

Federal Energy Regulatory Commission
Washington, DC 20426
October 19, 2017

OFFICE OF ENERGY PROJECTS

Project No. 2808-017–Maine
Barker’s Mill Hydroelectric Project
KEI (Maine) Power Management (III)
LLC

Subject: Scoping Document 2 for Barker’s Mill Hydroelectric Project, P-2808.

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the license application filed on January 30, 2017 by KEI (Maine) Power Management (III) LLC (or KEI (Maine)), for relicensing the Barker’s Mill (also known as Lower Barker Mill) Hydroelectric Project (FERC No. 2808). The Barker’s Mill Hydroelectric Project (Barker’s Mill Project or project) is located on the Little Androscoggin River in the City of Auburn, Androscoggin County, Maine. The project does not occupy lands of the United States.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an Environmental Assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue a new license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced.

Our preliminary review of the environmental issues to be addressed in our EA was contained in Scoping Document 1 (SD1), which was issued on June 29, 2017. We requested comments on SD1 and held scoping meetings on August 29, 2017 and August 30, 2017 to hear the views of all interested entities on the scope of issues that should be addressed in the EA. We revised SD1 based on both the verbal comments we received at the scoping meetings and written comments we received throughout the scoping process. The enclosed Scoping Document 2 (SD2) describes the proposed action and alternatives, the environmental analysis process we will follow to prepare the EA, and a revised list of issues to be addressed in the EA.

We appreciate the participation of governmental agencies, non-governmental organizations, and the general public in the scoping process. Key changes from SD1 to

SD2 are identified in ***bold, italicized type***. SD2 is being distributed to all entities on the Commission's mailing list for this project. SD2 can also be accessed online at: <https://www.ferc.gov/docs-filing/elibrary.asp>.

The enclosed SD2 supersedes the June 29, 2017, SD1. SD2 is issued for informational use by all interested parties; no response is required. Please direct any questions about the scoping process to Karen Sughrue at (202) 502-8556 or karen.sughrue@ferc.gov. Additional information about the Commission's licensing process and the Barker's Mill Project may be obtained from our website, <http://www.ferc.gov>.

Enclosure: Scoping Document 2

SCOPING DOCUMENT 2
BARKER'S MILL HYDROELECTRIC PROJECT

MAINE

PROJECT NO. 2808-017

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, DC

October 2017

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SCOPING DOCUMENT 2

Barker's Mill Hydroelectric Project, No. 2808

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),¹ may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On January 30, 2017, KEI (Maine) Power Management (III) LLC (or KEI (Maine)), filed an application for a subsequent license for the Barker's Mill (also known as Lower Barker Mill) Hydroelectric Project (FERC Project No. 2808-017).²

The Barker's Mill Hydroelectric Project (Barker's Mill Project or project) is located on the Little Androscoggin River in the City of Auburn, Androscoggin County, Maine (Figure 1). The Barker's Mill Dam is approximately 3,300 feet downstream from the Barker Mill Upper Dam (also known as Upper Barker Mill) (FERC Project No. 3562) and the project is approximately 2,000 feet upstream of the confluence of the main stem of the Androscoggin River. The project does not occupy lands of the United States.

The Barker's Mill Project is operated in a run-of-river mode. The project has a total installed capacity of 1.5 megawatts (MW). The average annual energy production during the period from 2007 to 2016 was 5,087 megawatt-hours (MWh). A detailed description of the project is provided in section 3.0.

The National Environmental Policy Act (NEPA) of 1969,³ the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Barker's Mill Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. At this time, we intend to prepare an environmental assessment (EA) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The EA preparation will be supported by a scoping process to ensure identification and analysis of all pertinent issues. Although our current

¹16 U.S.C. § 791(a)-825(r) (2012).

² The current license for the Barker's Mill Hydroelectric Project was issued with an effective date of February 23, 1979, for a term of 40 years and expires on January 31, 2019.

³ National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2006).



Figure 1. Location of the Barker’s Mill (also known as Lower Barker Mill) Hydroelectric Project (Source: License application).

intent is to prepare a draft and final environmental assessment (EA), there is a possibility that an Environmental Impact Statement (EIS) will be required. Nevertheless, this process will satisfy the NEPA scoping requirements, irrespective of whether an EA or EIS is issued by the Commission.

2.0 SCOPING

This Scoping Document 2 (SD2) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues; (4) a request for comments and information; (5) a proposed EA outline; and (6) a preliminary list of comprehensive plans which are applicable to the project.

2.1 PURPOSES OF SCOPING

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. In general, scoping should be conducted during the early planning stages of a project. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW

Commission staff issued SD1 on June 29, 2017. On August 29, 2017, staff conducted an environmental site review and an evening scoping meeting in Auburn, Maine. On August 30, 2017, staff conducted a morning scoping meeting in Auburn, Maine. Public notice of the meetings and environmental site review was published in the Federal Register and in the Sun Journal. A court reporter recorded and transcribed both of the scoping meetings.

The following individuals provided verbal comments at the scoping meetings:

<u>Speaker</u>	<u>Organization</u>
<i>Eric Cousens</i>	<i>City of Auburn</i>
<i>Jonathan LaBonté</i>	<i>City of Auburn</i>
<i>Robert Nasdor</i>	<i>American Whitewater</i>

In addition to the verbal comments received during the scoping meetings, written comments were received from the following entities:

<u>COMMENTING ENTITY</u>	<u>FILING DATE</u>
<i>American Whitewater</i>	<i>September 13, 2017</i>
<i>Atlantic Salmon Federation, Maine Rivers, Natural Resources Council of Maine, and Trout Unlimited (Environmental Groups)</i>	<i>September 29, 2017</i>
<i>City of Auburn</i>	<i>September 29, 2017</i>
<i>National Marine Fisheries Service</i>	<i>September 27, 2017</i>
<i>U.S. Fish and Wildlife Service</i>	<i>September 28, 2017</i>

On October 2, 2017, the Maine Department of Marine Resources (Maine DMR) filed eight plans to be considered in SD2 as comprehensive plans.

Key changes from SD1 are identified in bold, italic type.

2.2.1 Issues Raised During Scoping

General Comments

The issues raised by participants in the scoping process are summarized and addressed below. We have not included every verbal and written comment made

during the scoping process. For instance, we do not address comments that are recommendations for license conditions, including PM&E measures such as installation of a stream gage for real time flow information and contributions for funding water access or trail maintenance expenses. Such recommendations will be evaluated in the EA or any license order that is issued for this project. We also do not address comments that are not related to new scoping issues (e.g., whether the Form 80 data are sufficient for a recreational analysis) or that fall within the scope of issues already identified in SD1 (e.g., effects on aquatics, recreation, and cultural resources). However, several issues were raised that were not specified in SD1, and we have modified SD2 accordingly. In cases where we do not agree with the requested modification, we explain why below.

Project Decommissioning

Comment: *The U.S. Fish and Wildlife Service and the City of Auburn request that the Commission consider decommissioning as an alternative to the proposed action, while American Whitewater, Environmental Groups, and the National Marine Fisheries Service recommend that decommissioning and dam removal be examined in the EA. Common concerns among commenters are project effects to recreational and aquatic resources (particularly upstream passage for Atlantic salmon and other diadromous fish species), and whether the project is economically feasible.*

Response: *In determining whether the EA requires a detailed analysis of project decommissioning, we consider a variety of factors including the beneficial or adverse effects of licensing the project on a number of resources or interests and whether or not any adverse effects on the environmental resources can be adequately mitigated through licensing. Specific factors we consider include: (1) the effect of the project on federally listed threatened or endangered (T&E) species; (2) the economic viability of the project; (3) whether the subject river is targeted for fish recovery; (4) the feasibility of fish passage; (5) consistency with comprehensive plans; (6) protected river status (e.g., wild and scenic); (7) the effectiveness of past mitigation measures and availability of future measures; (8) support by the applicant or other parties for project decommissioning; (9) Tribal land interests; (10) water quality issues; (11) opportunities for recreation (12) the physical condition of the project; (13) the presence of existing project-dependent development (e.g., houses abutting the impoundment); (14) other non-power project-related benefits (e.g., municipal water supply); (15) project-dependent resource values (e.g., wetlands); (16) the need for project power; and (17) historic properties.*

We considered the resources or interests that correspond to the above factors for the Barker's Mill Project and conclude that the project, if licensed, could have

unavoidable adverse effects on diadromous fish, including the federally listed Atlantic salmon. Restoration is a goal of existing management plans for the Androscoggin River basin and several agencies and non-governmental organizations support project decommissioning for the purpose of assisting diadromous fish restoration to areas upstream of the existing project dam and reservoir. In addition, any mandatory conditions for fish passage could render the project uneconomic if licensed.

Based on the factors above, project decommissioning with dam removal is one possible outcome of the relicensing process; therefore, at this time, we intend to include a detailed analysis of project decommissioning with dam removal in the EA and have revised SD2 accordingly.

Licensing Process

***Comment:** The City of Auburn recommends that relicensing of the Barker Mill Upper Project (FERC Project No. 3562) and the Barker's Mill Project be considered concurrently because the relicensing effort for Barker Mill Upper Project will begin in a few years and may have similar resources issues (e.g., recreation, aesthetics and fisheries).*

American Whitewater also expresses concern that the Barker's Mill project is being looked at in isolation from other nearby upstream dams.

***Response:** The timing of the license expiration dictates how the Commission processes license applications. Pursuant to the Commission's regulations (18 C.F.R. § 16.2 (b)), the application for a new license for the Barker's Mill project had to be filed by January 31, 2017 (24 months before the expiration of the existing license). For the Barker Mill Upper Dam, the application for a new license must be filed by July 31, 2021 and the earliest that the licensee can file the Notice of Intent to File an Application is January 31, 2018 (at least five years, but no more than five and one-half years before the existing license expires) (§ 16.6 (c)).*

Comprehensive Plans

***Comment:** Maine DMR identifies several comprehensive plans it considers relevant to the Barker's Mill Project that are not listed in SD1 and should be considered by Commission staff.*

The City of Auburn also comments that the Commission should consider some of the City's plans, including the updated master plan, in our analysis of project effects.

Response: The Commission is reviewing the plans filed by the Maine DMR for consideration as comprehensive plans, after confirming with Maine DMR that it wanted these plans to be considered as a comprehensive plan under section 10(a)(2)(A) of the FPA. If we determine that a document does not qualify as a comprehensive plan under section 10(a)(2)(A) of the FPA, we will consider any relevant plans (e.g., City of Auburn’s updated master plan) in the public interest analysis pursuant to section 10(a)(1) of the FPA.

Cumulative Effects

Comment: American Whitewater states: “as the first of eight dams on the Little Androscoggin, relicensing provides a once in a generation opportunity to begin restoring the river to a more natural condition. FERC should examine the cumulative impacts of the upstream hydroelectric projects on recreation, including the availability of upstream impoundments to provide recreational releases in the project area”.

Response: We have not included recreation as cumulatively affected resource for analysis in the EA because the project operates in a run-of-river mode and has no control over upstream flow releases, which seems to be the focus of American Whitewater’s comment. As we said, we will look at the effects of dam removal and continued operation on recreation including fishing and boating opportunities, but the effects of these actions would be limited to the Barker’s Mill reservoir and bypassed reach and would have no measureable benefit or relationship to upstream project operations.

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Barker’s Mill Project would continue to operate as required by the current project license (i.e., there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.1.1 Existing Project Facilities

The Barker's Mill Project consists of the following existing facilities: 1) a 232-foot-long, 30-foot-high concrete dam with a 125-foot-long spillway section with flashboards, a 46-foot-long non-overflow section with two waste gates along the left buttress, and a 61-foot-long non-overflow section with seven stop-logs adjacent to the intake canal; 2) a 16.5-acre reservoir with a storage capacity of 150-acre-feet; 3) a 60-foot-long, 20-foot-wide, 9 foot, 7 inch-deep intake canal on the right bank with seven stop-logs *near the intake to the power canal, which serves as the downstream fish passage*; 4) a 35-foot-long, 20-foot-wide gatehouse containing a single gate fitted with trash racks; 5) a buried 650-foot-long, 10 foot, 2 inch-wide, 7 foot, 2 inch-high concrete penstock; 6) a 50-foot-long, 25-foot-wide concrete partially buried powerhouse containing a single semi-Kaplan-type turbine/generating unit with a rated capacity of 1.5 MW; 7) a tailrace; 8) a 250-foot-long, 4.2 kilovolt underground power line; (9) a substation; and 10) appurtenant facilities.

KEI allows public use of project land and waters for informal recreation, but does not maintain developed recreational facilities or access.

3.1.2 Existing Project Operation

The project operates as a run-of-river facility and bypasses about 0.57 miles of the Little Androscoggin River. When generating, water is conveyed through the project penstock and into the project powerhouse where it then re-enters the Little Androscoggin River through the project tailrace. A continuous minimum flow of 20 cubic feet per second (cfs) is conveyed to the 0.57-mile-long bypass reach throughout the year to maintain aquatic habitat. From June 1 through November 15, KEI (Maine) releases the minimum flow from the stoplog section of the dam, which also provides downstream fish passage. During the remainder of the year, KEI (Maine) releases the minimum flow from one of the fixed gates on the dam. Inflows less than 170 cfs and greater than 520 cfs are passed at the dam. Because the project is run-of-river, there is minimal available storage behind the dam.

Turbine operation is automated and can be adjusted or shut down remotely, but startup must be done on-site. Plant operators visit the site daily.

3.2 APPLICANT'S PROPOSAL

3.2.1 Proposed Project Facilities and Operations

In addition to the facilities listed above, KEI (Maine) proposes to replace the existing turbine/generator unit with a new single semi-Kaplan-type turbine/generator unit

with the same generating and hydraulic capacity as the existing unit. KEI (Maine) anticipates that the replacement turbine will increase overall efficiency that would allow energy production to increase by 33 percent under similar operating conditions.⁴

KEI (Maine) proposes to upgrade the existing downstream fishway to reduce entrainment potential for outmigrating diadromous fish species. Currently, KEI (Maine) provides downstream fish passage from June 1 through November 15 by releasing flows from the stoplog gate near the intake to the power canal. Water and fish exiting the gate, discharge into a plunge pool, cascade down a small set of bedrock falls, and enter the bypassed reach immediately downstream of the dam. KEI (Maine) proposes to modify the existing fishway by installing a new angled bar rack system with 1-inch spacing located upstream of the existing concrete power canal and enhancing attraction flow characteristics at the stoplog gate entrance to better direct fish away from the intake and into the existing fishway. Other modifications include installing a new concrete wall to permit a minimum 4-foot water depth within the plunge pool area and installing a new elevated operator deck to allow for cleaning of the angled bar rack system.

KEI (Maine) also proposes to increase the minimum flow released to the bypassed reach from 20 cfs to 113 cfs⁵ or inflow, whichever is less, throughout the year. KEI (Maine) intends to pass some of the minimum flow through the modified fishway when operating the fishway from June 1 through November 15. At other times during the year, KEI (Maine) would pass the minimum flow through either the existing stop-log gates, deep bay gates, or by passing the flow over the dam.

3.2.2 Proposed Environmental Measures

KEI (Maine) proposes the following environmental measures:

Aquatic Resources

- Continue to operate the project in run-of-river mode.
- Continue to operate and maintain a Supervisory Control and Data

⁴ See KEI (Maine)'s June 26, 2017, response to FERC's Request for Additional Information.

⁵ In its license application, KEI (Maine) initially proposed to increase the minimum flow from 20 cfs to 50 cfs. However, KEI (Maine) revised their proposal to increase the minimum flow to 113 cfs in its June 26, 2017, response to FERC's Request for Additional Information.

Acquisition (SCADA) system in the project impoundment to monitor compliance with run-of-river operations and minimize reservoir fluctuations.

- Increase minimum flows released at the dam from 20 cfs to 113 cfs or inflow, whichever is less, to protect fisheries and aquatic habitat in the bypassed reach.
- Operate a modified fishway at the dam from June 1 through November 15 to provide downstream fish passage during the outmigration period for juvenile herring and adult American eel;

Recreation and Aesthetic Resources

- Provide signage, parking, a hand-carry boat launch, and foot access to the project bypass reach.

Cultural Resources

- Continue to manage historic properties within the Area of Potential Effect, including properties eligible for listing on the National Register of Historic Properties.
- Address tribal resources, if discovered, on a case-by-case basis.

3.3 DAM SAFETY

It is important to note that dam safety constraints may exist and should be taken into consideration in the development of proposals and alternatives considered in the pending proceeding. For example, proposed modifications to the dam structure, such as the addition of flashboards or fish passage facilities, could impact the integrity of the dam structure. As the proposal and alternatives are developed, the applicant must evaluate the effects and ensure that the project would meet the Commission's dam safety criteria found in Part 12 of the Commission's regulations and the Engineering Guidelines (<http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide.asp>).

3.4 LICENSING ALTERNATIVES TO THE PROPOSED ACTION

Commission staff will consider and assess all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement measures identified by us, the agencies, Indian tribes, NGOs, and the public.

3.5 DECOMMISSIONING WITH DAM REMOVAL

Decommissioning of the project would require denying the relicense application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the region and with decommissioning, the project would no longer be authorized to generate power and provide these benefits.

Several entities have suggested or advocated for project decommissioning for various reasons, including because the project may have an effect on federally listed Atlantic salmon and that the continued operation of the project may affect diadromous fish restoration goals within the Androscoggin River basin. For the reasons stated above in section 2.2.1, project decommissioning with dam removal is one possible outcome of the relicensing process; therefore, we intend to analyze the effects of decommissioning with dam removal in the EA.

4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES

4.1 CUMULATIVE EFFECTS

According to the Council on Environmental Quality's regulations for implementing NEPA (40 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

4.1.1 Resources That Could Be Cumulatively Affected

Based on our review of the license application and preliminary staff analysis, we have identified diadromous fisheries⁶ as a resource that may be cumulatively affected by the proposed operation and maintenance of the Barker's Mill Project in combination with other hydroelectric projects occurring in the basin.

⁶ Diadromous fisheries include species that spend portions of their life cycles in both fresh and saltwater.

4.1.2 Geographic Scope

Our geographic scope of analysis for cumulatively affected resources is defined by the physical limits or boundaries of: (1) the proposed action's effect on the resources, and (2) contributing effects from other hydropower and non-hydropower activities within the basin.

We have identified the geographic scope for our cumulative effects analysis for fisheries resources to include the Little Androscoggin River from the Marcal Hydroelectric Project (FERC No. 11482) located at River Mile (RM) 14.8 downstream to the confluence with the mainstem Androscoggin River and the mainstem Androscoggin River from the confluence at RM 21.2 downstream to the Brunswick Hydroelectric Project (FERC No. 2284) at RM 0.2.⁷ We chose this geographic scope because the operation and maintenance of the Barker's Mill Project, in combination with other hydroelectric dams located both upstream and downstream of the project may influence fish movements and affect habitat availability and accessibility within this approximate 36-mile reach.⁸

4.1.3 Temporal Scope

The temporal scope of our cumulative effects analysis in the EA will include a discussion of past, present, and future actions and their effects on each resource that could be cumulatively affected. Based on the potential term of a new license, the temporal scope will look 30-50 years into the future, concentrating on the effect to the resources from reasonably foreseeable future actions. The historical discussion will, by necessity, be limited to the amount of available information for each resource. The

⁷ Barker's Mill Dam is approximately located at RM 0.25 on the Little Androscoggin River.

⁸ Within this reach on the mainstem Androscoggin River, upstream and downstream fishways are currently operated at the Brunswick (FERC No. 2284), Pejepscot (FERC No. 4784), and Worumbo (FERC No. 3428) hydroelectric projects. In addition, Maine Department of Marine Resources traps and trucks fish at the Brunswick project and currently stocks several lakes and ponds off the Little Androscoggin River upstream of the Marcal Hydroelectric Project (FERC No. 11482). Thus, we limited the geographic scope to the 36-mile stretch starting from the Marcal Project on the Little Androscoggin River (located approximately 14 river miles upstream of the Barker's Mill Project) downstream to the Brunswick Project on the mainstem Androscoggin River (located approximately 21 miles downstream of the Barker's Mill Project).

quality and quantity of information, however, diminishes as we analyze resources further away in time from the present.

4.2 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We have identified these issues, which are listed by resource area, by reviewing the license application and the Commission's record for the Barker's Mill Project. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. After the scoping process is complete, we will review this list and determine the appropriate level of analysis needed to address each issue in the EA. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects.

4.2.1 Geological and Soil Resources

- *Effects of dam removal on geology and soils within the project area.*

4.2.2 Aquatic Resources

- Effects of continued project operation and maintenance *and dam removal* on dissolved oxygen and water temperature in the bypassed reach and downstream of the project tailrace.
- Effects of continued project operation and maintenance *and dam removal* on streamflows, aquatic habitat, and fish resources* in the bypassed reach and downstream of the project tailrace.
- Effects of continued project operation and maintenance *and dam removal* on upstream and downstream movements of resident and migratory fish in the Little Androscoggin River.*
- Effects of continued project operation and maintenance on fish entrainment and corresponding injury and mortality.*

4.2.3 Terrestrial Resources

- Effects of continued project operation and maintenance *and dam removal* on riparian, littoral, and wetland habitats and associated wildlife.

- Potential introduction and spread of invasive plant species during planned *project* maintenance or facility upgrade activities **and during dam removal**.

4.2.4 Threatened and Endangered Species

- Effects of continued operation and maintenance **and dam removal** on federally listed and proposed endangered, threatened, and candidate species that may occur in the project area including: Atlantic salmon (*Salmo salar*), small whorled pogonia (*Isotria medeoloides*) and northern long-eared bat (*Myotis septentrionalis*).

4.2.5 Recreation and Aesthetic Resources

- Effects of **continued project operation and maintenance and dam removal** on day-use facilities, **the Barker's Mill Trail**, and other recreational and aesthetic resources in the project area, including flow-related effects **on fishing and boating**, public access to the bypassed reach for fishing and boating, **and effects on view corridors**.

4.2.6 Cultural Resources

- Effects of continued project operation and maintenance **and dam removal** on cultural resources and historic properties, including Barker's Mill Dam and other potential properties eligible for inclusion in the National Register of Historic Places.

4.2.7 Socioeconomic Resources

- **Effects of continued project operation and maintenance and dam removal on socioeconomic resources within the adjacent New Auburn community.**

4.2.8 Developmental Resources

- Effects of proposed environmental measures and associated costs on energy generation and the cost of project power.
- **Effects of dam removal and associated costs on energy generation and the cost of project power.**

5.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a draft and final EA. The draft EA will be sent to all persons and entities on the Commission's service and mailing lists for the Barker's Mill Project. The EA will include our recommendations for operating procedures, as well as environmental protection and enhancement measures that should be part of any new license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission. All comments on the draft EA filed with the Commission will be considered in preparation of the Final EA.

The major milestones, including those for preparing the EA, are as follows:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	August 2017
Scoping Document 2 Issued	October 2017
Ready for Environmental Analysis Notice Issued	November 2017
Deadline for Filing Comments, Recommendations and Agency Terms and Conditions/Prescriptions	January 2018
Draft EA Issued	June 2018
Comments on Draft EA due	July 2018
Final EA Issued	October 2018

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for KEI (Maine) to respond to the Commission's request.

6.0 PROPOSED EA OUTLINE

The preliminary outline for the Barker's Mill Project EA is as follows:

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 - 2.2.1 Proposed Project Facilities
 - 2.2.2 Proposed Project Operation
 - 2.2.3 Proposed Environmental Measures
 - 2.2.4 Modifications to Applicant's Proposal—Mandatory Conditions
 - 2.3 Staff Alternative
 - 2.4 Staff Alternative with Mandatory Conditions
 - 2.5 *Decommissioning with Dam Removal***
 - 2.6 Other Alternatives (as appropriate)
- 3.0 ENVIRONMENTAL ANALYSIS
 - 3.1 General Description of the River Basin
 - 3.2 Scope of Cumulative Effects Analysis
 - 3.2.1 Geographic Scope
 - 3.2.2 Temporal Scope
 - 3.3 Proposed Action and Action Alternatives
 - 3.3.1 Aquatic Resources
 - 3.3.2 Terrestrial Resources
 - 3.3.3 Threatened and Endangered Species
 - 3.3.4 Recreation and Aesthetic Resources

- 3.3.5 Cultural Resources
- 3.3.6 *Socioeconomic Resources*
- 3.4 *Decommissioning with Dam Removal*
 - 3.4.1 *Geological and Soil Resources*
 - 3.4.2 *Aquatic Resources*
 - 3.4.3 *Terrestrial Resources*
 - 3.4.4 *Threatened and Endangered Species*
 - 3.4.5 *Recreation and Aesthetic Resources*
 - 3.4.6 *Cultural Resources*
 - 3.4.7 *Socioeconomic Resources*
- 3.5 No-action Alternative
- 4.0 DEVELOPMENTAL ANALYSIS
 - 4.1 Power and Economic Benefits of the Project
 - 4.2 Comparison of Alternatives
 - 4.3 Cost of Environmental Measures
 - 4.4 *Cost of Dam Removal*
- 5.0 CONCLUSIONS AND RECOMMENDATIONS
 - 5.1 Comparison of Alternatives
 - 5.2 Comprehensive Development and Recommended Alternative
 - 5.3 Unavoidable Adverse Effects
 - 5.4 Recommendations of Fish and Wildlife Agencies
 - 5.5 Consistency with Comprehensive Plans
- 6.0 FINDING OF NO SIGNIFICANT IMPACT (OR OF SIGNIFICANT IMPACT)
- 7.0 LITERATURE CITED
- 8.0 LIST OF PREPARERS

APPENDIX

A--Response to Comments on the Draft EA

7.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The staff has preliminary identified and reviewed the plans listed below that may be relevant to the Barker's Mill Project. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR section 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at

<http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf>.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Barker's Mill Project:

Atlantic States Marine Fisheries Commission. Interstate fishery management plan for Atlantic striped bass. (Report No. 24). March 1995.

Atlantic States Marine Fisheries Commission. Amendment 1 to the Interstate Fishery Management Plan for Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). (Report No. 31). July 1998.

Atlantic States Marine Fisheries Commission. Interstate fishery management plan for Atlantic striped bass. (Report No. 34). January 1998.

Atlantic States Marine Fisheries Commission. Amendment 1 to the Interstate Fishery Management Plan for shad and river herring. (Report No. 35). April 1999.

Atlantic States Marine Fisheries Commission. Technical Addendum 1 to Amendment 1 of the Interstate Fishery Management Plan for shad and river herring. February 9, 2000.

Atlantic States Marine Fisheries Commission. Amendment 2 to the Interstate Fishery Management Plan for shad and river herring, Arlington, Virginia. May 2009.

Atlantic States Marine Fisheries Commission. Amendment 3 to the Interstate Fishery Management Plan for shad and river herring, Arlington, Virginia. February 2010.

Atlantic States Marine Fisheries Commission. Interstate Fishery Management Plan for American eel (*Anguilla rostrata*). (Report No. 36). April 2000.

Maine Atlantic Sea-Run Salmon Commission. Strategic plan for management of Atlantic salmon in the State of Maine. Augusta, Maine. July 1984.

Maine Department of Agriculture, Conservation, & Forestry. Maine State Comprehensive Outdoor Recreation Plan (SCORP): 2014-2019. Augusta, Maine. July 2015.

Maine Department of Conservation. Maine Rivers Study-final report. Augusta, Maine. May 1982.

Maine State Planning Office. Maine Comprehensive Rivers Management Plan.

Augusta, Maine. May 1987.

Maine State Planning Office. Maine Comprehensive Rivers Management Plan. Volume 4. Augusta, Maine. December 1992.

National Marine Fisheries Service. Final Amendment #11 to the Northeast Multi-species Fishery Management Plan; Amendment #9 to the Atlantic sea scallop Fishery Management Plan; Amendment #1 to the monkfish Fishery Management Plan; Amendment #1 to the Atlantic salmon Fishery Management Plan; and Components of the Proposed Atlantic herring Fishery Management Plan for Essential Fish Habitat. Volume 1. October 7, 1998.

National Marine Fisheries Service. Final Recovery Plan for the Shortnose Sturgeon (*Acipenser brevirostrum*). Prepared by the Shortnose Sturgeon Recovery Team for the National Marine Fisheries Service, Silver Spring, Maryland. December 1998.

National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.

U.S. Fish and Wildlife Service. Atlantic salmon restoration in New England: Final environmental impact statement 1989-2021. Department of the Interior, Newton Corner, Massachusetts. May 1989.

U.S. Fish and Wildlife Service. Canadian Wildlife Service. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

8.0 MAILING LIST

The list below is the Commission's official mailing list for the Barker's Mill Project (FERC No. 2808). If you want to receive future mailings for the Barker's Mill Project from the Commission and are not included in the list below, please send your request by email to FERCOnlineSupport@ferc.gov or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the Commission's mailing list must clearly identify the following on the first page: Barker's Mill Project No. 2808-017. You may use the same method if requesting removal from the mailing list below.

Register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll

free at 1-866-208-3676, or for TTY, (202) 502-8659.

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