

LOW IMPACT HYDROPOWER INSTITUTE

APPENDIX B – QUESTIONNAIRE

April 2014 REVISION

Background Information	
1) Name of the Facility as used in the FERC license/exemption.	Hunts Pond Dam Project
2) Applicant's complete contact information (please use Appendix D, Project Contact Form)	Applicant/Owner: Winchendon Hydroelectric LLC Application Prepared by Its Operator: O'Connell Energy Group Suite 200, 57 Suffolk St Holyoke, MA 01040 Attn.: Stephen Fisk, General Manager sfisk@oconnells.com
3) Location of Facility including (a) the state in which Facility is located; (b) the river on which Facility is located; (c) the river-mile location of the Facility dam; (d) the river's drainage area in square miles at the Facility intake; (e) the location of other dams on the same river upstream and downstream of the Facility; and (f) the exact latitude and longitude of the Facility dam.	(a) 28 Front Street, Winchendon, MA (b) Millers River (c) Millers River mile 38 from confluence with Connecticut River (d) 54 square miles (e) Description of Dams & Tributaries on Millers River attached in Appendix 1-3-e-1; Locus Map showing Dams & Tributaries attached in Appendix 1-3-e-2 (f) 42.6791/-72.0478
4) Installed capacity.	120 kW

5) Average annual generation.	The most recent 10-year average annual generation is 297,347 kWh. Production record is included in Appendix 1-5-1.
6) Regulatory status.	<p>The facility holds a FERC Exemption Number P-8012-MA issued 2/19/1985 and with Amendment issued 8/22/2013.</p> <ol style="list-style-type: none"> 1. FERC Exemption is included in Appendix 1-6-1 2. FERC Amendment is included in Appendix 1-6-2 3. copies of all self-reported compliance letters to FERC for the past 10 years are included in Appendix 1-6-3 4. FERC Inspection Reports are included in Appendix 1-6-4 <p>There are no known compliance issues that affect the operation of the Facility.</p>
7) Reservoir volume and surface area measured at the normal maximum operating level.	<p>Gross Reservoir Volume: 120 Acre-feet Surface Area: 13 Ac</p>
8) Area occupied by non-reservoir facilities (e.g., dam, penstocks, powerhouse).	<p>Dam & Intake Structure – 1,400 sf Powerhouse – 860 sf Total Area – 2,260 sf or about 0.05 acres See Appendix 1-12-3 Site Plan showing dam and powerhouse.</p>
9) Number of acres inundated by the Facility.	<p>The total current inundated area is 13 acres. The approximate pre-dam river area is 2.3 acres. The net area inundated is approximately 10.7 acres. See Appendix 1-9-1 for complete inundation calculation and Appendix 1-9-2 for</p>

	<p>Map showing Inundation Area and Adjacent 200 foot Zone.</p>
<p>10) Number of acres contained in a 200-foot zone extending around entire reservoir.</p>	<p>There are 27.12 acres including the head pond and surrounding 200 foot zone extending around the entire impoundment at normal operating elevation of 954.4 msl. See Appendix 1-9-2 for map showing adjacent zone.</p>
<p>11) Contacts for Resource Agencies and non-governmental organizations</p> <p>Intake review Comment 1.11 - For the specific contacts listed in Appendix 1-11-1: State the last time you had discussions, if any, with the contact, the general nature of the discussion, and your assessment of the ongoing working relationship with the contact.</p>	<p>A list of contacts that have been involved in proceedings involving the operations of the Facility either during the licensing proceedings or thereafter are included in Appendix 1-11-1.</p> <p>Intake Review Response:</p> <p><u>This information has been provided in the original submittal Dates of contact are provided in the Agency Contact Table contained in 1-11-1. Correspondence with Agencies that address specific conditions of the LIHI Application are provided in relevant sections of the Application. An updated Notice will be sent out to all Agencies as part of this response. Ongoing relationships with all contacts are excellent with no issues to report.</u></p>

<p>12) Description of the Facility, its mode of operation (i.e., peaking/run of river) and photographs, maps and diagrams.</p>	<p>The Description of the Facility is included in Appendix 1-12-1. The Mode of Operation is “run of river” as described in Appendix 1-12-2. A Site Plan of the facility with Photo Location Identifier is included in Appendix 1-12-3. Photographs of the site are included in Appendix 1-12-4. Appendix 1-3-e-2 includes a map showing the facility and its location in the river system and relative to other facilities.</p>
<p>Questions for “New” Facilities Only: If the Facility you are applying for is “new” (i.e., an existing dam that added or increased power generation capacity after August of 1998) please answer the following questions to determine eligibility for the program.</p>	<p>NA – not a new facility</p>
<p>13) When was the dam associated with the Facility completed?</p>	<p>NA – not a new facility</p>
<p>14) When did the added or increased generation first generate electricity? If the added or increased generation is not yet operational, please answer question 18 as well.</p>	<p>NA – not a new facility</p>
<p>15) Did the added or increased power generation capacity require or include any new dam or other diversion structure?</p>	<p>NA – not a new facility</p>
<p>16) Did the added or increased capacity include or require a change in water flow through the facility that worsened conditions for fish, wildlife, or water quality (for example, did operations change from run-of-river to peaking)?</p>	<p>NA – not a new facility</p>
<p>17 (a) Was the existing dam recommended for removal or decommissioning by resource agencies, or recommended for removal or decommissioning by a broad representation of interested persons and organizations in the local and/or regional community prior to the added or increased capacity?</p>	<p>NA – not a new facility</p>

<p>(b) If you answered “yes” to question 17(a), the Facility is not eligible for certification, unless you can show that the added or increased capacity resulted in specific measures to improve fish, wildlife, or water quality protection at the existing dam. If such measures were a result, please explain.</p>	
<p>18 (a) If the added or increased generation is not yet operational, has the increased or added generation received regulatory authorization (e.g., approval by the Federal Energy Regulatory Commission)? If not, the facility is not eligible for consideration; and (b) Are there any pending appeals or litigation regarding that authorization? If so, the facility is not eligible for consideration.</p>	<p>NA – not a new facility</p>
<p>A. Flows</p>	<p>PASS</p>
<p>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?</p> <p>1) <u>As part of the 2013 FERC Amendment process agency comments were sought and received. As part of the LIHI Certification process agency comments were sought and received. Responses and supporting documentation is included in the following Appendices:</u></p> <p><u>A-1-1: 8/22/2013 FERC Amendment</u> <u>A-1-2: Agency Comments Regarding Flow</u> <u>A-1-2-1: USF&W E-mail dated 3/28/2013</u> <u>A-1-2-2: MADF&W E-mail dated 4/23/2013</u> <u>A-1-2-3: MADEP Letter dated 4/26/2013</u></p>	<p><u>YES = Pass, Go to B</u></p>

<p><u>A-1-3: Demonstration of Minimum Flows</u> <u>A-1-4 Flow History & Duration Curve</u></p> <p><u>The Facility is in compliance with the flow release schedule.</u></p> <p><u>Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p> <p>Intake review Comment A.1 - Applicant must demonstrate proof of compliance with the new flow conditions issued in FERC Exemption Amendment issued August 22, 2013</p> <p>Intake review Response: <u>The Facility has not operated after the FERC Amended Exemption Order was issued. As provided in and “boxed” the submitted FERC Amended Exemption Order – “(E) The exemptee shall file, for Commission approval, a compliance monitoring plan. The compliance monitoring plan shall be filed within three months of completion of construction and shall show documentation of consultation with the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife at least 30 days prior to filing.” <u>The Applicant will comply with requirement of the FERC Exemption. The Project will copy LIHI on this correspondence to demonstrate compliance.</u></u></p>		
<p>2) 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, is the Facility 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?</p>	<p><u>N/A</u></p>	

<p>3) If the Facility is unable to meet the flow standards in A.2., has the Applicant demonstrated, and obtained a letter from the relevant Resource Agency confirming that demonstration, that the flow conditions at the Facility are appropriately protective of fish, wildlife, and water quality?</p>	<p><u>N/A</u></p>	
<p>B. Water Quality</p>	<p>PASS</p>	
<p>1) Is the Facility either:</p> <p>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</p> <p>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?</p>	<p><u>Revised to “NA” per Intake Review Comments = Go to B2</u></p>	
<p>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?</p> <p><u>The Massachusetts Year 2012 Integrated List of Waters for this river segment is categorized as “Massachusetts Category 5 Waters (impaired, and requiring one or more TMDLs).</u></p> <p><u>Appendix B-2-1: Massachusetts Year 2012 Integrated List of Waters Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>	<p><u>YES = Go to B3</u></p>	

<p>2) 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?</p> <p><u>As part of the LIHI Certification process agency comments were sought and received. The Facility submits the appropriate state agency comments under the second option defined in the application instructions for (1) “reasonable assurances” and (2) “additional data”. In letter dated April 26, 2013, Robert Kubit from the MA DEP stated: “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.” In E-mail dated March 28, 2013, Melissa Grader wrote “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.” Supporting documentation is included in the following Appendices:</u></p> <p><u>Appendix B-3-1: MADEP Letter dated 4/26/2013</u> <u>Appendix B-3-2: USF&W E-mail dated 3/28/2013</u></p> <p><u>Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>	<p><u>YES = Pass</u></p>	
<p>C. Fish Passage and Protection</p>	<p>PASS</p>	
<p>1) Are anadromous and/or catadromous fish present in the Facility area or are they know to have been present historically?</p>	<p><u>YES = Go to C2</u></p>	
<p>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?</p>	<p><u>Revised to “NA” per Intake Review Comments</u></p>	

<p>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)?</p> <p><u>The Millers River utilized water power back to the first industrial revolution. At one time there were up to 18 dams downstream and 2 dams upstream of the Facility on the Millers River according to a 1940 US Engineers Office Connecticut River Flood Control Map. There are 10 dams that remain and all are still in use. The Facility is located approximately 35.7 miles upstream from the confluence with the Connecticut River. Downstream of the Facility there are currently 6 dams. See Appendix 1-3-e-1 for more specifics on existing dams on the Millers River. Therefore fish passage is currently blocked at downstream dams.</u></p> <p><u>There is fish passage development as required by the relevant fish agencies at some of the downstream dams. However as stated by the USF&W documentation in C-1-2 USF&W email dated 3/28/2013 fish passage is not currently warranted at this time for this Facility.</u></p> <p>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?</p>	<p><u>YES = Go to C2a</u></p> <p><u>N/A = Go to C3b</u></p>	
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<p>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?</p> <p><u>C-1-2 states that the Facility is legally obligated by its Exemption to provide fish passage when prescribed by FWS and/or MA DFW. Responses and supporting documentation is included in the following Appendices:</u></p> <p><u>C-1: Agency Comments Regarding Fish Passage</u> <u>C-1-1:FERC Amendment dated 8/22/2013</u> <u>C-1-2: USE&W E-mail dated 3/28/2013</u> <u>C-1-3: MADF&W E-mail dated 4/23/2013</u></p> <p><u>Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>	<p><u>YES = Go to C5</u></p>	
<p>4) If, since December 31, 1986:</p> <p>a) Resource Agencies have had the opportunity to issue, and considered issuing, a Mandatory Fish Passage Prescription for upstream and/or downstream passage of anadromous or catadromous fish (including delayed installation as described in C.3.a above), and</p> <p>b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,</p>	<p>NO = Go to C6 <u>N/A = Go to C4</u></p>	<p>YES = Fail</p>

<p>c) Was a reason for the Resource Agencies' declining to issue a Mandatory Fish Passage Prescription one of the following: (1) the technological infeasibility of passage, (2) the absence of habitat upstream of the Facility due at least in part to inundation by the Facility impoundment, or (3) the anadromous or catadromous fish are no longer present in the Facility area and/or downstream reach due in whole or part to the presence of the Facility?</p>		
<p>5) If C4 was not applicable:</p> <p>a) Are upstream and downstream fish passage survival rates for anadromous and catadromous fish at the dam each documented at greater than 95% over 80% of the run using a generally accepted monitoring methodology? Or</p> <p>b) If the Facility is unable to meet the fish passage standards in 5.a, has the Applicant either i) demonstrated, and obtained a letter from the U.S. Fish and Wildlife Service or National Marine Fisheries Service confirming that demonstration, that the upstream and downstream fish passage measures (if any) at the Facility are appropriately protective of the fishery resource, or ii) committed to the provision of fish passage measures in the future and obtained a letter from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service indicating that passage measures are not currently warranted?</p> <p><u>There are no fish passage prescriptions issued by Resource Agencies issued after 12/31/1986. As noted in C-1-2 USF&W email dated 3/28/2013, the facility is legally obligated by its Exemption to provide fish passage when prescribed by FWS and/or MA DFW. Fish passage is not currently warranted.</u></p>	<p><u>YES = Go to C6 Submit under 5.b.ii Commitment to the provision of fish passage</u></p>	

<p><u>Responses and supporting documentation is included in the following Appendices:</u></p> <p><u>C-1: Agency Comments Regarding Fish Passage</u> <u>C-1-1:FERC Amendment dated 8/22/2013</u> <u>C-1-2: USF&W E-mail dated 3/28/2013</u> <u>C-1-3: MADF&W E-mail dated 4/23/2013</u></p> <p><u>Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>		
<p>6) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish?</p>	<p><u>N/A = Go to C7</u></p>	
<p>7) Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?</p>	<p><u>N/A = Pass, go to D</u></p>	
<p>D. Watershed Protection</p>	<p>PASS</p>	<p>FAIL</p>
<p>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?</p>		<p><u>NO = Go to D2</u></p>
<p>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?</p>		<p><u>NO = Go to D3</u></p>

<p>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)?</p>		<p><u>NO = Go to D4</u></p>
<p>3) 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?</p> <p><u>In an e-mail dated March 28, 2013, Melissa Grader from the USF&W stated: “The Service, to date, has not required a Shoreline Management Plan pursuant to our statutory authority under Section 30(c) of the Federal Power act.” Responses and supporting documentation is included in the following Appendices:</u></p> <p style="text-align: center;"><u>D-1: USF&W E-mail dated 3/28/2013</u></p> <p><u>The Facility is in compliance with shoreline management prescriptions. Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>	<p><u>YES = Pass, go to E</u></p>	
<p>E. Threatened and Endangered Species Protection</p>	<p>PASS</p>	<p>FAIL</p>
<p>1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?</p> <p><u>Responses and supporting documentation is included in the following Appendices:</u></p>	<p><u>NO = Pass, go to F</u></p>	

<p><u>E-1: MADE&W Letter dated 4/26/2013</u> <u>E-2: USF&W E-mail dated 3/28/2013</u></p> <p><u>Applicant is seeking updated responses to be included as part of this Formal Application process.</u></p>		
<p>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?</p>	<p><u>N/A</u></p>	
<p>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?</p>	<p><u>N/A</u></p>	
<p>4) If a biological opinion applicable to the Facility for the threatened or endangered species has been issued, can the Applicant demonstrate that:</p> <p>a) The biological opinion was accompanied by a FERC license or exemption or a habitat conservation plan? Or</p> <p>b) The biological opinion was issued pursuant to or consistent with a recovery plan for the endangered or threatened species? Or</p> <p>c) There is no recovery plan for the threatened or endangered species</p>	<p><u>N/A</u></p>	

<p>under active development by the relevant Resource Agency? Or</p> <p>d) The recovery plan under active development will have no material effect on the Facility's operations?</p>		
<p>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?</p>	<p><u>N/A</u></p>	
<p>F. Cultural Resource Protection</p>	<p>PASS</p>	<p>FAIL</p>
<p>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?</p> <p><u>There are no specific cultural resource protection, mitigation or enhancement requirements issued with either the original FERC Exemption from License or the 2013 Exemption amendment. In addition the project requested review and comment of the documents by the Massachusetts Historical Commission. No response has been received to our requests.</u></p> <p><u>Therefore, the Project is in compliance with cultural resource requirements. See Appendix F for documentation of requests for information.</u></p> <p>Intake Review Comment F.1 - Applicant should seek a response to submit with application for Full Application Review.</p> <p>Intake review Response: <u>Applicant is seeking responses to be included as part of this Formal Application process.</u></p>	<p><u>YES = Pass, go to G</u></p>	

2) If not FERC-regulated, does the Facility owner/operator have in place (and is in Compliance with) a plan for the protection, mitigation or enhancement of impacts to Cultural Resources approved by the relevant state or federal agency or Native American Tribe, or a letter from a senior officer of the relevant agency or Tribe that no plan is needed because Cultural Resources are not negatively affected by the Facility?	<u>N/A</u>	
G. Recreation	PASS	FAIL
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?	<u>Revised to "NA" per Intake Review Comments = Go to G3</u>	
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?	<u>N/A</u>	
3) Does the Facility allow access to the reservoir and downstream reaches without fees or charges? All land adjacent to reservoir and downstream reaches are owned by non-related private parties. The only land owned by the Facility is at the Dam and Powerhouse which is restricted for the obvious safety reasons.	<u>YES = Pass, go to H</u>	NO = Fail
H. Facilities Recommended for Removal	PASS	FAIL
1) Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?	<u>NO = Pass, Facility is Low Impact</u>	YES = Fail