



PAUL R. LEPAGE
GOVERNOR



PAUL MERCER
COMMISSIONER

MEMORANDUM

To: James Parker, Chair
Members of the Board of Environmental Protection

From: Susanne Meidel, Division of Environmental Assessment
Bureau of Water Quality, Maine Dept. Environmental Protection

Subject: Work session on November 1, 2018 on recommendations for the water
quality re-classification of certain Maine waters

Date: October 24, 2018

Statutory and Regulatory Reference:

38 M.R.S. §§ 464-469 Water Classification Program. §§ 464(2); 464(3)(B) and 464(4)(F)(4) set forth the procedures governing reclassification.

Location of Interest:

Statewide

Description:

38 M.R.S. § 464 provides that the Board may propose changes in water classification and shall hold public hearings to present the proposed changes to interested persons and to obtain public input. Following such hearings, the Board may recommend changes in classification it deems necessary to the Legislature. The Legislature has the sole authority to make changes in the classification of waters of the state. Any changes recommended by the Board will be forwarded to the Legislature for its consideration in the next Legislative session.

Public Comment Period and Updated Recommendations:

On September 20, 2018 a public hearing on the Department's re-classification recommendations was held at the Cross Insurance Center in Bangor. The public comment period on the proposals extended from August 1 through October 9, 2018 and during this time the Department received 268 public comments. 185 of these were identical comments based on a form letter composed by the Natural Resources Council of Maine (NRCM); an additional 35 comments were NRCM form letters that were edited to varying degrees. This form letter supported all upgrade proposals but specifically noted waters in the Penobscot River watershed, tributaries to Webb Lake, East Branch Wesserunsett Stream and tributaries, West Branch Mattawamkeag River and Fish Stream. Detailed comments in support of upgrades were received for waters in the

Penobscot River watershed as well as Tunk Stream and tributaries. Comments in opposition largely focused on waters in the upper Penobscot River watershed, West Branch Mattawamkeag River and Fish Stream. These comments revolved around preserving development opportunities; none called into question the Department's data or classification attainment findings.

After consideration of all comments, the Department developed the updated set of draft recommendations below for the Board's consideration. These recommendations include changes to two proposals:

- East Branch Wesserunsett Stream and tributaries: the description of the upgrade segment of the main stem East Branch Wesserunsett Stream was amended for clarification but the proposal itself remains unchanged.
- West Branch Penobscot River: the segment from the outlet of Quakish Lake to the confluence with Millinocket Stream has been excluded from upgrade consideration. The Department received significant opposition to the proposal to upgrade this particular segment, which does not meet its current classification due to water flow issues. These issues will need to be addressed during a hydropower facility relicensing to occur in 2024, and the Department recommends deferring on a re-classification consideration until after relicensing is complete.

Work session:

During the work session, Department staff will discuss with Board members the proposals that received significant opposition (upper main stem Penobscot River, lower West Branch Penobscot River, Millinocket Stream, West Branch Mattawamkeag River, Fish Stream) and the amendment to the West Branch Penobscot River proposal.

The attached materials provide a summary of the re-classification process, proposals received, and revised Department recommendations concerning those proposals.



**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
2018 PROPOSED RE-CLASSIFICATIONS FOR MAINE WATERS
Revision November 2018**

Introduction

Procedures for re-classification of waters of the State is governed by 38 M.R.S. §§ 464(2), 464(2-A), 464(3)(B), and 464(4)(F)(4). This statute requires the Maine Department of Environmental Protection (MDEP or the Department) to conduct water quality studies and the Board of Environmental Protection (Board) to hold hearings and, as appropriate, propose changes to the water classification system to the Legislature for final approval.

The last comprehensive review of classification occurred in 2008 with final passage by the Maine State Legislature in 2009. In 2011, the classification of one waterbody was changed. For the current initiative, the Department obtained proposals through direct solicitation to various agencies and organizations during the summer and fall of 2017 to produce a set of draft recommendations, which were available to the public for comment from April 20 through June 5, 2018. After consideration of all comments received, the Department has developed the updated set of draft recommendations contained in this document. The Board is required to conduct hearing(s) to provide an opportunity to hear comments from the public on the proposals made by the Department. The Board will make a recommendation to the members of the first regular session of the 129th Maine Legislature for their consideration. If a bill is developed, additional public hearings will be conducted by the Legislature. Final determination of classification by the State is the function of the Legislature. The U.S. Environmental Protection Agency must ultimately give final approval to any changes made by the State of Maine.

Purpose of Classification

Maine has had a water classification system since the 1950s. The classification system establishes water quality goals for the State. The 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 directed 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, classification assignments can and should be made where there is a reasonable expectation for higher uses and quality to be attained. In accordance with the Clean Water Act, upgrades to classification are 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. Any waste discharge licenses for the upgraded waters must be drafted by the Department with discharge limits for any pollutants that would prevent the water from meeting the higher standards. 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 river and stream criteria is provided in Appendix A at the end of this document. The general structure of each standard is that the first paragraph contains designated uses and characteristics, the second paragraph sets water quality criteria and the third paragraph establishes Maine's antidegradation policy (i.e. special provisions or restrictions on discharges or other activities). While there are some differences among the designated uses of the various classes, all classes include the minimum fishable-swimmable designated uses established in the federal Clean Water Act. The criteria established for each designated use in many cases will vary among classes (Appendices A and B).

The classification system is goal-oriented where 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. Ecosystems that are more natural in their structure and function can be expected to be more resilient to a new stress and to show more rapid recovery. 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, Class AA, SA and GPA 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. In Classes C and SC, the margin for error before significant degradation might occur in the event of an additional stress being introduced (such as a spill or a drought) is the least. 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.

While criteria are generally met for the designated uses when considering proposals for classification upgrades, one exception exists with respect to the fishing use. The Maine Center for Disease Control & Prevention has issued a fish consumption advisory for all Maine surface freshwaters due to the presence of mercury in fish tissue. The Center has also issued an advisory for fish and shellfish (including lobster tomalley) for all marine waters due to dioxins, mercury, and PCBs¹. Mercury is a legacy pollutant that

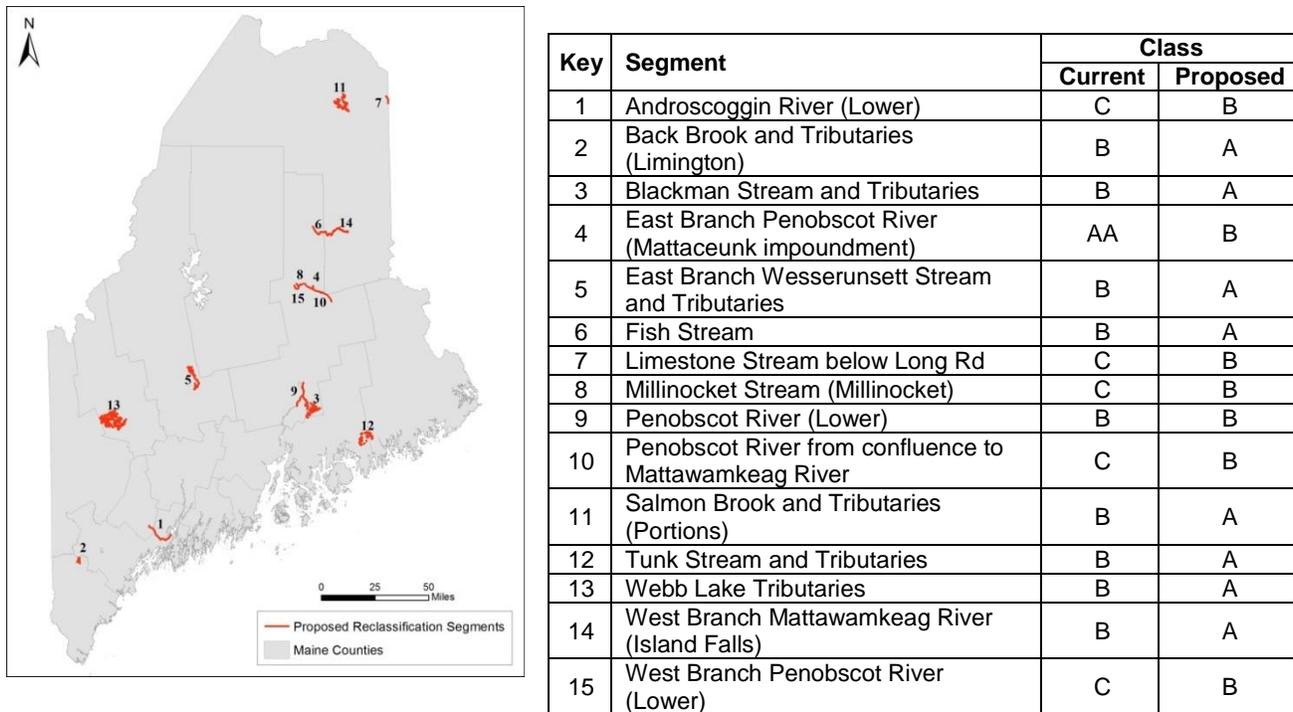
¹ PCBs are Polychlorinated Biphenyls.

generally reaches Maine waters from sources beyond the region. Maine has taken aggressive action to reduce sources of mercury within the State's jurisdiction, but action from sources outside the State's boundaries will be required to provide the desired reduction of mercury in Maine's waters. Dioxins were primarily from Maine sources which have been reduced to legacy levels, while PCB sources have been both from Maine and beyond and are slowly diminishing to legacy levels. Non-attainment of the fishing use is thus not considered in re-classification proposals.

Department Proposals

In the summer and fall of 2017, the Department actively sought input through surveys of staff at MDEP and other natural resource agencies including the Maine Departments of Inland Fisheries and Wildlife, Marine Resources, and Agriculture, Conservation and Forestry, as well as the National Marine Fisheries Service. Many water quality interest groups were directly contacted, including numerous environmental and conservation groups, watershed councils, watershed associations and municipalities. The four federally recognized Indian tribes in Maine were also contacted. Fifteen proposals were received (Fig. 1).

Figure 1. Overview Map Showing Locations of Proposals



All proposal information submitted was reviewed in conjunction with information provided in water quality studies conducted in recent years [e.g. Biennial Integrated Water Quality Monitoring and Assessment Report required by §§ 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 seeks to achieve all the purposes and objectives described in the law 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 establishing a more balanced distribution of water classes statewide, particularly by seeking upgrades to classification in the more populated areas of the State. All information in hand was used by the Department to make decisions regarding re-classification proposals, and to develop the following draft recommendations:

- ten proposals were recommended for upgrade of water quality classification;
- one proposal was recommended for an amendment to the statutory language;
- one proposal was recommended for a correction of a classification error; and
- the Department recommended against passage of three submitted proposals.

The Department requested public input on their draft recommendations from April 20 through June 5, 2018. Following review of all comments, the Department presented its revised recommendations to the Board at the regular meeting on July 19, 2018 and requested that the BEP schedule a public hearing. The Board granted the request and the public hearing on the revised recommendations occurred on September 20, 2018 in Bangor. The public comment phase on the revised recommendations extended from August 1 through October 9, 2018, and comments were received by the Department. During the comment period, the Department also communicated directly with commenters to provide factual information regarding individual proposals and their likely effect on stakeholders. After consideration of all comments received, the Department developed revised recommendations for re-classifications as shown in the following table and narrative.

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
2018 List of Water Quality Standards Re-Classification Proposals**

Table 1 List of Proposals Received

Proposals recommended for upgrade

Class Change	Waterbody	Town	Proposed by	Recommendation
Androscoggin Basin				
B to A	Tributaries to Webb Lake/Webb River	Weld, Township 6 North of Weld, Philips, Avon, Temple, Perkins TWP, Carthage, Roxbury	Maine DEP	DEP monitoring data for three tributaries indicate Class A aquatic life criteria are attained. Very good salmonid spawning, nursery, and adult habitat. Watershed is ~90% forested and a significant portion is protected as conservation land. Webb River below Webb Lake is Class A.
Kennebec Basin				
B to A	East Branch Wesserunsett Stream above the downstream Rt. 150 (Harmony Road) crossing, and all tributaries	Mayfield TWP, Brighton Plantation, Athens	Maine DEP	DEP monitoring data on the main stem East Branch Wesserunsett Stream indicate that Class A aquatic life criteria are attained. The watershed is ~86% forested. A licensed discharge exists in the lower watershed. MDEP has no water quality data for this segment and thus the lowest 2.7 miles of the main stem are excluded from the upgrade.
Penobscot Basin				
C to B	Penobscot River, confluence of East and West Branches to confluence with Mattawamkeag River	Medway, Molunkus TWP, Woodville, Mattawamkeag	Penobscot Nation and The Nature Conservancy	Water quality monitoring data show that Class B criteria are attained, including in the Mattaseunk impoundment. Closure of two upstream mills has significantly improved the water quality of this segment. Segment is critical for restoration of Atlantic salmon and other diadromous fish species. A Class B designation of this segment will ensure good quality habitat along the entire main stem of the river.

Class Change	Waterbody	Town	Proposed by	Recommendation
C to B	West Branch Penobscot River, confluence with Millinocket Stream to confluence with East Branch Penobscot River	Millinocket, T3 Indian Purchase TWP, East Millinocket, TA R7 WELS, Medway	Penobscot Nation	Water quality monitoring shows that Class B criteria are attained in this segment, including in impoundments. Closure of mills on Millinocket Stream and the West Branch has significantly improved water quality in Millinocket Stream below Millinocket and in the West Branch below confluence with Millinocket Stream. Re-development efforts at former mill site on Millinocket Stream are continuing and may result in new discharges. MDEP modeling indicates that new discharges at actual 2005-2009 discharge levels at this site will not prevent attainment of Class B standards.
C to B	Millinocket Stream, confluence of West Branch Canal to confluence with West Branch Penobscot River	Millinocket	Maine DEP	Closure of a pulp and paper mill has significantly improved water quality in this segment. Re-development efforts at former mill site are continuing and may result in new discharges. MDEP modeling indicates that new discharges at actual 2005-2009 discharge levels for this site will not prevent attainment of Class B standards.
B to A	West Branch Mattawamkeag River, I-95 to confluence with Mattawamkeag Lake	Island Falls	Maine DEP	Data indicate attainment of Class A aquatic life criteria. Former discharge ended in 2009. Remainder of River and its tributaries (except for Fish Stream) are Class A; Fish Stream is also proposed for upgrade from Class B to Class A. River below Mattawamkeag Lake has salmon rearing habitat. Reasonably expected to attain Class A standards.
B to A	Fish Stream	Mount Chase, Patten, Crystal, Island Falls	The Nature Conservancy	Fish Stream borders and drains the northern portion of TNC's Crystal Bog Preserve, a unique hydrologic feature in northern Maine. Previously existing wastewater discharge has been discontinued. MDEP monitoring data show that the stream attains Class A aquatic life criteria. Tributaries to Fish Stream are all Class A; West Branch Mattawamkeag River, which Fish Stream flows into, is also proposed for an upgrade from Class B to Class A. The watershed is largely forested.

Saco River Basin				
B to A	Back Brook and tributaries	Limington	Maine DEP	Attains Class A aquatic life criteria. Supports a population of wild brook trout and is being stocked with Atlantic salmon. Watershed is ~90% forested and a significant portion is protected as conservation land. Valuable opportunity to increase Class A segments in the southern Maine region.
St. John River Basin				
B to A	Salmon Brook and tributaries above Rt. 228 crossing on main stem in Perham, and West Branch Salmon Brook and tributaries above Washburn/Wade town line	Westmanland, T14 R5 WELS, Perham, Wade	The Nature Conservancy	Preserved land in upper Salmon Brook watershed. Very high quality wild trout stream. Reasonably expected to attain Class A standards.
Minor Drainages				
B to A	Tunk Stream and tributaries, upstream of Route 1(Steuben)	T10 SD, Sullivan, T7 SD BPP, Cherryfield	Maine DEP	Very high quality water with potential for restoration of Atlantic salmon. Tunk Lake supports landlocked salmon. Significant portion of the watershed in Public Reserve Land; watershed is ~80% forested. Tunk Stream attains Class A aquatic life criteria, tributaries reasonably expected to attain Class A standards. Waters above Rt. 1 in Steuben were inadvertently omitted in 2003 upgrade of lower section of Tunk Stream and tributaries.

Amendment to statutory language (no change to classification)

Class Change	Waterbody	Town	Proposed by	Recommendation
Penobscot Basin				
N/A	Penobscot River, from Milford Dam to Veazie Dam – expand free-flowing language	Milford, Old Town, Bradley, Orono, Eddington and Veazie	Penobscot Nation and The Nature Conservancy	With the recent removal of the Great Works and Veazie Dams the upper boundary of the special 'free-flowing habitat' designation should be moved upstream to the Milford Dam, and the qualifier 'ecological' be added. This amendment will not change the current Class B designation up and downstream of the Milford Dam, it only provides protection for the free-flowing nature of the segment below the dam and recognizes its outstanding ecological value. Recent fish returns following dam removals attest to the high value of this fish habitat and its restoration potential affecting several diadromous species.

Correction of classification error

Class Change	Waterbody	Town	Proposed by	Recommendation
Penobscot Basin				
AA to B	East Branch Penobscot River, Mattaceunk impoundment	Medway	Maine DEP	This item corrects an error in the 1990 re-classification of this river segment from Class B to Class AA. At the time, the most downstream 1.6-mile segment of the river was already impounded by the Mattaceunk Dam on the upper main stem Penobscot River and so did not meet the Class AA criterion that the 'habitat must be characterized as free-flowing and natural'. This was an oversight by the Department and will be resolved by returning the segment in question to the original Class B designation. This correction is only intended to rectify the classification with respect to the habitat criterion; no new discharges or dams will be allowed.

Proposals not recommended for upgrade

Class Change	Waterbody	Towns	Proposed by	Recommendation
Androscoggin Basin				
C to B	Androscoggin River, Worumbo Dam in Lisbon Falls to Merrymeeting Bay (line between Pleasant Pt., Topsham and North Bath)	Lisbon, Durham, Topsham, Brunswick	Friends of Merrymeeting Bay	2010 MDEP monitoring data indicated that Class B standards were not always attained. Modeling results confirmed this finding during critical conditions, even when discharges were removed from model. Inputs from upstream tributaries and non-point source pollution, and effects of impoundments prevented attainment of standards. In the lowest section of river, inputs from Merrymeeting Bay and Sediment Oxygen Demand also contributed to non-attainment. MDEP is not aware of any changes in conditions.
Penobscot Basin				
B to A	Blackman Stream and tributaries	Clifton, Dedham, Holden, Eddington, Bradley	The Nature Conservancy	Water quality appears to be affected by logging activities and some agricultural landuse. Biological communities did not meet Class GPA aquatic life standards in Davis Pond in 2016. Ponds in the watershed show some indication of nutrient enrichment. In-stream monitoring data from Blackman Stream and some tributaries needed to determine likelihood of attainment of Class A standards.
St. John River Basin				
C to B	Limestone Stream, below Long Road Crossing	Limestone, Fort Fairfield	Citizen proposal	Water quality in this segment appears to be affected by agricultural landuse, which is widespread upstream of and along the section of stream proposed for upgrade. MDEP monitoring data show that biological communities only meet Class C aquatic life criteria, and that nutrient concentrations in the stream are elevated. Given the intensive agricultural landuse in the watershed, it is not expected that Limestone Stream below Long Road can attain Class B standards.

**UPGRADES OF CLASSIFICATION
(38 M.R.S. §§ 467 and 468)**

ANDROSCOGGIN RIVER BASIN

**Tributaries to Webb Lake/Webb River, Weld and surrounding towns.
Propose Class B to Class A (200 miles approx.).**

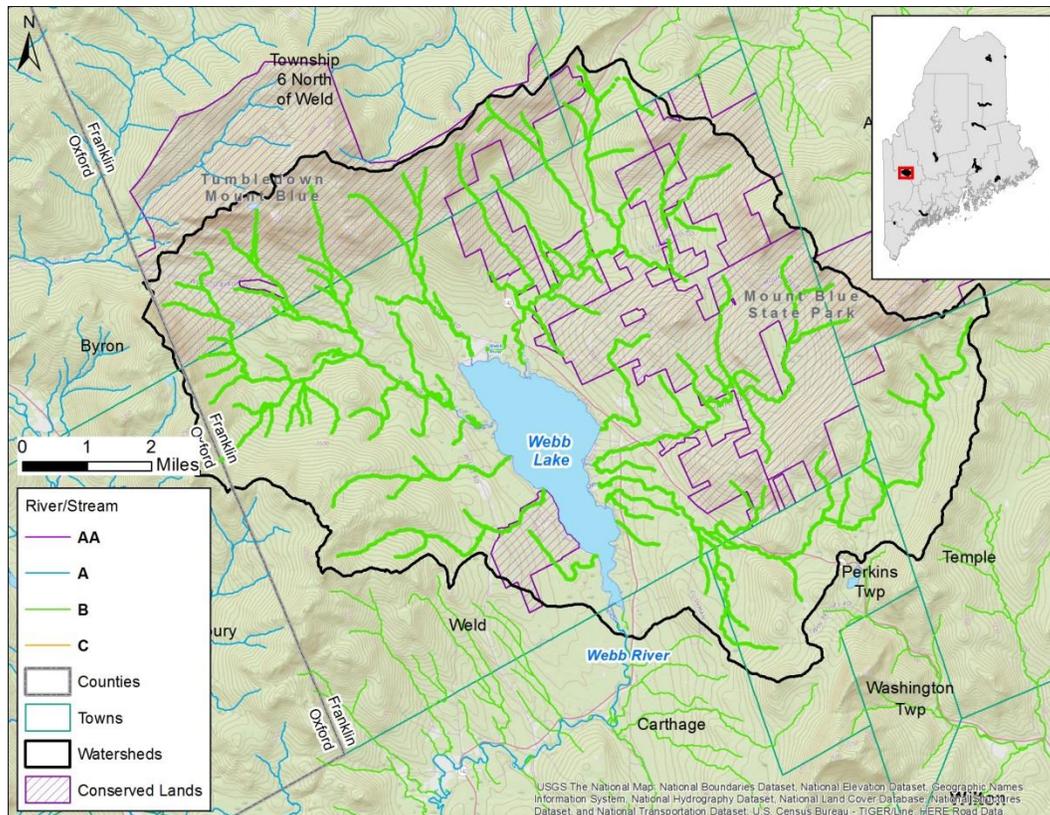
Proposal: Department of Environmental Protection.

Basis: MDEP monitoring data for three tributaries indicate that Class A aquatic life criteria are attained. The Maine Department of Inland Fisheries and Wildlife (MDIF&W) recognizes the tributaries to Webb Lake to be of special importance to the area and the State because they offer very good salmonid spawning, nursery, and adult habitat; brown trout are present in some tributaries. The watershed is ~90% forested and a significant portion is protected as conservation land by the Bureau of Parks and Lands in the Maine Department of Agriculture, Conservation and Forestry (Tumbledown Mount Blue Public Land and Mount Blue State Park). Webb River below Webb Lake is Class A.

Issues affected by reclassification: None. Tributaries are reasonably expected to attain Class A standards.

Recommend revising § 467(1)(D) as follows:

- D. Androscoggin River, minor tributaries - Class B unless otherwise specified.
 (9) Tributaries to Webb Lake – Class A.



KENNEBEC RIVER BASIN

East Branch Wesserunsett Stream above the downstream Rt. 150 (Harmony Road) crossing, and all tributaries, Mayfield TWP, Brighton Plantation and Athens.

Propose Class B to Class A (44 miles approx.).

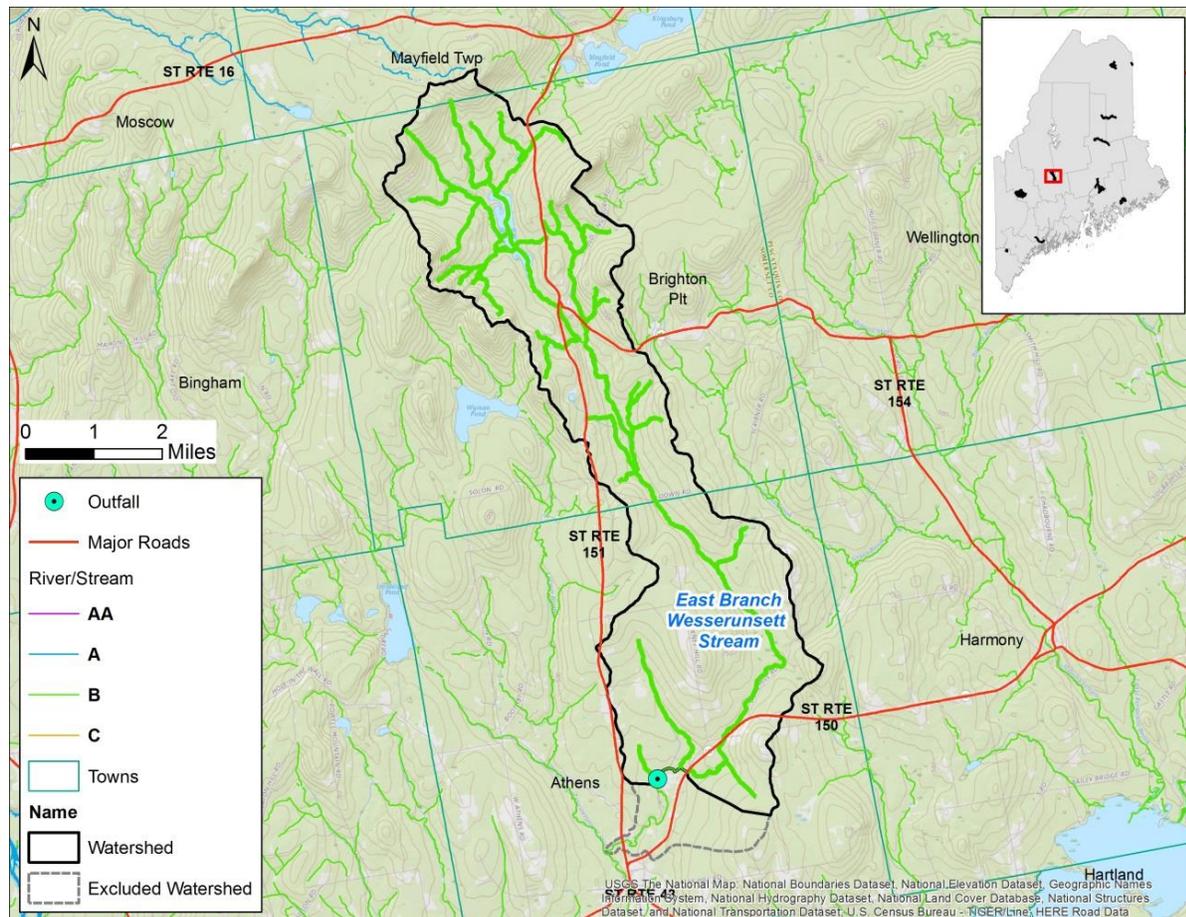
Proposal: Department of Environmental Protection.

Basis: MDEP monitoring data on the main stem East Branch Wesserunsett Stream indicate that Class A aquatic life criteria are attained. The watershed is ~86% forested.

Issues affected by reclassification: One discharge is located below the downstream Rt. 150 crossing. No water quality data exist for this lowest 2.7-mile segment of the main stem and it is thus excluded from the upgrade. Tributaries are reasonably expected to attain Class A standards.

Recommend revising § 467(4)(l) as follows:

- I. Kennebec River, minor tributaries - Class B unless otherwise specified.
- (6) East Branch Wesserunsett Stream above the downstream Rt. 150 (Harmony Road) crossing in Athens – Class A.
- (7) Tributaries to East Branch Wesserunsett Stream – Class A.



PENOBSCOT RIVER BASIN

Penobscot River, from the confluence of the East and West Branches to the confluence with the Mattawamkeag River, including all impoundments; Medway, Molunkus TWP, Woodville, and Mattawamkeag. Propose Class C to Class B (13 miles approx.).

Proposal: Penobscot Nation (PN) and The Nature Conservancy.

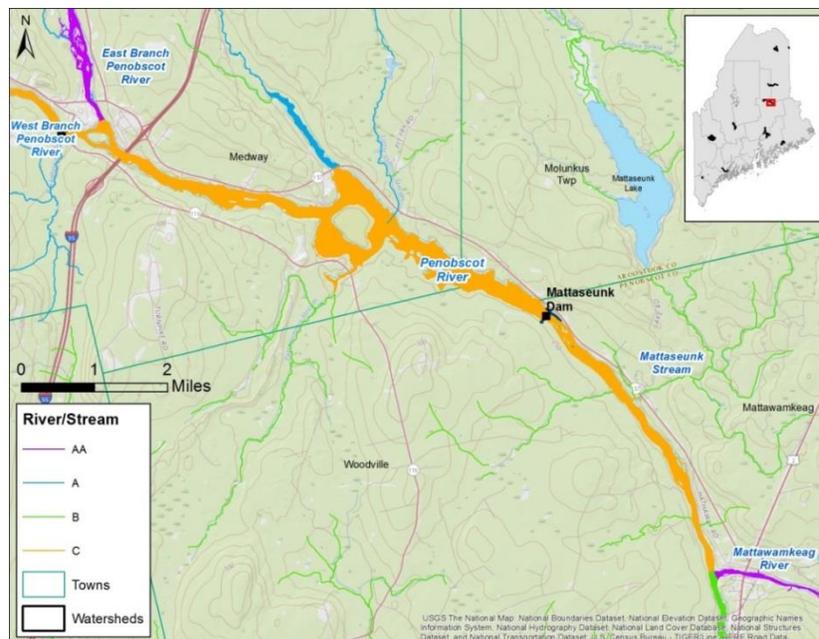
Basis: Water quality monitoring by the PN demonstrates that Class B criteria are currently attained in this segment at all five locations monitored, and have been for at least the past ten years. This segment is critical for restoration of Atlantic salmon and other diadromous fish species that use the upper main stem Penobscot River, the East Branch and tributaries. Closure of the two mills upstream on Millinocket Stream and the West Branch Penobscot River has significantly improved the water quality of this upper main stem. The East Branch is Class AA, recognizing its excellent water quality and important ecological and recreational values. A Class B designation of the upper main stem will ensure good quality habitat along the entire main stem of the river.

Issues affected by reclassification: The majority of the segment proposed for upgrade is occupied by the Mattaseunk (Mattaceunk) Dam impoundment. MDEP macroinvertebrate monitoring indicates that Class B aquatic life criteria were attained below the dam in 2014. Data collected by the dam owner in the impoundment indicate attainment of Class B dissolved oxygen criteria. Minor tributaries to this segment are predominantly Class B; the lower segment of the West Branch Penobscot River is Class C but most of this segment is proposed for upgrade to Class B. .

Recommend revising § 467(7)(A)(1) as follows:

A. Penobscot River, main stem.

(1) From the confluence of the East Branch and the West Branch to the confluence of the Mattawamkeag River, including all impoundments - Class ~~C~~B.



West Branch Penobscot River from the confluence with Millinocket Stream to its confluence with the East Branch Penobscot River, Millinocket, T3 Indian Purchase TWP, Medway.

Propose Class C to Class B (9.3 miles approx.).

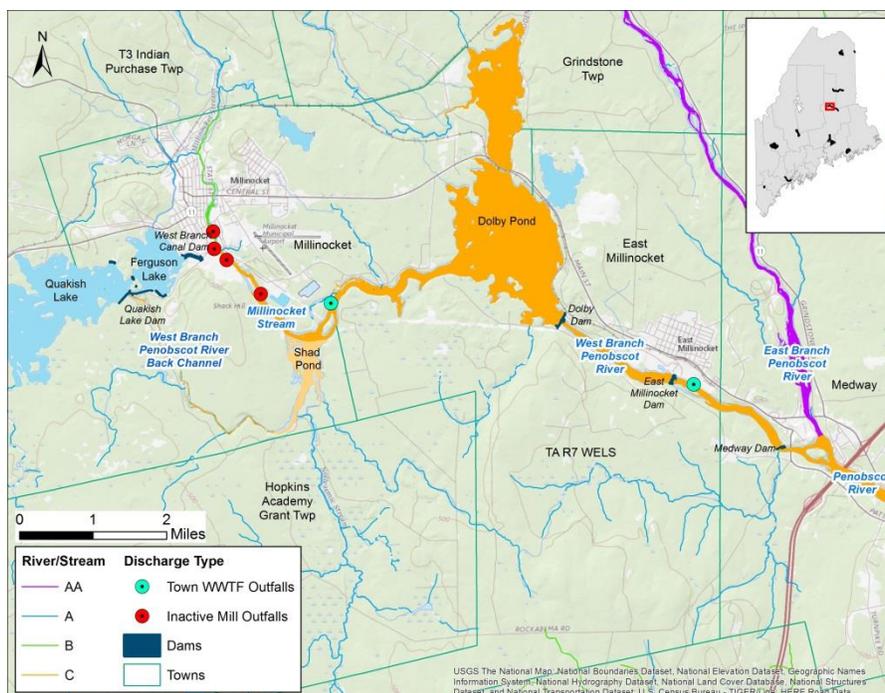
Proposal: Penobscot Nation (PN).

Basis: Water quality monitoring by the PN demonstrates that Class B water quality standards are currently attained in this segment at all locations monitored (including impoundments), and have been for at least the past ten years. Closure of a pulp and paper mill on Millinocket Stream near the confluence with the West Branch, and of one on the West Branch itself, has significantly improved the water quality in Millinocket Stream below Millinocket and in the West Branch below the confluence with Millinocket Stream.

Issues affected by reclassification: Two municipal dischargers (Towns of Millinocket and East Millinocket waste water treatment facilities, WWTF/POTW) operate in this segment. Re-development efforts at the former mill site on Millinocket Stream are underway and may result in new discharges and a re-issuance of the license. MDEP modeling indicates that new discharges at the actual discharge level that occurred between 2005 and 2009 at this site will not prevent attainment of Class B standards. Re-development efforts are also underway at the former mill site on the West Branch; this site discharges to the Town of East Millinocket POTW and any re-development would fall under current license conditions.

Recommend revising § 467(7)(C)(1)(f) as follows:

- (1) West Branch of the Penobscot River, main stem.
 - (f) From the outlet of Ferguson and Quakish Lakes to its confluence with the Millinocket Stream - Class C.
 - (g) From the confluence with Millinocket Stream to its confluence with the East Branch of the Penobscot River, including all impoundments - Class B.



Millinocket Stream from its confluence with the West Branch Canal to its confluence with the West Branch of the Penobscot River, Millinocket. Propose Class C to Class B (2.4 miles).

Proposal: Department of Environmental Protection.

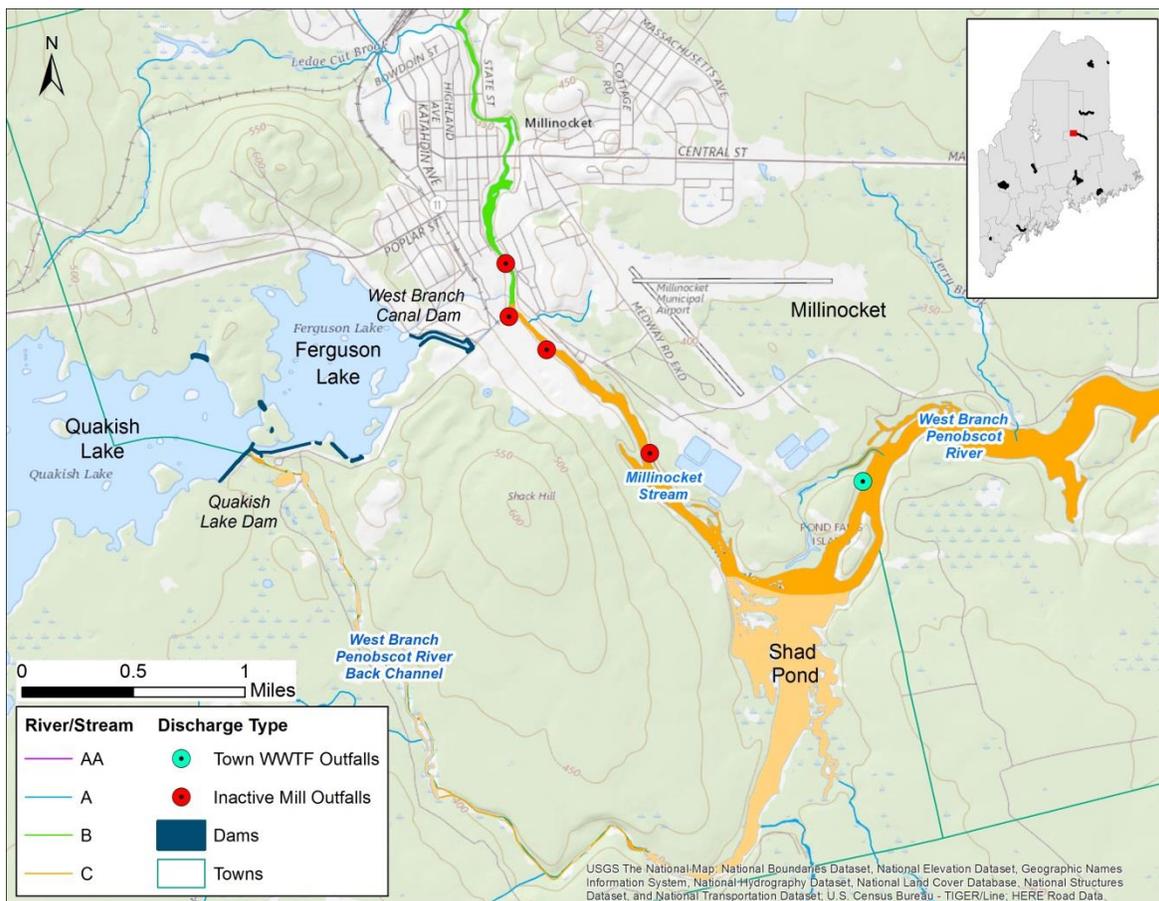
Basis: Closure of a pulp and paper mill has significantly improved the water quality in this segment. Millinocket Stream upstream of the West Branch Canal is Class B. The stream flows into a Class C section of the West Branch Penobscot River; this section is also proposed for upgrade.

Issues affected by reclassification: There are currently no discharges to this section of the stream. However, re-development efforts at the former mill site are underway and may result in new discharges and a re-issuance of the license. MDEP modeling indicates that new discharges at the actual discharge level that occurred between 2005 and 2009 at this site will not prevent attainment of Class B standards in both Millinocket Stream and the West Branch Penobscot River below its confluence with Millinocket Stream.

Recommend revising § 467(7)(C)(2)(d) as follows:

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

(d) Millinocket Stream from the confluence of the West Branch Canal to its confluence with the West Branch of the Penobscot River - Class CB.



West Branch Mattawamkeag River from Interstate 95 to its confluence with Mattawamkeag Lake, Island Falls.

Propose Class B to Class A (9.2 miles).

Proposal: Department of Environmental Protection.

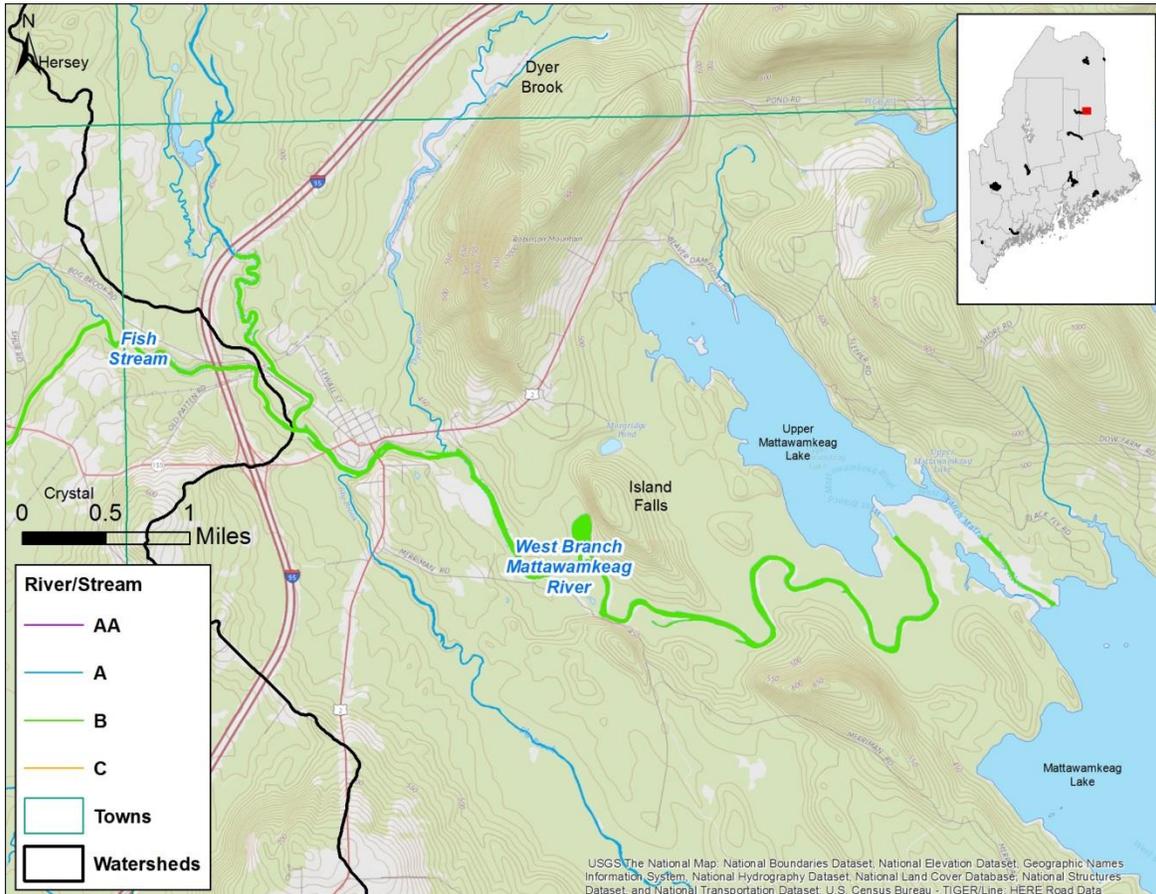
Basis: Data indicate attainment of Class A aquatic life criteria. Previously existing wastewater discharge ended in 2009. Remainder of West Branch Mattawamkeag River and all of its tributaries, except for Fish Stream, are Class A; Fish Stream is also proposed for upgrade from Class B to Class A. The River below Mattawamkeag Lake has salmon rearing habitat.

Issues affected by reclassification: None. Reasonably expected to attain Class A standards.

Recommend revising § 467(7)(D)(2)(b) as follows:

(2) Mattawamkeag River, tributaries - Class A unless otherwise specified..

~~(b) West Branch Mattawamkeag River from Interstate 95 to its confluence with Mattawamkeag Lake - Class B.~~



**Fish Stream, Mount Chase, Patten, Crystal and Island Falls.
Propose Class B to Class A (25 miles approx.).**

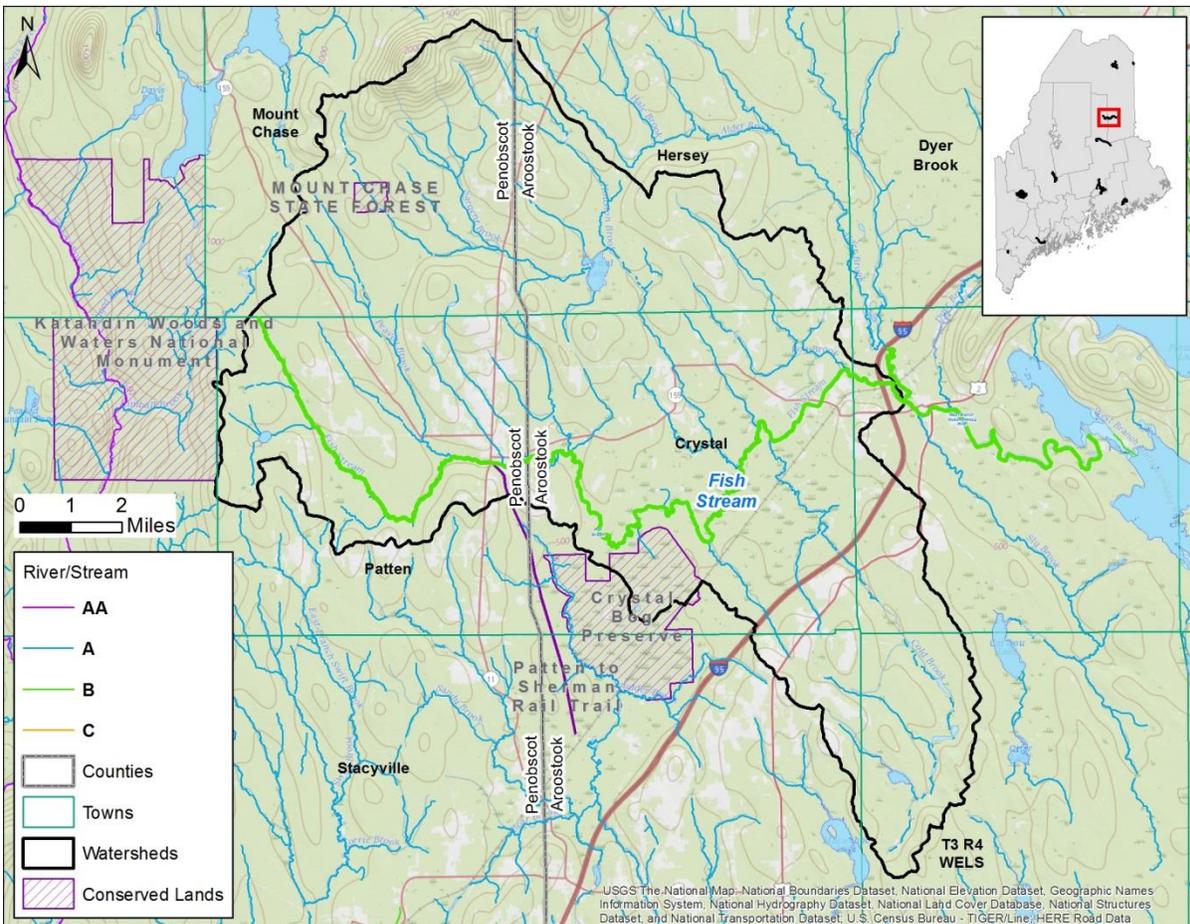
Proposal: The Nature Conservancy (TNC).

Basis: Fish Stream borders and drains the northern portion of TNC's Crystal Bog Preserve, a unique hydrologic feature in northern Maine. Previously existing wastewater discharge has been discontinued. MDEP monitoring data show that the stream attains Class A aquatic life criteria. Tributaries to Fish Stream are all Class A; West Branch Mattawamkeag River, which Fish Stream flows into, is Class B but is also proposed for upgrade to Class A. The watershed is largely forested.

Issues affected by reclassification: None.

Recommend revising § 467(7)(D)(2)(c) as follows:

- (2) Mattawamkeag River, tributaries - Class A unless otherwise specified.
(c) Fish Stream — Class B.



SACO RIVER BASIN

Back Brook and tributaries, Limington.

Propose Class B to Class A (13 miles approx.).

Proposal: Department of Environmental Protection.

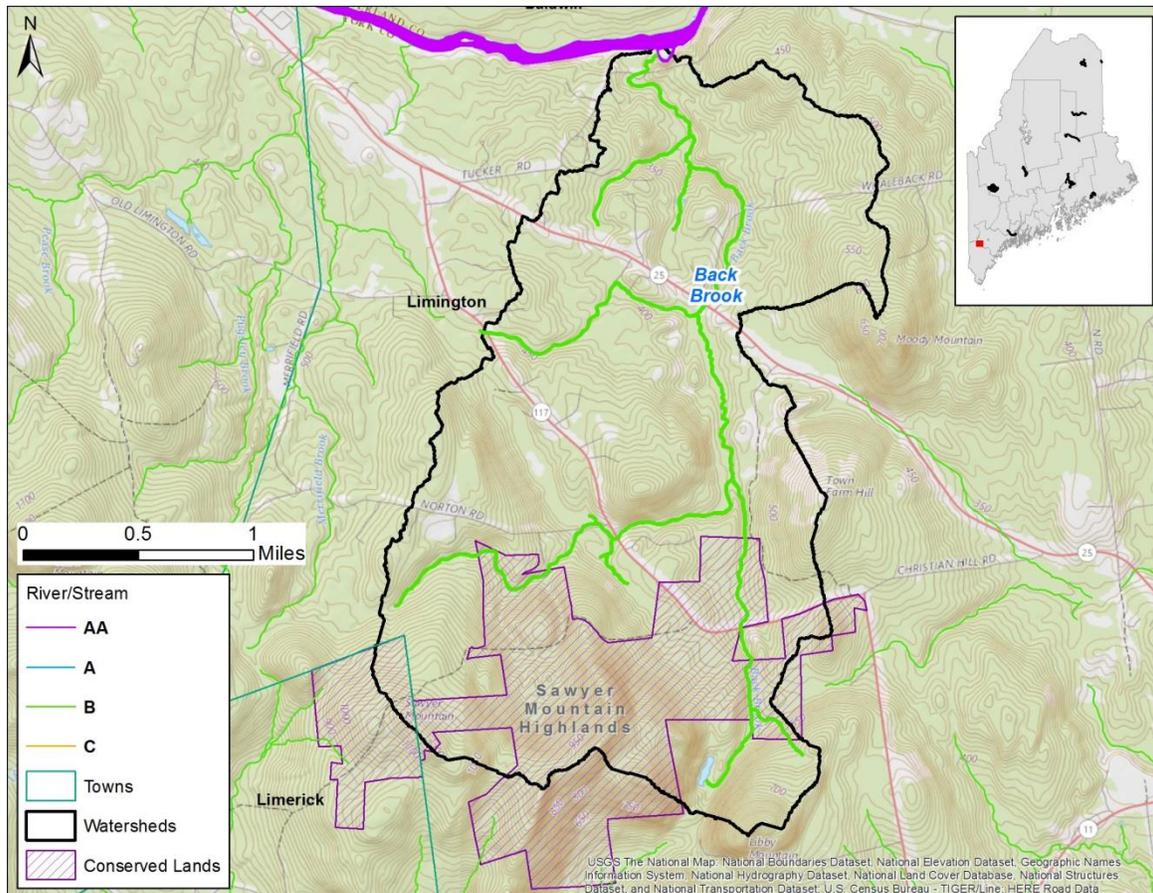
Basis: Back Brook, a Class B tributary to a Class AA section of the Saco River, attains Class A aquatic life criteria. The brook supports a population of wild brook trout and is being stocked with juvenile Atlantic salmon. The watershed is ~90% forested and a significant portion is protected as conservation land by the Francis Small Heritage Trust, Inc. (Sawyer Mountain Highland). This represents a valuable opportunity to increase Class A segments in the southern Maine region.

Issues affected by reclassification: None. Tributaries are reasonably expected to attain Class A standards.

Recommend revising § 467(12)(B) as follows:

B. Saco River, tributaries, those waters lying within the State - Class B unless otherwise specified.

(5) Back Brook and its tributaries (Limington) – Class A.



ST. JOHN RIVER BASIN

Salmon Brook and tributaries above Rt. 228 crossing on main stem in Perham (Perham and Westmanland), and West Branch Salmon Brook and tributaries above the Washburn/Wade town line (T14 R5 WELS, Perham, Wade). Propose Class B to Class A (48 miles approx.).

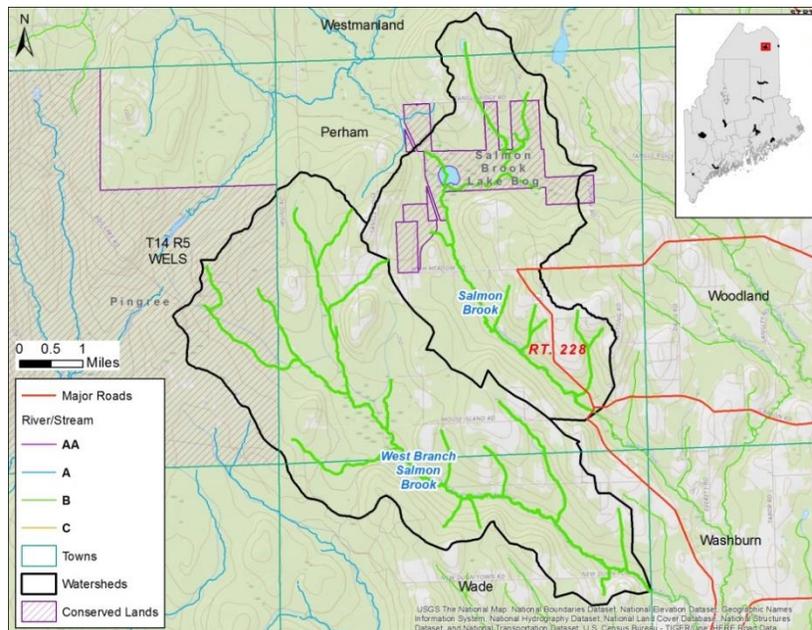
Proposal: The Nature Conservancy; Salmon Brook and its tributaries in Perham and surrounding towns.

Basis: Salmon Brook is the site of a dam removal and stream restoration project. Headwaters of Salmon Brook arise in the Salmon Brook Lake Public Reserve lot. Farms in the watershed have been the beneficiaries of significant nonpoint source control strategies. The MDIF&W recognizes the brook as a very high quality wild trout stream. The Maine Department of Marine Resources considers Salmon Brook and tributaries to be of special importance

Issues affected by reclassification: MDEP biological and chemical data indicate water quality issues in the lower watershed due to agricultural landuse. MDEP recommends limiting the waters to be upgraded to Salmon Brook above Rt. 228 and West Branch Salmon Brook above the Washburn-Wade town line (both including tributaries). Limited water quality data available but reasonably expected to attain Class A standards.

Recommend revising § 467(15)(C)(2) as follows:

- (2) Aroostook River, tributaries, those waters lying within the State - Class A unless otherwise specified.
 - (a) All tributaries of the Aroostook River entering below the confluence of the Machias River that are not otherwise classified - Class B.
 - (n) Salmon Brook and its tributaries (Perham, Westmanland) above Rt. 228 crossing on main stem in Perham – Class A.
 - (o) West Branch Salmon Brook and its tributaries (Wade, Perham, T14 R5 WELS) above the Washburn-Wade town line – Class A.



EASTERN COASTAL BASIN

Tunk Stream and tributaries (T7 SD, Sullivan, T10 SD, Cherryfield) upstream of Route 1, Steuben.

Propose Class B to Class A (68 miles approx.).

Proposal: Department of Environmental Protection.

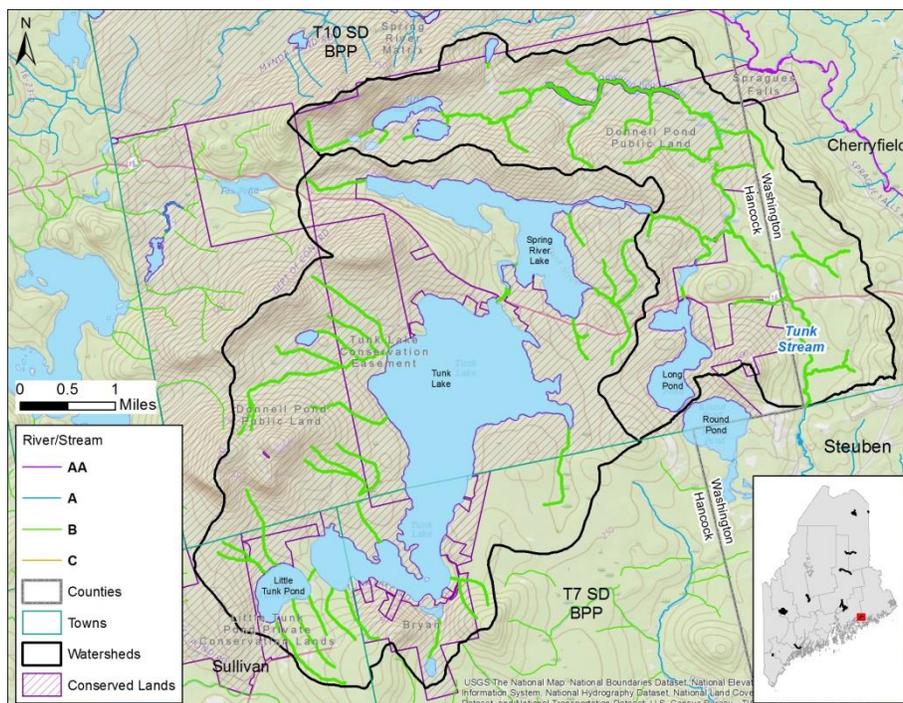
Basis: Very high quality water with potential for restoration of Atlantic salmon. Tunk Lake supports landlocked salmon. Significant portion of the watershed in Public Reserve Land; watershed is ~80% forested. Tunk Stream attains Class A aquatic life criteria. Waters above Rt. 1 in Steuben were inadvertently omitted in 2003 upgrade of lower section of Tunk Stream and tributaries.

Issues affected by reclassification: None. Tributaries are reasonably expected to attain Class A standards.

Recommend revising §§ 468(2) and 468(8) as follows:

- 2. Hancock County.
 - N. Township 7 Southern Division.
 - (2) Tributaries to Tunk Stream – Class A.
 - O. Sullivan
 - (1) Tributaries to Tunk Stream – Class A.
 - P. Township 10 Southern Division.
 - (1) Tunk Stream and its tributaries – Class A.

- 8. Washington County.
 - P. Cherryfield.
 - 1) Tunk Stream and its tributaries – Class A.



AMENDMENT TO STATUTORY LANGUAGE

PENOBSCOT RIVER BASIN

Penobscot River in Milford, Old Town, Bradley, Orono, Eddington and Veazie. Propose amendment to language (9.4 miles approx.).

Proposal: Penobscot Nation and The Nature Conservancy.

Basis: Currently, the classification of the river downstream of the former Veazie Dam provides that 'Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable social and economic benefits and that this use must be maintained'. With the recent removal of the Great Works and Veazie Dams it is recommended that the upper boundary of this special designation be moved upstream to the Milford Dam, and the qualifier 'ecological' be added. This amendment will not change the current Class B designation of the segments upstream and downstream of the Milford Dam, it only provides protection for the free-flowing nature of the segment below the dam and recognizes its outstanding ecological value. Recent fish returns following the dam removals attest to the high value of this fish habitat and its restoration potential affecting several diadromous species, including Atlantic salmon, Atlantic sturgeon and shortnose sturgeon, which are all listed as endangered under the Endangered Species Act. Adding 'ecological' will create a difference between the 'free-flowing' language used elsewhere in Statute and in this Penobscot River segment. This change is not meant to diminish the quality of other 'free-flowing' river segments but instead is meant to highlight the special significance of the Penobscot River as the river with the largest salmon runs amongst Maine salmon rivers.

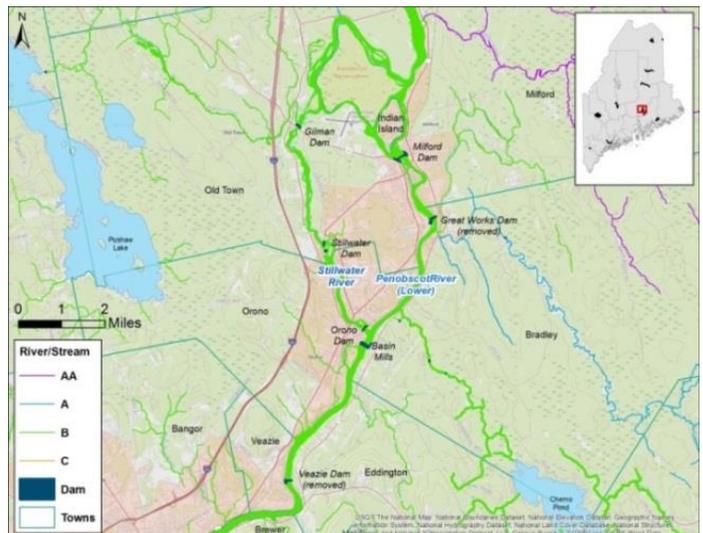
Issues affected by reclassification: There are three dams on the Stillwater Branch and this section of the Penobscot River is excluded from the expansion of the free-flowing designation.

Recommend revising § 467(7)(A)(5) as follows:

A. Penobscot River, main stem.

(5) From the West Enfield Dam, including the Stillwater Branch, to the ~~Veazie~~ Milford Dam, including all impoundments - Class B.

(6) From the ~~Veazie~~ Milford Dam, but not including the ~~Veazie~~ Milford Dam, to the Maine Central Railroad bridge in Bangor-Brewer - Class B. Further, the Legislature finds that the free-flowing habitat of this river segment provides irreplaceable ecological, social and economic benefits and that this use must be maintained.



CORRECTION OF CLASSIFICATION ERROR

PENOBSCOT RIVER BASIN

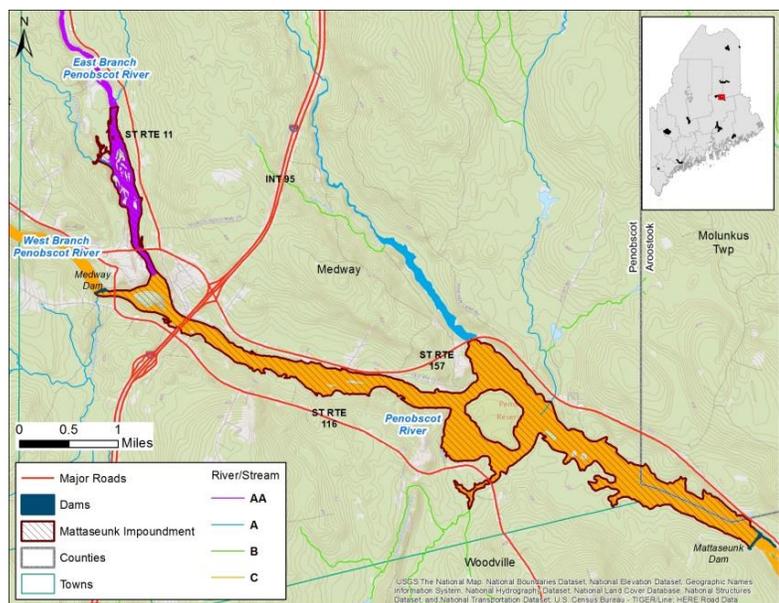
East Branch Penobscot River from its confluence with the Mattaceunk impoundment to its confluence with the West Branch Penobscot River, Medway. Correction of classification error (1.6 miles approx.).

Proposal: Department of Environmental Protection.

Basis: This item corrects an error in the 1990 (effective date 7/14/1990) re-classification of the East Branch Penobscot River from Class B to Class AA. This re-classification extended from a point located 1,000 feet downstream from the dam at the outlet of Grand Lake Mattagamon to its confluence with the West Branch Penobscot River. At the time of re-classification, the most downstream 1.6-mile segment of the East Branch Penobscot River was already impounded by the Mattaceunk Dam on the upper main stem Penobscot River and so did not meet the Class AA narrative criterion that the 'habitat must be characterized as free-flowing and natural'. This was an oversight by the Department that resulted in a drafting inaccuracy with respect to this impounded segment during the 1989/1990 re-classification effort; it will be resolved in the current effort by returning the segment in question to the original Class B designation.

Issues affected by reclassification: The Mattaceunk Dam on the upper main stem Penobscot River is currently undergoing relicensing. At the time of the last re-licensing of the dam in 1988, the lower East Branch Penobscot River was classified as Class B, as it had been since the current classification system had been instituted in 1985. Because that section of the East Branch is now Class AA, and thus must be 'free-flowing and natural', water quality standards in the Mattaceunk impoundment in the East Branch are not met, preventing relicensing of the dam. Water quality in that section of the impoundment does meet Class B criteria. The impounded sections in the main stem and the West Branch Penobscot River (below the Medway/Rockabema Dam) also attain Class B water quality standards and are proposed for upgrades from Class C to Class B.

This correction is only intended to clarify that the 1990 upgrade to the segment in question was not intended to necessarily prohibit the impoundment created by the existing Mattaceunk Dam. The segment in question does not, and did not at the time of the 1990 re-classification, meet the Class AA free-flowing and natural habitat criterion. This correction is not meant to allow the permitting of new licenses or development of new dams. There are no current discharges or dams in the section of river in question.



Recommend revising § 467(7)(B)(1) as follows:

B. Penobscot River, East Branch Drainage.

(c) From a point located 1,000 feet downstream from the dam at the outlet of Grand Lake Mattagamon to its confluence with the ~~West Branch~~ Mattaceunk (Mattaseunk) impoundment as it existed on July 14, 1990 - Class AA.

(d) From its confluence with the Mattaceunk (Mattaseunk) impoundment as it existed on July 14, 1990 to its confluence with the West Branch - Class B. Further, there may be no new direct discharges to this segment after January 1, 2019.

**PROPOSALS THAT ARE NOT BEING RECOMMENDED
BY THE DEPARTMENT AT THIS TIME**

ANDROSCOGGIN RIVER BASIN

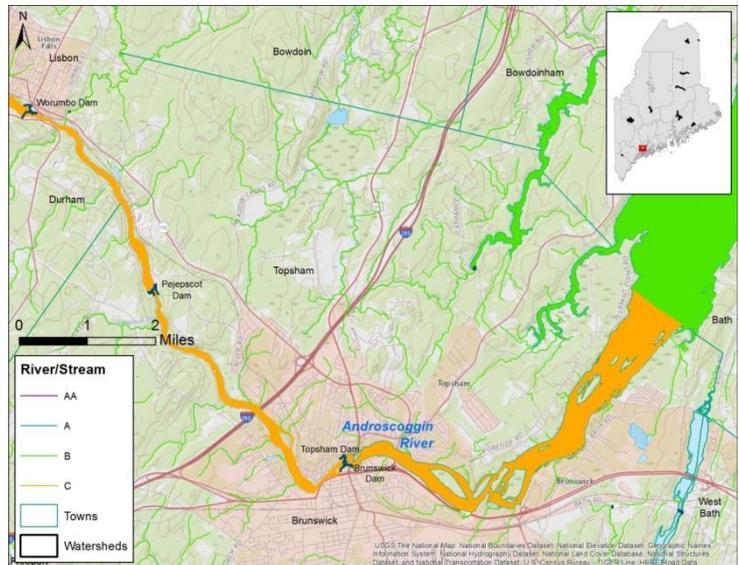
Androscoggin River main stem, Lisbon Falls, from Durham Boat Launch or Worumbo Dam, to mouth of the Androscoggin in Merrymeeting Bay (line between Pleasant Pt., Topsham and North Bath)

Propose Class C to Class B (14 miles approx.).

Proposal: Proposed by Friends of Merrymeeting Bay (FOMB)

Basis: According to FOMB data, water quality on this section of the Androscoggin River meets Class B standards and has largely done so since 2006.

Issues affected by reclassification: FOMB submitted 'Androscoggin River Data Reports' for 2009-2016. These reports are based on FOMB data and compiled by DEP's Volunteer River Monitoring Program for FOMB. They document that Class B criteria for early morning dissolved oxygen (DO) are not always attained in the lower Androscoggin River. Mean bacteria concentrations also attain Class B criteria but single-sample concentrations exceed Class B on occasion. The 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 has densely populated areas. These stressors exist not only within the segment itself but also upstream of the segment. Looking at the River more comprehensively, it is entirely Class C from the confluence with the Ellis River to Merrymeeting Bay (~100 miles), has a total of 14 dams, numerous dischargers, urban centers (including Lewiston, Auburn, Brunswick and Topsham) and significant agriculture.



An upgrade of this section of the river was proposed during the 2008-2009 reclassification initiative but was not recommended by the Department due to a lack of monitoring data and an up-to-date water quality model. With the intent of facilitating a future upgrade, the legislature directed MDEP to conduct water quality sampling on the lower Androscoggin River. Monitoring occurred in 2010 and the 'Lower Androscoggin River Basin Water Quality Study Modeling Report' was completed in March 2011. MDEP data showed that Class B water quality standards were met at certain times in certain segments of the river, but that DO and aquatic life failed to attain Class B criteria on various occasions. Modeling results indicated that no river segments proposed for upgrade would attain Class B DO criteria during critical conditions of high water

temperature, low flow, and maximum licensed discharge levels. These critical conditions are the conditions that the Department must consider when reissuing any of the several waste discharge licenses that currently exist in this segment. Non-attainment was also indicated even when licensed discharges were removed from the model. Class B non-attainment was attributable to upstream sources (including sources affecting tributaries), non-point sources and the effects of the three dams located in this section of the river. Below the Brunswick-Topsham Dam, incoming tides from Merrymeeting Bay and Sediment Oxygen Demand further contributed to Class B non-attainment, while the licensed discharge in this section had little impact. Because of the results of the Lower Androscoggin River Basin Water Quality Study, the Department testified in opposition to two upgrade bills before the legislature in 2011 and 2013, and neither bill advanced.

The Department is not aware of any changes in the watershed of this segment since 2010 that would significantly alter the conclusions of the current model. Therefore, the Department does not propose an upgrade of this section of the river at this time.

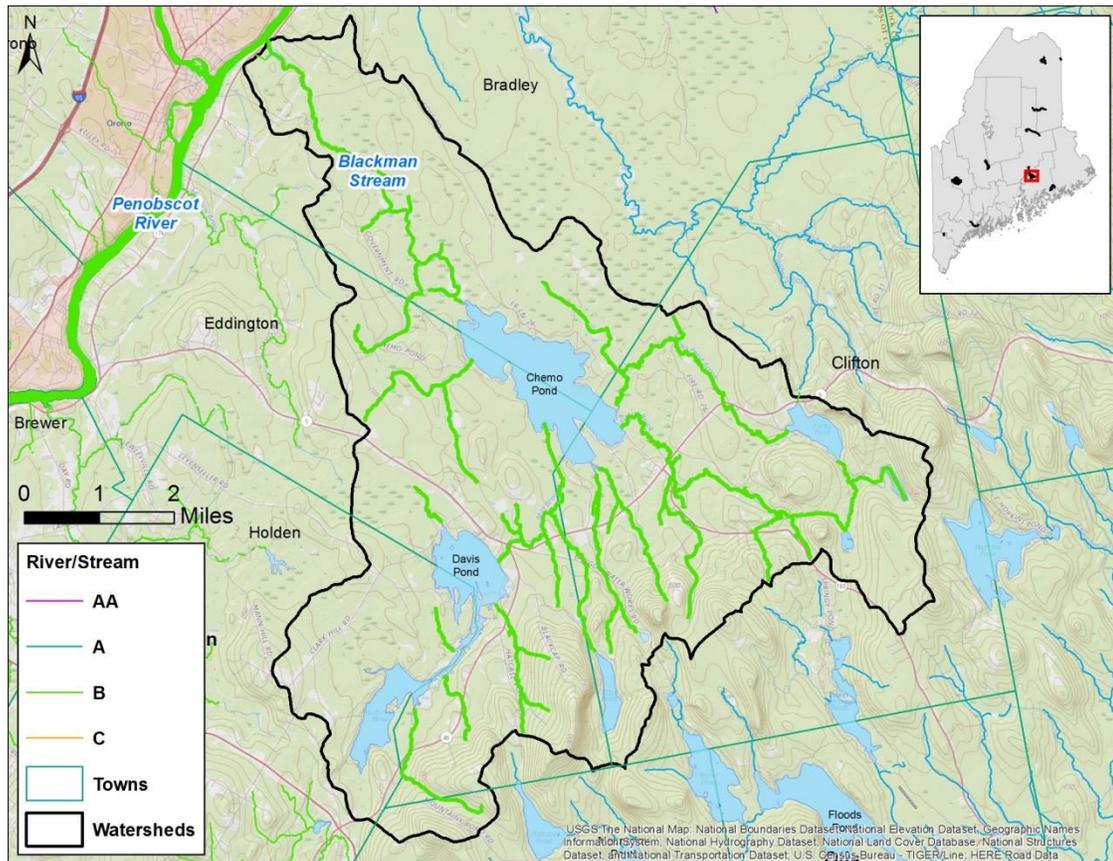
PENOBSCOT RIVER BASIN

Blackman Stream and tributaries, Bradley and surrounding towns. Propose Class B to Class A (66 miles approx.).

Proposal: The Nature Conservancy.

Basis: Blackman Stream is the site of a highly successful fish restoration project, the site of the Maine Forest and Logging Museum, and has its watershed largely within the University of Maine Foundation's Penobscot Experimental Forest.

Issues affected by reclassification: Water quality in this segment appears to be affected by logging activities and some agricultural landuse. Biological communities did not meet Class GPA aquatic life standards in Davis Pond in 2016. Ponds in the watershed are all moderately productive suggesting some nutrient enrichment. In-stream monitoring data from Blackman Stream and some tributaries are needed to determine the likelihood of attainment of Class A standards.



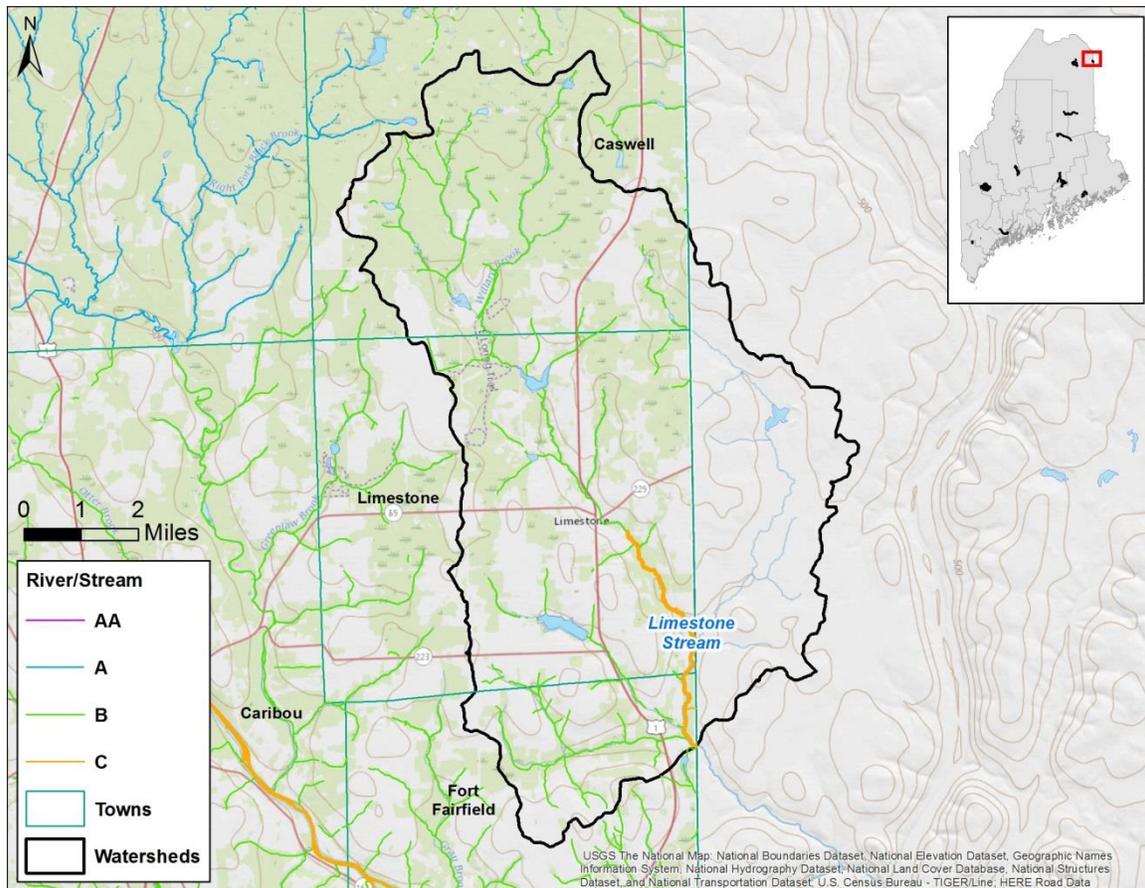
ST. JOHN RIVER BASIN

Limestone Stream, below Long Road, Limestone. Propose Class C to Class B (4.5 miles).

Proposal: Citizen proposal.

Basis: Treatment plant was closed in 2010, the macroinvertebrate community met Class B aquatic life criteria in 2004 at two locations.

Issues affected by reclassification: Water quality in this segment appears to be affected by agricultural landuse, which is widespread upstream of and along the section of stream proposed for upgrade. Macroinvertebrates did attain Class B aquatic life criteria in 2004 at two locations, but only Class C criteria in 2014 at one location. Algae only attained Class C criteria in 2004 at two locations and in 2014 at one location. Nutrient concentrations in the stream are elevated. Given the intensive agricultural landuse in the watershed, it is not expected that the section of Limestone Stream below Long Road can attain Class B standards and thus MDEP does not recommend an upgrade at this time.



Appendix A

Designated Uses and Criteria for Maine River and Stream Classifications as of 8/1/2018.

Class	Designated Uses	Dissolved Oxygen Numeric Criteria	Bacteria (E. coli) Numeric Criteria	Habitat Narrative Criteria	Aquatic Life (Biological) Narrative Criteria**
Class AA	Aquatic Life Drinking Water Fishing Agriculture Recreation in/on the water Navigation	As naturally occurs	As naturally occurs but not higher than 64/100 ml (g.m.*) over 90-day interval or 236/100 ml (inst.*) in more than 10% of the samples in any 90-day interval	Free flowing and natural	No direct discharge of pollutants; as naturally occurs**
Class A	Aquatic Life Drinking Water Fishing Agriculture Recreation in/on the water Navigation Hydropower Industrial Discharge	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 not higher than 64/100 ml (g.m.*) over 90-day interval or 236/100 ml (inst.*) in more than 10% of the samples in any 90-day interval	Natural	As naturally occurs**
Class B	Aquatic Life Drinking Water Fishing Agriculture Recreation in/on the water Navigation Hydropower Industrial Discharge	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	Not higher than 64/100 ml (g.m.*) over 90-day interval or 236/100 ml (inst.*) in no more than 10% of the samples in any 90-day interval from 4/15 to 10/31	Habitat for fish and other aquatic life, 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	Aquatic Life Drinking Water Fishing Agriculture Recreation in/on the water Navigation Hydropower Industrial Discharge	5 ppm; 60% saturation 6.5 ppm (monthly average) at 22° and 24°F	Not higher than 100/100 ml (g.m.*) over 90-day interval or 236/100 ml (inst.*) in no more than 10% of the 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.**

* "g.m." means geometric mean and "inst." means instantaneous level.

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

*** Limited exceptions apply.