



FERC STUDY PLAN MEETING

June 11-12, 2013

*Northfield Mountain Pumped
Storage Project (FERC No. 2485)*

*Turners Falls Hydroelectric
Project (FERC No. 1889)*



June 11: 9 am to 12 pm

- 3.6.2 Recreation Facilities Inventory & Assessment
- 3.6.1 Recreation Use/User Contact Survey
- 3.6.3 Whitewater Boating Evaluation

June 11: 1 pm to 4 pm

- Studies Not Proposed (4.5.1 Contingent Valuation Survey & 4.5.2 Mitigation Impacts of CT. River & Loss of Whitewater Recreation)
- 3.6.4 Assessment of Day Use & Overnight Facilities – Non-Motorized Boats
- 3.6.7 Recreation Study at Northfield Mountain, incl. Assessment of Sufficiency of Trails for Shared Use

June 12: 9 am to 12 pm

- 3.6.5 Land Use Inventory
- 3.6.6 Assess Effects of Project Operation on Recreation & Land Use
- 3.7.1 Phase 1A Archaeological Survey

June 12: 1 pm to 4 pm

- 3.7.2 Reconnaissance Level Historic Structures Survey
- Study Not Proposed: 4.6.1 Assessment & Preservation of Cultural, Historical, & Educational Resources
- Study Not Proposed: 4.4.1 Noise Level Determination

Recreation Facilities Inventory & Assessment

Task 1: Field Work Already Conducted

- Have evaluated existing recreation facilities using standardized forms and methodology.
- Have confirmed the number of facilities.
- Have confirmed number and types of amenities.
- Have evaluated type of use and general condition of each facility.
- Have documented each site with photos and a GPS location.

Recreation Facilities Inventory & Assessment

Task 2: Report Development

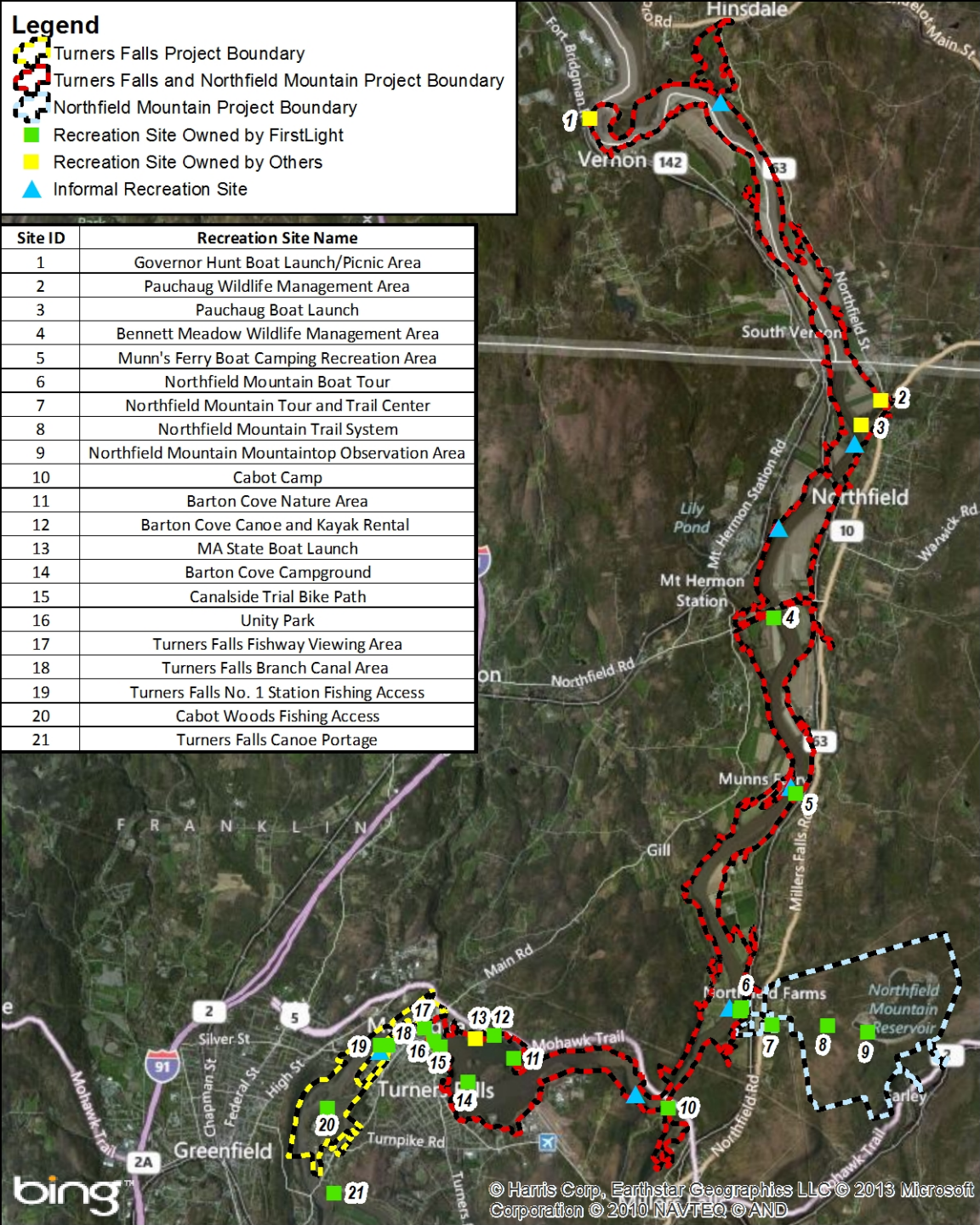
- Goal: Summarize findings of inventory of existing recreation facilities at NF and TF Projects.
- Combine results of seasonal assessments into a single report. Report will summarize amenities and conditions of each recreational facility evaluated
- Report will include maps of facility locations.

Recreation Facilities Inventory & Assessment

Legend

- Turners Falls Project Boundary
- Turners Falls and Northfield Mountain Project Boundary
- Northfield Mountain Project Boundary
- Recreation Site Owned by FirstLight
- Recreation Site Owned by Others
- Informal Recreation Site

Site ID	Recreation Site Name
1	Governor Hunt Boat Launch/Picnic Area
2	Pauchaug Wildlife Management Area
3	Pauchaug Boat Launch
4	Bennett Meadow Wildlife Management Area
5	Munn's Ferry Boat Camping Recreation Area
6	Northfield Mountain Boat Tour
7	Northfield Mountain Tour and Trail Center
8	Northfield Mountain Trail System
9	Northfield Mountain Mountaintop Observation Area
10	Cabot Camp
11	Barton Cove Nature Area
12	Barton Cove Canoe and Kayak Rental
13	MA State Boat Launch
14	Barton Cove Campground
15	Canalside Trail Bike Path
16	Unity Park
17	Turners Falls Fishway Viewing Area
18	Turners Falls Branch Canal Area
19	Turners Falls No. 1 Station Fishing Access
20	Cabot Woods Fishing Access
21	Turners Falls Canoe Portage



Recreation Use/User Contact Survey

Task 1: Study Preparation

- Preview survey samples.
- Develop user contact survey for inclusion in Study Plan Document.
- Consult and revise survey as appropriate.
- Develop random survey schedule and routes.
- Develop residential abutter mail survey.

Recreation Use/User Contact Survey

Task 2: Field Work

- Conduct four season study.
- Employ a combination of tube counters, calibration counts, spot counts, contact surveys, mail surveys, and actual use numbers.
- Work with State agencies and private groups managing existing public and private recreation facilities within the Project to assess use.

Recreation Use/User Contact Survey

Task 3: Data Entry and Statistical Analysis

- Enter data into spreadsheets.
- Determine number of recreation days, length of stay, average persons per party and percent of facility capacity utilization.
- Calculate recreation use projections out to 2050 using US Dept. of Agriculture Model.

Whitewater Boating Evaluation

Task 1: Study Preparation

- Work with stakeholders to develop evaluation forms.
- Determine volume and number of evaluation flows.
- Determine study dates.
- Enlist team of experienced boaters for evaluation.
- Inspect bypass for rebar, and if found, remove.

Whitewater Boating Evaluation

Task 2: Boating Evaluation

- Review logistics, study objectives, safety tailgate with boaters.
- Boaters complete evaluation form after each release.
- Boaters complete comparative evaluation form after boating all individual releases.
- Post evaluation discussion with evaluation team.

Task 3: Bypass Access Evaluation

- Identify and assess parking/access to the Bypass area in conjunction with Recreation User/User Contact Survey study.

Whitewater Boating Evaluation

Task 4: Data Review and Analysis

- Determine number of days boating flows are available under FirstLight's current operating regime.
- Assess current and future demand for boating in the bypass.
 - Data from controlled flow evaluation
 - Data from Recreation User/User Contact Survey
 - Assess existing regional boating opportunities
 - Regional projections in whitewater boating
- Identify competing recreational uses and resource impacts.
- Assess communication system(s) for release information.

Study Not Proposed Contingent Valuation Study

Summary

- Proponents request a contingent valuation study of providing paddling flows in the TF bypass reach.

Rationale for Not Conducting Study

- Willingness to pay studies do not provide a reliable assessment of the potential economic effect of adding recreational opportunity to an area.
- FERC has consistently found that monetization of non-power resources is inadequate in assessing non-power values.
- Study Nos. 3.6.1, 3.6.3, and 3.6.4 will assess recreational use and demand at the TF Project and will give FERC the information it needs to assess power and non-power values and craft requirements for a new license.

Study Not Proposed Mitigation Impacts of the CT River & Loss of Whitewater Recreation

Summary

- Proponents request an assessment of regional whitewater boating resources in order to determine off-site mitigation.

Rationale for Not Conducting Study

- FERC has consistently held that the Project as it exists today is the baseline condition for the evaluation of power and non-power resources.
- FirstLight has proposed to conduct a whitewater evaluation study (Study No. 3.6.3), including identifying available regional whitewater boating opportunities, which will help inform a license decision on the effects of current Project operation, if any, on recreational boating.

Task 1: Literature Review

- Desk top review of existing recreation data.
- Determine existing locations and spacing of facilities, as well as hours and seasons of use.
- Compile and review capacity and use of existing campsites to assess current use needs.
- Review appropriate federal, state, county and local programs and plans related to recreational use of the waterway within the Project boundaries.

Task 2: Field Work

- Ground verify existing locations and potential locations for future use and feasibility of development.
- Review potential canoe portage trails.
- Review by-pass for navigability by non-motorized boats.
- Assess sufficiency of current facilities and need for improvements if any.

Recreation Study at Northfield Mountain - Trails

Task 1: Review of Existing Information

- Review of proposed trails, existing aerials, and property ownership.
- Review data from *Recreation Use and User Contact Survey* (Study No. 3.6.1), regarding use of Northfield trails and other amenities.
- Review of existing hiking/biking information for Northfield Mountain, BMPs by International Mountain Bicycling Association, USFS Trail Classification, and MA DCR Trail Guidelines and Best Practices Standards.

Task 2: Field Work

- Field review of current multiuse trail conditions within NF and existing portion of the NENST within the Project boundary.
- Review and document available access to climbing sites.

Task 3: Desktop Analysis

- Compare field data, survey data and existing information to determine if current facilities are meeting existing needs at Northfield Mountain.
- Provide a list of potential improvements that could be completed if the need arises over the course of the license.

Task 1: Literature and Aerial Photography Review

- Review existing land use controls including local plans, ordinances, statutes, policies and guidelines, along with resource study results.
- Review aerial photography to identify land uses and land use controls on lands abutting the Projects up to 200 feet beyond the boundaries.

Task 2: Development and Application of Land Use Designations

- Develop appropriate land use designations for lands within the Projects' boundaries and define land uses within the Turners Falls Project and Northfield Mountain Project boundaries, utilizing land use information derived from from abutting properties.

Task 3: Map and Summary Development

- Prepare maps and summary of the results of the inventory.

Task 1: Data Compilation

- Review information derived from the following studies to assess the potential impact of continuing operation and maintenance of the Projects' on recreation:
 - *3.6.1 Recreation Use/User Contact Survey*
 - *3.6.2 Recreation Facilities Inventory & Assessment*
 - *3.6.3 Whitewater Boating Evaluation*
 - *3.6.4 Assessment of Day Use and Overnight Facilities Associated with Non-Motorized Boats*
 - *3.6.7 Recreation Study at Northfield Mountain.*
 - *3.2.2 Hydraulic Study of TF Impoundment, Bypass Reach and below Cabot Station*
- Review historic and current water level fluctuation information for the TF impoundment.

Task 2: Data Analysis

- Compare reviewed data in combination with the *Hydraulic Study of Turners Falls Impoundment, Bypass Reach and below Cabot Station*, to determine if there are access issues resulting from water level fluctuations.

Phase 1A Archaeological Survey

Objectives:

- Identify archaeologically sensitive areas within the Projects' APE and determine the need for more intensive surveys

Geographic scope:

- Lands within the Projects' boundaries and outside the Projects' boundaries where the Projects may have the potential to adversely affect National Register eligible resources

Phase 1A Archaeological Survey

Task 1: Initial Meetings

- Meet with the MA, NH, and VT SHPOs and the Narragansett THPO to reach concurrence with respect to the precise APE for the Projects, the development of a sensitivity model, and archaeological field reconnaissance methodology.

Task 2: Background Research

- Examine archaeological site files, cultural resource reports, and archives located at the MA, NH, and VT SHPOs, Great Falls Discovery Center in TF, and Pocumtuck Valley Memorial Association, consult with Narragansett THPO, local historians, researchers, and others knowledgeable of the cultural history of the two Project areas.

Phase 1A Archaeological Survey

Task 3: Develop Sensitivity Model

- The results of the background research will be used to develop prehistoric and historic contexts of the Projects' areas and to develop a sensitivity model.
- The sensitivity model will identify areas within the Projects' APEs that are likely to contain archaeological resources.

Task 4: Field Reconnaissance

- Conduct field reconnaissance to confirm the sensitivity model and eliminate areas within the APEs from further consideration.

Phase 1A Archaeological Survey

Field reconnaissance will consist of:

- Visual examination of selected portions of the Projects' areas.
- Focus primarily on landforms that have the greatest potential to contain archaeological resources.
- Confirm areas of disturbance, steep slope, and wetlands, which would have little potential to contain resources.
- Conduct a limited number of soil cores to confirm soil characteristics and/or ground disturbances.
- No other ground disturbance anticipated for Phase 1A

Phase 1A Archaeological Survey

Task 5: Report Development

The report will contain:

- Record of consultation
- Summary of background research
- Description of the sensitivity model
- Results of reconnaissance field work
- Recommendations for intensive surveys in year 2, if necessary.

Reconnaissance Level Historic Structures Survey

Objectives:

- Identify known historic architectural resources within the APEs that are listed on the NRHP or that may be potentially eligible for listing.
- Determine the need for more intensive surveys of historic architectural resources.

Geographic scope:

- Lands within the Projects' boundaries and outside the Projects' boundaries where the Projects may have the potential to adversely affect National Register eligible resources

Reconnaissance Level Historic Structures Survey

Task 1: Initial Meetings

- Meet with the MA, NH, and VT SHPOs to reach concurrence with respect to the precise APE for the Projects, the development of historic contexts, and field reconnaissance methodology.

Task 2: Background Research

- Examine architectural site files, cultural resource reports, National Register nominations, historic maps and atlases, and building records e.g., MA, NH, and VT SHPOs, Great Falls Discovery Center in TF, Pocumtuck Valley Memorial Association, local libraries and historical societies, and FL's offices.

Reconnaissance Level Historic Structures Survey

Task 3: Develop Historic Contexts

- The results of the background research will be used to develop historic contexts of the Projects' areas to guide the field reconnaissance.

Task 4: Field Reconnaissance

- Conduct field reconnaissance (“windshield survey”) of the APEs to identify architectural resources (buildings, structures, objects, and districts) 50 years or older.

Reconnaissance Level Historic Structures Survey

Task 5: Report Development

The report will contain:

- Record of consultation
- Summary of background research
- Description of the historic contexts
- Results of the windshield survey
- Recommendations for intensive-level architectural surveys in year 2, if necessary.

Study Not Proposed Assess Preservation of Cultural, Historical & Educational Resources

Summary of Requested Study:

- Proponents have requested a study to determine actions to be taken to educate the public about certain historical sites, to preserve artifacts, and to identify, preserve, and make available Project engineering drawings.

Rationale for not conducting the study:

- FirstLight is proposing to conduct cultural resources surveys, which will inform the need for more intensive level surveys of cultural resources and potentially the need for an HPMP. It is premature to determine what measures should be included in an HPMP.

Study Not Proposed Noise Level Determination

Summary of Requested Study:

- Proponent has requested a study to evaluate if the NM Project can be heard by neighbors.

Rationale for not conducting the study:

- The study would not inform the development of feasible PME measures or license conditions.
- The Project has operated for almost 50 years without any evidence that noise from pumping and generating equipment can be heard outside the immediate vicinity of the equipment.