

## APPENDIX D

### Winchendon Hydroelectric Project

#### Watershed Protection

*“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?”*

The Facility is in compliance with shoreline management prescriptions.

Agency comments with respect to Watershed protection are as follow:

**In her email 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.”**

Watershed Protection related responses are identified in the attached supporting documentation by box or tag.

#### **Appendix D Watershed Protection – Index to Supporting Documents**

**D-4**            **USF&W Email dated 3/28/2013**

## D-4 USF&W Email dated 3/28/2013

**Fisk, Steve**

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**From:** Grader, Melissa <melissa\_grader@fws.gov>  
**Sent:** Thursday, March 28, 2013 1:35 PM  
**To:** Fisk, Steve  
**Cc:** William P. Short (w.shortiii@verizon.net); Berry, Steve; Caleb Slater; Robert Kubit  
**Subject:** Re: Winchendon Hydroelectric Improvements LIHI

Hi Steve,

I've had a chance to go through the Hunts Pond Project file and can offer the following comments regarding the LIHI consultation criteria you have requested our input on:

### Project Details

Project features include an existing 16-foot-high dam comprised of a concrete weir topped with stoplogs, a slide gate leading to a powerhouse containing two turbines with an installed capacity of 120 kW (operating at flows from 8 cfs up to 172 cfs), and a 13 acre headpond. The project operates in a true run-of-river mode. There is a short 50-foot bypass reach with no flow requirement.

### Project History

The project was issued an exemption on 2/19/85. By letter dated August 24, 1984, the U.S. Fish and Wildlife Service issued seven mandatory terms and conditions (T&Cs) for the proposed project. On February 4, 1985 the Department of the Interior added an eighth condition. Service conditions include: providing fish passage when prescribed by the Service and/or the Massachusetts Division of Fisheries and Wildlife; providing an instantaneous minimum discharge below the project of at least 25 cfs, or inflow, whichever is less; and requiring the Exemptee to submit a compliance monitoring plan to the Service within six months from the date of issuance of an exemption.

In 1991 the exemption was amended to increase capacity to 320 kW, however that upgrade never took place. In August of 1996 Behrens Energy Systems, Inc. sold the project to O'Connell Engineering & Financial Inc. (O'Connell). Upon acquiring the project, O'Connell automated the control system, including remote control capabilities. On March 12, 2013 O'Connell notified the FWS of its intent to undergo turbine replacement and dam maintenance/repair activities at the project. O'Connell proposes to replace the two crossflow turbines with one double regulated Kaplan unit. The new turbine/generator would have a nameplate rating of 100 kW and operate at flows from 10 cfs to 110 cfs. The Service is in the process of responding to this request.

A review of the project file and recent submittals on FERC Online indicates that there have been no documented compliance issues with the project (other than the below-noted flow monitoring plan).

### LIHI Consultation Criteria

#### 1. Endangered Species

There are no federally listed endangered species within the project area.

#### 2. Exemption terms and conditions

##### Bypass flow

The project has a short 50-foot-long bypass reach. Due to the short length of the reach and backwatering from the tailrace, no dedicated flow is required to be spilled over the dam.

*Impoundment Fluctuations*

According to O'Connell, the project operates run-of-river, which means the headpond is not drawn down for the purposes of generation. The normal water surface elevation is at the top of the stoplogs. This mode of operation should minimize impoundment fluctuations.

*Flow Monitoring Plan*

The terms and conditions submitted by the FWS for the project (per letter of 2/4/1985) required the Exemptee to present a Flow Monitoring Plan to the Service for approval within six months from issuance of an exemption. Based on our file review as part of the LIHI consultation process for the Hunts Pond Project, we find no documentation that this flow plan was ever developed or approved by our office.

*Fish Passage*

The FWS terms and conditions require that the Exemptee provide fish passage facilities when prescribed by the FWS and/or MA DFW. 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 American eels at the first project on the river (O'Connell's New Home Project). However, we do 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.

*Water Quality*

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.

*Shoreland Management Plan*

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.

*Comments*

Based on our review of the project file, it appears that the only outstanding issue regarding terms and conditions prescribed by this office for the project relate to developing a flow monitoring plan. Our files indicate that this requirement has not yet been fulfilled. Therefore, the Service recommends that LIHI certification only be granted if it contains a condition requiring the Exemptee to fulfill this obligation. O'Connell should provide a draft Operations and Flow Monitoring Plan for Service review and approval within three months of receiving LIHI certification.

We hope these comments have been responsive to your requests regarding Low Impact Hydropower Certification. If you have any questions or require additional information please feel free to contact me.

Regards,  
Melissa

On Wed, Mar 20, 2013 at 9:16 AM, Fisk, Steve <[SFISK@oconnells.com](mailto:SFISK@oconnells.com)> wrote:

Hello Melissa,

Attached are letters requesting comments for LIHI Application Appendices, A Minimum Flows; C Fish Passage; D Watershed Protection; and E Endangered Species. Please call me if you should have any question regarding the attached information.

Watershed  
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