

**II. Suggested Format for the HYDRO General Permit Notice of Intent (NOI):**

**Request for General Permit Authorization to Discharge Wastewater Notice of Intent (NOI) to be covered by Hydroelectric Generating Facilities General Permit (HYDROGP) No. MAG360000 or NHG360000**

Indicate Applicable General Permit for Discharge(s):       MAG360000                       NHG360000

**A. Facility Information**

1. Facility Location	Name: LAWRENCE HYDROELECTRIC PROJECT	
	Street: 9 SOUTH BROADWAY	
	City: LAWRENCE	State: MA
	Zip: 01810	SIC Code: 4911
	Latitude: N 42° 41' 58"	Longitude: W 71° 09' 55"
	Type of Business: ELECTRIC POWER GENERATION	
2. Facility Mailing Address (if different from Location)	Street: 670 N. COMMERCIAL ST SUITE 204	
	City: MANCHESTER	State: NH
	Zip: 03101	
3. Facility Owner	Name: PATRIOT HYDRO, LLC	Email: SILLER@PATRIOTHYDRO.COM
	Street: 670 N. COMMERCIAL ST SUITE 204	Telephone: (603) 540 - 8238

	City: MANCHESTER	State: NH
	Contact Person: SEAN ILLER	Zip: 03101
4. Facility Operator (if different from above)	Name:	Email:
	Street:	Telephone:
	City:	State:
	Zip:	
5. Current Permit Status	Has prior HYDROGP coverage been granted for the discharge(s) listed in the NOI?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Permit number (if yes): MAG360023	
	Is the facility covered under an Individual Permit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Is there a pending NPDES application of file with EPA for the discharge(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Date of Submittal (if yes): Click or tap to enter a date.	Permit Number (if known):
	Attach a topographic map indicating the locations. of the facility and outfall(s) to the receiving water	<input checked="" type="checkbox"/> Map Attached
	Number of turbines: 2	
	Combined turbine discharge (installed capacity) at:	Maximum capacity? 7400 cfs Minimum capacity? 400 cfs
	Is this facility operated as a pump storage project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



7. For each outfall listed above, provide the following information (attach additional sheets if necessary). Outfalls may be eligible for alternative pH effluent limits. See Parts 1.7.1. and 2.7.1 of the permit for additional information. Contact MassDEP or NHDES to determine the required information and protocol to request alternative pH effluent limits.		
Outfall No. 001	Latitude: N 42° 41' 57.8"	Longitude: w 71° 09' 58.2"
	Discharge is: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal	
	Maximum Daily Flow .432 MGD	Average Monthly Flow .216 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease >0 <15 mg/L
	Maximum Monthly pH s.u. 8.3	Minimum Monthly pH s.u. 6.50
	Alternative pH limits requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No
Outfall No. 002	Latitude: N 42° 41' 57.9"	Longitude: W 71° 09' 55.7"
	Discharge is: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal	
	Maximum Daily Flow .432 MGD	Average Monthly Flow .216 MGD
	Maximum Daily Temperature Varies °F	Average Monthly Temperature Varies °F
	Maximum Daily Oil & Grease 15 mg/L	Average Monthly Oil & Grease >0 <15 mg/L
	Maximum Monthly pH 8.3 s.u.	Minimum Monthly pH 6.5 s.u.
	Alternative pH limits requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No

Outfall No. 003	Latitude: N 42° 41' 59.0"	Longitude: W 71° 09' 55.2"
	Discharge is: <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Seasonal	
	Maximum Daily Flow .0072 MGD	Average Monthly Flow .0036 MGD
	Maximum Daily Temperature Varies    °F	Average Monthly Temperature Varies    °F
	Maximum Daily Oil & Grease mg/L 15	Average Monthly Oil & Grease mg/L >0 <15
	Maximum Monthly pH s.u. 8.3	Minimum Monthly pH s.u. 6.50
	Alternative pH limits requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	State approval attached? <input type="checkbox"/> Yes <input type="checkbox"/> No

**C. Best Technology Available for Cooling Water Intake Structures**

Facilities that checked “equipment-related cooling” as one of the discharges in Part B. of this NOI are subject to the following requirements.	
1. Does the facility intake water for cooling purposes subject to the BTA Requirements at Part 4 of the HYDROGP?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, skip to Part D of this NOI.
2. If yes, indicate which technology employed to comply with the general BTA requirements at Part 4.2.b of the HYDROGP:	
<input type="checkbox"/> An existing technology (e.g., a physical or behavioral barrier, spillway, or guidance device) that directs fish towards a downstream passage that minimizes exposure to the CWIS. Has the applicant attached a narrative description of the barrier to demonstrate that the downstream fish passage effectively transports live fish in a manner that minimizes the likelihood of becoming impinged or entrained at the cooling water intake? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> An effective intake velocity at the point of cooling water withdrawal, or alternatively, at the point where cooling water enters the penstock (for intakes located within the penstock), not to exceed 0.5 fps. Has the applicant attached a demonstration of compliance with this intake velocity through observation of live fish in the intake or calculation based on the maximum intake volume and minimum bypass flow? <input type="checkbox"/> Yes <input type="checkbox"/> No	



**D. Chemical Additives**

1.	Does the facility use or plan to use non-toxic chemicals for pH adjustment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
2.	Does the facility use or plan to use chemicals for anti-freeze purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3.	If the answer to D.2 is yes, provide the following for <b>EACH</b> chemical additive used for anti-freeze:		
Chemical Name and Manufacturer:			
Maximum Dosage Concentration Used:		Average Dosage Concentration Used:	
Maximum Concentration in Discharge: mg/L		Average Concentration in Discharge: mg/L	
Material Safety Data Sheet (MSDS) or other toxicity documentation for each chemical attached? <input type="checkbox"/> Yes <input type="checkbox"/> No			

**E. Endangered Species Act Certification**

Appendix 2 to the HYDROGP explains the certification requirements related to threatened and endangered species and designated critical habitat. Indicate under which criteria the discharge is eligible for coverage under the HYDROGP:	
1. ESA eligibility for species under jurisdiction of USFWS	<input type="checkbox"/> <b>Criterion A:</b> No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the “action area.” See Appendix 2, Part B for documentation requirements. Documentation attached? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input checked="" type="checkbox"/> <b>Criterion B:</b> Formal or informal consultation with the USFWS under Section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by USFWS on a finding that the discharges and related activities are “not likely to adversely affect” listed species or critical habitat. Has the operator completed consultation with USFWS and attached documentation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, is consultation underway? <input type="checkbox"/> Yes <input type="checkbox"/> No

	<input type="checkbox"/> <b>Criterion C:</b> Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and designated critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have “no effect” on any federally threatened or endangered species or designated critical habitat under the jurisdiction of the USFWS. Has the applicant attached documentation of the “no effect” finding? <input type="checkbox"/> Yes <input type="checkbox"/> No
2. ESA eligibility for species under jurisdiction of NMFS	<p>Is the facility located on: the Connecticut River between the Massachusetts/Connecticut state line and Turners Falls, MA; the Taunton River; the Merrimack River between Lawrence, MA and the Atlantic Ocean; the Piscataqua River including the Salmon Falls and Cocheco Rivers; or a marine water?</p> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If yes, was the applicant authorized to discharge from the facility under the 2009 HYDROGP? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If the discharge is to one of the named rivers above or to a marine water <i>and</i> the facility was not previously covered under the 2009 HYDROGP, has there been any previous formal or informal consultation with NMFS? <input type="checkbox"/> Yes <input type="checkbox"/> No Documentation of consultation attached? <input type="checkbox"/> Yes <input type="checkbox"/> No

**F. National Historic Properties Act Eligibility**

1. Indicate under which criterion the discharge(s) is eligible for covered under the HYDROGP:
<input type="checkbox"/> <b>Criterion A:</b> No historic properties are present.
<input checked="" type="checkbox"/> <b>Criterion B:</b> Historic properties are present. The discharges and related activities do not have the potential to impact historic properties.
<input type="checkbox"/> <b>Criterion C:</b> Historic properties are present. The discharges and related activities have the potential to impact or adversely impact historic properties.

2.	Has the applicant attached supporting documentation for NHPA eligibility described in Appendix 3, Part C of the HYDROGP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3.	Does supporting documentation include a written agreement from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or other tribal representative that outlines measures the operation will carry out to mitigate or prevent any adverse effects on historic properties? <input type="checkbox"/> Yes <input type="checkbox"/> No

**G. Supplemental Information**

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certifications required by the HYDROGP. Supplemental information attached? <input type="checkbox"/> Yes <input type="checkbox"/> No
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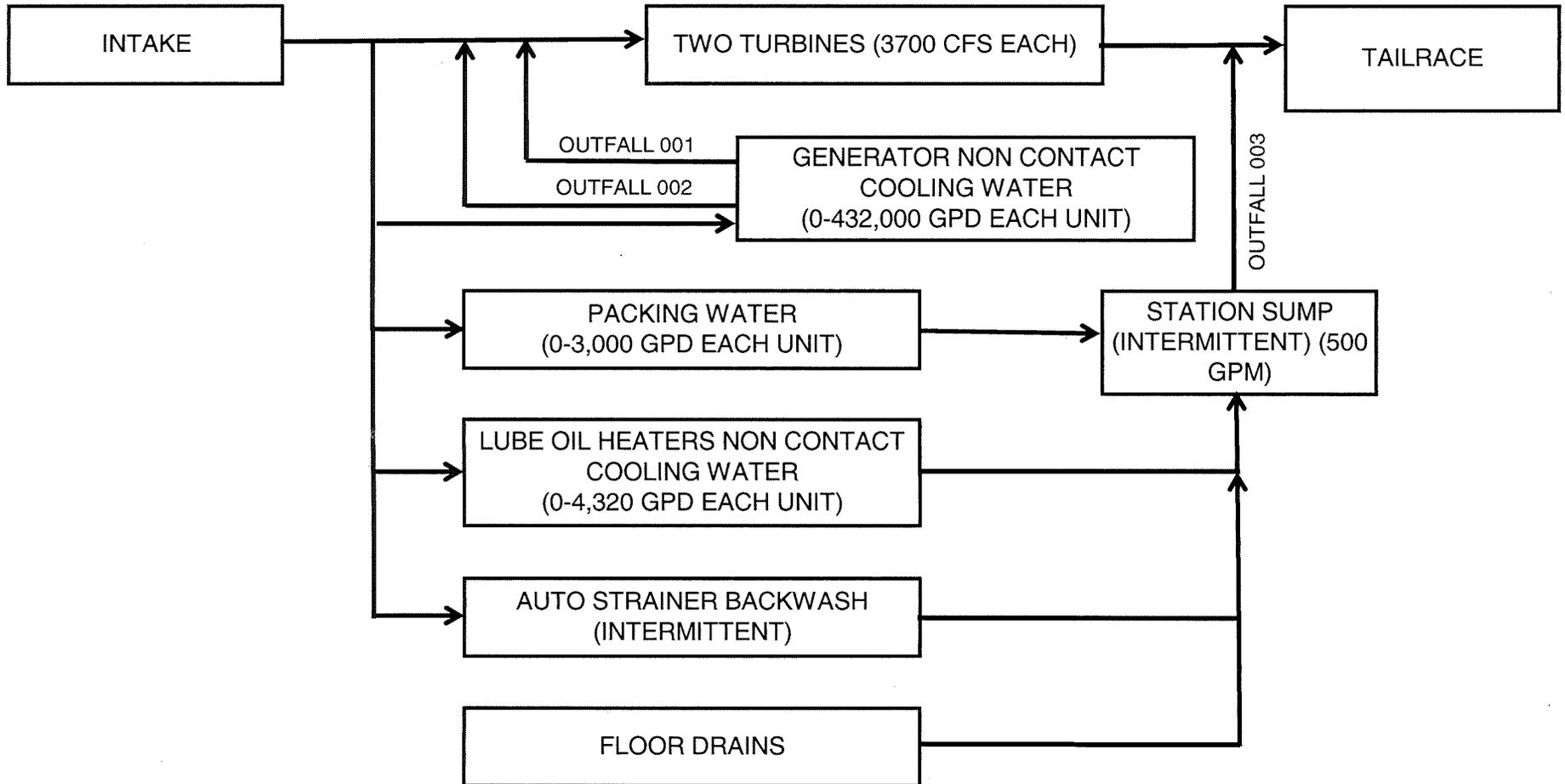
**H. Signature Requirements**

1.	The NOI must be signed by the operator in accordance with the signatory requirements of 40 C.F.R. § 122.22, including the following certification:	
	<i>I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this General Permit except for those used for pH adjustment or anti-freeze purposes and that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>	
2.	Notification provided to the appropriate State, including a copy of this NOI, if required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Signature: 	Date: Click or tap to enter a date. <i>04-25-2023</i>
	Print Name and Title: <i>Sean J. Iller , EHS Manager</i>	

### Lawrence Hydroelectric Project

Lawrence, MA

Notice of Intent Attachment 1



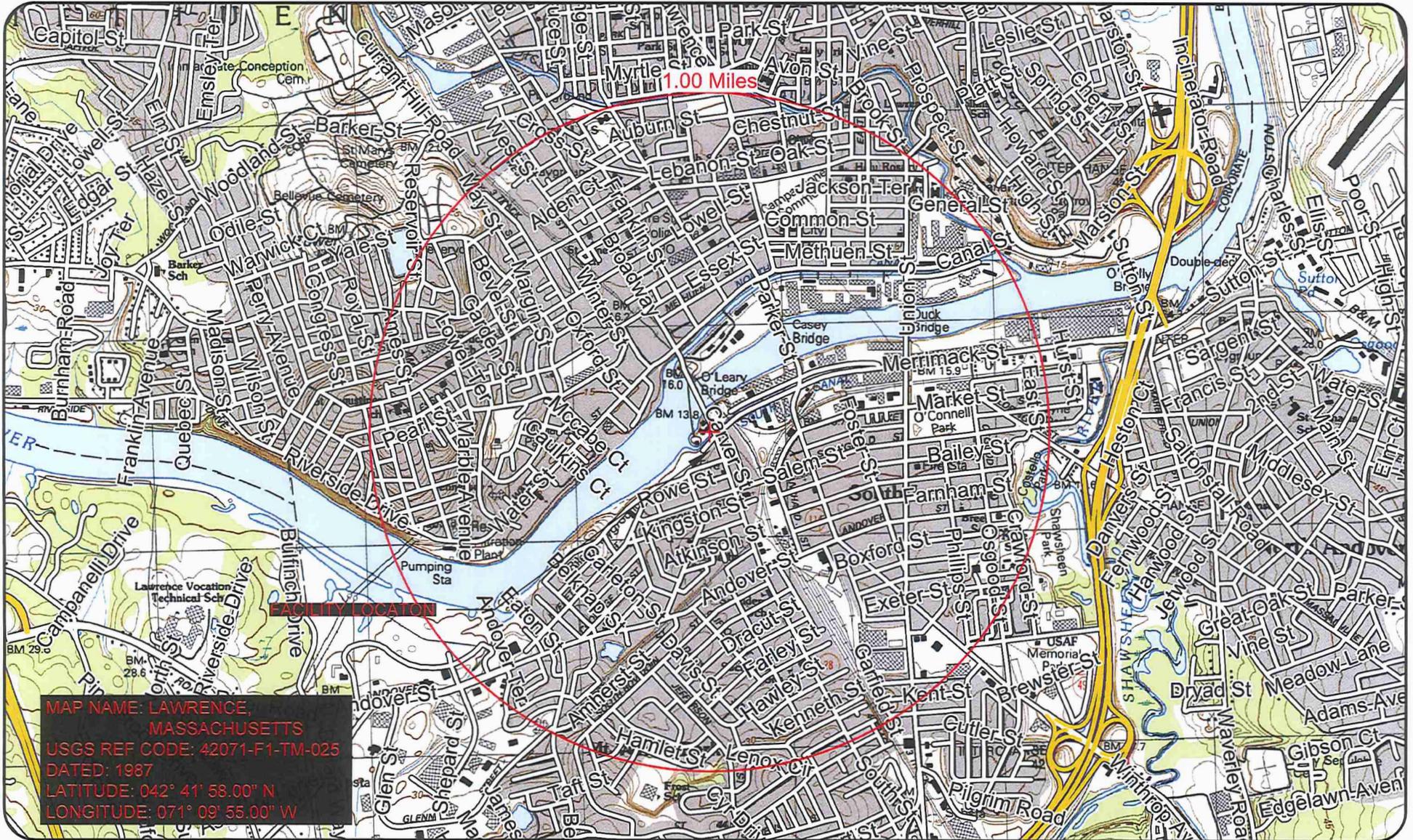
## Lawrence Hydroelectric Project

Lawrence, MA

### Notice of Intent Attachment 2

Outfall #	Latitude / Longitude	Discharge Type	Operations Contributing to Discharge	Average Daily Flow (GPD)	Flow Type	Treatment	Sample at least once per year?	Representative sampling location?
001	42° 41' 57.8" N 71° 09' 58.2" W	Equipment related cooling water	Non contact cooling water for Unit 1	0-432000	Continuous*	None	Yes	001
002	42° 41' 57.9" N 71° 09' 55.7" W	Equipment related cooling water	Non contact cooling water for Unit 2	0-432000	Continuous*	None	Yes	001
003	42° 41' 59.0" N 71° 09' 55.2" W	Equipment and floor drain water, Equipment related cooling water, Maintenance-related water, equipment-related backwash and strainer water	Packing water for units 1 and 2. Lube oil heaters non contact cooling water, auto strainer for units 1 and 2, back flushes a few times per day. Station sump run intermittently.	0-7200	Intermittent	None	Yes	003

\* Only when unit is in operation



<p><b>PROJECT TITLE:</b> NPDES Permitting</p>	<p><b>CLIENT:</b> Lawrence Hydoelectric Project Boott Hydropower, Inc.</p>	 <p><b>Capaccio</b> Environmental Engineering, Inc. 293 Boston Post Road-West Marlborough, MA 01752 (508) 970-0033 * www.capaccio.com "Helping Industry and the Environment Prosper" © Copyright 2012 Capaccio Environmental Engineering, Inc.</p>	<p><b>JOB NO:</b> 08-034.013</p>	<p><b>SHEET:</b> Figure 1</p>
<p><b>DRAWING TITLE:</b> Site Location Map</p>	<p><b>JOB LOCATION:</b> 9 South Broadway Lawrence, MA 01810</p>		<p><b>SCALE:</b> 1" = 2083'-0"</p>	
		<p><b>DRW:</b> CPC</p>	<p><b>CHK:</b> CAW</p>	<p><b>NORTH</b> ↑</p> <p><b>SIZE:</b> A</p>
		<p><b>ENG:</b></p>	<p><b>DATE:</b> 05-10-12</p>	

flood flows, normal reservoir elevation with ice, and normal reservoir elevation with earthquake. Our staff has also inspected the existing portions of the project and found them to be in satisfactory condition. Applicant filed on March 2, 1978, an engineering consultant's field inspection and office report which found the dam to be sound and capable of continued use. The consultant suggested that additional subsurface explorations be made during excavation for the new powerhouse to ensure that the dam is founded on competent rock and to verify that there has been no undercutting at the contact of the dam with the foundation bedrock. Special Article 37 has been inserted in the license to require Licensees to make additional investigations by subsurface explorations during excavations for the powerhouse. If there is a need for remedial work, Article 37 also requires Licensees to submit a plan and schedule for such work to the Director of the Office of Electric Power Regulation.

#### Transmission Facilities

The electrical equipment associated with the turbine-generator units will be located in the powerhouse structure. No substations or switchyards will be constructed. Energy produced by the Lawrence Hydroelectric Project will travel approximately 2,500 feet via a 13.8 kV overhead power line to the existing Lawrence substation No. 1 of the Massachusetts Electric Company. The energy will then flow into the interconnected system of the New England Power Company. Thus, the transmission facilities to be included as part of Project No. 2800 consist of one 13.8 kV line approximately 2,500 feet long and appurtenant facilities to connect to the existing substation.

#### Fish and Wildlife

The National Marine Fisheries Service (NMFS) of the Department of Commerce, the Fish and Wildlife Service (FWS) of the Department of the Interior, the Office of the Secretary of the Department of the Interior (Interior), and the Division of Fisheries and Game of the Commonwealth of Massachusetts commented on the possible effects of the proposed project on fish and wildlife resources.

Interior noted that "[t]errestrial wildlife resources will not be affected by project construction or operation due to the fact that the project is located in an urban industrial area."

Docket No. ES78-44

Project No. 2800

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With regard to fisheries, Interior noted that Applicant had consulted with the Policy and Technical Committees for Anadromous Fishery Management of the Merrimack River. As a result, Applicant's proposal for fish passage and related facilities incorporated the comments and plans of the Massachusetts Division of Marine Fisheries, Massachusetts Division of Fisheries and Game, the New Hampshire Fish and Game Department, NMFS, and FWS.

NMFS expressed concern with respect to the protection and safety of adult shortnose sturgeon during downstream migration. Applicant met with officials from NMFS and provided that agency with sufficient information to demonstrate that adequate safeguards are incorporated in the project design. NMFS subsequently reported that, based on the additional information, it now concludes that the project will not have an adverse effect on any population of shortnosed sturgeon in the Merrimack River.

The FWS and the Massachusetts Division of Fisheries and Game both stated that no significant adverse impacts on fish species are expected from the construction or operation of Project No. 2800.

On January 27, 1978, Applicant filed an Exhibit S which incorporated the comments of the aforementioned agencies and which generally conforms to this Commission's Rules and Regulations. The Exhibit S, however, contains conceptual plans, and not functional design drawings for fish passage facilities. Therefore, the Exhibit S is approved only to the extent that it proposes measures to conserve and enhance fishery resources affected by the project and conceptual plans for fishways. Special Article 30 has been included in the license to require Licensees to file functional design drawings for fish passage facilities to be constructed at the project and to file "as-built" drawings following construction of the facilities.

Articles 15 and 16, 31 and 33 of the license for the Lawrence Hydroelectric Project also relate to fish and fish passage facilities. Articles 15 and 16 provide for the installation of additional fish passage facilities should they become necessary. Special Article 31 requires Licensees

to conduct operational studies and to file a final report to the Commission on the effectiveness of the proposed fish ladder. Special Article 33 provides for monitoring of the fish passage facilities for determining the presence of threatened or endangered species, and implementing any measures necessary to protect and conserve such species.

#### Navigation

The U.S. Army Corps of Engineers (Corps) reported that the proposed Lawrence Hydroelectric Project will not be in conflict with any existing or anticipated Corps projects; that it will have no effect on the navigability of the Merrimack River; and that the plans of the structures for Project No. 2800 are approved in accordance with the provisions of Section 4(e) of the Federal Power Act. 5/

#### Water Quality and Minimum Flow

Interior reported that "[t]here is a need for determining instantaneous minimum flow requirements at this and other upstream dams." Interior added that until the upstream minimum flows are determined, a minimum release of 400 cfs should be required from the Lawrence Project. Once minimum releases are set for upstream dams, Interior recommended increasing Project No. 2800's minimum flow from 400 cfs to 890 cfs.

The Massachusetts Division of Water Pollution Control (MDWPC) commented on the effect of the proposed project on the water quality of the Merrimack River. MDWPC stated in its letter of July 5, 1978, that "the Division was concerned lest the regimen of the river would be so changed through the operation of the proposed facility that the Class B standard would be violated." MDWPC determined that a minimum of 951 cfs should be released from the Great Stone Dam to maintain the "B" classification for the Merrimack River. MDWPC then issued, in accordance with the Federal Water Pollution Control Act, 6/ a Water Quality Certificate. The certificate subjects the project to a minimum release of 951 cfs unless and until the reservoir water surface elevation is drawn below the crest of the dam; thereupon the required minimum release would be equal to inflow.

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5/ We are not including a special article requiring the licensee to comply with the Federal Water Pollution Control Act Amendments of 1972, §404, because it would be superfluous.

6/ See Section 401 of the Federal Water Pollution Control Act Amendments of 1972.

Applicant noted in response that the ability to maintain minimum releases from the Great Stone Dam in excess of those recommended by Interior had been demonstrated to FWS and the Policy Committee for Anadromous Fishery Management of the Merrimack River. In reference to the minimum releases required by the Water Quality Certificate, Applicant stated that the project will be operated in a manner that will not cause a violation of applicable water quality standards.

Article 32 of the license requires Licensees to maintain a continuous minimum flow of 951 cfs unless and until the reservoir water surface elevation is drawn below the crest of the dam; thereupon the minimum release must equal inflow.

### Recreation

Project No. 2800 will be located in a highly industrial area bounded by numerous light industries such as shoe and electronics manufacturers. <sup>7/</sup> The industrial nature of the area limits recreational development at the Lawrence Project. Notwithstanding this limitation, Applicant submitted an Exhibit R recreation plan which will allow public access and enjoyment of the historical aspects of the project area as well as the new power generating facility. In its Exhibit R, Applicant proposes to provide a parking area, sanitary facilities, access walkways to fish viewing facilities, picnic tables, and trash receptacles. Applicant also proposes to provide a multi-media slide/tape presentation on hydroelectric generation, the functioning of the fish passage facilities, and the history of the Great Stone Dam.

In these circumstances we conclude that the Exhibit R is adequate and should be approved.

### Cultural Resources

The Great Stone Dam and the North Canal, two structures listed in the National Register of Historic Places, are part of the Lawrence Hydroelectric Project. The South Canal and its associated gatehouse structure are eligible, as determined by the Secretary of the Interior, for inclusion in the National Register. These cultural resources will not be adversely affected by the redevelopment and operation of hydroelectric facilities for Project No. 2800.

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<sup>7/</sup> These light industries occupy buildings that once housed the textile mills for which the Great Stone Dam and canal system was constructed. At the turn of the century, the Lawrence textile center was the largest in the world.