REVIEW OF APPLICATION FOR RE-CERTIFICATION BY THE LOW IMPACT HYDROPOWER INSTITUTE

OF THE RUMFORD FALLS HYDROELECTRIC FACILITY

Prepared by Peter Drown

May 3, 2019, finalized May 21, 2019

I. Background

The 44.5 MW Rumford Falls Hydroelectric Facility ("Facility" or "Project") is located on the Androscoggin River in the town of Rumford, in Oxford County, Maine. The Rumford Falls Project consists of two discrete hydropower developments, the Upper Station Development and the Lower Station Development (Figure 1). The upper station and the lower station developments total installed nameplate capacities of 29.3 MW and 15.2 MW, respectively, and the average annual total Project generation is about 291,537 MWh. The Applicant, Rumford Falls Hydro LLC, a subsidiary of Brookfield Renewable Energy Group ("Owner" or "Applicant"), operates the Project in a run-of-river mode for the protection of water quality and aquatic habitat. Water levels in the upper and middle impoundments are maintained within 1.0 foot of full pond elevation.

The Upper Station Development consists of a concrete gravity dam, having a 464-foot-long by 37-foot-high ogee type spillway section, with a permanent crest elevation of 587.4 feet U.S. Geological Survey datum (USGS), topped with Obermeyer inflatable flashboards; a forebay about 2,300 feet long by 150 feet wide; a gatehouse with eight headgates, (two headgates for each of the four penstocks), trashracks, and other equipment; four underground steel-plate penstocks, each about 110 feet long, three of which are 12 feet in diameter, and one 13 feet in diameter; a masonry powerhouse integral with the dam, occupying two adjoining sections of the dam: the Old Station, about 30 feet wide by 120 feet long by 92 feet high, equipped with one horizontal generating unit with capacity of 4,300 kilowatts (kW), and the New Station, about 60 feet wide, by 140 feet long, by 76 feet high, equipped with three vertical generating units – two with capacity of 8,100 kW each, and one with capacity of 8,800 kW; an impoundment, with gross storage capacity of 2,900 acre-feet, surface area of about 419 acres, normal maximum headwater elevation of 601.24 feet, and tailwater elevation of 502.74 feet.

The Lower Station Development consists of a rock-filled, wooden-cribbed, and concrete-capped Middle Dam, having a 328.6-foot-long by 20-foot-high gravity spillway section, with a permanent crest elevation at 501.74 feet, topped with 1.0-foot-high pin-supported wooden flashboards; a Middle Canal concrete headgate structure, located adjacent to the dam, about 120 feet long, with 10 steel headgates, and a waste weir section perpendicular to the headgate structure, about 120 feet long, with a crest elevation of 501.6 feet; topped with 10-inch-high flashboards; a Middle Canal, about 2,400 feet long, with width ranging from 75 to 175 feet, and depth from 8 to 11 feet; a gatehouse containing two headgates, trashracks, and other equipment; two 12-foot-diameter, steel-plate penstocks, each extending about 815 feet to two cylindrical surge tanks, each about 36 feet in diameter by 50.5 feet high, and the penstocks continuing 77 feet to the powerhouse; a masonry powerhouse, equipped with two identical vertical units each 7,600 kW capacity.

The Facility was initially constructed between 1918 and 1955 to harness the power potential of the Rumford Falls to produce paper products. The current owner and operator, Brookfield Renewable, operates the Facility

under the terms and conditions contained in the most recent FERC license (FERC No. 2333) issued in 1994[1] with a water quality certificate issued in 1992.[2] An Upper Androscoggin River Storage Projects Settlement Agreement was executed in 1998.[3] It governs minimum flow releases and impoundment level fluctuations, as well as mitigation and enhancement measures such as whitewater flow releases, provisions for loon nesting and fish spawning, and an enhancement fund related to the Androscoggin River headwaters and storage dams. It is based on another agreement executed in 1983, the Androscoggin River Headwater Benefits Agreement[4] which was approved by FERC in 1992. That agreement negotiated settlement for headwater benefits charges in the Androscoggin River Basin. The settlement was executed among 12 parties on June 1, 1983, in order to apportion charges for benefits derived from the headwater storage projects to the numerous downstream hydroelectric projects on the river.

The Project FERC license was amended in 2010 for turbine upgrades[5] and the associated amended water quality certificate from the State of Maine issued in 2009 (included in the amendment application).[6] The Facility was originally certified as "Low Impact" on May 6, 2009 and was recertified on December 10, 2013. On December 10, 2018, the Owner submitted a timely application for recertification. This application review for recertification was conducted using the 2nd edition Handbook.

II. Recertification Standards

On April 2, 2018, LIHI notified the applicant of upcoming expiration of the Low Impact Hydropower Institute certification for the Facility. The notification included an explanation of procedures to apply for an additional term of certification under the 2nd Edition LIHI Handbook, including the new two-phase process starting with a limited review of a completed LIHI application, focused on three questions:

(1) Is there any missing information from the application?
(2) Has there been a material change in the operation of the certified facility since the previous certificate term?
(3) Has there been a change in LIHI criteria since the Certificate was issued?

If the answer to any question is "Yes," the Application must proceed through a second phase, which consists of a more thorough review of the application using the LIHI criteria in effect at the time of the recertification application. The letter noted that because the new Handbook involves new criteria and a new process, all projects scheduled to renew will be an automatic 'YES.' Therefore, all certificates applying for renewal will be required to proceed through both phase one and phase two of the recertification application reviews.

The Owner submitted an initial (Stage I) application for re-certification on December 10, 2018. I conducted the phase one review and noted several issues and deficiencies to address in the subsequent Stage II application. This Report comprises the Stage II review.

III. Adequacy of the Recertification Package

The Applicant provided a Recertification Application on November 5, 2018, which included additional supporting information. The Owner submitted a revised application on March 13, 2019. I have reviewed the application package, supporting comments and documentation and public records on FERC e-library posted

[1] https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12416477
[2] https://lowimpacthydro.org/assets/files/Rumford%20Falls/WQC_Rumford_Falls_92.pdf
[3] Confidential report provided by the applicant
[4] https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=3458649
[5] https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12401274
[6] https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12090164

since the original certification report (McIlvaine, 2012.) I also independently verified the submitted criteria were appropriate given the changes in the 2nd edition LIHI handbook.

The application was publicly noticed on March 12, 2019 and no public comments were received by the close of the comment period on May 12, 2019. I did solicit specific comments from the Maine Department of Environmental Protection (MDEP) and Maine Department of Inland Fisheries and Wildlife (MDIF&W) and these are incorporated into this report.

IV. There have not been any "material changes" at the facility that would impact recertification

In accordance with the Recertification Standards, "material changes" mean non-compliance and/or new or renewed issues of concern that are relevant to LIHI's criteria. Based on my review of materials provided, review of FERC's public records, and consultation with the noted individuals, I found that there are no areas of noncompliance or new or renewed issues of concern.

V. Zones of effect

In my opinion, the Applicant properly selected five zones of effect for the Facility (Figure 1). The Applicant defined the following zones:

Zone 1 – Upper Dam Impoundment – 6-mile impoundment from the Upper Dam
Zone 2 – Upper Dam Bypass Reach – 600-foot stretch bypassed by the forebay and upper powerhouse
Zone 3 – Middle Dam Impoundment – 1000-foot impoundment between powerhouse and Middle Dam
Zone 4 – Middle Dam Bypass Reach – 3,500-foot reach bypassed by the canal and lower powerhouse
Zone 5 – Regulated Downstream River Reach – 1,500-foot reach downstream of lower station until confluence with Swift River.

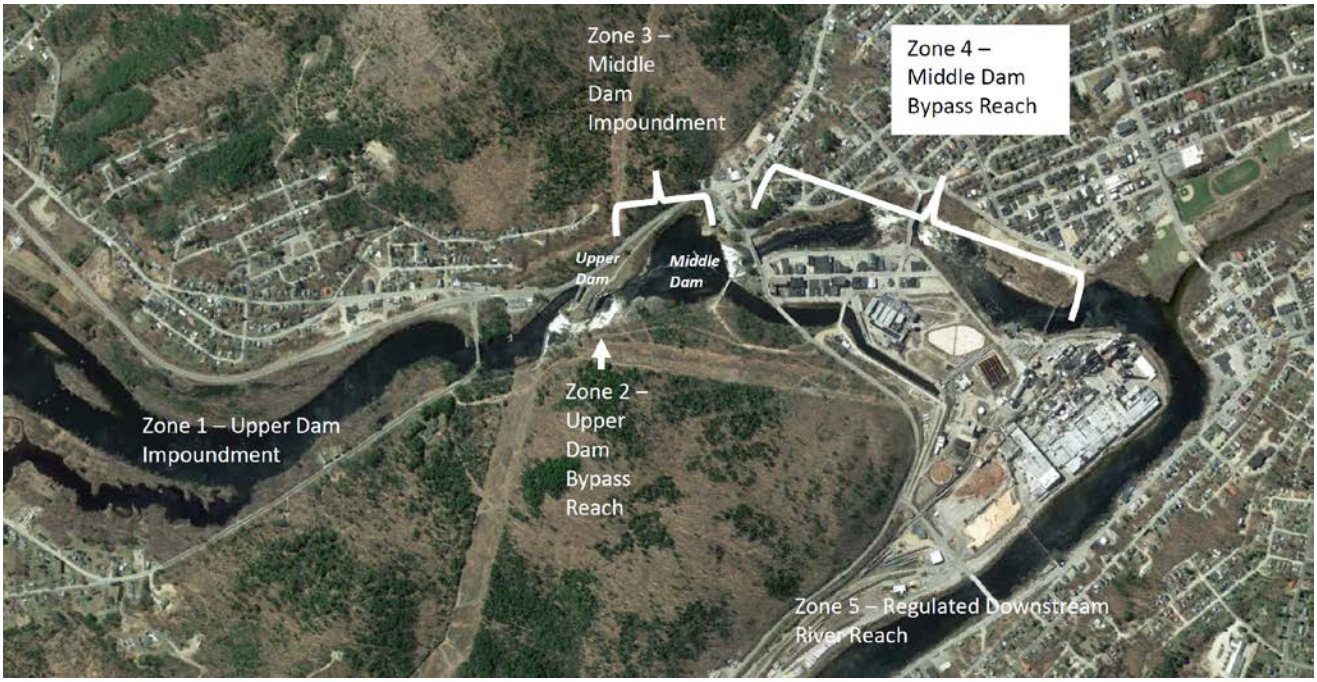


Figure 1 - Zones of Effect

Applicant selected standards for each Zone are shown in the tables below. Where applicable, reviewer recommendations for alternate standards are shown in **red (Zone 5, criterion A)**.

Facility Name: Upper Dam **Zone of Effect: 1 – Impoundment**

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 Resources Protection		*X*			
H	Recreational Resources			*X*		

Facility Name: Upper Dam **Zone of Effect: 2 – Bypass Reach**

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 Resources Protection	*X*				
H	Recreational Resources	*X*				

Facility Name: Middle Dam **Zone of Effect: 3 –Impoundment**

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 Resources Protection	*X*				
H	Recreational Resources			*X*		

Facility Name: _Middle Dam **Zone of Effect: _4 – Bypass Reach**

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 Resources Protection**	*X*				
H	**Recreational Resources**			*X*		

Facility Name: _Rumford Falls Project **Zone of Effect: _5 –Downstream River Reach**

Criterion		*Alternative Standards*				
		1	*2*	*3*	*4*	*Plus*
A	**Ecological Flow Regimes**	*X*	*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 Resources Protection**	*X*				
H	**Recreational Resources**			*X*		

VI. Detailed criteria review

A. *Ecological Flow Regimes*

Goal: The flow regimes in riverine reaches that are affected by the facility support habitat and other conditions suitable for healthy fish and wildlife resources.

The Owner applied Standard A-1, Not Applicable/De Minimis for Zones 1, 3, and 5. The LIHI Handbook allows all impoundments to select Standard A-1 to pass this criterion, with an explanation of water management practices and a description of how flows and wildlife habitat within the zones are managed. Both impoundment zones (1 and 3) are required to operate within one foot of the full pond elevation. All Project operations are monitored by Brookfield's National System Control Center 24 hours/day, and any deviations are reported to FERC within 24 hours (according to a statement by the applicant.) There are several reports of deviations filed on the FERC e-library, and they were determined not to be violations. The Owner reported these instances promptly and took corrective action to avoid future deviations. In the Environmental Assessment (EA),[7] MDIF&W determined that maintaining stable impoundment levels would result in operations of the Project not having an adverse impact on wildlife resources and aquatic life. Zone 5 is required to receive a minimum flow

[7] https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=12783122

of 1,034 cfs or inflow, whichever is less, from the Project immediately below the lower dam[8]. This agency requirement necessitates a re-designation of this Standard from A-1 to A-2, Agency Recommendation. The EA determined that this flow regime was adequate to "achieve and maintain suitable use of waters affected by the project as habitat for fish." The Owner appears to follow this requirement.

The Owner applied Standard A-2, Agency Recommendation for Zones 2 and 4, both bypassed reach zones. The bypassed reach zone beneath the Upper Dam is approximately 650 feet-long and provides 1 cfs through leakage in this zone, which consists primarily of ledge bedrock (see Figure 2). The bypassed reach downstream of the Middle Dam is approximately 3,500 feet-long and is required to provide 21 cfs through leakage into this reach, which includes a narrow pool, bedrock outcroppings and steep cascades (see Figure 3.) During Project relicensing, the Owner conducted water quality and fishery habitat studies of the bypassed reach and determined that the combination of steep gradient, substrate and lack of safe access limit any fishery management opportunities in the bypassed reaches, and that spill flows are not needed. The MDIF&W and US Fish and Wildlife Service (FWS) agreed with the results.

The Owner appears to meet agency recommendations to provide bypassed flows through leakage into these zones and therefore, the Project satisfies the ecological flows criterion.

Figure 2 - Zone 2 (upper dam bypassed reach)

Figure 3 - Zone 3 (middle dam bypassed reach)

B. *Water Quality*

Goal: Water quality is protected in waterbodies directly affected by the facility, including downstream reaches, bypassed reaches, and impoundments above dams and diversions.

The Owner selected Standard B-2, Agency Recommendation, for each zone. The Androscoggin River has historically been "severely degraded" according to the Environmental Assessment, due to industrial wastewater discharges. In fact, the pollution in the Androscoggin River was so severe that it inspired Maine Senator Edmund Muskie to draft the Clean Water Act in 1972. Water quality has improved recently, due to improved wastewater management practices. The impacted river is designated as Class C and impaired for PCBs and dioxins caused by legacy pollutants, as well as by mercury from atmospheric deposition. During Project relicensing, the previous owner conducted a water quality sampling study, using existing and new (collected) data to determine compliance with Class C standards. The results contained in the report *"Characterization of the Existing Dissolved Oxygen Regime and Assessment of the Appropriateness of*

[8] This is equivalent to the Aquatic Base Flow based on data collected at the Rumford stream flow gage immediately downstream of the lower tailrace.

Reaeration at the Rumford Falls Hydro Project" (Main, 1989)[9] determined that the DO values and saturation percentages attained Class C standard. The EA concluded that run-of-river operation while maintaining the 1,034 cfs aquatic baseflow downstream of the Project should be adequate to maintain compliance with Class C DO standards. The Maine Department of Environmental Protection provided comments on this recertification application on April 17, 2019, and stated (see Attachment 1):

"The Department has no evidence to suggest that the continued operation of the project will negatively impact the designated uses, numeric or narrative criteria of its classification standards (Class C)."

Based on this conclusion and ongoing compliance with the water quality certificate, the Owner demonstrated compliance with agency recommendations, and therefore, the Project satisfies the water quality criterion.

C. *Upstream Fish Passage*

Goal: The facility allows for the safe, timely, and effective upstream passage of migratory fish. This criterion is intended to ensure that migratory species can successfully complete their life cycles and maintain healthy, sustainable fish and wildlife resources in areas affected by the facility.

The Owner selected Standard C-1, Not Applicable/De Minimis for each zone, contending that there are no migratory fish species present in the Project vicinity. The record supports this statement. The Environmental Assessment concluded that "fish passage at this project is not an issue," and both the Atlantic Sea-run Salmon Commission and the Department of Marine Resources confirmed during Project relicensing that no resources under their jurisdiction (which includes migratory species) were present within the Project limits. During fishery surveys, only warmwater species were identified (chain pickerel, golden shiner, fallfish, white sucker, pumpkinseed and yellow perch.) The EA concluded that the operating parameters would be sufficient to protect habitat for resident fish species.

Standard C-1 also requires that the Facility did not contribute to the extirpation of migratory fish species from the area. The record is clear that dams built along the course of the Androscoggin River led to the decline of Atlantic Salmon and other migratory species. However, these same records state that the Rumford Falls was the upstream extent of the natural migratory course. For example, the book *The Kennebec Estuary: Restoration Challenges and Opportunities*[10] states that Atlantic Salmon historically migrated up the Androscoggin River to the base of the falls at Rumford, citing data from the late 1800s. It is therefore reasonable to conclude that the facility did not contribute to the extirpation of this species.

During the Stage I recertification review, it was pointed out that American eels have the potential to ascend downstream falls during migration and have been making a comeback in various rivers and tributaries in the Northeast. However, the same book cited above states that Rumford Falls was believed to the upstream limit of eel migration, citing both the MDEP and MDMR as references. The Owner reached out to Maine Department of Inland Fisheries and Wildlife and received a determination that there are no confirmed occurrences of eels for any Androscoggin mainstem or tributary above the town of Auburn (see Attachment 1.) The record did identify one occurrence in Joe's Pond, located just upstream off a tributary of the Androscoggin, and records from the 1940s of occurrences in several additional ponds upstream. I placed a call to the Regional Fisheries Office for that portion of the state to determine whether that was a stranded/isolated population. MDIFW responded that a significant population of eels were identified in East Carry Pond, however this is not a tributary of the Androscoggin River. Based on the agency determination

[9] Rumford Falls Environmental Assessment, 1993 hyperlink
[10] Kennebec Land Trust, 2010 hyperlink

and the written record, it is reasonable to conclude that the facility did not contribute to the extirpation of this species.

In my opinion, the Owner meets Standard C-1, Not Applicable/De Minimis for all zones, and therefore, the Project satisfies the upstream fish passage criterion.

D. Downstream Fish Passage

Goal: The facility allows for the safe, timely, and effective downstream passage of migratory fish. For riverine (resident) fish, the facility minimizes loss of fish from reservoirs and upstream river reaches affected by Facility operations. All migratory species are able to successfully complete their life cycles and to maintain healthy, sustainable fish and wildlife resources in the areas affected by the Facility.

The Owner selected Standard D-1, Not Applicable/De Minimis for all zones. The same rationale used above applies to this criterion – there are no migratory species present at the Facility, and the record does not show that the Facility was responsible for the extirpation of species. Fish passage has never been required, although the agency maintains a reservation of authority to prescribe fishways in the future. During the most recent license amendment proceedings (2009), no agency made comments relative to fish passage. During the original licensing proceedings, one intervenor noted that the project had significant effects on resident fish. However, the EA addressed with this comment, stating "We disagree; considering the limited fishery management objectives and the discontinued stocking of trout in the project area, any continuing impact to the fishery is not expected to be significant."

In my opinion, the Owner meets Standard D-1, Not Applicable/De Minimis for all zones, and therefore, the Project satisfies the downstream fish passage criterion.

E. Watershed and Shoreline Protection

Goal: The Facility has demonstrated that sufficient action has been taken to protect, mitigate and enhance the condition of soils, vegetation and ecosystem functions on shoreline and watershed lands associated with the facility.

The Owner selected Standard E-1, Not Applicable/De Minimis for all zones. The application states that there is *"very little land and no lands of significant ecological value within the project boundary."* In Zones 2-5, the FERC project boundary maps show these zones to be in the towns of Rumford and Mexico, Maine, with impervious area and urban environment immediately surrounding the Project (see Figure 1 above.) Zone 1 consists primarily of farmland and/or cleared land surrounding the reservoir that is included in the FERC project boundary. There are some short stretches of wooded area along the reservoir, and based on the original certification review report, there is a buffer zone (10 – 800 feet wide) along both shorelines of the Upper Dam impoundment. The EA states that most of the land around the Project impoundment and within the FERC project boundary (corresponding to Zone 1) is owned by private individuals and the Town of Rumford.

In a subsequent email (May 21, 2019), the Applicant stated that the land on the west side between Middle and Upper Dams is gated and very steep (particularly next to the Upper Falls), access to these lands is only for company personnel at Middle Dam, and the old Trail that was located here was closed to the public due to the risk of rock falls along the trail. Land to the east side of the Middle Dam impoundment is leased to the Town of Rumford for the Visitors Center and Memorial Park, land south of off of Prospect Avenue is fenced and gated as the Upper Dam parcel. Upstream approximately 0.9 miles past the South Rumford Road Bridge over the River, to a point just south of Wheeler Island is within the project boundary. There is

a recreation trail that runs through the parcel south of the So. Rumford Road Bridge that is maintained in agreement with the local ATV Club, and land to the west of the river is around the wet area known as Logan Brook. There is an Island site around the Carlton Street Boat Launch (Recreation Site) on the Swift River below the Lower Station that is also within the project boundary. The rest of the upstream impoundment is the highwater elevation of the river to the upper extent of the project boundary.

In my opinion, the Owner appropriately selected Standard E-1 by demonstrating that very little land of significant ecological value exists within all zones, and therefore, the Project satisfies the watershed and shoreline protection criterion.

F. Threatened and Endangered Species

Goal: The Facility does not negatively impact listed species.

The Owner selected F-1, Not Applicable/De Minimis for all zones. The application states that there are "no documented threatened or endangered aquatic species in this reach of the Androscoggin River." Although the 2019 USFWS IPAC report shows Atlantic Salmon as an endangered species for this area, there is no critical habitat in this stretch of the Androscoggin River, and as stated above in Criterion C, the record indicates that Rumford Falls was the upstream extent of their migratory route. The IPAC report also shows Northern Long-eared Bat range throughout Maine. The application states that there is no tree-clearing or corridor maintenance activities in the Project boundary, and therefore no impact to the roosting area for this species. Of the Maine state-listed species, only the Piping Plover and two species of Tern have essential habitat designated, and these are in coastal locations and not in the Project vicinity. At the time of licensing, USFWS noted that there were occasional and transient bald eagles and peregrine falcons in the project area, however no consultation was required under the Endangered Species Act[11].

In my opinion, the Owner appropriately selected Standard F-1, Not Applicable/De Minimis for all zones, and therefore the Project satisfies the threatened and endangered species criterion.

G. *Cultural and Historic Resources Protection*

Goal: The Facility does not inappropriately impact cultural or historic resources that are associated with the Facility's lands and waters, including resources important to local indigenous populations, such as Native Americans.

The Owner selected Standard G-1, Not Applicable/De Minimis for all zones except for Zone 1 (Upper Dam impoundment) for which they selected Standard G-2, Agency Recommendation. The Project follows a Cultural Resources Management Plan in accordance with license article 406. The Owner provided a classified privileged document accompanying their revised application which included a "Cultural Resources Contingencies Plan." There are eight prehistoric archeological sites located in the Upper Dam impoundment and none in the other Zones. The Plan described the archeological field work that was completed at six of the sites and required aerial photography to be taken every five years of the impoundment shoreline, along with other visual monitoring requirements for erosion and vandalism on an annual basis. The Owner is required to consult with the State Historic Preservation Office (SHPO) on any land-disturbing work. I located the most recent two five-year reports which were filed (2014 and 2019) and confirmed that monitoring and reporting was completed as required.

In my opinion, the Owner appropriately selected Standard G-2 for the Upper Dam impoundment and

[11] Letter from Cordon E. Beckett, Field Supervisor, New England Field Office, U.S. Fish and Wildlife Service, Concord, New Hampshire, June 16, 1992).

demonstrated compliance with agency recommendations. While the other zones are included in the CRMP and the Owner could have selected Standard G-2 in those zones, there are no reported cultural or historic resources in those zones and Standard G-1 is appropriate. Based on the information provided and reviewed, the Project satisfies the cultural and historic resources criterion.

H. *Recreation*

Goal: The facility accommodates recreation activities on lands and waters controlled by the facility and provides recreational access to its associated lands and waters without fee or charge.

The Owner selected Standard H-3, Assured Accessibility for all zones except Zone 2, which applied Standard 1, Not Applicable/De Minimis. Zone 2 consists of the upper dam bypassed reach which is inaccessible to the public. Recreational opportunities elsewhere are limited to recreational fishing and boating in Zone 1, and shoreline fishing in Zones 3, 4 and 5. Much of the original land purchased to develop the Project has been returned to public use. Launch points are provided at an unimproved boat launch located on the south shore, a boat launch that is trailor-compatible located on the north shore, and a canoe portage required under license articles 407 and 408. The most recent recreational report shows that the Owner provides free access to all recreational points, and approximately 5,410 visits were observed at the Project site in 2014.

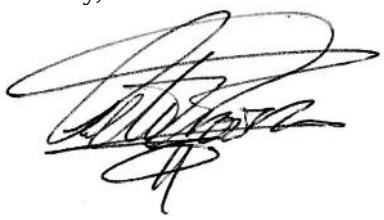
In my opinion, the Owner appropraitely selected Standard H-3 and demonstrated a commitment to assured access for the public. Therefore the Project satisfies the recreation criterion.

VII. Conclusion

In my opinion, the materials provided and referenced above are sufficient to make a recertification recommendation. In conclusion, I recommend recertification of the Rumford Falls Hydroelectric Project for a new, five-year term with no conditions.

Please contact me if you have any questions.

Sincerely,

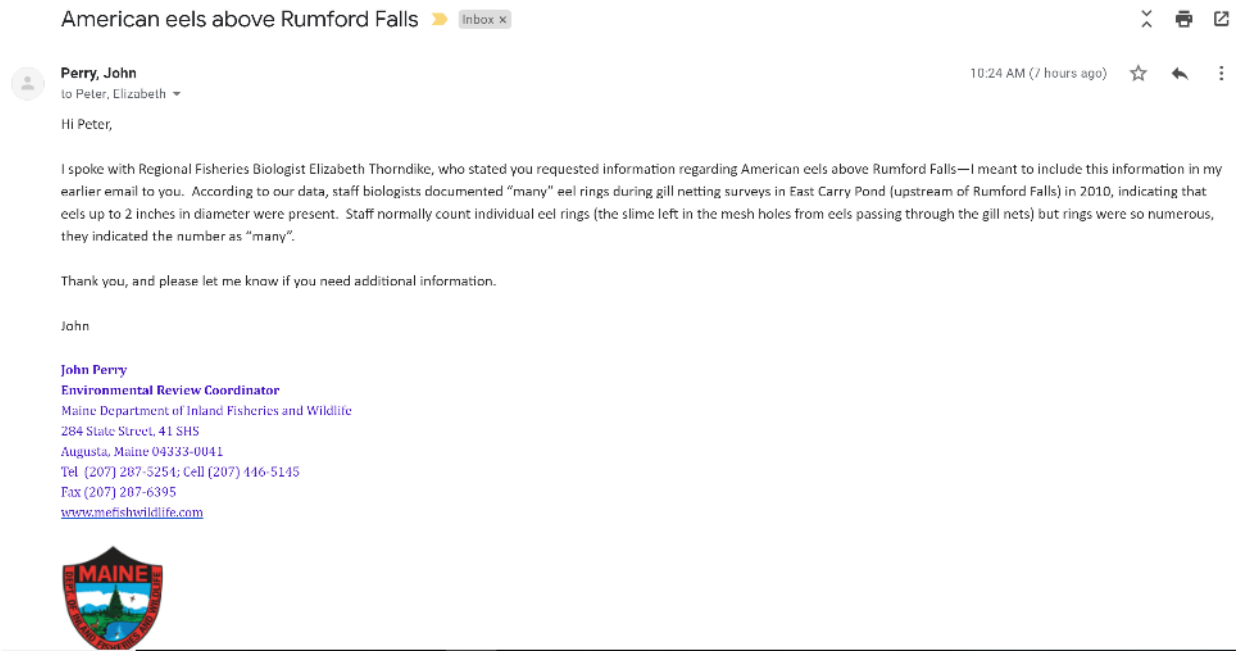


Peter R. Drown, President
Cleantech Analytics LLC

Rumford Falls Recertification Review – 2019

Attachment 1
Agency and Applicant Communications

Date: May 1, 2019
Contact Person: John Perry, Environmental Review Coordinator
Agency: Maine Department of Inland Fisheries and Wildlife



American eels above Rumford Falls Inbox ×

Perry, John
to Peter, Elizabeth

10:24 AM (7 hours ago)

Hi Peter,

I spoke with Regional Fisheries Biologist Elizabeth Thorndike, who stated you requested information regarding American eels above Rumford Falls—I meant to include this information in my earlier email to you. According to our data, staff biologists documented "many" eel rings during gill netting surveys in East Carry Pond (upstream of Rumford Falls) in 2010, indicating that eels up to 2 inches in diameter were present. Staff normally count individual eel rings (the slime left in the mesh holes from eels passing through the gill nets) but rings were so numerous, they indicated the number as "many".

Thank you, and please let me know if you need additional information.

John

John Perry
Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel. (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com

Note that East Carry Pond is not associated with the Androscoggin River, it discharges to the Kennebec River

Rumford Falls Recertification Review – 2019

Date: April 17, 2019
Contact Person: Christopher Sferra, Acting Project Manager
Agency: Maine Department of Environmental Protection

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

GERALD D. REID
COMMISSIONER

April 17, 2019

RE: LOW IMPACT HYDROPOWER INSTITUTE STAGE II APPLICATION FOR RECERTIFICATION FOR THE RUMFORD FALLS PROJECT (FERC NO. 2333); LIHI CERTIFICATE NO. 38

To whom it may concern:

The Rumford Falls Project is located on the Androscoggin River in the town of Rumford, in Oxford County, Maine. The Project consists of two discrete hydropower developments, the Upper Station Development and the Lower Station Development.

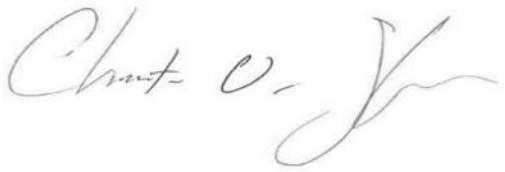
In 2009, Rumford Falls was certified as low impact for a five-year term expiring December 10, 2013. On November 18, 2013, an application was submitted for a second term of certification at the same project. On November 18, 2014, the LIHI governing board, determined that the Rumford Falls Hydroelectric project (FERC No. 2333) continued to meet the LIHI Certification Criteria. Brookfield Renewable Energy Group applied for a LIHI Recertification for the Rumford Falls Project on March 12, 2019.

The Department of Environmental Protection has reviewed its most recent water quality data for surface waters of the Rumford Falls project. The Department has no evidence to suggest that the continued operation of the project will negatively impact the designated uses, numeric or narrative criteria of its classification standards (Class C). Department data indicates that both the Upper and Lower stations which make up the project, operate as run of river facilities. The Androscoggin River surface waters upstream and downstream of the project are Class C waters, the 4th highest classification. The Department's latest Integrated Water Quality and Assessment Report (305b Report) indicates the river is not attaining all water quality standards. Specifically, it is not attaining the designated use of fishing since there is a statewide fish consumption advisory for all freshwaters due to mercury. The Androscoggin River has additional advisories for dioxin and PCB contamination. The Department has determined that the non-attainment status is not a result of the operation of the Rumford Falls Project. No fish passage facilities are present at the project, however, there are several hydroelectric dams downstream of the Rumford Falls Project and no diadromous fish species are found in the river reaches between the Lower Station and the Riley Dam.

Therefore, the Department supports the recertification for the Rumford Falls Project (FERC No. 2333); LIHI Certificate No. 38.

Please feel free to contact me at (207) 446-1619 or via email at Christopher.Sferra@maine.gov if you have any questions regarding this project.

Sincerely,



Christopher O. Sferra, Acting Project Manager
Bureau of Land Resources

Rumford Falls Recertification Review – 2019

Date: April 23, 2019
Contact Person: John Perry, Environmental Review Coordinator
Agency: Maine Department of Inland Fisheries and Wildlife

Perry, John
to James, Peter

Tue, Apr 23, 4:45 PM (1 day ago)

Hi Peter,

I am not aware of any ongoing issues of noncompliance or issues of concern affecting the operation of the Rumford Falls Project.

John

John Perry
Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041
Tel (207) 287-5254; Cell (207) 446-5145
Fax (207) 287-6395
www.mefishwildlife.com

Rumford Falls Recertification Review – 2019

Date: March 12, 2019
Contact Person: Merry Gallagher, Native Fish Conservation Biologist
Agency: Maine Department of Inland Fisheries and Wildlife

-----Original Message-----
From: Gallagher, Merry <Merry.Gallagher@maine.gov>
Sent: Tuesday, March 12, 2019 3:21 PM
To: Leblanc, Matthew <matthew.leblanc@brookfieldrenewable.com>
Cc: Dill, Richard <Richard.Dill@brookfieldrenewable.com>; Deluca, Ernest <Ernest.Deluca@brookfieldrenewable.com>
Subject: RE: eels

Hi Matt,
I searched through our efishing database and do not have any confirmed eel occurrences for any Androscoggin mainstem or tributary site above about Auburn for American eel. Records go back to about 1990 in that database. However, I do have one confirmed eel presence for Joes Pond (watcode = 7618; lat 44.533, long -70.582). Presence confirmed in 2001. If you want additional info on this occurrence, you would have to contact the regional fishery office (Strong; phone 778-3322) for further info about the record.

I do also have historical records for eel presence in North, South and Round Ponds near Locke Mills from the 1940's.

I hope that helps!
Cheers!
Merry

Merry Gallagher
Native Fish Conservation Biologist
Division of Fisheries & Hatcheries
Maine Department of Inland Fisheries & Wildlife
650 State St.
Bangor, ME 04401
(207) 941-4381
Merry.Gallagher@maine.gov