

Report to the Joint Standing Committee on the Environment and Natural Resources

# Analysis of Comprehensive River Resource Management Plan Development

January 2023

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# **Executive Summary**

Public Law 2021, Chapter 675, *An Act Regarding the Development of Comprehensive River Resource Management Plans* (P.L. 2021, c. 675), Section 2, requires the Maine Department of Environmental Protection (Department) to report to the Joint Standing Committee on Environment and Natural Resources findings and recommendations addressing the following questions:

1. Identify the agency or agencies that are best positioned to provide oversight of the plan development and update process;

2. Identify the staffing and resources necessary to allow for the timely development and update of the plans;

3. Determine the methods by which the plan development and update process can best provide and account for public participation and input;

4. Provide any other recommendations for improvement or clarification of existing process, which may include, but are not limited to, a proposed schedule for the development or update of plans for each watershed and an evaluation of options for involvement in the development or update of the plans or legislative review of the plans prior to adoption.

In this report, the Department provides recommendations and potential costs for conducting the comprehensive river management planning process called for in Maine Revised Statutes, Title 12, Section §407 (12 M.R.S. §407). P.L. 2021, c. 675 requires the Department to provide recommendations for improvement or clarification of the existing process; however, there is no existing process beyond the provisions of 12 M.R.S. §407 and publication of one plan in 1993. Therefore, the Department provides recommendations for implementation of the existing requirements in law by a Lead Agency and supporting agencies. 12 M.R.S. §407 currently identifies the Department of Agriculture, Conservation and Forestry as the lead agency. The Department, however, recommends that the existing requirements in law align more closely with other responsibilities of the Department of Environmental Protection. The minimum elements of the plans required by 12 M.R.S. §407 are already established through federally regulated processes implemented by the Department.

However, while the Department's other responsibilities for water quality management can help to inform a watershed-wide planning effort, current staffing and resources are not adequate to conduct separate and additional planning processes. If the Legislature wishes the State to conduct the work required by 12 M.R.S. §407 in addition to requirements of the Clean Water Act and Maine Revised Statutes Title 38, Chapter 3 (38 M.R.S. ch. 3), *Protection and Improvement of Waters*, and Title 38, Chapter 5 (38 M.R.S. ch. 5), *Rivers and Streams*, the Legislature must allocate substantial additional resources to support it. Alternatively, the Legislature could choose to repeal 12 M.R.S. §407 as unnecessary in light of other state and federal processes for management river resources.

# I. Introduction

Public Law 2021, Chapter 675, *An Act Regarding the Development of Comprehensive River Resource Management Plans*, Section 2, requires the Department of Environmental Protection (Department) to report to the Joint Standing Committee on Environment and Natural Resources addressing the following questions:

- 1. Identify the agency or agencies that are best positioned to provide appropriate oversight of the plan development and update process;
- 2. Identify the staffing and resources necessary to allow for the timely development and update of the plans required by Title 12, section §407;
- 3. Determine the methods by which the plan development and update process can best provide and account for public participation and input; and
- 4. Provide any other recommendations for the improvement or clarification of the existing process in Title 12, section §407, which may include, but are not limited to, a proposed schedule for the development or update of plans for each watershed for which a plan is required under Title 12, section §407 and an evaluation of options for legislative involvement in the development or update of the plans or legislative review of proposed plans prior to adoption.

# II. Maine Revised Statutes, Title 12, section §407

Maine Revised Statutes, Title 12, section §407 (12 M.R.S. §407) is a section of Title 12, Chapter 200: *Maine's Rivers*, which includes the Legislature's findings and priorities established in 1983, with protection of outstanding river segments added in 2013. 12 M.R.S. §407 states:

The Department of Agriculture, Conservation and Forestry, with assistance from the Department of Inland Fisheries and Wildlife, the Department of Marine Resources, the Department of Environmental Protection, the Governor's Energy Office and other state agencies as needed, shall develop, subject to the Maine Administrative Procedure Act, <u>Title 5</u>, <u>chapter 375</u>, a comprehensive river resource management plan for each watershed with a hydropower project licensed under the Federal Power Act or to be licensed under the Federal Power Act. These plans must provide a basis for state agency comments, recommendations and permitting decisions and at a minimum include, as applicable, minimum flows, impoundment level regimes, upstream and downstream fish passage, maintenance of aquatic habitat and habitat productivity, public access and recreational opportunities. These plans must update, complement and, after public notice, comment and hearings in the watershed, be adopted as components of the State's comprehensive rivers management plan. A comprehensive river resource management plan adopted under this section is a major substantive rule as defined in <u>Title 5</u>, <u>chapter 375</u>, <u>subchapter 2-A</u>.

The Federal Power Act directs licensing of hydropower projects by the Federal Energy Regulatory Commission (FERC). A FERC project may include one or more dams. Section 10 of the Act

authorizes FERC to license a project if it "will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses, including irrigation, flood control, water supply, and recreational and other purposes...<sup>1</sup>" Section 10(a)(2)(A) of the Act directs FERC to consider the extent to which a project is consistent with a comprehensive plan (where one exists) for improving, developing, or conserving a waterway or waterways affected by a project that is prepared by the State in which a project is located. Small hydropower projects may be exempt from FERC licensing, but still subject to some regulation by FERC.

Public Law 1989, Chapter 453, An Act to Ensure Notification and Participation by the Public in Licensing and Relicensing of Hydroelectric Dams and to Further Ensure the Equal Consideration of Fisheries and Recreational Uses in Licensing and Relicensing, first enacted 12 M.R.S. §407, directing the State Planning Office to develop comprehensive river resource management plans (hereafter "Plan" or "Plans"). P.L. 2011, c. 655 later amended Section §407 by removing the State Planning Office and establishing the Department of Agriculture, Conservation and Forestry (DACF) as the agency responsible for developing the Plans ("Lead Agency"). No funding or staff accompanied this transfer of responsibility. Recently, P.L. 2021, c. 675 amended Section §407 to identify these Plans as major substantive rules, subject to the associated processes for adoption in Title 5, Chapter 375, Subchapter 2-A. Since enactment of Section §407, only one Plan has been adopted.

The State Planning Office prepared the State of Maine Comprehensive River Management Plan, with Volumes 1-3 published in May 1987, followed by Volume 4 published in December 1992 and Volume 5 published in February 1993. These were submitted to FERC as suitable comprehensive plans to be considered in hydropower relicensing. Volume 5 is the Kennebec River Resource Management Plan<sup>2</sup>, the only river-specific river resource management plan prepared as required by 12 M.R.S. §407. Most of these documents are now outdated, given that they report on resource conditions and contain plans, policies, orders, and reports that no longer apply or have been superseded. An exception is Volume 2 of the Comprehensive Plan, the Maine Rivers Study, which inventoried and analyzed river resources and ranked rivers in relation to several categories of resource values. This study is still utilized as a reference by DACF.

# III. Watersheds with Federally Licensed Hydropower Projects

In Maine, there are 124 hydropower dams administered through 94 federal licenses or exemptions authorized by FERC ("FERC projects"). They are located in most of the major river basins classified in 38 M.R.S. §467, which have drainage areas larger than 100 square miles, and in some minor drainages classified in 38 M.R.S. §468. These drainage areas are also watersheds. Watersheds contain a multitude of resources, including homes, businesses, wastewater infrastructure, energy generation and distribution, fish and wildlife, forests and farms. Watersheds are directly impacted by

<sup>&</sup>lt;sup>1</sup> https://www.energy.gov/sites/prod/files/2019/10/f67/Federal%20Power%20Act 2019 508 0.pdf

https://www.maine.gov/dmr/sites/maine.gov.dmr/files/docs/Kennebec%20River%20Resource%20Mgmt%20Plan\_1 993.pdf

severe weather conditions (e.g., drought, storms). Maine's history, economy and culture is deeply tied to its rivers and surrounding watersheds. While the scope of licensing under the Federal Power Act applies to waterways, it is important to recognize that 12 M.R.S. §407 applies more broadly to entire watersheds.

The Department has identified watersheds containing hydropower projects by river basin. Basin boundaries are based on hydrologic units (HU) defined by the Watershed Boundary Dataset (WBD). Hydrologic unit boundaries in the WBD are determined based on topographic, hydrologic, and other relevant landscape characteristics without regard for administrative, political, or jurisdictional boundaries. The HUs in the WBD are arranged in a nested, hierarchical system with each HU in the system identified using a unique code. Hydrologic unit codes (HUC) are developed using a progressive two-digit system where each successively smaller areal unit is identified by adding two digits to the identifying code the smaller unit is nested within. WBD contains eight levels of progressive hydrologic units identified by unique 2- to 16-digit codes. Both 4-digit and 8-digit HUs were used to define the watersheds containing FERC projects shown in Figure 1 below, and Appendix A. More information can be found at <a href="https://www.usgs.gov/national-hydrography/watershed-boundary-dataset">https://www.usgs.gov/national-hydrography/watershed-boundary-dataset</a>.

A hydropower project licensed by FERC may include one or more dams. There are also several dams in Maine that are currently exempt from FERC licensing requirements primarily due to their limited generating capacity. Figure 1, below, illustrates the watersheds in Maine and hydropower projects licensed by FERC. Appendix A identifies all hydropower projects in Maine subject to FERC authorities, including their FERC project number and the individual dams included in each project. Appendix B contains maps of each watershed containing hydropower projects subject to FERC licensing, illustrating each project location within the watershed. Appendix C contains a map showing hydropower projects exempt from FERC licensing but subject to FERC regulation.



## Figure 1. Hydropower projects licensed by FERC in river basin watersheds

# IV. River Resource Management

12 M.R.S. §§401-403 identifies values and priorities for Maine's river resources to guide plan development under 12 M.R.S. §407. This includes consideration of the following values: water quality, waterfronts, scenic beauty, riparian ownership, hydroelectric power, fisheries, recreation, uses for tourism and industry. Supporting these values aligns with the mission of many State of Maine agencies, including the Department of Agriculture, Conservation and Forestry, Department of Economic and Community Development, Department of Environmental Protection, Department of Inland Fisheries and Wildlife, Department of Marine Resources, and the Governor's Energy Office. Each one of these agencies, and others, have statutory authorities and obligations tied to river resources that could be impacted by plans adopted under 12 M.R.S. §407.

P.L. 2021, c. 675 directs the Department to "identify the agency or agencies that are best positioned to provide oversight of the plan development and update process." In consultation with other state agencies, the Department did not identify any agency that currently has available resources to provide oversight of the plan development and update process required by 12 M.R.S. §407. Notwithstanding a lack of resources, the Department found that the existing requirements in 12 M.R.S. §407 align most closely with other responsibilities of the Department of Environmental Protection.

#### Clean Water Act, U.S.C. Title 33

The federal Clean Water Act (CWA) recognizes the numerous values and uses of surface waters, and establishes regulatory systems to protect those values and uses that depend on water quality.

#### Section 401 – Water Quality Certification

Per Section 401 of the CWA (33 U.S.C. § 1341), a federal license may not be issued for a hydropower project unless the state water quality certifying agency has either issued a water quality certification (WQC) for the project or has waived certification. When FERC issues a license for a hydropower project, the conditions in the state water quality certification become part of that federal license. Federal licenses are issued for terms of 30 to 50 years.

By Executive Order of the Governor of the State of Maine, and 38 M.R.S. § 635-B, the Department of Environmental Protection is the State certifying agency for the federal licensing of hydropower projects in Maine. CWA Section 401 provides up to one year for states to issue decisions on WQC applications. The Department anticipates receiving 18 new WQC applications associated with FERC relicensing in the next five years.

The state water quality certifying agency may issue a WQC if it finds that the hydropower project will comply with the applicable provisions of the CWA, Subchapter III, sections 301, 302, 303, 306, and 307.<sup>3</sup> Several of these sections specifically require consideration by EPA and the states of the variety of uses of surface waters, from drinking water supplies to industrial purposes.

<sup>&</sup>lt;sup>3</sup> 33 U.S.C. §1341(a)(1), <u>https://www.law.cornell.edu/uscode/text/33/1341</u>

#### Section 302 - Water quality related effluent limitations

Section 302 calls for effluent limitations when necessary to assure protection of public health, public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water.<sup>4</sup>

#### Section 303 - Water quality standards and implementation plans

Section 303 requires adoption of water quality standards for all navigable waters, by EPA or by the state subject to EPA approval.

"Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation."<sup>5</sup>

States must review their water quality standards at least every three years, and this review must include a public hearing.

#### Maine Revised Statutes, Title 38

#### Chapter 3, Protection and Improvement of Waters

The Department is authorized under 38 M.R.S. ch. 3, *Protection and Improvement of Waters*, to adopt water quality standards required under Section 303 of the Clean Water Act. Maine water quality standards approved by the EPA are compiled at <u>https://www.epa.gov/wqs-tech/water-quality-standards-regulations-maine</u>, and include 40 CFR 131.43: Federal Water Quality Standards Applicable to Maine; 38 M.R.S. ch. 3, Article 4-A: *Water Classification Program*; 38 M.R.S. 636, *Permits for Hydropower Projects*; the Department's rule Chapter 450: *Administrative Regulations for Hydropower Projects*, and many other Department rules.

The Department implements state and federal laws and rules that govern uses of the waters of the State, including Maine's river resources, to ensure that water quality standards are met. The quality of the water that must be attained (water body classification) is recommended by the Department to the Board of Environmental Protection (BEP), then recommended to and established by the Legislature. Alternatively, the Legislature may upgrade water quality classifications directly through the legislative process without BEP recommendations. All new or changed water quality standards are subject to the approval of the EPA.

#### 38 M.R.S. 464 (1) states:

The Legislature intends by passage of this article to establish a water quality classification system which will allow the State to manage its surface waters so as to protect the quality of those waters and, where water quality standards are not being achieved, to enhance water quality. This classification system shall be based on water quality standards which designate the uses and related characteristics of those uses for each class of water and which also establish water quality criteria necessary to protect those uses and related characteristics. The

<sup>&</sup>lt;sup>4</sup> 33 U.S.C. 1312(a)

<sup>&</sup>lt;sup>5</sup> 33 U.S.C. 1313(c)(2)(A)

Legislature further intends by passage of this article to assign to each of the State's surface water bodies the water quality classification which shall designate the minimum level of quality which the Legislature intends for the body of water. This designation is intended to direct the State's management of that water body in order to achieve at least that minimum level of water quality.

38 M.R.S. 464 (2)(A) requires the Department to conduct water quality classification studies and investigations, to inform proposals by the Board of Environmental Protection to the Legislature for classification of Maine waters.

38 M.R.S. § 464(3)(A) requires the Department to report on the quality of the State's waters to the Maine Legislature:

A. During the first regular session of each Legislature, the commissioner shall submit to the joint standing committee of the Legislature having jurisdiction over environment and natural resources matters a report on the quality of the State's waters that describes existing water quality, identifies waters that are not attaining their classification and states what measures are necessary for the attainment of the standards of their classification.

B. The board shall, from time to time, but at least once every 3 years, hold public hearings for the purpose of reviewing the water quality classification system and related standards and, as appropriate, recommending changes in the standards. After conducting the review, the board shall submit to the joint standing committee of the Legislature having jurisdiction over environment and natural resources matters a report describing the board's findings and any recommendations for changes to the water quality classification system and related standards and the joint standing committee may report out legislation to implement those recommendations.

C. During the first regular session of each Legislature, the commissioner shall submit to the joint standing committee of the Legislature having jurisdiction over environment and natural resources matters a report on the status of licensed discharges.

#### Department of Agriculture, Conservation and Forestry

Overall guidance is provided for DACF engagement, and specifically for the Bureau of Parks and Lands, in FERC hydropower project licensing by a DACF policy document last updated in 2004. The policy directs the Bureau's engagement to be focused on 1) public recreational facilities and access, 2) adequacy of flow releases for boating, and 3) the effect of the project on public lands. The primary concern of the Bureau is to avoid or reduce the adverse impacts of continued, increased or fluctuating impoundment levels and downstream flows on public access, wildlife habitat, forest resources, aesthetic resources, recreational facilities, and public trust rights on these lands.

#### Department of Inland Fisheries and Wildlife

The Maine Department of Inland Fisheries and Wildlife (IFW) is responsible for the management of inland fisheries in all public waters of the state, and the habitats of all inland fish and wildlife.<sup>6</sup> IFW implements a variety of laws, rules, policies and plans that impact resources in river watersheds in order to fulfill these responsibilities.

#### Department of Marine Resources

<sup>&</sup>lt;sup>6</sup> 12 M.R.S. §10051 and §10053

The Maine Department of Marine Resources (DMR) is charged with the responsibility to conserve and develop marine and estuarine resources; to promote and develop the Maine coastal fishing industries; and to advise and cooperate with local, state and federal officials concerning activities in coastal waters.<sup>7</sup> DMR implements a variety of laws, rules, policies and plans that impact resources in river watersheds in order to fulfill these responsibilities. For example, DMR is authorized under 12 M.R.S. §6171 (2-A) to develop a management plan or other policy on the conservation or regulation of marine organisms. DMR has promulgated plans pertaining to the Kennebec and Saco Rivers at 13-188 CMR ch. 60, Resource Management Plan<sup>8</sup>.

#### Maine Emergency Management Agency

The Maine Emergency Management Agency (MEMA), within the Department of Defense, Veterans and Emergency Management, is responsible for administering the State's dam safety program in accordance with Maine Revised Statutes, Title 37-B, Chapter 24: *Dam Safety*. This includes authority pertaining to dam structures and controlling water levels and flows when necessary to protect life and property.<sup>9</sup> MEMA is advised by the Maine River Flow Advisory Commission, which is composed of representatives from state and federal agencies, the University of Maine, and private commerce and industry, including the major hydroelectric power generators.<sup>10</sup> The Commission meets annually in late winter to share information, examine potential for spring flooding and to renew operational protocols. Such factors as stream flow, long-term weather forecasts, snowpack, river ice conditions, and reservoir levels are reviewed.<sup>11</sup>

There are many other plans, regulations, policies, and guidance implemented by state and federal authorities that apply to the wide variety of resources contained within watersheds in Maine. Further identification of those mechanisms that govern and guide resource management decisions in each watershed should occur during development of river resource management Plans under 12 M.R.S. §407.

# V. Planning Process

12 M.R.S. §407 requires river resource management Plans to address the following minimum elements for each river watershed: minimum flows, impoundment level regimes, upstream and downstream fish passage, maintenance of aquatic habitat and habitat productivity, public access and recreational opportunities. 12 M.R.S. §407 does not address how enforceable requirements established under the Clean Water Act and Title 38 of the Maine Revised Statutes should be considered in the planning process, such as water quality standards and existing hydropower license conditions.

The Department did not attempt to research records of the State Planning Office's process or expenses for development of the one Plan adopted under 12 M.R.S. §407. Methods, technology,

<sup>&</sup>lt;sup>7</sup> 12 M.R.S. §6021

<sup>&</sup>lt;sup>8</sup> <u>https://www.maine.gov/sos/cec/rules/13/188/188c060.doc</u>

<sup>&</sup>lt;sup>9</sup> 37-B M.R.S. §1114

<sup>&</sup>lt;sup>10</sup> 37-B M.R.S. §1131

<sup>&</sup>lt;sup>11</sup> River Flow Advisory Commission Report, March 4, 2022, <u>https://www.maine.gov/mema/hazards/river-flow-advisory-commission</u>

and pricing for services have changed significantly since 1993. The Department determined that utilizing information from more recent development of other statewide environmental plans and major substantive rules was more relevant for this analysis. The Department also provides estimates of the appropriate timeframe for completing the process based on experience with large-scale planning processes involving public and legislative input. While these timeframes may be shortened, more abbreviated processes may not fulfill the statutory intent of 12 M.R.S. §407.

Watershed planning involves weighing multiple, and potentially competing, priorities to identify appropriate management strategies. EPA provides guidance to states on implementing a watershed approach to water quality management through their Healthy Watersheds Program - <u>www.epa.gov/hwp</u>. Under a watershed approach, a full array of issues is addressed, not just those subject to CWA regulatory authority. Involving stakeholder groups with developing and implementing strategies for achieving and maintaining state water quality standards and other environmental goals is a hallmark of this approach.<sup>12</sup> The priority of this approach, however, is water quality protection. Water quality protection is only one of the values and priorities in 12 M.R.S. 401-403 to guide plan development under 12 M.R.S. §407.

The Department considered how to fully implement 12 M.R.S. §407 using the existing process described in that section and the values and priorities identified in 12 M.R.S. §§401-403.

The Department recommends the following basic steps for developing each Plan as required by 12 M.R.S. §407:

- A. Compile information
- B. Public input
- C. Draft Plan
- D. Public review
- E. Rulemaking and Plan adoption
- F. Updating Plan and Guidance

## A. Compile Information

The Lead Agency would coordinate with other agencies to identify and compile all existing, relevant information. This includes related resource management plans, water quality classifications, protected natural resources, licensed activities in and on river, property owners and uses, and river resource uses, amongst many other factors. The Lead Agency and supporting agencies should conduct a preliminary gap analysis to identify where additional monitoring, studies, surveys or other actions are needed to answer critical questions about river resource management strategies. If adequate staffing is provided to the Lead and supporting agencies, this stage of initial Plan development should take 3-6 months, excluding completion of any studies identified by the gap analysis.

If studies or monitoring are necessary, timeframes for completion will vary widely. Monitoring of certain physical conditions may be dependent on environmental conditions such as temperature, precipitation, and species migration.

<sup>&</sup>lt;sup>12</sup> EPA Watershed Academy – Introduction to the Clean Water Act. <u>https://cfpub.epa.gov/watertrain/pdf/modules/introtocwa.pdf</u>

State of Maine agencies that have relevant information include, amongst others: Administrative and Financial Services (DAFS)
Agriculture, Conservation and Forestry (DACF)
Defense, Veterans and Emergency Management (DVEM)
Economic and Community Development (DECD)
Environmental Protection (DEP)
Inland Fisheries and Wildlife (DIFW)
Marine Resources (DMR)
Governor's Energy Office (GEO)

Federal agencies that have relevant information include, amongst others: Army Corps of Engineers (ACE)
Federal Energy Regulatory Commission (FERC)
Environmental Protection Agency (EPA)
Fish and Wildlife Service (FWS)
National Oceanic and Atmospheric Association (NOAA)

## **B.** Public Input

Effective engagement with the public, particularly with persons that live in or utilize resources from watersheds with hydropower projects, is critical to developing Plans that support the uses and values of Maine's river resources. Additional opportunities to engage with the Department should be provided to disadvantaged communities and Maine Tribes.

The Department recommends a scoping process to identify values of the public (regional and statewide) regarding resource management in each watershed. Scoping could be conducted through a university research project designed in consultation with the Lead Agency. This research would inform targeted outreach to affected communities, which should include both virtual and in-person public meetings at locations within each watershed. It should also include gathering information about preferred methods of information dissemination.

12 M.R.S. §407 requires that adoption of each Plan must be completed through major substantive rulemaking. A legislative public hearing is required, and the rulemaking agency may conduct adjudicatory hearings for both provisional and final adoption of each Plan. Interested members of the public will have multiple opportunities through the rulemaking process to provide testimony, written comments, and supporting evidence. If the Department was designated as the Lead Agency, the rulemaking process would be conducted through the Board of Environmental Protection (BEP). The BEP is a seven-member citizen oversight board appointed "to represent the broadest possible public interest and experience" (38 M.R.S. 341-C). The BEP may accept, reject, or modify rulemaking proposals from the Department.

#### Tribal collaboration

Public Law 2021, chapter 681, the *Tribal-State Collaboration Act* (5 M.R.S. §11051 et seq.), established a Tribal-State collaboration process designed to promote meaningful communication on issues of particular significance to the Tribes and their citizens. It requires State agencies to engage in a Tribal collaboration process regarding contemplated programs, rules, or services that substantially and uniquely affect Maine's federally recognized Tribes or their citizens.

Public Law 2019, chapter 463, *An Act to Protect Sustenance Fishing*, designated certain segments of Maine's river basins as subject to a sustenance fishing designated use for purposes of calculating and establishing water quality criteria for human health to protect the sustenance fishing designated use pursuant to 38 M.R.S. §466-A. "Sustenance fishing designated use" is a subcategory of the applicable fishing designated use that protects human consumption of fish for nutritional and cultural purposes and applies only to those water body segments that are identified in this article as subject to a sustenance fishing designated use (38 MRSA §466 (10-A)). There are segments subject to a sustenance fishing designated use in the Aroostook, Penobscot, St. Croix, and St. John river basins.

Development of river resource management plans for river basins with segments subject to a sustenance fishing designated use would substantially and uniquely affect Maine's Tribes. Maine Tribes' epistemology, culture, and society are rooted in their intimate relationship to Maine's rivers. The river habitat remains a source of food, medicine, and spirituality for tribal members who engage in and pass down to the next generation the ancient practices of fishing, hunting, gathering, and traveling on the rivers that have sustained their people for thousands of years.

The Lead Agency's Tribal collaboration policy would guide the additional measures to be taken by the Lead Agency to collaborate with the Tribes in river resource management planning that would affect the designated segments. In accordance with 5 M.R.S. §11053 (3), each State agency has designated a tribal liaison from existing staff. However, these staff have other primary responsibilities and would not be able to adequately fulfill the responsibility to collaborate with Maine Tribes in planning for river resource management under 12 M.R.S. §407. The Department recommends that one new full-time equivalent position (1.0 FTE) would be necessary for the Lead Agency for this specific purpose. Even after a Plan is established for a river basin with sustenance fishing segments, the tribal collaboration position will continue to be needed for updates to the Plan and to assist implementing agencies.

#### Disadvantaged Communities

The Plan development process must provide for meaningful involvement by disadvantaged communities. Disadvantaged communities are identified differently by various federal agencies, depending on the applicable program. The EPA has recommended that states utilize the online White House Council on Environmental Quality's Climate and Economic Justice Screening Tool<sup>13</sup> (CEJST) to identify disadvantaged communities at the census tract level. A community is highlighted as disadvantaged on the CEJST map if it is in a census tract that is (1) at or above the threshold for one or more environmental, climate, or other burdens, and (2) at or above the threshold for an associated socioeconomic burden. This includes land within the boundaries of Federally Recognized Tribes, and factors related to climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce.<sup>14</sup>

#### Public Access

A website should be maintained to provide information related to Plan development, such as meeting notices, studies, and Plan drafts. A record of all material supporting each final Plan should

<sup>13</sup> https://screeningtool.geoplatform.gov/en/

<sup>&</sup>lt;sup>14</sup> https://screeningtool.geoplatform.gov/en/methodology#12.69/44.79921/-69.63353

be compiled and available to the public, and to agencies making future decisions regarding river resources. The initial scoping process should also gather information about the best methods to make information available to persons within each watershed.

If adequate staffing and contracted services are provided to the Lead and supporting agencies, this stage of initial Plan development should be given 6 months to 1 year to support public engagement.

## C. Draft Plan

This step involves significant collaboration amongst state agencies. Various elements of each Plan could also meet other state and federal statutory and regulatory planning obligations of agencies, and may need to be drafted in a manner that can meet those requirements. For example, each Plan may be comprised of multiple volumes, chapters and appendices that can be utilized independent of the larger Plan for various purposes.

Each Plan should also be consistent with established standards, license conditions and other resource management plans affecting resources within each watershed. Where consideration of all relevant information and public input leads to recommended resource management strategies that are inconsistent with established standards, license conditions or other resource management plans, the responsible agencies should address these inconsistencies by either planning for appropriate revisions or identifying differences in the scope of underlying statutory or regulatory authorities. For example, a water quality certification for a FERC hydropower license may only consider uses and values of a waterway, while a river resource management Plan under 12 M.R.S. §407 must address uses and values in the entire watershed.

If adequate staffing is provided to the Lead and supporting agencies, this stage of initial Plan development should take 3 to 6 months, and can occur partially concurrent with the public input stage.

## **D.** Public Review

Prior to commencing the formal major substantive rulemaking process, drafts of each Plan should be made available for further public input. This is an important step to share with stakeholders how their input has contributed to the planning process and the preliminarily recommended strategies. This is often a stage where useful and substantive input is provided by interested persons because they have something tangible to react to. This is also the stage when many people who did not participate in the earlier public input stage will now engage if they disagree with a recommended strategy or identify something important to them that is missing.

The Lead Agency should solicit public review of each draft Plan in the form of written comments and in-person meetings. The particular methods of obtaining effective feedback may vary by community, should be identified through the initial scoping survey, and should be modified as needed to ensure all interested persons have adequate opportunity to understand the draft and participate.

The Lead and supporting agencies should collaborate to make any appropriate revisions to each draft Plan. It may be appropriate to solicit additional public review on portions of or the entire revised draft Plan prior to initiating formal rulemaking procedures. These steps should reduce and narrow the issues that may still need to be addressed during the rulemaking stage.

If adequate staffing is provided to the Lead and supporting agencies, this stage of initial Plan development should take 3 months to solicit public comments and incorporate minor revisions. If additional public review or substantial revisions are needed, this stage should be given 6 months.

### E. Rulemaking and Plan Adoption

Regardless of which Executive branch agency develops each Plan, they must follow the Maine Administrative Procedures Act and, in accordance with 12 M.R.S. §407, adopt each Plan as a major substantive rule. The timeline for this process depends on the deliberative process and scheduling of the agency authorized to conduct the rulemaking. The Department recommends the following measures for major substantive rulemaking to adopt comprehensive river resource management Plans, at a minimum:

- 1. Post proposed Plan for 30-60 days of public comment;
- 2. Conduct a public hearing;
- 3. Review public comments;
- 4. Conduct deliberative session(s);
- 5. Publish revised Plan for 30 days of public comment;
- 6. Provisionally adopt proposed Plan in accordance with 5 M.R.S. §8072;
- 7. Legislative Committee conducts public hearing;
- 8. Legislative Committee conducts work session(s) and approves plan;
- 9. Full Legislature approves Plan and returns to Agency;
- 10. Conduct final adoption of Plan.

The shortest timeframe for completing the major substantive rulemaking procedures from publication through final adoption is roughly one year, if rulemaking is initiated in late summer and a provisionally adopted Plan is submitted to the Legislature during the legislative rule acceptance period.

#### Legislative Role

P.L. 2021, c. 675 requires the Department to evaluate "options for legislative involvement in the development or update of the Plans or legislative review of proposed Plans prior to adoption." 12 M.R.S. §407 requires that adoption of Plans be conducted as a major substantive rulemaking. The Lead Agency can provisionally adopt each Plan through their agency rulemaking process, then the Plan must be submitted to the Legislature for review.

5 M.R.S. §8072(4) requires the legislative committee of jurisdiction reviewing a major substantive rule to determine:

A. Whether the agency has exceeded the scope of its statutory authority in approving the provisionally adopted rule;

B. Whether the provisionally adopted rule is in conformity with the legislative intent of the statute the rule is intended to implement, extend, apply, interpret or make specific;

C. Whether the provisionally adopted rule conflicts with any other provision of law or with any other rule adopted by the same or a different agency;

D. Whether the provisionally adopted rule is necessary to fully accomplish the objectives of the statute under which the rule was proposed;

E. Whether the provisionally adopted rule is reasonable, especially as it affects the convenience of the general public or of persons particularly affected by it;F. Whether the provisionally adopted rule could be made less complex or more readily understandable for the general public;

G. Whether the provisionally adopted rule was proposed in compliance with the requirements of this chapter and with requirements imposed by any other provision of law; and

H. For a rule that is reasonably expected to result in a significant reduction in property values, whether sufficient variance provisions exist in law or in the rule to avoid an unconstitutional taking, and whether, as a matter of policy, the expected reduction is necessary or appropriate for the protection of the public health, safety and welfare advanced by the rule.

The Legislature can approve, conditionally approve, or reject provisionally adopted rules. For example, the Legislature can recommend changes to a provisionally adopted rule and return it to the rulemaking agency for specific revisions. The rulemaking agency can then accept the Legislature's recommended changes and complete final adoption, the agency can reject the changes and terminate the rulemaking, or the agency can make other changes, provisionally adopt the revised rule, and return it to the Legislature for further review. At each step of review, a public hearing may be conducted. During provisional and final adoption by the rulemaking agency, public comments must be solicited and considered. This process provides for substantial engagement by the public with the Lead Agency during Plan development, which will involve complex considerations of technical and scientific information, followed by substantial engagement with the Legislature on broader considerations of policy and statutory intent. This is an appropriate way for the Legislature to engage in Plan development and decision-making.

## F. Updating Plans and Guidance

Even after a Plan is finally adopted, the Lead and supporting agencies will be responsible for updating each Plan as needed and providing guidance for its implementation. Considering the number of Plans required, the time needed to complete final adoption of all initial Plans, and the time required to conduct Plan updates through major substantive rulemaking, the Lead and supporting agencies will likely be continuously engaged in updating Plans.

# VI. Schedule

As outlined in Section V, above, the Department estimates that completion of the initially planning process for each watershed will involve:

- A. Compile information 3-6 months, excluding studies
  - a. Add approximately 3-6 months for study design and contracting
  - b. Add approximately 1 year for data collection that is dependent on environmental conditions
- B. Public input 6 months-1 year
- C. Draft Plan 3-6 months
- D. Public review -3-6 months
- E. Rulemaking and Plan adoption 1 year

Completing adoption of a final Plan for a watershed will require no less than 2 years with no additional studies and minimal public engagement. Realistically, completing final adoption is more likely to require at least 3 years for each Plan. It may be possible to develop two Plans concurrently for small watersheds, while Plans for larger watersheds such as the Penobscot River basin are likely to take longer than 3 years due to the scope of resources, uses and values to be considered in the watershed. Estimates of necessary funding in Section VII, below, are based on this schedule. If the Legislature wishes for multiple Plans to be developed and adopted concurrently, estimates in Section VII should be multiplied by the number of concurrent Plans to be developed.

# VII. Funding

P.L. 2021, c. 675 directs the Department to identify the staffing and resources necessary to allow for the timely development and update of the Plans required by 12 M.R.S. §407. Due to the absence of Plans for most Maine rivers, and no up-to-date Plans, it will require significant resources to create Plans. Fewer resources should be necessary to maintain and update Plans, but will require permanent staffing and an on-going appropriation of funding. The extent of resources needed by state agencies depends on the scope of work assigned by the Legislature. The Department and other agencies have estimated implementation costs for full development of watershed-wide comprehensive river resource management Plans.

## Staffing

The Department estimates the following staff would be needed by state agencies to fulfill the mandate of 12 M.R.S. §407. The total annual cost for positions listed below reflects an estimate of the fully burdened rate for personal services, including benefits and basic operational costs (technology, fleet vehicle, work space and cell phone).

The Lead Agency will require many additional staff to support data analysis, records management, contracts management, public engagement, and other responsibilities. If designated to the Department of Environmental Protection, the Department of Environmental Protection would need at least 11 new FTE, including:

- 1 Public Service Manager II to supervise, coordinate, and provide policy direction (\$133,463)
- 1 Public Service Coordinator II to evaluate legal and regulatory information and to draft documents (\$125,019)
- 1 Public Service Coordinator II to serve as Tribal coordinator (\$125,019)
- 1 Public Service Coordinator I to administer contracts and financial resources (\$117,550)
- 1 Senior Planner to conduct public outreach, web content development, and to draft documents (\$100,496)
- 2 Planning and Research Associate II to evaluate economic and land use information, and to draft documents (\$93,646 x 2)
- 2 Biologist II to develop biological study plans and to review study results (\$109,585 x 2)
- 1 Certified Hydrogeologist to evaluate river flow information (\$96,977)
- 1 Environmental Engineer to evaluate information regarding infrastructure, resilience, and industrial uses (\$104,744)

Total personal services for the Department in Fiscal Year 2025 would be \$1,209,730.

Watershed-wide planning for river resources involves the full scope of species and habitat managed by the Department of Inland Fisheries and Wildlife. IFW would need at least 10 new FTE to support river watershed planning, including:

Staff to evaluate minimum flows, including considerations for downstream recreational fisheries, fishway operations, impoundment fisheries, wildlife, and habitat productivity:

- Hydrogeologist (\$106,744)
- IFW Resource Biologist (\$102,055)
- IFW Resource Technician (\$86,796)

Staff to evaluate upstream and downstream fish passage and invasive species:

- (2) Fish Passage Design Engineer (\$160,000 x 2)
- IFW Resource Biologist (\$102,055)
- IFW Resource Technician (\$86,796)

Staff to evaluate public access and recreation:

• IFW Resource Biologist (\$102,055)

Staff to coordinate monitoring, research, information compilation, and document drafting:

- Public Service Manager II to supervise, coordinate, and provide policy direction (\$129,098)
- IFW Senior Resource Biologist (\$118,609)

Total personal services for IFW in Fiscal Year 2025 would be \$1,154,208.

Some of the positions identified for IFW could also serve the Department of Marine Resources. These positions may have different classifications depending on the agency where they finally reside.

In addition, DMR would need at least 2 new FTE with a marine resource focus – a Marine Resource Scientist III (\$95,572) and a Resource Management Coordinator (\$88,957).

DACF would need at least 2 new FTE to evaluate agricultural and forestry uses, and public lands – Senior Planners (\$80,646 x 2).

DECD would need at least 2 new FTE to evaluate business and economic needs – Development Program Managers (\$95, 572 x 2)

Total personal services costs for these five agencies would be a minimum of \$2,900,903 for 27 new FTE.

## Contracted services

The process for developing each Plan must involve significant and effective stakeholder engagement, including meetings at locations within each affected basin. The Department would retain the services of a facilitator to coordinate and manage stakeholder engagement. Similar services provided to the State have cost \$150/hour, or \$1,500/meeting including preparation. The Department estimates multiple public meetings for each river watershed would be necessary to develop a Plan, and at least 1 public meeting would be necessary for regular updates to each established Plan.

Public meetings should be held within communities in each watershed, preferably at locations that are free of charge. Examples include local libraries, municipal and state office meeting spaces. However, some public meetings will need to accommodate larger numbers of attendees and have technological capacity for virtual access. Half day meeting room rentals at the Augusta Civic Center cost over \$500, full day room rentals cost over \$1,000, depending on ancillary services requested. A University of Maine facility offers live audio and video streaming, but not virtual participation. In 2019, technology support cost \$110 per day and room rental cost \$210 per day for that facility. In addition to costs for meeting spaces, the State is obligated to pay travel costs according to U.S. General Services Administration rates, including meals, lodging, and transportation for state employees who conduct work at a location other than their normally authorized location. Costs vary by location and time of day,<sup>15</sup> but average \$137 per employee for evening meetings that are more than 1 hour of travel time from an employee's work location. The Department estimates that costs per public meeting will range from \$274 to over \$1,000, and that a minimum of two public meetings should be held in each watershed.

As described in Section 5.A., above, it may be necessary to conduct studies or monitoring to inform management strategies in each Plan. Applicants for water quality certifications for a hydropower project must often conduct studies of their project's effects on upstream and downstream biological communities. However, in the case of developing Plans under 12 M.R.S. §407, the cost of such studies will be borne by the State. Costs can vary widely depending on the species, geographic scale, and timeframe included in a study, among other factors. The Department estimates an average cost for one segment of a river of \$100,000 based on a consulting firm's proposal to study one species in one location of the Penobscot River for the Department in 2022. Utilizing consultants to conduct complex flow modeling can cost \$250,000. Total costs for monitoring, studies and modeling is difficult to estimate and will vary widely between watersheds. Some watersheds in Maine contain only one hydropower project, while others contain up to 18 projects. The Department estimates that Plans for watersheds with only one project could require at least \$350,000 for studies, and that watersheds with 10 or more projects could require more than \$1 million for studies.

In addition to contracting for studies, state agencies will require specialized independent expertise to analyze complex technical, scientific and economic information provided by interested persons, hydropower project owners, industrial facilities, and others during Plan development and the major substantive rulemaking process. The Department estimates costs for such experts based on rates established with the Department for similar services of approximately \$135 per hour. Analyzing one study and participating in public hearings could require 20 or more hours of service, for a cost of \$2,700. Again, total costs for services from independent experts for each Plan is difficult to predict, will depend heavily on the number and types of impacted resources, and will vary widely between watersheds. Plans for watersheds with only one project might require little to no expertise beyond that of State agencies, while Plans for watersheds with many projects or many high-value resources could require multiple experts and hundreds of hours of service.

Overall, contractual costs to develop each river watershed Plan could be approximately \$100,000 to well over \$1 million.

<sup>&</sup>lt;sup>15</sup> <u>https://www.gsa.gov/travel/plan-book/per-diem-rates</u>

# VIII. Recommendations

Although many of the elements of river resource management planning identified in 12 M.R.S. §407 are being addressed, no State of Maine agency is currently developing or maintaining comprehensive river resource management Plans for entire watersheds containing federally licensed hydropower projects. The Legislature should repeal 12 M.R.S. §407, or amend it and provide the necessary resources for its implementation.

The Department has identified 3 options for legislative action regarding 12 M.R.S. §407:

- 1. Repeal the section;
- 2. Amend the section to recognize each Plan as a compilation of other relevant state and federally authorized decisions; or
- 3. Fund full implementation of the section as written and designate the Department of Environmental Protection as the Lead Agency.

#### <u>Repeal</u>

The minimum elements of 12 M.R.S. §407 are governed by other planning processes required in other areas of federal and state law. Most, if not all, of the management strategies in a Plan will be subject to technical evaluation and public comment in separate regulatory processes for actions such as dam relicensing, water level hearings, and waste discharge licensing. These proceedings are governed by laws and rules that specify the regulatory process and findings that must be made by authorized agencies, and decisions are subject to appeal.

12 M.R.S. §407 does not authorize or require any of the Plan recommendations to be implemented. 12 M.R.S. §407 provides insufficient direction for its implementation to determine what import to give to decisions made under other authorizing state and federal statutes that govern the minimum elements of 12 M.R.S. §407, such as minimum flows or fish passage. As these decisions are made and conditions within a watershed evolve (e.g. new industry, invasive species, energy prices), Plans will become readily outdated. Developing and maintaining Plans through planning processes separate from other processes governed by state and federal laws will require significant additional resources.

## Amend

If the Legislature wishes to retain an overarching planning process for Maine watersheds, 12 M.R.S. §407 should be amended to designate the Department as the Lead Agency, with input and support from other State of Maine agencies currently listed in 12 M.R.S. §407, including DACF. The Department recommends that 12 M.R.S. §407 should be amended to establish Plans as a compilation of enforceable state and federal decisions made in accordance with the Clean Water Act and Maine Revised Statutes, Title 38. This would require updating Plans when water quality certifications are approved, when classifications of waterbodies change, when a waterbody is designated as impaired, and when applicable standards change. Such updates could be conducted at regular intervals, such as every 3 years to align with Clean Water Act water quality classification review requirements. If Plans and updates were simply incorporations by reference of other decisions, this would impose minimal additional cost on agencies.

## Funding

If the Legislature wishes to retain and implement a watershed-level planning approach for all watersheds in Maine containing federally licensed hydropower projects, the Legislature must appropriate substantial staffing and financial resources for that purpose. The Legislature should also clarify how Plans adopted under 12 M.R.S. §407 should be informed by planning processes and agency decisions required in other areas of state and federal law, and how updated Plans should inform those processes and decisions in the future.

| BASIN (WBD<br>HYDROLOGIC UNIT) | ТҮРЕ   | FERC PROJECT<br>ID | FERC PROJECT NAME              | DAM NAME                |
|--------------------------------|--------|--------------------|--------------------------------|-------------------------|
|                                |        | 2283               | Gulf Island - Deer Rips        | Deer Rips Dam           |
|                                |        |                    |                                | Gulf Island Dam         |
|                                |        | 2284               | Brunswick                      | Brunswick Dam           |
|                                |        | 2302               | Lewiston Falls                 | Lewiston Falls Project  |
|                                |        | 2333               | Rumford Falls                  | Middle Dam              |
|                                |        |                    |                                | Upper Dam               |
|                                |        | 2375               | Riley-Jay-Livermore            | Jay Dam                 |
|                                |        |                    |                                | Livermore Falls Dam     |
|                                |        |                    |                                | Riley Dam               |
|                                |        | 2808               | Barker's Mill                  | Barker Mill Dam         |
| Androscoggin                   | Active | 3428               | Worumbo                        | Lisbon Falls Dam        |
|                                |        | 3562               | Barker Mill Upper              | Barker Mill Upper       |
|                                |        | 4026               | Aziscohos                      | Aziscohos Dam           |
|                                |        | 4784               | Pejepscot                      | Pejepscot Dam           |
|                                |        | 6398               | Hackett Mills                  | Hackett Mills Dam       |
|                                |        | 8277               | Otis                           | Otis Dam                |
|                                |        | 11006              | Upper Androscoggin             | Androscoggin Upper Dam  |
|                                |        | 11482              | Marcal                         | Mechanic Falls Dam      |
|                                |        | 11834              | Upper & Middle Dams<br>Storage | Upper Dam               |
|                                |        |                    |                                | Middle Dam              |
|                                |        |                    |                                | Black Cat Dike          |
| Androscoggin                   | Exempt | 4413               | Kennebago                      | Kennebago Falls Dam     |
|                                |        |                    |                                | Lower Station Dam       |
|                                |        | 7591               | Wight Brook                    | Wight Brook Dam         |
|                                |        | 8450               | Stoney Brook                   | Stony Brook Dam         |
|                                |        | 8505               | Abbots Mills                   | Sessions Dam            |
|                                |        | 9079               | Upper Spears Stream            | Upper Spears Powerhouse |
|                                |        | 9411               | Biscoe Falls                   | Biscoe Falls Dam        |
|                                |        | 12629              | Corriveau                      | Thurston Dam            |
| Aroostook                      | Active | 2367               | Aroostook River                | Millinocket Lake Dam    |

# Appendix A

| BASIN (WBD<br>HYDROLOGIC UNIT)   | TYPE   | FERC PROJECT<br>ID | FERC PROJECT NAME        | DAM NAME                      |
|--|--------|--------------------|--------------------------|-------------------------------|
|  |        | 2368               | Scopan                   | Squa Pan Dam                  |
| Damariscotta River (sub-<br>watershed of St. George-<br>Sheepscot HU8) | Active | 11566              | Damariscotta Mills       | Damariscotta Lake Dam         |
|  |        |                    | Goose River              | Swan Lake Dam                 |
| Goose River (sub-  | Active | 2804               |                          | Masons Dam                    |
| watershed of Maine   |        |                    |                          | Kelley Dam                    |
| Coastal HU8)   |        |                    |                          | Mill Development              |
|  |        |                    |                          | Central Maine Dam             |
|  |        | 2142               | Indian Pond              | Harris Dam                    |
|  |        |                    |                          | Harris Dike                   |
|  | Active | 2322               | Shawmut                  | Shawmut Dam                   |
|  |        | 2325               | Weston                   | Weston Dam (North<br>Channel) |
|  |        |                    |                          | Weston Dam (South<br>Channel) |
|  |        | 2329               | Wyman                    | Wyman Dam                     |
|  |        | 2335               | Williams                 | Williams Dam                  |
|  |        |                    | Abenaki                  | Abenaki Dam                   |
| Kennebec   |        | 2364               |                          | Madison Paper Corp Log<br>Dam |
|  |        | 2365               | Anson                    | Anson Station Dam             |
|  |        | 2555               | Automatic                | Automatic Number 4            |
|  |        | 2556               | Messalonskee             | Rice Rips Dam                 |
|  |        | 2556               |                          | Snow Pond Dam                 |
|  |        | 2556               |                          | Union Gas Dam                 |
|  |        | 2574               | Lockwood                 | Milstar Dam                   |
|  |        | 2611               | Hydro-Kennebec           | T And A Mills Dam             |
|  |        | 2612               | Flagstaff Storage        | Longfalls Dam                 |
|  |        | 2615               | Brassua                  | Brassua Dam                   |
|  |        | 2671               | Moosehead Lake (Storage) | East Outlet Dam               |
|  |        | 2671               |                          | West Outlet Dam               |
|  |        | 2809               | American Tissue          | American Tissue Dam           |
|  |        | 5073               | Benton Falls             | Benton Falls Dam              |
|  |        | 11132              | Eustis                   | Eustis Power Dam              |
|  |        | 11472              | Burnham                  | Burnham Dam                   |
| Kennebec   | Exempt | 4293               | Waverly Avenue           | Waverly Dam                   |
|  |        | 7473               | Gilman Stream            | Gilman Stream Dam             |
|  |        | 8736               | Pioneer                  | Pioneer Dam                   |
|  |        | 8791               | Starks                   | Starks Dam                    |
|  |        | 14421              | Freedom Falls            | Freedom Falls                 |

| BASIN (WBD<br>HYDROLOGIC UNIT)                                     | TYPE   | FERC PROJECT | FERC PROJECT NAME | DAM NAME             |
|--|--------|--------------|-------------------|----------------------|
| Mousam River (sub-<br>watershed of Piscataqua<br>Salmon Falls HU8) |        |              |                   | Dane Perkins Dam     |
|  | Active | 5362         | Lower Mousam      | Kesslen Dam          |
|  |        |              |                   | Twine Mill Dam       |
|  |        |              |                   | East Millinocket Dam |
|  |        |              |                   | Dolby Dam            |
|  |        |              |                   | Quakish Lake Dam     |
|  |        |              |                   | Millinocket Lake Dam |
|  |        |              |                   | North Twin Dam       |
|  |        |              |                   | North Twin Dike 1    |
|  |        |              |                   | North Twin Dike 2    |
|  |        |              |                   | North Twin Dike 3    |
|  |        |              |                   | North Twin Dike 4    |
|  |        | 2458         | Penobscot Mills   | North Twin Dike 5    |
|  |        |              |                   | North Twin Dike 6    |
|  |        |              |                   | Stone Dike 1         |
|  |        |              |                   | Stone Dike 2         |
|  |        |              |                   | Stone Dike 3         |
|  |        |              |                   | Stone Dike 4         |
| Penobscot  | Active |              |                   | Stone Dike 5         |
|  |        |              |                   | Stone Dike 6         |
|  |        |              |                   | Stone Dike 7         |
|  |        |              |                   | Stone Dike 8         |
|  |        | 2520         | Mattaceunk        | Mattaceunk Dam       |
|  |        | 2534         | Milford           | Milford Dam          |
|  |        |              |                   | Gilman Falls Dam     |
|  |        | 2572         | Ripogenus         | Ripogenus Dam        |
|  |        | 2600         | West Enfield      | Runaround Dam        |
|  |        | 2634         | Storage           | Canada Falls Dam     |
|  |        |              |                   | Loon Lake Dam        |
|  |        |              |                   | Ragged Lake Dam      |
|  |        |              |                   | Seboomook Dam        |
|  |        |              |                   | Umbazooksus Dam      |
|  |        | 2666         | Medway            | Medway Dam           |
|  |        | 2710         | Orono             | Orono Dam            |
|  |        | 2712         | Stillwater        | Stillwater Dam       |
|  |        | 4202         | Lowell Tannery    | Lowell Tannery Dam   |
| Penobscot  | Exempt | 5613         | Browns Mill       | Lower Dam            |
|  |        | 5647         | Milo              | Milo Dam             |
|  |        | 5912         | Moosehead         | Upper Dam            |
|  |        | 7253         | Sebec             | Sebec Dam            |

| BASIN (WBD<br>HYDROLOGIC UNIT)   | TYPE   | FERC PROJECT        | FERC PROJECT NAME      | DAM NAME                         |
|--|--------|---------------------|------------------------|----------------------------------|
|  |        | 7979                | Foss Mill              | Foss Mill Dike                   |
|  |        | 13164               | Veazie Energy Recovery | Veazie Energy Recovery           |
|  |        | 2519                | North Gorham           | North Gorham Dam                 |
|  |        | 2931                | Gambo                  | Gambo Falls Dam                  |
| Presumpscot  | Active | 2932                | Mallison Falls         | Mallison Falls Dam               |
|  |        | 2941                | Little Falls           | Little Falls Dam                 |
|  |        | 2942                | Dundee                 | Dundee Pond Dam                  |
|  |        | 2984                | Eel Weir               | Eel Weir Dam                     |
|  |        | 2194                | Bar Mills              | Bar Mills Dam                    |
|  |        | 2527                | Skelton                | Skelton Dam                      |
|  |        |                     |                        | Bradbury Dam                     |
|  |        | 2528                | Cataract               | Cataract Dam                     |
| Saco   | A      |                     |                        | Spring Island                    |
|  | Active | 2529                | Bonny Eagle            | Bonney Eagle Dam                 |
|  |        | 2530                | Hiram                  | Hiram Falls Dam                  |
|  |        | 2531                | West Buxton            | West Buxton Dam                  |
|  |        | 9340                | Kezar Falls Lower      | Kezar Falls Dam                  |
|  |        |                     |                        | Kezar Falls Upper Dam            |
| <b>C</b> 200   | Exempt | 8788                | Ledgemere Dam          | Ledgemere Dam                    |
| Saco   |        | 11365               | Swans Falls            | Swans Falls Dam                  |
|  | Active | 2492                | Vanceboro (Storage)    | Vanceboro Dam                    |
|  |        | 2 <mark>6</mark> 18 | West Branch (Storage)  | Dobsis Dam                       |
| St. Croix  |        |                     |                        | Farm Cove Dam                    |
| St. Croix  |        |                     |                        | Grand Lake Stream Dam            |
|  |        | 2660                | Forest City (Storage)  | Forest City International<br>Dam |
|  | Active | 3777                | Rollinsford            | Rollingsford Dam                 |
| Salmon Falls River (sub-<br>watershed of Piscataqua<br>Salmon Falls HU8) |        | 3820                | Somersworth            | Great Falls Upper Dam            |
|  |        | 4451                | Lower Great Falls      | Lower Great Falls Dam            |
|  |        | 11163               | South Berwick          | South Berwick Dam                |
| Salmon Falls River (sub-<br>watershed of Piscataqua<br>Salmon Falls HU8) | Exempt | 3444                | Rocky Gorge            | Great Works Dam                  |
|  |        | 6684                | Days Mill              | Days Mill Dam                    |
| Union River (sub-  | Active | 2727                | Ellsworth              | Ellsworth Dam                    |
| watershed of Maine   |        | 120,1202            |                        | Graham Lake Dam                  |
| Coastal HU8)   |        | 7189                | Green Lake             | Green Lake Dam                   |

# Appendix B

Maine river basin watersheds containing hydropower projects licensed under the Federal Power Act



















# Appendix C

Maine river basin watersheds containing hydropower projects Exempt from licensing under the Federal Power Act

