

GLENDALE HYDROELECTRIC PROJECT

LIHI APPLICATION

ATTACHMENT E

THREATENED AND ENDANGERED SPECIES



*{ EXCERPTS FROM }*

ENVIRONMENTAL ASSESSMENT  
FOR  
SUBSEQUENT HYDROPOWER LICENSE

Glendale Project

FERC Project No. 2801-027

Massachusetts

Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Licensing  
888 First Street, NE  
Washington, D.C. 20426

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[Portions discussing the Threatened and Endangered Species are  
highlighted]

statutory responsibilities of such agency.

On December 22 and 30, Massachusetts DFW and Interior, respectively, each filed six recommendations under section 10(j), as summarized in table 3, and discussed in section 5.4, Recommendations of Fish and Wildlife Agencies.

### **1.3.1.3 Section 10(a) Recommendations**

Under section 10(a) of the FPA, each hydroelectric license issued by the Commission should be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

Interior filed a recommendation pursuant to section 10(a) of the FPA, as follows: “The Licensee shall serve, prior to or at the time of filing with the Commission, all representatives of the Department on the service list, with a copy of any request the Licensee may file for amendment of license, amendment or appeal of any fish and wildlife-related license conditions or extension of time requests for project construction or implementation of license article provisions.”

### **1.3.2 Clean Water Act**

Under section 401(a)(1) of the Clean Water Act (CWA), license applicants must obtain either certification that any discharge from a project would comply with applicable provisions of the CWA, or a waiver of certification by the appropriate state agency. On November 14, 2007, Littleville Power applied to the Massachusetts DEP for 401 water quality certification (WQC) for the Glendale Project. Massachusetts DEP received this request on November 20, 2007. On November 3, 2008, Littleville Power received a letter from Massachusetts DEP requesting that Littleville Power withdraw and resubmit its application in order to extend the processing deadline one additional year. By letter dated November 11, 2008, Littleville Power withdrew and resubmitted its application. Certification is due by November 12, 2009.

### **1.3.3 Endangered Species Act**

Section 7 of the Endangered Species Act (ESA) requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species. FWS staff informed Littleville Power in an April 27, 2007 letter (license application, Appendix A) that there are no known federally listed endangered or threatened species or critical habitat for such species within the project area. No listed

species were identified during the 2006 Housatonic mussel survey. Because the presence of listed species has not been documented at the project, staff conclude that issuing a license would not affect federally listed threatened and endangered species. Therefore, further consultation under section 7 is not needed.

#### **1.3.4 Coastal Zone Management Act**

Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. § 1456(3)(A), the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

The Glendale Project is located approximately 122 miles upstream of Long Island Sound and outside of the designated boundaries of the coastal zone. By letter dated June 19, 2008 (filed July 8, 2008), the Connecticut Department of Environmental Protection confirmed that the project is located beyond the limit of tidal influence on the Housatonic River and would otherwise have no reasonably foreseeable effect on coastal resources or uses in Connecticut; thus, the project is not subject to Connecticut coastal zone program review and no consistency certification is needed for the action.

#### **1.3.5 National Historic Preservation Act**

Section 106 requires that a federal agency "take into account" how its undertakings could affect historic properties. Historic properties are districts, sites, buildings, structures, traditional cultural properties, and objects significant in American history, architecture, engineering, and culture that are eligible for inclusion in the National Register of Historic Places (National Register).

The project's powerhouse is listed on the National Register of Historic Places for its engineering and industrial uses from 1900 to 1924. However, Littleville Power is not proposing any alterations to the Glendale powerhouse. By letter filed October 30, 2008, the SHPO determined that the relicensing proposal will not adversely affect the significant historic characteristics of the property. The SHPO commented that operation of the powerhouse for its historical purposes assists in maintaining the historic property.

By letter dated January 27, 2009 (filed February 12, 2009) the SHPO recommended that an historic properties management plan (HPMP) for the project be developed, using a Historical Overview Report filed January 14, 2009, and other existing materials and requiring consultation with the Commission, SHPO, and the Stockbridge Historical Commission prior to any future undertaking involving new construction, demolition, or rehabilitation.

Glendale impoundment and one 0.7 mile downstream of the project tailrace. A total of 3,623 fish representing 24 species were collected. Overall, rock bass was the most abundant species collected. At the impoundment site, 207 fish were collected with bluegill, common shiner, largemouth bass, and rock bass being the most abundant. At the tailrace site, 135 fish were collected with longnose dace, smallmouth bass, rock bass, and common carp being the most abundant. Two brown trout were also collected in the tailrace location.

The Massachusetts Natural Heritage and Endangered Species Program (Massachusetts NHESP) lists four aquatic species—longnose sucker, bridled shiner, creeper mussel, and triangle floater mussel—as species of special concern that have been observed within the project area during the last 25 years. Massachusetts NHESP maps indicate the 3-mile-long reach downstream of the Glendale dam as longnose sucker habitat; however, Massachusetts DFW did not collect any longnose sucker during its most recent fish sampling.

Littleville Power conducted a survey for freshwater mussels within the bypassed reach of the Glendale Project on October 12, 2006. Habitats within the bypassed reach were checked for mussel presence using view buckets and an Aqua-Scope II™, however, no live mussels were found. One relic shell of a creeper mussel was found during the survey.

### *Habitat*

Aquatic habitat mapping of the bypassed reach was completed on July 12, 2006, as part of an Instream Flow Incremental Methodology Study. The bypassed reach was characterized by a relatively moderate gradient dominated by riffle and run habitat representing about 39 and 38 percent of the total habitat length, respectively. Side-channel habitat, which was mostly riffle, represented 11 percent of the total habitat, and pool habitat represented 12 percent of the total. The predominant substrate type in the bypassed reach was large and small boulder, with lesser amounts of cobble and gravel. Substrate embeddedness was low (0 to 25 percent) which means that the space between larger rocks was not filled with fine substrate. Low embeddedness is consistent with quality habitat for macroinvertebrates and fish. Overhead cover was limited (0 to 25 percent) but instream cover in the form of boulders and large woody debris was common.

### **Environmental Effects**

#### Mode of operation

In its license application, Littleville Power proposes to continue operating the project in a run-of-river mode under which impoundment levels would continue to be stable and project outflows would equal project inflows and to provide a 90-cfs minimum

control plan that includes a schedule for regularly monitoring invasive plants within the project area and identifies methods of controlling selected species. Littleville Power responded that they believe the invasive plant infestation is a regional issue and that project specific measures will have little or no impact on the issue as a whole.

### *Staff Analysis*

Although invasive species infestation may be a basin problem, the existing invasive species documented in the project area can spread and outcompete native desirable species. The project impoundment includes multiple wetland areas which provide the necessary conditions for certain invasive species to thrive. The presence of purple loosestrife as a dominant species in portions of the impoundment indicates its ability to spread in the project area. The two wetland areas north of Glendale Middle Road Bridge are of particular concern because, as noted by Stockbridge Team (2002), this area would be good for breeding ducks and other water-wading birds. However, if purple loosestrife and reed canary grass are left un-managed, wildfowl could lose this area as a breeding location.

### **Unavoidable Adverse Effects**

Wildlife at the project may experience temporarily and minor disturbance during the installation of the new turbine unit and construction of new recreational facilities.

### **3.3.3 Threatened and Endangered Species**

According to a letter, dated April 27, 2007, from FWS no federal, no federally-listed or proposed, threatened or endangered species are known to inhabit the project area and there is no critical habitat for these species within the project area. No populations or critical habitat of threatened or endangered species were identified during the 2006 reconnaissance level survey of the project area impoundment or the 2006 Housatonic mussel survey. Therefore Littleville Power does not propose any specific environmental measures to enhance or protect RTE species.

### *Staff Analysis*

Due to the absence of listed species and their habitat in the project vicinity, relicensing of the Glendale Project would have no effect on threatened or endangered species. Should any listed species migrate through or use the area in the future, they would likely benefit from the stability provided by run-of-river operation with limited impoundment fluctuations, minimum flows in the bypassed reach, and the continued existence of a naturally vegetated riparian zone throughout the majority of the shoreline.