

Relicensing Study 3.3.19

EVALUATE THE USE OF AN ULTRASOUND ARRAY TO FACILITATE UPSTREAM MOVEMENT TO TURNERS FALLS DAM BY AVOIDING CABOT STATION TAILRACE

Initial Study Report Summary

Northfield Mountain Pumped Storage Project (No. 2485)
and Turners Falls Hydroelectric Project (No. 1889)

Prepared for:



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1.1 Study Summary

The objective of the study is to establish a high frequency sound (ultrasound) array across the Cabot Station tailrace and determine the effect of the ensounded field on upstream migrating radio-tagged shad moving past Cabot Station. This would be accomplished by monitoring the movements and passage of shad and the time shad spend in the tailrace area.

This study will be conducted in 2016 pending the results of Study No 3.3.1 (Conduct Instream Flow Habitat Assessments in the Bypass Reach and below Cabot Station) and Study No. 3.3.2 (Evaluate Upstream and Downstream Passage of Adult American Shad), which include telemetry studies and analysis of historic fish passage data. The location of the proposed array would be in the area of the identified shortnose sturgeon spawning grounds; it would be operated during the sturgeon and shad spawning seasons, which overlap.

To date, no consultation has been required for this study.

Reporting

A final report will be completed in March 2017 per the Federal Energy Regulatory Commission's (FERC) February 21, 2014 Study Plan Determination Letter (SPDL).

1.2 Study Progress Summary

Per FERC's SPDL, it recommended that FirstLight evaluate Study No. 3.3.2 *Evaluate Upstream and Downstream Passage of Adult American Shad* results, consider recommendations from stakeholders, and make any necessary modifications to this study's proposed methodology. FERC requested that the amended study should address stakeholder comments and recommendations. FirstLight plans on filing an updated study plan after completion of Study No. 3.3.2, which is slated to be conducted in 2015.

1.3 Variances from Study Plan and Schedule

To date there are have been no variances.

1.4 Remaining Activities

- File an amended study plan after completion of Study No. 3.3.2 after consultation with stakeholders.
- Conduct the field study in 2016.
- Complete report.