

May 21, 2021

UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

KENNEBUNK LIGHT AND POWER DISTRICT

Project No. P-5362-021

MOTION OF TROUT UNLIMITED SEBAGO CHAPTER (#328) TO INTERVENE AND SUBMIT COMMENTS ON BEHALF OF ITS MEMBERS IN THE KENNEBUNK LIGHT AND POWER DISTRICT LICENSE SURRENDER PROCEEDING, P- 5362-021

Pursuant to 18 C.F.R. 385.214(d) of the Rules of the Federal Energy Regulatory Commission (“FERC”), and the Commission’s Notice of April 21, 2021<sup>1</sup>, in the above captioned docket, Trout Unlimited Sebago Chapter #328 (hereinafter “Sebago TU”) moves to intervene in the above captioned proceeding. In addition, the Intervenor submits its views on the proposed surrender.

INTRODUCTION

On March 29, 2017, the Kennebunk Light and Power District (“KLPD”), the existing licensee for the Lower Mousam Project, filed notice of its intent not to file an application for a subsequent license. Subsequently, KLPD filed an application to surrender in place the license for the Project which the Commission noticed for intervention and comment

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<sup>1</sup> Accession No. 2110421-3190, April 21, 2021.

on April 21, 2021. Sebago TU, for the reasons set forth below, is vitally interested in the outcome of this proceeding and requests approval of this Motion for Intervention in the surrender proceedings.

## 1. MOTION TO INTERVENE

In accordance with the Notice and the Commission's Rules of Practice and Procedure, 18 CFR 385.210, 211 and 214, The Sebago Chapter of Trout Unlimited (#328) hereby moves to intervene in the above captioned proceeding and to comment on the Proposed Surrender Application of the Kennebunk Light and Power District ("KLPD"). Sebago TU has a vital interest in the proceeding and the participation of Sebago TU in the proceeding will be in the public interest. Specifically:

A. Trout Unlimited Sebago Chapter #328 is a Michigan Nonprofit Corporation, which is qualified under 501(c)(3) of the Internal Revenue Code, and whose mission is to conserve, protect and restore cold water fisheries and their watersheds. Sebago TU is the largest Trout Unlimited Chapter in Maine with over 700 members, with a geographic area encompassing southern Maine from Yarmouth to Eliot and west to the New Hampshire border.

Members of Sebago TU reside primarily in southern Maine and many live within the area affected by the Mousam Project. Those members have a direct interest in the outcome of this proceeding because many of them use the Mousam River for fishing, boating, bird watching and other recreational purposes. These members share the hope for a recovered Mousam River free of the dams at issue in this proceeding and the restoration of traditional runs of salmon, sea-run brook trout, shad, and alewives.

Sebago TU has long been active in efforts to restore native fish populations across the State and has participated in numerous proceedings involving dams and hydropower regulation, including Edes Falls in Naples, on-going restoration projects on the Crooked River and the upcoming proceedings involving dam removal from the Royal River in Yarmouth. Participation as a party in the Lower Mousam Project proceeding would be consistent with its activities in Maine and its mission.

## 2. THE PROJECT

A. The lower Mousam Project consists of three dams:

(I) Kesslen, the first dam on the Mousam River, is located within the Town of Kennebunk, has a height of 15 feet including flashboards and creates an impoundment with a surface area of approximately 25 acres which extends approximately three miles upstream. The turbine and generator have been idle for at least two years. While the presence of substantial numbers of shad and alewives immediately below Kesslen dam during the migration season is well documented,<sup>2</sup> they are unable to pass the dam because there is no fishway. Because it is the first dam on the Mousam, Kesslen and the two other Project dams deny migratory fish access to more than nine miles of productive habitat. Day Brook, the outlet of Kennebunk Plains Pond, a State Heritage Fish Water, and a stream documented to support wild brook trout, enters the Mousam River approximately ¼ mile upstream of Kesslen Dam.

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<sup>2</sup> See the comment of David Doubleday. FERC Document Accession # 20210507-5065, filed May 7, 2021, who states: “Because of the dams, fish and other water dependent life forms are unable to migrate. It is very disturbing to annually see masses of shad, herring, eels, and other fish trapped at the base of the first dam. There are three dams; none serve a useful purpose. They prevent fish migration, they limit human recreational uses, and they contribute to flooding.”

(II) The Twine Mill Dam is located approximately 3.3 miles upstream of Kessler. The original dam, consisting of a wood-crib spillway with concrete base and abutment, was breached around 1960, and reconstructed by KLPD in 1980-81 as a concrete gravity dam with a crest-type spillway. The dam does not currently generate electricity. There is no fishway.

(III) The Dane Perkins dam is located approximately 0.5 miles upstream of the Twine Mill dam. The original dam, consisting of a wood-crib spillway with concrete base and abutment was breached in 1977 and was reconstructed by KLPD with a concrete spillway in 1980-81. The dam does not currently generate electricity. There is no fishway.

Coldwater Brook, the outlet of Coldwater Pond, a State Heritage Fish Water, and a stream documented to support wild brook trout, enters the Mousam River approximately three miles upstream of the Dane Perkins Dam.

### 3. STATEMENT OF THE POSITION OF SEBAGO TU

Sebago TU opposes KLPD's proposal to surrender the Lower Mousam Project in place and instead submits that the public interest overwhelmingly favors the removal of all three of the Project dams. Removal of these dams would permit the lower half of Mousam River to revert to the free-flowing waterway that existed for millennia prior to the construction of these dams that prevent fish passage and that have significantly degraded water quality. Conditioning approval of the surrender application on removal would be consistent with the spirit, if not the letter of 16 USC 803(a)(1) which authorizes the Commission to impose conditions "for the adequate protection, mitigation, and

enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses ...”

Further, 16 U.S.C. §797(e) requires that the Commission must “give equal consideration to ... the protection, mitigation of damage to, and enhancement of, fish, wildlife ... preservation of other aspects of environmental quality, and must impose conditions based upon recommendations of relevant, federal agencies and affected states, to ‘protect, mitigate damages to, and enhance, fish and wildlife ... affected by the development, operation, and management of the project. American Rivers, Inc. v. F.E.R.C., 129 F.3d 99 (2<sup>nd</sup> Cir. 1997). The Maine State Agencies, The Department of Environmental Protection, Department of Inland Fisheries and Wildlife and the Department of Marine Resources, have all expressed serious concerns about the proposed application to surrender in place by KLPD. Likewise, the National Oceanographic and Atmospheric Administration expressed reservations about any proposed or considered fish passage within the application presented by KLPD.

Leaving the dams in place, as the KLPD draft plan proposes, would serve no beneficial public use. In fact, the ongoing and persistent violations of Maine’s water quality standards, resulting from low dissolved oxygen and poor biological conditions that exist in the dam impoundments, are, as a matter of law, contrary to the public interest. Indeed, KLPD’s obligation to apply for a Water Quality Certificate which, if denied as seems likely, will require the Commission to deny the application or condition approval on removal of the dams. This action would also address the fact that the dams, per se, are the

reason that the lower Mousam is included on Maine's list of non-attainment waters compiled in accordance with the Federal Clean Water Act.<sup>3</sup>

Removal of the dams as a condition of surrender would restore water quality, once again permit full passage for anadromous and catadromous fish throughout a nine mile stretch of the river above Kesslen Dam, enhance the assimilative ability of the river relative to sewage treatment discharges by the Town of Kennebunk below the Kesslen Dam, eliminate the adverse effects on aquatic life caused by the three impoundments, eliminate future public safety and maintenance concerns, and enhance recreational opportunities as both native, diadromous and resident fish species take advantage of a natural riverine environment. Native Brook Trout living in the upper reaches of the Mousam watershed and in tributaries to the impoundments behind the Kesslen and Dane Perkins dams would again be able to make use of the main stem of the river for refuge and potential spawning, activities that are prevented by the overheated, poor quality waters of the impoundments and to migrate between productive tributary streams and the Mousam River estuary.

KLPD's claim that decommissioning would have no environmental effects<sup>4</sup> consists of little more than a history of the Mousam's degradation over centuries. Rather than attempting to remediate that degradation, KLPD seeks to make the degraded conditions permanent. Moreover, this statement ignores the potential for flooding from the Kesslen dam particularly considering past events which are described in detail in these comments. There is no discussion of evidence regarding the impact of ongoing climate change.

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<sup>3</sup> 33 USCA section 1315(b).

<sup>4</sup> KLPD Surrender Application at 9.

The case for removal is buttressed by the fact that KLPD has for many years had the financial benefit—without paying rent or any other offsetting charge—of the use of the river for the generation of electricity that is sold to customers in the District’s service area. The river is a public asset that KLPD has used without charge. It now proposes to remove generation equipment, leaving the dams in place and the river degraded, with only a vague commitment regarding future operational oversight and maintenance. The public interest demands otherwise. To permit a user of a public resource simply to walk away from their responsibilities to comply with water quality standards, flood control and remediation and acknowledging the benefit conferred upon the user for nearly forty years is a terrible precedent to set.

Sebago TU emphasizes that removal of the dams would not cause hardship to KLPD. As a tax-exempt entity, regulated by the MPUC, KLPD is not permitted to earn a profit on the sale of purchased energy, but it is not foreclosed from realizing profit on delivery and similar charges. Indeed, for the fiscal year ended December 31, 2020, KLPD had unrestricted assets of \$1,881,434 and projected a net gain from operations in 2021 of \$255,973. KLPD, having benefitted from free use of the River in past years should now, as a condition of surrender, be required to remove the dams, two of which were reconstructed after their acquisition by KLPD.

The sole public benefit cited by KLPD in the application for surrender<sup>5</sup>, is an erroneous claim that the impoundments are used by the Kennebunk Fire Department for firefighting efforts. According to the Chief of the Kennebunk Fire Department, the impoundments

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<sup>5</sup> Application, page 13.

behind the three dams are not currently used as water supply for firefighting operations. Only one dry hydrant exists on all three impoundments.

KLPD also claims that the voters of Kennebunk want the dams to remain in place, citing a 2016 referendum. That referendum has been superseded by the comments that were made in a public hearing conducted by KLPD in April of 2021, in which there was overwhelming support for dam removal.<sup>6</sup>

Susan Bloomfield, a Kennebunk resident, described the public response at that meeting in a communication to the Commission as follows:

At a recent KLPD public meeting on the subject, twenty-six speakers, most of them Kennebunk residents, similarly advocated for removing the dams to allow the river to run naturally. Representatives from the Maine Department of Marine Resources, the Sebago (Me) Chapter of Trout Unlimited, the National Marine Fisheries Service, and the US Fish and Wildlife Service spoke either in favor of dam removal or offered technical assistance to KLPD to pursue that possibility.

Ms. Bloomfield concluded by writing: “The removal of these dams will eventually return the Mousam to some semblance of ecological balance without impediments and impoundments. It could become a beautiful river, offering exceptional passive recreational opportunities.”<sup>7</sup>

Finally, removal of the dams and the reversion to a free-flowing river, would have no adverse effect on riparian property owners some of whom would in fact gain substantial land as the impoundments are drawn down. This assertion is confirmed by a letter to the

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<sup>6</sup> See Letter to FERC from Susan Bloomfield, May 10, 2021, Project 5362-021, Accession # 20210510-5059.

<sup>7</sup> Ibid.



KLPD Trustees from Bates College Professor Lynn Lewis dated November 16, 2015, which states that:

I am writing to provide comments on the economic impacts of dams and dam removal on local property values. There is now a fairly extensive body of literature that supports the claim that environmental amenities such as clean, free-flowing rivers provide positive value, including to local property values. Conversely, locations in proximity to environmental disseminates such as dirty rivers, landfills, etc., reduce property values.<sup>8</sup> Professor Lewis concluded that a “free -flowing Mousam River with a robust riparian corridor will be an appealing landscape with increasingly vibrant fish and wild-life populations, all of which can benefit nearby property values.”<sup>9</sup>

Professor Lewis also estimated the impacts of dams on property values on the Kennebec and Penobscot Rivers and found from house sales data that there was a sizeable penalty for living near a dam site which disappeared after the dam was removed. She also cited a study by William Provecher and colleagues who found that “shoreland frontage along small impoundments confers no increase in residential property values compared to frontage along free-flowing streams and that non frontage residential property located in the vicinity of a free-flowing stream is more valuable than similar non frontage property in the vicinity of a small impoundment.”<sup>10</sup>

In sum, there is absolutely no positive public benefit that would flow from KLPD’s proposal to leave standing idle dams that have no function to justify their existence.<sup>11</sup> In these circumstances, the broad public interest standard applied by the Commission in license surrender decisions justifies the requirement that, as a condition of surrender, KLPD remove the three dams that comprise the Lower Mousam Project. See, for

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<sup>8</sup> Original in possession of KLPD.

<sup>9</sup> See Rethinking Hydropower: The Economics and Politics of Privately Owned Hydropower in the United States, Lynne Y. Lewis, Department of Economics, Bates College, <https://doi.org/10.1093/acrefore/9780199389414.013.691>, 17 December 2020.

<sup>10</sup> Ibid.

<sup>11</sup> The impoundments are not a source of water for firefighting.

example, the Order Accepting Surrender re Duke Energy Carolinas, LLC's Dillsboro Project, 120 FERC 61,054, July 19, 2007. Indeed, these dams are the sole reason for the unfortunate classification of the Mousam as a non-attainment river under Maine's Water Quality Standards required under the Federal Clean Water Act.

#### 4. COMMENTS OF SEBAGO TU ON THE SURRENDER IN PLACE APPLICATION

Sebago TU submits that the KLPD surrender in place application is factually inaccurate in many respects, omits many facts necessary to make assertions made truthful, and fails to state any public interest basis for approval by the Commission which must attach significant conditions to approval as stated below.

##### 4(a). A WATER QUALITY CERTIFICATE MUST BE OBTAINED BY KLPD:

Section 401(a)(1) of the Clean Water Act ("CWA") requires that an applicant for a federal license or permit to conduct activities, including, but not limited to , the construction or operation of facilities, which may result in any discharge into navigable waters, shall provide the licensing or permitting agency, a certification from the state in which the discharge originates ...that any such discharge will comply with the applicable provisions of 33 USC 1341(a)(1).

FERC has held that a WQC is required in connection with an application for surrender of a licensed hydroelectric if it may result in a discharge into navigable waters. See Pacific Gas and Electric, 170 FERC 61,232 (2020). Section 401(d) further provides that a WQC and the conditions contained therein become conditions of any authorization issued by FERC.

In other words, an applicant for surrender of a hydro license must file an application with the Maine Department of Environmental Protection (“DEP”) for a WQC if approval of the application may result in a “discharge” into navigable waters. KLPD has given no indication that it intends to file for a WQC, which is normally filed after the Commission determines that the application is ready for environmental analysis.<sup>12</sup> As demonstrated below, a WQC is legally mandated before further action on the surrender application can be taken.

#### 4(b). THE KLPD SURRENDER PROPOSALS CONSTITUTE A DISCHARGE

The definition of what constitutes a discharge was settled by the Supreme Court decision in *S.D. Warren v. Environmental Protection Agency et al*, 547 US \_\_ (2006). The unanimous decision was announced in an opinion by Justice Souter which states, “The issue in this case is whether operating a dam to produce hydroelectricity may result in any discharge into the navigable waters of the United States. If so, a federal license under section 401 of the Clean Water Act requires state certification that water protection laws will not be violated.” In conclusion, Justice Souter wrote that discharge “means any limitation of river flow including, for example, the creation of impoundments or the release of water through turbines.”

According to the surrender application, KLPD plans to take the following actions with respect to the dams which alone and in combination constitute a discharge under the teaching of the Supreme Court in the *SD Warren* decision. To wit:

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<sup>12</sup> The Burnham Creek Hydroelectric Project, 155 FERC 62,085 (2016), is not applicable here because the project was entirely on land owned by the applicant, everything would be left as it was, so that the surrender would not change any flows and the project environment would not change. These circumstances are not present in the KPLD application for surrender.

(I) Kesslen: remove flash boards, disable floodgates, permanently close penstock, disable runners, and remove trash racks.

(II) Twine Mill: remove flash boards, remove trash racks, fill penstock, and remove tailrace steel.

(III) Dane Perkins: remove flash boards, remove trash racks, fill penstock, and fill bypass gates.

By closing of the penstocks and floodgates, all downstream flow would be directed over the dams all the time during low flow conditions even in midsummer, resulting in a significant increase in the discharge of warmer water from the surface of the impoundments flowing downstream. Under existing dam conditions, with penstocks or gates open, little or no water flows over the tops of the dams. Instead, the flow is drawn through the penstocks and gates that source at lower levels in the water column where temperatures are cooler. Closing the flood gates and penstocks permanently is a significant redirection of flow that is likely to result in a drop in water quality by way of higher water discharge temperatures, resulting in lower oxygen levels and more stress on aquatic species. The higher temperatures due to this change in the direction of flow may also adversely impact the water quality at and below the discharge of the Kennebunk Sewer District down river from Kesslen due to increased temperatures and lower oxygen content, potentially impacting the entire Mousam River estuary. Permanently closing the penstocks will result in higher water elevations and flooding at impoundments during moderate and high flows. This could lead to bank erosion and added sediment to the river.

The actions cannot be considered anything but a “discharge”, under the holding of the S.D. Warren case, cited above, triggering the Commission’s obligation to require a WQC. If KLPD cannot obtain the required WQC without removing the dams, the Commission has no alternative but deny the application for Surrender in Place because the applicant cannot satisfy the WQC under §401(a) (1) of the Clean Water Act , or condition surrender upon removal of the dams in order to achieve the required WQC under the Act. 4(c). THE DEP SUGGESTED CHANGES IN THE DRAFT SURRENDER PLAN ARE NOT LOGICAL

At the public “consultation” with the resource agencies on March 2, 2021,<sup>13</sup> Kathy Howatt of Maine DEP referenced the DEP letter to AFH which concluded that based on AFH testing the impoundments at Dane Perkins and Twine Mill were not attaining Class B standards because of the failure to meet the DO standard (We note that the DO problem is a consequence of the increased depth and volume resulting from the impoundment caused by the dams and the consequent accumulation of organic matter and the resulting increased residence time of the water, reduced aeration in the impoundments, and increased temperature creating metabolic demand on available oxygen).

Ms. Howatt noted that the draft surrender plan calls for removal of the flash boards and closure of the penstocks at each of the dams and asked whether KLPD had considered leaving the flash boards in place and not closing the penstocks. Mr. David Cluff, the KLPD Board of Trustees President. who chaired the consultation, indicated he was not aware of the reasons for the inclusion as to those items in the draft and indicated that KLPD would consider changing the draft plan as suggested by Ms. Howatt, who in her

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<sup>13</sup> The ZOOM call was initiated by KLPD on March 2, 2021; No public comment was permitted.

letter of March 10<sup>th</sup> stated that this change “**may** also have a positive impact on the downstream aquatic habitat and the macroinvertebrate community there.”<sup>14</sup>

The use of the word “may” is revealing since the proposal to revise the surrender plan to keep the penstocks open would not make any difference. The AFH tests were done when the penstocks were open, and that led to the DEP finding of non-attainment. Therefore, leaving the penstocks open after decommissioning will not improve DO over what the AFH tests revealed. In other words, why would leaving the penstocks open make any difference in DO as they were open when the tests were conducted by AFH and DO found deficient?

Should KLPD pursue Ms. Howatt’s suggestion, it should be done in the context of a formal application for a 401 certificate to replace the 1982 certificate.

#### 4(d). KLPD HAS FAILED TO MEET CONTINUING COMPLIANCE REQUIREMENTS IN THE 1982 WQC

On February 22, 1982, Maine DEP, in response to a request from Kennebunk Light and Power, considered an application for a water quality certification for the three existing hydroelectric power plants operated by KLPD on the lower Mousam River pursuant to Section 401 of the Act. Having observed that the Mousam River was at that time classified B-2 under the Maine Water Quality standards applicable at that time (1982), the Department granted certification that the continued operation of the project would not violate then applicable standards.<sup>15</sup> However, and highly relevant in this proceeding, the 1982 certification specifically provides: “This certification is conditional upon the

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<sup>14</sup> Letter to Kimberly Bose, Secretary, FERC, from Kathy Howatt, Hydropower Coordinator, Maine DEP, March 10, 2021, FERC Accession # 20210310-5081.

<sup>15</sup> See FERC Accession # 19820226-032, February 22, 1982.

applicant's **continuing** compliance with all laws, statutes and regulations of the State of Maine ... relating to protection of the environment." Paragraph 2, page 3 (Emphasis added).

That proviso is of decisional significance here, because after the 1982 WQC was issued, the classification of the Mousam River was changed from Class B-2 to Class B.<sup>16</sup> That change is important because after KLPD announced that it would not apply for renewal of its license, a new entity, America First Hydro ("AFH") filed an application for a new license for the Mousam Project. During the new license proceedings, AFH submitted to the Commission the results of certain water quality studies requested by DEP. On January 9, 2020, DEP sent comments on the studies to AFH which stated:

Based on the results provided by the applicant in its Draft Water Quality Monitoring Report, the Department concludes that the applicant has provided sufficient information regarding [dissolved oxygen] DO in the Project area for the Department to conclude that the Dane Perkins and Twine Mill impoundments are not in attainment of Maine's Class B water quality standards for the designated use of habitat for fish and other aquatic species which requires sufficient habitat for indigenous species, including dissolved oxygen concentrations equal to or greater than 7.0 ppm ... No DO monitoring was conducted downstream of the Kesslen dam and so no determinations can be made that DO concentrations in those waters meet Maine's water quality criteria.<sup>17</sup>

DEP also found from the data submitted by AFH that "Results of the modeling indicate that the benthic macroinvertebrate community downstream of the Twine Mill dam does not meet Class B aquatic life and habitat criteria."<sup>18</sup>

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<sup>16</sup> See 38 MRSA 464-468. The new Class B requires among other criteria that oxygen levels attain 7 ppm, that the river support all indigenous species and that the river attain new aquatic life criteria.

<sup>17</sup> Letter to Ian Clark, AFH, from Kathy Howatt, Hydropower Coordinator, Maine Department of Environmental Protection, January 9, 2020, FERC Document Accession # 20200122-5036, at pages 3-4.

<sup>18</sup> Id. at 4. According to Susan Davies, Board Member, Maine Rivers and who served as Water Quality Standards and 305(b) Coordinator for the Maine Department of Environmental Protection from 2004-2010: "In fact, aquatic life standards are stand-alone criteria for purposes of 303(d) listing, the aquatic life criteria are not simply a surrogate for assessing attainment of DO criteria."

In consideration of these findings, the Commission must bear in mind that both Twine Mill and Dane Perkin dams were rebuilt by KLPD around 1982 and it must therefore bear responsibility for the lack of attainment.

#### 4(e). NON-ATTAINMENT UNDER SECTION 303(d) IS SOLELY DUE TO KLPD'S DAMS

The Mousam River above Kesslen is listed on Maine's section 303(d) list of nonattainment waters (Category 4-C) because it does not support aquatic life uses as required by Class B standards, 38 section 465.3.C. The presence of dams is cited in the listing as a cause of non-attainment.<sup>19</sup>

#### 4(f). WATER QUALITY FINDINGS REQUIRE REMOVAL OF THE DAMS AS A CONDITION OF SURRENDER

Surrender standing in place as proposed by KLPD would perpetuate these documented violations of water quality standards; such perpetuation is contrary to the public interest when there is an alternative to cure the problem; It would be arbitrary and capricious to fail to adopt the cure.

In fact, the measures proposed such as the closing of the penstocks would make matters worse because all downstream flow would be directed over the dams (rather than from levels lower in the water column) all the time even in low flow conditions resulting in a significant increase in discharge of warmer water during the hotter months. (See Kevin Flynn comments.) Also, plugging the penstocks would eliminate the dam owner's ability to draw down impoundments during high water events.

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<sup>19</sup> See 2016 Integrated Water Quality Monitoring and Assessment Report, Appendices, "Category 4-C: Rivers and Streams with Impairment Not Caused by a Pollutant," page 116.



4(g). DAM REMOVAL IS REQUIRED BY THE PUBLIC INTEREST STANDARD OF THE ACT

Given the adverse consequence of allowing a standing in place surrender, the public interest would be served if the surrender is contingent on removal of the Mousam River Project dams because of the predictable benefits to the water quality of the Mousam River.

Reverting to free-flowing river conditions would improve the water quality of the river. For example, removal and reversion to free flow would reduce the effects of the three impoundments such as warming the impounded water and adversely affecting dissolved oxygen.

5. DAMAGE CAUSED BY KESSLEN FLOODING AND CLIMATE CHANGE

(a) The Project dams are structures that have a destructive potential in times of flood and are therefore a public nuisance.

(b) There is considerable evidence that climate change is altering traditional weather patterns. This was evidenced in the 2006 and 2007 Patriot's Day and Mother's Day storms, respectively. Only one other flow greater than 4000 cfs in a record that dates to 1940. The 2007 historic peak recorded at 9000+cfs; 2006 is second highest at 6100cfs. These storms caused extensive flooding and damage to areas adjacent to the Mousam River that was aggravated by delay in opening the dams to mitigate the flood flows. The USGS gauge records for the flood events referenced above can be found at the following URL address:

[https://nwis.waterdata.usgs.gov/me/nwis/peak?site\\_no=01069500&agency\\_cd=USGS&f](https://nwis.waterdata.usgs.gov/me/nwis/peak?site_no=01069500&agency_cd=USGS&f)

[ormat=html](#)). But according to Sharon Staz (then general manager of KLPD) “even if KPL had opened the dams earlier, it might have only delayed the flooding six to eight hours, nor prevented it altogether.”<sup>20</sup> This frank observation confirms the conclusion that the dams standing in place leave the surrounding areas vulnerable to overflows and flooding when there are major rain events compared to a situation where the dams are removed and reduce upstream flood levels. Moreover, “None of the dams in the Mousam watershed have large flood-release gates that would allow for increases of flow during a flood event appreciably above the flow that would occur naturally during a high-flow event, once the spillway was overtopped.”<sup>21</sup>

(c) Removal of the three KLPD dams will serve to better prepare the community to avoid the dangers of future flooding during the increasing number of storms events associated with climate change. Preparing for these storm events to mitigate the effects of flooding must be seen as another key public benefit that would result from dam removal.

## 6. REMOVAL WOULD NOT IMPAIR RIPARIAN PROPERTY VALUES

KLPD is well aware that the removal of the dams would not, in the opinion of Lynne Y. Lewis, Elmer W. Campbell Chair of Economics, Bates College, likely have an adverse effect on the property values of property owners who live adjacent to the impoundments that would be eliminated by the removal of the project dams . In a letter addressed to the KLPD Trustees dated November 16, 2015, Professor Lewis stated:

In my opinion, these studies offer convincing evidence of, what seems in hindsight, an obvious conclusion- people place a higher value on property adjacent to environments that are more natural and perceived too as being more healthy and vibrant. A free flowing

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<sup>20</sup> See [Idolce@seacoastonline.com](mailto:Idolce@seacoastonline.com), April 26, 2007.

<sup>21</sup> Report Page 19.

Mousam River with a robust riparian corridor will be an appealing landscape with increasingly vibrant fish and wildlife populations, all of which can benefit nearby property values.

Professor Lewis also estimated the impacts of dams on property values on the Kennebec and Penobscot Rivers and found house sales data that there was a sizeable penalty for living near a dam site which disappeared after the dam was removed. She also cited a study by William Provecher and colleagues who found that “shoreland frontage along small impoundments confers no increase in residential property values compared to frontage along free-flowing streams and that non frontage residential property located in the vicinity of a free-flowing stream is more valuable than similar non frontage property in the vicinity of a small impoundment.”<sup>22</sup>

## 7. THE MOUSAM WOULD BE ACCESSIBLE TO ANADROMOUS FISH ABSENT DAMS

The draft surrender plan argues that the fact that the Project dams have been in place for many years is evidence that the surrender would have no environmental impact.<sup>23</sup> We disagree because surrender in place would perpetuate the existence of a degraded baseline. We submit and will develop further if the surrender proceeding goes forward that federal action that “perpetuates” a degraded environment that results from previous human activities would be unacceptable under NEPA as illustrated by the teaching of *American Rivers and Alabama River Alliance v. FERC*, No. 16-1195 (DC Cir. 2018).

Relevant to this analysis, the record is clear that anadromous fish are present below the man-made barrier—the Kessler Dam—that blocks their migration into the spawning grounds that lie upstream. This is well summarized in the comments filed by

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<sup>22</sup> Original in possession of KLPD.

<sup>23</sup> Draft Surrender Plan at 9-12.

Commissioner Keliher of the Maine Department of Marine Resources on March 12, 2021:

Studies conducted by the Rachael Carson National Wildlife Refuge have documented the presence of six species of anadromous fish (alewife, blueback herring, American shad, rainbow smelt, Atlantic tomcod, and striped bass) and one species of catadromous species (American eel) in the Mousam River downstream of the Kesslen Dam. Historic habitat for most, if not all of these species extends past the most upstream project.<sup>24</sup>

The KLPD Draft application nowhere mentions this potential, but implicit in its arguments, and referenced by the Howatt March 10<sup>th</sup> letter, is the claim that “KLPD’s environmental report indicates that the three Project dams were constructed on natural falls which blocked navigation and fish passage.”<sup>25</sup> This argument, that migratory fish could not access freshwater habitat if the dams were removed, is speculative and conclusively rebutted by historic documents and town histories.

Edward E. Bourne’s 1831 work is considered the most comprehensive early history of the Town of Kennebunk. He writes (p. 61):

Until (sic) as late as the year 1760, salmon had been very abundant in this river. Immense quantities of them were taken on their passage up the stream in the spring. They were never taken on their return in autumn, as they were then so poor as to be entirely unfit for consumption. As business began to increase on the river, and dams were built, without fish-ways, the salmon found it necessary to seek some other place of resort. Bass and shad were also very plenty in this stream. In the early ages of the town, great quantities were taken in weirs which were prepared in different places. The most noted place of taking them, was near the mouth of the river a few rods above what are called Harts rocks. The bass, after the settlement here began to increase, found that it was not very safe to attempt to navigate the Mousam, and discontinued their visits to it. But the shad, possessing more spirit, and a more deep rooted, and invincible attachment to the waters in which their ancestors had basked, perhaps from the fifth day of creation, have not even

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<sup>24</sup> Letter to Kimberly D. Bose, Secretary, FERC, from Patrick C Keliher, Commissioner Maine Department of Marine Resources, March 12, 2021, at 2 (filed in P-5362).

<sup>25</sup> Howatt letter at page 2.

yet been quite drove off the ground, though they have had to maintain it, through trials, perils and difficulties.<sup>26</sup>

It bears noting that to this day, the American shad continue to appear in the lower Mousam River by the middle of May and remain until early July, year in and year out. The Mousam is in fact one of only a couple of rivers in southern Maine that are known to have a sizable shad run that supports a popular recreational fishery. Shad are caught everywhere from the first deep hole in the estuary all the way to the pool immediately below the Kesslen Dam. Removal of the Project dams would give these shad upstream access.

Further evidence of historical upstream access is as follows: “The Mousam is eminently a salmon stream.” So begins the assessment of the Mousam River in the First Report of the Commissioners of Fisheries of the State of Maine, published in 1867 (p. 26-7). The report continues: “When unobstructed its whole extent nearly, must have been suitable spawning ground for salmon ... The natural aspect of the river promises salmon, and tradition accords with it.”

In the History of Sanford, Maine, the author notes controversy over a petition to establish fish passage on the Mousam (p. 170). The text includes a communication from an old resident published in the Sanford News some years ago, in which he says that in his boyhood days, when fishing in the river between the mills and Butler's bridge, “once in a while, I used to catch what ' we boys ' called a ' red-meated shiner.' They were usually about a foot long, bright light color, meat red as a cherry, and would weigh from a pound to a pound and a half. At that time, I had never, that I know of, seen a salmon ;

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<sup>26</sup> Bourne, Edward E., Ancient History of Kennebunk, Star Press Inc, 1970.

but since then, having seen them by the hundreds just as they came out of the water, I have become entirely satisfied the 'red-meated shiners' we used to catch were nothing more or less than young salmon. This opinion is backed up by other boys of Sanford.”<sup>27</sup>

It is possible that these fish may have also been sea-run brook trout.

Another report published in *Maine Naturalist* states that “John Josselyn, who lived in Massachusetts and in Wells, Maine, prior to 1670, reported that ‘basse’ were taken when they came up the rivers to spawn” and cites the Mousam River as one of the rivers from Cape Cod to Maine that had sizeable runs of striped bass during the Spring spawning time.”<sup>28</sup>

These reports then refute the implication that anadromous fish would not be able to migrate up the River if the dams at the Project were removed.

#### 8. DAM REMOVAL WOULD RESTORE CONNECTIVITY AND MOBILITY OF WILD BROOK TROUT AMONG TRIBUTARIES, THE MAIN STEM MOUSAM AND THE MOUSAM RIVER ESTUARY

According to Jim Pellerin, Regional Biologist for Maine Department of Inland Fisheries & Wildlife (MDIFW), wild brook trout populations have been documented in Coldwater Brook, which feeds into the Mousam River within the project area. Numerous studies demonstrate that, absent barriers, wild brook trout navigate extensively throughout their watershed at different times of the year and at different periods in their life cycle. These migrations occur differently from one watershed to another, and from one year to

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<sup>27</sup> Edwin Emery and William Morrill Emery, *The History of Sanford, Maine. 1661-1900*, The Salem Company, Salem, Massachusetts, 1901).

<sup>28</sup> Little, Michael J., “A Report on the Historic Spawning Ground of the Striped Bass, *Maine Naturalist* 1995, pages 107-113.

another, depending on conditions, and so can only be supported by year-round, at will mobility.<sup>29</sup> The mobility increases the chance of survival for individual fish, and the genetic diversity of the population as a whole, resulting in a stronger wild brook trout population. Of particular importance to the health of an overall brook trout population are accessibility to main stem rivers, and to lakes or estuaries. Removal of the three lowermost dams on the Mousam River would restore connectivity and mobility of wild brook trout to a total of 16.81 miles of river and tributary habitat and to the Mousam River estuary.

#### 9. DAM REMOVAL WOULD RESTORE QUALITY WILD BROOK TROUT HABITAT AND RECREATIONAL FISHING OPPORTUNITIES TO THE MAIN STEM MOUSAM RIVER

Over seven miles of the Mousam River are currently impounded by the three dams in the project area, resulting in excessive sedimentation, high water temperatures, and low dissolved oxygen levels in the impoundment. These conditions are more favorable to bass and other non-native fish species than to brook trout. They are also favorable to non-native aquatic plant species, which further degrade the habitat. If the dams were removed, significant sections of the impounded river section would be restored to classic freestone brook trout habitat, providing holding habitat for wild brook trout at certain times of year, as well as recreational fishing opportunities for anglers in the community and the surrounding area.

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<sup>29</sup> Curry, R.A., Sparks, D., and Van de Sand, J. 2002, 'Spatial and Temporal Movements of a Riverine Brook Trout Population', Transactions of the American Fisheries Society 131: 551-560, 2002 and <https://www.pennlive.com/life/2020/06/rivers-and-large-streams-more-important-than-previously-thought-for-brook-trout.html>).

## 10. BENEFIT COST ANALYSIS WEIGHS IRREFUTABLY IN FAVOR OF DAM REMOVAL

(A) The Commission traditionally utilizes benefit cost analysis in the relicensing procedure. Sebago TU submits that BCA is equally applicable in the assessment of surrender applications<sup>30</sup> and that in this proceeding there is clearly zero benefit that would result in the event the Commission were to grant the stand in place proposal of KLPD, but by the same token there would be an enormous cost to the public interest which would be alleviated by conditioning approval of the surrender application on removal of the three dams. While those benefits are not readily quantifiable, their value is sufficiently obvious that it must be considered. The benefits include:

1. The economic value of increased alewife populations that will result from dam removal. Alewives are known to readily populate spawning grounds made accessible by dam removal. Following removal of the Fort Halifax dam on the Sebasticook River just above the confluence with the Kennebec River, alewife migration past the former dam site increased from zero to the millions in just a few years.<sup>31</sup> On the Mousam, alewife access to the water shed above the Kesslen Dam would provide a source of lobster bait of significant value, not to mention the ecological value of these diadromous fish to the quality of the water as well as providing predator cover for out-migrating anadromous and diadromous fish.

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<sup>30</sup> See Rethinking Hydropower: The Economics and Politics of Privately Owned Hydropower in the United States, Lynne Y. Lewis, Department of Economics, Bates College, <https://doi.org/10.1093/acrefore/9780199389414.013.691>, 17 December 2020.

<sup>31</sup> Maine Rivers Alewife Map; [www.mainerivers.org](http://www.mainerivers.org).



2. KLPD's application dismisses cavalierly the sport fishing opportunities in the impoundments, but clearly a free running riverine environment would attract shad in the spring migration (they are present in large numbers below Kesslen at present). FERC's recreation staff has recently begun to utilize the economics of recreation associated with FERC hydro regulation.<sup>32</sup> In the case of the Mousam which is in a major tourist market, a viable sport fishery would be of obvious value and benefit. The stretch of the Mousam River below the Kesslem Dam is already a popular angling destination for sea-run trout, striped bass, and shad.
3. Property values, as indicated in the previous section of this comment, would likely increase because of dam removal.<sup>33</sup>
4. Delisting from the section 303(d) nonattainment listing.

(B) KLPD's costs of dam removal are not relevant to the FERC benefit cost analysis. As previously emphasized, KLPD has had the free use of the Mousam River flow as the primary "raw material" in the production of electricity for several years. Without that flow, the generating equipment and dam structures would have been valueless as a source of electricity. A not inapt analogy would be a sawmill without trees to cut into lumber. But unlike a sawmill operator, KLPD has not had to pay for the input it used to produce electricity pursuant to an exclusive license granted by FERC.

Moreover, and again unlike a sawmill operator, KLPD has been exempt from all taxes on its profitable operations.

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<sup>32</sup> Lewis, note 9 supra.

<sup>33</sup> See Comment of Kenneth DeCoster, FERC Accession # 20210518-05/18/2021: "Economic benefits [of removal] would include more commercial bait fish and sport fishing as well as recreational kayaking."

(c) The benefit cost analysis is clear: there are zero public benefits to the proposed Surrender in Place Application by KLPD, and tremendous public benefits, economically and environmentally to dam removal. Based upon the foregoing, any surrender application can only be approved if conditioned upon the removal of these KLPD dams.

CONCLUSION: For the foregoing reasons, Sebago TU respectfully requests that its Motion to Intervene be granted.

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FOR ADDITION TO SECRETARY'S SERVICE LIST

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#### CERTIFICATE OF SERVICE

I hereby certify that I Have caused the foregoing document to be sent electronically to each person on the service list compiled by the Secretary and to [tfrisets@preti.com](mailto:tfrisets@preti.com) on May 21, 2021.

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CERTIFICATE OF SERVICE:

I hereby certify that I have caused the foregoing document to be sent electronically to each person on the service list compiled by the Secretary of the Commission for this proceeding on July 26, 2017.

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