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Via Certified Mail/RRR/ 7011 2970 0003 5358 2078

May 31, 2012

MAG-360023

US Environmental Protection Agency  
Hydroelectric GP Processing  
Municipal Assistance Unit (OEP06-3)  
5 Post Office Square - Suite 100  
Boston, MA 02109-3912

RE: Enel Green Power N.A. Inc  
Notices of Intent for Seven Massachusetts Facilities

To Whom It May Concern:

Enclosed please find Notices of Intent for seven facilities seeking coverage under the National Pollutant Discharge Elimination System General Permit No. MAG360000 for Hydroelectric Generating Facilities (HYDROGP). These facilities include Lawrence Hydroelectric Project (owned and operated by Lawrence Hydroelectric Associates); Eldred L. Field Hydroelectric Project, John Street Power Station, Hamilton Power Station, and Section Eight Power Station (owned and operated by Boott Hydropower, Inc.); and Glendale Hydroelectric Project and Crescent Hydroelectric Project (owned and operated by Littleville Power Company, Inc.). Copies of these Notices of Intent have been sent to the Massachusetts Department of Environmental Protection, Division of Watershed Management.

If you have any questions, please contact me at (508) 970-0033 extension 139.

Very truly yours,  
Capaccio Environmental Engineering, Inc.  
BY:

Christopher A. Walton, PE, BCEE  
Senior Environmental Engineer

Enc: Notices of Intent

C: Adam Sotirakopoulos (ENEL)  
MF 08-034.013 (CAPACCIO)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
NEW ENGLAND - REGION I  
5 POST OFFICE SQUARE, SUITE 100  
BOSTON, MASSACHUSETTS 02109-3912

Request for General Permit Authorization to Discharge Wastewater  
(Notice of Intent (NOI) to be covered by the General Permit)

Hydroelectric Generating Facilities (HYDROGP)  
NPDES General Permits No. MAG360000 and NHG360000

A. Facility Information

1. Indicate applicable General Permit for discharge: MAG360000 ☒ NHG360000 ☐
2. Facility Name, Location, and Data:  
Name Lawrence Hydroelectric Project  
Street/PO Box 9 South Broadway City Lawrence  
State Massachusetts Zip Code 01810  
Latitude 42° 41' 58" N Longitude 71° 09' 55" W  
Type of Business Hydroelectric power generation  
SIC Code(s) 4911
3. Facility Mailing Address (if different from Location Address):  
Name Lawrence Hydroelectric Project  
Street/PO Box One Tech Drive Suite 200 City Andover  
State Massachusetts Zip Code 01810
4. Facility Owner:  
Name Lawrence Hydroelectric Associates e-mail (optional) \_\_\_\_\_  
Street/PO Box One Tech Drive Suite 200 City Andover  
State Massachusetts Zip Code 01810  
Contact Person Adam Sotirakopoulos Telephone Number 978-681-1900  
Owner is (check one): 1. Federal ☐ 2. State ☐ 3. Tribal ☐ 4. Private ☒  
Other (Describe) \_\_\_\_\_
5. Facility Operator (if different from above):  
Legal Name \_\_\_\_\_ e-mail (optional) \_\_\_\_\_  
Street/PO Box \_\_\_\_\_ City \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Contact Person \_\_\_\_\_ Telephone Number \_\_\_\_\_
6. Current permit status (please check Yes or No):
  - a. Has a prior NPDES permit (individual or general permit coverage) been granted for the discharge that is listed on the NOI? Yes ☒ No ☐ If Yes, Permit Number: MAG250948
  - b. Is the facility covered by an individual NPDES permit? Yes ☐ No ☒  
If Yes, Permit Number \_\_\_\_\_
  - c. Is there a pending NPDES application on file with EPA for this discharge? Yes ☐ No ☒ If Yes, date of submittal: \_\_\_\_\_ and permit number if available: \_\_\_\_\_



7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? Yes

8. Provide the number of turbines and the combined turbine discharge (installed capacity) at maximum and minimum output, in cubic feet per second (cfs). Number of turbines 2 Combined turbine discharge (installed capacity): maximum output, cfs 7400 and minimum output, cfs 400

9. Is the hydroelectric generating facility operated as a pump storage project? No

**B. Discharge Information** (attach additional sheets as needed).

1. Name of receiving water into which discharge will occur: Merrimack River

Freshwater: X Marine Water: \_\_\_\_\_

2. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing flow, treatment units, outfalls, and receiving waters(s). Line drawing or flow schematic attached? Yes

See Attachment 1

3. List each outfall under the following categories and number sequentially: equipment-related cooling water; equipment and floor drain water; maintenance-related water; facility maintenance-related water during flood/high water events, and equipment-related backwash strainer water (see Parts I.A.1, 2, 3, and 4; or Parts I.B.1, 2, 3, and 4). Attach additional sheets to identify outfalls as needed.

Equipment-related cooling water

Equipment and floor drain water

See Attachment 2

Maintenance-related water

Facility maintenance-related water during flood/high water events

Equipment-related backwash strainer water

4. List each outfall discharging any combination of the following to identify the combined discharges: equipment-related cooling water, equipment and floor drain water, maintenance-related water, equipment-related backwash strainer water, and facility maintenance-related water during flood/high water events (see Parts I.A.5 and B.5) and continue the sequential numbering. Attach additional sheets to identify outfalls as needed.

5. Provide for each outfall the following:

- a. Latitude and longitude to the nearest second (see EPA's siting tool at: [http://www.epa.gov/tri/report/siting\\_tool/](http://www.epa.gov/tri/report/siting_tool/)) and the name(s) of the receiving water(s) into which the discharge will occur.
- b. The operations contributing flow and the treatment received by the discharge. Indicate the average flow from each operation.
- c. Indicate if the discharge can be sampled at least once per year or can be sampled using the representative outfall sampling provisions (see Parts I.A.6 or B.6 and III.E).
- d. Note if the outfall discharges intermittently or seasonally.

### C. Chemical Additives

Are any non-toxic neutralization chemicals used in the discharge(s)? Yes ☐ No ☒ If so, include the chemical name and manufacturer; maximum and average daily quantity used on a monthly basis as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC<sub>50</sub> in percent for typically acceptable aquatic organism).

### D. Endangered Species Act Eligibility Information

A facility, with a previous ESA Section 7 consultation with the National Marine Fisheries Service (NMFS), seeking coverage under the Massachusetts general permit and discharging to the Connecticut River or Merrimack River should provide one of the following, if available.

1. A formal certification indicating consultation with the National Marine Fisheries Service (NMFS) resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharges are not likely to adversely affect the shortnose sturgeon or critical habitat. Information should also be provided indicating the hydroelectric facility's previous ESA Section 7 consultation with NMFS covered the discharges to be authorized under this general permit and demonstrating no significant changes in the discharges have occurred since the previous consultation.
2. Another operator's certificate of the ESA eligibility for those discharges to be authorized under this general permit.

### E. Supplemental Information

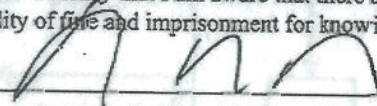
Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certification(s) required by the general permit.

## F. Signature Requirements

The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

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 and (2) 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 persons 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.

Signature  Date 5/22/2012  
Printed Name and Title Stephen D. Pike, VP Operations

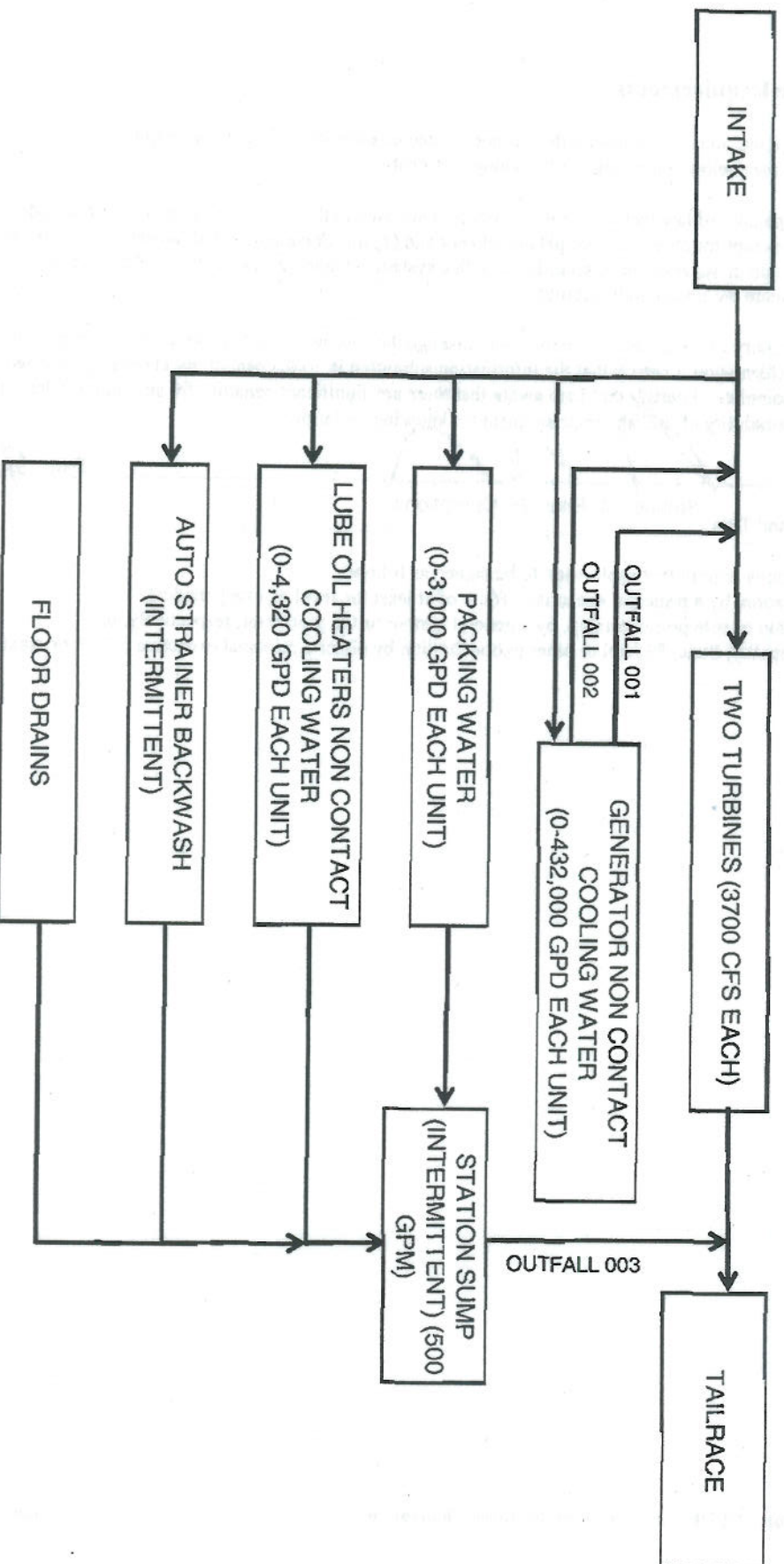
Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.



**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-treated 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





**PROJECT TITLE:**  
- NPDES Permitting

**CLIENT:**  
Lawrence Hydroelectric Project  
Boott Hydropower, Inc.

**DRAWING TITLE:**  
Site Location Map

**JOB LOCATION:**  
9 South Broadway  
Lawrence, MA 01810



**Capacito**  
Environmental Engineering, Inc.  
293 Boston Post Road - West  
Marlborough, MA 01752  
(508) 970-0033 \* www.capacito.com  
"Helping Industry and the Environment Prosper"

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**JOB NO:** 08-034.013

**SCALE:** 1" = 2083'-0"

**SHEET:**  
Figure 1

**REV:** A

**DRW:** CPC

**CHK:** CAW

**ENG:** 05-10-12

**NORTH**



**SIZE:**

A





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
55 Great Republic Drive  
Gloucester, MA 01930-2276

MAY 14 2012

Christopher A. Walton  
Capaccio Environmental Engineering, Inc.  
293 Boston Post Road West  
Marlborough, MA 01752

Re: Species Information for a Hydroelectric Project on the Merrimack River, in Lawrence, MA

Dear Mr. Walton,

Your letter, dated April 23, 2012, requested information about the presence of federally listed species in the Merrimack River in Lawrence, MA, under the jurisdiction of NOAA's National Marine Fisheries Service (NMFS). You are seeking coverage under the Environmental Protection Agency's (EPA) Hydroelectric Generating Facility General Permit (GP) for a facility that will discharge into the Merrimack River. We offer the following comments.

*Listed Species in the Action Area*

Two species of federally listed sturgeon are present in the Merrimack River: shortnose sturgeon (*Acipenser brevirostrum*) (endangered) and five distinct population segments (DPS<sup>1</sup>) of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) (77 FR 5880 and 77 FR 5914). The five DPSs are: the Gulf of Maine DPS, listed as threatened, and the New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs listed as endangered. Results of genetic studies suggest that natal origin influences the distribution of Atlantic sturgeon in the marine environment (Wirgin and King, 2011); however, genetic data as well as tracking and tagging data demonstrate sturgeon from each DPS and Canada occur throughout the full range of the subspecies. Therefore, sturgeon originating from any of the five DPSs can be affected by threats in the marine, estuarine and riverine environment that occur far from natal spawning rivers. Shortnose sturgeon spawn in the Merrimack River near Haverhill, however, Atlantic sturgeon are not known to spawn within the river. Neither species is known to move upstream of the Essex Dam in Lawrence, MA where the project is located.

*Shortnose sturgeon*

Shortnose sturgeon are benthic fish that mainly occupy the deep channel sections of large rivers. They feed on a variety of benthic and epibenthic invertebrates including mollusks, crustaceans (amphipods, chironomids, isopods), and oligochaete worms (Vladykov and Greeley 1963; Dadswell 1979 in NMFS 1998). Researchers observed two seasonal migrations for shortnose sturgeon in the Merrimack River. In mid-April, tagged shortnose sturgeon moved the 10 km from wintering areas to the spawning sites at Haverhill. Following spawning, fish departed

<sup>1</sup> To be considered for listing under the ESA, a group of organisms must constitute a "species." A "species" is defined in section 3 of the ESA to include "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."





Haverhill by early May. Some moved the 10 km back to the foraging area used by all adults in the summer and fall (rkm 13–23), while some continued to move farther downstream to the lower islands (rkm 7–12), an area used by both post- and non-spawning shortnose sturgeon only during the period following the spawning season (April 29–June 22), when fish were beginning to resume feeding following winter inactivity. After a maximum of 6 weeks, the fish at the lower islands returned to the summer-fall foraging area (rkm 13–23; Kieffer and Kynard, 1993).

#### *Atlantic sturgeon*

Atlantic sturgeon are long-lived (approximately 60 years), late maturing, estuarine dependent, anadromous fish (Bigelow and Schroeder, 1953; Vladykov and Greeley, 1963; Mangin, 1964; Pikitch *et al.*, 2005; Dadswell, 2006; ASSRT, 2007). In the 1800s, construction of the Essex Dam on the Merrimack River at river kilometer (rkm) 49 blocked access to 58 percent of Atlantic sturgeon habitat in the river (Oakley, 2003; ASSRT, 2007). However, the accessible portions of the Merrimack seem to be suitable habitat for Atlantic sturgeon spawning and rearing (i.e., nursery habitat) (Kieffer and Kynard, 1993). Therefore, the availability of spawning habitat does not appear to be the reason for the lack of observed spawning in the Merrimack River. Studies are on-going to determine whether Atlantic sturgeon are spawning in this river. Atlantic sturgeon that are spawned elsewhere continue to use habitats within the river as part of their overall range (ASSRT, 2007).

#### *Conclusions*

As you may know, any discretionary federal action, such as the approval or funding of a project by a Federal agency, that may affect a listed species must undergo consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended. If the proposed project has the potential to affect listed species and it is being approved, permitted or funded by a Federal agency, the lead Federal agency, or their designated non-Federal representative, is responsible for determining whether the proposed action is likely to affect this species. The Federal agency would submit their determination along with justification for their determination and a request for concurrence, to the attention of the Section 7 Coordinator, NMFS Northeast Regional Office, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA 01930. After reviewing this information, NMFS would then be able to conduct a consultation under section 7 of the ESA.

Should you have any questions regarding these comments, please contact Chris Vaccaro at 978-281-9167 or by email at [Christine.Vaccaro@noaa.gov](mailto:Christine.Vaccaro@noaa.gov).

Sincerely,



Kimberly Damon-Randall  
Acting Assistant Regional Administrator for  
Protected Resources