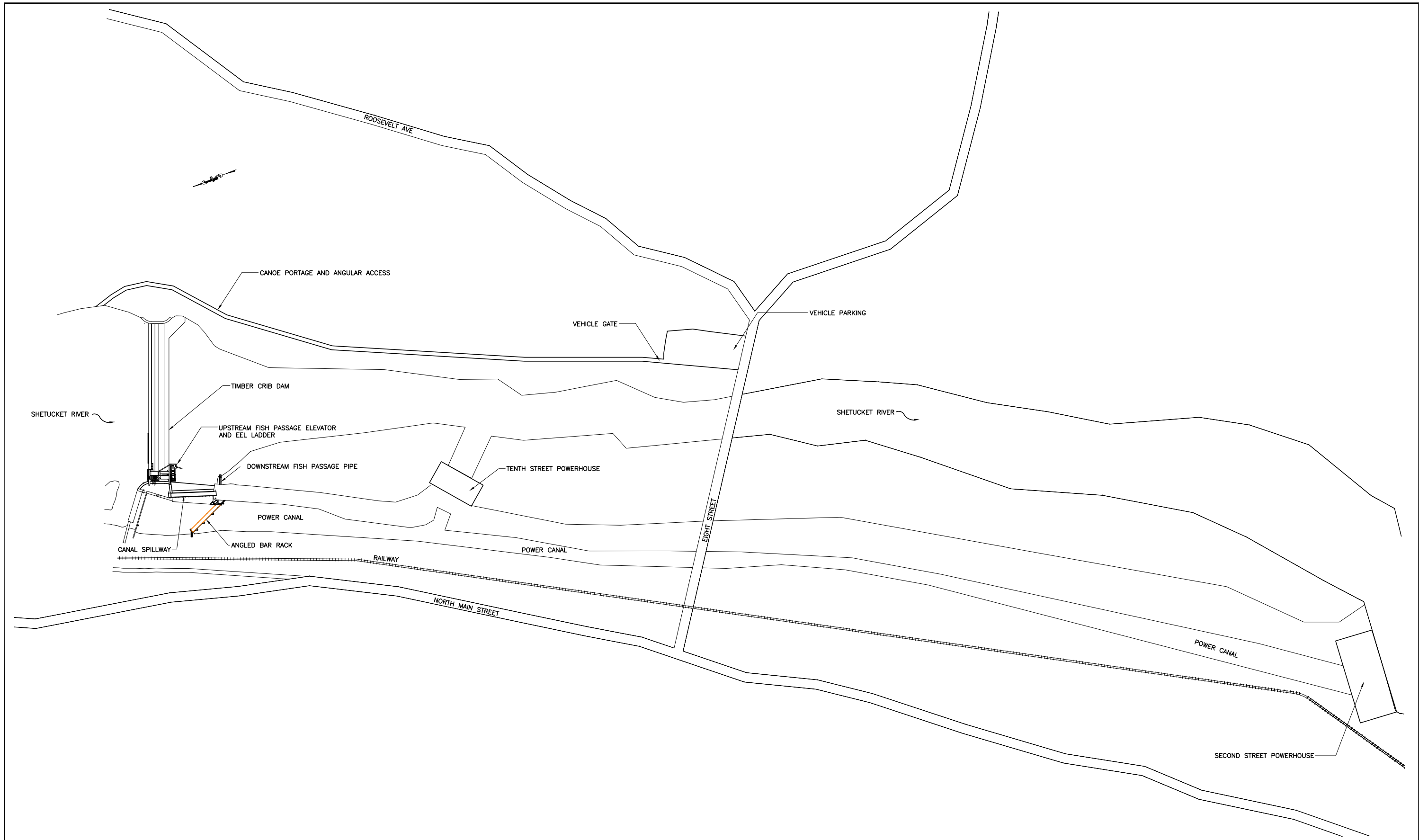


GREENVILLE DAM PROJECT

LIHI APPLICATION

ATTACHMENT G

RECREATION



			Project No: 601-007	NORWICH PUBLIC UTILITIES NORWICH, CT	DRAWING NO.
			Filename: Application dwgs		LIHI-R
			Design By: AJN		
0	ISSUED FOR LIHI APPLICATION	07/10/12	Drawn By: AJN	GREENVILLE DAM PROJECT FERC NO. 2441-CT	REVISION
No.	Revision	Date	Date Revised: 07-10-12	RECREATION ACCESS SITE PLAN	0

THIS DOCUMENT IS A DRAFT VERSION PROVIDED FOR THE CONVENIENCE OF THE USER AND IS NOT AN INSTRUMENT OF SERVICE OF RENEWABLE POWER CONSULTING, PA UNLESS IT BEARS THE PROFESSIONAL ENGINEER'S STAMP AND ORIGINAL SIGNATURE. THIS DOCUMENT IS NOT A PRODUCT, AND TRANSFER OF A VERSION OF AN INSTRUMENT OF SERVICE BY ELECTRONIC MEDIA IS NOT SEEMED A SALE. THIS DOCUMENT MAY NOT BE ALTERED BY OTHERS OR USED FOR PROJECTS OR PURPOSES OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RENEWABLE POWER CONSULTING, PA.

**ENVIRONMENTAL INSPECTION REPORT
(ELECTRONICALLY SUBMITTED)
FEDERAL ENERGY REGULATORY COMMISSION**

New York Region

Date of Inspection - May 11, 2005

Name Greenville **Project No.** 2441-CT

Licensee City of Norwich **License Type** Major

License Issued March 31, 1993 **License Expires** January 1, 2044

Location Shetucket River None
(Waterway) (Reservation)
New London Connecticut
(County) (State)

Inspector Joseph Enrico

Licensee Representatives Messrs. Roy Borque, Maintenance Engineer &
Christopher La Rose, Operations Integrity Manager.

Other Participants None

Summary of Findings

The project was found in good condition with all safety and environmental requirements being met. A sign in compliance with Part 8.2(a) of the regulations was not posted at the Greenville recreation area. A follow up letter was sent to request a schedule for sign installation.

Submitted July 29, 2005

Joseph G. Enrico
Environmental Protection Specialist

A. INSPECTION FINDINGS

Requirements*	Date of Requirement	Follow-up Needed	Photo Nos.
CULTURAL RESOURCES			
Article 412 requires the licensee to implement a Memorandum of Agreement with the State executed on February 11, 1993. The CMP was filed on 3-31-95 and 7-28-97. C-184	O: 3-31-93 Ap: 8-21-97	N	
Article 413 requires the Licensee to consult with the SHPO and conduct a cultural resource survey prior to any ground disturbance at the project other than authorized in the license. C-184	O: 3-31-93	N	
FISH AND WILDLIFE RESOURCES			
Article 401 requires the licensee to file a Soil Erosion Control Plan prior to the installation of fish passage facilities. Filed 7-20-94. C-120	O: 3-31-93 Ap:10-19-94	N	
Article 402 requires the licensee to operate the project in a run of river mode. C-204	O: 3-31-93	N	
Article 403 requires the licensee to release a minimum flow of 250cfs from the Greenville dam, or inflow. C-089	O: 3-31-93	N	3
Article 404 requires the licensee to install stream flow gages to monitor compliance with the ROR operation and minimum flow release. Plan filed on 4-3-95 and 6-5-95. C-017	O: 3-31-93 Ap:9-19-95	N	1,2
Article 405 requires the licensee to file design drawings and begin construction and complete the installation of an upstream Denil fish ladder by 4-1-96. Filed 7-20-94. Amendment filed 3-14-94 to install lift instead of ladder. Filed revised drawing for V-trap gate design on 12-2-94. C-071	O: 3-31-93 Ap:4-12-94 Ap:10-19-94 Ap:3-20-95	N	4-6
Article 406 requires the licensee to file design drawings and begin construction and complete the installation of downstream fish passage facilities by 4-1-96. Filed 7-20-94. C-018	O: 3-31-93 Ap:10-19-94	N	7,8
Article 407 requires the licensee to file a plan to assess upstream fish passage. The plan is to include post construction evaluation of the facilities as well as attraction flow needed for the fishway. Filed 4-3-95. C-027	O: 3-31-93 Ap:5-7-96	N	
Article 408 requires the licensee to file a plan for post construction evaluation plan to assess the efficiency of the downstream fish passage facilities. Filed 4-3-95. C-027	O: 3-31-93 Ap:5-7-96	N	
Article 409 requires the licensee to file a fishway maintenance plan for operation of the fish passage facilities. Filed 4-3-95 & 6-5-95. C-026	O: 3-31-93 Ap:10-17-95	N	

Requirements*	Date of Requirement	Follow-up Needed	Photo Nos.
PUBLIC SAFETY			
Facilities and measures to assure public safety (18 CFR, Part 12). Filed 5-8-2000. C-218	O: 3-31-93 Ap:6-14-00	N	3,9-10
RECREATION RESOURCES			
Article 410 requires the licensee to implement the recreation plan filed with the license application on 8-7-92 and 11-4-92. C-113	O: 3-31-93	N	12-14
Article 411 requires the licensee to monitor recreation use to determine if the facilities are adequate, within five years of license issuance and report in conjunction with the Form 80. Report filed 6-16-00. C-112	O: 3-31-93 Ap:6-29-00	N	
Recreation signing and posting (18 CFR, Part 8) C-186	O: 3-31-93	Y	
Standard Article 13 requires the Licensee to allow public free access to project waters and adjacent lands C-110	O: 3-31-93	N	
Submission of the Commission's Form 80 monitoring report. Filed 3-31-03. C-112.	18CFR4-1-03	N	
OTHER ENVIRONMENTAL RESOURCES			
Standard Article 15 requires the Licensee to install fish passage and other wildlife facilities when requested by state and federal resource agencies. C-071	O: 3-31-93	N	
Standard Article 19 requires the Licensee to take reasonable measures to control sedimentation and other pollution at the project. C-120	O: 3-31-93	N	
Article 202 gives the Licensee authority to grant conveyances for non-project use of project lands and waters, for certain types of use without prior Commission approval. C-202	O: 3-31-93	N	

O:=Order C=OEP-IT Code 18CFR=Title 18 Code of Federal Regulations , Ap=Approved

COMMENTS AND FOLLOW-UP ACTION

This project consists of an overflow spillway, gatehouse, power canal and two powerhouses. Upstream and downstream fish passage facilities are also in place and functional. The project's fish lift was in operation and is controlled remotely from the licensee's control center in Norwich (**Photo Nos. 4-6**). The lift began operation in April and lifting is started at 8:30am each day. The licensee's control center, which is manned full time, 24 hours per day and seven days per week, remotely monitors and operates this project as well as the licensee's other project, P-11574, Occum. Equipment at the control center

allows the operator to monitor all project information including generation, flows, headpond and tailwater levels. This information is recorded hourly on manual logs which are available at the licensee's office. Cameras in the control center allow the operator to monitor the fish lift as well as certain areas around the intake canal/headgates. The downstream fish passage facility consists of an angled bar rack with one-inch spacing and discharge chute located in power canal (**Photo Nos. 7 & 8**).

The project provides a fairly good size parking/access area along the left side of the river, downstream of the dam. The powerhouse and intake canal areas are fenced and off limits to the public. The access area is used by hikers, fishermen and canoeists portaging down from upstream areas. The area was in fair condition and is consistently used, according to the licensee. It was noted that there was no sign posted in compliance with Part 8, Section 8.2(a) of the regulations at the recreation area. Signs are posted indicating that the area is open for public use, however. The licensee was advised that the applicable Part 8 information should be included either on the main sign at the entrance or at the kiosk, within the area itself.

B. EXHIBITS AND PHOTOGRAPHS

The following are provided to show the location of the project and to illustrate project features: 14 photographs and photograph location map.

**Cc: FERC-DHCA
FERC-NYRO
Enrico, J./di**

L.P. 2441-CT, GREENVILLE
PHOTOGRAPH LOCATION MAP

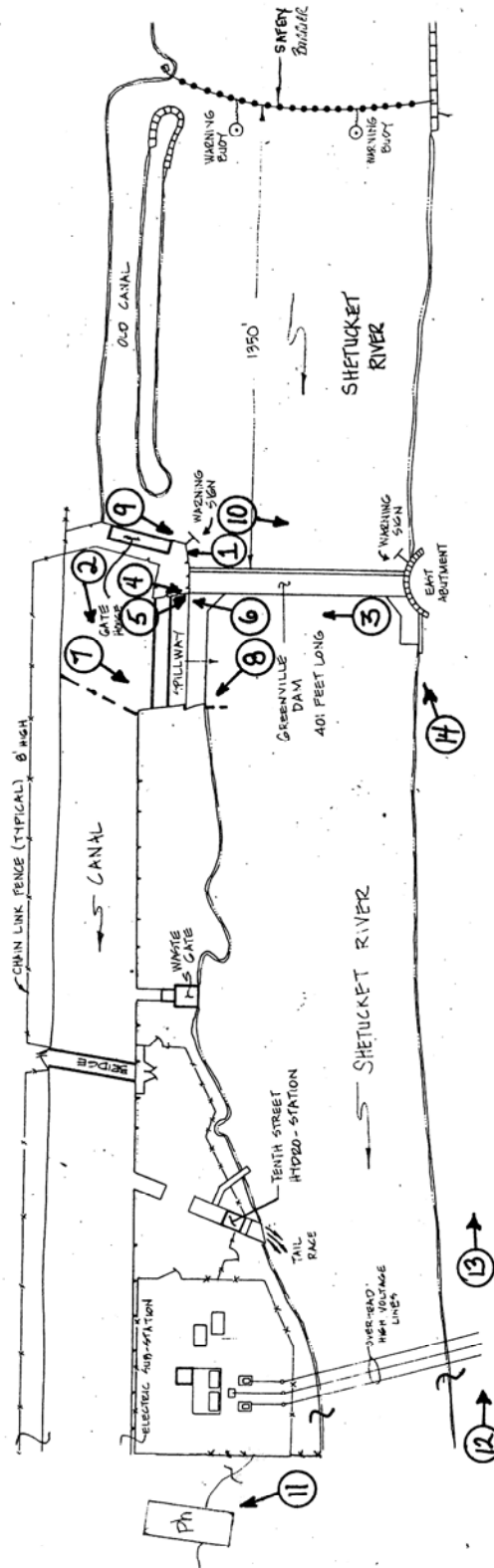




Photo No.1 - View of staff gage and pond level transducer at intake gatehouse.



Photo No.2 - View of power canal transducer.



Photo No.3 - View of gatehouse and spillway from left abutment. Arrow denotes camera. Note warning sign. Minimum flow is discharged over the spillway.



Photo No.4 - View of portion of fish lift.



Photo No.5 - View of interior of fish lift.



Photo No.6 - View of eel ladder, looking down from fish lift structure. Facility is operated by the CT Department of Environmental Protection during passage season.



Photo No.7 - View of downstream fish passage entrance.



Photo No.8 - View of discharge from downstream fish passage facility.



Photo No.9 - Upstream warning sign on face of fish lift structure.

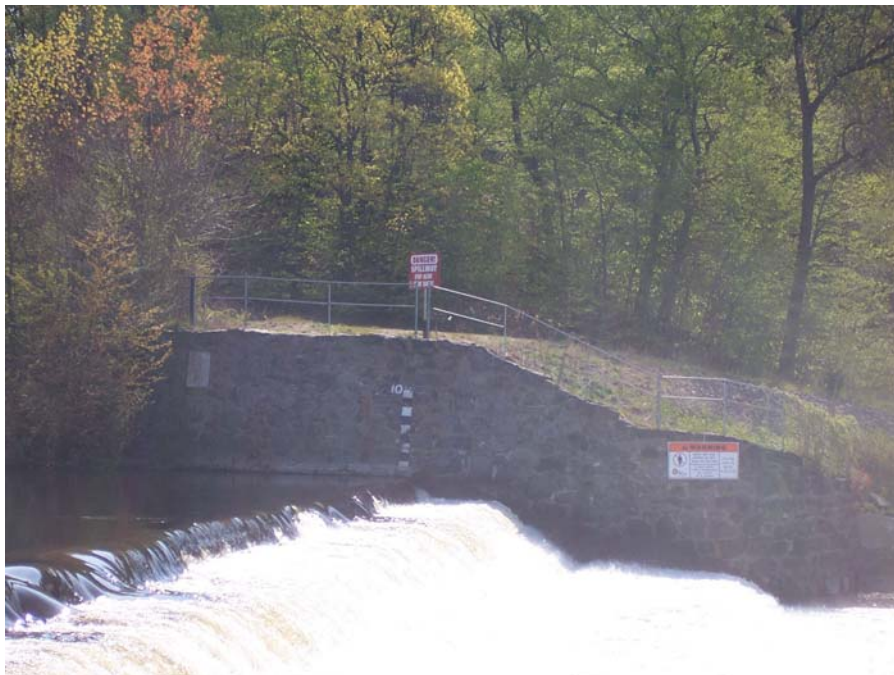


Photo No.10 - View of warning signs and fencing on left abutment. The lower sign is directed to fishermen/canoeists accessing the downstream areas of the river.



Photo No.11 - View of lower powerhouse and warning signs.



Photo No.12 - Entrance to Greenville Recreation Area. Note sign does contain Part 8 information.



Photo No.13 - Trail along river at the Greenville area. Kiosk has some information regarding fisheries and would be good location for Part 8 information.



Photo No.14 - Fisherman use of access trail along river downstream of dam. Note sign and fence on abutment (top right).

plan for avoiding or mitigating impacts to inventoried cultural resources, along with copies of the SHPO's written comments on the report. The survey and the report should be based on the recommendations of the SHPO and adhere to the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

- If Norwich discovers any previously unidentified archeological or historic sites during the course of constructing, developing, or operating project works or other facilities at the project, Norwich should stop all land-clearing or land-disturbing activities in the vicinity of the site, consult with the SHPO, and file for Commission approval a cultural resources management plan to avoid or mitigate impacts to significant resources, together with the written comments of the SHPO on the plan.
- Norwich should not implement any cultural resources management plan or begin any land-clearing, land-disturbing, or spoil-producing activities until informed by the Commission that the requirements discussed above have been fulfilled.

Unavoidable Adverse Impacts: The historical integrity of Greenville dam would be affected.

7. Recreation and other Land and Water uses

Affected Environment: The primary recreational activity along the Shetucket River and diversion canal is fishing with some boating. The existing diversion canal, powerhouses, and project areas are zoned for heavy industry. There is some dispersed fishing in the project area. No recreational facilities are located within or adjacent to project boundaries.

Environmental Impacts and Recommendations: At the Tenth Street powerhouse area, Norwich restricts public access for public safety and security reasons.

At the Greenville development, Norwich proposes to implement a recreation plan. The plan would serve the existing recreational demand and provide for six parking spaces, a trail system to project waters for fisherman, and portage facilities for car-top boaters and canoeists. These recreational facilities would be open during daylight hours between April 1 and November 30. Norwich estimates the construction costs for the recreation improvements would be \$7,500 for the pedestrian access trail to project waters and parking and \$2,500 for the portage facilities.

For Greenville, the CDEP and the FWS recommend parking, portage, and recreational access for fishing. Norwich has agreed to these measures, including constructing the portage facility concurrent with other enhancements. No resource agencies made specific recommendations for Tenth Street.

We agree that the proposed recreational developments would be adequate at this time and would enhance public use of the area. However, the recreation plan is only conceptual and not site specific. Therefore, we recommend that Norwich consult with CDEP's Bureau of Parks and Forests and the city of Norwich's Planning Department before prior developing design criteria and construction plans.

With the addition of recreation facilities, fish passage facilities, and increased minimum flows, new recreational demand may develop in the future during the term of the license. We, therefore, recommend Norwich monitor the recreational activities in the project area, and file periodic reports and recommendations to accommodate any increased use.

Unavoidable Adverse Impacts: None.

C. Alternative of No-Action

Under the no-action alternative, there would be no changes to the existing physical, biological, or cultural resources of the area. The enhancements that Norwich proposes would not occur.

VI. DEVELOPMENTAL RESOURCES

From our review of the economic benefit study Norwich made and our study of the project's economic benefits, we conclude the project, with the enhancements Norwich proposes, wouldn't benefit the city's ratepayers over a 30-year license term. But, if licensed with 40-year or 50-year terms, the project would give the city's ratepayers benefits.

To look at the effect the proposed enhancement measures would have on economics, both Norwich's and our study treat Greenville and Tenth Street as one project.

As we've said, Norwich proposes the following enhancement measures to Greenville : (1) installing a flashboard on the west end of the dam to control minimum flows; (2) building an upstream fishway and fish counting window; (3) releasing a continuous minimum flow of 250 cfs; (4) building a downstream fishway in the power canal; (5) building a fish-attraction water pipe, mechanical fish crowder, and a fish lift; and (6) making recreational improvements.