

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D. C. 20426

March 6, 2014

OFFICE OF ENERGY PROJECTS

Project No. 2485-063—Massachusetts  
Project No. 1889-081—Massachusetts  
FirstLight Hydro Generating Company

Mr. John Howard  
Director – FERC Hydro Compliance  
FirstLight Hydro Generating Company  
North Field Mountain Station  
99 Millers Falls Road  
Northfield, MA 01360

**Reference: Determination for Modified Study 3.5.1**

Dear Mr. Howard:

On September 13, 2013, the Director, Office of Energy Projects, issued the study plan determination (determination) for the relicensing of FirstLight Hydro Generating Company's (FirstLight) Turners Falls Hydroelectric (P-1889) and Northfield Mountain Pumped Storage (P-2485) projects. That determination required FirstLight to modify and file, for Commission approval, study 3.5.1 - *Baseline Inventory of Wetland, Riparian and Littoral Habitat in Turners Falls Impoundment, and Assessment of Operational Impacts on Special-Status Species*.

On January 13, 2014, FirstLight filed the modified study plan for study 3.5.1. We reviewed FirstLight's modified study plan and stakeholder comments. Our recommended modifications are discussed in detail in Appendix A.

We conclude that the study plan, with staff's recommended modifications, will improve the study's design and address the concerns we identified in the determination. Therefore, we are approving study 3.5.1 – *Baseline Inventory of Wetland, Riparian and Littoral Habitat in Turners Falls Impoundment, and Assessment of Operational Impacts on Special-Status Species*, as filed on September 13, 2013, with the staff's recommended modifications discussed in Appendix A.

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If you have any questions, please contact Ken Hogan at (202) 502-8434 or via email at: [Kenneth.Hogan@ferc.gov](mailto:Kenneth.Hogan@ferc.gov).

Sincerely,

Timothy J. Welch, Chief  
West Branch  
Division of Hydropower Licensing

Enclosures: Appendix A—Staff’s Recommendations on Modified Study Plan 3.5.1

cc: Mailing List  
Public Files

## APPENDIX A

### STAFF'S RECOMMENDATIONS ON MODIFIED STUDY PLAN 3.5.1

The following discusses staff's recommendations on the modified study 3.5.1 proposed by FirstLight and a requested study modification by the Massachusetts Department of Fish and Wildlife (MADFW) that was not adopted by FirstLight in the modified study plan. We base our recommendations on the study criteria outlined in the Commission's regulations [18 C.F.R. section 5.9(b)(1)-(7)].

#### **Study 3.5.1 – Baseline Inventory of Wetland, Riparian and Littoral Habitat in Turners Falls Impoundment, and Assessment of Operational Impacts on Special-Status Species**

##### Background

The Director's September 13, 2013 study plan determination (determination) required that study 3.5.1 be modified to incorporate additional transects in unoccupied areas with suitable habitat for special status invertebrate and state-listed plant species, after consultation with the U.S. Fish and Wildlife Service (FWS) and the Massachusetts Department of Fish and Wildlife (MADFW). FirstLight filed its modified study 3.5.1 on January 13, 2014.

##### Study Description

The modified study includes details on the number of transects per site, location of transects, and identification of suitable habitat. The plan provides changes consistent with those required by the determination and addresses agency comments on the revisions.

##### Requests for Study Modifications

##### *Invasive Species and Notification of Observations of Special-status Species*

##### Applicant's Proposal

FirstLight is proposing only to survey species listed by Massachusetts Invasive Plant Advisory Group (MIPAG) as non-native species that have spread into native or minimally managed plant species in Massachusetts.

FirstLight's study does not include any provision for notifying MADFW if any state-listed species or vernal pools are located during the study.

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### Comments

MADFW requests that the species listed in Table 3.5.1-3, *Wetland and Aquatic Invasive Species*, should be updated to include three additional species of non-native invasive species: *Alnus glutinosa* (European Alder), *Salix purpurea* (purpleosier willow), and *Salix exigua* (not ssp. *interior*) (narrowleaf or sandbar willow). MADFW notes that these species may have been planted for bank stabilization projects in the past but can be invasive.

MADFW also provided a general recommendation that it be notified if any state-listed species or vernal pools are observed during field surveys.

### Discussion and Staff Recommendations

Although the three plant species referenced by MADFW are not listed by MIPAG, they can be invasive in certain circumstances. *Alnus glutinosa* is a threat to native wetland species due to its ability to form monospecific stands.<sup>1</sup> *Salix purpurea* has become naturalized in many regions and is commonly found in the Northeast United States.<sup>2</sup> *Salix exigua* may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed.<sup>3</sup>

It would be appropriate to note the presence of these three additional invasive as part of the data collection efforts in order to determine potential threats to special-status species and inform future vegetation management options (section 5.9(b)(7)). Therefore, we recommend that the plan be modified to add *Alnus glutinosa*, *Salix purpurea*, and *Salix exigua* (not ssp. *interior*) to the table of invasive species (Table 3.5.1-3) to be recorded during the surveys.

It is also important that any observations of state-listed species or vernal pools be reported to MADFW to benefit conservation of these species or habitats. Therefore, we recommend that FirstLight provide documentation to MADFW of any state-listed species or vernal pools detected during the surveys.

We do not anticipate any significant increases in study cost associated with these recommendations (section 5.9(b)(7)).

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<sup>1</sup> Invasive Plant Atlas of New England, [http://www.eddmaps.org/ipane/ipanespecies/trees/Alnus\\_glutinosa.htm](http://www.eddmaps.org/ipane/ipanespecies/trees/Alnus_glutinosa.htm) (accessed February 20, 2014).

<sup>2</sup> Population genetic structure of native versus naturalized sympatric shrub willows (*Salix*; Salicaceae), Juan Lin, James P. Gibbs, and Lawrence B. Smart. *Am. J. Bot.*, April 2009, 96: 719-27.

<sup>3</sup> USDA, NRCS Plant Fact Sheet, Sandbar willow, February 2002.

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