrymeeting Bay and Grow L+A)

Note: During the first regular session of the 130th Maine Legislature (winter/spring 2021), LD 676, An Act to Reclassify Part of the Androscoggin River to Class B was discussed by the Joint Standing Committee on Environment and Natural Resources (ENR). Some Triennial Review comments included references to this proposed legislation. The ENR Committee voted to carry the LD over to the next legislative session to allow for consideration of the upgrade proposal by a wider audience and the Board of Environmental Protection.

MDEP Response on pages 53-54

Comments in support of original proposal:

- Greg D'Augustine, citizen (written comment)

As a property owner on the Androscoggin, and a board member of Maine Rivers I ask that BEP continue efforts to upgrade the classification of the lower Androscoggin, from approximately Great Falls to Merrymeeting Bay from it's current "C" listing to "B". It's clear that the water quality in that segment has improved immensely over the past 30 years, and it is time to move forward on recognition of that improvement.

At the very least, BEP should enact or lobby for enactment of ongoing water testing in that segment of the river, with the expense paid by those who are profiting from the river, i.e. industries adding waste to the river, and Brookfield Hydro. Detailed testing should resolve the issue of determining whether or not the river meets class "B" standards, and should take precedence over any modelling done in the past.

- C. E. McGinley, Maine Trout Unlimited (TU) Council (written comment)

On behalf of its six chapters and over 2,000 members, Maine Council of Trout Unlimited (TU) would like to express its intensifying support for the upgrade of the waters of the lower Androscoggin River from Water Quality Classification C to Water Quality Classification B.

Trout Unlimited has been engaged with this issue since late in 2019 through the Grow L+ A Working Group where we learned that reclassifying this section of the Androscoggin River had been proposed to the Maine Department of Environmental Protection (MDEP) for some time, but had not been approved. Data gathered by the cities of Lewiston and Auburn, and the Friends of Merrymeeting Bay has demonstrated that this river section meets the requirements for reclassification to Class B, and it is high time to protect the gains that have been made there. Upgrading the water quality classification would help preserve these standards and encourage greater recreational use and enjoyment of the resource by both our membership and Maine's general public.

TU has been active in its support of efforts by the Maine Department of Marine Resources, the Maine Department of Inland Fisheries and Wildlife, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service to restore anadromous fish runs to the lower Androscoggin, Sabattus River, and Little Androscoggin River. Upgrading the classification of the lower Androscoggin would serve to enhance the effectiveness of this effort, contribute to the health of resident fish, and improve the health of the ecology of the greater watershed. Of additional note is that the lower Androscoggin is designated critical Atlantic salmon habit. It is completely incongruous that waters of this importance should carry Maine's lowest water quality classification, particularly after 50 years have passed since it served as the motivation for Senator Ed Muskie's Clean Water Act. We are all aware of the attention currently being focused on restoration of Atlantic salmon to the Kennebec River Watershed. The Androscoggin is in the same salmon habitat recovery unit (SHRU) as the Kennebec. Please understand that the restoration methodology being employed requires all of the critical habit to be restored for the restoration effort to be successful.

Objections to the upgrade center on fears that if plants upstream were to discharge at the maximum licensed capacity, the lower Androscoggin would not meet Class B standards. There have been improvements to technology since those licenses were issued, and the watershed would suffer if it returned to earlier conditions. What is more, addition of oxygen required to maintain DO levels in the Gulf Island Pond upstream could be adjusted to ensure that this key component of water quality is properly maintained.

Please do not rely on the same factors used in the past by MDEP in recommending denial of the reclassification. The prime example was clearly articulated in the Greenfire Law Memorandum [Rachel Doughty, Greenfire Law, PC, RE: Reclassification of the Lower Androscoggin River to Class B, March 31, 2020] - modeling cannot be used to contradict uses actually being attained. The memorandum cites the legal precedence for this and other arguments MDEP staff has inappropriately used in the past as bases for recommending denial of reclassification. Reclassification should have been recommended years ago.

The Clean Water Act and Maine's anti-degradation policy require that "[w]hen 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." (38 M.R.S. § 464.4.F.4; see also 40 C.F.R. § 131.20(i)). The plain language of the law must take precedence. It is a matter of law for the board to recommend the upgrade to the legislature.

Many of our members remember what the lower Androscoggin was like before the passage of the Clean Water Act. The cities of Lewiston and Auburn have invested over $50,000,000 since 2010 to improve the water quality, and that is what has made the difference. Please protect their investment and give Atlantic salmon restoration its best chance of success in the watershed, the SHRU, and the state of Maine.

Accordingly, we urge that the board forward its strongest recommendation to the legislature that the Water Quality Classification of the lower Androscoggin River be upgraded from C to B.

- Peter Rubins, Grow L+A River Working Group (written and hearing comment)

Rivers are part of the Public Domain defined as: "the state of belonging or being available to the public as a whole." They are the arteries and veins of our little planet earth.

We ask the Board of Environmental Protection endorse LD 676 *and to find a way to work with industry, government and the public to reclassify the Androscoggin below Gulf Island Dam to Class B according the law that states: "Once a River has met a higher quality, that it cannot be allowed to slip backwards." Muskie's Androscoggin deserves this status on the 50th anniversary of the Clean Water Act. This request is from a coalition including: Friends of Merrymeeting Bay, Grow L+A River Working Group, The Androscoggin Land Trust, Maine Rivers, Trout Unlimited, the cities of Lewiston, Auburn, Brunswick and others. This includes the Public Domain of over 200,000 Maine citizens.*

I want to talk about science and the law.

Science Data Collection:

DEP VOLUNTEER DATA COLLECTION*; The data we present to you is from the DEP volunteer program over the past 20 years, and is collected by hundreds of volunteers, for hundreds of hours early in the morning.* ***The DO data shows that the River has met Class B 99% of the time. That is 361 days a year****. E Coli is also way below the maximum. (See graphs in Appendix A, page 72)*

CSO IN LEWISTON-AUBURN*; (See graphs in Appendix A, page 73)* ***Lewiston and Auburn have spent 50 million dollars over the past 10 years on CSO*** *and Lewiston has one big project scheduled to meet their goals. (25 million $) Low Flow toilets have reduced waste water*

considerably. All the cities on the Lower Andro are working on lowering their CSOs. Auburn is down near zero.

***Electronic Sondes**: (see graphs in Appendix A, page 74) **We request the DEP to install permanent Sondes along the Andro dams to document elusive 7Q10 and billed to the hydro-paper bubbler corporation. When was the last documented 7Q10 on the Andro in the past 50 years?** in this age of information, this is the state of the art in hydro data collection. At our request, the DEP installed electronic Sondes in three locations, Gulf Island Dam, Lewiston Falls and the Durham boat launch, at low Sept drought flows in Sept. 2019 for a 15 day period. The readings are all above 7PPM at minimum required licensed flows reflecting drought conditions. And this minimum flow is for Brookfield to allow for 1,450 cubic feet per second out of Gulf Island Dam and also through the Lewiston Falls hydro plant. Note on the graph, my readings that day for the same locations using the DEP DO testing device are below what the electronic Sondes recorded. This implies that for accurate **reading electronic Sondes should be installed at all questionable sites on a yearly basis for the DEP to** make modern scientific data collection its standard. The cost should be shared with the hydro and paper industries for their licensing.*

The Law** (see document in Appendix A, page 75) "The department's refusal to recommend and upgrade violates the legal standard in the **Clean Water Act, 'that a state revise its standards to reflect uses and water quality actually being attained."

***The History** -- In 1942 the Androscoggin River was so polluted that it actually peeled paint off houses and was harmful to the health of all 200,000 people living along the river. The Maine Supreme Court ordered that a River commission be headed by a Bates College chemistry professor, Dr. Walter Lawrance, to aid the clean-up of noxious waste water effluent polluting the River. He helped change the paper manufacturing process from Sodium, to the Kraft Method which helped a little.*

1972: Sen. Ed Muskie passed the Clean Water and Air Act with good intentions of cleaning up the River within 10 years. It didn't happen. It has taken legislation every step of the way to get industry to comply with Muskie's dream.

1990: Sen. John Nutting, a dairy farmer that lives on the Androscoggin in Leeds passed the contentious "Color, Odor and Foam Bill" that put industry on notice to clean up their effluent. They found that by complying that they actually could burn some of the waste and make electricity.

1996: Sen. Nutting passed the Dioxin Bill

2004: Sen. Nutting again passed the Phosphorus Bill

The point is that nothing has happened without legislation. Our Bill LD 676 recognizes the science of water testing and data over the past 20 years that shows the River, from the outflow of Gulf Island Dam down through Brunswick, meets B standards of 7PPM 99% of the time. That is 361 days out of the year and the Clean Water Act is Goal Oriented by law.

CONCLUSION:

*Industry has never self regulated and legislation has been the only way to convince them that it is not their river to pollute. **The Public Domain and the Law does not allow them to add pollutants over their current usage that will reduce DO in the lower Androscoggin. Our data shows the water below Gulf Island Dam, down through Brunswick, meets Class B now without any changes. The paper companies are all working well below their licensed***

maximum flows and have the technology to keep them that way through the licensing process. *The paper company's fears are unsubstantiated as the data shows that B has been attained for past 20 years of their standard operations. There is a major difference between Classification and Licensing.*

At our meeting with Brian Kavanah and Rob Mohlar two years ago, we asked them to show us a model of the Andro that would meet B Class and they said, "we can't make a model that will work". We asked, "what is our recourse?" and they said that would be "the legislature". Now LD676, after a NO RECLASS to the ENRC from DEP, is being tabled and virtually blocked by the DEP because of its negative recommendation. Our recourse is for the BEP to recommend LD676 go to the legislature to be voted on. THE LEGISLATURE SETS CLASSIFICATION!

We request the Board of Environmental Protection to endorse LD 676 to the Environment and Natural Resources Committee and let the legislature see the data, and vote to reclassify the lower Androscoggin to Class B. *Hopefully we can reclassify Muskie's Androscoggin to Class B for the 50th Anniversary of his Clean Water Act of 1972 and his comments at that time: "Can we afford clean water? Can we afford rivers and lakes and streams and oceans which continue to make life possible on this planet? Can we afford life itself?" Let's live up to Sen. Muskie's dream and make the Androscoggin the "Poster Child" of the Clean Water Act 50 years later. Please endorse LD676.*

- Jason Levesque, Peter Crichton, City of Auburn (written comment)

The Androscoggin River is a National Success Story*! It was one of the top ten polluted rivers in the country 50 years ago on the first Earth Day Celebration and remains Class C. Data shows that it currently meets Class B and reclassification to B won't allow it to slip backwards.*

As you know, Maine's Water Quality Classification System is ***goal-based****. When proposing an upgrade in classification, recommend waters that either presently attain or with reasonable application of improved treatment or Best Management Practices (BMPs), could reasonably be expected to attain, the standards and criteria of a higher proposed class.*

The Maine legislature has passed the following bills to require industry and municipalities to meet these standards. Data shows that the Androscoggin has been meeting Class B standards since 2010, largely due to Senator John Nutting's Color, Odor, Foam Bill, 1990, Dioxin Bill passed 1996, and Phosphorus Bill passed in 2006; sewer system upgrades by the cities of Lewiston and Auburn and others, providing storm overflow protection; and the Gulf Island Pond Oxygenation Project.

This letter is written in support of Friends of Merrymeeting Bay (FOMB), Grow L+A River Working Group, Trout Unlimited (TU) and cities on the Androscoggin and more, for the proposal to reclassify, from Class C to Class B, the lower Androscoggin River from its mouth in Merrymeeting Bay to Gulf Island Dam . Since 1999, FOMB has consistently recorded water quality data along this section of river demonstrating actual Class B standards are being met nearly all of the time. FOMB trained volunteers operating under EPA and or DEP quality assurance plans have in the past collected data used to support a similar upgrade on the lower Kennebec River from Augusta to the Bay.

The water quality of the Androscoggin sections proposed for an upgrade, exceed the current classification and meet those of Class B. This request to upgrade from C to B is supported by the State antidegradation policy as quoted below:

38 M.R.S.A. § 464 (F) (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**. The board **shall recommend** to the Legislature that water be reclassified in the next higher classification."*

Clean rivers enhance the local economy and vitality of the communities surrounding them. A clean, healthy river attracts people, new businesses, and increases property value. An upgrade of the Androscoggin will not have an adverse impact on current industrial uses along the river since Class B conditions have been met for years in the course of "business as usual." While higher (than current actual) discharge limits exist for a number of licensees, these artificially high numbers can not be used to create a ceiling on water quality improvements that prevents reclassification to higher levels already obtained. Our goal is to lose not one job in the paper mills and adjust their licenses for maximum effluents to meet Class B modeling with the DEP and to allow them to continue manufacturing as we all improve the River.

Considering the past upgrades supported by FOMB data, their meticulous sampling and current supportive data, the City of Auburn believes the Board should endorse the Androscoggin proposal, recommending an upgrade of this section from C to B to the legislature. It is a public right to have access to clean water ways for the surrounding communities, people, and creatures. If the water quality of this river meets a higher classification we should be working hard to preserve its integrity as state and federal laws intend and dictate. Upgrading the Androscoggin to lock in improved water quality conditions is also consistent with our most recent comprehensive plan.

Senator Muskie used the Androscoggin as his poster child for the Clean Water Act. Years later, it receives less State support compared to Maine's other large rivers when it comes to clean-up efforts. The Board has an opportunity to change this and we ask you to do so. The Androscoggin's time has come and the future of recreation in the corridor, including the Riverlands State Park depends on it.

Thank you for your time and consideration in this matter.

- Ed Friedman, Friends of Merrymeeting Bay (FOMB) (written and hearing comment)

***River**/Sections: Androscoggin from Worumbo Dam to Merrymeeting Bay*
***Proposed Upgrade**: C to B*
***Basis for Proposal**: Actual conditions meet Class B*
***Documentation**: Supporting data from FOMB monitoring program approved by Maine DEP and USEPA, Supplementary aquatic life sample data, MDEP sonde data, Lewiston/Auburn POTW/CSO data, USGS flow data*
***Data Collection Periods**: DO-1999 to present; Coliform Bacteria-2006 to present*
***Sampling Intervals**: Monthly or more: April-October*
***What's New**: Expanded coalition plus additional VRMP data through 2021, DEP low flow sonde data, Lewiston/Auburn CSO data and wastewater report, extensive supporting exhibits, comprehensive aquatic life sampling and two new and comprehensive legal analyses.*

Multiple Segments for Consideration, but One Definitely Makes the Grade

Please consider these comments supporting our upgrade for the lower Androscoggin River segments between Merrymeeting Bay at the line from Pleasant Point in Topsham to North Bath extending upriver to Worumbo Dam in Lisbon Falls. As our data show, while classified as C, this section has long been actually meeting, Class B standards approximately 98% of the time. We therefore propose it be upgraded from C to B. We focus on this stretch of river because it is here we have the most complete data monitoring of dissolved oxygen (DO), bacteria and now benthic invertebrate sampling.

Excellent data exist for the Friends of Merrymeeting Bay (FOMB) Durham monitoring stations as well but collecting of regular DO samples halted there in 2018 when switching from use of Winkler Titration to only DEP meters at more select sites. Bacteria samples are still collected in Durham. In 2019 DEP deployed two sondes in this reach during low flows. One was in the Durham Boat Launch area and the other below Great Falls. DO levels remained above the Class B threshold of 7mg/l at both sites (Ex. 03 page 7).

An upgrade from Gulf Island Pond to the Bay, while desirable, may be less justified at this time due to a paucity of data. FOMB also has limited DO data from Auburn Boat Launch collected in 2010 and 2011 (Ex. 30) with geometric means of 8.8 and 10.1 respectively. Since there are some to extensive data supporting upgrades for the three river segments between Worumbo and Gulf Island Pond, we request the Board consider recommending all these segments for reclassification to B, we are adamant about Worumbo to the Bay.

FOMB has the most complete set of monitoring data for the lower reaches in this proposal. We began our monitoring program in 1999 and continue to this day with at times over twenty sampling sites on the Androscoggin, Kennebec and around Merrymeeting Bay. FOMB joined the VRMP in 2009 to further support and substantiate water classification upgrades.

Ambient Surface Waters Meet Class B Standards Virtually All of the Time & an Upgrade is Required Under the CWA & Maine Statute

Because the actual water quality of the lower Androscoggin sections described here exceeds that of their current classification, our request for a reclassification from C to B is supported by the State antidegradation policy as cited below (emphasis added):

38 M.R.S.A. § 464 (F) (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. **The board shall recommend** to the Legislature that water be reclassified in the next higher classification."*

In the past, MDEP has sometimes said they cannot upgrade a river classification because under worse case (permitted) 7Q10 scenarios, proposed Class B (in this case) standards might be violated. At the same time, the Department has also said because receiving waters meet the current classification levels, Maine cannot upgrade classifications to meet actual conditions.

*This condition, while often supported by industry, quite clearly violates Maine statute and the intents both of the Clean Water Act and NPDES creating an artificial ceiling on water quality improvement. In fact, reclassification and permitting **must** be used together to improve water quality. But, in the opposite way from that in which the DEP has been operating. The Supreme Judicial Court of Maine states in Bangor Hydro Electric v. BD. OF ENV. PROT., 1991 ME, 595*

*A.2d 438 that the BEP must consider state water reclassification when engaged in the permitting process and that "**classification is goal oriented as required by the federal Clean Water Act**". Nowhere in statute or case law does it say classification can or must be constrained by modeling and or critical flows or discharges, point source or non-point source.*

The Clean Water Act dictates a state shall revise its standards to reflect uses and water quality actually being attained. 40 C.F.R. § 131.1O. See also id. § 131.6(d); 38 M.R.S.A. § 464(4)(F). Thus, the Board's analysis must be based on existing water quality - not hypothetical modeling, with point sources operating at maximum licensed discharge. Indeed, the Board is specifically prohibited from considering maximum licensed loads because both state and federal regulations prohibit consideration of waste discharge or transport as a designated use. 40 C.F.R. § 131.10 (a); 38 M.R.S.A. § 464(4)(F)(l)(d).

The CWA & Maine Classification Standards are Aspirational in Nature

Moreover, from the DEP Submission Guidelines:

> ***Maine's Water Quality Classification System is goal-based.***
>
> > *When proposing an upgrade in classification, recommend waters that either presently attain or with reasonable application of improved treatment or Best Management Practices (BMPs), could reasonably be expected to attain, the standards and criteria of a higher proposed class.*

Widespread Public Support for Clean Water with its Economic, Environmental and Recreation Benefits

It has been nearly 50 years since the passage of the Clean Water Act and the changes that it brought about have been profound. Bates Mill in Lewiston ceased being a textile mill that completely exploited the Androscoggin River by taking its water and power and returning dyes, bleaches and untreated human waste from overboard discharge. The Bates Mill Complex is now the site of Baxter Brewing Co., TD Bank, Androscoggin Savings Bank offices and The Symquest Group, Fishbones Casual Fine Dining Restaurant, and Museum L-A: The Story of Work and Community in Lewiston-Auburn. The other river communities of Durham, Lisbon, Brunswick and Topsham have all embraced the newer, cleaner river in various economic and recreational ways. No one wants to turn back the clock.

The language in various comprehensive plans (Ex. 6) tell the story:

*In Lisbon's words: "**With the improved water quality of the Androscoggin, the potential for recreational uses of both the water and shorelines has increased.**"*

*Topsham says: "**The return of millions of river herring to Merrymeeting Bay and improvement of water quality on the Androscoggin River are fantastic successes; we shouldn't stop there.**"*

*And Auburn adds: "**The state's water quality classification for the river should be increased from a Class C to a Class B by 2012.**"*

The Clean Water Act set in motion a process to improve the quality of our waters that is still continuing. The initial phase changed the lower Androscoggin from an open sewer, one of the top ten polluted rivers in the country (Ex. 23), to the waters that we enjoy today, an asset to our communities for its aesthetics, economic benefits and recreational opportunities, yet the waters

remain classified as Class C, Maine's lowest water quality classification. As long as classification remains lower than actual ambient water quality, deterioration is possible and to be avoided. Submitted data show the Androscoggin has been meeting Class B standards for years in large part due to former Senator John Nutting's leadership in legislative efforts including the Color, Odor, Foam Bill, 1990; Dioxin Bill, 1996; and Phosphorus Bill passed in 2006; sewer system upgrades by the cities of Lewiston and Auburn providing storm overflow protection; and the Gulf Island Pond Oxygenation Project. Our goal for the upgrade is to lock in improved water quality as is the full intent of the Clean Water Act and Main law.

What's new?

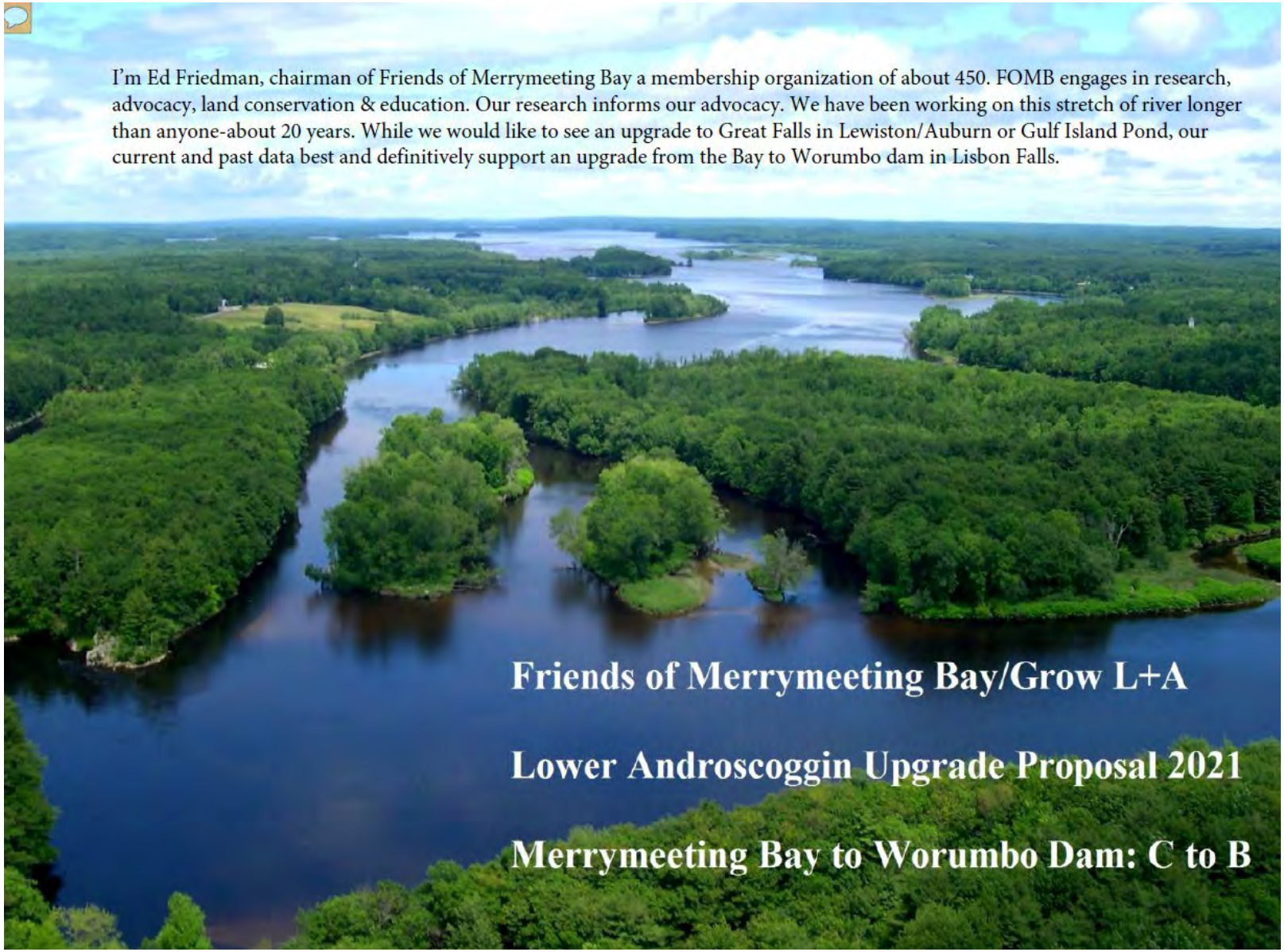
1. *Expanded coalition (Exhibit 7)*
2. *Additional VRMP data through 2021 (now in 10/7/21 BEP Presentation attached as Appendix 1 following Exhibit List)*
3. *DEP low flow sonde data (Exhibit 3 page 7)*
4. *Lewiston/Auburn CSO data and wastewater report (Exhibit 24, Exhibit 25)*
5. *Extensive supporting exhibits (see below)*
6. *Comprehensive aquatic life sampling (see **Appendix 2**)*
7. *Two new, comprehensive and critical legal analyses. Rachel Doughty (formerly EPA), Greenfire Law (Exhibit 4) and Scott Sells (Submitted electronically under separate cover)*

Exhibit List-Lower Androscoggin Upgrade Proposal 3/31/20

Exhibit 1 - Submission Required Responses
Exhibit 2 - Suggested Amendment Language
Exhibit 3 - Fact Sheet/Exec Summary
Exhibit 4 - Greenfire Legal Memorandum
Exhibit 5 - CLF Legal Memorandum
Exhibit 6 - Androscoggin Community Comprehensive Plan Excerpts
Exhibit 7 - Androscoggin Upgrade Support Letters, Past & Present
Exhibit 8 - Economic Benefits of Clean Water
Exhibit 9 - USFWS Merrymeeting Bay/Lower Kennebec High Value Habitat Composite Map
Exhibit 10 - Beginning with Habitat High Value Plant & Animal Habitat Map-Bowdoinham
Exhibit 11 - Beginning with Habitat-Kennebec Estuary Focus Area Intro
Exhibit 12 - Beginning with Habitat-Kennebec Estuary Focus Area Map
Exhibit 13 - Creeper Mussel Fact Sheet
Exhibit 14 - Maine Shad Habitat Plan-MDMR
Exhibit 15 - MDMR Androscoggin Fish Restoration Program
Exhibit 16 - MDMR Historical Sea Run Trap Counts 2008-2019
Exhibit 17 - Brookfield Brunswick 2019 Fishway Report
Exhibit 18 - Merrymeeting Bay/FOMB Conservation Lands Map
Exhibit 19 - USFWS Merrymeeting Bay Regional Conservation Planning Map
Exhibit 20 - Brunswick Topsham Land Trust Androscoggin Properties and Map
Exhibit 21 - Androscoggin River Greenway Trail
Exhibit 22 - Androscoggin Land Trust Preserves along or in Lower Androscoggin
Exhibit 23 - Defining a Nuisance Article
Exhibit 24 - Auburn-Lewiston CSO Charts 200-2018
Exhibit 25 - Auburn-Lewiston CWA 20 Year Master Plan Update 2019
Exhibit 26 - E. coli Geomeans 2006-2019
Exhibit 27 - DO Geomeans 2003-2019
Exhibit 28 - FOMB DEP VRMP Reports

Exhibit 29 - FOCB Quality Assurance Plan
Exhibit 30 - FOMB Auburn Boat Launch DO Data 2010-2011
Exhibit 31 - DEP Lower Androscoggin Modeling Report 2011
Exhibit 32 - Appendix D Aquatic Life from Ex. 31 Report, Annotated by FOMB
Exhibit 33 - DEP Kavanaugh Letter 10/25/19
Exhibit 34 - MDEP VRMP Sampling Protocols-2015
Exhibit 35 - Applied Biomonitoring-FOMB Androscoggin Monitoring Report 2010
Exhibit 36 - Applied Biomonitoring-FOMB Androscoggin Monitoring Report 2011
Exhibit 37 - Applied Biomonitoring-FOMB Androscoggin Combined Monitoring Report 2013
Exhibit 38 - FOMB WQ Data 1999-2019
Exhibit 39 - Topsham Hydro Pejepscot Dam 2018 Water Quality Summary from April, 2020 Relicensing Report
Exhibit 40 - Andro Dischargers Actual vs. Licensed 2012-2013

Note: Results from the aquatic life sampling noted in slides 2, 7 and 10 (pages 20, 25 and 28, respectively) are included in Appendix A (Appendix 2, FOMB Aquatic Life Sampling 2021, Site information and Rapid Bioassessment results) on pages 76-87.


I'm Ed Friedman, chairman of Friends of Merrymeeting Bay a membership organization of about 450. FOMB engages in research, advocacy, land conservation & education. Our research informs our advocacy. We have been working on this stretch of river longer than anyone-about 20 years. While we would like to see an upgrade to Great Falls in Lewiston/Auburn or Gulf Island Pond, our current and past data best and definitively support an upgrade from the Bay to Worumbo dam in Lisbon Falls.
Friends of Merrymeeting Bay/Grow L+A
Lower Androscoggin Upgrade Proposal 2021
Merrymeeting Bay to Worumbo Dam: C to B

Previous Androscoggin Upgrade Proposals & or Legislation in 2008, 2010, 2013, 2017

So what's new in 2021?

Great job Lewiston/Auburn, Brunswick wastewater plants! Pay particular attention to Exhibits 4 [Greenfire Law] and 5 [Conservation Law Foundation] for legal memorandums as well as the testimony of Mr. Sells.

1. Continued dissolved oxygen & bacteria monitoring
2. Additional detailed legal analyses & opinions
3. Grow L+A co-sponsorship/new supporters
4. Significant Lewiston / Auburn CSO improvements since 2010
5. Comprehensive & current benthic invertebrate aquatic life sampling

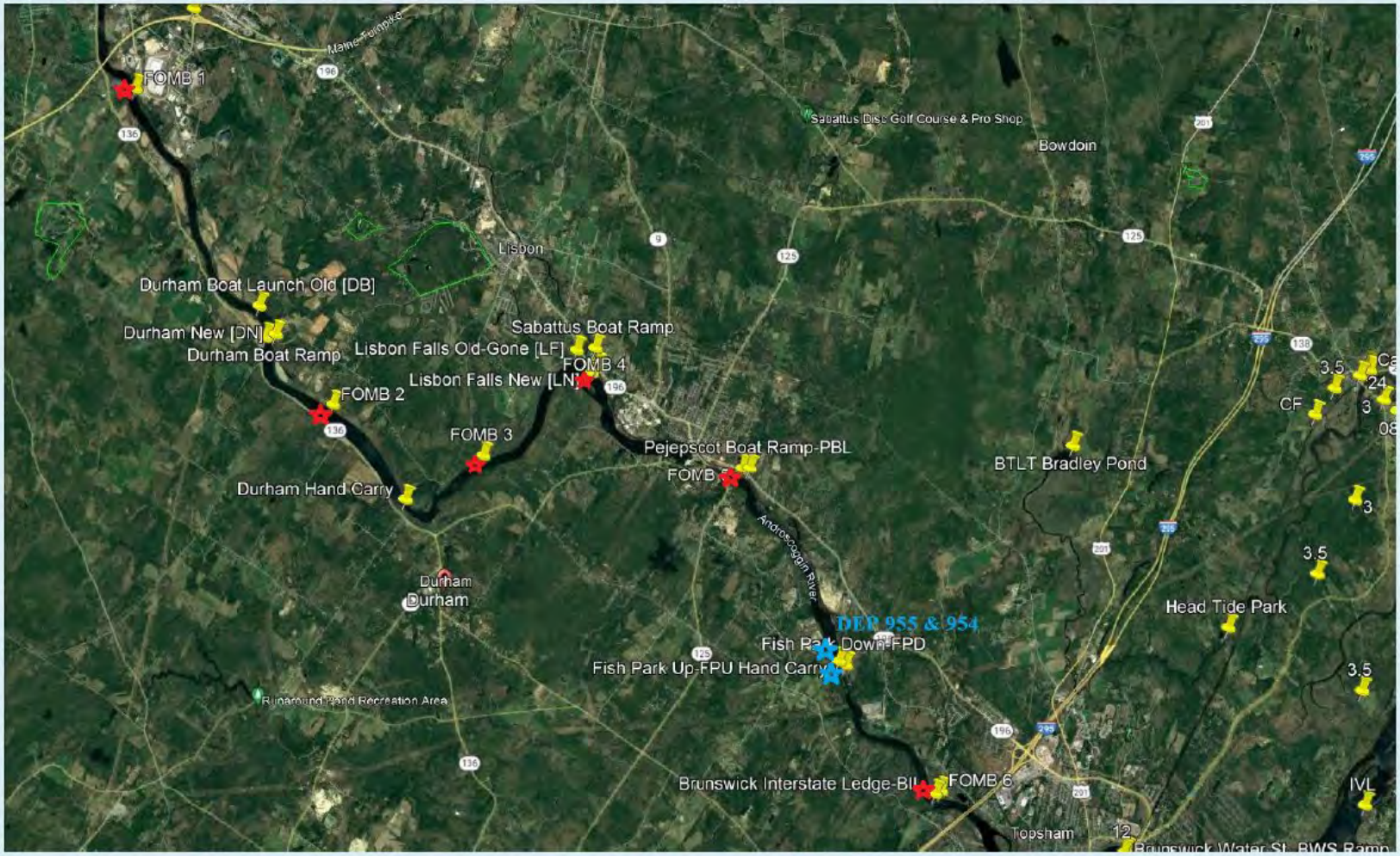
Benthic sampling rock baskets and bags

Our data all collected under EPA and or DEP approved and certified Quality Assurance Plans. Actual water quality requires an upgrade recommendation.

FOMB has the most complete set of monitoring data for the reaches in this lower Androscoggin River upgrade proposal. We began our monitoring program in 1999 and continue to this day with at times over twenty sampling sites on the Androscoggin, Kennebec and around Merrymeeting Bay. After years working in conjunction with Friends of Casco Bay under their EPA Quality Assurance Plan, FOMB joined the DEP Volunteer River Monitoring Program (VRMP) in 2009 to further support and substantiate water classification upgrades.

Because lower Androscoggin surface waters meet Class B standards virtually all of the time, an upgrade is required under the CWA & Maine statute.

Study area-I-95 in Auburn is white line at upper left, I-295 at Brunswick/Topsham at lower right. Red stars FOMB 2001 benthic invertebrate sample sites, blue are DEP sites.



Friends of Merrymeeting Bay Cybrary/Chemical http://cybrary.fomb.org/chemical.cfm

- **Androscoggin River Upgrade Proposal 2020**

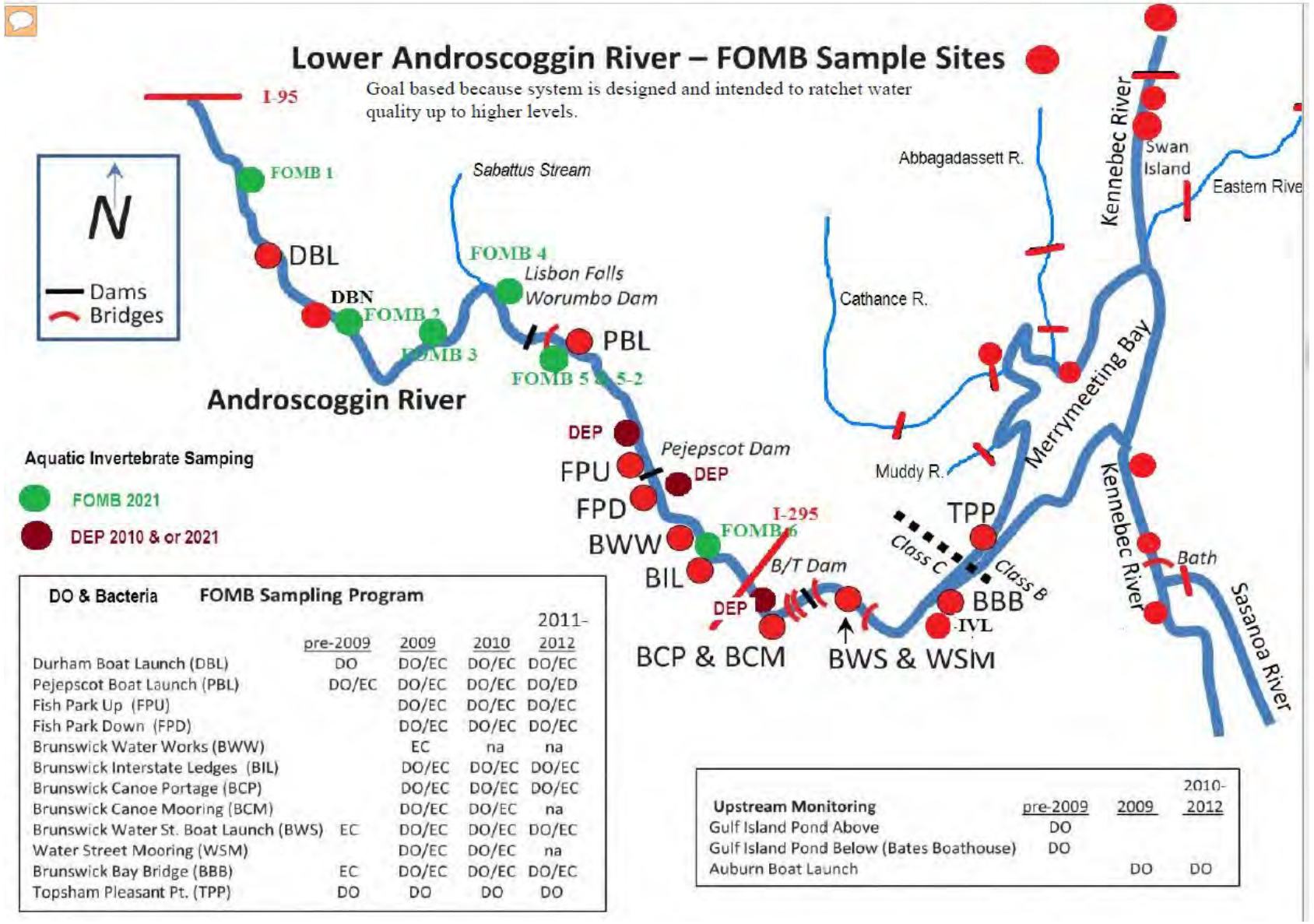
Andro Upgrade Proposal Intro 5-1-21.pdf
Exhibit 01 Submission_Responses.pdf
Exhibit 02 Suggested_Amendment_Language
Exhibit 03 Andro_Upgrade_Fact_Sheet-Exec_Summary_3-31-20.pdf
Exhibit 04 Greenfire_Law_Memo_re_Reclassification_3-31-20.pdf
Exhibit 05 2009-10-02_CLF_BEP_Comments_abridged.pdf
Exhibit 06 Andro_Comp_Plan_Excerpts.pdf
Exhibit 07 Androscoggin_Reclassification_Support_letters.pdf
Exhibit 08 Economic_Benefit_Articles.pdf
Exhibit 09 USFWS_Merrymeeting_Bay-Lower_Kennebec_Composite_HVH.pdf
Exhibit 10 MNAP_BWH_High Value_Plant_&_Habitats_Bowdoinham.pdf
Exhibit 11 MNAP_BWH_Kennebec_EstuaryFocus_Area_Intro.pdf
Exhibit 12 MNAP_BWH_Kennebec-Estuary-Focus-Area.pdf
Exhibit 13 MUSSELp_Mussel_of_the_Month.pdf
Exhibit 14 Maine_Shad_Habitat_Plan_V2.pdf
Exhibit 15 MDMR_Androscoggin_Fish_Restoration_Program.pdf
Exhibit 16 DMR_Historical_Sea_Run_Partial_Trap_Counts_2008-2019.pdf
Exhibit 17 Brookfield_Brunswick_2019_Fishway_Report.pdf
Exhibit 18 MMB_Cons_Lands_EF_3-1-20.pdf
Exhibit 19 USFWS_Merrymeeting_Bay_Regional_Conservation_Planning_Map_1-22-13.pdf
Exhibit 20 BTLT_Androscoggin_Properties.pdf
Exhibit 21 Androscoggin_River_Greenway_Trail.pdf
Exhibit 22 Androscoggin_Land_Trust_Preserves_along_or_in_Lower_Androscoggin.pdf
Exhibit 23 Defining_a_Nuisance.pdf"
Exhibit 24 Auburn_Lewiston_CSO_Charts_200-2018.pdf
Exhibit 25 LA_20_Year_CWA_Master_Plan_Update_2019.pdf
Exhibit 26 E_coli_geo_means_2006-2019-page-001.pdf
Exhibit 27 DO_Geomeans_2003-2019.pdf
Exhibit 28 FOMB_VRMP_Exhibits.pdf
Exhibit 29 FOCB_QAPP_revision 3_final.pdf
Exhibit 30 FOMB_Auburn_Boat_Launch_DO_data_2010-2011.pdf
Exhibit 31 DEP_lowerandromodelreport_final_march_2011.pdf
Exhibit 32 Androscoggin_2010_DEP_Bug_Summary-Annotated.pdf
Exhibit 33 2019-10-25_Kavanaugh_letter_to_Sen._Libby_Sen._Claxton_Lower_Androscoggin.pdf
Exhibit 34 VRMP_Sampling_Protocols_2015.pdf
Exhibit 35 Applied_Biomonitoring-FOMB_Andro_2009_Repor_Complete_2-8-2010-1.pdf
Exhibit 36 Applied_Biomonitoring-FOMB_Andro_2010_Report_Complete_1-28-2011.pdf
Exhibit 37 Applied_Biomonitoring-FOMB_Andro_2011-2012_Report_Complete_3-29-2013.pdf
Exhibit 38 FOMB_WQ Data_1999-2019.xls
Exhibit 39 Pejepscot April 2020 Summary and Report.pdf
Exhibit 40 Andro Dischargers Actual vs. Licensed 2012-2013.pdf

Extensive exhibits submitted in support of upgrade-found on the FOMB Cybrary/Chemical web page. Third plus sign down on page. www.fomb.org

Board has non discretionary duty to act. Unless water quality is codified by classification there is no reasonable way to ensure antidegradation. In current example lower Andro need only meet the class C 5ppm dissolved oxygen standard yet in actuality for the last 20 years it surpasses the Class B standard of 7ppm. Discharges could increase and DO levels decrease back to 5ppm and river would still meet Class C classification.

38 M.R.S.A. § 464 (F) (4)

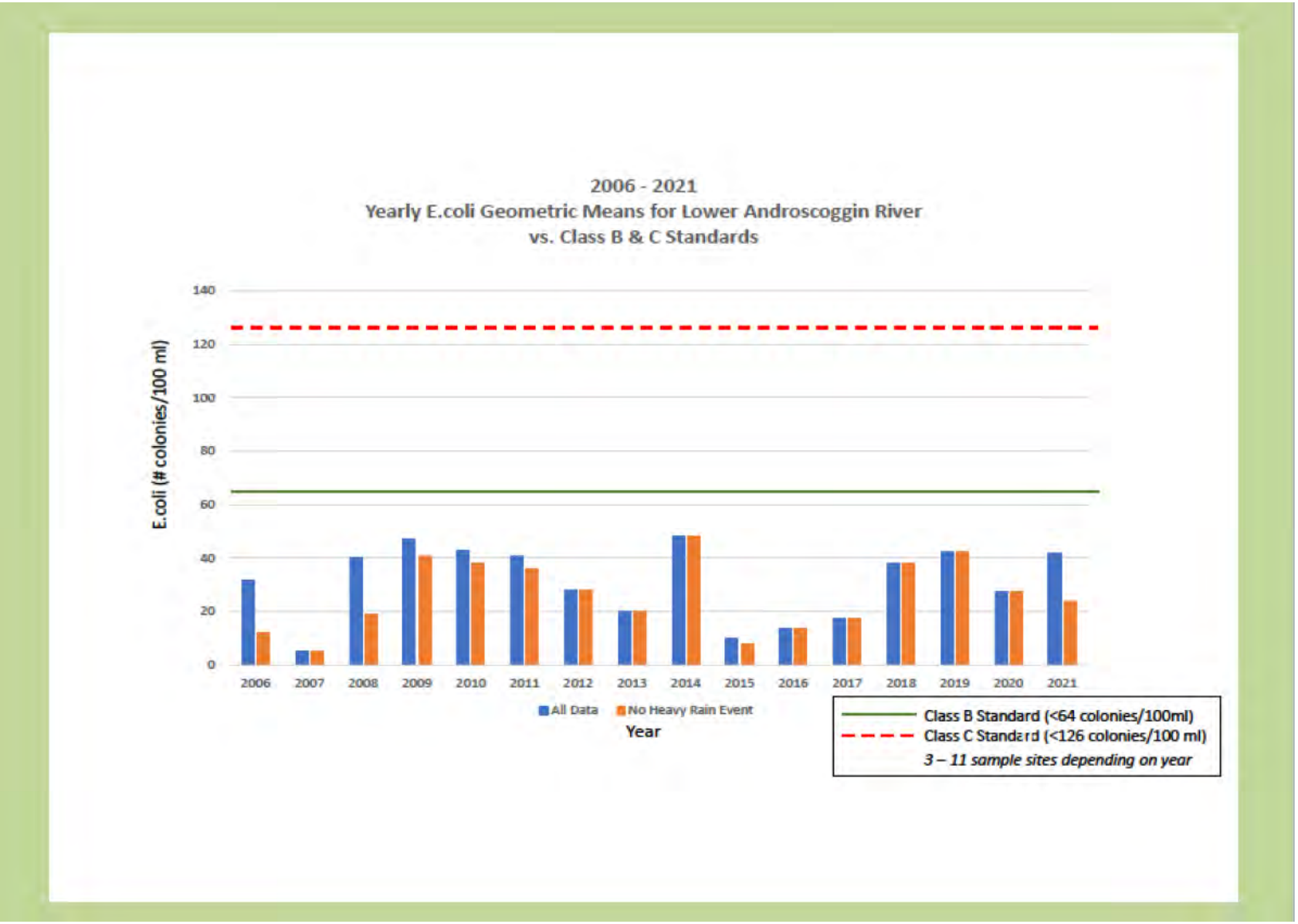
*"When the **actual quality** of any classified water exceeds the minimum standards of the next highest classification, **that higher water quality must be maintained and protected**. The board **shall recommend** to the Legislature that water be reclassified in the next higher classification."*

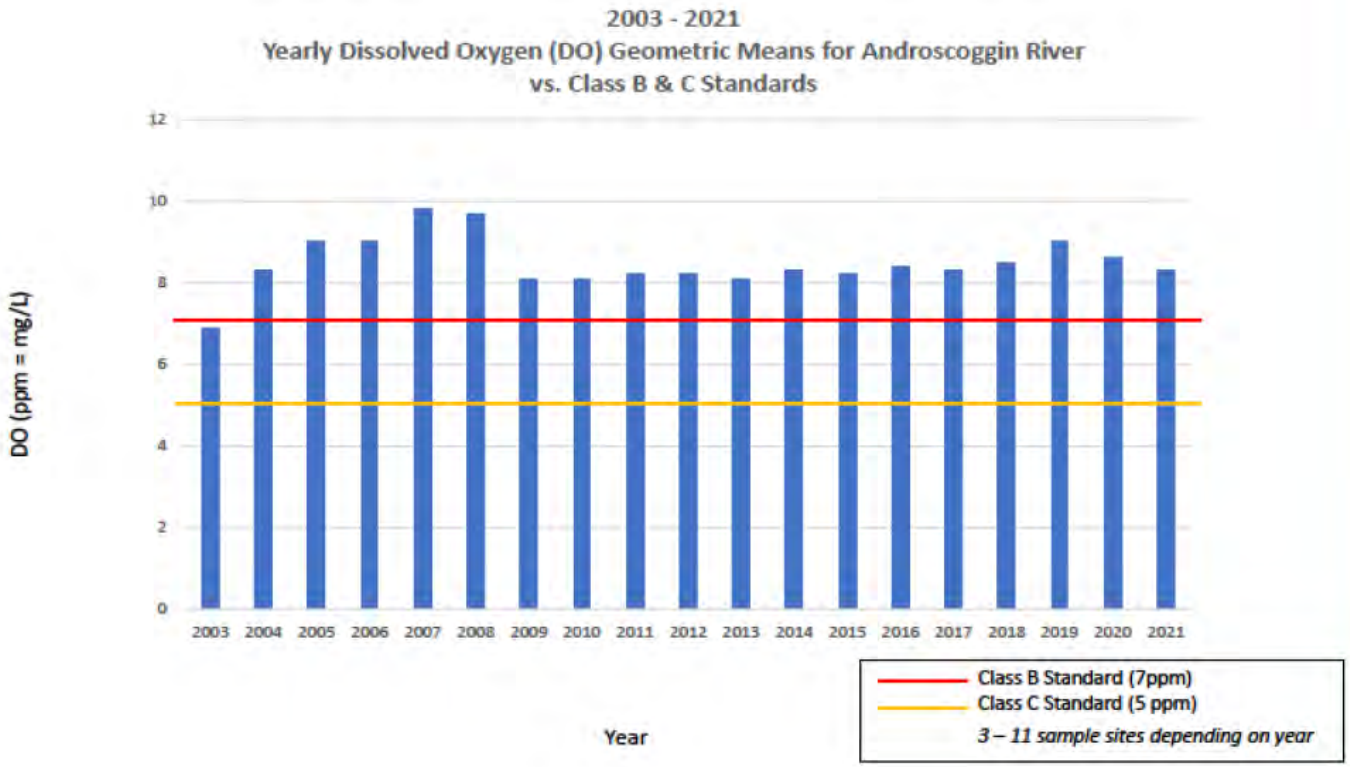


DO & Bacteria FOMB Sampling Program

	pre-2009	2009	2010	2011-2012
Durham Boat Launch (DBL)	DO	DO/EC	DO/EC	DO/EC
Pejepscot Boat Launch (PBL)	DO/EC	DO/EC	DO/EC	DO/ED
Fish Park Up (FPU)		DO/EC	DO/EC	DO/EC
Fish Park Down (FPD)		DO/EC	DO/EC	DO/EC
Brunswick Water Works (BWW)		EC	na	na
Brunswick Interstate Ledges (BIL)		DO/EC	DO/EC	DO/EC
Brunswick Canoe Portage (BCP)		DO/EC	DO/EC	DO/EC
Brunswick Canoe Mooring (BCM)		DO/EC	DO/EC	na
Brunswick Water St. Boat Launch (BWS)	EC	DO/EC	DO/EC	DO/EC
Water Street Mooring (WSM)		DO/EC	DO/EC	na
Brunswick Bay Bridge (BBB)	EC	DO/EC	DO/EC	DO/EC
Topsham Pleasant Pt. (TPP)	DO	DO	DO	DO

Upstream Monitoring	pre-2009	2009	2010-2012
Gulf Island Pond Above	DO		
Gulf Island Pond Below (Bates Boathouse)	DO		
Auburn Boat Launch		DO	DO


2006 - 2021
Yearly E.coli Geometric Means for Lower Androscoggin River
vs. Class B & C Standards
E.coli (# colonies/100 ml)
140
120
100
80
60
40
20
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
All Data
No Heavy Rain Event
Year
Class B Standard (<64 colonies/100ml)
Class C Standard (<126 colonies/100 ml)
3 – 11 sample sites depending on year


2003 - 2021
Yearly Dissolved Oxygen (DO) Geometric Means for Androscoggin River
vs. Class B & C Standards
DO (ppm = mg/L)
12
10
8
6
4
2
0
2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Year
Class B Standard (7ppm)
Class C Standard (5 ppm)
3 – 11 sample sites depending on year

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 6	Date Placed	8/5/21	Date Collected	9/3/21
Field Sample Method	Baskets-Dive			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)	C	Other Ephemeroptera (mayflies)	
Hirudinea (leeches)	P	Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)		Chironomidae (midges)	P	Polycentropodidae (caddisflies)	C
Gastropoda (snails)	P	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	P
Bivalvia (mussels)		Perlidae (stoneflies)	C	Other	

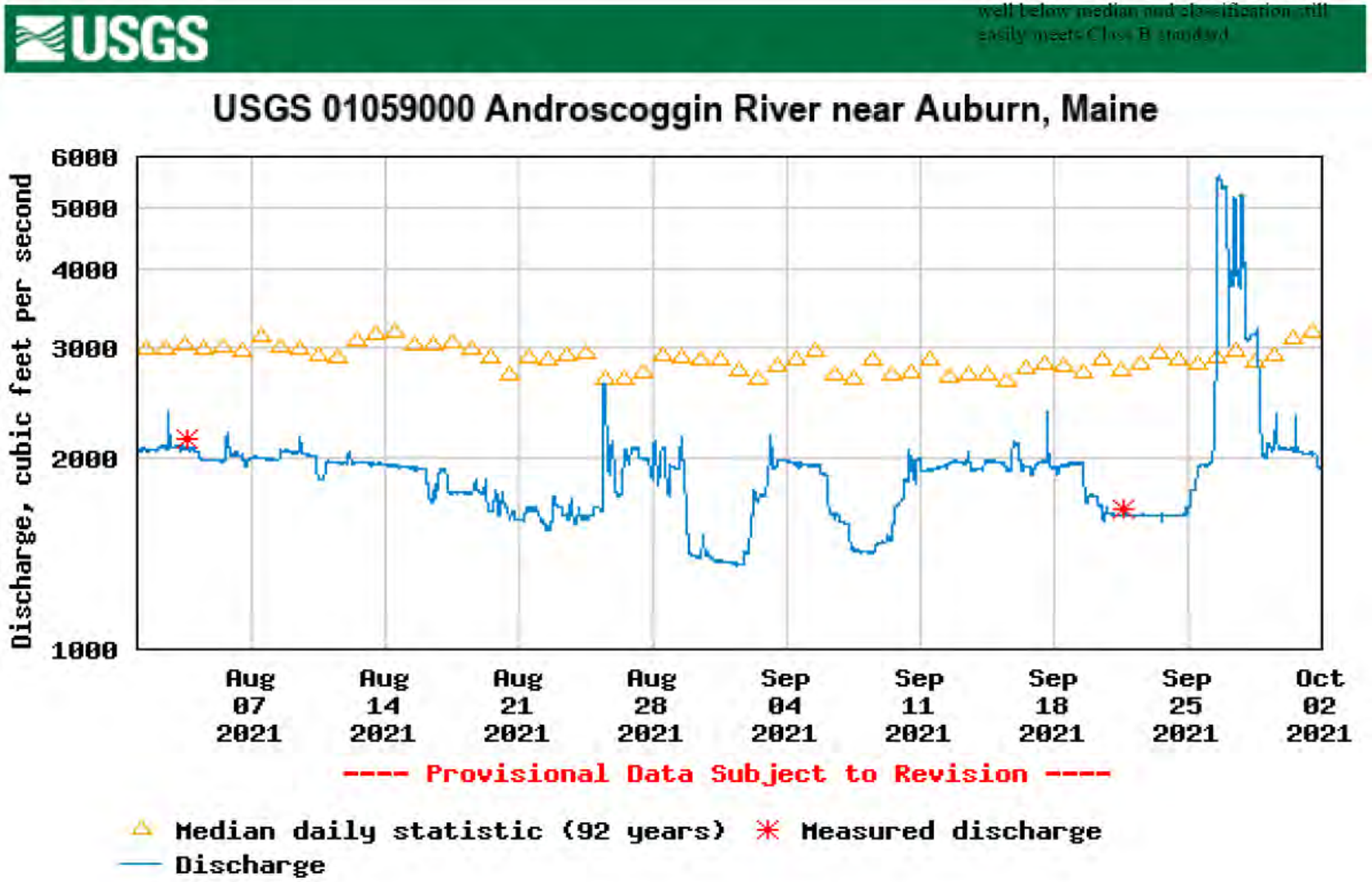
Est. Total Abundance	100		
% Insecta	90	% EPT*	80
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			YES

Generally low abundance, good richness, good #s of stoneflies and brachycentrid caddisflies drives model up.

Sample of data form for assessment of aquatic invertebrates. This example shows sample meeting Class B based on rapid assessment [looking at bugs in a tray] and will get fleshed out considerably more when samples are reviewed under microscope in late fall-early winter. All according to DEP protocols. Classification based on DO, E. coli and bugs.

2021 Androscoggin Flows during FOMB Aquatic Invertebrate Sampling 8/4-9/4 & 9/4-9/29/2021

Some discussion of critical flows-licensing totally different statute than classification. This graph shows low flows this season-well below median and classification still easily meets Class B standard



Auburn & Lewiston CSO Charts 200-2018

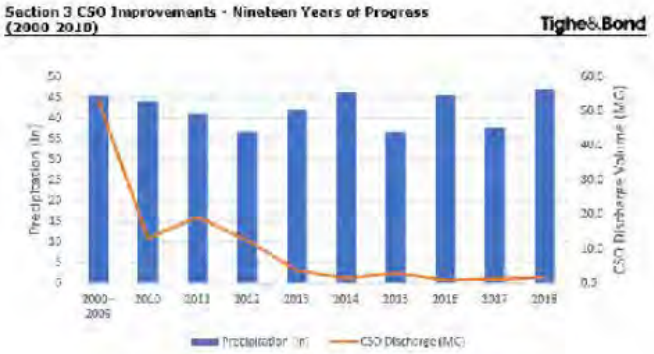


FIGURE 3-6
Auburn Sewer District 2000-2018 Precipitation vs. CSO Discharge

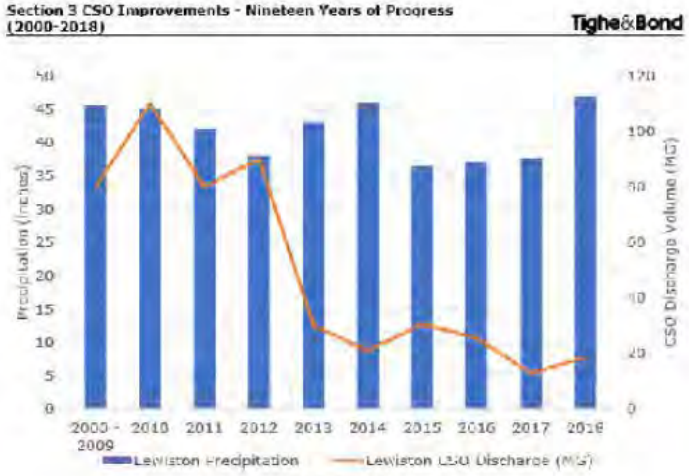
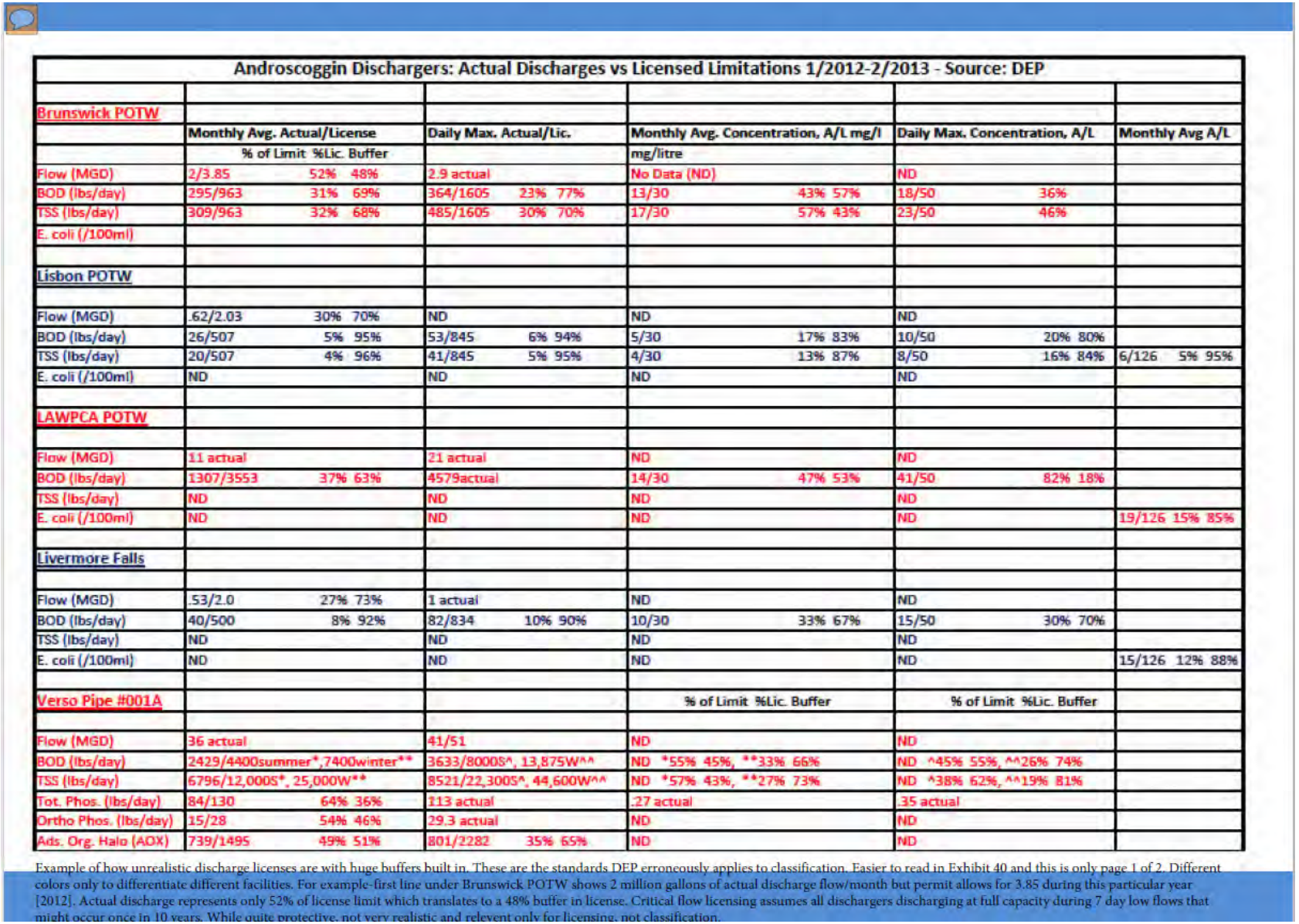


FIGURE 3-13
City of Lewiston 2000-2018 Precipitation vs. CSO Discharge

Blue bars yearly precipitation amounts. Redlines decline in CSO overflows. Auburn top, Lewiston bottom. Great job! Thank you.



Androscoggin Dischargers: Actual Discharges vs Licensed Limitations 1/2012-2/2013 - Source: DEP					
Brunswick POTW					
	Monthly Avg. Actual/License	Daily Max. Actual/Lic.	Monthly Avg. Concentration, A/L mg/l	Daily Max. Concentration, A/L	Monthly Avg A/L
	% of Limit %Lic. Buffer		mg/litre		
Flow (MGD)	2/3.85 52% 48%	2.9 actual	No Data (ND)	ND	
BOD (lbs/day)	295/963 31% 69%	364/1605 23% 77%	13/30 43% 57%	18/50 36%	
TSS (lbs/day)	309/963 32% 68%	485/1605 30% 70%	17/30 57% 43%	23/50 46%	
E. coli (/100ml)					
Lisbon POTW					
Flow (MGD)	.62/2.03 30% 70%	ND	ND	ND	
BOD (lbs/day)	26/507 5% 95%	53/845 6% 94%	5/30 17% 83%	10/50 20% 80%	
TSS (lbs/day)	20/507 4% 96%	41/845 5% 95%	4/30 13% 87%	8/50 16% 84%	6/126 5% 95%
E. coli (/100ml)	ND	ND	ND	ND	
LAWPCA POTW					
Flow (MGD)	11 actual	21 actual	ND	ND	
BOD (lbs/day)	1307/3553 37% 63%	4579actual	14/30 47% 53%	41/50 82% 18%	
TSS (lbs/day)	ND	ND	ND	ND	
E. coli (/100ml)	ND	ND	ND	ND	19/126 15% 85%
Livermore Falls					
Flow (MGD)	.53/2.0 27% 73%	1 actual	ND	ND	
BOD (lbs/day)	40/500 8% 92%	82/834 10% 90%	10/30 33% 67%	15/50 30% 70%	
TSS (lbs/day)	ND	ND	ND	ND	
E. coli (/100ml)	ND	ND	ND	ND	15/126 12% 88%
Verso Pipe #001A			% of Limit %Lic. Buffer	% of Limit %Lic. Buffer	
Flow (MGD)	36 actual	41/51	ND	ND	
BOD (lbs/day)	2429/4400summer*,7400winter**	3633/8000S^, 13,875W^^	ND *55% 45%, **33% 66%	ND ^45% 55%, ^^26% 74%	
TSS (lbs/day)	6796/12,000S*, 25,000W**	8521/22,300S^, 44,600W^^	ND *57% 43%, **27% 73%	ND ^38% 62%, ^^19% 81%	
Tot. Phos. (lbs/day)	84/130 64% 36%	113 actual	.27 actual	.35 actual	
Ortho Phos. (lbs/day)	15/28 54% 46%	29.3 actual	ND	ND	
Ads. Org. Halo (AOX)	739/1495 49% 51%	801/2282 35% 65%	ND	ND	

Example of how unrealistic discharge licenses are with huge buffers built in. These are the standards DEP erroneously applies to classification. Easier to read in Exhibit 40 and this is only page 1 of 2. Different colors only to differentiate different facilities. For example-first line under Brunswick POTW shows 2 million gallons of actual discharge flow/month but permit allows for 3.85 during this particular year [2012]. Actual discharge represents only 52% of license limit which translates to a 48% buffer in license. Critical flow licensing assumes all dischargers discharging at full capacity during 7 day low flows that might occur once in 10 years. While quite protective, not very realistic and relevent only for licensing, not classification.

Lower Androscoggin Classification Upgrade Supporters

Municipal Letters In Support of Upgrading the Lower Androscoggin (2008, 2010, 2013, 2017 & or 2020)

Town & Cities: Brunswick, Topsham, Durham, Lewiston, Auburn

Sewer Districts: Auburn Sewerage District (neither for nor against but supporting a cleaner river), Brunswick

Organizations Writing or Speaking in Support of Upgrading the Lower Androscoggin (present & past).

Alewife Harvesters of Maine, Androscoggin River Alliance, Androscoggin Land Trust, Atlantic Salmon Federation, Brunswick Topsham Land Trust, Conservation Law Foundation, Downeast Salmon Federation, Friends of Casco Bay, Friends of Merrymeeting Bay, Friends of Sebago Lake, Grow L+A, Lewiston-Auburn Metropolitan Chamber of Commerce, Maine Audubon, Maine Medical Association, Maine Municipal Association, Maine Rivers, Native Fish Coalition, Natural Resources Council of Maine, Trout Unlimited-Maine Council

Supporters include municipalities and groups like L/A Chamber and MMA as well as environmental organizations. No nefarious reason for lack of outreach to towns on upper river, it's just that they have virtually no influence on classification water standards quality below Gulf Island Pond. Mr. Kavanaugh has repeatedly asserted there is no way that water downstream of a that classified at a lower level can have a higher classification than that above. This is simply untrue. River water is continually getting reoxygenated given the opportunity, via turbines, rapids and riffles, fluctuating levels and just absorption/contact with the atmosphere. Bacteria levels can of course decline with distance from the source and with dilution.

Why Upgrade?

1. The Legislature declares it is the State's objective to restore and maintain the chemical, physical and biological integrity of the State's waters… (§464.1.)

2. Anti-degradation language prohibits backsliding in water quality. (§464 (F)(4))

3. An upgrade locks in water quality improvements.

4. A cleaner river has well-documented economic and quality of life benefits.

5. Sixty percent of our wildlife species inhabit river corridors and benefit as do we.

6. It is the law!


Thanks for the opportunity to speak and I encourage you to investigate all the proposal exhibits on our web site.
Thank You!
www.fomb.org

- Ed Friedman, Friends of Merrymeeting Bay (FOMB) (written and hearing comment) - continued

Other people mentioned all these supporters here, the towns, cities, sewer districts, we did not go upstream, and I know that upstream communities are concerned because upstream communities have very little, if any, bearing on what's happening this far down the river. The river is getting reoxygenated as it goes. Gulf Island Pond acts like a trap in your sink, it's catching a lot of the toxins and problems and E. coli is sort of immaterial as well.

So we didn't exclude Skowhegan or Mexico for any nefarious reason, it's because they're really not very relevant. You'll notice that MMA is a supporter of the Lewiston, Auburn Maine Chamber of Commerce and all of us normal, you know, fishy folks.

Why upgrade?This is the intent of the legislature to restore and maintain the quality of the rivers, improve them. The anti-degradation language prohibits backsliding. A gentleman from Pierce Atwood suggested that even without an upgrade that there's no backsliding, but without the codification, I challenge him to produce a viable method of documenting where the rivers are and where they've gone to. So the upgrade mechanism and classification mechanism is how we do that. The upgrade locks in the water quality improvements right now, for example, in the lower Andro the classification allows for five parts per million DO. There could be added dischargers to the river now that could bring it down from its actual eight and a half down to five and it would still meet the classification it is locked into right now. A cleaner river has many benefits that we all know about, economic, quality of life and for wildlife, and lastly, it is the law.

- Scott Sells, The Sells Law Firm on behalf of Friends of Merrymeeting Bay (FOMB) (written and hearing comment)

These comments are submitted on behalf of Friends of Merrymeeting Bay ("FOMB") for inclusion into the administrative record in this matter and in response to the Board of Environmental Protection ("BEP") review of recommendations submitted by the Department of Environmental Protection (the "Department") recommending denial of reclassification for the Lower Androscoggin River from Class C to Class B. FOMB's comments here are not intended to supplant the full, detailed analysis FOMB has provided in its proposal to the Department and the BEP on March 31, 2021[2] and the testimony given by Ed Friedman and Scott Sells on behalf of FOMB at the recent BEP hearing on October 7, 2021, but to supplement and update that information. Accordingly, the FOMB Proposal and testimony are fully incorporated into these comments by this reference. Further, separate comments by Ed Friedman that are being submitted on this date that update certain data and FOMB Proposal Exhibits referred to herein are also incorporated by this reference.

I. "It's the law" – why the Board is required to re-classify in this case.

1. FOMB has demonstrated that the Lower Androscoggin meets Class B standards, accordingly the Board is required to recommend to the legislature that the

[2] See: Grow L/A, Friends of Merrymeeting Bay, Lower Androscoggin Reclassification Proposal dated March 31, 2020 to Suzanne Meidel, Water Quality Standards Coordinator, Maine Department of Environmental Protection ("FOMB Proposal").

segment be re- classified.

At the outset it must be noted that the Department is not disputing the Lower Androscoggin is actually meeting Class B standards. It is also not disputing the integrity or sufficiency of the field data collected by FOMB under the U.S. Environmental Protection Agency or the Department's protocols in any way. The Department even concedes that the riverine segment "usually, but not always," attains Class B standards.[3] The same "usually, but not always" observation can be said for any riverine segment under any classificati0on. An unusually hot day or unpermitted discharge can easily accomplish this. This is also a somewhat questionable observation since there is simply no existing technology in place to continuously monitor river segments and the statutory and regulatory scheme does not establish an "all of the time" standard.

Setting aside for the moment the impracticality of requiring a river segment to attain its classification twenty-four hours a day, seven days a week in order to achieve re-classification[4] there is an even more egregious flaw in this "most of the time" observation, particularly where modeled results are being used to justify the denial of re-classification. Taken to the extreme, there would never be any re-classifications under the statute as modeling parameters could continue to be adjusted to be inconsistent with the reality of actual field data. FOMB submits that this is not what the statute requires or intends.

2. The underlying reason why re-classification to a higher class is necessary.

The reason for re-classification here is pretty straightforward, for Androscoggin fisheries and wildlife to re-establish and thrive in the watershed the water quality classification system under federal and state law has to work the way it is intended to work and not be subverted by pollutant dischargers, or misinformed or incorrect agency judgement. At the end of the day the objective is cleaner water – that is the basic outcome the law intends. This benefits recreational users as well and the economic benefits of clean water are well documented. It is actual reclassification to ambient conditions that is the mechanism for locking in improvements in water quality and preventing subsequent degradation.

As set forth in more detail below, under Maine law, when a riverine segment meets the water quality standards for a higher classification, re-classification is non-discretionary. Here the Department states that "[m]any years of monitoring data for DO and E. coli show a steady overall compliance with Class B standards…"[5] but that "[o]ther data reports spanning additional years were pooled across sites, thus precluding analysis of water quality standards."[6] This qualification is misleading at best. While that observation may be true for

---

[3] Maine DEP 2021 Triennial Review of Water Quality Standards, Department Recommendations at page 57. https://www.maine.gov/dep/water/wqs/TR_04232021_WQS-ChangeProposals_ForPublic.pdf (the "Department Triennial Review Recommendations").

[4] For example, if the Department was to undertake rulemaking and require 24 hour compliance as a re-classification requirement, and it was somehow measurable, each stream segment classified in the state of Maine, regardless of its current classification, would risk being out of compliance the moment it was found not meeting its classification standards and would presumably have to be downgraded. That is an outcome FOMB suggests is in no-one's interests and is contrary to the anti-degradation intent of the Clean Water Act and Maine's Water Quality laws

[5] Department Triennial Review Recommendations at 57 note 11.

[6] Department Triennial Review Recommendations at 57.

graphed data supplied by FOMB showing mean averages, earlier reports and proposals submitted to the Department have supplied complete graphed data for each specific site.[7] That is actual data for a specific site that can be analyzed. Additionally, complete raw data for each sampling site have always been supplied and are supplied in the current FOMB proposal.[8] These individual, and un-pooled site data, updated in a variety of formats, are also supplied and a part of the DEP Volunteer River Monitoring Program annual reports which are exhibits in the current proposal.[9]

There is therefore no preclusion that prevents individual site data from being analyzed, and while the Department might take issue with the geometric mean ("Geomean") graphs FOMB has supplied which are based on actual field data, it must also consider that this protocol, or the averaging of data to determine compliance – is also typically used in the very NPDES program it administers and has referred to in this case. FOPR submits that here, where actual field data is demonstrating attainment, that the actual data are sufficient and uncontroverted and the Board must reclassify the Lower Androscoggin to Class B.

Accordingly, there are therefore really only two legal issues for the Board to consider – what the law says it must do, and whether there is any statutory interpretation that provides for any exceptions, circumstances or judgement on the part of the Department that would prevent it from complying with the plain language of the law.

Here, these issues must be resolved in the context of the legal standard in the Clean Water Act and Maine statutes that requires a state to revise its water quality standards and classifications to reflect uses and water quality actually being attained.[10] There is also Maine statutory language that explicitly states what the Department must consider in reclassification, specifically:

1. *Whether the actual data demonstrates the river segment in question meets Class B narrative and quantitative water quality criteria; and*
2. *Whether the actual designated uses are consistent with Class B designation, and*
3. *Whether re-classification is consistent with Maine's anti-degradation statute.*

The Department's analysis and recommendation is inconsistent with this standard and ignores the specific criteria in favor of other external factors that are inappropriate and arbitrary when Class B standards are being maintained by actual data and the actual uses of the river are consistent with Class B designation.

3. The Plain language of the statute is clear - the legal standard is mandatory and not discretionary.

---

[7] See: FOMB Proposal Exhibits 35, 36, and 37.
[8] See: FOMB Proposal Exhibit 38.
[9] See: FOMB Proposal Exhibit 28.
[10] See: 40 C.F.R. § 131.10(i) designated use requirement: "Where existing water quality standards specify designated uses less than those which are presently being attained, the State shall revise its standards to reflect the uses actually being attained." (emphasis supplied), and § 131.6(d) (anti- degradation required); and 38 M.R.S. § 464(4)(F)(4) "When the actual water quality of any classified water exceeds the minimum standards of the next highest classification, that higher water quality must be maintained and protected." (emphasis supplied).

First, the plain language of the law itself is not ambiguous in any way. The Clean Water Act and Maine's anti-degradation policy require that "[w]hen 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."[11] The use of the terms "must" and "shall" have commonly accepted meanings and are, in any normal context, non-discretionary and obligatory. The term "actual" is similarly commonly known as referring to "real" and not "theoretical".[12] Reclassification guidelines soliciting proposals for the Triennial Review go further noting: "Maine's Water Quality Classification System is goal-based. When proposing an upgrade in classification, recommend waters that either presently attain, or with reasonable application of improved treatment or Best Management Practices (BMPs) could reasonably be expected to attain, the standards and criteria of a higher proposed class."[13]

a. The Department's own method of statutory interpretation results in an outcome consistent with the language of the statute – re-classification to Class B.

i. The Department's method of statutory interpretation and the language of 38 §464(4). *In June 3 of 2021 of this year the Board received testimony from Kevin Martin, Compliance and Procedures Specialist for the Department in another matter involving the Department's interpretation of statutory language.[14] During that testimony, he specifically spoke of how the department interpreted statutory language and the interplay of classification statutes and the legislature.*

This is highly relevant here as there appear to be competing statutory arguments – the Department appears to assert or conclude that the statute is not mandatory, or if it is, there are other laws or exceptions that must be considered; and FOMB and others assert that the circumstances warrant an exercise of the mandatory duty imposed on the Board based on the plain language of the law.

ii. The explicit language. *During his testimony, Mr. Martin testified that the Department first looks to the text of the statute, the "explicit language" and the use or non-use of explicit language in frequently used phrases throughout the statute to divine legislative intent.*

Here, using that approach, the Department should be looking at the terms "must," "shall" and "actual" in the statute to determine whether there is any use or non-use that would suggest specific

---

[11] 38 M.R.S. § 464(4)(F)(4); see also 40 C.F.R. § 131.20 (a) "If such new information indicates that the uses specified in section 101(a)(2) of the Act are attainable, the State shall revise its standards accordingly…."
[12] The word "shall" in the context of a statute is defined in Black's Law Dictionary as "In common or ordinary parlance, and in its ordinary signification, the term 'shall' is a word of command and … must be given a compulsory meaning." Black's Law Dictionary 1233 (5th ed.1979) and as a generally imperative or mandatory term. The term "must" is universally accepted as an obligatory term and "actual" as is specifically defined by Black's Law Dictionary to mean "real; substantial; existing presently in act having a valid objective existence as opposed to that which is merely theoretical or possible." (emphasis supplied).
[13] Maine Department of Environmental Protection, 2017 "Submission Guidelines - Proposals to Change the Water Quality Classification of Maine Waters" at 1.
[14] Mr. Martin provided testimony at the June 3rd 2021 Board of Environmental Protection meeting, all references and direct quotations from him were obtained from a recording of the meeting available from the Board of Environmental Protection.

exemptions or differing circumstances that could be considered where the only condition is explicitly stated uses those terms.

That choice of wording is explicit and exclusive, "actual" water quality is used by the legislature – not modeled or hypothetical or imagined water quality tied to other considerations. Thus here, under Mr. Martin's guidelines - there is no evidence of any legislative intent that there is any discretion on the part of the Department to use hypothetical modeling or anything else besides actual data showing actual water quality to comply with the statute. Importantly – the Department doesn't even assert that there is any such legislative intent – only its own "guidance" that it is somehow allowed to divine the legislative intent of 38 M.R.S.A §464 from other water quality statutes. That is not the law here.

iii. Other considerations. *Mr. Martin further testified that absent specific provisions there may be an argument that indicates a legislative intent to consider other circumstances. Clearly since the Department itself has not asserted ambiguity, this must be what the Department is relying on with its own interpretation of the statute – they appear to ask "Is this what the legislature means when they say "actual water quality" and that higher water quality "must be maintained and protected" and that the Board "shall recommend to the legislature the water be re-classified"? That is, after all the plain language used by the legislature in the statute.*

However, here there is no ambiguity or omission. There is no need to go elsewhere to determine what the legislature has done when it uses words like "actual," "shall," and "must" their plain meaning and intent are clear. The only circumstance when it is appropriate to consider other laws or divine some other legislative intent is if there is ambiguity or omission in the statute. Here there is none and there are clear words indicating a specific legislative intent.

iv. An important limitation. *Nevertheless, the Department frequently, and by its own admission, not only looks at the plain language but also "the circumstances surrounding individual cases." But it does so with an important caveat. As Mr. Martin further testified to the Board "the department is tasked with interpreting these classification statutes and identifying what the legislature intended when it wrote them. It is important that the department not interpret these statutes in such a manner that creates inconsistencies or absurdities." (emphasis supplied).*

v. The result here. *Therefore, under the Department's own stated method of statutory interpretation the Department itself imposes an important limitation to looking beyond the plain language – no inconsistencies or absurdities. Unfortunately, here the Department has used the premise of looking elsewhere, specifically the NPDES discharge permit program and other environmental statutes, to find a basis to recommend denial. As set forth more fully below this unfortunately has led the Board into the "inconsistent and absurd" territory it is now faced with. On one hand the plain, mandatory language of the statute, on the other, the Department's justification, not only in some cases outside the written mandates of the law, but those that will lead to the very inconsistencies and absurdities it professes must be avoided.*

b. The actual field data show the river segment meets Class B numeric criteria. *For example, FOMB has supplied undisputed data that has been collected over and over showing that for the overwhelming majority of time the segment of the Lower Androscoggin meets Class B standards. This includes Class B compliance with specific numeric water quality criteria. These*

data show that the specific Class B dissolved oxygen ("DO") standards[15] are met here.[16] Similarly E. Coli requirements for Class B waters[17] also are met here.[18] These data are undisputed.

c. The Class B designated use criteria are also met. *Again, there is explicit, plain language that states what the designated uses are and what the Department (and the Board) can consider. The explicit classification criteria are as follows:*

The Class C, current classification,[19] and the Class B, proposed classification[20] designated uses differ only in whether the habitat supported in the reach is characterized as unimpaired. "Unimpaired" means "without a diminished capacity to support aquatic life."[21] The Lower Androscoggin has and does support unimpaired aquatic life and is not listed as impaired for any relevant parameter. Again, the Department does not dispute this.

d. The Class B aquatic life standard is also met. *Extensive sampling for benthic invertebrates was undertaken during 2021 at FOMB expense. Results from initial and then rapid bioassessments indicate Class B attainment from Brunswick up through Lisbon Falls and possibly further upstream. Detailed microscopy analyses are expected to be completed during late fall and early winter. These results will compliment: (1) DEP's 2010 limited sampling (which found Class C in two impoundments-subject to the impoundment exemptions discussed below and Class B in the free-flowing river); and (2) the 2018 Gomez & Sullivan sampling results below Pejepscot dam (which found Class A macroinvertebrates). DEP has sampled at two sites (one free flowing and one impoundment) in 2021 with the results unknown at this time.*

e. The anti-degradation factors are also met here. *Further, in determining what uses need to be protected and maintained, the Department may consider, on a case-by-case basis, certain antidegradation factors. Maine statute specifically provides that:*

In making its determination of uses to be protected and maintained, the department shall consider designated uses for that water body and:

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

---

[15] 38 M.R.S. § 465(3)(B) states "[t]he 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."

[16] See: FOMB Proposal Exhibit 27.

[17] 38 M.R.S. § 465(3)(B) states that "[b]etween April 15th and October 31st, the number of Escherichia coli bacteria in these waters may not exceed a geometric mean of 64 CFU per 100 milliliters over a 90- day interval or 236 CFU per 100 milliliters in more than 10% of the samples in any 90-day interval.

[18] See: FOMB Proposal Exhibit 26.

[19] 38 M.R.S. § 465(4)(A) states "Class C waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as a habitat for fish and other aquatic life."

[20] 38 M.R.S. § 465(3)(A) states "Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired." (emphasis supplied).

[21] 38 M.R.S. § 466(11).

(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 or on the water, fishing, water supply, or commercial activity that depends directly on the preservation of an existing level of water quality; [. . .] and
(e) Any other evidence that, for divisions (a), (b) and (c), demonstrates their ecological significance because of their role or importance in the functioning of the ecosystem or their rarity and, for division (d), demonstrates its historical or social significance.[22]

Here again, the Lower Androscoggin segment meets even these criteria and the Department does not dispute that it does. So even if the Department manages to avoid the reality of Class B numeric standards being met by actual field data, there is no dispute that the designated uses are also consistent with Class B designated uses. This fact, and the department's own statutory interpretation method completely ends any possible further analysis the Department should conduct under the law. There is absolutely no other indication of legislative intent to indicate it should consider anything other than the actual water quality. That is what is required to conform with the goals of classification standards as explicitly stated by the legislature, nothing more.

f. The unreasonable outcomes when inappropriate considerations are used. *The Department did not stop where its own analysis and method dictated it should. Instead, it layered hypothetical modeling results as a surrounding circumstance, even when actual data was and continues to be available. The purpose of the Clean Water Act is to prevent or eliminate water pollution, not to accommodate it by preventing reclassification towards more protective standards. This is particularly so where the basis for denial is a rare or exceptional occurrence such as modeled or imagined maximum pollutant loading. FOMB submits that it is patently unreasonable to use theoretical or hypothetical data that is inconsistent with the reality of actual facts and data to justify deviating from clear and explicit legal requirements. It also leads to an absurd and capricious result – willfully ignoring actual data and reality – and that is exactly the kind of inconsistency and absurd result that the Department itself professes it cannot do.*

Legal inconsistencies notwithstanding, the practical effect of this also means that those who have to obtain a permit to degrade water quality, i.e. pollute the river, somehow override the legislative intent to maintain and protect the higher water quality. That is also patently absurd, as set forth below, the Federal Clean Water Act (under which those point source discharge permits were issued) and Maine's anti-degradation statutes in no way intend for point source or non- point source pollution discharges to provide an exemption from water quality classification mandates.

4. The rationale given by the Department to recommend against re-classification is inappropriate and, in some cases, unlawful.

Simply put, the Department's "interpretation" of the statute is that certain other additional factors must be taken into account or considered. In summary these factors include:

- *Under modeled "critical" once-in-a-decade low flow, high temperature conditions, the lower Androscoggin might fail to meet Class B standard,*

[22] *38 M.R.S. § 465(4)(F).*

- *Waste discharge permits might have to be altered and might not be allowed at all under Class B designation because of the requirement to consider modeled once-in-a-decade low flow, high temperature conditions,*
- *Impoundments on the river segment create low dissolved oxygen concentrations, and*
- *Upstream pollution (point and non-point source discharges) that somehow can prevent lower reaches from being reclassified.*

Importantly, none of these factors are appropriate when confronted with a segment of water that actually meets water quality standards and designated uses. Again, there is nothing – nothing - in the statute that allows for this and the overwhelming legal basis for both the Federal Clean Water Act and Maine's Anti-degradation statute explicitly say so.

a. Hypothetical modeling for a once in a decade extreme event does not comply with the statute – even a de facto UAA cannot be used here. *Pollution assimilation modeling, the same modeling used for NPDES permitting, cannot be used to avoid re-classification where there is actual data available. The models used and relied upon by the Department are used to minimize harm to aquatic resources when the department permits a pollutant discharge – not to determine whether a designated use is present in a particular riverine segment. This is an improper conflation of two very different statutes with two very different purposes and not unsurprisingly leads to inconsistent and absurd results.*

- *Discharge permit standards emphasize worst case scenarios to protect and build in a margin of safety for discharge permit purposes, unlike re-classification statutes their purpose is to limit the discharge of pollutants, not to deny reclassification of a riverine segment.*
- *There is no indication they are or were ever intended to thwart federal and state anti-degradation laws.*

Given the extensive reliance on NPDES discharge analysis and criteria the Department appears to be, for all intents and purposes, conducting an internal Use Attainability Analysis ("UAA") for the purposes of accommodating an improper, non-designated use – the permitted discharge of pollutants to Maine waters. This too is inappropriate, since:

- *Even a de facto UAA, a very similar analysis to what the Department appears to be trying to use for the purposes of reclassification, cannot be used for that purpose. A UAA would require among other things findings, specific demonstrations by the Department, and a hearing and is only appropriate in two circumstances:*
    1. *Whether a designated use is not included in the CWA, or*
    2. *if removing a designated use.*
- *Neither circumstance is present here and the Department is not proposing a use or removing one. Instead, it appears to attempt a UAA type of analysis to avoid its non-discretionary obligations to recommend re-classification. Even if this method were appropriate there is no underlying actual data used in the Department's analysis.*

Anti-degradation policy is clear under federal and state law – the intentional movement towards improved water quality ensures that water quality is continually improved and that the improvements are maintained, not degraded or held hostage by imagined modeling scenarios.

The Department has also stated that proponents of re-classification must provide water quality data and modeling showing the likelihood of attainment of Class B water quality criteria at maximum licensed loads since the Department "does not foresee the ability to ensure attainment of Class B standards under critical conditions."[23] This is also an absurd requirement - no one operates at maximum licensed loads; rather a large, discretionary buffer is generally built into all discharge permits to avoid violations that may occur under theoretical and extreme conditions. This is a permit requirement to prevent pollutant discharge, not a re-classification requirement involving the collection of actual field data. Unless all maximum licensed loads are actually discharged simultaneously under critical flow conditions[24] (defined as "7Q10"), there is no way to collect actual data to demonstrate compliance under these conditions. Thus, DEP is requesting an impossible and unnecessary showing, exactly the kind of absurd result it purports to find as unacceptable.

b. The existence of waste discharge permits that may need to be altered or not allowed under Class B designation due to modeled results is not a requirement for re-classification. *This is a critical flaw in the Department's reclassification denial. The Department's analysis must be based on existing water quality-not hypothetical modeling with point sources operating at maximum licensed discharge. Further, the Department expressly must not take into account industrial discharge capacity needs in determining uses for a water segment reclassification. Indeed, the Board is specifically prohibited from considering maximum licensed loads because both state and federal regulations prohibit consideration of waste discharge or transport as a designated use.*

For example, under Maine law the "[u]se of water body to receive or transport waste discharges is not considered for an existing use for the purposes of this anti-degradation policy."[25] Similarly, under federal law: "[i]n no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the United States."[26]

Here, the Department improperly used consideration of the waste assimilative capacity of the river, specifically waste NPDES permitting limits as expressed in point source discharge permits, as part of its re-classification review. This is expressly prohibited under federal and state statute and regulation.

c. The fact there exists impoundment conditions that may create low DO conditions or Class C aquatic life presence is not a justification for denying re-classification.

A part of the Department's analysis of DO deficiency also relied on naturally occurring conditions that exist due to thermal stratification occurring in natural and man-made impoundments. For

---

[23] See: The Department's Triennial Review Recommendations at 59.

[24] To determine if a discharge to waters of the State of Maine could cause or contribute to non-attainment of water quality standards, the Department, relies on its existing statutory authority derived from 38 M.R.S. § 464(4)(D) which states: "Except as otherwise provided in this paragraph, for the purpose of computing whether a discharge will violate the classification of any river or stream, the assimilative capacity of the river or stream must be computed using the minimum 7-day low flow that can be expected to occur with a frequency of once in 10 years." Thus, in writing a permit the Department typically uses in its reasonable potential analysis a "7Q10" standard, which is the lowest 7-day average that occurs (on average) once every 10 years as the maximum flow of the discharge allowed by permit. There is however, discretion built into the statute for certain toxic substances and nutrients discussed infra at note 26.

[25] 38 § M.R.S. § 465(4)(F)(1)(d).

[26] 40 CFR § 131.1 (a).

natural impoundments this is incorrect, Maine statute specifically state "these waters shall not be considered for failing to attain their classification because of their natural conditions."[27] Even in the limited context of hydroelectric dam re-licensing there is no requirement that the numeric water quality standards (specifically DO) be maintained throughout the water column, and in fact that the statute specifically anticipates variations in DO with depth and the resulting compliance or non-compliance impacts due to thermal stratification.[28] Further, Maine statute dictates that existing impoundments classified as C must be improved to the Class B equivalent.[29] In contrast, there is no indication, statutory or otherwise that natural or man-made impoundments, which create unique water quality environments, should serve as the basis for denial of re-classification.

Here again the Department seems to be relying on factors expressly prohibited under, or at the very least inconsistent with the plain language of the statute.

d. Finally, upstream pollution, such as nutrient loading, has no bearing whatsoever on denying reclassification of a specific segment under the Clean Water Act – it would result in exactly the opposite outcome intended.

The State of Maine administers its water quality program under the federal Clean Water Act, and as such the provisions and guidance under the CWA must also be adhered to. Under federal Law the state's responsibilities are explicit: "The state's designation of those upstream sources should not negatively impact downstream waters."[30] (emphasis supplied). Therefore, the Department cannot, under any circumstance, use negative impacts of upstream designations as justification for denying re-classification when the standards are met. That would be exactly the kind of "negative impact" the CWA explicitly forbids.

This is further confirmed in EPA Agency Guidance which states: "[n]o waste load allocation can be developed or NPDES permit issued that would result in standards being violated. With respect to antidegradation, that means existing uses must be protected, water quality may not be lowered in [Outstanding Natural Resource Waters], and in the case of waters whose quality exceeds that necessary for the section 101(a)(2) goals of the Act, an activity cannot result in a lowering of water quality unless the applicable public participation, intergovernmental review, and baseline control requirements of the antidegradation policy have been met." (emphasis supplied).

FOMB is unaware that the Department has untaken any such intergovernmental review, or reviewed whether baseline control requirements of Maine's anti-degradation policy have been met here. It appears that the Department has done just the opposite – used the NPDES discharge requirements and upstream water quality as the basis to deny re-classification to a higher, improved water quality classification downstream. It's clear from both the federal statute and

---

[27] 38 § M.R.S. § 464(4)(C) states: "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 sections 465, 465-A and 465-B, those waters shall not be considered to be failing to attain their classification because of those natural conditions."
[28] See: 38 M.R.S. §464 (13) specifying where DO can and cannot be sample due to depth, inhibited mixing or topographic features.
[29] 38 M.R.S. §464(10)(C) states that for Class C impoundments "the changes described in paragraph B, subparagraphs (1) and (2) must be implemented and the resulting improvement in habitat and aquatic life must be achieved and maintained." Paragraph B governs the non-attainment of Class A and B standards and the reasonable changes that must be implemented to achieve such standards.
[30] 40 C.F.R Sec. 131 (b).

guidance that the intent of the NPDES permit program is not intended to prevent water quality standards from being met or prevent improvement to water quality - here not to allow upstream pollutants to negatively impact the improvement of downstream waters and by extension their potential reclassification to a higher class. Put simply, if the Department, as part of its guidance is going to consider other laws in re-classification under a mandatory statute, it must comply with the language and guidance of those other laws to make sure it does not result in an inconsistent or absurd outcome.

e. Accordingly, using the Department's own method of statutory interpretation, and the explicit language of federal and state statute, regulation and guidance – there is no reasonable legal interpretation that would justify denial. *There is no dispute over whether the Class B standards or the designated uses are being met here. However, the external considerations used by the Department in denying reclassification are not in accordance with the federal and state statute, regulation and guidance or the express purposes that underly those laws. Further, there is no assertion by the Department that the legislature intended to provide an exception for the rationale it has provided. It appears, on closer scrutiny to have done just the opposite. Here the Department's and the Board's inquiry is limited to only limited specific circumstances that must be examined – (1) whether the river segment meets the higher classification and (2) whether the designated uses are consistent with Class B designation and antidegradation laws. That's it. The Department has made no showing that the actual data is disputed or that the designated uses are inconsistent with Class B designation. Instead, it offers justification for denial that is inconsistent with the plain language and purpose of the very statutes and programs it itself administers.*

5. There is a better, more practical alternative than exposing the Board to statutory liability.

a. The Department has more discretion under the NPDES point source discharge program to ease the transition to a higher classification standard. *As stated above,[31] rather than conflate the NPDES program with a non-discretionary statute, FOMB suggests the data, here the information reported by the permittees themselves,[32] confirm that there is room to adjust those permits so as to ease any economic impact reclassification might have over time. This is because (1) these permits typically have a 5-year time frame; (2) the NPDES permits requirements are based on a worse case discharge scenario; and (3) the Department has the discretion under the statute to adjust the discharge requirements over the permit duration to reflect the actual pollutant discharge, with a smaller, more realistic buffers based on actual discharges. While basing permits on a 7Q10 standard is required there is no apparent reason why licensed discharge loads should better reflect actual discharges with a smaller buffer.[33] For example,*

---

[31] See Paragraph 4 (a) above – NPDES discharge permit standards emphasize worst case scenarios to protect and build in a margin of safety for discharge permit purposes, this margin of safety will need to be adjusted so that dischargers can comply with new Class B water quality standards.

[32] See: NPDES permit data compiled as Exhibit 40 to FOMB Proposal. The data are reported discharges for one year and typical of annual NPDES discharges.

[33] Unlike the mandatory language discussed at length in these comments, 38 §464(4)(D) contains the following <u>discretionary</u> language: "The department <u>may</u> use a different flow rate only for those toxic substances regulated under section 420 and for those nutrients specified in department rules. To use a different flow rate, the department must find that the flow rate is consistent with the risk being addressed."

basing discharge permits on a rolling average or maximum actual discharge plus a reasonable buffer would more realistically reflect actual water quality impairment. Simply put, as long as there is a smaller buffer built in there is always room for expansion, but overall within any given permit period discharge permits would be closer aligned with reality. In this way an abrupt permit impact due to re-classification to a higher Class B (or any other class where there is significant impact on NPDES dischargers) could be avoided and the transition phased in over time.

Stated another way, the Department has more discretion under the NPDES permit program it administers than it does where a mandatory statute requires re-classification under its plain language. FOMB asserts that when a segment is deemed to meet a higher water quality classification, the better approach is to re-classify the segment and take the 5 year NPDES permit window to transition upstream dischargers into compliance, revising the margin or buffer dischargers are permitted under over time, thereby easing the economic impact. FOPR also notes that the upstream NPDES discharge permits in question, are operating on expired permits – making this an ideal time to transition to a higher classification. Eventually dischargers will need to meet Class B standards, the data show that, in most cases, there is ample room under existing discharge requirements to phase this in over the life of the permits.

II. Conclusion.

FOMB had submitted multiple upgrade proposals with actual field data and continues to collect data confirming the Lower Androscoggin meets Class B criteria virtually all of the time. This is probably the fourth Triennial process it has participated in, in addition to numerous other formal and informal presentations to the Department and the legislature. By any reasonable standard, FOMB has exhausted its administrative remedies with the Department in seeking to get this riverine segment reclassified based on actual data collected and the plain language of the statute.

Similarly, the Board is now face to face with a mandatory statute it must either adhere to or risk legal exposure in connection with its final agency action. Unfortunately, the law does not permit the kind of justification the Department is attempting, presumably to accommodate upstream pollutant dischargers who are resisting re-classification on the basis of its potential economic impact. Environmental regulatory compliance is a cost of doing business – that has been the case since the Clean Water Act and Maine's anti-degradation water quality laws were enacted.

Here, however, the Department has (and has had) other options rather than putting the parties and the Board in this position. It can recommend reclassification of the segment to Class B and use the Department's discretion under the NPDES program, which it administers, to ease the transition for upstream dischargers to come into compliance with Class B standards. This is not to say FOMB is suggesting the Department abandon the requirements of that program either, allow non-compliance under those permits. Instead, it appears the actual data, reported by the very permittees opposed to re-classification, show there is room to adjust and gradually phase their permits into compliance with the higher classification. Particularly now, where these permits have not been renewed.

---

emphasis supplied). Thus, unlike reclassification standards, the department has wide latitude to address nutrient discharges and toxic substances addressed under 38 §420 under different discharge parameters over the term of the permit.

The river currently attains the higher bacteria, aquatic life and dissolved oxygen standards set forth in the Class B designation. As noted by the Department, it has no reason to question the data; and it has even relied upon data supplied by FOMB in prior reclassifications. There is also no dispute as to whether the designated uses of the segment of the river are somehow inconsistent with Class B designated *uses or any antidegradation provisions. There is also no assertion that the legislature intended anything other than this result and it is confirmed using the statutory analysis of the Department's own expert. Further, the Department has not legally justified its deviation from that statutory language with the reasons it has given.*

Therefore, under the circumstances presented here, the actual data obtained and the plain language and purpose of the re-classification statutes, the Board must recommend to the legislature the re-classification of the Lower Androscoggin from Merrymeeting Bay to Worumbo dam from Class C to Class B.

Comments in opposition to original proposal:

- Senator Lisa Keim, Senate District 18 (written comment)

I write to express concern with the proposal to reclassify the lower Androscoggin River from Class C to Class B. This reclassification will negatively impact my district, potentially significantly.

As recently as 2019, the Department opposed a previous attempt to do an upgrade stating that it had determined that "there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River." It is my understanding that the Department's study of the issue this year has revealed that the lower Androscoggin River still does not meet Class B standards and reclassifying it now would put all existing dischargers into non- compliance. Most concerning, the Maine DEP has indicated that a 54% reduction in discharge limits for the ND Paper Rumford Mill and Pixelle Jay Mill will be needed.

There is valid concern that the upgrade, if approved, would stifle economic development and raise costs to ratepayers all along the length of the river, including the communities of my district. The Department has been clear that it must and will regulate all discharges to achieve and maintain the applicable water quality classification should the lower part of the river be upgraded to Class B. The impacts of the upgrade reach far beyond the lower Androscoggin. Proposals to reclassify the lower Androscoggin have been rejected numerous times in the past. The river still does not meet the requirements for reclassification and therefore, new attempts to reclassify it should again be rejected.

- Chuck Kraske, Pixelle Specialty Solutions Androscoggin Mill (hearing comment)

Good morning members of the Board. My name is Chuck Kraske. I live in Hartford, just west of here. I am the manager of environmental services at the Pixelle Specialty Solutions Androscoggin Mill located in Jay, Maine.

I am here today to testify, let's see if I get this right, in opposition to the proposal to reclassify the Androscoggin River from its current status of class C up to class B, but in support of the DEP's review and recommendations of the triennial water quality classification review.

I'm going to focus my comments, or my testimony specifically on the impacts, or the potential impacts of this proposal on the Androscoggin mill in Jay. As you are aware, Pixelle's Androscoggin mill lost its wood pulping capacity in the spring of 2020. As a result of that event, the facility has transitioned from a large fully integrated pulp and paper facility, manufacturing facility, to a much smaller non-integrated mill with two machines, two paper machines furnished only by purchased pulp. We no longer manufacture our own pulp.

This transition has completely changed the operational and economic dynamics of the facility. The mill still employs 250 or so hard-working employees, much fewer than in the past, but still a workforce that plays a vital part in local communities and Maine's economy.

And while the mill no longer procures pulpwood, a significant amount of pulp is purchased from other Maine-based mills. We use local construction and maintenance contractors, engineering firms, chemical suppliers, analytic laboratories and environmental consultants to support the ongoing mill operations. The economic impact of the Androscoggin mill still carries far out across the entire State of Maine.

The mill is fully engaged in becoming a much smaller more efficient facility with major reductions in energy and water consumption. Conducting our business as we have in the past is not an option. Our survival and success depends on being quick to learn and adapt. And an example of this is our waste water treatment facility operation.

Prior to the 2020 event, we processed wastewater flows of up to 30 to 35 million gallons of a day with BOD loadings of 60 to 80,000 pounds a day. The facility operated well resulting in BOD effluent dischargers well below our current permitted limits. Fast forward to today when our effluent flows are approximately one-third and BOD loading is approximately one-tenth of what they used to be. We have made significant efforts to evaluate and update the operations to reduce energy consumption while maintaining environmental performance.

In addition, our wastewater discharge permit was voluntarily modified to capture the lower effluent flows well ahead of the time required by the normal regulatory process, and I emphasize voluntarily.

One of the keys for the future of our mill is regulatory stability; however, as DEP has stated in its testimony in various reports, if the proposal to reclassify the lower Androscoggin to class B was successful, it would create significant regulatory uncertainty. Implications for the Androscoggin mill include significantly reduced BOD permit limits, as Scott has mentioned, 54 percent, and that's what we've talked about with the DEP at a time when we are already working to transform our plant to a much smaller operation.

Furthermore, again, Pixelle and other GIPOP (Gulf Island Pond Oxygenation Partnership) partners would likely face increased spending to inject even more oxygen into the Androscoggin River. And the success of those efforts are still undetermined whether it would allow the lower Androscoggin to one hundred percent of the time achieve that class B standard.

This uncertainty is the last thing that our mill needs, and given that the modeling information available to us today does not confirm whether the additional regulatory measures will have any effect whatsoever on the water quality of the lower Androscoggin.

Now, look, I am proud to have been a member of the Androscoggin mill for the past 30 years. I'm proud of the work that we have completed over that timeframe. We have worked voluntarily and cooperatively on environmental projects with the Maine DEP, the USEPA and other stakeholders

on a variety of fronts. Those efforts have contributed to the improvements that have been achieved in the Androscoggin River.

So, in conclusion, we support the DEP's triennial water quality review process and we support their recommendations not to upgrade the Androscoggin River classification at this time.

- Roland Arsenault, Rumford-Mexico Sewerage District (hearing comment)

Good morning, my name is Roland M. Arsenault. I'm the superintendent of the Rumford, Mexico Sewerage District, born and raised in Mexico, Maine, lived on the Androscoggin Swift River my entire life.

In 1983 I began my career in the environmental field working at the Rumford, Mexico Sewer District as an operator. I left there and went to the Rumford paper mill, worked in their wastewater treatment plant, became an environmental engineer, worked in the mill for 32 years, left to become the superintendent of the wastewater treatment plant downstream. I'm very familiar with all that's gone on in the Androscoggin River, the work of Maine DEP, the work of the paper mills and all the receiving water bodies.

I'm here today to give support to the Maine DEP and their findings to retain the classification of Androscoggin River as it is, and I'm also in opposition of Bill LD 676.

And to speak to that a little bit more clearly, I've been tied up with a major renovation to the current wastewater treatment plant I'm at because it had been neglected for a long period of time. And LD 676 came to my attention through a fellow superintendent on the Androscoggin that I was unaware of because I hadn't been paying attention. And it was made known to me that Maine Municipal Association said they had supported every one along the river, all the dischargers all up and down the Androscoggin River. And I said well, that can't be true because no one consulted me, and so I asked my counterparts on Androscoggin River above Gulf Island Pond and none of them had been consulted by Maine Municipal Association. So I reached out to Lisa Keim's office, Senator Lisa Keim, and I said how can Maine Municipal Association support this bill and say they have full support of all of the dischargers on the Androscoggin River when all of us have not been contacted. And I said, you know, Maine Municipal Association did not contact me, did not contact Livermore Falls or any other wastewater treatment plant, upstream Gulf Island Pond, we're all in opposition of that bill.

So I said in discussion with Senator Clarkson's office and he made it aware to me that he was misled also by the group who brought the bill to him that they were, you know, full concession on that, and that is not the case. So I want to make it clear that people upstream of Gulf Island Pond are not in favor of LD 676 and we want it killed in session if we could, if possible, because it's not going to do any good for dischargers upstream. It's going to limit my treatment plant if the river should change classifications so we will not be able to have any future upgrades.

In other words, if the towns miraculously, you know, start increasing in size and population and any more economic development was to happen, we wouldn't be able to increase our discharge because we'll be limited because of the classification of the river.

So that is all -- that's why I came here to testify today. That concludes my testimony and I'm open to any questions or comments.

- Brian Rayback, Pierce Atwood for Gulf Island Pond Oxygenation Partnership (GIPOP) (hearing comment)

My name is Brian Rayback. I'm a lawyer with Pierce Atwood, a law firm in Portland, Maine.

We're here representing two separate clients today. I think I can be fairly efficient. The first is Sappi North America's Westbrook mill, which discharges to the Presumpscot River, and the second is the Gulf Island Pond Oxygenation Partnership, GIPOP, that we talked about earlier, that discharges, or that rather serves dischargers on the Androscoggin River.

Regarding the Gulf Island Pond Oxygenation Partnership on the Androscoggin River. The Department received a citizen request on that river, several people have talked about that already, so I think I can be brief.

Just to tell you a little bit about who we are, the GIPOP partnership was formed in 1991 by four partners. It is a separate legal entity, Brookfield, who owns the dam; ND Paper; White Mountain Paper in Gorham, New Hampshire, and Pixelle. It was formed for the purpose of introducing oxygen into the lower levels of Gulf Island Pond. Some people call the system like a bubbler. It actually bubbles up oxygen into the river. And they do this to improve water quality and bring the oxygen levels in the pond up to class C water quality standards. That oxygenation system went into effect in 1991. It's been operating since then, and I think it's fair to say that the DEP and the partnership and its members have worked pretty hard over the years to fine-tune how it works and make sure it's maximizing the benefits.

Gulf Island Pond is at that upstream boundary of the class B segment that is being proposed so that, as Scott Reed said, that at the dam is the location where the water is supposed to go from C on the other side of the dam to B in very short order.

Existing dischargers would be in noncompliance with this new standard and there would be, as we talked about, there would be impacts to the dischargers.

From the partnership's perspective, what's difficult is that the partnership may be required to inject additional oxygen, or operate in a different way than it has in the past. Again, that's very expensive, it's costly, it's difficult, and there's no guarantee that it's going to actually get us into compliance with standards. And so the partnership has much the same concerns that I've raised that Sappi have on the Presumpscot (pages 70-71 below) and that you've heard from some of the mills that discharge to the Androscoggin.

And so I won't belabor that, but I just wanted you to understand that the partnership has that same perspective because it affects them as well. They're trying to operate this bubble system in a way that is productive and gets us towards compliance.

- Scott Reed, ND Paper Inc. (Rumford Division) (written and hearing comment)

*ND Paper is providing these comments in response to the Maine Department of Environmental Protection (MEDEP) request for comments as part of the Triennial Review of Water Quality Standards. ND Paper's comments are in **opposition** to the request by some proponents to upgrade a section of the lower Androscoggin River from Class C to Class B.*

Many comments were submitted to the ENR Committee in opposition to LD 676. As part of our We all recognize that the lower Androscoggin River demonstrates significantly improved water

quality. An classification upgrade to Class B; however, establishes a directive to the MEDEP to implement controls in order to meet Class B standards at all times and under all conditions. Similar proposals in different forums have been rejected in 2009, 2010, 2011, 2013, 2018, and in this last legislative session the bill was carried over. So why is this? MEDEP has evaluated this directive from a technical perspective and concluded that there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River. DEP modeling demonstrated that even eliminating all dischargers, class B standard would not be met in all locations at all times. So there are several reasons why the DEP and the legislature do not reclassify a water body unless it meets the new classification.

It puts any discharge into that water body in immediate noncompliance. It prohibits any new or increased dischargers, such as growth, to that water body. It usually requires changes to the discharge licenses and it can require costly expenditures for equipment and process changes. So despite not attaining class B standards, upstream communities will be drastically affected.

So what are some of these consequences for the upstream facilities and communities? The DEP has communicated to us that a 54 percent reduction in discharge limits the ND Paper Mill in Rumford and the Pixelle Mill in Jay will be needed, or increase the oxygen injection system in Gulf Island Pond, which also impacts Brookfield and White Pine Paper Mill in Gorham, New Hampshire. Our mill cannot meet the proposed 54 percent reduction and will require multimillion dollar capital upgrades.

The DEP also communicated that the municipal treatment plant in Lewiston, Auburn will require a 33 percent reduction in discharge limits to account for their contribution. It will result in restrictions for hydro certifications and restrictions on expansion and growth in the upstream communities.

DEP has evaluated this directive and concluded there's no feasible approach to ensure attainment of class B DO standards in the lower Androscoggin.So it will not improve the water quality, but it will have a detrimental effect on a regional economy. It will impose unnecessary costs that will be passed onto ratepayers and municipalities and will restrict future growth and threaten the viability of private businesses. Consequently, the MEDEP did not include this upgrade in its Triennial Review package. ND Paper agrees with this evaluation..

During the 130th Legislature, many comments were submitted to the Joint Standing Committee for Environment and Natural Resources in opposition to LD 676 "An Act to Reclassify Parts of the Androscoggin River to Class B." By way of this letter, ND Paper is attaching the following documents for inclusion in the Triennial Review process (see Appendix A, pages 88-101):

- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Scott Reed, Manager of Environmental and Public Affairs, ND Paper Inc.*
- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from members of the 130th Maine Legislature.*
- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Senator Jeffrey Timberlake of Senate District 22.*
- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Patrick Strauch of the Maine Forest Products Council.*
- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Ben Gilman, Maine State Chamber of Commerce.*
- *4/30/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Dean Gilbert of the International Brotherhood of Electrical Workers.*

- *5/3/2021 letter to the Joint Standing Committee on Environment and Natural Resources from Kevin Averill, President, United Steel Workers Local 900.*

ND paper agrees with the Department that there is no feasible approach to ensure attainment of Class B standards in the lower Androscoggin River. We appreciate the Department's consideration of these comments as part of the Triennial Review process.

- Steve Zuretti, Brookfield Renewable (written comment)

Brookfield Renewable[34] appreciates the opportunity to provide additional comments on the Department of Environmental Protection's (DEP) 2021 Triennial Review of Water Quality Standards. Consistent with Brookfield Renewable's prior submittal, we limit our comments to the proposal to upgrade the Androscoggin River below Gulf Island Dam from Class C to Class B.

The question of whether the lower Androscoggin River should be upgraded from Class C to Class B has been reviewed several times over the last decade, including through legislative proposals and as part of the DEP's 2018 statewide re-classification process. Each time the same conclusion has been reached: the data does not support the Class B designation as there would be "no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River."[35] While Brookfield Renewable supports efforts to improve the health and safety of Maine's waterways, including the Androscoggin River, implementing an upgrade based on aspirations and without necessary data to support the change is counter to the DEP's established practices. Accordingly, Brookfield Renewable supports DEP's conclusion that "Given statutory requirements and the findings of existing Department studies and models, the Department does not foresee the ability to ensure attainment of Class B standards under critical conditions[36]" and we agree with the DEP's final recommendation that the segment of the river not be reclassified.

- George O'Keefe, Jr., Town of Rumford (hearing comment)

Thank you for the opportunity to address the Board today. My name is George O'Keefe. I'm the economic development director for the town of Rumford testifying on behalf of the town. The town is testifying in support of the DEP's recommendation to leave the Androscoggin River's classifications unchanged, and we would note that we strongly object to the adversarial nature of proposals from other parties.

---

[34] *Throughout Maine Brookfield Renewable owns and operates 46 hydropower stations totaling 622MW of installed capacity – including several hydropower facilities located on the upper and lower Androscoggin River, as well as 219MW of windpower and a 20MW battery storage facility. Brookfield Renewable has over 100 employees in Maine and supports 275 indirect jobs across the State and pays more than $20 million in property taxes in Maine annually, which provides critical funds for local schools, fire departments and public services.*

[35] *Letter from Maine Department of Environment Protection to Senator Nate Libby and Senator Ned Claxton, dated October 25, 2019.*

[36] *Maine Department of Environmental Protection 2021 Triennial Review of Water Quality Standards at pg. 59.*

The progress on the Androscoggin River has been achieved through a longstanding collaborative process certainly more recently, including municipalities, industry, agriculture and numerous voices from the advocacy community.

No community is more invested in the health of Androscoggin River than Rumford. No community has benefited more from its improved health. And no community has more interest in improved recreational opportunities on the river than Rumford. No community has contributed more to the improvement and conservation of the Androscoggin River through the efforts of our residents, most especially the late Edmund Muskie, born and raised in Rumford and author of the Clean Water Act of 1972, as I'm sure everybody is well aware.

Rumford is extremely proud of Secretary Muskie's service to our community, Save the Nation, and we think it's important for the Board to be aware that in spite of all this, we continue to be excluded or ignored, perhaps brushed off by other parties who make proposals concerning our river without any apparent regard for our stewardship of it.

We believe this competitive approach is not beneficial to the continued public consensus in favor of improvements to water quality as our residents watch outsiders continually submit proposals without any regard to their potential impact on our community.

With the changes to energy and trade over the past 40 years, our community has paid dearly for the prosperity of others. We intend to and are rebuilding the prosperity that has been lost and look forward to seeing a river that continues to experience a revitalization of recreation and habitat for fish and wildlife.

In short, the state of the river as it is today has been critical to our ability to promote economic diversification and improve recreation and we really appreciate the efforts that have been made to date to get it to where we are now.

I would just finally note that I feel that we had a moment ago where unfortunately another party failed to mention the name of our town, which is Rumford, and Skowhegan is most definitely not on the Androscoggin River, never has been. And I think that lack of geographic awareness speaks exactly to our point, and it's very, very hard to be in a public hearing and have our community not properly named, and I think it really speaks to the idea that we really are not listened to very well at all.

So we hope that you have heard us. We trust that you have heard us, and we certainly believe and appreciate the opportunity to speak to you today. Thank you very much.

MDEP Response:

The Board appreciates the extensive support this upgrade proposal has received, and acknowledges the concerns voiced by various parties opposing the upgrade. The key points raised by supporters were addressed by the Department in prior public documents, including the Responses to Comments available for the April 26 through May 26, 2021 public comment period, the draft revised Triennial Review recommendations that were available for public comment between August 18 and October 25, 2021, and the Department's testimony on LD 676 on May 3,

2021. Information is also included in the final Board recommendations[37], dated December 16, 2021. In the interest of brevity, readers are referred to those document for a complete response.

Throughout the Triennial Review process, the Department has not recommended this upgrade. The Department took the same position in the past when similar upgrade proposals were evaluated. In essence, the staff's recommendation against an upgrade was and continues to be based on the Department's long-standing interpretation of Maine's antidegradation policy (38 M.R.S. Section 464.4.F.4) that it 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 DEP's Antidegradation Program Guidance (Appendix B in the revised – December 2, 2021 - Triennial Review recommendations), attainment or exceedance of a water quality criterion, such as for DO, must occur under critical water quality conditions (including low flow, high water temperature and licensed loading from point source discharges) to trigger the reclassification requirement pursuant to 38 M.R.S. Section 464.4.F.4. The Department's interpretation of the antidegradation policy does not consider a wastewater discharge to be a designated use or an existing use, but it does recognize the legal conditions created when a waste discharge license is issued. Licenses are issued, amongst other things, based 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 another statutory provision (38 M.R.S. Section 464.4.D) that specifies critical flow conditions. The Department's position is that monitoring data and modeling showing that Class B criteria are largely (but not always) attained in the lower Androscoggin River during non-critical flow conditions does not trigger the requirements of 38 M.R.S. Section 464.4.F.4. Furthermore, the Department staff does not see a clear path forward to ensure Class B water quality standards would be attained under the conditions required by law. Therefore, an upgrade to Class B would likely cause significant regulatory uncertainty.

The Department's position regarding the issuance of waste discharge licenses was confirmed in consultation with EPA in June 2021, where EPA stated that discharge licenses must be written to ensure that applicable water quality standards are attained 100% of the time during critical conditions. Thus, based on existing in-stream as well as modeling data and legal requirements, the Department staff has been consistently unable to support this upgrade.

Update resulting from the Board meeting on December 16, 2021: Following additional deliberation on December 16, 2021, the Board voted to consider an amended proposal to upgrade the lower Androscoggin River, which had not been recommended by Department staff for the reasons outlined in the Board's recommendation document and above, including the documents linked in the first paragraph. The Board then voted to approve the alternate amended proposal (an upgrade from Class C to Class B) for a more limited downstream stretch of the lower Androscoggin River – namely from the Worumbo Dam to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction – while also retaining the Department staff's existing analysis for the benefit of the Legislature as it considers the Board's recommendations. Given the circumstances surrounding the lower Androscoggin upgrade proposals as outlined in the Department staff's analysis in the Board's recommendation document and this document, the Board expressed an interest in having the Legislature consider the more limited alternate upgrade recommendation alongside the Department staff's analysis.

[37] Available on the Board's web page www.maine.gov/dep/bep/index.html

MDEP Response on page 56

Comment neither in support of nor opposition to original proposal:

- Ferg Lea, Androscoggin River Watershed Council (ARWC) (written comment)

Since it appears that DO is the reason that the Androscoggin does not meet Class B standards, we note that these comments only apply to Dissolved Oxygen concentrations in the Androscoggin River.

The Androscoggin River is perhaps the most tested river in Maine. There has been water quality testing as part of DEP's process to test rivers on a schedule of approximately every five years. There are two continuous monitors; one is at Center Bridge in Turner, the head of Gulf Island Pond, a backwater created by the Gulf Island Dam in Lewiston-Auburn. The other is located at what is known as the "Deep Hole" in Gulf Island Pond. In the summer of 2019 DEP used continuous reading monitors to measure Dissolved Oxygen in the Durham area for a period of approximately two weeks. Friends of Merrymeeting Bay and the Androscoggin River Watershed Council have both participated in the DEP Volunteer River Monitoring Program. The Friends of Merrymeeting Bay sampled the lower part of the river, and the Androscoggin River Watershed Council concentrated on the upper part of the river for most years of DEP's VRMP program. FOMB have been sampling since before the VRMP began. ARWC has only sampled in the Lewiston-Auburn area for two years.

However, with all of this monitoring, we still do not have a good understanding of the river's characteristics and water quality over its length. The grab samples done for the VRMP may be done from the shore or from a boat or bridge. They provide a snapshot of the water quality on the day they are taken and in the location where they are taken.

What all of this sampling shows is that the river either meets or is very close to Class B from the Durham-Lisbon area through Merrymeeting Bay. The grab samples in the Lewiston-Auburn area show that the river is very close to Class B and has a higher DO than is being measured by the continuous monitors on Gulf Island Pond.

Some analysis of the continuous monitor results over the most recent years shows that the water quality in Gulf Island Pond is also much closer to B than it is to C. The exception to this is in the area known as "the Deep Hole" which is the old river channel – the one that existed prior to construction of Guld Island Dam. The Deep Hole is subject to thermal stratification during periods of low flow, and it is also topographically isolated with bankings on either side that prevent good circulation or mixing of the water in the Deep Hole with the surrounding water. The isolation combined with benthic demand for oxygen from legacy organic matter on the bottom of the pond reduces DO levels to well below the C standard in the depth at which stratification occurs. Water above the bottom, stratified layer is of much better quality and generally above 7.0 mg/l or in the high sixes. The same thermal isolation occurs in other hydropower impoundments and also in many of Maine lakes and is recognized in statute.

DEP has typically relied on an EPA accepted digital model of the river to set its classification. However, the continuous monitors as well as the grab samples show water quality that generally exceeds the quality predicted by the model. We do not believe that the grab sampling can be totally relied upon for reclassification, but neither do we believe that the model with a number of inherent issues can be solely relied upon to determine classification. It must be recognized that modeling of most environmental phenomena is dependent of the quality of the model and the real

world data that is entered into it for calibration. DEP should not rely solely on the model to give results with a high degree of accuracy and precision.

It makes sense to recognize the improved water quality in the Androscoggin River and the fact that it is all well above Class C. We recommend that the DEP more fully analyze the modeling results in concert with results of the continuous monitors and consideration of the VRMP results.

From a review of the continuous monitoring data and some of the VRMP data, we believe that a change in the classification standards is appropriate for the Androscoggin River and possibly other rivers. It is entirely appropriate and important to recognize the much improved and high quality of the Androscoggin River. Our analysis also indicates that the discharges to the river are probably not the controlling factor in reducing Dissolved Oxygen levels below the Class B standard of 7 mg/l. A graph of the DO, constructed over a period of years, at the continuous monitors shows little to no correlation between the level of discharge from the Pixelle mill in Jay and the DO entering or in Gulf Island Pond.

The analysis also leans toward the probability that the oxygenation system in Gulf Island Pond is having little impact. We should accept the "Deep Hole" as a stratified area during low flows and should, at least, conduct some pilot projects in which the bubblers are not activated to determine the impact of the bubblers.

With a number of attempts by stakeholders to upgrade the river to B below Lewiston, the DEP has continued to rely on the river model which indicates DO excursions below the 7.0 mg/l. We question whether the model should be used as the sole judgement on upgrading. There are obviously a number of factors besides discharges impacting water quality and probably these other factors, such as diurnal fluctuations, are the reason the DO drops below 7.0 mg/l. The DEP's stance has been if upgraded, it would be necessary to cut the amount of organic load from the dischargers, both public and private, on the river. Since the correlation between discharge and DO in Gulf Island Pond is weak at best, we question whether such drastic cut backs are necessary. A change in the classification statutes would recognize the good quality of the river and provide for occasional drops in DO.

Perhaps the lower part of the river meets the Class B standard. However, we would suggest that the entire Class C section of the river be considered for a new standard possibly designated as Bx. While the results of the sampling and any change in standards should be open to additional analysis by DEP staff, we suggest that a standard for DO of between 6.0 and 6.5 or 70% saturation, whichever is lower, for a monthly average be considered with instantaneous drops to 5.0 being permitted. This would account for periods of high temperatures, necessary as the climate warms and for any upsets in treatment plant processes which are only natural in biological treatment systems. A review of literature, indicates that fish and aquatic life can do quite well above 6.0 and occasional drops to 5 do not adversely impact diversity, but, depending on their duration, may impact their thriving.

We would also like to note that the current Class B standard requires 7.0 mg/l DO or a saturation of 75%, whichever is higher. However, at temperatures greater than 20 degrees Centigrade, having 75% saturation would result in a DO of less than 7.

Under the proposed standard, discharge permits would not need to be ratcheted down, but we would better recognize the improved water quality of the Androscoggin River. In addition, the statute should be revised to "accept" the Deep Hole as stratified at low flows and high temperatures. A pilot study to determine the bubblers' impacts on DO may well show that they are not improving the DO in the Deep Hole nor the upper layers of Gulf Island Pond. It seems

that the expense of operating the bubblers is an expense that could be forgone. Perhaps those incurring the expense of operating the bubblers could put some funding toward other environmental improvements in the short term and incur some savings now and more savings in the long-term.

MDEP Response:

This comment includes many of the arguments provided by other commenters, and relevant responses can be found on pages 53-54, above. One new comment provided here was regarding the creation of a new Class 'Bx' to be applied to the entire Class C section of the Androscoggin River. Developing a new water quality standard (WQS) is typically a significant undertaking. 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, remediation) and must therefore be developed carefully. At this time, the Department is evaluating several new or modified WQS that were proposed at the start of the Triennial Review process. These proposals create a challenging workload. Any additional modifications to WQS would need to be proposed in a future Triennial Review process or via legislation. The Board agrees with the Department's position.

Upgrades Not Recommended - Upgrades to Class AA (The Nature Conservancy and MDEP)

MDEP Response on pages 59-60

Comments in support of original proposals:

- Landis Hudson, Maine Rivers (written and hearing comment)

We are profoundly dismayed about a group of upgrades to that are not currently recommended by the Department. This group includes the South Branch of the Sandy River and tributaries, sections of Orbeton Stream, as well as section of streams within the Machias, Narraguagus and Penobscot River basins. The DEP cites "regulatory uncertainty" related to EPA's designations that are under consideration as they relate to the development of stormwater regulation. We urge the Board to propose these waters for upgrade.

We note that the proposal contains sound documentation of the ecological importance of these waters and the clear expectation they are currently attaining the standards of Class AA for ecological, social, scenic or recreational importance. DEP appears to be making the judgement based on concern about the outcome of some future decisions by the DEP and EPA that would cause these waters to be unlicensable for certain stormwater discharges. DEP appears to be preemptively excluding legitimate, high quality candidate waters because of their concerns for consideration at some future time with as yet unknown future circumstances. We object to the overly cautious rationale that mires Maine in inaction rather than moving us forward in pursuit of protection and maintenance of water quality.

We see that the Department is imposing a false standard for Class AA - that this class can only include waters that will never have stormwater, licensable or not. The standard for Class AA is that they have "ecological, social, scenic or recreation importance" and attain the associated criteria that protect these characteristics. We urge the Board to propose these waters for upgrade to protect these waters for their highest values and not shield the Department from future indefinite

decisions involving stormwater management. It is the DEP's responsibility to maintain the standards of the classification "which the legislature intends for the body of water" (§464.1), not to make the water body licensable for some future development possibility.

We further note that DEP's failure to support water quality upgrades for the Sandy River streams is out of step with Atlantic salmon recovery plans for the Kennebec. The waters represent excellent spawning and nursery habitat, and should be protected. A failure to support this upgrade would run counter to the commendable precedent by the DEP for Downeast and Penobscot watersheds where DEP has supported upgrades for Atlantic salmon restoration.

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

We appreciate the recommendation to upgrade the section of the West Branch Penobscot River and Tributaries above Ambajejus Lake (T2 R10 WELS and Other Townships) from Class A to Class AA.

Despite the ongoing discussions between the DEP and EPA regarding stormwater discharge standards, TNC believes it is still appropriate to upgrade the section including Nahmakanta Stream and Tributaries (West Branch Penobscot River sub-watershed) T1 R11 WESL and Other Townships from Class A to Class AA. We recommend that the Board take this action.

AA waters are defined as those that are "outstanding natural resources and which should be preserved because of their ecological, social, scenic, and recreational importance", especially where those waters already attain the standards of Class AA. The Nahmakanta Stream and its Tributaries meet this definition.

We understand the Department is seeking to balance their efforts to resolve the stormwater discharge issues with EPA, but this recommended upgrade is unlikely to create challenges with that process. The Nahmakanta watershed is unlikely to ever require a stormwater permit, since it largely falls within state, federal, and TNC conservation lands. The 13 percent of the watershed outside of conservation ownership is in the headwaters of the watershed and not suitable for any development that would generate stormwater management concerns. This watershed includes the Appalachian Trail Corridor (100-mile wilderness), is home to native brook trout and state listed arctic charr, hosts a small sporting camp business and is accessible to the public for recreation.

This recommended upgrade could go ahead without impact to the DEP / EPA resolution effort. Thus, TNC recommends that the BEP address the West Branch Penobscot River and tributaries together and recommend an upgrade rather than splitting the proposal into two parts.

TNC furthermore recommends that the BEP upgrade the South Branch Sandy River and Tributaries, and Cottle Brook and Tributaries, Phillips and TWP 6 North of Weld. Again, we understand the DEP's suggestion to hold on several recommended upgrades due to the uncertainty and hopefully coming resolution with EPA. However, this upgrade proposal should move forward because the Sandy River watershed is a vital state resource for Atlantic salmon. The upgrade includes areas that are critical for salmon spawning and nursery streams and these upgrades were originally proposed by DMR and DEP salmon biologists. TNC and other conservation organizations, along with the State, have invested significant resources to the recovery of this watershed and protection by reclassification to AA is consistent with the State's salmon management plan for the Kennebec watershed. Importantly, this segment currently attains the higher AA standards and is not at risk now or in the future from stormwater management concerns.

- Nick Bennett, Natural Resources Council of Maine (NRCM) (written comment)

I am the staff scientist for the Natural Resources Council of Maine (NRCM), and I am submitting testimony on DEP's proposed water quality change proposals from its Triennial Review. NRCM is Maine's largest environmental advocacy organization with more than 25,000 members and supporters. NRCM supports DEP's proposed upgrades in the package, but we are perplexed by DEP's decision to remove eight recommendations for upgrades of very high- quality streams from A to AA from the package. DEP staff initially proposed seven of these upgrades, and The Nature Conservancy proposed one of them. DEP's justification for dropping these eight upgrades it initially embraced appears to be based on a dispute it has with the U.S. Environmental Protection Agency (EPA). For example, DEP stated the following to justify its no longer recommending the proposal to upgrade Orbeton Stream and its tributaries (all of which are tributaries to the Sandy River and critical habitat for endangered Atlantic salmon):

> *As noted in the April 2021 recommendations document, certain aspects of regulation of stormwater discharges to Class AA waters are currently under discussion with EPA. After further considering the regulatory uncertainty created by these ongoing discussions, the Department is recommending that most proposed upgrades to Class AA waters, including Orbeton Stream and tributaries, not proceed until this issue is resolved. Once the issue is resolved, the upgrade proposals to Class AA that the Department now recommends putting on hold could be reconsidered in subsequent reclassification proceedings with a full understanding of the regulatory requirements.*

NRCM believes this justification for failure to propose an upgrade is both absurd and illegal. It is absurd because Orbeton Stream is spectacular spawning habitat for salmon, and Maine is working as hard as possible to protect Atlantic salmon in the Sandy and Kennebec rivers. DEP not pursuing an upgrade of this waterbody is the State working against itself. It is illegal because statute does not allow DEP to not propose an upgrade because of a dispute with another regulatory agency. Maine law (Title 38 Section 464(F)(4)) is very clear on this issue and states:

> *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. <u>The board shall recommend to the Legislature that that water be reclassified in the next higher classification</u> (emphasis added).*

Neither DEP nor BEP has the discretion to recommend upgrades not occur because of a bureaucratic dispute. DEP's Triennial Review package indicates that all eight of these currently Class A streams attain Class AA. Therefore, the BEP must recommend their upgrade to Class AA to the Legislature.

- Dan Kusnierz, Penobscot Nation (written comment)

PIN also supports the initial proposals to upgrade Nahmakanta Stream and Houston Brook and tributaries from A to AA. These waters are important for the restoration and protection of wild brook trout and salmon.

<u>MDEP Response:</u>

The Department appreciates the support expressed for upgrades to Class AA that were not recommended in the document available for public comment. After considering public comments supporting the upgrade of waters in the Nahmakanta Stream sub-watershed, an additional

analysis of that area was conducted. This analysis indicated that the approximately 13% of the watershed that is outside of conservation land is comprised of small headwater streams where development is unlikely to occur. The Department therefore revised its draft recommendation presented to the Board for the December 2, 2021 deliberative session, and supported this upgrade. The Board agrees with that change in recommendation.

For other not-recommended upgrades to Class AA, the Department maintained its position. However, MDEP staff explained at the December 2, 2021 deliberative session between the Board and Department that proposed stormwater legislation had been developed to resolve the regulatory uncertainty that was the basis for MDEP not recommending most AA upgrades. The Department noted that it would support the Board recommending all upgrades to Class AA to the Legislature with the caveat that the Board recommend that the Environment and Natural Resources (ENR) Committee hear and vote on the stormwater bill first, before hearing and voting on the upgrades to Class AA as part of the Triennial Review bill. If done in this order, the ENR committee will have an understanding of how existing, and potentially future, stormwater discharges to AA (and SA) waters will be regulated. The Department realizes that the issue would not be fully resolved until the full Legislature votes on the stormwater bill, and EPA ultimately makes a decision on this revised water quality standard, but if the ENR committee votes 'ought to pass' on the stormwater bill the Department would support these upgrades. The Board agreed with the Department's recommendation to support all upgrades to Class AA as long as the legislative process occurs as described, and will request that the ENR committee handles the stormwater and TR bills as suggested.

Comment neither in support of nor opposition to original proposal:

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

We understand there is regulatory uncertainty between Maine DEP and the federal EPA regarding stormwater discharge standards. We appreciate the efforts of DEP staff to work through this issue, and we understand that some of the initial reclassification recommendations are on hold until that issue is resolved. Efforts to resolve this issue are currently under consideration for the 130th Legislature's short session, and we will review the bill as it moves through the legislative process.

Upgrade Not Recommended - Presumpscot River from Saccarappa Falls to Head of Tide at Presumpscot Falls, Westbrook, Portland and Falmouth (Friends of the Presumpscot River)

MDEP Response on page 71

Comments in support of original proposal:

- Aiden McGrory, citizen (written and hearing comment)

I am a 24 year old that grew up living on the lower half of the Presumpscot River in Falmouth Maine. Recently, an activist group in my town, Friends of the Presumpscot, has put forward a motion to upgrade the stretch water that I spent my whole childhood swimming in from Class C to Class B.

After reading the DEP's response in this report, I believe the DEP makes a reasonable argument of wanting extra time to collect more data to confirm the river is healthy enough to be upgraded to class B water. As a scientist myself, I'm always in favor of more data collection. However, I also recognize the significant time that such quality data collection takes.

Unfortunately, I believe the timing of this situation will not allow for inaction in the meantime to be possible. The Presumpscot shaped my life and early adult life and I've developed some of my closest friendships along its banks and in its waters. I have seen firsthand the recovery it has overgone in the last 15 years. For a kid growing up surrounded by the disheartening effects of climate change and pollutions, I always looked to the Presumpscot as a beacon of hope for how our planet could be restored and protected. Today the river continues to be an inspiration.

If we do not move to grant this water Class B status now, or at least mandate that ***no new point source discharges may be established in the meantime****, then I am afraid that this ecosystem will take us back many steps, some of which may be potentially irreversible.*

Furthermore, in my last 15 years on the river, I have seen the users of the area at least double in number. More residents means more potential harm for all those that use the river if it is not aptly protected. Conversely, if we do protect it, the lower Presumpscot gives rich nature access to those who need it most, the youth residents of Portland, who may otherwise not have many ways to access nature.

I believe my request is an essential amendment to the DEP's recommendation. We really cannot stand by and fail to protect the Presumpscot while we spend years collecting more data. A swift recovery is too important to the ecosystem and the health of the residents along its banks.

I really appreciate you reading my email and hearing my call for action!

- Will Plumley, Friends of the Presumpscot River (FOPR) (written and hearing comment)

Context: DEP's final recommendation to the BEP can be found on page 69 here: www.maine.gov/dep/water/wqs/TR_20210723_WQS-ChangeProposals_ForBEP.pdf. Briefly, the recommendation is to not upgrade the River at this time based on a lack of data that would allow an evaluation whether the lower Presumpscot River could meet Class B criteria at all times during critical conditions of high water temperature, low flow, and maximum licensed discharge levels.

FOPR requests that the BEP take one or more of the following actions:

1. *Override DEP's recommendation and ask the legislature to reclassify the lower Presumpscot to Class B.*
2. *If the BEP decides not to approve reclassification to Class B at this time, we ask the BEP to further protect the lower river by amending the Maine statute §467.9.A.(4) from this -- (4) From Saccarappa Falls to tidewater - Class C. — to this — (4) From Saccarappa Falls to tidewater - Class C. Further, there may be no new direct discharges to this segment after January 1, 2023. (See precedent for this exact action in §467.9.A.(2) "From its confluence with the Pleasant River to U.S. Route 202 - Class B. Further, there may be no new direct discharges to this segment after January 1, 1999.")*
3. *If the BEP fails to take either action 1 or 2 above, we respectfully request that the BEP explain how it will enforce the rule that no new discharge will be allowed that lessens water quality in the lower river when the DEP does not know what the lower river water quality*

is at this time.

4. *If the BEP fails to take either action 1 or 2 above, we ask that Friends of the Presumpscot River's 2020 proposal to reclassify the lower river to Class B remain open until DEP completes its data gathering and analysis and a final determination is made as to whether to approve this reclassification.*

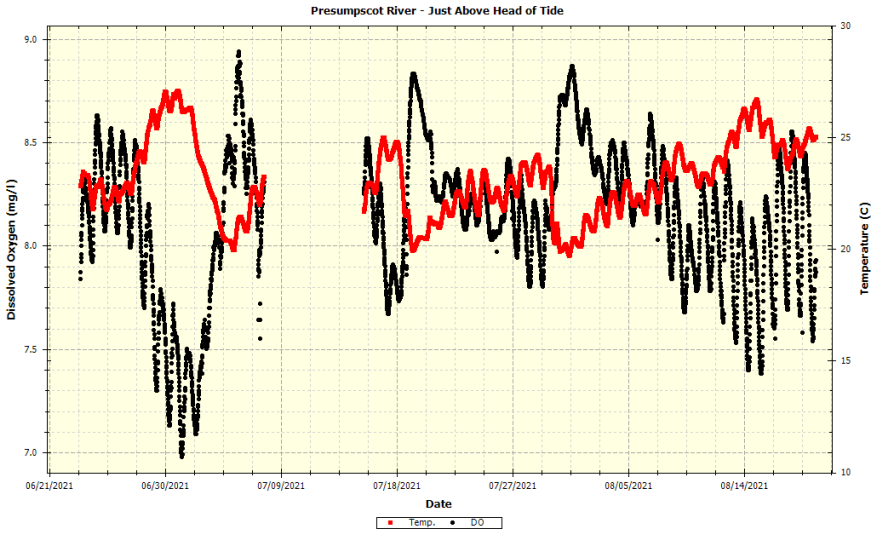
RATIONALE:

1. ***REMINDER:*** *Maine's water quality classifications are aspirational, and a body of water does not need to meet the standards of a higher classification at all times in order to qualify and be approved for an upgrade. That said, the lower reach of the Presumpscot exceeded Class B standards for DO in 100% of the water quality monitoring results from May – September 2019 (as stated in FOPR's March 2020 proposal to reclassify) and had only one date when E.coli failed to meet B standards.*
2. ***FURTHER EVIDENCE to address DEP's question about whether the lower river will currently meet Class B water quality standards under the most adverse conditions allowed:*** *The 2011 Presumpscot River model (cited by DEP as the most recent) was updated by DEP's Peter Newkirk in 2011 to include modeling for what was then the proposed new minimum summer low flow at Eel Weir Dam (June 1 – September 30). The 2015 Eel Weir license confirmed that new summer low flow (408cfs vs. the previous 270 cfs). Peter's 2011 model graph for 408cfs at Eel Weir (438cfs at Westbrook) shows the Class C section of the Presumpscot meeting B standards for all but the most dire circumstance — and that was 10 years ago. Substitute today's Average Dissolved Oxygen data for 2011 Average DO data and the improvement of the river at and below Saccarappa is so significant that modeling on current data will surely meet Class B in the lower river at all times. – See the graphs and calculations in Appendix A (pages 102-103).*
3. ***A CLEAR PATH FORWARD:*** *There is a clear path forward to ensure that Class B standards are met at all times in the lower Presumpscot River. Clear Path as seen by FOPR:*
    1. *Reclassify lower Presumpscot from Class C to Class B*
    2. *Maintain and enforce current discharge licenses for Portland Water District and Sappi's SD Warren Westbrook Mill with no changes to those licenses*
    3. *Issue any new discharge licenses, or expansions to current licenses, with terms and conditions that will allow the lower river to continue to meet Class B standards*
    4. *Continue to encourage the City of Westbrook to reduce or eliminate CSOs*
    5. *Continue to work with municipalities and other entities to restore health to currently impaired streams flowing into current Class B waters along the Presumpscot*
    6. *Update the 2011 Presumpscot River Model to better inform close decisions related to water quality over the next few years*
4. ***THE RISK OF WAITING TO UPGRADE:*** *The risk of postponing this reclassification for up to 4 years (next triennial cycle) is that <u>if</u> there are one or more requests for new discharge licenses to be issued or current licenses expanded, then the decisions on those requests would be based on meeting the Class C DO standard of 5.0. If allowed to remain Class C for 4 more years, events could take place that would turn the improvement trend around and degrade the lower river close enough to the Class C minimum that it would no longer meet Class B. We do not want these hard-earned gains to be erased.*

I will add that we applaud MDEP's efforts to collect more data and better understand the lower

Presumpscot River. It is surely time to update the model. MDEP has shared the DO and temperature data collected at River Mile 0 from June 21 – August 20, 2021. We are not surprised that this data supports our position that the lower river be reclassified from C to B. It should also be noted that all these readings occurred during a period when the ***Sebago Lake outlet dam (Eel Weir) flows were at or below minimum flow required*** *in the Eel Weir Project license. In fact Eel Weir flows were either 200 or 270 cfs for the entire period of March 2 through September 20, 2021. Not until September 21 did Sappi increase flow to 408 cfs. SOURCE: https://presumpscotriver.tumblr.com/ .*

So, ***here is the DEP data from this extreme low-flow period*** *this past summer followed by notes from DEP's Rob Mohlar that accompanied the data.*



SOURCE: Maine DEP

Here is a quick look at the most pertinent aspect (dissolved oxygen and temperature) of this summer's dataset. I only deployed one sonde this year, but I was able to capture the majority of the critical summer period. This sonde was deployed just above the falls/rapids, very near head of tide. The deployment site is where I would expect to see the most critical river conditions occurring.

- Generally, the data looks pretty good, but the sag in early July is fairly typical of most years.
- The worst sags are generally associated with highest river temperatures, and this was not a particularly warm summer.
- The gap in the data reflects a period where I pulled the sonde due to concerns about potential flood flows.
- The overwhelming majority of this data is comfortably above the 7.0 mg/l Class B Standard, but the data also highlights the unavoidable critical summertime conditions. These critical conditions provide little to no assimilative capacity.

Interpreting the graph without benefit of the underlying data, it is noteworthy that the moment of "unavoidable critical summertime conditions" yielded a DO level of 6.96 – 6.98 ppm for a few hours. This should not preclude reclassification to Class B.

I would just like to say a little bit further about the background in this, and hearing the Androscoggin story, ours pales in comparison. But I want you to know that this project began in 2009 as a project with the Presumpscot River watershed coalition and we have waited until we

were convinced that the lower Presumpscot passes muster to be revised by class B. We have waited all this time to submit our proposal. We are convinced that it meets class B at this time, meets the criteria for reclassifying to class B at this time.

Let me talk a little bit about the lower river, which is today in better condition in many ways than the upper river. Twenty years ago the Presumpscot was impounded from top to bottom with no riverine habitat except for the (audio interruption) twenty years ago the Presumpscot was impounded from top to bottom with no riverine habitat except for the Bypass Beach near Sebago Lake, which had been recently rewatered in the 1990s as ordered by the State of Maine, and had been dry before that.

Today with the removal of Smelt Hill Dam and Saccarappa Dam in the last 20 years, riverine habitat has been restored to 11 of the last 12 miles of the river, which enters the estuary at Presumpscot Falls. The lower river can breathe again. You can hear it breathing, and the extensive rapids that once again exist below Mallison Falls, the restored rapids of Saccarappa's upper falls and lower falls now that all the water flows over the falls in the light of day and dark of night mingling with the air and re-oxygenating rather than plunging through indoor turbines as it holds its breath from Sebago Lake to Casco Bay.

Annual spring migration of oleaginous species continues to gain momentum as the rivers are restored and fish passage is ordered through the project licenses. Saccarappa passage opened this spring by late May and early June. YouTube had underwater videos of migratory fish 12 miles above the estuary butting their heads against Mallison Falls Dam.

Soon the State will determine if the migrations are sufficient to trigger simultaneous fish passage license requirements from Mallison and Little Falls Dam less than a half mile upstream. Migrating fish will have access to more than half of the Presumpscot River and its tributaries.

Chief Poland died for this river in 1756. Darkness fell upon its waters. I will surely die before Friends of Presumpscot's River mission to restore and protect the Presumpscot is completed, but now is the time to complete this chapter.

I urge you to recommend the legislature to reclassify the lower river from class C to class B in 2022. Let's not put this off. Let's get this done. One other comment on Mr. Rayback's testimony about the study of the eight miles of the 6.8-mile lower region of the river, which I don't understand, but the conclusions Mr. Rayback cited are indirect in violent conflict with today's actual empirical data about the health of the Presumpscot River, and I didn't want to let that go unsaid in this meeting.

Thank you for your consideration. Time has come today for Class B.

- Landis Hudson, Maine Rivers (written and hearing comment)

The Presumpscot River is now an amenity to the State Maine, after decades of commitment from state and federal agencies, businesses, local communities, nonprofit organizations, civic entities, and many, many dedicated individuals. The health of the river has benefitted from broad partnerships, legal initiatives, as well as technical innovations. Now the proof that these partnerships and years of focused work have been successful is shown in the reestablishment of viable runs of previously extirpated diadromous fish species, revitalizing local ecology and contributing to the health of Casco Bay and the Gulf of Maine. The Presumpscot River should be celebrated as a success story and that success should be carried forward by reclassification of the river section from Saccarappa Falls to Head of Tide at Presumpscot Falls. All current available data indicates that this segment attains Class B.

The removal of the Smelt Hill dam, fish passage at Cumberland Mills and the significant work done at the site of the Saccarappa Dam are separate but connected actions that have acted to improve the habitat and water quality of the Presumpscot River. We ask the Bureau to recommend this upgrade, noting its importance to the communities through which it flows, including Portland, Falmouth and Westbrook. Maine residents would be well served by a display of leadership from the Bureau to acknowledge the great story of the Presumpscot, and move forward a recommendation for this upgrade.

- Kara Wooldrik, Portland Trails (written comment)

Portland Trails supports the upgrade of the Presumpscot River from Class C to B. we hope that you will override the DEP recommendation and ask the legislature to reclassify the Lower Presumpscot to Class B.

We maintain trails along most of the length of the Presumpscot River from downtown Westbrook to Casco Bay. The health of the river is most important for the ecology of this riparian corridor through Maine's largest city. But, it is also important for the 100,000 people that walk, run, ride or paddle its length.

With the removal of the Saccarappa dam, there is very clear evidence the river quality is moving in a positive direction toward attaining class B. Further, the statute states that "Upgrades to classification are appropriate where it is socially and ecologically desirable." Reclassifications are aspirational and the waters do not need to meet the new standard at the time of reclass. However, they must be trending that way and achieving the B standard must be viable. Both are strongly the case here on the Lower Presumpscot.

We can no longer live in a world of status quo. We must be aspirational. And, in this case, this is minimally aspirational. This is very much in our reach. Please reclassify the Presumpscot River Class to B. Thank you for accepting and reading our comments.

- Michael Shaugnessy, Friends of the Presumpscot River (FOPR) (hearing comment)

I'm Michael Shaughnessy. I live in Westbrook and I'm on the Board of the Friends of the Presumpscot River. Thank you for hearing our thoughts relative to the DEP's recommendations towards the reclassification of the lower Presumpscot from a C to a B. I am in strong support of the Friends of the Presumpscot River's position.

The Presumpscot is only 25 miles long; however, around 10 percent of the entire state population reside in its adjoining municipalities, and three municipalities, Portland, Westbrook and Falmouth that border this section that we're considering there is a population of approximately a hundred thousand. For many people the first experience and where they developed an appreciation and capacity to care for a river may well be the Presumpscot.

Public attitudes towards the Presumpscot River have changed greatly. Where it once ran brown with the foam of industrial and human waste, it was used as dump, it could be smelled far into Casco Bay, it was shunned. Now in all the river, but specifically the lower river where we're considering, there is abundant swimming, paddling, tubing and fly fishing. There are also a number of preserves with walking trails along this section.

Within the area proposed for reclassification, the river runs through the center of downtown Westbrook. It has had a number of mills and historically it has looked away from the river. Westbrook now has a river walk. It is planning an extension to that river walk. There are public docks and businesses are now beginning to face the river, even restaurants have outdoor tables along it. A recent public survey ranked the river as the greatest asset to downtown Westbrook. Down river, the long abandoned river trolly park in Portland has plans to be reactivated as a park.

In the past 20 years this section of river has seen multiple major restorations. Small Tail Dam was removed at Presumpscot Falls, a major fish way installed at Cumberland Mills Dam and recently Saccarappa Dam was removed and a fish way installed.

It appears this year for the first time in hundreds of years thousands of herring and possibly shad have made it up to the base of the next dam, Mallison Falls. Because of this, the water quality and biodiversity continue to improve. But this is a pivotal period in the life of this river. Currently much of the river is undeveloped due to its past use and reputation as a sewer, but as the river revives, that perception is changing, along with it, pressures from growth are increasing.

The river will continue to come back, but it's our concern that the work accomplished can be reversed if greater protections are not afforded it. The river has worked hard for humanity and taken a lot of abuse for nearly 300 years. It will serve our people and the communities around it and the reputation of this state far better as a well-protected river than it will suffering future degradation.

The river once had millions of fish and it sustained the Abenaki people that lived along it. The river gave itself freely because it had much to give and it was used wisely. It was within the ensuing decades of colonization that it was nearly killed.

When the journey of this river's restoration began in the early 1990s and post the Clean Water Act, it was felt by many to be too heavily used and abused to even waste time on. People however persisted.

The Presumpscot continues to improve, but its water quality needs protections. We feel it is meeting class B standards, but even if it does not, if as the state statute states, quote, upgrades may be proposed where there is a reasonable expectation for higher uses and quality to be attained and that it is, quote, socially and ecologically desirable to attain higher standards and that reclassification can be made.

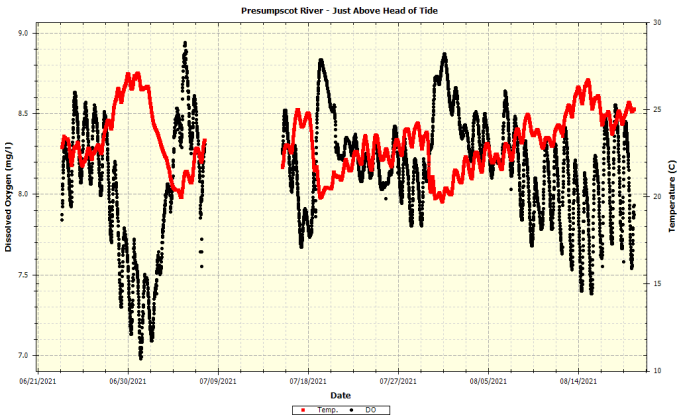
If those words are true and the sentiment of the statute, then there are few better examples of what these words were written for than this section of the Presumpscot River.

- Ivy Frignoca, Friends of Casco Bay/Baykeeper (written comment)

Friends of Casco Bay submits the following comments in support of Friends of the Presumpscot River's (FOPR) proposal to upgrade to Class B: Presumpscot River from Saccarappa Falls to Head of Tide at Presumpscot Falls (Lower Presumpscot). For over 30 years, Friends of Casco Bay has worked to improve and protect the environmental health of Casco Bay. In tandem with organizations such as FOPR, we have made major strides to reduce point source pollution and restore water quality to the Bay and its tributaries, including to the Lower Presumpscot. This stretch of river, which at one time could not attain Class C standards, now meets Class B standards. Upgrading this segment would forever protect this achievement and be a remarkable way to celebrate the 50th anniversary of the Clean Water Act.

The Lower Presumpscot was once known as "the dirtiest little section of river in the state."[38] Point source pollution contributed high loads of toxins, such as dioxins, and decreased dissolved oxygen levels.[39] Dams degraded natural river functions, including blocking fish passage. Residents, led by FOPR, banded together to restore the river. Their efforts led the State to upgrade the segment from Dundee Dam to the confluence of the Pleasant River to Class A and to ban further point source discharges from the confluence of the Pleasant River to Little Island.[40] At the same time, stronger permit requirements reduced pollution from the S.D. Warren mill. The FERC dam relicensing process led to efforts to remove some dams and construct fish passage at others. Our members now see sturgeon in the Lower Presumpscot and increasing runs of anadromous fish further up river.

DEP thus far has not outright opposed the upgrade. Rather it first wanted to collect more data and now has expressed concerns regarding whether the upgrade would affect the river's assimilative capacity. Assimilative capacity is the ability for pollutants to be absorbed by an environment without detrimental effects to the environment or those who use of it. The crux of the issue is whether: "[n]aturally occurring degrees of DO fluctuations would provide no assimilative capacity (if we upgraded to Class B), based on the very conservative way that [DEP] interpret[s its] DO criteria.[41] DEP raises a very interesting question. In essence, the question asks whether a water body that meets Class B criteria should remain classified as Class C to allow for times that natural cycles of respiration might briefly cause DO to dip below 7 parts per million? The answer should be no based on the following analysis.



This summer, DEP deployed a sonde to continuously collect data in the Lower Presumpscot. A graph of that data is depicted at right. To meet Class B, the segment must maintain DO levels at or above 7 parts per million or 75% of saturation, whichever is higher.[42] The graph shows that DO saturation remained well above 75% saturation. With one minor excursion, DO also remained above 7 parts per million. On or about July 2, DO briefly dipped below the 7 parts per million threshold (to about 6.98). This slight dip may not be statistically significant. It likely reflects a short period of respiration in the natural diurnal cycle of the river that does not cause detrimental effects to the environment or its users.

As was amply acknowledged at the recent BEP hearing, even by the attorney for Sappi, the Clean Water Act aspires to restore water quality and urges us to set the highest attainable water quality classifications.[43] It expressly prohibits us from degrading water quality.[44]

---

[38] Robert M. Sanford et al., River Voices, Perspectives on the Presumpscot, at 239 (2020).
[39] This segment also had low dissolved oxygen and high concentrations of dioxins in fish. Id. at 246.
[40] Id. at 241-245.
[41] 09/24/2021 email Mohlar to Frignoca.
[42] 38 M.R.S. § 465(3)(B)(2018).
[43] See 33 U.S.C.A. § 1251(a)(1972); see also Andrew Fisk, The Clean Water Act in Maine: Goals and -
[44] See e.g., 33 U.S.C.A. § 1342(o)(1)(1972) (prohibiting the relaxation of permit limits that are based on state standards, such as water quality standards); 38 M.R.S. §464(4)(F) (2018) (stating that when the quality of classified water exceeds the minimum standards of the next highest classification, the higher

For these reasons and those set forth in the FOPR comments, Friends of Casco Bay requests that the BEP override DEP's recommendation and ask the legislature to reclassify the Lower Presumpscot to Class B.

- Kaitlyn Bernard, The Nature Conservancy (TNC) (written and hearing comment)

TNC recommends that the BEP upgrade the Presumpscot River from Saccarappa falls to Head of Tide at Presumpscot Falls, Westbrook, Portland and Falmouth from Class C to Class B. As outlined in the DEP Recommendations, water quality in this section of the Presumpscot River has improved greatly over time. Data suggests that this section meets Class B standards almost all of the time and an upgrade would protect the current water quality and benefit the estuary, Casco Bay, and Gulf of Maine. TNC partners with many of the organizations supporting this upgrade and we urge BEP to consider the many benefits of codifying this segment in a higher class. The Presumpscot River is undergoing significant migratory fish and habitat restoration work. Building on that momentum by upgrading to Class B will benefit the river and the region.

- Peter Stuckey, Friends of the Presumpscot River (FOPR) (written and hearing comment)

Good morning. My name is Peter Stuckey. Thank you for the opportunity to speak with you this morning. I am a member of the Friends of the Presumpscot River Board of Directors. I am a strong supporter of our proposal to raise the lower Presumpscot River Water Quality Classification from C to B. If you are unable to do that, I urge you to consider the alternatives outlined in the FOPR written testimony presented this morning.

In 1974, my wife, Michelle, and I bought our "starter home" right on the Presumpscot River, just inside the Martin's Point Bridge, on the Portland side. We're still here. We love the river, and we really appreciate the improvements to the water quality we've witnessed over the past 47 years.

In 1974, there was no public sewer system in our neighborhood. For us, all of our sewer and wastewater connected to a 3-house system built years earlier by a plumber who had lived next door and, depending on the tide, emptied directly into the river or onto the mud flats behind our neighbor's house.

Big chunks of toxic waste would regularly float down from Westbrook and routinely get left behind on the expansive mud flats by receding tides. On hot summer days, the stench was awful and you could sometimes see the toxic gases. Neighbors told stories about paint turning colors, blistering, and peeling off of houses on our street.

We had a friend who owned land along the river coming into Portland. Some of that land was taken by eminent domain to build 295. In researching his land's value, he discovered that the flats in the river basin could potentially produce an annual clam harvest worth a quarter of a million dollars (in the 1950s).

Michelle and I raised our family on our river. We've had hundreds of picnics, cookouts and firepits in our back yard over the years. In the beginning, the river's beauty was look, but don't touch. Then we got small boats. Then we started catching stripers. Then occasionally we'd take a quick swim on an incoming tide. Now we paddleboard and fish, sometimes right from shore. Boats are

---

water quality must be maintained and protected, and the board shall recommend that water be reclassified."); 40 C.F.R. § 122.44(1)(d)(ii)(1983).

moored in the channel. More line the shores. Lots of boats come into the river to fish. A tour boat makes regular trips from Portland Harbor up the river to the base of the lower falls. Kayakers and paddleboarders move along the shore, and up and down the river, exercising and exploring. We even see an occasional water skier.

Most importantly, we regularly enjoy watching the return of a healthy wildlife population. The recent and steady increase in anadromous fish moving up river as dams have been removed and fish passage is being restored, bodes well for the whole watershed. The number of raptors nesting along the shore is increasing. We routinely watch bald eagles and ospreys soaring overhead, fishing and just playing on the winds. Herons, including blue, white, and an occasional black-crowned, snowy egrets, great and small, and terns join the gulls and cormorants fishing on the flats and nesting in the trees along the shore. Last year, a family of foxes took up residence in our little neighborhood. The stripers have been here, and the incredible sturgeons regularly leap out of the water, sometimes excitingly close to our shore.

Over the past 50 years, the Presumpscot River has benefitted tremendously from a strong and growing commitment to cleaning up and protecting our environment. Jump started by Senator Muskie's federal Clean Water Act in 1972, the collective efforts of individuals, community advocacy groups and coalitions, municipalities, and State agencies have resulted in steady, improvements in our watershed. Please help us secure the progress we've made, and the future we all aspire to. Please raise the Lower Presumpscot to Class B now. Thank you.

- Fiona Hopper, Citizen (written comment)

I am writing to express my support for the reclassification of the lower Presumpscot in southern Maine. I work as the Social Studies Teacher Leader and Wabanaki Studies Coordinator for the Portland Public Schools and we are in the process of developing and implementing a curriculum centered on protecting and regenerating the lower Presumpscot. Therefore, I have a particular interest in seeing the lower Presumpscot reclassified from C to B because that reclassification will not only more accurately reflect the improved water quality of that portion of the river, but will also ensure that water quality continues to improve and make the river healthier for Portland Public Schools' students and families.

In reviewing the most recent water quality data from the lower Presumpscot from 2019, it seems that water quality, in fact, exceeds the threshold of 7 ppm of dissolved oxygen required for a level B classification. The removal of the Saccarappa Dam in 2019 has improved the water quality of the lower Presumpscot tremendously because that part of the river has been restored to its more natural state. The improved water quality is beneficial to the flora and fauna of the lower Presumpscot, as reflected in the forty-seven species of bird a birder friend of mine identified on a paddle down the lower Presumpscot in 2020. On that same paddle, we also saw muskrat along the river and seals in the estuary. The lower Presumpscot is a gift to the most densely populated area of the state and every effort should be taken to support its transition from industrial dumping ground to thriving ecosystem.

The lower Presumpscot shapes the Portland peninsula and in order for students here to understand where they live and how they, too, are part of this ecosystem we must all do our part to protect the watershed. On behalf of future generations of children, I urge you to reclassify the lower Presumpscot to safeguard this rich habitat and protect the water everyone in this ecosystem depends on.

- Nick Bennett, Natural Resources Council of Maine (NRCM) (written comment)

NRCM also supports the upgrade of the Presumpscot River. Friends of Casco Bay and Friends of the Presumpscot have both presented compelling cases for this upgrade, and we urge the BEP to follow their recommendations.

Comment in opposition to original proposal:

- Brian Rayback, Pierce Atwood for Sappi North America Inc. (Westbrook Mill) (hearing comment)

My name is Brian Rayback. I'm a lawyer with Pierce Atwood, a law firm in Portland, Maine.

We're here representing two separate clients today. I think I can be fairly efficient. The first is Sappi North America's Westbrook mill, which discharges to the Presumpscot River, and the second is the Gulf Island Pond Oxygenation Partnership, GIPOP, that we talked about earlier, that discharges, or that rather serves dischargers on the Androscoggin River.

I'd like to speak briefly in support of the Department's approach not to recommend upgrades of either of these two rivers from class C to class B today.

Let me start with Sappi, whose paper mill holds a discharge license to discharge treated wastewater to the Presumpscot in Westbrook. A citizen group suggested at the start of this process that the Department should upgrade about eight miles of the Presumpscot from class C to B. The Department is recommending against that primarily because the river cannot meet the class B DO standards based on current data. We've talked about hat a little bit already.

When we learned of the proposal, we hired an engineering firm called HDR to help us figure out whether the river could meet class B standards. HDR used the Department's quality two model to assess the river based on the available data to answer two questions for us. The first was, would the river meet class B under current licensed conditions. And the second was, would the river meet class B if the Westbrook mill were to stop discharging entirely. The answer in both cases is no, but even if the mill didn't exist, the river still would not meet the class B DO standards under model conditions.

Now, there are multiple potential reasons for this, including the presence of other point source dischargers on the river like a municipal treatment plant, and there's significant urban development in this area, as you know.

In short, there's no reasonable expectation that class B standards can be achieved at this point, so an upgrade is not appropriate. That is consistent with long-held Department policy.

The result would be to drastically reduce the license limits, as you've heard, from point sources without any expectation that it would be enough. So you'd have dischargers put into violation without getting to class B standards at all. There are major social and economic impacts of doing that, as facilities would have to either curtail production or add costly new treatment or shut down.

Now, the Department is continuing to collect data to study this issue further, including from this past summer, and we know that our understanding of the river will continue to improve. This issue can be revisited of course in the future. At this point, however, the modeling, which we will submit from HDR, we will submit that to the Board for your record, doesn't support an upgrade.

Now, the Clean Water Act is aspirational, we've heard that today, that's correct, but one needs a reasonable expectation that higher standards can be met within a reasonable period of time in order to upgrade river segments. Here where the licenses have to be issued by law under worse case scenarios, like when licensing the Department looks at low flow conditions, high temperatures, maximum discharge of everybody on the river. And by the way, that's very conservative. That approach is not some kind of dodge. It's conservative to protect the river.

So we ask what happens when things get bad? Is the river still going to be in compliance, and the Department has to issue licenses on that basis.

So if we upgrade prematurely, you're very much at risk of putting people out of business or restricting growth, as you've heard from some of the other dischargers.

Also, I note that the Department does have an anti-degradation policy mandated by the EPA, which says in short that once you achieve an actual level of water quality in the river, you cannot go backwards, okay? So there is protection, if you're almost at B, but you're not quite there, you don't get to slide back to the bottom of C by issuing a bunch of licenses willy-nilly, or allowing dischargers to do whatever they want to do. No, the Department has to protect that actual water quality being achieved.

MDEP Response:

The Board appreciates the extensive support this upgrade proposal has received and acknowledges the concerns voiced by one commenter opposing the upgrade. The Department has addressed most of the key points raised above in prior public documents, namely the Responses to Comments available for the April 26 through May 26, 2021 public comment period, and the draft revised Triennial Review recommendations that were available for public comment between August 18 and October 25, 2021. Information is also included in the final Board recommendations[45], dated December 16, 2021.

As explained in the draft revised TR recommendations discussed with the Board on December 2, 2021, continuous dissolved oxygen (DO) data collected by the Department in the summer of 2021 suggest that the lower Presumpscot River is currently not a good candidate for an upgrade. DO levels briefly fell below the 7.0 mg/L level required for a Class B waterbody but point source loadings to the river were at historic lows during the summer of 2021, river flows were higher than during critical conditions (based on personal observation during sonde deployment and retrieval) due to frequent rains, and water temperatures moderate (as evidenced in the graph on page 63, above). Therefore, the conditions under which these data were collected do not represent the critical conditions of high water temperature, low flow, and maximum licensed discharge levels the Department considers when reissuing waste discharge licenses. Most summers would be expected to have more extended and more pronounced warmer periods, which the Department expects would produce more DO excursions below 7.0 mg/L. Yet even during the summer of 2021, the data highlights the unavoidable summertime conditions which provide no assimilative capacity. No amount of point source controls can overcome this situation. Assimilative capacity is necessary to leverage potential modeling solutions. The dataset collected in the summer of 2021 thus suggests that the lower Presumpscot River is currently not a good candidate for an upgrade. The Board agrees with the Department's position and does not support this upgrade.

[45] Available on the Board's web page www.maine.gov/dep/bep/index.html

Appendix A – Supporting Material Submitted with Comments

Androscoggin River

Comments in support of original proposal:

- Peter Rubins, Grow L+A River Working Group

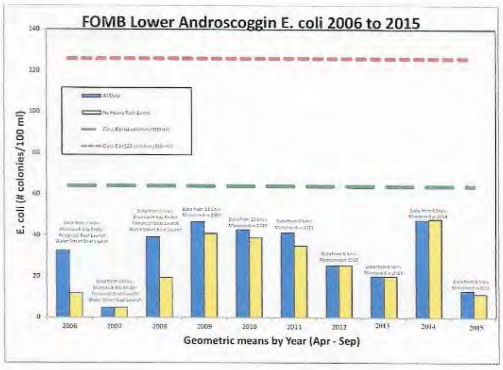
Graphs referred to on page 11 above.

Upgrade the Lower Androscoggin from Class C to Class B
Fact Sheet

38 M.R.S.A. § 464 (4) (F) (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. The board ***shall recommend*** *to the Legislature that water be reclassified in the next higher classification."*

What do the data show?

Dissolved Oxygen- Geometric Means Lower Androscoggin 2003-2019 Class C Supports Class B Supports



Graphs referred to on page 11 above.

Exhibit 4

Section 3 CSO Improvements - Nineteen Years of Progress (2000-2018) Tighe&Bond

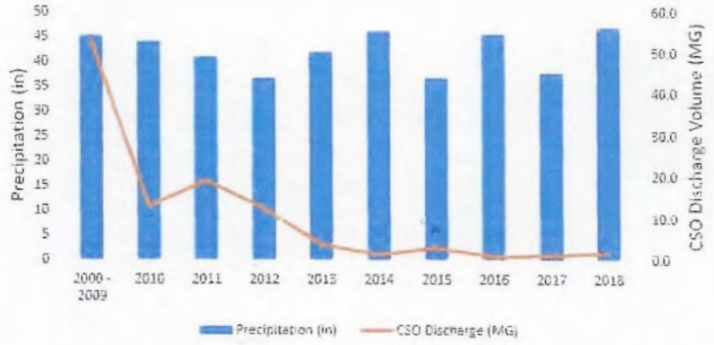


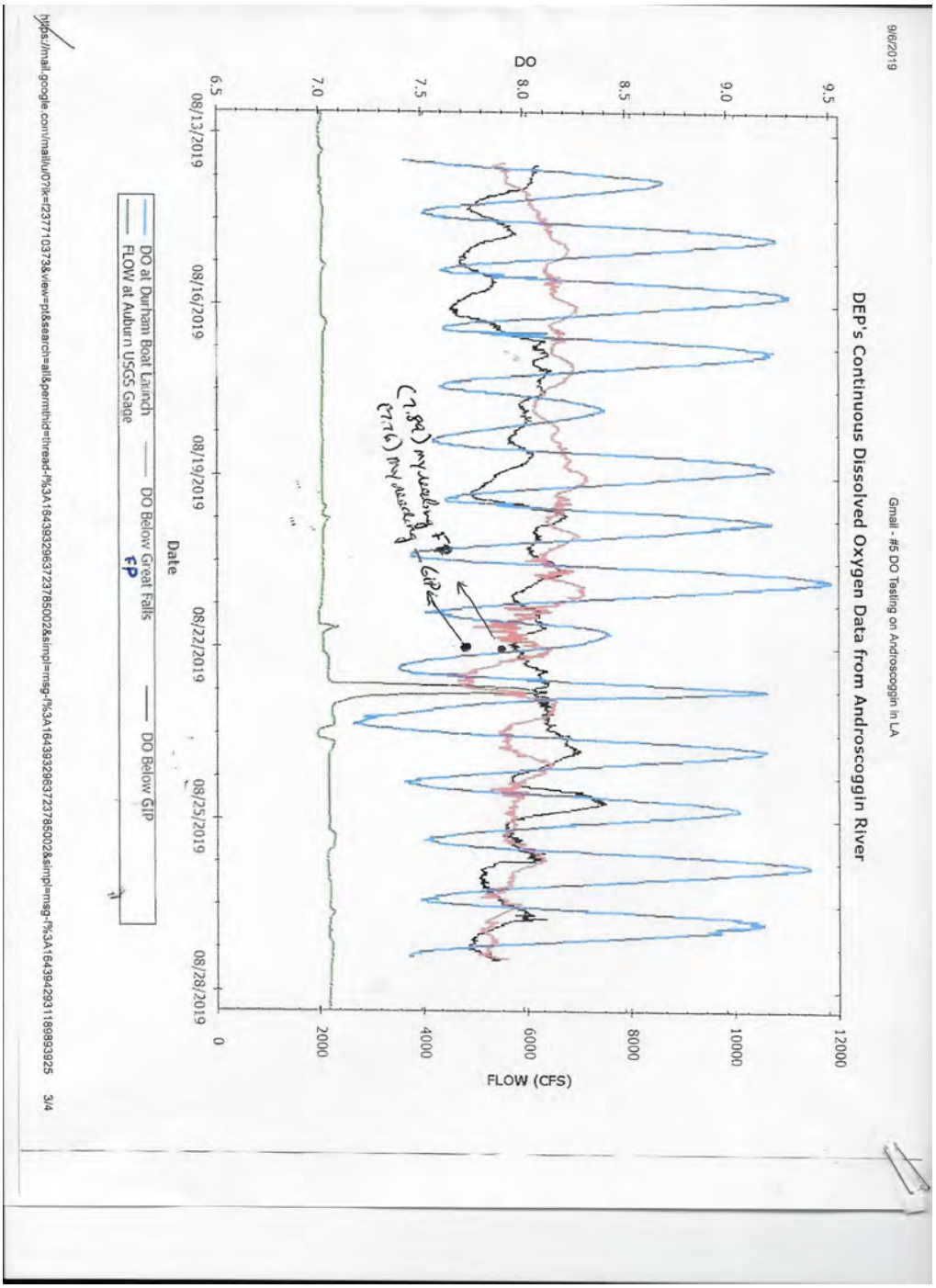
FIGURE 3-6
Auburn Sewer District 2000-2018 Precipitation vs. CSO Discharge

Exhibit 5

Section 3 CSO Improvements - Nineteen Years of Progress (2000-2018) Tighe&Bond

FIGURE 3-13
City of Lewiston 2000-2018 Precipitation vs. CSO Discharge

Graph referred to on page 12 above.



Document referred to on page 12 above.

A Legal Opinion: Excerpt from Conservation Law Foundation BEP Comments 10/2/2008
The Lower Androscoggin River

"The Department's refusal to recommend an upgrade violates the legal standard in the Clean Water Act that a state shall revise its standards to reflect uses and water quality actually being attained. 40 C.F.R. §131.10(i). See also id. §131.6(d); 38 M.R.S.A. §464(4)(F). Thus, the Committee's [or Board's] analysis must be based on existing water quality-not hypothetical modeling with point sources operating at maximum licensed discharge. Indeed, the Committee [or Board] is specifically prohibited from considering maximum licensed loads because both state and federal regulations prohibit consideration of waste discharge or transport as a designated use. 40 C.F.R. §131.10(a); 38 M.R.S.A. §464(4)(F)(1)(d).

CLF strongly disagrees with the Department's recommendation and rationale for not upgrading this river segment. The Department has stated that proponents must provide water quality data and modeling showing "the likelihood of attainment of Class B water quality criteria at maximum licensed loads." See Reclassification Memorandum at 29. This makes no logical, legal or economic sense. First, no one operates at maximum licensed loads; rather a large buffer is generally built into all permits to avoid violations. Thus, DEP is requesting an impossible and unnecessary showing.

Second, the Department's recommendation violates the legal standard in the Clean Water Act that a state shall revise its standards to reflect uses and water quality actually being attained. 40 C.F.R. §131.10(i). See also id. § 131.6(d); 38 M.R.S.A. § 464(4)(F). Thus, the Board's analysis must be based on existing water quality - not hypothetical modeling with point sources operating at maximum licensed discharge. Indeed, the Board is specifically prohibited from considering maximum licensed loads because both state and federal regulations prohibit consideration of waste discharge or transport as a designated use. 40 C.F.R. § 131.10(a); 38 M.R.S.A. § 464(4)(F)(l)(d).

Third, as many of the dischargers in this watershed have already recognized, water quality upgrades are generally good for surrounding communities. As has been shown over and over again, clean water is an economic boon. Examples abound throughout New England, including the recent revival of Boston Harbor, the Portland Waterfront, the Auburn Riverfront, and the resurgence of Merrymeeting Bay and the Kennebec River. The Androscoggin River deserves the same.

CLF believes that the data, including both dissolved oxygen levels and recreational uses, shows that existing uses in the lower Androscoggin have improved over time and that the river currently attains the higher bacteria and dissolved oxygen standards set forth in the Class B designation. As noted by the Department, it has no reason to question the data; indeed, it has relied upon data supplied by the proponent in prior reclassifications. Therefore, barring a showing that the data is invalid, the Board must recommend upgrading this section."

Comments in support of original proposal:

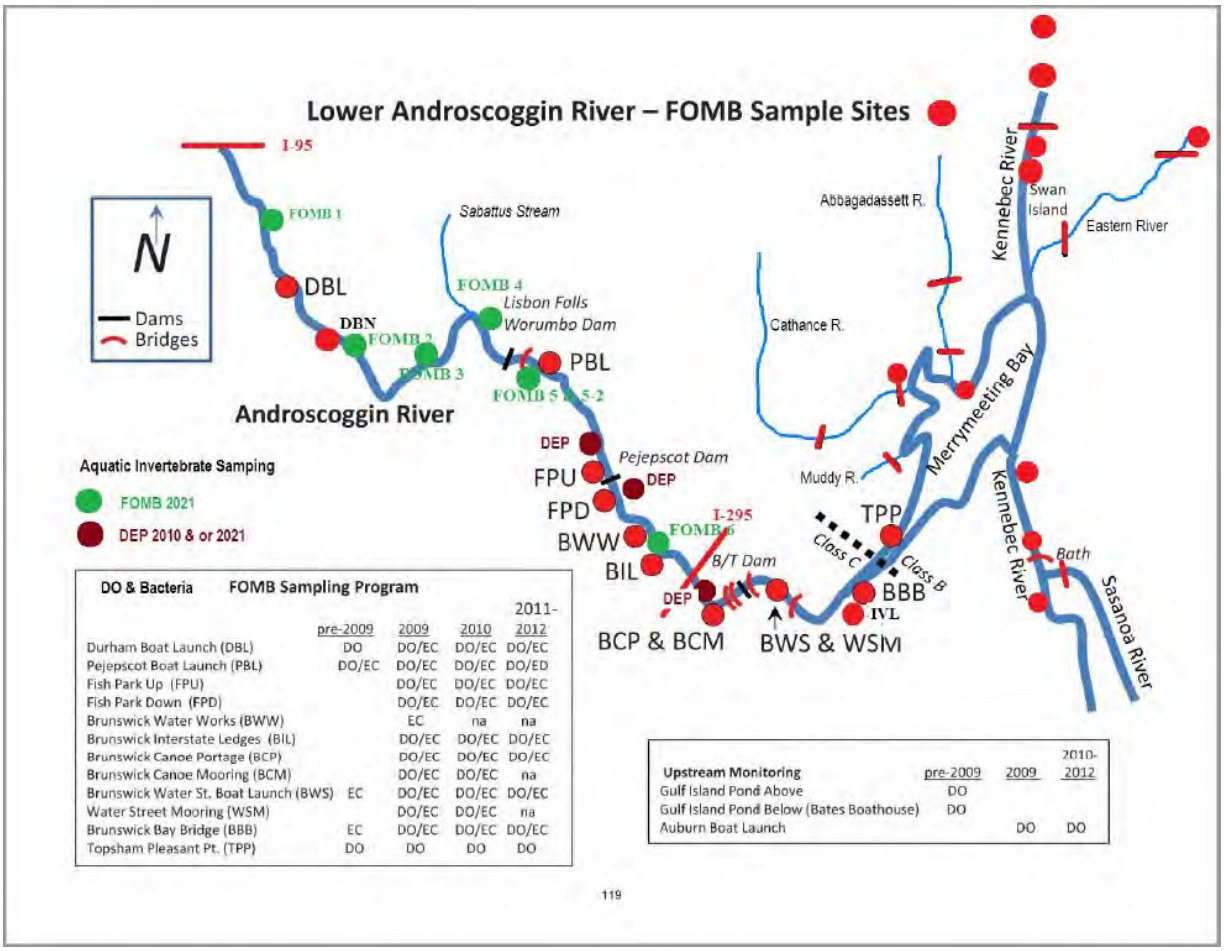
- Ed Friedman, Friends of Merrymeeting Bay (FOMB)

From FOMB comment letter:

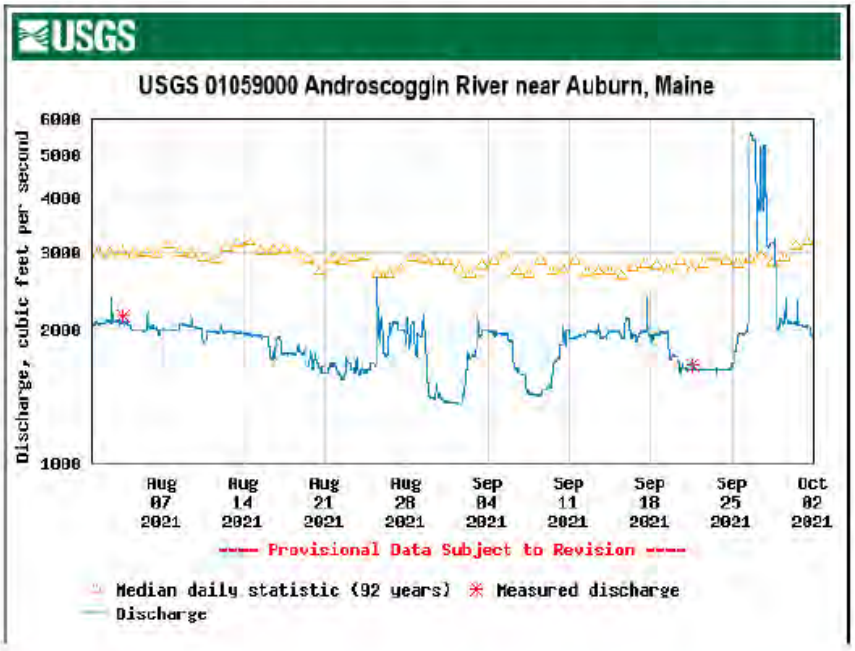
Appendix 2

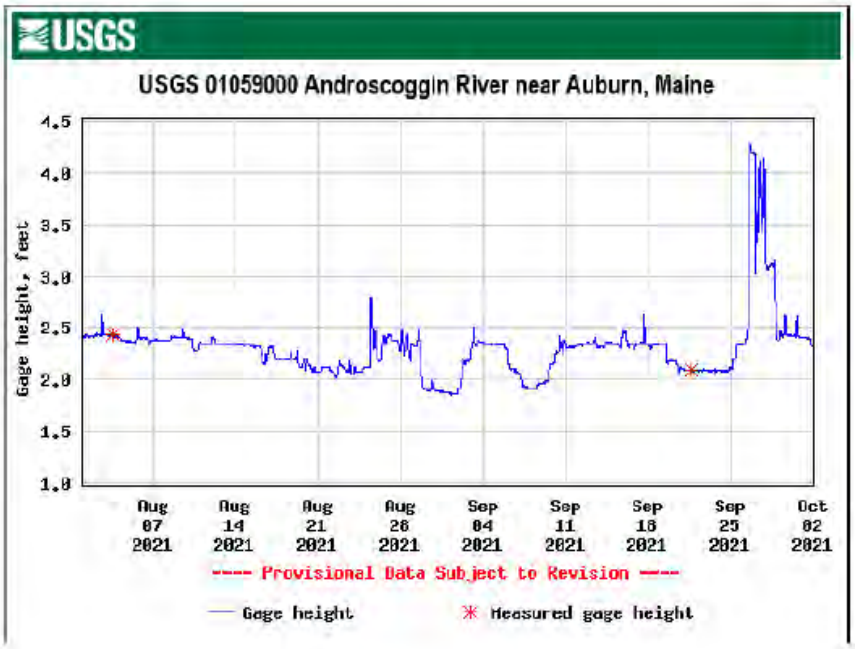
FOMB Aquatic Life Sampling 2021

Site information and Rapid Bioassessment results



2021 Androscoggin Flows during FOMB Aquatic Invertebrate Sampling 8/4-9/4 & 9/4-9/29/2021





FOMB Andro Bug Site Information 2021

Deployments: Sites 1, 2, 3, 4 on 8/4/21; Sites 5, 6 on 8/5/21. Retrievals 1R-4R on 8/31; 5R & 6R on 9/3/21. Site 5 baskets had been disturbed and after harvesting, we redeployed them to pick up 9/30.

Site Time Coordinates (Garmin 48) DO WT Depth Vel Substrate* Wx Notes

1 12:10 44 03.471 / 070 12.019 9.5 23.3 1.8' 1.94fps 10B, 55C, 25G, 10S cirrus As far upstream as we could go from Durham Boat Launch [DBL]. Shallow rips. Bag

1R 12:15 8.4 24.8 1.3' 1.48fps SC 100ms clear net spinning caddis C or Non attain?

2 13:50 44 00.116 / 070 09.076 11.0 24.8 1.7' .7fps 5C, 15G, 80S -cirrus 200'NE of sandbar vicinity of DBN. Bag

2R 10:15 10.0 24.9 1.5' N/A SC 100ms clear Velocity not taken, lots of mussels, small fish low water, lots of bars C?

3 14:30 43 59.573 / 070 05.160 10.6 24.3 1.0' .9fps 80B, 10G, 10S clr Boulder rips midway up E/W reach above Sabattus Stream. Bag

3R 15:00 9.4 25.5 1.2' .76fps SC 90ms sct cumulus B?

4 15:20 44 00.524 / 070 05.160 9.4 23.6 10.3' .28fps 100S cirrus 20' line to 3 baskets. 300 yds below RR bridge, 200 yds east of eagle nest pines on island. Upper Worumbo impoundment. Dive. Basket

4R 16:20 8.9 24.9 10.5' .16fps SC 90ms crayfish, hardly any bugs

5 13.50 43 59.432 / 070 02.995 8.7 23.6 11.3' .5fps 50G, 40C, 10S -Rain. Mid Channel 100yds above PBL boat ramp. 2 otters seen in water by shore before launching

5R 9:35 7.9 22.0 11.5' .6fps SC 100ms OVC-spitting-pretty barren rocks-small crayfish, mayfly

6 15:45 43 55.980 / 070 00.067 8.3 23.3 10.4' 1.0fps 40C, 10B, 50Bedrock OVC 500' Mist 50' East of BIL ledges. Need key to access. Brunswick Park ranger Ben @ 844-1008 [off M&T], Parks Dept Manager Tom F @ 725-6656 Watch out for boom piles in river!

6R 12:00 7.9 23.2 10.2' 1.1fps SC 100ms BKN, some sun. Sparse stones, several stoneflies

* % C-Cobble, G-Gravel, S-Sand, B-Boulders

5 Redeployed overboard at 10:30. 9/3/21 Waypoint 0023. Line connecting first two cages to third with buoy line came undone. Look for cages 1 & 2 downstream of 3.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 1	Date Placed	8/4/21	Date Collected	8/31/21
Field Sample Method	Bags-Wade			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)	P	Other Ephemeroptera (mayflies)	P
Hirudinea (leeches)		Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)	P	Siphlonuridae (mayflies)	C
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	C
Decapoda (crayfish)		Chironomidae (midges)	P	Polycentropodidae (caddisflies)	A
Gastropoda (snails)	C	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	
Bivalvia (mussels)		Perlidae (stoneflies)	P	Other	

Est. Total Abundance	500		
% Insecta	90	% EPT*	80
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			Maybe B

Presence of stoneflies and good proportion of mayflies drives model up. However, hyperdominance of net-spinning caddis, and snails drives model down.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 2	Date Placed	8/4/21	Date Collected	8/31/21
Field Sample Method	Bags-Wade			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)		Other Ephemeroptera (mayflies)	P
Hirudinea (leeches)	P	Zygoptera (damselflies)	P	Heptageniidae (mayflies)	C
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	P
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	P
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)	P	Chironomidae (midges)	C	Polycentropodidae (caddisflies)	C
Gastropoda (snails)	C	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	
Bivalvia (mussels)		Perlidae (stoneflies)	P	Other	

Est. Total Abundance	200		
% Insecta	85	% EPT*	60
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			Maybe B

Presence of stoneflies, good richness, and good proportion of mayflies drives model up.
Dominance of net-spinning caddis, snails, and proportion of midges drives model down.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 3	Date Placed	8/4/21	Date Collected	8/31/21
Field Sample Method	Bags-Wade			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)		Other Ephemeroptera (mayflies)	
Hirudinea (leeches)		Zygoptera (damselflies)		Heptageniidae (mayflies)	
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	C
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)		Chironomidae (midges)	C	Polycentropodidae (caddisflies)	C
Gastropoda (snails)		Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	
Bivalvia (mussels)		Perlidae (stoneflies)	P	Other	

Est. Total Abundance	<100		
% Insecta	90+	% EPT*	80+
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			Maybe B

Presence of stoneflies and good proportion of mayflies drives model up. Lack of richness, lack of Heptageniid mayflies, dominance of polycentropid caddisflies drives model down.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 4	Date Placed	8/4/21	Date Collected	8/31/21
Field Sample Method	Baskets-Dive			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)	P	Other Ephemeroptera (mayflies)	P
Hirudinea (leeches)	P	Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)	C	Diptera (true flies)		Hydropsychidae (caddisflies)	
Decapoda (crayfish)	P	Chironomidae (midges)	C	Polycentropodidae (caddisflies)	C
Gastropoda (snails)	P	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	P
Bivalvia (mussels)	P	Perlidae (stoneflies)		Other	

Est. Total Abundance	100+		
% Insecta	80	% EPT*	30
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			??

Brachycentrid caddisflies, Heptageniid mayflies and other mayflies drives model up. Scuds, snails and lack of stoneflies drives model down. If just a few stoneflies are found then this can be B.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 5	Date Placed	8/5/21	Date Collected	9/3/21
Field Sample Method	Baskets-Dive			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)		Other Ephemeroptera (mayflies)	
Hirudinea (leeches)		Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)		Chironomidae (midges)	P	Polycentropodidae (caddisflies)	P
Gastropoda (snails)	P	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	
Bivalvia (mussels)		Perlidae (stoneflies)	P	Other	

Est. Total Abundance	50-75		
% Insecta	95	% EPT*	70
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			YES

Generally low abundance, presence of stoneflies, and little dominance of net-spinning caddisflies drives model up.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 5-2	Date Placed	9/4/21	Date Collected	9/29/21
Field Sample Method	Baskets-Dive			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)		Other Ephemeroptera (mayflies)	
Hirudinea (leeches)	P	Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)	P	Chironomidae (midges)	P	Polycentropodidae (caddisflies)	C
Gastropoda (snails)	P	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	
Bivalvia (mussels)		Perlidae (stoneflies)	P	Other	

Est. Total Abundance	50-75		
% Insecta	95	% EPT*	70
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			YES

Generally low abundance, presence of stoneflies, and little dominance of net-spinning caddisflies drives model up.

RAPID BIOASSESSMENT SURVEY
Data Sheet
(modified EPA Protocol I)

Location- Andy	Site- 6	Date Placed	8/5/21	Date Collected	9/3/21
Field Sample Method	Baskets-Dive			Count Method	

Absent/Not Observed	Present	Common	Abundant	Dominant

Qualitative Macrobenthos Sample List					
Turbellaria (flatworms)		Anisoptera (dragonflies)	C	Other Ephemeroptera (mayflies)	
Hirudinea (leeches)	P	Zygoptera (damselflies)		Heptageniidae (mayflies)	P
Oligochaeta (aquatic worms)		Coleoptera (beetles)		Siphlonuridae (mayflies)	
Isopoda (sow bugs)		Sialidae (alderflies)		Other Trichoptera (caddisflies)	
Amphipoda (scuds)		Diptera (true flies)		Hydropsychidae (caddisflies)	P
Decapoda (crayfish)		Chironomidae (midges)	P	Polycentropodidae (caddisflies)	C
Gastropoda (snails)	P	Other Plecoptera (stoneflies)		Brachycentridae (caddisflies)	P
Bivalvia (mussels)		Perlidae (stoneflies)	C	Other	

Est. Total Abundance	100		
% Insecta	90	% EPT*	80
% Snails		% Worms	--
* E=mayflies, P= stoneflies, T= caddisflies			
Best Professional Judgement- Attains ME. Aquatic Life Class B?			YES

Generally low abundance, good richness, good #s of stoneflies and brachycentrid caddisflies drives model up.

Resume- Paul C. Leeper

Owner- Moody Mountain Environmental

Environmental Biology Firm specializing in permitting and research

137 Diamond Street
Searsmont ME 04973
Ph. 207-592-8540
moodymtn@tidewater.net

EDUCATION

B.S. Biology (Aquatic Ecology), Allegheny College, PA. 1979

CERTIFICATIONS

NABS Benthic Taxonomist
Habitat Evaluation Procedures (HEP) by USFWS
Instream Flow Incremental Methodologies (IFIM) by USFWS
SCUBA

EMPLOYMENT

2002- Present	Moody Mountain Environmental- Owner
1980 – 2002	Eco-Analysts, Inc., Vice-President/ Partner

Paul started Moody Mountain Environmental, the environmental research and permitting firm located in Searsmont, Maine, in 2002. His goal is to give clients quality research and environmental permitting services in a client-friendly, cost-effective process. He uses a clear project goal oriented approach in all aquatic, marine, and wetland permitting. Prior to founding his own company, Paul worked at ECO-ANALYSTS, INC. as Vice-President and partner.

Paul specializes in aquatic, marine and wetland community analyses. He has provided expert testimony numerous times before Maine's Board of Environmental Protection (BEP) and Land Use Regulatory Commission (LURC) as well as before a Massachusetts Administrative Law Judge. He has served on Maine's Environmental Priorities Committee and Maine's DEP Biocriteria Technical Advisory Committee. He was the Aquatic Expert Consultant for the Saco River Flow Negotiations for Central Maine Power Company.

He has designed and directed numerous biomonitoring and aquatic macroinvertebrate community analyses for FERC relicensing of hydropower projects, wastewater discharges, natural resource permits, and spill responses. Among these are analyses on the Hiram, West Buxton, Bonny Eagle and Skelton projects on the Saco. Recently he has worked on the Ellsworth Project on the Union River and the Brassua Project. He is experienced in microbial source tracking and threatened and endangered mussel identification/relocation.

Paul has also been active in wetland investigations, permitting, and mitigation for many years. He has been a Wetlands Expert Consultant before BEP and LURC for the Department of Conservation Mere Point Boat Ramp Development and the Burnt Jacket Rezoning on Moosehead Lake. He has investigated numerous mapped Significant Wildlife Habitats and successfully petitioned MDIFW and DEP to remap areas based on conditions on the ground. He is experienced in vernal pool identification, the legislation and rules. He has directed numerous wetland permit projects involving delineations and wetland restoration and construction for developers and industrial clients.

Marine work includes cruise ship sampling, wetland intertidal and subtidal studies, permitting, and monitoring for piers, dredging, undersea cable installations, marinas, aquaculture leases, and discharges in New Hampshire and Maine. This work includes eelgrass (*Zostera marina)* transplanting in dredge areas and plankton studies in support of a marine hydropower project.

Resume- Paul C. Leeper

Aquatic Invertebrate Community Analyses: Has designed and directed numerous biocriteria community analyses in support of FERC hydropower licensing, Maine Natural Resources Protection Act permits, wastewater discharge licenses, and spill responses. Selected projects include:

FERC Relicensing
Androscoggin River (Riley, Jay, Otis, Livermore Projects)
Little Androscoggin (Hackett Mills & Upper & Lower Barker Projects)
Kennebec River (Harris, Wyman & Williams Projects)
Saco River (Hiram, West Buxton, Bonny Eagle & Skelton Projects)
Moxie Stream (Moxie Project)
Magalloway River (Aziscohos Project)
Dead River (Flagstaff Project)
Little Ossippee River (Ledgemere Project)
Ossippee River (Kezar Falls Project)
Union River (Ellsworth Project)
Cobbossee Stream (American Tissue Project)
Mooselookmeguntic (Upper and Middle Projects)
Penobscot River (West Enfield Project)
Passadumkeag River (Lowell Tannery Project)
Flagstaff Lake Littoral Characterization
Graham Lake Littoral Characterization
Musquacook Lake Littoral Characterization
Mooselookmeguntic Lake Littoral Characterization
Upper and Lower Richardson Littoral Characterization

Wastewater Licenses
Presumpscot (S.D. Warren Mill)
St. Croix (GP Kraft Mill)

NRPA Permits
Bald Mountain (Boliden Resources, Inc.)
Carabassett Valley (Sugarloaf/USA)

Spill Responses
Martin Stream (DeCoster Egg Farms)
Bond Brook Tributary (PCB spill)
Riggs Brook (PCB Superfund site)
Mill Stream (landfill leachate spill)
Brunswick Naval Air Station (stormwater antifreeze spill)

- Scott Reed, ND Paper Inc. (Rumford Division) (written and hearing comment)

Documents referenced on page 51 above.

ND PAPER

Testimony of ND Paper before the Joint Standing Committee on Environment and Natural Resources
In Opposition to LD 676 "An Act to Reclassify Part of the Androscoggin River to Class B"
May 3, 2021

Senator Brenner, Representative Tucker, and members of the Joint Standing Committee on Environment and Natural Resources, my name is Scott Reed. I am the Manager of Environmental and Public Affairs for the ND Paper mills in Rumford and Old Town. My testimony today is in **opposition** to LD 676. This bill will not guarantee that the lower Androscoggin River will meet Class B water quality standards, but it will guarantee significant costs on municipalities, industrial facilities, and hydro facilities throughout the entire watershed.

A few key points regarding LD 676:

- This bill does not only target the lower Androscoggin River, this is a de facto upgrade of the entire river.
- This bill is portrayed as aspirational; however, it has significant consequences without any guarantee of success.
- The Maine Department of Environmental Protection (MEDEP) has concluded that there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River. Based on these studies, the Department does not recommend that this section of the Androscoggin River be upgraded to Class B at this time.
- LD 676 is an upgrade of water quality in name-only; however, there are real regulatory consequences. The Maine DEP concluded that as a consequence of the upgrade to Class B, reductions in discharge limits will be required for both municipal and industrial dischargers. These substantial reductions come at a significant cost – without any guarantee of success.
- This bill proports to improve the river's water quality and economic growth potential for wealthy, urban and coastal communities on the lower Androscoggin; however, this arguable goal comes at the expense of struggling, rural communities upstream.

ND Paper Background

ND Paper is committed to environmental sustainability as a cornerstone of its 100-year vision. Under ND Paper ownership, the Rumford and Old Town mills are being reconfigured to operate at substantially lower manufacturing costs compared to ND's predecessor companies. To date, ND Paper has invested more than $250 million in these mills, and its economic impact in Maine includes:

ND PAPER RUMFORD DIVISION
35 HARTFORD STREET, RUMFORD, ME 04276

- Direct employment of 684 hourly and salaried workers earning a combined annual payroll of about $70 million including benefits

- Further indirect and induced job creation equivalent to 2,189 and 1,341 estimated positions, respectively; indirect jobs are those created in the supply chain, while induced jobs are created as a result of mill employee and vendor employee spending.

- Each year, the Rumford Mill spends approximately $200 million directly in the State of Maine for materials procurement, payroll, and taxes; the Old Town mill will spend an additional $70 million. In total, this equals $270 million of direct spend into the Maine economy annually.

The Committee should be aware that the pulp and paper industry serving the printing and writing markets has not recovered from the historic and devastating crash in most grades of paper that began at the start of the pandemic. In the midst of this dire environment, ND Paper continued to invest in its Maine facilities to greatly improve their long-term sustainability and viability; however, there have also been difficult, but necessary decisions due to the impacts of the pandemic.

MEDEP Findings for the Lower Androscoggin

In an October 2019 letter to Senators Libby and Claxton, sponsors of LD 676, the MEDEP provided a thorough review and analysis of the potential upgrade of the lower Androscoggin River. The MEDEP provided the following summary of their findings:

"The existing models provide sufficient information to support the Department's previous assessment that there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River. Based on these studies, the Department does not recommend that this section of the Androscoggin River be upgraded to Class B at this time."

The MEDEP's letter also states that during critical water quality conditions of low river flow, high water temperature, and maximum licensed discharge from the Publicly Owned Treatment Works, the model predicts dissolved oxygen concentrations *will be below the Class B criterion* of 7.0 mg/L in eight of the twelve river segments from the confluence with the Little Androscoggin River in Auburn to the Brunswick-Topsham Dam. Predicted dissolved oxygen concentrations were below the Class B criterion of 7.0 mg/L for all segments from the Worumbo Dam to the Brunswick-Topsham Dam. This model run was based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L. When using a modeled dissolved oxygen boundary condition of 7.0 mg/L *all twelve segments indicate non-attainment*. When using the most appropriate boundary condition of 5.0 mg/L that reflects the current Class C dissolved oxygen criteria of the upper Androscoggin and the Little Androscoggin River that comprise the boundary condition, all twelve segments indicate non-attainment, with five of the segments more than 0.5 mg/L below the Class B criteria. Non-attainment is primarily driven by periphyton respiration during non-daylight hours. (Periphyton are algae that grow attached to submerged objects such as logs, rocks, plants and debris.)

ND PAPER RUMFORD DIVISION

35 HARTFORD STREET, RUMFORD, ME 04276

The MEDEP also evaluated completely removing the discharges from the Lewiston-Auburn Water Pollution Control Authority and the Lisbon Wastewater Treatment Facility. The water quality model predicted dissolved oxygen concentrations would *still be below the Class B criterion* of 7.0 mg/L in two of the twelve freshwater river segments based on the least conservative measured dissolved oxygen boundary condition of 7.69 mg/L.

Therefore, an upgrade to Class B will immediately put all licensed facilities on the river into non-compliance. MEDEP will be obligated to open all permits and initiate a watershed-wide permitting process. The outcome of this process is uncertain as MEDEP has stated that there is not a feasible approach to attainment of Class B standards at all times.

MEDEP Findings for the Upper Androscoggin

The current water quality classification for the Androscoggin River upstream of Gulf Island Dam in Lewiston is Class C. The MEDEP has stated that as a result of LD 676, the Class C river water passing through the dam must meet Class B as it enters the boundary of the lower Androscoggin river segment. Therefore, LD 676 becomes de facto upgrade of the entire river to Class B.

What are the consequences this de facto upgrade for upstream facilities? MEDEP's water quality modeling determined that the ND Paper Mill in Rumford will require a 54% reduction in weekly BOD license limits as a result of LD 676. Similar reductions will be required at the Gorham, NH mill and the Jay mill. Alternative license limit reductions could possibly be combined with additional oxygen injection in Gulf Island Pond.

ND Paper Cost and Economic Impacts

A statistical analysis demonstrates that the ND Paper Rumford Mill cannot consistently maintain compliance with a 54% reduction of its weekly BOD discharge limit. As shown in Figure 1, this analysis indicates that ND Paper's confidence margin will decrease from the current level of >99%, to a level of 85%. This equates to 8 weeks of projected non-compliance per year or 2 - 3 weeks of non-compliance during the 12 week summer season.

ND Paper's 34 million gallon per day effluent treatment plant currently operates at an average treatment efficiency of 94%. The activated sludge waste treatment process relies on carefully managed microbiology to metabolize the waste byproducts. This system is robust but also has inherent variation due to the dynamic nature of the process (Figure 2).

ND PAPER RUMFORD DIVISION

35 HARTFORD STREET, RUMFORD, ME 04276

Figure 1

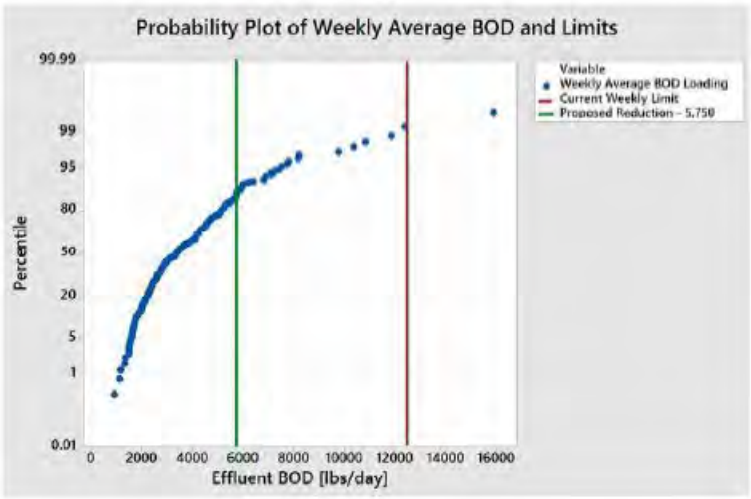
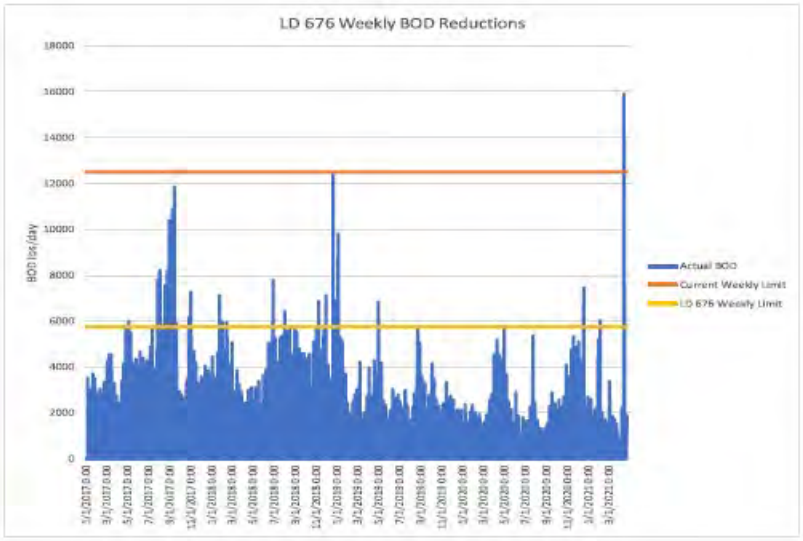


Figure 2



ND PAPER RUMFORD DIVISION

35 HARTFORD STREET, RUMFORD, ME 04276

This level of projected non-compliance is not acceptable; therefore, ND Paper would be compelled to take action to ensure sustainable compliance. Given this situation, ND Paper is faced with undesirable options: curtail production or install capital improvements to achieve compliance with lower discharge limits.

Production curtailment to reduce BOD discharge is not a sustainable model for the business. Capital improvements require further study; however, the technology options are expected to require a combination of pre-treatment technology in combination with wastewater treatment plant modifications and/or tertiary treatment. If it is even feasible to achieve a 54% reduction in BOD limits, the capital costs are projected to be in the tens of millions of dollars. These capital options would be further escalated to account for any potential future growth at the mill.

Oxygen Injection at Gulf Island Pond

Upstream of the LD 676 proposed upgrade, the Gulf Island Pond Oxygenation Partnership (GIPOP) currently operates an oxygen injection system. GIPOP is comprised of ND Paper (Rumford), Pixelle (Jay), White Mountain Paper (Gorham, NH), and Brookfield (Gulf Island Dam). The MEDEP also evaluated additional oxygen injection at Gulf Island Pond (GIP), in combination with reduced license limits, as a possible means to increase the dissolved oxygen levels in order to achieve Class B entering the boundary of the lower river segment.

The DEP's initial evaluation calls for an additional 13,000 to 19,000 lbs per day of oxygen injection. This represents an average increase of 35% over current rates. To accomplish this additional injection, the partnership estimates additional capital upgrades of several hundred thousand dollars. There will also be hundreds of thousands of dollars per year in additional operating costs.

The existing injection system was designed for the purpose of increasing the dissolved oxygen levels in the deepest portions of Gulf Island Pond to achieve Class C standards. It was not installed or designed for the purpose of increasing downstream dissolved oxygen levels. In addition to whether this approach would produce the desired dissolved oxygen levels downstream, there are many technical concerns as well. For example, the water column in GIP already reaches maximum dissolved oxygen saturation much of the time, thereby, limiting the ability to physically increase the dissolved oxygen levels in the water, which is expected to meet Class B at the discharge of the dam.

This oxygen injection regime was modeled as a means of meeting Class B standards at the Gulf Island Dam boundary location between Class C and Class B. No level of oxygen injection at this location is expected to achieve Class B standards at all downstream locations.

Oxygen Injection in the Lower Androscoggin

Given the DEP's evaluation that the lower Androscoggin River will not meet Class B water quality standards at all times, and that no level of reduction of discharges will achieve Class B attainment, it stands to reason that oxygen injection could be required at all locations that do not attain the Class B dissolved oxygen standard of 7 mg/L. MEDEP's lower Androscoggin report, indicated that 2 to 12 river

segments will not be in attainment. Compliance with the Clean Water Act could require communities and facilities that cause or contribute to non-attainment in the lower Androscoggin to install oxygen injection systems at each location with low dissolved oxygen.

Conclusion

ND Paper is committed to environmental sustainability as a cornerstone of its 100-year vision. However, this bill will not guarantee that the lower Androscoggin River will meet Class B water quality standards, but it will guarantee significant costs on municipalities, industrial facilities, and hydro facilities throughout the entire watershed.

ND Paper opposes LD 676 and urges the Committee to vote Ought Not to Pass.

Scott Reed, Manager, Environmental and Public Affairs
ND Paper Inc. – Rumford Division
35 Hartford Street, Rumford ME 04276
Office: 207-369-2203 | Cell: 207-446-0355 | email: scott.reed@us.ndpaper.com

ND PAPER

ND PAPER RUMFORD DIVISION
35 HARTFORD STREET, RUMFORD, ME 04276

130th Maine State Legislature

Senator Stacy Brenner
Representative Ralph Tucker
Environment & Natural Resources Committee
c/o Legislative Information Office
100 State House Station
Augusta, ME 04333

Dear Senator Brenner, Representative Tucker and members of the Joint Standing Committee on Environment and Natural Resources:

We, the undersigned members of the 130th Maine Legislature are writing to you to express our opposition to L.D. 676, *An Act to Reclassify parts of the Androscoggin River to Class B*. The bill proposes to short-circuit Maine's existing and public triennial water reclassification regulatory process by asking the Legislature to substitute its judgement for the Department of Environmental Protection's technical expertise and experience and adopt an upgrade of the lower Androscoggin River from Class C to Class B without satisfying all of the triennial process and criteria for such an upgrade.

The bill seeks to upgrade the river beginning in Lewiston down to Merrymeeting Bay in Brunswick. As recently as 2019, the Department opposed a previous attempt to do an upgrade via a political end-run around the technical process, stating that it had determined that "there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River." The proponents of this political usurpation of an agency responsibility have known for years what the Department requires in order to recommend a river upgrade. Their efforts have not met that standard previously and do not meet it now, which is why they are trying to do so via this bill.

It is our understanding that the Department's study of the issue this year has revealed that the lower Androscoggin River still does not meet Class B standards and reclassifying it now would put all existing dischargers into non-compliance. We are concerned that an arbitrary decision to upgrade will stifle economic development all along the length of the river, including the river above Lewiston – our communities, many of which have been left behind by southern Maine's economic boom. We are also concerned that many proponents have been led to erroneously believe that the bill is aspirational and that there will be no meaningful impacts, when in fact the Department has been clear to anyone who inquires, that it MUST and WILL regulate all discharges to achieve and maintain the applicable water quality classification. We fear that with the entire river in noncompliance as a result of this bill, no new or expanded discharges will be allowed. Will announced expansions of Maine businesses in towns along the river be cancelled?

The impacts of the upgrade reach far beyond the lower Androscoggin. The bill becomes a de facto upgrade for the entire river. The Department has indicated that if this bill passes, it will require upstream discharges to take significant and expensive steps to ensure compliance with the Class B standard; even though DEP has demonstrated through modeling that there is no level

of reduction from any facility upstream or downstream that will achieve Class B standards at all times.

We also understand that the Department has recently and publicly opened its latest triennial review regulatory process. While DEP has NOT proposed to reclassify the lower Androscoggin River in its latest series of proposals, the proponents of this bill have submitted their proposal and supporting documentation to the Department for consideration. Their acknowledgement of the existing regulatory process should be enough for this committee to reject L.D. 676. We urge the Committee to uphold Maine's existing regulatory processes and vote this bill Ought Not To Pass.

Sincerely,

Lisa Keim
State Senator

Jeffrey Timberlake
State Senator

Russell Black
State Senator

Thomas Skolfield
State Representative

Nathan Wadsworth
State Representative

Josanne Dolloff
State Representative

Richard Pickett
State Representative

Joshua Morris
State Representative

Sheila Lyman
State Representative

Randall Hall
State Representative

Daniel Newman
State Representative

Cc: Governor Janet Mills
Commissioner Melanie Loyzim

130th Legislature
Senate of Maine
Senate District 22

Senator Jeff Timberlake
Senate Republican Leader
3 State House Station
Augusta, ME 04333-0003
(207) 287-1505

LD 676, "An Act To Reclassify Part of the Androscoggin River to Class B"

Joint Standing Committee on Environment and Natural Resources
May 3, 2021

Senator Brenner, Representative Tucker and Distinguished Members of the Joint Standing Committee on Environment and Natural Resources:

I am Jeff Timberlake and I represent Senate District 22, which includes the Towns of Durham, Greene, Leeds, Lisbon, Litchfield, Sabattus, Turner, Wales, and Wayne. I am offering testimony today in opposition to LD 676, "*An Act To Reclassify Part of the Androscoggin River to Class B.*"

Although I signed on as a cosponsor of this proposal, I have since come to realize a number of ramifications and negative impacts passage of the bill would have on several of the municipalities along the Androscoggin River; so at this time I will not be supporting this bill as written.

Decisions regarding reclassification of the River should be left in the hands of the Department of Environmental Protection (DEP) and the background, knowledge and expertise they possess. Attempts have been made in the past to enact legislation to reclassify; and they, too, have been rejected. The DEP has conducted several studies over the years to determine if sections of the River meet criteria for reclassification and the standards have never been consistently high enough, so to speak, to make the change. A reclassification at this time would have negative consequences to municipalities and commercial facilities along the River.

Should LD 676 be enacted, the financial implications will put a tremendous strain on many communities who will then have to bear the costs of upgrades. I understand there have been discussions regarding the possibility of federal funds being allocated to assist with upgrades and other costs should there be issues with compliance; however, serious consideration needs to be taken because simply upgrading facilities may not be the only answer.

I urge you to follow the lead of the experts on this matter, the Department of Environmental Protection, and vote Ought Not To Pass.

Thank you for your time and consideration.

*Fax: (207) 287-1527 * TTY (207) 287-1583 * Message Service 1-800-423-6900 * Web Site: legislature.maine.gov/senate*

Maine Forest Products Council

The voice of Maine's forest economy

Companies represented on the MFPC Board

American Forest Mgmt.
Baskahegan Co.
BBC Lands LLC
Bradbury Forest Mgmt.
Columbia Forest Prod.
Cross Insurance
Family Forestry
Farm Credit East
Fontaine Inc.
H.C. Haynes
Huber Resources
Innovative Natural Resource Solutions
J.D. Irving
Katahdin Forest Mgmt.
Key Bank
LandVest Inc.
Limington Lumber
Louisiana Pacific
Maibec Logging
ND Paper
Nicols Brothers
Pingree Associates
Pixelle Specialty Sol.
Pleasant River Lumber
Prentiss & Carlisle
ReEnergy
Richard Wing & Son
Robbins Lumber
Sappi North America
Southern Maine Forestry
Stead Timberlands
TD Bank
Timber Resource Group
Timberstate G.
Wadsworth Woodlands
Wagner Forest Mgt.
Weyerhauser

Testimony opposing LD 676 An Act To Reclassify Part of the Androscoggin River to Class B

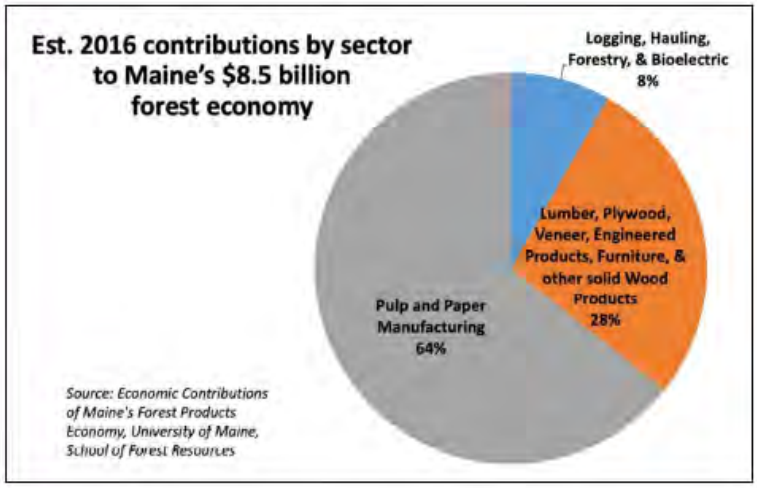
May 3, 2021

Patrick Strauch, Executive Director

Senator Brenner, Representative Tucker and distinguished members of the Environment and Natural Resources Committee, I am Patrick Strauch from Exeter, Maine, and the executive director of the Maine Forest Products Council (MFPC).

BRIEF INDUSTRY OVERVIEW

I represent Maine's forest product industry, which represent more than $8 billion in economic contribution to the state's economy, and more than 33,000 direct and indirect jobs.



Even with the mill closures since 2014, the paper industry still plays a very significant role in Maine, especially in rural areas.

535 Civic Center Drive, Augusta ME 04330 207-622-9288 www.maineforest.org

Six major paper mills remain and two, ND Paper in Rumford and Pixelle in Jay, are on the Androscoggin River.

The Forest Opportunity Roadmap Project has set a goal to advance Maine's economic contribution to $12 billion dollars in 2025. Prior to COVID we were on our way with over a billion dollars in capital investments a 30% increase in pulpwood consumption by Maine mills in 2019.

The forest industry was classified as an essential industry during the COVID epidemic, and this important economic engine helped Maine families despite dramatic decrease in print paper demand and the eruption of the Pixelle Digester. These factors are still influencing operations at these facilities and we should be cautions that regulatory stability is maintained during this time of recovery.

TECHNICAL CHALLENGES FOR RECLASSIFICATION

These mills are meeting the standards of class C waters on a complicated river ecosystem through extraordinary measures. However, MEDEP has opposed previous upgrade proposals to upgrade the river to class B status because there was no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin river.

There are several reasons why the DEP and the Legislature do not reclassify a waterbody unless it meets the new classification:

- It puts any discharger to that waterbody in immediate noncompliance.
- It prohibits any new or increased discharge to that waterbody;
- It usually requires a change to discharge licenses; and
- A change in a license requires costly expenditures for equipment or process changes to meet the new license conditions.

DEP modeling indicates that the elimination of <u>all</u> discharges to the Androscoggin River will still not meet Class B water quality standards in the lower Androscoggin at all locations at all times.

MFPC opposes LD 676 because even the elimination of all discharges to the Androscoggin River will not improve water quality to Class B standards. It will simply increase costs for the mills, which already operate within existing discharge limits.

We urge you to vote **<u>Ought Not To Pass</u>** on LD 676.

MAINE STATE CHAMBER of COMMERCE

The voice of Maine business

Testimony of
Ben Gilman for
The Maine State Chamber of Commerce
In opposition to
L.D. , *676* An Act To Reclassify Part of the Androscoggin River to Class B

May 3, 2021

Senator Brenner, Representative Tucker, members of the Joint Standing Committee on Environment and Natural Resources, my name is Ben Gilman, I am from Gorham and I represent the Maine State Chamber of Commerce, a statewide business organization made up of both large and small businesses, here to provide you with our testimony in opposition to **L.D. , *676* An Act To Reclassify Part of the Androscoggin River to Class B**

L.D. 676, seeks to reclassify the lower portion of the Androscoggin River. Maine's business community supports a clean and healthy environment supported by a robust regulatory framework that ensures we are stewards of our most precious resources. Our environmental policies should be based on science – including our river classifications. The State of Maine has always made a river classification based on science. The Department of Environmental Protection oversees the water classification of Maine's rivers including the lower Androscoggin and at this time, as we have heard today, the department does not believe that there is not a need for reclassification of the lower Androscoggin. The proposed reclassification is not based in scientific results and the business community needs consistency in its river classification regulations based in science. There are many jobs that can be impacted by changes to the river's classification and that is why it is best left up to the regulators within DEP. The Maine State Chamber of Commerce opposes the reclassification of the lower Androscoggin at this time due to the inconsistency it would create in how our river classification system is currently administered.

Thank you for the opportunity to provide you with our testimony.

28 State Street, Suite 101 • Augusta, Maine 04330-5630 • tel (207) 623-4568 • fax (207) 622-7723 • website: www.mainechamber.org • e-mail: info@mainechamber.org

Dear Senator Brenner, Representative Tucker and members of the Joint Standing Committee on Environment and Natural Resources:

I am Dean Gilbert and I am providing testimony in opposition to L.D. 676, *An Act to Reclassify parts of the Androscoggin River to Class B* on behalf of the I.B.E.W. (International Brotherhood of Electrical Workers) representing hundreds of workers up and down the Androscoggin river. We oppose this bill because it ignores Maine's existing triennial water reclassification regulatory process and asks the Legislature to make a political decision to upgrade the classification of the lower Androscoggin River, whether or not the DEP experts think it qualifies for such an upgrade. The DEP's experience and technical expertise should be the primary evaluation of whether water reclassifications should become law.

The bill ignores DEP's past and present work in assessing the water quality of the lower Androscoggin River. In 2019, the DEP said that "there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River." The proponents of LD 676 have known for years what is required to receive a DEP recommendation for a river upgrade. The failure of the lower Androscoggin to repeatedly fail to receive such a recommendation is based on DEP's best science and the Legislature should not ignore that science and replace DEP's judgement with its own.

Some supporters of this bill will say that the bill is aspirational and that there will be no meaningful impacts. The DEP disagrees and points out that they are required to regulate all discharges to achieve and maintain the applicable water quality classification. Reclassifying the lower river by this bill would put the entire lower river, much of the upper river, and all associated dischargers into non-compliance. DEP has informed affected parties that if this bill passes, upstream dischargers will be required to take significant and expensive steps to ensure compliance with the Class B standard – but DEP has also said there is no level of reduction from any facility upstream or downstream that will achieve Class B standards at all times in the lower river. If nearly the entire river is in noncompliance, how can ANY new or expanded discharges be allowed? This bill represents an effort by affluent southern and coastal Mainers to impose unnecessary and unwarranted restrictions on poorer rural Mainers and our communities. We hear a lot of statements about environmental and economic justice. Where is that justice evident in this bill?

We urge the Committee to uphold Maine's existing regulatory processes and vote this bill Ought Not to Pass.

Dear Senator Brenner, Representative Tucker and members of the Joint Standing Committee on Environment and Natural Resources:

I am Kevin Averill a resident of Mexico. I am the president of USW Local 900 at Nine Dragons paper company with 450 union employees that range from paper makers, boiler operators, Hyster operators, maintenance mechanics, and electrical and instrumentation technicians, and other supporting staff. Thanks to the efforts of our members, our mill is just now coming out of the most difficult year in my experience. We are proud of the work that we do and the economic support we provide to our families, our communities, and our local economy. I am providing testimony in opposition to L.D. 676, *An Act to Reclassify parts of the Androscoggin River to Class B* because this bill threatens our mill's recovery, its future, and the future of our members and their families. We oppose this bill because asks the Legislature to decide to upgrade the classification of the lower Androscoggin even though DEP has repeatedly concluded that the lower river does not qualify for such an upgrade. The Legislature should not brush aside DEP's experience, its technical expertise, and the best available science, which is what should be used to determine whether water reclassifications should become law.

Some may say that the bill is aspirational and that there will be no meaningful impacts. The DEP has rejected that argument as they are required to regulate all discharges to achieve and maintain the applicable water quality classification. Reclassifying the lower river by this bill would put the entire lower river, much of the upper river, and all associated dischargers into non-compliance. DEP has informed affected parties that if this bill passes, upstream dischargers will be required to take significant and expensive steps to ensure compliance with the Class B standard – but DEP has also said there is no level of reduction from any facility upstream or downstream that will achieve Class B standards at all times in the lower river.

In 2019, the DEP said that "there is no feasible approach to ensure attainment of Class B dissolved oxygen criteria in the lower Androscoggin River." The proponents of LD 676 are asking you to ignore DEP's opinion and accept their own. The failure of the lower Androscoggin to repeatedly fail to receive such a recommendation is based on DEP's best science and the Legislature should not substitute its judgement for DEP's.

If nearly the entire river is in noncompliance, how can ANY new or expanded discharges be allowed? This bill represents an effort by affluent southern and coastal Mainers to impose unnecessary and unwarranted restrictions on poorer rural Mainers and our communities. We hear a lot of statements these days about environmental and economic justice; but this bill is a rejection of such ideas

Sincerely, Kevin Averill USW Local 900 President

Presumpscot River

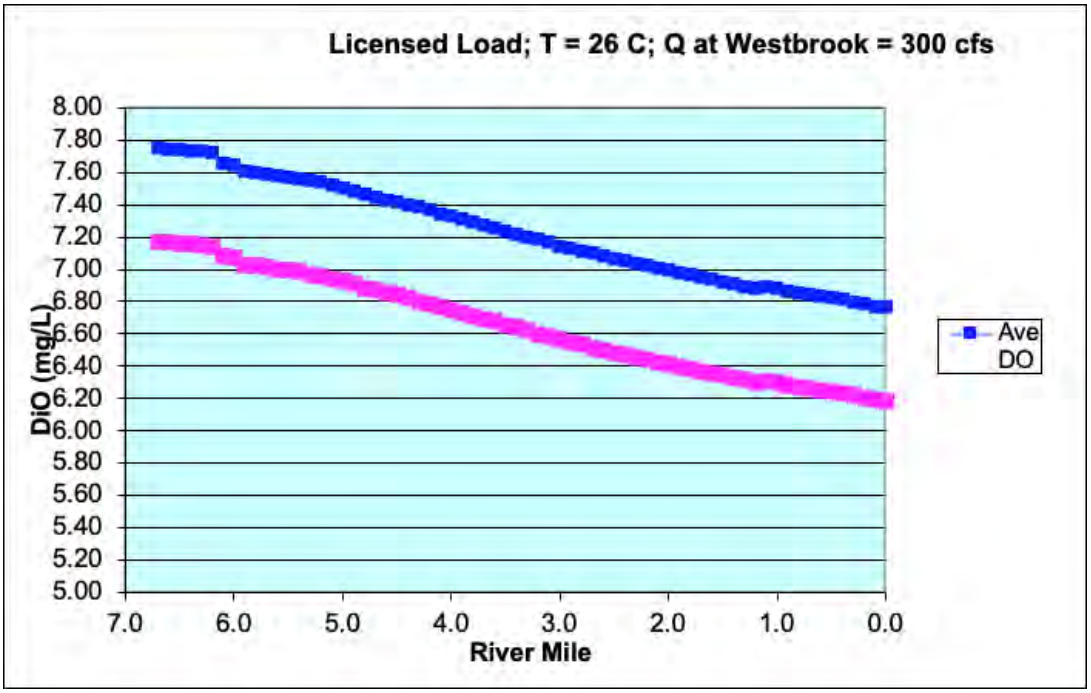
Comments in support of original proposal:

- Will Plumley, Friends of the Presumpscot River (FOPR)

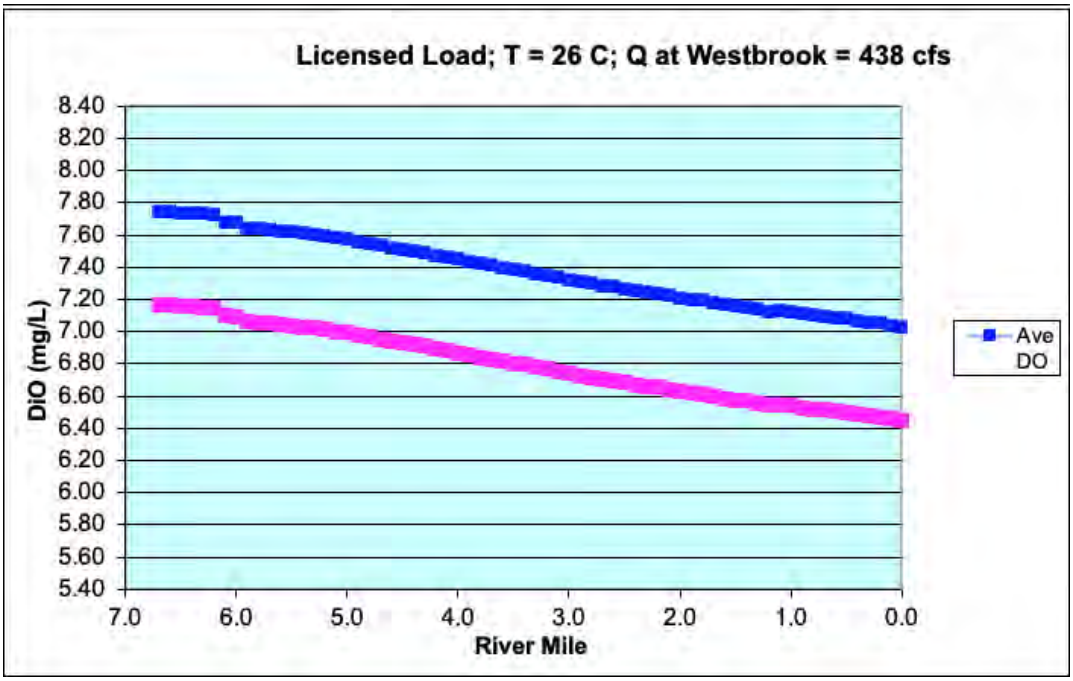
Graphs referenced on page 62 above.

DEP PRESUMPSCOT RIVER MODEL 2011 – Lower River plots

Water Quality Model (2011) Minimum DO Plots – Two Minimum Flows from Eel Weir (270 cfs & 408 cfs)



SOURCE: Maine DEP



Source: Maine DEP

"When I made my presentation to the PRWC in June of 2011, I showed the attached plots of the modeled DO under critical water quality conditions of low flow, high temperature and maximum licensed point discharges. The top one is for the current 270 cfs (300 at Westbrook) minimum discharge from Eel Weir and bottom one is for the proposed 408 cfs (438 at Westbrook). The modeled minimum DO concentration just above Presumpscot Falls (River Mile 0.0) would increase from 6.18 ppm to 6.45 ppm. This is still below the Class B criterion of 7.0 ppm."

– **Peter Newkirk, Maine DEP, January 31, 2013**

Note: PRWC is the Presumpscot River Watershed Coalition, which was active implementing the Presumpscot River Management Plan from 2004 - 2014

Given that since 2011:

1. **That average** dissolved oxygen at mile 6.8 (Bridge Street, just below Saccarappa Falls) has increased by 1.4 ppm from 7.8 to 9.2,
2. **And average** dissolved oxygen at approximately mile 1.5 (Blackstrap Road) has increased by 1.9 ppm from 7.2 to 9.1,
3. **And 2011 Worst Case** dissolved oxygen at mile 0.0 was projected to be 6.45 ppm,

Conclusion:

Then there is no doubt today that Worst Case dissolved oxygen at mile 0.0 has increased by at least the needed 0.55 ppm to meet the Class B standard of 7.0 ppm, and has, in fact, probably increased to more like 7.7 – 8.1 ppm