

Full Application Review for Low Impact Hydropower Certification of Hunts Pond Hydroelectric Facility



Prepared by Peter Drown, Cleantech Analytics LLC

November 9, 2015



I. Executive Summary

The Hunts Pond Dam Hydroelectric Project (“Project”) is a 120 KW facility located on river mile 37.9 of the Millers River in the town of Winchendon, in Worcester County, Massachusetts. The Millers River is a 50+ mile-long river that flows from tributaries in Northern Massachusetts and Southern New Hampshire in a westward direction towards its confluence with the Connecticut River, draining a basin of approximately 390 square miles. The Project received its FERC Exemption from Licensing in on February 19, 1985, and was constructed that year at the site of an existing 184-foot long dam. The project received subsequent amendments to increase capacity, but the additional generation was never constructed due to bankruptcy of the previous owner. After being purchased by its current owner, Winchendon Hydroelectric LLC, a wholly-owned subsidiary of O’Connell Development Inc., the project received a new Amendment Order in 2013 authorizing the replacement of the two existing cross-flow units (total nameplate capacity 120 KW) with a double-regulated Kaplan (100 KW.) The project received authorization to begin construction on May 18, 2015, and is now seeking LIHI certification on the new project. **According to the FERC Exemption, generation on the new facility is anticipated to be approximately 506,000 KWh.**

River flows within the Millers River Watershed are impacted by several impoundments operated for flood control, including Army Corps Facilities (Tully Lake and Birch Hill,) and various reservoirs (Lake Monomonac, Lower Naukeag Lake, Sunset Lake Pond, and Whitney Pond.) The segment of the Millers River where Hunts Pond is located is listed as Category 5, Impaired on the 2012 Massachusetts List of Integrated Waters. However, MDEP and USFWS confirmed the existence and operation of this project does not cause nor contribute to this listing. The project area was identified as possible habitat for the Northern Long-eared Bat, but the USFWS confirmed that no impact to the bat was anticipated as long as no tree-cutting activity took place at the site. The applicant confirmed that no tree-cutting will occur during construction.

The project provided substantial documentation to LIHI to evaluate as part of their application, including flow compliance, operating plans and procedures, and letters from the U.S. Fish and Wildlife Service (USFWS), Massachusetts Department of Fish and Wildlife (MDFW), and Massachusetts Department of Environmental Protection (MDEP.) Several of the letters provided by the applicant were from 2013, prior to the exemption amendment process. As part of this review, these agencies were re-contacted to verify that the original recommendations still remained and no new issues were identified. All of the agencies either confirmed the original comments or provided additional comments supportive of the LIHI application. None of the agencies objected to the increased capacity or LIHI certification, with the conditions that the applicant provides a flow monitoring plan for approval by the agencies within three months of completion of project construction, and MDFW requested a commitment that the applicant installs upstream and downstream eel passage measures when required by agencies. Both of these requirements are included in the FERC exemption. These agencies noted that five downstream facilities will require passage prior to Hunts Pond Dam, and efforts have commenced at the furthest downstream project. No records of violations of any Exemption conditions were recorded on FERC e-library. In my opinion, the Project appears to be in compliance with LIHI criteria.

II. Recommendations

Based on a thorough review of the application and supporting documentation, public records, and communications with resource agencies, in my opinion the Hunts Pond Dam Hydroelectric Project meets the requirements for LIHI certification for one, five-year term, with the following condition:

- Within 30 days of LIHI Certification approval, the facility owner shall provide a letter to LIHI that commits to upstream and downstream passage protections for American Eel if and when such fish passage mitigation is determined to be necessary by the MDFW and/or USFWS.

III. Facility Description

The Hunts Pond Dam Hydroelectric Project (“Project”) is a 120 KW facility located on river mile 37.9 of the Millers River in the town of Winchendon, in Worcester County, Massachusetts. The project is located upstream of six dams and downstream of three dams on the main stem of the Millers River. Whitney Dam (a non-powered dam,) is ~0.5 miles upstream and Tannery Dam (P-8895) is ~0.3 miles downstream. The Millers River is a 50+ mile long river fed from tributaries in Rindge and New Ipswich New Hampshire and Lake Monomonac and numerous ponds feeding the main stem on its way to confluence with the Connecticut River. The manipulation of pond levels at Army Corps Projects for flood control (Tully Lake and Birch Hill,) and fluctuating pond levels by local municipalities affect flows on the Millers River. The total drainage area of the Millers River is approximately 390 square miles.

River flows within the Millers River Watershed are impacted by several impoundments operated for flood control, including Army Corps Facilities (Tully Lake and Birch Hill,) and various reservoirs (Lake Monomonac, Lower Naukeag Lake, Sunset Lake Pond, and Whitney Pond.) The Hunts Pond Dam reservoir begins at the discharge of the upstream Whitney Pond Dam in central Winchendon, which is located at the confluence of the North Branch and Main Stem of Miller River. After the Hunts Pond impoundment, the Millers River continues through a short stretch of rapids approximately 0.3 miles to the Tanner Pond Dam. Downstream of this project the river slows and eventually passes through the Birch Hill Flood Control Project area, before joining with the Otter River. Beyond this project the river drops over 225 feet in five miles, fluctuating between rapids and semi-uniform flow. After joining several additional bodies of water and passing through additional dams and wastewater treatment plant discharges until it enters the Connecticut River in Gill, MA. Detailed schematics of the facilities located along the Millers River and its tributaries are provided in Appendix 1 of the Application.

The Hunts Pond reservoir has a volume of 120 acre-feet and surface area of 13 acres, and is on average 7.5 feet deep. Pond levels are controlled automatically by a PLC (Programmable Logic Controller) system, which maintains the project run of river and minimum flow requirements (25 CFS or inflow.) The Applicant provided a detailed description of the Standard Operation Procedure for reservoir and flow operations in the application. The PLC sensors detect increases and decreases in pond elevation and automatically open or close modulating intake wicket gates, regulating flow to the two cross flow turbines. Importantly, the applicant also provided a SOP for the proposed new single unit, including a new control system that records detailed data for flows and head pond and tailwater elevation. The

project is required to submit a compliance monitoring plan after consultation with resource agencies within three months of project construction.

The total area occupied by non-reservoir facilities encompasses 2,260 square feet and consists of the dam, intake structure and powerhouse. 184-foot long, 16-foot high concrete Hunts Pond Dam was built in 1936, including a 32-foot concrete south abutment, 41-foot long south abutment, and 97-foot long center section. The concrete intake structure is approximately 25 feet long and includes a steel head gate (chain-hoisted,) and 1" spaced trashracks. No design changes to the dam or intake structures are required for the proposed installation of the new Kaplan unit. The powerhouse, built in 1985, is wood frame construction and contains two custom-built 1980's vintage cross-flow turbines with nameplate ratings of 30 KW and 90 KW. The 2013 FERC Exemption Amendment allows the replacement of these two turbines with a new, double-regulated Kaplan turbine and 100 KW nameplate generator. Despite the lower nameplate rating, the replacement of the two older turbines will actually yield a net increase of 201 MWh/year. The project completion date was originally December 2013 – summer 2014, but this has been extended by FERC to allow for new construction, anticipated by November 2015.



Figure 1 - Hunts Pond Dam Plan View



Figure 2 - Hunts Pond Dam From Reservoir (Powerhouse is brown structure)



Figure 3 - Hunts Pond Dam (view from Powerhouse)



Figure 4 - Tailrace (facing downstream)

IV. Regulatory Status

The Mason & Parker Manufacturing Company received an Exemption from FERC License (<5 MW) for the Hunts Pond Dam Hydroelectric Project on February 19, 1985 (FERC #P-8012.) The Exemption was subsequently amended on June 27, 1991 to increase the installed capacity from 120 KW – 320 KW. In late '91/early '92 the facility was transferred to Behrens Energy Systems, which fell into bankruptcy very shortly after assuming control of the facility. The additional capacity was never built and the unit remained offline from the time of bankruptcy (approximately 2-3 years.) In 1996, the facility was purchased by O'Connell Development Inc., and is now owned and operated by O'Connell's wholly owned subsidiary Winchendon Hydroelectric, LLC. O'Connell refurbished the facility and restored the plant to fully operating condition, and the project has no records of noncompliance with exemption requirements during that time. The project provided 10 years of self-reported compliance letters to FERC. On July 17, 2012, FERC conducted an inspection of the Hunts Pond Project, and found the features and associated facilities to be in satisfactory conditions, with the exception of some concrete spalling on the central pier.

On August 22, 2013, FERC issued an Order Amending Exemption to Winchendon Hydroelectric LLC to replace the two existing cross-flow turbines rated at 120 KW with a single double regulated Kaplan unit rated at 100 KW. The owner consulted with USFWS and MDFW prior to making the changes, and both agencies had no objections provided the hydraulic capacity and minimum flow requirement were not altered. In addition, the agencies requested that the Amendment clarify mode of project operation to be instantaneous run-of-river, and requiring a compliance monitoring plan within three months of completion of project construction. FERC issued an Order approving the Start of Construction date on May 18, 2015. The applicant plans to commission the new turbine in November 2015.

Detailed Criteria Review

A.) Flows

1. *Is the Facility in Compliance with Resource Agency Recommendations issued after December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?*

Yes – Pass, go to B. Flow Requirements were issued in the original FERC Exemption issued February 1985, and again as part of the FERC Exemption Amendment issued August 22, 2013. Article 2 of the 1985 Exemption Order requires the Exemptee to operate in run-of-river mode and discharge a minimum flow of 25 cfs (historical median August low flow), or inflow, whichever is less, downstream of the project site for protection of aquatic habitat. The tailrace is located adjacent to the base of the dam, resulting in no bypassed reach channel and establishing “true” run-of-river conditions, confirmed by resource agencies (Slater, 2015). The Applicant provided 10 years of flow confirmation letters from the project owner, certifying that the required flow conditions at the site were maintained. Run of river operation is maintained through the use of PLC and SCADA control systems installed in 1996, which have been periodically updated with new technological advances. Plant status is data logged at 30 minute intervals, and provides a remote interface for operators with the dam operation at all times.

Caleb Slater from MDFW provided several comments on the Hunts Pond LIHI application, found in Section VI and Appendix A. On April 23, 2013, Slater noted: “As the project operates as Run of River and has no significant bypass reach it is in compliance with flow recommendations.” Mr. Slater provided an updated letter to the Applicant on September 10, 2015, reconfirming the information presented in the original letter. During the 2013 Exemption Amendment process, the U.S. Department of Interior (on behalf of USFWS,) requested that Condition No. 2 be modified to clarify that the project operation should be instantaneous run-of-river. In addition, Interior requested the exemptee develop a compliance monitoring plan for its approval within three months of completion of project construction. These changes were implemented in the Amendment Order, and the Applicant noted the compliance plan will be submitted within the requested timeframe. In my opinion, the documentation provided by Applicant, written confirmation by MDFW, and absence of any violations demonstrate compliance with Resource Agency Recommendations regarding flow conditions.

B.) Water Quality

1. *Is the Facility either:*
 - a. *In Compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the Facility after December 31, 1986? Or*

N/A – Go to B. No Water Quality Certification was issued for this Facility.

- b. *In Compliance with the quantitative water quality standards established by the state that support designated uses pursuant to the federal Clean Water Act in the Facility area and in the downstream reach?*
2. *Is the Facility area or the downstream reach currently identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act?*

Yes – Go to B3. The applicant submitted the 2012 Massachusetts List of Integrated Waters, which includes the segment of the Miller’s River as Category 5, Impaired.

3. *If the answer to question B.2 is yes, has there been a determination that the Facility does not cause, or contribute to, the violation?*

Yes – Go to C. The applicant provided a letter dated April 26, 2013 from Robert Kubit, P.E. from the Massachusetts Department of Environmental Protection, stating: “The Department has reviewed available information regarding water quality in the river segment where this facility is located and believes this facility does not cause nor contribute to water quality violations.” On September 3, 2015, Mr. Kubit confirmed this original assessment and made no changes. The applicant also provided an email dated March 28, 2013 from Melissa Grader from the USFWS stating: “We are aware of no data documenting that Class B Cold Water Fishery (BCWF) water quality standards are being maintained (or violated) within the project area.” In my opinion, the weight of the two comments is sufficient evidence to pass this criterion. See Appendix A for agency comments pertaining to water quality.

C.) Fish Passage and Protection

1. *Are anadromous and/or catadromous fish present in the Facility area or are they known to have been present historically?*

Yes – Go to C2.

2. *Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and downstream passage of anadromous and catadromous fish issued by Resource Agencies after December 31, 1986?*

N/A – Go to C3. There are no Mandatory Fish Passage requirements issued for the Facility.

3. *Are there historic records of anadromous and/or catadromous fish movement through the Facility area, but anadromous and/or catadromous fish do not presently move through the Facility area (e.g., because passage is blocked at a downstream dam or the fish no longer have a migratory run)?*

Yes – Go to C3(a). On October 20, 2015, Dr. Caleb Slater from MDFW provided comment to LIHI noting the existence of American eel in the project area. Upstream eel passage has been installed on the first dam on the Millers River (New Home Project, also owned by O’Connell’s,) and the MDFW and USFWS

plan to require upstream eel passage at additional dams in the watershed, however 5 dams downstream of the project will require passage before it will be required at Hunts Pond Dam.

- a. *If the fish are extinct or extirpated from the Facility area or downstream reach, has the Applicant demonstrated that the extinction or extirpation was not due in whole or part to the Facility?*

N/A – Go to C3(b).

- b. *If a Resource Agency Recommended adoption of upstream and/or downstream fish passage measures at a specific future date, or when a triggering event occurs (such as completion of passage through a downstream obstruction or the completion of a specified process), has the Facility owner/operator made a legally enforceable commitment to provide such passage?*

Yes – Go to C6. On March 28, 2013 Melissa Grader, Fish and Wildlife Biologist for USFWS, commented: “The FWS terms and conditions require that the Exemptee provide fish passage facilities when prescribed by the FWS and/or MDFW. To date, neither agency has triggered this fish passage requirement through the FERC process. As O’Connell is well aware, efforts are underway to implement passage for the American eel at the first project on the river (O’Connell’s New Home Project). However, WH does not expect to trigger eel passage at the Hunts Pond Project (which is well upstream of New Home with a number of dams in between) within the term of any initial LIHI certification.” The applicant provided a letter dated April 23, 2013 from Dr. Caleb Slater, Anadromous Fish Project Leader from MDFW, stating: There are no current fish passage requirements, however we would like a commitment to upstream and downstream passage protections for American eel when determined to be necessary by the Division and/or USFWS.” Dr. Slater provided an updated letter on September 10, 2015, stating he had no changes to his previous comments. The applicant is required to provide passage at a future date per the terms and conditions of the License Exemption. However, I am including the recommendation from MDFW that the applicant provide commitment to upstream and downstream passage protections for American Eel when determined to be necessary by the MDFW and/or USFWS.

6. *Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish?*

N/A – Go to C7. There are no Mandatory Fish Passage Prescriptions for the Facility.

7. *Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?*

N/A – Pass. There are no Resource Agency Recommendations for entrainment protection for the Facility.

D.) Watershed Protection

1. *Is there a buffer zone dedicated for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low-impact recreation) extending 200 feet from the average annual high water line for at least 50% of the shoreline, including all of the undeveloped shoreline?*

No – Go to D2.

2. *Has the Facility owner/operator established an approved watershed enhancement fund that: 1) could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.1, and 2) has the agreement of appropriate stakeholders and state and federal resource agencies?*

No – Go to D3.

3. *Has the Facility owner/operator established through a settlement agreement with appropriate stakeholders, with state and federal resource agencies agreement, an appropriate shoreland buffer or equivalent watershed land protection plan for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low impact recreation)?*

No – Go to D4.

4. *Is the facility in compliance with both state and federal resource agencies recommendations in a license approved shoreland management plan regarding protection, mitigation or enhancement of shorelands surrounding the project?*

N/A – Pass. The applicant provided a letter from Melissa Grader, USFWS, dated March 28, 2013, stating: "The Service, to date, has not required a Shoreland Management Plan pursuant to our statutory authority under Section 30(C) of the Federal Power Act." The applicant provided a letter from Caleb Slater, MDFW, dated April 23, 2013, stating: "The facility is not in violation of any state required shoreline management plan." Mr. Slater provided an updated letter on September 10, 2015, reconfirming the information presented in the original letter. The site was inspected in 2006, and no signs of shoreline instability were observed, nor was any evidence of erosion or sloughing of the river channel below either powerhouse. No shoreland management plan is included in the 2013 FERC Exemption Order, so in my opinion the Applicant is in compliance with this criterion.

E.) Threatened and Endangered Species Protection

1. *Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?*

Yes – Go to E2. Melissa Grader, USFWS, provided a letter dated April 28, 2013, stating: "There are no federally listed endangered species within the project area." In addition, the Applicant provided a letter from MDFW dated April 23, 2013, stating: "The NHESP database does not contain any state-listed

species records in the immediate vicinity of the site.” To obtain more current information, I queried the Massachusetts OLIVER system to ensure no NHESP species records have been updated for the site since that time, and found that no state species are recorded in the project vicinity. In addition, the USFWS Information for Planning and Conservation (IPAC) database was queried to determine existence of any federal T&E species in the project area. The federally threatened Northern Long-eared Bat (*Myotis Septentrionalis*) was reported for this project area.

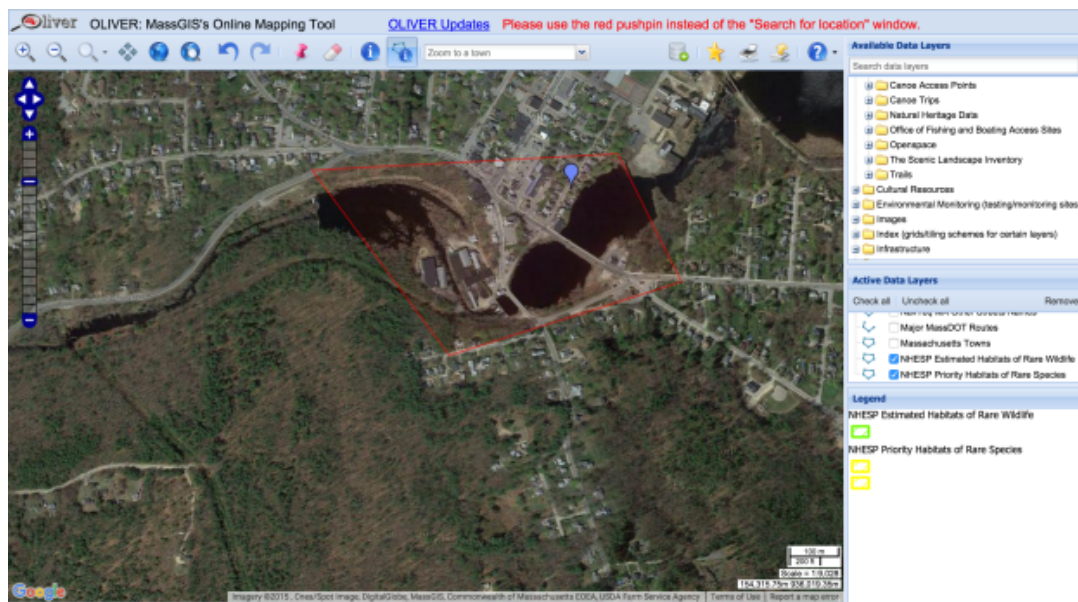


Figure 5 - Screenshot of NHESP Database Check

2. *If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?*

N/A – Go to E3.

3. *If the Facility has received authorization to incidentally Take a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental Take statement; (ii) Obtaining an incidental Take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authorization pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authorization?*

N/A – Go to E5.

5. *If E.2 and E.3 are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?*

Yes – Pass. The Northern Long-eared Bat was federally listed on May 5, 2015. The bat roosts in both live and dead trees during summer, and in large caves or mines during winter. During dusk the bats emerge

to fly through understory of forested hillsides and ridges, and also feeds by gleaning insects from vegetation and water surfaces. No critical habitat rules or conservation plans have been published for the Northern long-eared Bat¹. The predominant threat to the bat is White-nose syndrome, a fungal disease known to affect bats. Previous discussions with USFWS regarding the Northern Long-eared Bat suggests that if no tree-cutting activities are planned, or if these are planned after October 31, then the bat is not affected. The applicant confirmed that no tree-cutting activities would take place, and USFWS was contacted and confirmed that they anticipate no impact to the bat (see Appendix A.)

On April 26, 2013, the MDFW provided a letter to Applicant stating: “the Natural Heritage has determined that at this time the site is not mapped as Priority or Estimated habitat. The NHESP does not contain any state-listed species records in the immediate vicinity of the state.” The MDFW provided an additional letter dated September 08, 2015, reconfirming the original letter (see Appendix A.) Based on the agency comments, in my opinion the Applicant has demonstrated that the Facility does not negatively impact any federal or state-listed species.

F.) Cultural Resource Protection

1. *If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license or exemption?*

Yes – Pass. The facility is FERC-regulated but does not have any requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC exemption.

G.) Recreation

1. *If FERC-regulated, is the Facility in Compliance with the recreational access, accommodation (including recreational flow releases) and facilities conditions in its FERC license or exemption?*

N/A – Go to G2. No Recreational access conditions were included in FERC Exemption.

2. *If not FERC-regulated, does the Facility provide recreational access, accommodation (including recreational flow releases) and facilities, as Recommended by Resource Agencies or other agencies responsible for recreation?*

N/A – Go to G3. Project is FERC-regulated but no recreational access conditions exist.

3. *Does the Facility allow access to the reservoir and downstream reaches without fees or charges?*

Yes – PASS. The facility is located in an urban area, and all land adjacent to reservoir and downstream reaches are owned by non-related private parties. The only land owned by the Facility is the impoundment and powerhouse, which has restricted access for safety reasons.

¹ <https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A0JE>

H.) Facilities Recommended for Removal

1. *Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?*

No – Facility is LOW IMPACT.

V. Public Comments

One public comment was received from Dr. Caleb Slater from MDFW, and is included in Appendix A, “Resource Agency Comments.”

Appendix A. Resource Agency Comments

Date: October 20, 2015

Contact: Dr. Caleb Salter, Anadromous Fish Project Leader

Agency: Massachusetts Division of Fisheries & Wildlife



Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Jack Buckley, Director

October 20, 2015

Dana Hall, Director
Low Impact Hydropower Institute
34 Providence Street
Portland, ME
04103

RE: Hunts Pond Dam Project
FERC No. P-8012

Dear Ms. Hall:

The Department of Fish and Game ("DFG") hereby submits the following comments on the Low Impact Hydropower Institute's ("LIHI") Pending Application for the proposed LIHI certification of the Hunts Pond Dam Project (FERC No. P-8012) located on the Millers River in Winchendon, Massachusetts.

DFG is submitting these comments to LIHI in order to fulfill the requirements of the Massachusetts Department of Energy Resources ("DOER") Renewable Energy Portfolio Standard Regulations (225 CMR 14.00; "RPS I" and 225 CMR 15.00; "RPS II"). The RPS I and RPS II regulations were promulgated by DOER on January 1, 2009 and require that any hydroelectric project wishing to qualify as either a RPS I or RPS II generator first obtain LIHI certification. These regulations also require all relevant regulatory agencies to comment on the pending LIHI application.

PROJECT

The Hunts Pond Dam Project consists of the existing facilities:

1. The existing 16-foot-high, 184-foot-long, concrete dam
2. The impoundment having a surface area of 13 acres, a storage capacity of 120 acre-feet and a normal surface elevation of 954.4 feet (NGVD)
3. An intake structure
4. A powerhouse containing two generating units having a total authorized capacity of 320 kW and installed capacity of 120 kW
5. A 200-foot-long 4.16-kV transmission line

The project has an estimated average annual generation of 297,347 kWh.

FISH AND WILDLIFE RESOURCES

The Millers River supports fish and aquatic resources, including a number of resident fish species, and freshwater mussels. Restoration of migratory fish populations are ongoing in the basin.

IMPACTS AND MITIGATION

Run-of-river Operation

The project operates in a true run-of-river mode, with inflow equal to outflow on an instantaneous basis. Maintaining natural flow through the project protects the existing habitat which benefits fish and wildlife

www.mass.gov/masswildlife

Division of Fisheries and Wildlife

Field Headquarters, One Rabbit Hill Road, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-6301
An Agency of the Department of Fish and Game

species. Downstream habitats also benefit from run-of-river operation. The resulting stable flow regime supports the riverine assemblage in the free-flowing sections of river below the project.

Bypass Flows

The project has no bypass reach as the turbines discharge at the base of the dam.

Migratory fish

American eel have been documented area of the project site, and upstream eel passage has been installed on the first dam on the Millers River (New Home). The Division and the USFWS have plans to require upstream eel passage at more dams in the watershed, but there are 5 dams downstream of this project (Starrett, Cresticon-Lower, Cresticon-Upper, Birch Hill, and Tannery) that will require upstream eel passage before it will be required at this project.

Endangered Species

A review by the Division's Natural Heritage and Endangered Species Program (NHESP) found no regulated species in the project area.

COMMENTS

Division has no objection to certification of the Hunts Pond Project as a "low Impact" facility.

Thank you for this opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Caleb Slater".

Caleb Slater, Ph.D.
Anadromous Fish Project Leader

Date: October 03, 2015
Contact: Susi vonOettingen, Endangered Species Biologist
Agency: USFWS

10/5/2015

Gmail - Northern Long-eared Bat Impacts



Peter Drown <peter.drown@gmail.com>

Northern Long-eared Bat Impacts

2 messages

Peter Drown <peter.drown@cleantechanalytics.com>
To: "vonOettingen, Susi" <susi_vonoettingen@fws.gov>

Sat, Oct 3, 2015 at 6:57 PM

Hi Ms. vonOettingen,

I am performing a Low-impact Assessment for two hydropower projects currently under construction in MA. The projects are [REDACTED] and the Hunts Pond Dam (FERC # 8012). Both are very small hydropower projects at existing dams. The IPAC database revealed the presence of Northern Long-eared Bat.

There will be no tree-cutting in either project. Construction is limited to the powerhouse and dam.

Per our previous conversation, you mentioned that the habitat of the bat is unaffected if no tree-cutting is planned. Can you confirm this holds true for both of these projects as well?

Thank you,

--
Peter Drown, Principal
Cleantech Analytics LLC
(207) 951-3042

vonOettingen, Susi <susi_vonoettingen@fws.gov>
To: Peter Drown <peter.drown@cleantechanalytics.com>

Mon, Oct 5, 2015 at 9:20 AM

Yes, it does. If there is no tree clearing, then we would not anticipate impacts to bats.

Thanks for checking.

Susi

Susi von Oettingen
Endangered Species Biologist
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301
(W) 603-223-2541 ext. 6418
Please note my new extension.
www.fws.gov/newengland

[Quoted text hidden]

<https://mail.google.com/mail/u/0/?ui=2&ik=4642cf9445&view=pt&search=inbox&th=1502fed069e04e14&siml=1502fed069e04e14&siml=1503829482c1c3c9>

1/1

Date: October 03, 2015
Contact: Generic (IPAC Response Letter)
Agency: U.S. Department of Interior/USFWS



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland



Consultation Code: 05E1NE00-2016-SLI-0005
Event Code: 05E1NE00-2016-E-00010
Project Name: Winchendon Hydroelectric Facility

October 03, 2015

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.



United States Department of Interior
Fish and Wildlife Service

Project name: Winchendon Hydroelectric Facility

Official Species List

Provided by:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
(603) 223-2541
<http://www.fws.gov/newengland>

Consultation Code: 05E1NE00-2016-SLI-0005

Event Code: 05E1NE00-2016-E-00010

Project Type: DAM

Project Name: Winchendon Hydroelectric Facility

Project Description: Determining existence of federally-listed T&E species for LIHI review

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

<http://ecos.fws.gov/ipac>, 10/03/2015 03:16 PM

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United States Department of Interior
Fish and Wildlife Service

Project name: Winchendon Hydroelectric Facility

Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Mammals	Status	Has Critical Habitat	Condition(s)
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		

<http://ecos.fws.gov/ipac>, 10/03/2015 03:16 PM

Date: September 10, 2015
Contact: Dr. Caleb Slater, Anadromous Fish Project Leader
Agency: Massachusetts Division of Fisheries & Wildlife

Fisk, Steve

From: Slater, Caleb (MISC) <caleb.slater@state.ma.us>
Sent: Thursday, September 10, 2015 10:27 AM
To: Fisk, Steve
Subject: RE: Hunts Pond Dam, Winchendon LIHI Certification

Steve,

I have no change to my previous comments filed in 2013 for LIHI certification of the Hunts Pond Dam Project on the Millers River in Winchendon, MA.

Caleb



Caleb Slater, PhD
Anadromous Fish Project Leader
Massachusetts Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581
508-389-6331
www.mass.gov/masswildlife

From: Fisk, Steve [<mailto:SFISK@oconnells.com>]
Sent: Thursday, September 03, 2015 9:33 AM
To: Slater, Caleb (FWE)
Subject: Hunts Pond Dam, Winchendon LIHI Certification

Low Impact Hydro Institute (LIHI) has requested that we re-contact all relevant hydroelectric agencies again to review, update or respond "no change" to previous comments filed in 2013 for the Hunts Pond Dam located on the Millers River in Winchendon, MA. I attach the previous correspondence for your review.

The project scope of work has not changed since we last communicated.

Thank you

Steve

Stephen J. Fisk
General Manager

O'Connell Energy Group
Suite 200, 57 Suffolk St.
Holyoke, MA 01040

O'CONNELL
ENERGY GROUP

Office: 413.534.4660
Fax: 413.536.4911
Mobile: 413.537.9029
Email: sfisk@oconnells.com

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Date: September 08, 2015
Contact: Amy Hoenig, Endangered Species Review Biologist
Agency: Massachusetts Division of Fisheries & Wildlife

Fisk, Steve

From: Kubit, Robert (DEP) <robert.kubit@state.ma.us>
Sent: Thursday, September 03, 2015 2:21 PM
To: Fisk, Steve
Subject: RE: Hunts Pond Dam, Winchendon LIHI Certification

Hi Steve,

The Massachusetts Department of Environmental Protection has no change to comments previously submitted in reference to this Project's flow operations.

Bob

Robert Kubit, P.E.
MassDEP
Division of Watershed Management
8 New Bond Street
Worcester MA 01606
Telephone: (508) 767-2854
Email: robert.kubit@state.ma.us
Fax: (508) 791-4131

From: Fisk, Steve [<mailto:SFISK@oconnells.com>]
Sent: Thursday, September 03, 2015 9:33 AM
To: Kubit, Robert (DEP)
Subject: Hunts Pond Dam, Winchendon LIHI Certification

Low Impact Hydro Institute (LIHI) has requested that we re-contact all relevant hydroelectric agencies again to review, update or respond "no change" to previous comments filed in 2013 for the Hunts Pond Dam located on the Millers River in Winchendon, MA. I attach the previous correspondence for your review.

The project scope of work has not changed since we last communicated.

Thank you

Steve

Stephen J. Fisk
General Manager

O'Connell Energy Group
Suite 200, 57 Suffolk St.
Holyoke, MA 01040

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ENERGY GROUP

Office: 413.534.4680
Fax: 413.536.4911
Mobile: 413.537.9029
Email: sfisk@oconnells.com

Date: April 26, 2013

Contact: Robert Kubit, Environmental Engineer

Agency: Massachusetts Department of Environmental Protection



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7850

DEVAL L. PATRICE
Governor

TIMOTHY P. MURPHY
Lieutenant Governor

HOWARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMEL
Commissioner

Stephen J. Fisk, General Manager
O'Connell Energy Group
57 Suffolk Street, Suite 200
Holyoke MA 01040

April 26, 2013

Re: Application of Hunts Pond Project (FERC # P-8012) for Certification by the Low Impact Hydropower Institute 35-01

Dear Mr. Fisk,

In response to your request that the MA Department of Environmental Protection (the Department) provide you with a letter confirming that:

If there is no flow condition recommended by any Resource Agency for the Facility, or if the recommendation was issued prior to January 1, 1987, the Facility is in Compliance with a flow release schedule, both below the tailrace and in all bypassed reaches, that at a minimum meets Aquatic Base Flow standards or "good" habitat flow standards calculated using the Montana-Tennant method.

The Hunts Pond exemption was issued in 1985 with no associated water quality certificate. Instantaneous run of river flow is an exemption condition, however, the Department has never required nor ever received flow records from the facility to verify that this condition has been met. As noted in the Millers River Watershed 2000 Water Quality Assessment Report, pulsing flows have been recorded at the USGS gauge for this river segment. Possible causes include reservoir operations at Lake Monomonic and Whitney Pond or operations at Hunts Pond and Tannery Pond hydroelectric facilities. We recommend that to ensure run-of-river operations, all dam operators install, calibrate and maintain a continuous streamflow monitoring gauge or determine some other method to ensure compliance with run-of-river operations.

Note the Department relies on our sister agency, the MA Division of Fish & Wildlife, to determine adequate minimum flows from hydroelectric facilities.

This information is available in alternate format. Call Michelle Watson-Ekston, Diversity Director, at 617-293-5751. TDD 1-866-639-7622 or 1-617-679-4956

MassDEP Website: www.mass.gov/dep

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The Department has reviewed available information regarding water quality in the river segment where this facility is located and believes this facility does not cause nor contribute to water quality violations.

Please let me know if any additional information is needed. My phone number is 508-767-2854.

Sincerely,

Robert Kubit, P.E.

Date: September 08, 2015
Contact: Amy Hoenig, Endangered Species Review Biologist
Agency: Massachusetts Division of Fisheries & Wildlife

Fisk, Steve

From: Hoenig, Amy (FWE) <Amy.Hoenig@MassMail.State.MA.US>
Sent: Tuesday, September 08, 2015 4:03 PM
To: Fisk, Steve
Cc: Glorioso, Lauren (FWE)
Subject: RE: Hunts Pond Dam, Winchendon - NHESP 13-32117 LIHI Certification

Steve –

No change to the Division's previous comments (4/26/13 letter concerning state-listed species).

Please let me know if you have any questions.

Thank you,

Amy Hoenig

Endangered Species Review Biologist | Natural Heritage & Endangered Species Program | MA Division of Fisheries & Wildlife |
1 Rabbit Hill Road, Westborough, MA 01581 | tel: 508.389.6364 | fax: 508.389.7890 | www.mass.gov/nhesp

From: Fisk, Steve (<mailto:SFISK@oconnells.com>)
Sent: Thursday, September 03, 2015 9:33 AM
To: Hoenig, Amy (FWE)
Subject: Hunts Pond Dam, Winchendon - NHESP 13-32117 LIHI Certification

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The project scope of work has not changed since we last communicated.

Thank you

Steve

Stephen J. Fisk
General Manager

O'Connell Energy Group
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Date: April 26, 2013

Contact: Thomas French, Assistant Director

Agency: Massachusetts Division of Fisheries & Wildlife



Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

April 26, 2013

Stephen J. Fisk
O'Connell Energy Group
57 Suffolk Street, Suite 200
Holyoke, MA 01040

RE: Project Location: Hunts Pond Dam; Route 12
Town: WINCHENDON
NHESP Tracking No.: 13-32117

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program of the MA Division of Fisheries & Wildlife (the "Division") for information regarding state-listed rare species in the vicinity of the above referenced site.

Based on the information provided, the Natural Heritage has determined that at this time the site is not mapped as Priority or Estimated Habitat. The NHESP database does not contain any state-listed species records in the immediate vicinity of this site.

This evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. If you have any questions regarding this letter please contact Amy Coman-Hoenig, Endangered Species Review Assistant, at (508) 389-6364.

Sincerely,

Thomas W. French, Ph.D.
Assistant Director

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