



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
ACTING COMMISSIONER

May 20, 2021

Ms. Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RE: Lower Mousam Project (FERC No. 5362)
Surrender Application Comments

Dear Secretary. Bose:

On March 10, 2021, the Department of Environmental Protection filed with the Commission comments on a draft Application by the Kennebunk Light and Power District (KLPD) to surrender its license to operate the Lower Mousam Hydroelectric Project (Project). The Project is located on the Mousam River in Kennebunk, Maine. Maine Department of Environmental Protection has reviewed the final Surrender Application submitted by KLPD and has the following comments.

I. Background and Proposed Decommissioning

The Department understands the existing Lower Mousam Hydroelectric facilities consist of three distinct developments for hydroelectric generation, located on the Mousam River in Kennebunk, Maine and listed from the farthest upstream to farthest downstream: Dane Perkins Dam, Twine Mill Dam, and Kesslen Dam. Each development is comprised of a dam and associated impoundment, and powerhouse with turbine-generator and appurtenant features and equipment. The FERC license to operation the Lower Mousam Hydroelectric Project expires on March 31, 2022.

The surrender application indicates that KLPD proposes to cease generation of electricity and decommission the Project by removing all flashboards and trash racks; disconnecting leads from each generator; removing all generators, transformers, and other electrical equipment; removing all hydraulic fluids and reservoirs; removing all governor fluids and reservoirs; and securing each location with fencing, including enhanced penstock fencing.

In its surrender application, KLPD asserts that decommissioning activities will have no environmental effects, including no effect on the water quality of the Mousam River in the vicinity of the Project dams, indicating that water quality problems associated with discharges and conditions upstream of the Project were recognized as early as 1950 and were in existence

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

prior to KLPD's acquisition of the facilities. The surrender application asserts that "continued water flow should ensure that the current water quality is maintained," and that decommissioning will not affect fish or aquatic habitat, and that wetlands, wildlife, and botanical resources will be unaffected because no ground disturbing activity is proposed. Further, the application indicates that no changes are proposed to recreational access including existing boat launch and river access sites, and that preservation of Project impoundments "enhance ... recreational opportunities ... such as canoeing and fishing."

II. Environmental Effects

Based on review of the environmental effects of the Project as proposed to be surrendered, the Department cannot conclude that the Project facilities have no effect on habitat created by and in the vicinity of Project dams. This is the result of several of the Project dams causing or contributing to nonattainment of state water quality standards due to low dissolved oxygen (DO) concentrations, as well as their impact to aquatic life and habitat as reflecting in their impact on the benthic macroinvertebrate (BMI) community.

As described in the Department's March 10, 2021 comments on the draft surrender application, relicensing studies by America First Hydro show the following:

Dane Perkins Dam:

- Riverine impoundment above the dam – nonattainment for Class B DO criteria during periods with warmer water and decreased flows

Twine Mill Dam:

- Riverine impoundment above the dam – nonattainment for Class B DO criteria during periods with warmer water and decreased flows
- Mousam River below the dam – nonattainment for Class B aquatic life and habitat criteria based on BMI survey data

Kesslan Dam:

- Riverine impoundment above the dam – compliance with State water quality standards cannot be evaluated because no data were collected in this area

Additionally, the presence of the three KLPD dams blocks six species of anadromous fish, including American shad, alewives, blueback herring, rainbow smelt, Atlantic tomcod and striped bass, from reaching historic spawning habitat and catadromous American eels from reaching freshwater growth habitat upstream of the Dane Perkins Dam. The KLPD dams block access to approximately 40 acres of freshwater habitat between the Kesslan Dam and the fourth dam on the Mousam River (Old Falls Dam) that would be used by these fish to complete their life cycle. As it did in its March comments, the Department emphasizes that habitat for fish and other aquatic life is a designated use in Maine's water quality standards. The habitat standard takes into account fish's ability to reach the habitat within a river system and how river segments are connected, such as here, where migratory fish need to access freshwater spawning habitat to complete their life cycle.

III. Discussion

Based on the site-specific information collected in the vicinity of Project dams, the Department concludes that Class B water quality standards are not met at all times in all waters associated with the Lower Mousam Hydroelectric Project. The presence of the Dane Perkins and Twine Mill dams cause or contribute to lower water quality, specifically with respect to DO and aquatic habitat, in these reaches of the Mousam River. Dam removal or partial breach would increase the flow of water through the impoundments and likely would correct the water quality impacts to the river and its habitats. The Department understands, however, that dam removal or a partial breach is not proposed by KLPD.

The surrender application indicates that KLPD believes that allowing the waters of the Mousam River to flow over the dams' spillways should ensure that current water quality is maintained, however, the goal should be improvement of conditions that are directly attributable to the presence of the dams and to meet the applicable Class B water quality standards. The Department supports immediate flashboard removal in order to improve water quality. Removing the flashboards is expected to decrease the depth of the impoundments and the volume of stored water and increase the rate at which the stored water moves through the impoundment. However, any resulting improvement may not be sufficient to resolve the present DO deficiencies and adequately support the BMI community.

Since its draft application, KLPD explored and now proposes to remove generation equipment from the powerhouses but leave the penstocks open during late summer, when water temperatures are higher and flows are lower, so that impounded water will flow through existing gate and penstock structures rather than stagnating in the impoundments. While dam removal or partial breach likely would correct the water quality deficiencies associated with the presence of the dams, flowing water through the penstocks (along with flashboard removal) may improve DO concentrations, which also may have a positive impact on the downstream aquatic habitat and the macroinvertebrate community there.

KLPD's environmental report indicates that the three Project dams were constructed on natural falls that it believes blocked fish passage. KLPD concludes that since no fish passage was required in the past, no fish passage is necessary now. Federal and state resource agencies disagree and advocate for passage measures or dam removal to open freshwater spawning habitat to anadromous fish that are present in the river below the Kesslan Dam. The Department agrees with the fish resource agencies that fish passage measures, ranging from technical fish passage to dam removal, are necessary to meet the Class B designated use of habitat for fish and other aquatic life. The Maine Department of Marine Resources discusses fish passage further in comments on application for surrender. Further, restoration of a free-flowing river, while not proposed by KLPD, is the single mitigation measure with the greatest potential to solve all of the environmental effects caused by the presence and operation of the KLPD dams.

Thank you for the opportunity to review and comment on the final Surrender Application submitted by KLPD for the Lower Mousam Hydroelectric Project. Please direct any questions by email to Kathy.Howatt@maine.gov .

Sincerely,



Kathy Davis Howatt
Hydropower Coordinator

cc: Todd Shea, General Manager KLPD
Sean Ledwin, MDMR
Gail Wippelhauser, MDMR