

**GREENVILLE DAM PROJECT**

**LIHI APPLICATION**

**ATTACHMENT D**

**SHORE LAND PROTECTION**

## **ENVIRONMENTAL ASSESSMENT**

### **FEDERAL ENERGY REGULATORY COMMISSION OFFICE OF HYDROPOWER LICENSING DIVISION OF PROJECT REVIEW**

**Greenville Dam Project  
FERC No. 2441-009-Connecticut  
and  
Tenth Street Hydro Station Project  
FERC No. 2508-002-Connecticut**

#### **I. APPLICATIONS**

On December 23, 1991, the City of Norwich, Department of Public Utilities, Connecticut (Norwich), filed (1) an application for subsequent minor license for the Greenville Dam Project (Greenville) and (2) an application for subsequent minor license for the Tenth Street Hydro Station Project (Tenth Street). The projects are located on the Shetucket River in the City of Norwich, New London County, Connecticut (figure 1).

Tenth Street is located in the bypass reach of Greenville and receives water diverted from the Greenville dam. The operations of these two projects is currently coordinated and proposed to continue to be coordinated. Based on these factors, we consider these two projects to comprise a unit of development as defined in Section 3(11) of the Federal Power Act. Hence, in this document, Greenville and Tenth Street will be referred to as "developments" and the combination of the two as "project." Furthermore, although Norwich has proposed to continue operating as two separate licenses, we propose to combine any license issued for these two developments for the reasons stated above.

#### **II. PURPOSE AND NEED FOR ACTION**

##### **A. Purpose of Action**

Greenville and Tenth Street are existing, operating, licensed developments with total installed capacities of 800 kilowatts (kW) and 1,400 kW, respectively. Historically, Greenville has produced annually about 3.85 gigawatthours (GWh) and Tenth Street has produced about 5.35 GWh, for a total of 9.2 GWh. With Norwich's recommended 250 cubic feet per second (cfs) minimum flow release to the bypass reach, Greenville would generate annually 3.06 GWh and Tenth Street would generate 4.56 GWh, for a total of 7.61 GWh. Norwich would continue to use the renewable energy from the project to meet its system load requirements.

In this Environmental Assessment (EA) we analyze the impacts associated with the issuance of one new license for the two developments, make recommendations to the Commission on whether to issue a new license and on the term of the license, and

• Connecticut Department  
of Environmental Protection

October 2, 1992

Norwich responded to comments filed by the Department of Interior (Interior) and the Connecticut Department of Environmental protection (CDEP) on September 11, 1992; and it responded to the CDEP's July 28, 1992, and October 2, 1992, comments on August 11, 1992, and November 4, 1992, respectively. We address these comments in section V.B of our EA.

**B. Interventions**

In addition to providing comments, organizations and individuals may petition to intervene and become a party to any subsequent proceedings.

Intervenor

Date of Motion

American Rivers, Inc.

July 29, 1992

American Rivers, Inc., states Greenville and Tenth Street have significant opportunities for enhancement of fish and wildlife and recreational resources. It did not provide any specific recommendations or plans for enhancing these opportunities. It is not opposed to the project.

**C. Water Quality Certification**

On December 20, 1991, Norwich applied to CDEP for Section 401 water quality certification (WQC), required by the Clean Water Act, for both the developments. CDEP received the request on December 22, 1991. 3/ Pursuant to Commission Order 533, CDEP must act within 1 year from the date it received the request or the certification is deemed waived. CDEP has not yet acted on the WQC, but has until December 22, 1992, to act.

**D. Coastal Management Program**

Because the developments are located in a coastal zone and may affect coastal resources, CDEP must review the proposed developments for consistency with the state's Coastal Management Program (CMP). Under the Coastal Zone Management Act of 1972, before a license can be issued, CDEP must: (1) find the project consistent with the CMP or (2) waive the requirements by failing to act within 6 months from receipt of Norwich's self certification.

---

3/ Personal communication, Brian Emerick, Principal Environmental Analyst, Connecticut Department of Environmental Protection, Hartford, Connecticut, October 1, 1992.

By letter dated October 30, 1992, CDEP has advised the Commission that the developments are consistent with Connecticut's CMP as long as construction of a canoe portage is included in any license issued. Applicant has agreed to construct a portage as part of its proposal.

## V. ENVIRONMENTAL ANALYSIS 4/

### A. General Description of the Locale

#### 1. Shetucket River Basin

The Shetucket River Basin has a drainage area of about 1,252 square miles, which accounts for about 85 percent of the drainage area of the Thames River watershed. The Shetucket River historically supported large runs of anadromous fish, including Atlantic salmon, striped bass, American shad, and river herrings.

The Greenville dam is located on the Shetucket River, approximately 2 river miles above its confluence with the Thames River and approximately 1.5 river miles below its confluence with the Quinebaug River. The dam is the first dam on the river and closes down the rest of the river basin to upstream migration. The Greenville dam is at the fall line -- the geological separation of the Piedmont plateau and the coastal plain-- and hence it is subject to tidal influence. Spring tides actually rise to the dam.

Land use varies in the Shetucket River Basin. In the project areas, the impoundment borders residential and multi-family zoned neighborhoods. The power canal passes through an area zoned for heavy industry.

#### 2. Proposed and Existing Hydropower Development in the Shetucket River Basin, as of October 8, 1992:

<u>FERC Project No.</u>	<u>Project Name</u>	<u>Water Body</u>
<u>a. Pending Application</u>		
11217	Still River	Still River
<u>b. Licensed but Unconstructed</u>		
8945	Natchaug 1	Natchaug River
11143	Glenfalls	Moosup River

---

4/ Unless otherwise indicated, the source of our information is Norwich's applications (1991).