



MassWildlife

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

March 13, 2014

Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

ADDITIONAL INFORMATION & COMMENTS

Northfield Mountain Pumped Storage Project No. 2485

Turners Falls Hydroelectric Project No. 1889

Additional Information Regarding Documented Presence of State-listed Mussel Species in the Project Area

Dear Secretary Bose,

The Massachusetts Division of Fisheries and Wildlife (the "Division") is the agency responsible for the protection and management of the fish and wildlife resources of the Commonwealth of Massachusetts. The Natural Heritage & Endangered Species Program of the Division is responsible for the regulatory protection of imperiled species and their habitats, as codified under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00), and collects and manages information on the occurrence, abundance, distribution and conservation needs of rare species and significant natural communities in Massachusetts. This information is collected through field surveys, reviews of the scientific literature and research by staff biologists and cooperators around the state.

The Division would like to offer the following, additional information regarding the presence of state-listed mussel species within the Connecticut River, which is relevant to the "Study Plan Determination for Aquatic Studies - Turners Falls Hydroelectric Project and Northfield Mountain Pumped Storage Project" issued by the Federal Energy Regulatory Commission (FERC) on February 21, 2014 (the "Study Plan Determination").

Additional Information:

The Division's database includes a recent occupancy record of Yellow lampmussel (*Lampsilis cariosa*) within the Bypass Reach (Reach 3) of the project area, which was not detected in recent surveys conducted by the applicant. This is based on a record of observation, submitted to the Division and verified by Division biologists, as further described below:

Species Observed:	Yellow lampmussel (<i>Lampsilis cariosa</i>), state-listed as Endangered
Date Observed:	August 4, 2007
Location:	Eastern shoreline of Rawson's Island, near Rock Dam
Coordinates:	72.5806° W, 42.5954° N

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Division of Fisheries and Wildlife
100 Hartwell Street, Suite 230, West Boylston, MA 01583 (508) 389-6300 Fax (508) 389-7890
An Agency of the Department of Fish and Game

Action Requested:

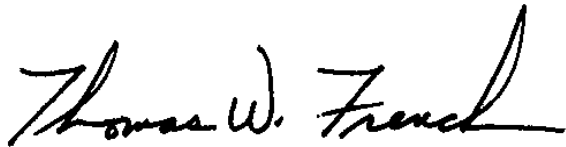
The Division requests that the additional occurrence of Yellow lampmussel supplement data collected during recent surveys conducted by the applicant in Reaches 1 through 3, future surveys to be conducted by the applicant in Reach 4 pursuant to Study Plan 3.3.16, and recent surveys conducted in Reach 5 by Holyoke Gas and Electric (FERC Project No. 2004).

In particular, the Division requests that the additional occurrence of Yellow lampmussel inform study elements of Study Plan 3.3.1 as required by FERC in the Study Plan Determination, as summarized below.

Study Plan	Study Element	Summary of Study Plan Determination	Action Requested
3.3.1	Evaluation of all State-listed Mussels	Model habitat persistence in reaches with documented occurrences of state-listed mussel species.	Add habitat persistence modeling for yellow lampmussel within Reach 3.
3.3.1	1D vs. 2D Modeling for Mussels	Conduct 1D modeling in reaches with documented occurrences of state-listed mussel species, for use in modeling habitat persistence.	2D data will be collected within Reach 3 pursuant to Study Plan 3.3.1. We recommend 2D modeling of habitat persistence for Yellow lampmussel in Reach 3, given that 2D modeling would not require additional data collection and would provide a better assessment of habitat persistence.
3.3.1	Velocity Profiles	Collect mean column and benthic velocity data at representative transects at three calibration flows in Reaches 4 and 5 to validate mean column velocities and simulated benthic velocities.	Amend study to collect data at representative transects (or at locations as otherwise appropriate to 2D data collection methodologies) to validate mean column and simulated benthic velocities in Reach 3. <u>Given that data collection for Reach 3 will occur in 2014, we recommend timely reassessment of field methods, as appropriate, to collect this data.</u>
3.3.1	Host Fish Habitat Modeling	Persistent habitat should be modeled for primary hosts of all state-listed mussels present in project area.	Amend study to include modeling of habitat persistence for primary host fishes within Reach 3.

Thank you for this opportunity to provide additional information and comments. If we can be of further assistance or provide any additional information on this matter, please contact Jesse Leddick, Endangered Species Review Biologist, at jesse.lednick@state.ma.us or (508) 389-6386.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is written in a cursive style with a large, sweeping flourish at the end of the name.

Thomas W. French, Ph.D.
Assistant Director for the Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife

Document Content(s)

Project 1889-2485 - MADFW Additional Info - 3-13-14.PDF.....1-3