

MEMORANDUM

To: Shannon Ames

From: Patricia McIlvaine

Date: September 18, 2021

Subject: Recertification Recommendation – Newfound Hydropower Project, LIHI #82

This memo contains my recommendation for recertification of the Newfound Hydropower Project (P-3107) (the “Project”), a 1.5 MW facility located in Bristol, New Hampshire (NH). The Newfound Project is located on the Newfound River, a tributary to the Pemigewasset River in the headwaters to the Merrimack River Basin. The Project is owned by KTZ Hydro, LLC (KTZ Hydro), a subsidiary of Eagle Creek Renewable Energy (Eagle Creek), LLC. It was originally certified under the 1st Edition LIHI Handbook, with an effective date of November 17, 2011. The Project was recertified in 2017 under the 2nd Edition LIHI Handbook with an expiration date of February 28, 2021, extended to September 30, 2021. The current application was prepared by Kleinschmidt Associates and filed by Eagle Creek on behalf of KTZ Hydro.

1. Recertification Standards

This project is being reviewed for recertification for the second time under the 2nd Edition Handbook. LIHI developed a streamlined application format for such projects to facilitate review in accordance with Handbook Section 6.1. Similar to the recertification process that was used in the 1st Edition Handbook, the current review verifies the information submitted, considers any public comments received, and assesses whether there have been any material changes at the facility or in the LIHI Handbook that affect compliance with the LIHI Criteria.

a) Adequacy of the Recertification Application Package

The complete application package was submitted on May 27, 2021. The initial review found the application to be complete, although minor clarification was sought from the Applicant. The Applicant neglected to identify the impoundment as a Zone of Effect, but this information was provided in follow-up communication, and therefore did not affect the relevance or completeness of the application materials presented. No material changes have occurred in the Handbook or facility operations since the Project was last recertified by LIHI. Therefore, only a Stage I review is required. The application was posted on June 22, 2021 for the 60-day public comment which closed on August 21, 2021. No public comments were received.

Given the lack of any past or scheduled changes to the facility and its operations, and the lack of non-compliance issues included in the FERC records, I determined there were no questions requiring my outreach to any state and federal agencies or other stakeholders. However, I

did submit several questions to the Applicant in late June and received their response in mid-September. A copy of this communication is attached at the end of this report.

In my opinion, the materials now in LIHI's possession are sufficient to make a recertification recommendation and no Stage II review is needed.

b) There have been no "material changes" at the facility that would affect the certification.

In accordance with the recertification standards, "material changes" mean non-compliance, operational changes, and/or new or renewed issues of concern relevant to the LIHI Criteria. The two culverts that received water from the draft tubes collapsed in May 2019 and were replaced in-kind in December 2019, and therefore, they did not change the Project's operation. All other features of the Project as noted on LIHI's website remains accurate. Thus, no material changes identified during this review.

Compliance Status

My assessment of the Project included review of the recertification materials, the last recertification review report, annual compliance statements, FERC's public records during the past five years, stakeholder outreach and follow-up with the Applicant.

There were four conditions on the current LIHI Certificate. The status of their compliance is noted below.

Condition 1. The Owner shall complete a water quality sampling study during summer 2018 under a study plan approved in advance by the New Hampshire Department of Environmental Services (NHDES). The study plan shall be filed with NHDES no later than December 31, 2017. A copy of the final study plan shall be filed with LIHI within 30 days of NHDES approval. The data and study report shall be filed with NHDES and LIHI by December 31, 2018. If the Newfound Project is determined to be causing, or contributing to, substandard water quality, a remediation proposal, including an implementation schedule, shall be developed in consultation with NHDES and filed with LIHI by April 1, 2019. Otherwise, the Owner shall file review comments and/or recommendations from NHDES by the same date.

Status: Has been satisfied. This Condition was established in response to a NHDES request. The sampling was conducted in 2018 and the NHDES letter confirming that water quality standards are being met was received but not until April 8, 2020.

Condition 2. The Owner shall continue to maintain a minimum flow of 12.7 cfs, or instantaneous inflow if less, through the penstock-bypassed reach of river for the duration of this new LIHI certification.

Status: Has been satisfied. This Condition was established because this minimum flow is greater than that required in the FERC license. It was established in October 2011, during the initial LIHI certification process, based on United States Fish and Wildlife Service (USF&WS) and New Hampshire Fish and Game Department (NHF&GD) participation in a flow demonstration study at the Project to determine an adequate bypass flow for protection of aquatic resources. Based on the annual compliance statements, the Owner reported there were no deviations from this limit during the past five years.

Condition 3. The Owner shall continue to maintain systems and protocols necessary to assure compliance with the headpond elevation and flow management limitations of instantaneous run-of-river operation and the release of a minimum bypass flow as specified in Condition No. 2 and to maintain records demonstrating compliance that may be provided to LIHI if requested.

Status: Has been satisfied. Based on the annual compliance statements, the Owner reported they have been in compliance with these requirements during the past five years.

Condition 4. If a fisheries agency requests or prescribes upstream or downstream fish passage at the Project during the term of the new LIHI certificate, the Owner shall notify LIHI within 30 days of such action and the steps that the Owner is prepared to take to install appropriate passage at the Project dam. In the event that the Owner notifies LIHI that it does not intend to install appropriate passage, or that the Owner cannot reach an agreement with the resource agency, or agencies, as to the nature of this passage, LIHI reserves the right to withdraw its certification should LIHI determine that the Owner's position is inconsistent with the LIHI fish passage criteria at that time.

Status: Has not been triggered. No agency requests have been made based on the annual compliance statements.

A search of the FERC eLibrary from September 1, 2017 to September 18, 2021 revealed no reports of flow deviations or non-compliance with environmental aspects of the Project.

New/Renewed Issues of Concern

No other changes have occurred at the facility which affect the LIHI Criteria, and no issues of

concern were identified. The application (or Applicant provided follow-up information) included the following updated information:

- Water quality sampling was conducted in 2018 (and approved by the NHDES in 2020) that confirmed water quality standards were met.
- The draft 2020 state impaired waters list notes that the waters above and below the Project, similar to much of the state, are impaired for mercury, resulting from atmospheric deposition. As a run-of-river Project with a very small impoundment, it is not expected that Project operation is exacerbating this issue.
- The application noted the December 2014 “Newfound Lake Watershed Management Plan Implementation: Phase II”. The Plan specifically applies to the upstream Newfound Lake, and therefore may improve water quality within the Newfound River overall. The primary goal of this Watershed Management Plan is to address stormwater run-off issues, focusing on phosphorus, E. coli, and turbidity.
- On June 21, 2021, the Federal Energy Regulatory Commission (FERC) accepted the Merrimack River Watershed Comprehensive Plan for Diadromous Fishes as a comprehensive Plan to be used for upcoming re-licensing projects in the watershed. The Plan was issued by the Technical Committee for Anadromous Fishery Management of the Merrimack River Basin, and involved the National Marine Fisheries Service (NOAA Fisheries), USF&WS, the Massachusetts Division of Fish and Wildlife (MassWildlife), the Massachusetts Division of Marine Fisheries (MADMF), and NHF&GD. My review of this Plan indicated that due to the many downstream obstacles to anadromous species upstream passage, only passage for American eel would be a potential focus for resource agencies in the near future in the Pemigewasset River.
- The only state or federally listed species possibly present is the Northern long-eared bat (federally threatened) for which no critical habitat has been identified. Project operations and the highly developed lands within in the small Project footprint suggests that the Project is unlikely to affect the species.
- Follow-up information from the Applicant confirmed no cultural resources were discovered during the culvert replacement as the location was the same as the original.

c) LIHI’s certification criteria have not materially changed since the previous certification was issued in 2016.

The LIHI Criteria have not materially changed from the original 2nd Edition Handbook issued in 2016 to the current Revision 2.04 issued April 1, 2020.

2. Conclusion

In light of the above, I recommend recertification of the Project for a standard five (5)-year term

with the following conditions which continue from the past LIHI certification.

Condition 1. The facility Owner shall continue to maintain a minimum flow of 12.7 cfs, or instantaneous inflow if less, through the penstock-bypassed reach of river for the duration of this new LIHI certification. Any deviations from this release shall be reported to LIHI in annual compliance statements, along with discussion of the cause and actions taken to minimize reoccurrence.

Condition 2. If a fisheries agency requests or prescribes upstream or downstream passage for American eel at the Project during the term of the new LIHI Certificate, the facility Owner shall notify LIHI within 60 days of such action and the steps that the Owner is prepared to take to install appropriate passage at the Project dam. In the event that the Owner notifies LIHI that it does not intend to install appropriate passage, or that the Owner cannot reach an agreement with the resource agency, or agencies, as to the nature of this passage, LIHI reserves the right to modify, suspend, or revoke certification should LIHI determine that the Owner's position is inconsistent with the LIHI fish passage criteria at that time.

Questions on the Newfound 2021 LIHI Recertification Application

1. The impoundment should have been identified as a Zone of Effect. Please confirm if you agree with the standards I am recommending for the impoundment. [Confirmed, agree with recommended standards](#). If you disagree, please suggest your alternative and explain why. Note that the 2020 LIHI Handbook states all impoundments can use Standard A-1. Also, unless you tell me otherwise, I am assuming that the standards selected in 2016 for the bypass and tailrace Zones of Effect are the same for this 2021 application since there were not Project “material changes”. [Assumption confirmed](#). The impoundment was not included your 2016 application.

Criterion		Alternative Standards				
		1	2	3	4	Plus
A.	Ecological Flow Regimes	X				
B.	Water Quality			X		
C.	Upstream Fish Passage	X				
D.	Downstream Fish Passage	X				
E.	Watershed and Shoreline Protection	X				
F.	Threatened and Endangered Species Protection	X				
G.	Cultural and Historic Resource Protection	X				
H.	Recreational Resources			X		

2. While the preliminary review of your application suggest data for the impoundment area was provided, please confirm that if fact, your application is complete for resources within the impoundment. [Confirmed, application complete](#).
3. The Application states both there is no Project Water Quality Certification, and elsewhere it acknowledges one was issued in 1981, but a copy cannot be located in onsite files. Please note that footnote 2 in your FERC license also acknowledges it’s issuance. Assuming that you have contacted the NH Department of Environmental Services to obtain a copy, please update us on the outcome of that inquiry to them. I am also assuming that whether or not a copy is located, that you intend to satisfy the Water Quality Criterion by using the past site-specific sampling, rather than requesting a letter from the NHDES as to the continued validity of the WQC terms. Please let me know.

[As noted in the November 10, 2011 LIHI Reviewer’s Report, the Newfound Project was issued a Water Quality Certificate in 1981 by the NHDES; because the certification pre-dates 1987, it cannot be used for the purposes of LIHI criteria compliance.](#)

[In lieu of the WQC, KTZ Hydro has performed water quality analysis upstream and downstream of the Newfound Dam in 2011 and 2018 to provide evidence of suitable water quality. Studies](#)

were done based on NHDES recommendations and standards and results were approved on November 14, 2011 and April 7, 2020 for each respective study (Appendix A).

See discussion on Table 3-1, page 3-3.

4. Article 19 of the FERC license requires SHPO notification and other actions if previously unidentified archaeological resource are discovered during onsite construction. The Application is silent on whether or not any such resources were found during the December culvert/draft tube replacement. Is it correct for me to assume that none were found? [Correct, no previously unidentified archaeological resources were discovered during the December culvert/draft tube replacement.](#)