



May 1, 2018

**VIA ELECTRONIC FILING**

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

Re: FirstLight Hydro Generating Company, Turners Falls Hydroelectric Project (FERC No. 1889) and Northfield Mountain Pumped Storage Project (FERC No. 2485).  
Outstanding Addendums on Study No. 3.3.1 (Instream Flow Study- Mussels in Reach 5 and New Sea Lamprey Weighted Usable Area vs Flow Curves) and Study No. 3.3.15 (Sea Lamprey Assessment)

Dear Secretary Bose:

FirstLight Hydro Generating Company (FirstLight) owns and operates the Turners Falls Hydroelectric Project and Northfield Mountain Pumped Storage Project. FirstLight is in the process of relicensing the facilities with the Federal Energy Regulatory Commission (FERC). Attached are various addendums on Study No. 3.3.1 *Instream Flow Habitat Assessments in the Bypass Reach and below Cabot Station* and Study No. 3.3.15 *Assessment of Adult Sea Lamprey Spawning within the Turners Falls Project and Northfield Mountain Project Areas*.

**Outstanding Study Addendums (Study 3.3.1)**

*Mussels in Reach 5*

One of the outstanding items from the original Study No. 3.3.1 report was the assessment of mussels in Reach 5. Included in this filing is Addendum 2 Instream Flow Incremental Methodology Study for Mussels in Reach 5.

*Mussels in Reach 3*

Another outstanding item from Study No. 3.3.1 is the assessment of yellow lampmussels in Reach 3. Included in this filing is Addendum 3 Assessment of Yellow Lampmussel in Reach 3.

*Sea Lamprey*

On February 17, 2017 FERC issued its Determination on Requests for Study Modifications and New Studies. In FERC's Determination Letter relative to Study No. 3.3.1 *Instream Flow Habitat Assessments in the Bypass Reach and below Cabot Station* it states:

*"Because this site-specific habitat data is specific to the project area and would be useful for adjusting or*

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*verifying the HSI curves taken from the literature, we recommend FirstLight consult with the agencies and use the data collected at documented sea lamprey spawning sites in study 3.3.15 to make adjustments to (or verify) the literature-based curves. If use of this data result in adjustments to the HSI curves, we recommend that FirstLight incorporate the new curves into the PHABSIM model and produce revised estimates of WUA for sea lamprey spawning in the bypassed reach and downstream of Cabot Station and file an addendum to the study by May 15, 2017”.*

Included in this filing is Addendum 4 New Sea Lamprey Weighted Usable Area Curves Based on Agency Proposed Habitat Suitability Index Curves. The addendum includes weighted usable area versus flow curves (and tables) in Reaches 1-4 for Sea Lamprey spawning based on the agency proposed habitat suitability index curves.

**Outstanding Study Addendum (Study 3.3.15)**

On February 17, 2017 FERC issued its Determination on Requests for Study Modifications and New Studies. In FERC’s Determination Letter relative to Study No. 3.3.15 *Assessment of Adult Sea Lamprey Spawning within the Turners Falls Project and Northfield Mountain Project Areas* it states:

*“Therefore, we recommend that FirstLight consult with the stakeholders and establish parameters for a low-flow scenario or scenarios and then run the hydraulic model for the selected low-flow scenarios. These modeling results should be used to describe, in an addendum to be filed by May 15, 2017, inundation and exposure of the locations where the 29 redds were documented. “*

Included in this filing is Addendum 1 Impact on Sea Lamprey Spawning Nests near Stebbins Island.

If you have any questions regarding the enclosed material, please call me at the number above.

Sincerely,



Douglas Bennett  
Plant General Manager

Attachments:

- Study No. 3.3.1- Addendum 2 Instream Flow Incremental Methodology Study for Mussels in Reach 5
- Study No. 3.3.1- Addendum 3 Assessment of Yellow Lampmussel in Reach 3
- Study No. 3.3.1- Addendum 4 New Sea Lamprey Weighted Usable Area Curves Based on Agency Proposed Habitat Suitability Index Curves
- Study No. 3.3.15- Addendum 1 Impact on Sea Lamprey Spawning Nests near Stebbins Island