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Gus Bakas
MA Hydro Director and Plant Manager

August 2, 2013

FERC0070d

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

Re: Northfield Project No. 2485 and Turners Falls Project No. 1889
Report on Uses and Occupancies of Project Lands

Dear Secretary Bose:

FirstLight Power Resources Services, LLC ("FirstLight"), as agent for FirstLight Hydro Generating Company, the licensee for the Northfield Project, FERC No. 2485, and the Turners Falls Project, FERC No. 1889 responds to the Order Approving Report on Existing Uses and Occupancies of Project Lands ("Order") issued May 13, 2013 and submits supplemental information as required by Ordering Paragraph B.

The attached 2013 Mitigation Implementation Report describes the completion status of each mitigation measure in the approved Order that has an identified completion date as well as the implementation status of the proposed buffer and website page.

FirstLight respectfully requests that the Commission approve the mitigation measures implemented as described herein.

Should you have any questions or require additional information, please contact Elizabeth Bazler at (413) 659-4515 or elizabeth.bazler@gdfsuezna.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Gus Bakas", written over a white background.

Gus Bakas

2013 Mitigation Implementation Report

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Introduction

FirstLight Power Resources Services, LLC, as agent for FirstLight Hydro Generating Company (Licensee or FirstLight) operates the Northfield Mountain and Turners Falls Hydroelectric Projects (FERC Nos. 2485 and 1889). The Projects include land along the Connecticut River in Greenfield, Montague, Gill, Erving and Northfield, MA, Vernon, VT and Hinsdale, NH.

On October 28, 2009, the Commission approved the Licensee's 2008 request for Non-Project use of Project Lands and Waters¹ for twenty-four sites with private structures, including twenty-two with rustic seasonal residential structures (camps) and associated docks, one with only a storage shed, and one occupied by a private sportsman's club.² A report was ordered by the Director in 2009 and filed by the Licensee on December 29, 2010 focusing on three major areas: (1) evaluation of opportunities for reducing erosion at the sites; (2) assessment of the feasibility of removing nonessential structures, improvements, and personal property; and (3) mitigation measures for allowing the structures to remain within the project boundary. Depending upon the specific mitigation the licensee required these measures be completed by December 2011 or December 2012. On May 13, 2013, the Director ordered,³

"Within 90 days from the issuance date of this order, the licensee shall file a report on the completion status of each mitigation measure in the approved report that has an identified completion date, as well as the implementation status of the proposed buffer and website page. For any proposed measures that have not yet been completed, the licensee shall also include in its filing, the site-specific reasons for the delay and an estimated completion date for the measure."

This Mitigation Implementation Report is FirstLight's response to that order.

Erosion Reduction

Erosion reduction mitigations were proposed for a total of twelve camps with six of the twelve requiring mitigation at the shoreline. After filing mitigation project proposals with FERC in December 2010, permitting with Federal, State and Local agencies occurred and continued through the fall of 2011. Shoreline mitigation took place in November and December of 2011 in order to minimize environmental impacts. Work away from the water's edge was conducted in 2012 with all work completed by December of that year. Erosion mitigations were modified on three sites based on camp owner recommendations and monitoring of locations through three subsequent field seasons. Specific modifications are described below.

¹ 129 FERC ¶ 62,075

² Ten sites are located in Gill, Massachusetts, and the remaining 14 are located in Montague, Massachusetts.

³ 143 FERC ¶ 62,113

Shoreline Sites:

Shoreline erosion mitigation took place at camps 6E, 7E, 8E, 2W and 10 W. Because of the sensitive nature of these sites and the high potential for soil entering the river, all work on shoreline sites was contracted to a vendor with expertise in shoreline erosion work. Since this work was completed in December of 2011, sites are in their second growing season and vegetation is becoming well established, as shown in the photos below of Camp 2W. Shoreline erosion repairs are performing well and these photos were chosen for inclusion because 2W was the site with the greatest vertical eroded edge of all shoreline sites.

Shoreline Mitigation Example



In 2010 the shoreline erosion at Camp 2W consisted of +/- four feet of vertical eroded edge.



In November 2011 custom built Geolifts were created at the base of the repair, coir logs were layered on top and woody plants and New England Conservation Wildlife Seed Mix were planted.



Photos from the 2012 field season show healthy perennials at the top of the mitigation area and wildlife conservation mix growing vigorously from the geolifts.

(Photos by NEE staff)

Non-shoreline Sites

Mitigation on non-shoreline sites took place during the 2012 field season with some of the twelve sites completed as late as December 2012. Because this work was closer to Camp structures, techniques varied according to camp owner aesthetics and site constraints. In some cases areas were seeded, and native woody vegetation is being allowed to naturally colonize the area to minimize digging on steep slopes. Because this is the first growing season, plants on these sites are becoming established with maximum growth on sites expected in three to five growing seasons. On all sites, soil and drainage areas are covered with erosion control mats, hay or other materials, and, despite record rains in early summer 2013, field observations show soil holding well on sites with no erosion around mitigation features observed.

Non-Shoreline Mitigation Example



In 2010 Camp 3E had the highest bank erosion around structures of all the camps. The site also had particularly steep slopes shaded by structures.



Installation of a 3.75' wooden wall was topped with erosion control mat. The wall decreases the slope on which plant material will grow and covers highly shaded areas.

Erosion Mitigation Modifications

Three camp owners stated FirstLight's site evaluations or recommendations did not coincide with their observations of erosion on sites over the past decade. Since their long-term knowledge of the sites seemed valuable, FirstLight has observed areas around Camp 3E, 4E and 11W during the past three field seasons and at this point makes modified recommendations for each site.

Camp 3 E-

- **2010 Recommendation:** The erosion around the parking area, main house, and guest house, should be stabilized by re-vegetating. The erosion up-gradient of wooden retaining wall should be filled and stabilized. Continue monitoring the riverbank and wooden retaining wall down slope of the parking area.
- **2011-2013 Field Observations:** Erosion control repairs around parking area, main and guest houses were completed in December 2012. The wooden retaining wall did not appear strong enough to hold recommended fill.
- **2013 Recommendation and completion date:** Currently conducting engineering analysis of multiple site repair options, all of which require additional environmental permitting, project bidding, implementation, and evaluation phases. As a result, the projected completion date is **December 31, 2014**.

Camp 4E-

- **2010 Recommendation:** Stabilize the bank adjacent to the parking area. Monitor the vegetated broken slope for additional movement down slope.
- **2011-2013 Field Observations:** Bank adjacent to parking area is stable. Significantly more vegetation is currently growing in the area than was recorded in 2010.
- **2013 Recommendation and completion date:** Continue to monitor both areas during annual permit compliance site visit.

Camp 11W-

- **2010 Recommendation:** The channel used to divert storm water from the driveway and the camp house roof should be vegetated. Continue to monitor the river bank for signs of erosion.
- **2011-2013 Field Observations:** Channel used to divert storm water is stable.
- **2013 Recommendation and completion date:** Continue to monitor both areas during annual permit compliance site visit.

Annual site monitoring

All twenty-four camps are visited annually to monitor compliance with permit provisions. Checking the status of current erosion control mitigations or looking for new areas where erosion may occur is an integral part of the annual data collection and communication of findings with camp owners.

Shoreline and Non-shoreline Site Erosion Recommendations and Completion Dates:

#	Erosion Recommendation	Completed by	Erosion Repair at Water's Edge?	Completed by	Mitigation Modifications
1E	The retaining wall along Deep Hole Road shall be repaired. The camp owner should maintain all swales and storm water diversion swales to ensure proper function. Continue to monitor the stability of the boat ramp given the bare surface and proximity to river. Continue to monitor banks along the Connecticut River.	12/31/11	No	N/A	None
2E	The mulch areas located up-slope of the retaining walls should be re-vegetated to stabilize the slope. The riverbank upstream from Camp 2E along the footpath should be monitored for bank erosion. The riverbank should be stabilized with supplemental plantings.	12/31/12	No	12/31/11	None
3E	The erosion around the parking area, main house, and guest house, should be stabilized by re-vegetating. The erosion up-gradient of wooden retaining wall should be filled and stabilized. Continue monitoring the riverbank and wooden retaining wall down slope of the parking area.	Areas around parking, main and guest house completed by 12/20/2012.	Yes	Not Completed	Prior to filling, wall stability determined to be unsuitable for planned mitigation. Currently conducting engineering analysis of multiple site repair options. To be completed by 12/31/2014.
4E	Stabilize the bank adjacent to the parking area. Monitor the vegetated broken slope for additional movement down slope.	Modified	No	N/A	Bank adjacent to parking area is stable. Continue to observe both areas during annual camp inspections
6E	The eroding slope adjacent to and along the path should be stabilized. The erosion along the riverbank should be stabilized.	12/31/12	Yes	12/31/11	None
7E	Discontinue mowing at the top of the bank. Riverbank should have debris removed and bank restored.	12/31/11	Yes	12/31/11	None
8E	The plan identifies an area up-slope of the river where mowing of the existing vegetation should be discontinued to reduce the erosion along the riverbank. The mulch areas should be stabilized by increasing the vegetation in those areas according to the plant list. The tires and debris along the river bank should be removed and the riverbank should be restored. First Light should continue to monitor the riverbank for erosion.	12/31/12	Yes	12/31/11	None

#	Erosion Recommendation	Completed by	Erosion Repair at Water's Edge?	Completed by	Mitigation Modifications
14E	Re-grade the entry drive as needed to ensure proper drainage. Stabilize the slopes adjacent to the entry drive to reduce the sediment moving down the driveway to the parking area. Continue to monitor the banks and slopes down to river for signs of erosion.	12/31/12	No	N/A	None
2W	Repair erosion starting to form around the dock landing by adding stone found on-site. Stabilize eroding footpath down-slope to the bank by continuing the wooden stairs. Cease mowing and cutting vegetation on slope up-gradient from the riverbank and allow vegetation to reestablish on slope. Find an alternate location for the storage of the dock in the winter. Repair river bank using the existing stone at the toe of the slope with stacked coir logs on top, grade back the slope, cover with erosion control blanket and re-vegetate with native willow vegetation. A woody vegetation buffer at the top of the bank should be planted and maintained in healthy condition. Continue to monitor the bank area for erosion.	12/31/11	Yes	12/13/11	None
10W	Discontinue mowing of the grass area between the building and the river. Lack of woody vegetation at the bank increases the rate of erosion and its erosion potential. Repair the river bank using the existing stone at the toe of slope with stacked coir logs on top, grade back the slope, cover with erosion control blanket and re-vegetate with native vegetation. A woody vegetation buffer at the top of bank should be planted and maintained in healthy condition. Continue to monitor the bank area for erosion.	12/31/11	Yes	12/31/11	None
11W	The channel used to divert storm water from the driveway and the camp house roof should be vegetated. Continue to monitor the river bank for signs of erosion.	Modified	No	N/A	Channel used to divert storm water is stable. Continue to observe both areas during annual camp inspections
12W	The "steps" in the main path should be rebuilt to retain soil and sediment that moves down the path from erosion. The main path from the parking area should be narrowed to reduce the amount of bare soil. The secondary short-cut path near the retaining wall should not be used and re-vegetation should occur to reduce erosion and reduce impact on the bare tree roots. Continue to monitor the riverbank for signs of erosion.	12/14/12	No	N/A	None

Structure, Improvement and Personal Property Reduction

Six camps were targeted for structure, improvement or personal property reductions and all twenty-four camp owners were made aware through an amendment to existing permits and repeated verbal and written reminders that portable personal property should be stored indoors or off site when site is not occupied.

Removals

One unused structure each was removed from sites 7E, 16E, and 17E, two structures were removed around camps 15E, and 8W, and three were removed from camp 14E for a total reduction of ten outbuildings. An unused dock was also removed from Camp 10W and, while most sites have less personal property visible along the river, one striking example of personal property reduction at the shoreline, Camp 6E, is shown below.

Structure Reduction Example



Camp 14E - two outbuildings, no longer in use, targeted for removal in 2010 report.



Camp 14E -- same location in 2013.

Personal Property Reduction Example



In 2010 Camp 6 E – multiple chairs, water-ski floats, table, etc. routinely left on site.



In 2013 only one picnic table, a bench and scrap wood/cloth for burning during the next camp fire is visible

Structure, Improvement, Personal Property Mitigation Modifications

At Camp 2E, one shed on a camp property resembled an old outhouse and was targeted for removal during the 2010 site assessment. Camp owners subsequently informed FirstLight that the structure was a shed rather than an outhouse and was actively being used. Since camps are allowed up to four structures and Camp 2E has only two, the shed was allowed to remain on FirstLight property.

Annual site monitoring

Data regarding structures, improvements and personal property is also collected and discussed with camp owners on an annual basis.

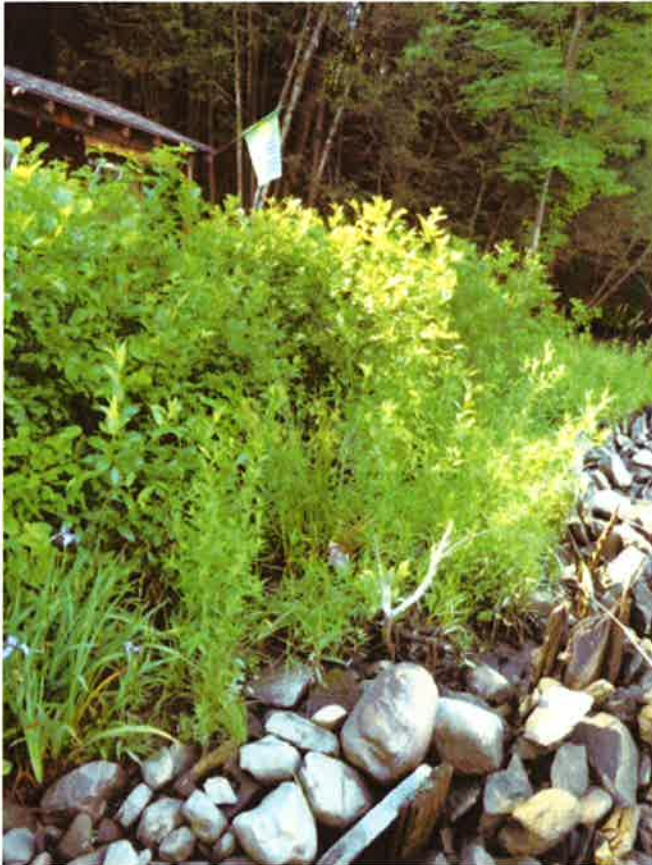
Structure, Improvement & Personal Property Reduction Recommendations and Completion Dates:

Camp	Structure, Improvement, Personal Property Reduction Recommendation	Completed by	Mitigation Modifications
2E	Remove outbuilding 1	Modified	Four structures allowed on site. Only two exist.
6E	Portable personal property at water level to be stored in shed	12/31/11	None
7E	Remove outbuilding 3	12/31/12	None
14E	Remove outbuildings above standard	12/31/12	None
15E	Remove outbuildings 2 and 3	12/31/12	None
16E	Remove outbuilding 2 and reduce portable personal property.	12/31/12	None
17E	Remove outbuilding 3	12/31/11	None
8W	Remove outbuildings above standard. Portable personal property to be removed or stored in structures.	12/31/12	None
10W	Unused dock to be removed from site.	12/31/11	None
15W	Remove outbuildings above standard	12/31/11	None

Buffer Zone Implementation

This is the second field season that camp owners are modifying mowing practices to leave a ten foot no-mow buffer zone at the edge of the river. There was broad acceptance of the new requirement in 2012 and those that had difficulty understanding the policy in the first field season were observed to be compliant during 2013 site visits. Monitoring and education will continue annually on this requirement to ensure camp owners adhere to standard.

Buffer Zone Example



Vegetation at Camp 7E is approximately 4 feet tall in 10' diameter no-mow buffer zone.

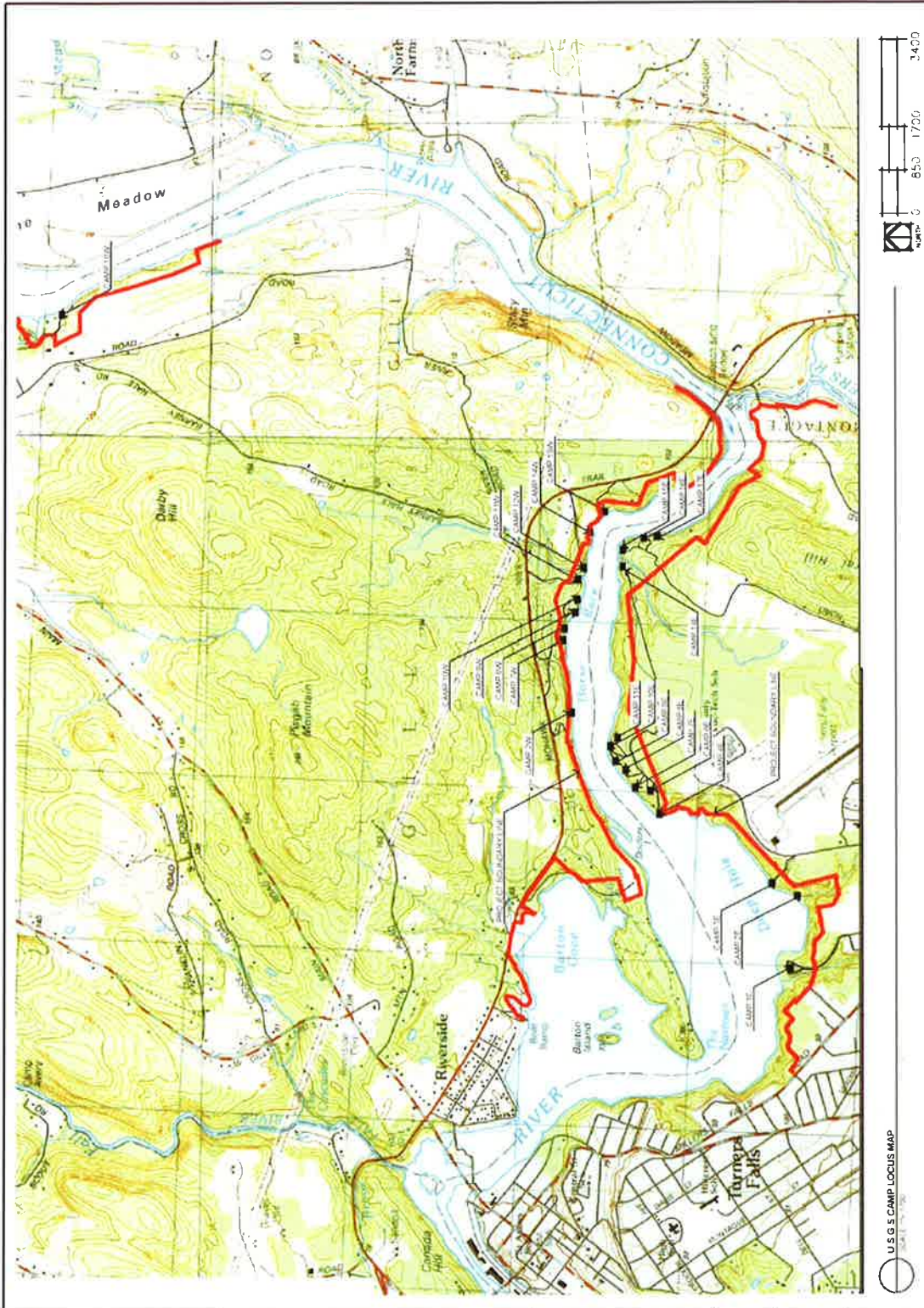
Website Description



An interactive Google map of recreation areas within the project boundary operated by FirstLight and other agencies was completed at the end of 2012 and went live in January of 2013. It currently lists twenty-four properties including open space, scenic and historic locations and is accessed off the FirstLight website. Inclusion on the map was welcomed by utility, town, regional, state and federal property managers whose logos are shown below. New sites are being recommended by others and when groups provide the photos, map and web links provided to create a new listing, they will be added. Map access link: <http://www.firstlightpower.com/northfield/NorthfieldMap.asp>



Appendix A:

Map of Camp Locations



<p>NEW ENGLAND ENVIRONMENTAL, INC. ENVIRONMENTAL CONSULTING SERVICES</p> <p>12 BEECH BLVD. SUITE 200 SHERBORN, MA 01942 P: 508.351.1100 F: 508.351.1101 WWW.NEE.ENV.COM</p> 	<p>U.S.G.S. CAMP LOCUS MAP FIRSTLIGHT CAMPS CAMP EROSION PROJECT</p> <p>FIRST LIGHT POWER RESOURCES F E R C PROJECT #2485-050&1889-069 NORTHFIELD, MA</p>	 <p>FOR OFFICIAL USE ONLY (Government Publications) ONLY</p> <p>USA 2013 2006 (ORTHO PHOTO) FROM U.S.G.S. NORTHFIELD QUADRANGLE</p>	<table border="1"> <tr> <td>Date</td> <td>4-28-2010</td> </tr> <tr> <td>Scale</td> <td>AS SHOWN</td> </tr> <tr> <td>Drawn by</td> <td>AK</td> </tr> <tr> <td>Checked by</td> <td>AK/MS</td> </tr> <tr> <td>MSR File #</td> <td>12-288</td> </tr> <tr> <td>REVISIONS</td> <td>DATE BY</td> </tr> </table>	Date	4-28-2010	Scale	AS SHOWN	Drawn by	AK	Checked by	AK/MS	MSR File #	12-288	REVISIONS	DATE BY	<p>SHEET #</p>
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Appendix B:

ORDER APPROVING REPORT ON EXISTING USES AND OCCUPANCIES OF PROJECT LANDS AND WATERS

(Issued May 13, 2013)

UNITED STATES OF AMERICA 143 FERC ¶ 62,113

FEDERAL ENERGY REGULATORY COMMISSION

FirstLight Hydro Generating Company

Project Nos. 2485-050

1889-069

ORDER APPROVING REPORT ON EXISTING USES AND
OCCUPANCIES OF PROJECT LANDS AND WATERS

(Issued May 13, 2013)

1. On December 29, 2010, FirstLight Hydro Generating Company (licensee or FirstLight) filed a report on existing residential and private structures on lands within the boundaries of the Northfield Mountain and Turners Falls Hydroelectric Projects (FERC Nos. 2485 and 1889). The Northfield Project is located in Franklin County, Massachusetts, while the Turners Falls Project is located in Franklin County, Massachusetts; Windham County, Vermont; and Cheshire County, New Hampshire. Both projects are located on the Connecticut River.
2. The Northfield and Turner Falls Projects include 24 sites with private structures, including 22 with rustic seasonal residential structures and associated docks, one with only a storage shed, and one occupied by a private sportsman's club.⁴ The existing structures are a historic use that began in the 1920's and the previous licensees for these projects issued permits to manage their use. The previous licensee did not seek Commission approval of these uses of project property. To correct this oversight, FirstLight filed an application on October 10, 2008 seeking Commission approval to issue permits to the occupants of the existing sites, and oversee such uses of project lands to ensure project resources are protected in a manner that is consistent with each project license. The licensee's filing included, among other things, a proposal to conduct evaluations of each site to assess the potential for erosion or excessive runoff and reasonable opportunities to reduce such impacts (e.g., planting of native vegetation) and the need for specific mitigation measures, within one-year of Commission approval of the application.
3. By Order Modifying and Approving Non-Project Use of Project Lands and Waters issued October 28, 2009, the Commission approved the licensee's application with modification.⁵ Ordering paragraph B requires the licensee to file a report on the proposed

⁴ Ten sites are located in Gill, Massachusetts, and the remaining 14 are located in Montague, Massachusetts.

⁵ 129 FERC ¶ 62,075.

site evaluations for Commission approval and to include in the report: (1) site-specific baseline data, including the permittee name, site location, and existing condition and structures; (2) a description of the erosion and excessive runoff evaluation methodology; (3) the results of the evaluation, including a description of affected areas and any impacts found at the sites; (4) a detailed description of any proposed mitigation measures, including an explanation of how these measures would be effective and sufficient to properly mitigate any impacts; and (5) a plan and schedule for completion of any proposed mitigation measures. The report is to be prepared in consultation with the U.S. Fish and Wildlife Service, Massachusetts Department of Environmental Protection, Massachusetts Department of Fisheries and Wildlife, Massachusetts Department of Conservation and Recreation, and Massachusetts State Historic Preservation Office.

4. The licensee's December 29 report includes the items required under ordering paragraph B for each of the 24 existing sites, and focuses on three major areas: (1) evaluation of opportunities for reducing erosion at the sites; (2) assessment of the feasibility of removing nonessential structures, improvements, and personal property; and (3) proposed mitigation measures for allowing the structures to remain within the project boundary. Based on these site-specific evaluations, the licensee requires 11 of the sites to have mitigation plans to reduce erosion, including five sites with shoreline mitigation, and found that the 13 remaining sites did not have significant erosion. These sites are to be monitored annually and any future erosion issues addressed in a timely manner. The licensee also found that six of the 24 sites have existing structures that do not meet its standards and it requires the removal of specific outbuildings from each of the six sites. Depending upon the specific mitigation required the licensee requires these measures be completed by December 2011 or December 2012.

5. In addition, to increase public awareness of existing public recreation opportunities at the project, the licensee states it is creating a website page with an interactive map showing publicly-available recreation sites/facilities operated by the licensee and others. Further, to minimize the aesthetic impact of existing structures and improvements, the licensee states it will require neutral earth tone colors to be used for future painting of such structures, and it encourages permittees to keep portable personal property inside structures or off-site. The licensee also states it will formalize a ten-foot-wide buffer at the river's edge, except for pathway to a dock, where no mowing would be allowed and only selective pruning of vegetation species would be allowed. The buffer is also expected to increase habitat suitability for wildlife. Finally, the licensee provided a draft copy of the report to the required resource agencies for review and comment. No comments were received.

6. The licensee's report meets the requirements of ordering paragraph B and includes specific measures to properly mitigate for the continued use of project property by the 24 existing sites. The proposed measures would reduce erosion at the sites, provide for increased public access and enhance fish and wildlife resources, as well as minimize aesthetic impacts. Given the above information, the report should be approved.

7. In order to ensure the proposed measures are appropriately implemented, the licensee should file a report on the completion status of each mitigation measure it identified in the report that has a specific completion date, as well as the implementation

status of the proposed buffer and website page. For any of the proposed measures that have not yet been completed, the licensee should also include in its filing, the site-specific reasons for the delay and an estimated completion date for the measure.

The Director orders:

(A) FirstLight Hydro Generating Company's report on existing residential and private structures on lands within the boundaries of the Northfield and Turners Falls Projects, filed on December 29, 2010 pursuant to ordering paragraph B of the October 28, 2009 order, is approved.

(B) Within 90 days from the issuance date of this order, the licensee shall file a report on the completion status of each mitigation measure in the approved report that has an identified completion date, as well as the implementation status of the proposed buffer and website page. For any of proposed measures have not yet been completed, the licensee shall also include in its filing, the site-specific reasons for the delay and an estimated completion date for the measure. The Commission reserves the right to require changes to the approved report, based on the status report filing.

(C) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and the Commission's regulations at 18 C.F.R. § 385.713 (2012). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Robert J. Fletcher

Chief, Land Resources Branch

Division of Hydropower

Administration and Compliance

Document Content(s)

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