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99 SEP 27 PM 3:42

FEDERAL ENERGY
REGULATORY
COMMISSION

P-11823-000

FEDERAL ENERGY REGULATORY COMMISSION
PRELIMINARY PERMIT APPLICATION

MACALLEN DAM PROJECT

BY:

Town of Newmarket
Newmarket, New Hampshire
Town Hall
186 Main Street
Newmarket, New Hampshire 03857

September 14, 1999

9909290103-3

FILED

SEP 27 1999



SFC ENGINEERING PARTNERSHIP INC.



SFC ENGINEERING PARTNERSHIP INC.

ORIGINAL

September 14, 1999

Mr. David Boerger, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Room 1A
Washington, DC 20426

FILED
OFFICE OF THE SECRETARY
99 SEP 27 PM 3:42
FEDERAL ENERGY
REGULATORY
COMMISSION

P-11823-000

RE: **Macallen Dam Project**
Newmarket, NH

Dear Mr. Boerger:

On behalf of the municipality, the Town of Newmarket, New Hampshire, SFC Engineering Partnership, Inc is submitting one (1) complete original and eight (8) copies of the preliminary permit application for the Macallen Dam Project in Newmarket, New Hampshire.

Additionally, We also have included three (3) additional copies of the application which we request "time stamped" and returned in the self-addressed, postage paid envelope.

If there is the need to answer any questions, or provide further information, please contact Mr. Alphonsen R. Dixon, Town Administrator, at (603) 659-3617, or the undersigned at (603) 647-8700.

Sincerely,

SFC ENGINEERING PARTNERSHIP, INC.

John R. Lavigne Jr., P.E.
Vice President
/nsc

CC: A. Dixon, Newmarket

Attachments

Firehydro/243801/doc/letter

FERC DOCKETED
SEP 27 1999

MACALLEN DAM PROJECT
Application for Preliminary Permit

ATTACHMENT A
(Communities within 15-mile Radius with +5,000 Population)

NEW HAMPSHIRE

BARRINGTON – Strafford County
Town Office
41 Province Lane
Barrington, NH 03825

NEWMARKET – Rockingham County
Town Office
186 Main Street
Newmarket, NH 03857

DOVER – Strafford County
Municipal Building
288 Central Avenue
Dover, NH 03820

PORTSMOUTH – Rockingham County
City Office
One Junkins Avenue
Portsmouth, NH 03801

DURHAM – Strafford County
Town Office
15 Newmarket Road
Durham, NH 03824

RAYMOND – Rockingham County
Town Office
4 Epping Street
Raymond, NH 03077

EPPING – Rockingham County
Town Office
157 Main Street
Epping, NH 03042

ROCHESTER – Strafford County
City Office
31 Wakefield Street
Rochester, NH 03867

EXETER – Rockingham County
Town Office
10 Front Street
Exeter, NH 03833

SOMERSWORTH – Strafford County
City Office
157 Main Street
Somersworth, NH 03878

HAMPTON – Rockingham County
Town Office
136 Winnacunnet Road
Hampton, NH 03842

STRATHAM – Rockingham County
Town Office
10 Bunker Hill Avenue
Stratham, NH 0385

KINGSTON – Rockingham County
Town Office
163 Main Street
PO Box 716
Kingston, NH 03848

MAINE

BERWICK – York County
NORTH BERWICK
SOUTH BERWICK
Town Office
21 Main Street,
North Berwick, ME 03906

ELLIOT – York County
Town Office
141 State Road
Eliot, ME 03903

KITTERY – York County
Town Office
200 Rogers Road
Kittery, ME 03904

YORK – York County
Town Office
186 York Street
York, ME 03909

MASSACHUSETTS

AMESBURY – Essex County
Town Office
62 Friend Street
Amesbury, MA 01913

SALISBURY – Essex County
Town Office
5 Beach Road
Salisbury, MA 01952

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Initial Statement

Exhibit 1 – *Description of the Proposed Project*

Exhibit 2 – *Study Plan*

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Exhibit 4 – *Project Maps*

VERIFICATION OF STATEMENT

This application is executed in the state of New Hampshire County of Hillsborough, ss by:

John R. Lavigne, Jr., PE
SFC Engineering Partnership, Inc. (Name)
25 Sundial Avenue, Suite 205W (Address)
Manchester, NH 03103 - 7230 ,

states that he is authorized to act in behalf of the corporation, being duly sworn, depose and say that the contents of this application are true to the best of his knowledge or belief. The undersigned applicant has signed this 21 day of September, 1999.

Town of Newmarket
(Applicant)

By: John R. Lavigne Jr
John R. Lavigne Jr., P.E.
Vice President
SFC Engineering Partnership, Inc.
Agent for the Town of Newmarket, NH

Subscribed and sworn to before me, a (Notary Public, or title of other official authorized by the state of notarize documents, as appropriate) of the State of New Hampshire this 21 day of September, 1999.

(Seal)

Deborah Fernandez
(Notary, or other authorized official)
DEBORAH FERNANDEZ, Notary Public
My Commission Expires March 4, 2003

INITIAL STATEMENT

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION
APPLICATION FOR PRELIMINARY PERMIT

MACALLEN DAM PROJECT
NEWMARKET, NH

INITIAL STATEMENT

The Town of Newmarket, New Hampshire (TOWN) applies to the Federal Energy Regulatory Commission (FERC) for a Preliminary Permit for the Macallen Dam Project (PROJECT), as described in the attached exhibits. This application is made in order that the applicant may secure and maintain priority of application for a license for the PROJECT under Part I of the Federal Power Act while obtaining the data and performing the acts required to determine the feasibility of the PROJECT and to support an application for a license. At this time, The Town of Newmarket intends to obtain and maintain any proprietary rights necessary to construct, operate, and maintain the Macallen Dam Project. The proposed term of the requested permit is twenty-four (24) months.

- (1) The location of the PROJECT is:

State of New Hampshire
Rockingham County
Town of Newmarket
Lamprey River

- (2) A. The exact name and address of the applicant is:

Alphonsen R. Dixon, Town Administrator
Town of Newmarket, NH
Town Hall
186 Main Street
Newmarket, NH 03857
(603) 659-3617

The Town of Newmarket, NH (TOWN) is a municipality incorporated under the laws of the State of New Hampshire.

- B. The exact name and business address of the agent authorized by the Town of Newmarket, NH to act as an agent in this application is:

John R. Lavigne, Jr., P.E.
SFC Engineering Partnership, Inc.
25 Sundial Avenue, Suite 205W
Manchester, NH 03103
(603) 647-8700

(3) The existing dam and appurtenant works are owned by:

The Town of Newmarket, NH
Town Hall
186 Main Street
Newmarket, NH 03857

EXHIBIT 1

DESCRIPTION OF THE PROPOSED PROJECT

EXHIBIT 1 Project Description

(1) A. Dam

The Macallen Dam is an existing structure which spans the Lamprey River in downtown Newmarket, New Hampshire, approximately 200-feet downstream from the Route 108 Bridge. A gravity structure, constructed of stone and concrete masonry with earth-filled abutments, the dam is approximately 100-feet long with a 27-foot structural height. The spillway is a stone masonry broad-crested weir. It is approximately 68-feet in length with a crest elevation of 21.23-feet (NGVD). A concrete fish ladder operated by the New Hampshire Fish and Game Department is located on the right side (looking downstream) of the spillway. The outlet works are located at the left abutment of the dam and consist of three motor-operated waste gates. Each gate is approximately 7-feet square, and their invert elevation is approximately 7-feet below the crest of the spillway. The control panel for each gate motor operator is located at the top of the outlet works platform.

B. Other Structures

Remnants of intake structures and a canal from the historic hydropower development at Macallen Dam still exist. One intake, which was located on the right side of the dam, was filled with earth when the project was decommissioned in the early 1950's. The connecting 220-foot long canal was also filled in at that time. Remnants of the abandoned draft tube and penstock leading from the canal are found in the basements of the adjacent mill buildings. Additional remnants remain from the water conveyance system located on the left side of the dam.

C. General Description of Proposed Redevelopment

The proposed hydropower redevelopment at Macallen Dam would utilize the existing dam and gate structure. The dam historically supported 46-1/2" flashboards but now operates unregulated with no flashboards. No major alterations are planned for the dam, however, to maximize redevelopment potential, the Applicant plans to investigate the feasibility of re-installing some height of flashboards on the spillway crest.

The redevelopment plans will also consider the site limitations imposed with regard to the fishway. The major objective of the design studies will be to achieve maximum possible power production while maintaining existing and future fishway operations.

(2) Reservoir

The impoundment length behind the dam at elevation 21.23-feet (NGVD) is approximately 2.6 miles, with a surface area of 120 acres. The approximate storage capacity of the reservoir at elevation 21.23-feet is 480 acre-feet. From

past studies, with the addition of 24" flashboards which will be investigated under the preliminary permit, the length of the impoundment would still be approximately 2.6 miles long and the surface area and capacity would increase to approximately 140 acres, and 740 acre-feet, respectively. Proposed reservoir conditions will be studied as part of the proposed study plan as defined in *Exhibit 2*.

(3) Transmission Lines

Public Service Company of New Hampshire has a 19.9 KV utility line that runs along North Main Street in Newmarket, NH. A pad mount transformer will step the generator voltage (480V) up the line voltage at an appropriate interconnection point. Proposed power transmission line connections will be analyzed as part of the proposed study plan as defined in *Exhibit 2*.

(4) Generating Equipment

No existing units are currently operating at this site. Based on previous studies and redevelopment plans with 2-foot high flashboards (El.23.23'), the PROJECT can support an installed generating capacity of approximately 600 KW. Generating units are expected to consist of one 600 KW induction or synchronous type generator with an adjustable blade 1500-MM, 750 HP propeller turbine. The generator is designed to produce electricity efficiently from 600 KW down to approximately 240 KW, and the turbine unit can operate efficiently from 400 cfs to 80 cfs. The estimated annual generation for this station should be approximately 2,300,000 KWH.

Normal tailwater elevation and consequently net head is tidally dependent. Average gross head at this site is between 22.8-feet at high tide to 23.8-feet at low tide. Previous calculations indicate that the system will produce minimal head losses (approximately 4-inches) with the turbine/generator unit operating at maximum capacity if the plant were designed to operate under a net head of approximately 23-feet.

The PROJECT is expected to be a totally automated run-of-river station. It will have all necessary safeguards to assure proper operation. This station will not be used for peaking purposes. Redevelopment plans will include no water-cooled bearings, or any process water discharge. This project will not create any solid waste discharge material.

Generating equipment proposed based on previous redevelopment plans and studies will be reviewed and evaluated with the most current regulations as part of the proposed study plan as defined in *Exhibit 2* to confirm viability with present needs and guidelines.

(5) No Federal Lands are known to exist within the project boundaries.

(6) Project Justification

The purpose of this project is to re-establish hydroelectric power at this site. This application is being made to provide the TOWN with the necessary means to investigate the feasibility of redevelopment. The TOWN proposes to develop this site for the purpose of providing reasonably priced power to the area mills through the creation of an "enterprise zone" or for the sale of the power to an outside distributor.

The intent of the proposed project is to develop the existing site to provide clean, efficient energy to the public and/or private sector while conserving, and preserving, the surrounding environment. The project will utilize an existing dam where the potential waterpower is currently not being actualized. The redevelopment of an abandoned site in connection with an established historic district increases both the value and safety of the area. Operation of the existing fish ladder will be optimized with active site maintenance and will enhance continued recreation fishing along the reach. Further, the TOWN may realize additional income through the sale of the power, if determined cost-effective, and thus may provide relief for taxpayers.

The PROJECT is expected to have minimal negative effects on land and water resources within the project area. In previous reports, the State Historic Preservation Office determined that the project as proposed would have no adverse effect on known architectural, historical, archeological and cultural resources. Environmental impacts, if any, will be identified during the studies, and the plans will be developed to minimize and/or mitigate the impacts.

The PROJECT will be developed in coordination with all local, state, and federal agencies and guidelines and the Applicant will make every effort to address the concerns and requests of such agencies.

EXHIBIT 2
STUDY PLAN

EXHIBIT 2 Study Plan

(1) A. Study Plan

1. Engineering Study

- a. Complete deed research for project site and identify abutters.
- b. Prepare a topographic survey of the PROJECT accurately delineating the horizontal and vertical relationships of all existing project features.
- c. Develop site specific flow-duration data for the PROJECT based on established USGS gagings.
- d. Perform exploratory soil/rock borings as required for design and reconstruction of the dam and powerhouse.
- e. Analyze possible development schemes to determine a plan which best optimizes project features and maximizes power generation while minimizing environmental impacts.
- f. Prepare plans depicting the optimal development scheme.
- g. Prepare estimates of construction costs of the selected development scheme.

2. Environmental Study

- a. Conduct a visual inspection to determine the environmental characteristics of the project site.
- b. Determine and/or conduct any in-stream studies to assess the existing aquatic habitat affected by the PROJECT.
- c. Meet with personnel from the US Fish & Wildlife Services to discuss the potential environmental impacts of the PROJECT.
- d. Determine the need for any minimum flow release.
- e. Prepare all documentation and studies required as part of *Exhibit E*, FERC license application.
- f. Consult with all agencies having review responsibilities under local, state, and federal regulations.

3. Socioeconomic Studies

- a. Consult with State Historic/Archeological agency to determine locally sensitive areas, if any.
- b. Develop an inventory of local recreational areas and activities to determine and mitigate negative impacts, if any.

c. Hold public hearing(s) to present and discuss the project with the local community.

4. Economic Studies

a. Determine internal (within Newmarket) and external (adjacent mill complex) electric load needs with future requirements.

b. Establish an economic model for the use and sale of the power produced from the PROJECT.

5. Financial Studies

a. Investigate financing methods and estimate the cost of money at the time of construction.

b. Based on project costs, financing costs, and the value of the energy, determine the cost benefit and risks of undertaking the redevelopment of the site.

c. File a license (or exemption) application with the Federal Energy regulatory Commission.

B. New Roads

There will be no new roads built for the purpose of conducting studies. Existing roads will be utilized for access to the site. The vehicle(s) used for taking samples and borings will be all-terrain.

(2) New Dam Construction

No new dam construction is anticipated for the redevelopment of this site.

(3) Waiver

Any field studies, tests or other activities to be conducted under the preliminary permit will not adversely affect cultural resources, or endangered species; nor will adjacent land or waters be disturbed or affected. As such a waiver from the commission's requirements of paragraph (c) (2) pursuant to § 385.207 of chapter I is being requested as part of this preliminary permit application.

EXHIBIT 3

STATEMENT OF COSTS AND FINANCING

EXHIBIT 3
Statement of Costs and Financing

(1) Estimated Cost of Studies

The estimated costs for undertaking the studies outlined in *Exhibit 2* are as follows:

(1) Engineering Study	\$ 15,000
(2) Environmental Study	\$ 15,000
(3) Economic Study	\$ 10,000
(4) Financial Study	\$ 10,000

Total Estimated Cost of Studies and Preparatory Work	\$ 50,000
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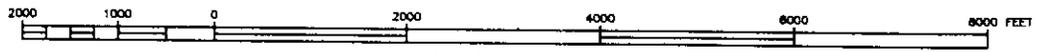
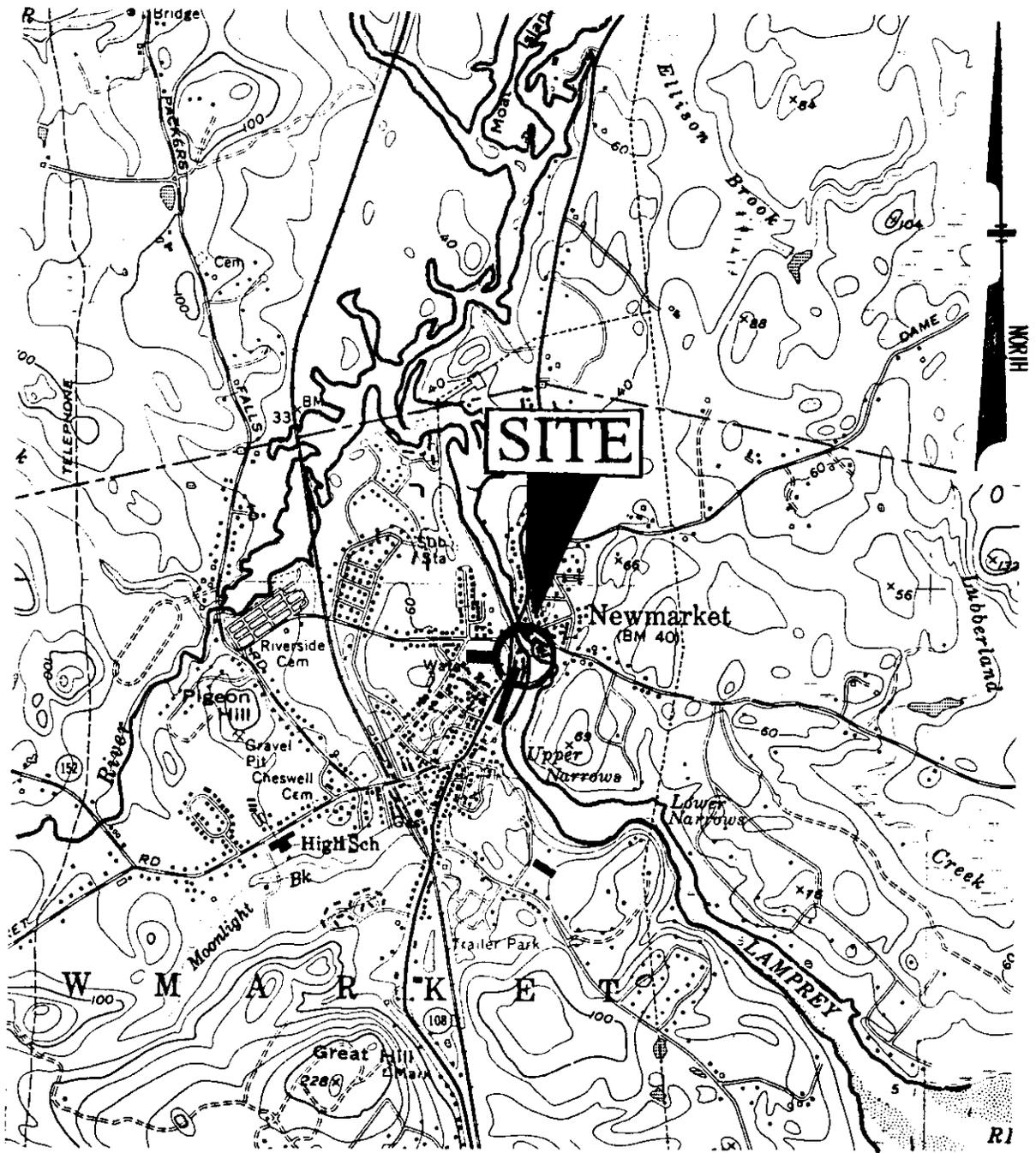
(2) Source(s) of Financing

All studies and preparatory work will be financed internally by the TOWN.

(3) Proposed Market for Power

The proposed market for the power generated by this project is the municipality and adjacent mill complex. The arrangement and contract for the purchase and internal use of the generated power will be determined and established as part of the economic studies as defined in *Exhibit 2*.

EXHIBIT 4
PROJECT MAPS



SCALE: 1:24,000
 CONTOUR INTERVAL 20 FEET

DAM NAME: **MACALLEN DAM**
 CITY/TOWN: **NEWMARKET, NH**
 USGS SOURCE: **NEWMARKET, NH**
 SOURCE DATE: **1988**

DAM NUMBER:

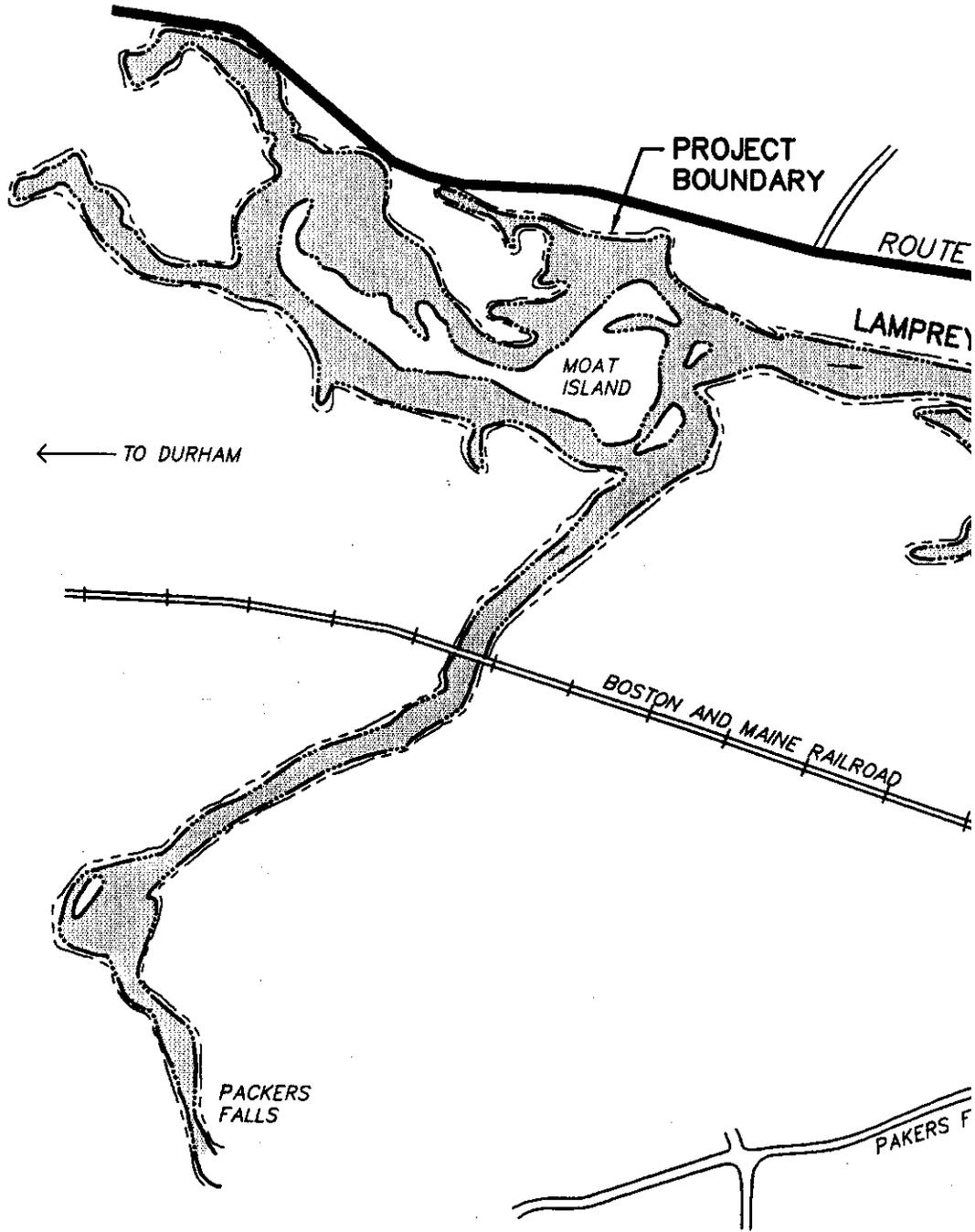
TAX MAP/LOT:

FIGURE 1
SITE LOCATION MAP

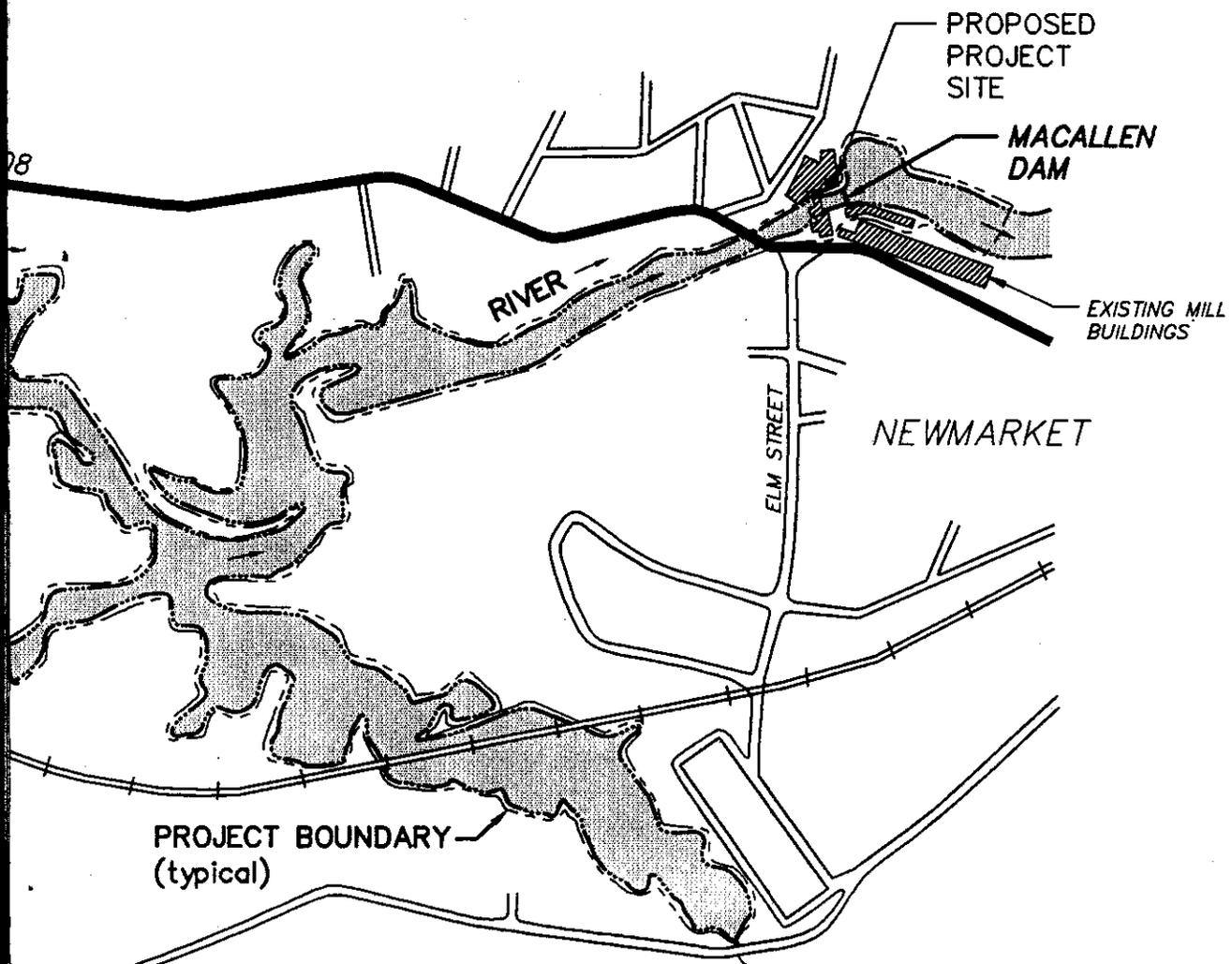
SFC ENGINEERING PARTNERSHIP INC.

25 SUNDIAL AVENUE, SUITE 205W
 MANCHESTER, NH 03103-7230
 TEL. 603-647-8700
 FAX. 603-647-8711

NORTH



08



PROJECT BOUNDARY
(typical)

PROPOSED
PROJECT
SITE

MACALLEN
DAM

EXISTING MILL
BUILDINGS

RIVER

NEWMARKET

ELM STREET

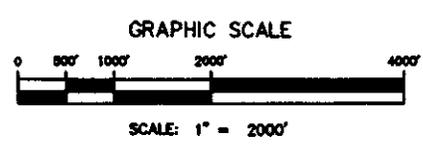
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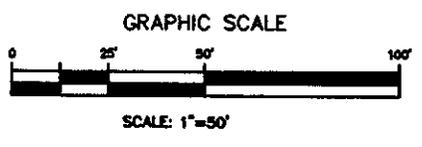
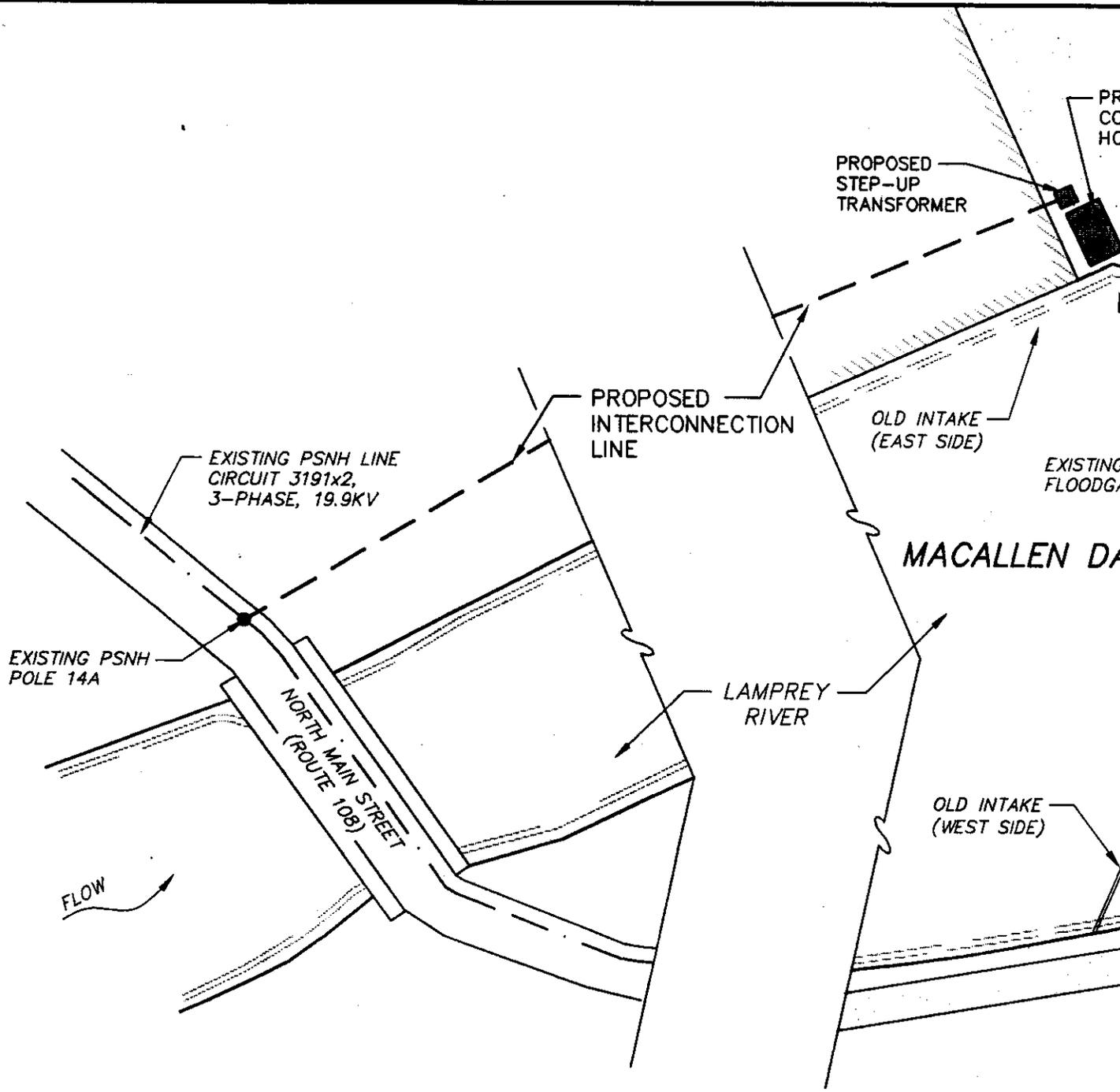
EXHIBIT 4 SHEET: 1 OF 4

PROPOSED REDEVELOPMENT PLAN
FOR THE
MACALLEN DAM PROJECT
NEWMARKET, NH

PROJECT MAP

DATE: 7/16/99 SCALE: 1"=2000'





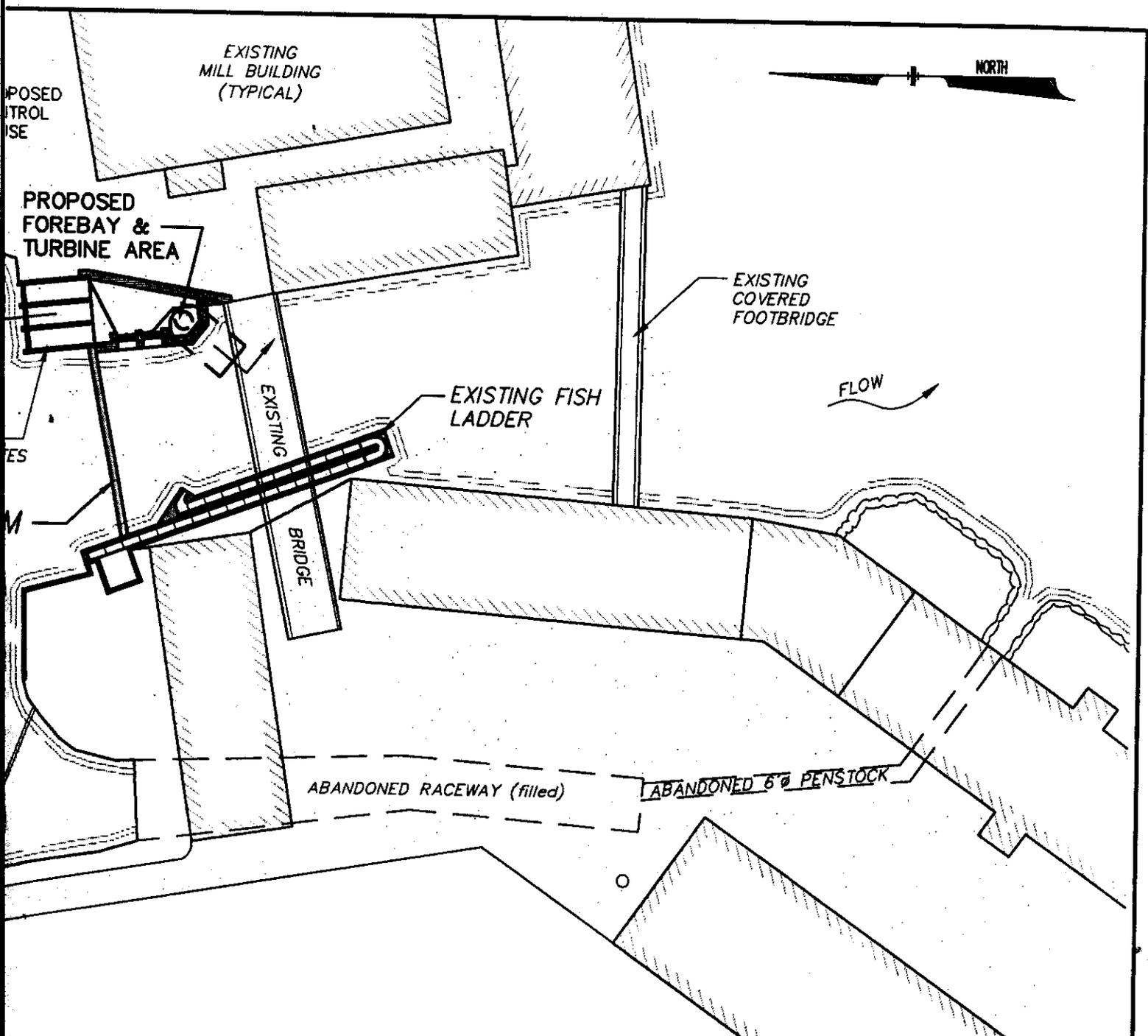
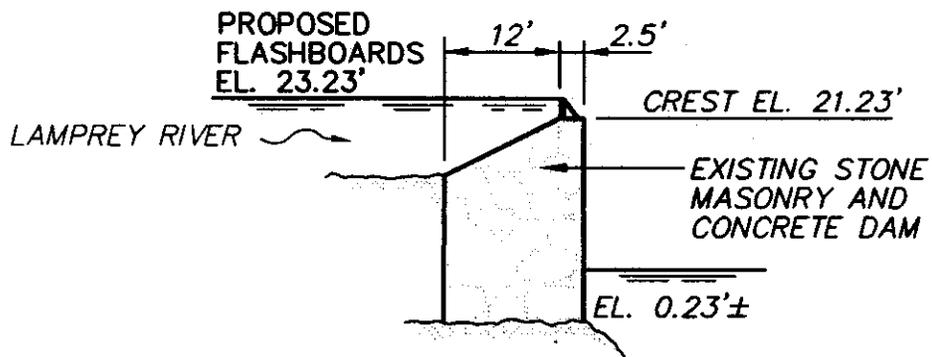
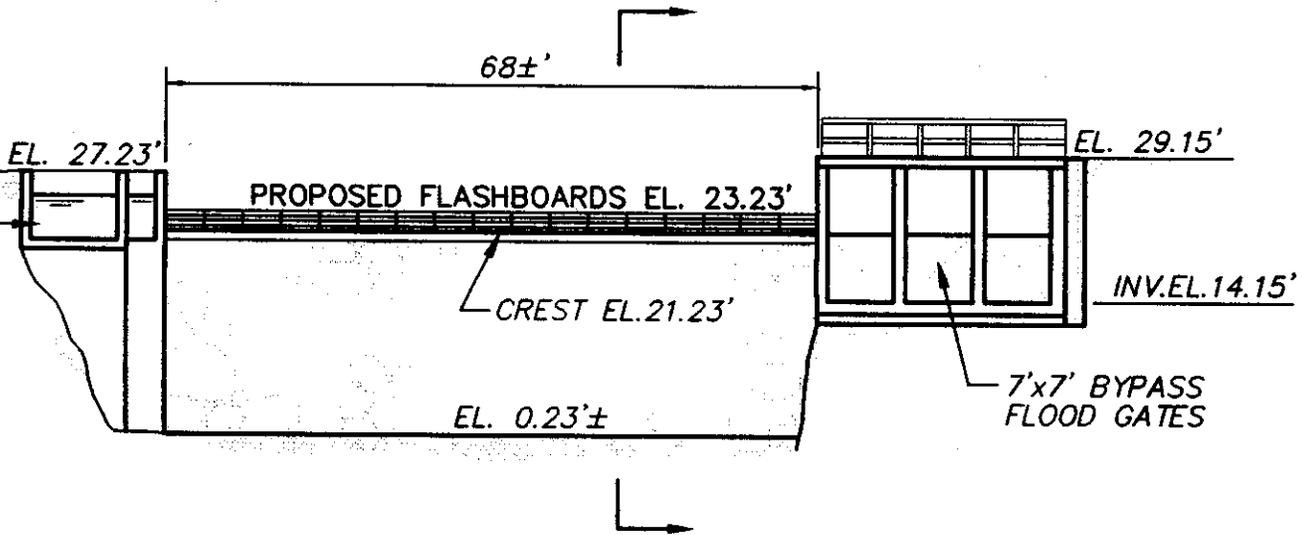


EXHIBIT 4 SHEET: 2 OF 4
PROPOSED REDEVELOPMENT PLAN
FOR THE
MACALLEN DAM PROJECT
NEWMARKET, NH
PROJECT SITE PLAN
DATE: 7/16/99 SCALE: 1" = 50'



EXISTING
FISH & GA
FISH LADD

SECTION
SCALE: 1" = 20'



DOWNSTREAM ELEVATION

SCALE: 1" = 20'

EXHIBIT 4

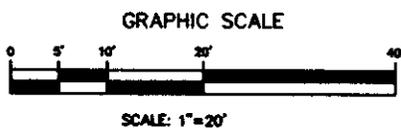
SHEET: 3 OF 4

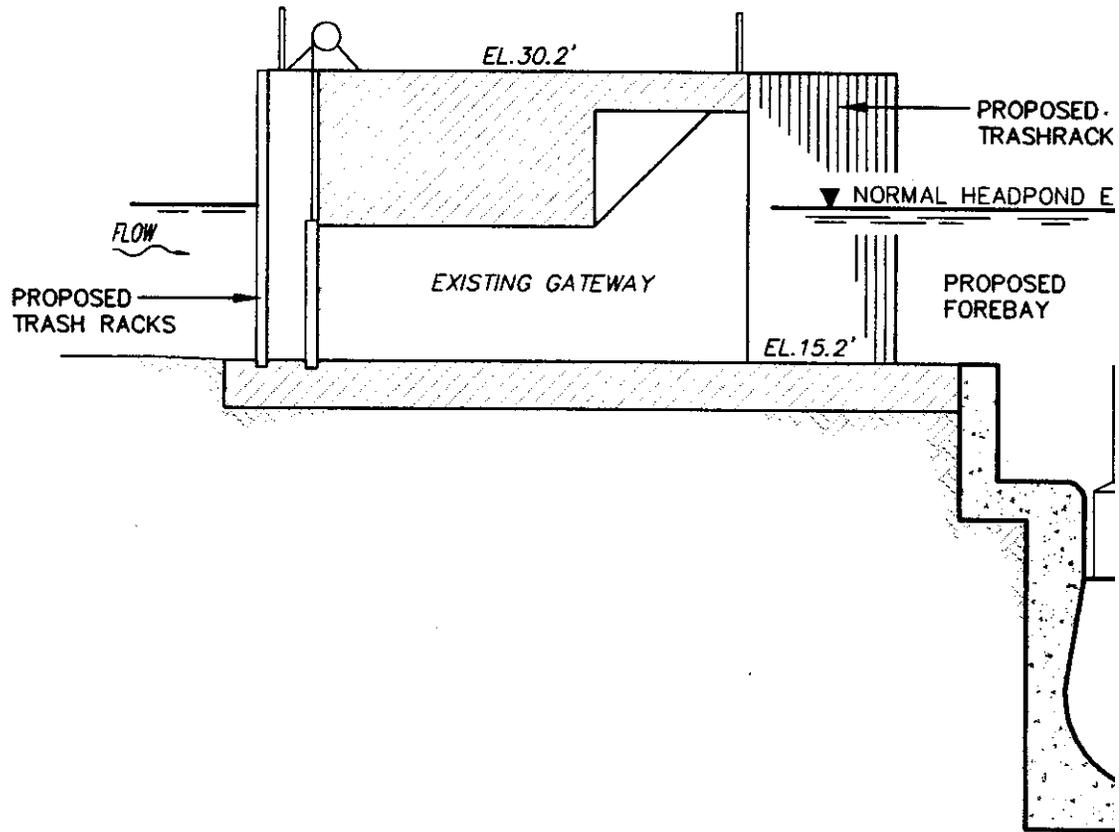
PROPOSED REDEVELOPMENT PLAN
FOR THE
MACALLEN DAM PROJECT
NEWMARKET, NH

EXISTING DAM SECTIONS

DATE: 7/16/99

SCALE: 1" = 20'





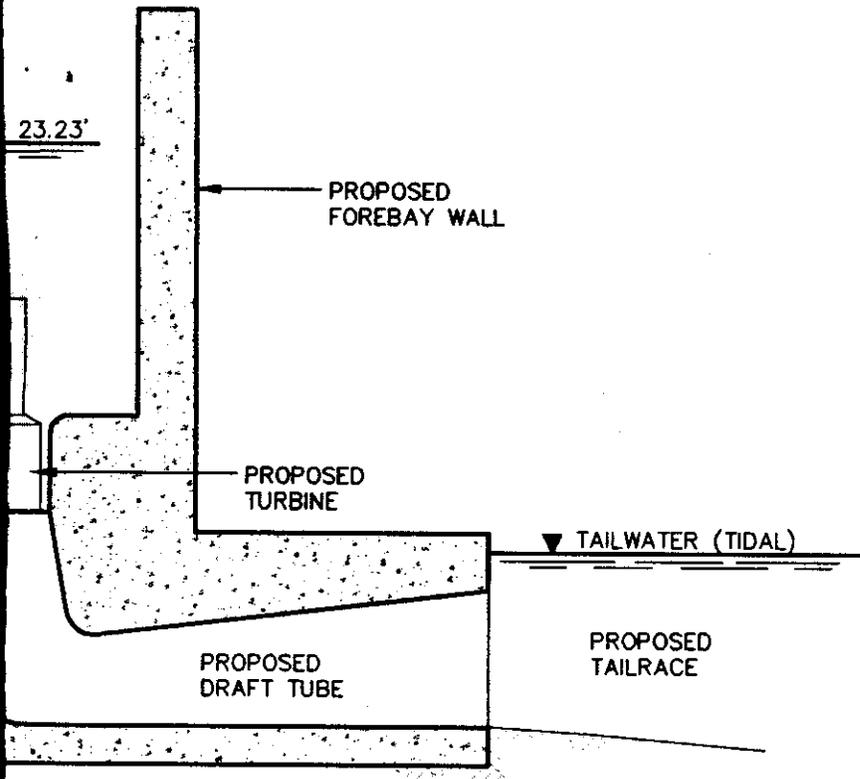


EXHIBIT 4

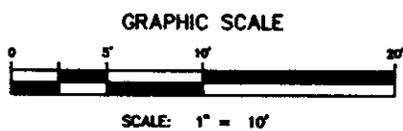
SHEET: 4 OF 4

PROPOSED REDEVELOPMENT PLAN
FOR THE
MACALLEN DAM PROJECT
NEWMARKET, NH

POWERHOUSE SECTION

DATE: 7/16/99

SCALE: 1" = 10'



UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

NOTICE OF APPLICATION ACCEPTED FOR FILING
AND SOLICITING MOTIONS TO INTERVENE AND PROTESTS

(January 11, 2000)

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

- a. Type of Application: Preliminary Permit
- b. Project No.: P-11823-000
- c. Date filed: September 27, 1999
- d. Applicant: Town of Newmarket, New Hampshire
- e. Name of Project: Macallen Dam Project
- f. Location: At Macallen Dam, on the Lamprey River, near the Town of Newmarket, Rockingham County, New Hampshire.
- g. Filed Pursuant to: Federal Power Act 16 U.S.C. §§791 (a) - 825(r)
- h. Applicant Contact: Mr. John R. Lavigne, Jr., SFC Engineering Partnership, Inc., 25 Sundial Avenue, Suite 205W, Manchester, NH 03103, (603) 647-8700
- i. FERC Contact: Michael Spencer, Michael.Spencer@FERC.fed.us, (202) 219-2846.
- j. Deadline for filing motions to intervene and protest: 60 days from the issuance date of this notice.

All documents (original and eight copies) should be filed with: David P. Boergers, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426.

000112 • 0435.3

FERC - DOCKETED
JAN 11 2000

The Commission's Rules and Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person whose name appears on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. Description of Project: The proposed project would consist of the following: (1) the existing 27-foot-high masonry Macallen Dam with proposed 24-inch-high flashboards; (2) the existing reservoir would be increased to 140 acres surface area and 740 acre-feet storage capacity; (3) a proposed forebay containing one generating unit with a total capacity of 600 kW and an estimated average annual generation of 2.3 GWh; (4) a control house with transformer; and (5) a 300-foot-long transmission line.

l. Locations of the application: A copy of the application is available for inspection and reproduction at the Commission's Public Reference and Files Maintenance Branch, located at 888 First Street, N.E., Room 2A, Washington, D.C. 20426, or by calling (202) 219-1371. This filing may be viewed on the web at <http://www.ferc.fed.us/online/rims.htm> (Call (202) 208-2222 for assistance). A copy is also available for inspection and reproduction at the address in item h above.

Preliminary Permit -- Anyone desiring to file a competing application for preliminary permit for a proposed project must submit the competing application itself, or a notice of intent to file such an application, to the Commission on or before the specified comment date for the particular application (see 18 CFR 4.36). Submission of a timely notice of intent allows an interested person to file the competing preliminary permit application no later than 30 days after the specified comment date for the particular application. A competing preliminary permit application must conform with 18 CFR 4.30(b) and 4.36.

Preliminary Permit -- Any qualified development applicant desiring to file a competing development application must submit to the Commission, on or before a specified comment date for the particular application, either a competing development application or a notice of intent to file such an application. Submission of a timely notice of intent to file a development application allows an interested person to file the competing application no later than 120 days after the specified comment date for the particular application. A competing license application must conform with 18 CFR 4.30(b) and 4.36.

Notice of intent -- A notice of intent must specify the exact name, business address, and telephone number of the prospective applicant, and must include an unequivocal statement of intent to submit, if such an application may be filed, either a preliminary permit application or a development application (specify which type of application). A notice of intent must be served on the applicant(s) named in this public notice.

Proposed Scope of Studies under Permit -- A preliminary permit, if issued, does not authorize construction. The term of the proposed preliminary permit would be 36 months. The work proposed under the preliminary permit would include economic analysis, preparation of preliminary engineering plans, and a study of environmental impacts. Based on the results of these studies, the Applicant would decide whether to proceed with the preparation of a development application to construct and operate the project.

Comments, Protests, or Motions to Intervene -- Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

Filing and Service of Responsive Documents -- Any filings must bear in all capital letters the title "COMMENTS", "NOTICE OF INTENT TO FILE COMPETING APPLICATION", "COMPETING APPLICATION", "PROTEST", "MOTION TO INTERVENE", as applicable, and the Project Number of the particular application to which the filing refers. Any of the above-named documents must be filed by providing the original and the number of copies provided by the Commission's regulations to: The Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426. An additional copy must be sent to Director, Division of Project Review, Federal Energy Regulatory Commission, at the above-mentioned address. A copy of any notice of intent, competing application or motion to intervene must also be served upon each representative of the Applicant specified in the particular application.

Agency Comments -- Federal, state, and local agencies are invited to file comments on the described application. A copy of the application may be obtained by agencies directly from the Applicant. If an agency does not file comments within the time specified for filing comments, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

Linwood A. Watson, Jr.
Acting Secretary



Wayne E. Vetter
Executive Director

New Hampshire
Fish and Game Department

2 Hazen Drive, Concord, NH 03301-6500
Headquarters: (603) 271-3421
Web site: <http://www.wildlife.state.nh.us>

FILED
OFFICE OF THE SECRETARY

ORIGINAL

00 FEB 23 PM 4:22

Access: Relay NH 1-800-735-2964
FAX (603) 271-1438
E-mail: info@wildlife.state.nh.us

FEDERAL ENERGY
REGULATORY
COMMISSION

February 17, 2000

David Boergers, Secretary
Federal Energy Regulatory Commission
888 First St. NE
Washington DC 20426

REF. NH Dam #177.01
Macallen Dam
Lamprey River
Newmarket NH
FERC #P-11823

PROTEST

Dear Secretary Boergers:

The New Hampshire Fish and Game Department is providing the following comments in the form of a Protest regarding the Application for a Preliminary Permit for the Macallen Dam. The Department is providing comments in support of the Protest pursuant to NH RSA 206:9, and 206:10, and FERC rules 18 CFR 385.210, .211, and .214.

The Town of Newmarket is proposing to study the feasibility of developing hydro at the existing Macallen Dam for which they recently secured ownership. The Town is proposing among other things to install one generating unit and 24" of flashboards to the top of the spillway.

In 1971 the Fish and Game Department constructed a Denil fish ladder at the dam as part of anadromous fish restoration for the Great Bay watershed. The construction and sufficient flows to operate the ladder was secured in an agreement with the dam owner (copy enclosed). Although ownership of the dam has changed since 1971, the Department asserts that the rights spelled out in the Agreement are still in effect and must be honored. The fish ladder was originally designed for river herring followed by American shad and salmon. Table 1 shows the number of river herring,

000228-0138-3

Conserving New Hampshire's wildlife and their habitats since 1865

RECORDED
FEB 23 2000

David Boergers
Page 2
February 17,2000

and American shad that have utilized the fish ladder from 1972 through 1999 (copy enclosed).

In 1985 the Fish and Game Commission, which sets policy for the Fish and Game Department, unanimously adopted a resolution that opposes the siting of a hydropower facility at the Macallen Dam. The policy was also adopted in resolution form by the New Hampshire House of Representatives and Senate and forwarded to the Federal Energy Regulatory Commission (FERC).

In 1985 the Fish and Game Department consulted with an applicant for a FERC hydro license at Macallen Dam (FERC #6602). During the consultation period the Department determined that the installation of hydro would adversely affect fish passage. Consequently, the Department protested the application in a letter dated 2-12-86 to then FERC Secretary Kenneth Plumb (copy enclosed).

The Preliminary Permit Notice states that the applicant is considering the installation of 24" of flashboards. During the Department's earlier consultation in 1985 and 1986, opposition arose because of the impacts of additional water on wetlands, agriculture, and conservation lands. Raising the impoundment would also reduce free flowing stream habitats. Additionally, the installation of flashboards will render the fish ladder inoperable as a swim-through facility it was originally designed for. Installation of flashboards as part of the hydro operation at the Cocheco Falls Dam (FERC #4718), where the Department has operated a fish ladder since 1972, has prevented its operation as a swim-through facility. The Department has determined that the additional head of water created by the flashboards has increased the flow into the fish ladder and prevented anadromous fish from exiting the ladder to the river. This problem has been brought to FERC's attention in a Petition filed by the state of New Hampshire in 1995. In response to the Petition FERC has determined in a Preliminary Analysis and Draft Environmental Assessment that the hydro licensee incur the cost of modifying our fish ladder to make it swimthrough. Undoubtedly, the installation of flashboards at the Macallen Dam will have

David Boergers
Page 3
February 17, 2000

an identical and unacceptable impact on the operation of this Department's fish ladder.

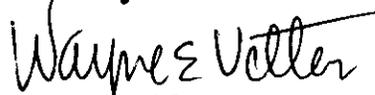
Another significant adverse impact to anadromous fish from the proposed hydro project would be attraction of anadromous fish to the hydro's tailrace and not to the fish ladder entrance. The false attraction flows from the tailrace would result in unacceptable delays in anadromous fish migration to upstream spawning habitats.

The Fish and Game Department would like to note that the Preliminary Permit Applicant is the Town of Newmarket. As stated before, the Town recently secured ownership of the Macallen Dam. However, in correspondence to FERC Secretary Kenneth Plumb dated 2-26-86, the Town of Newmarket stated that there is no demonstrated need for the hydro project (FERC #6602) and that the hydro proposal has the potential of adversely impacting anadromous fish and wildlife (copy enclosed).

Based on cumulative impacts, which would have an adverse impact on anadromous fish and wildlife resources of the Lamprey River, the Fish and Game Department opposes any development of hydro at the Macallen Dam and recommends that the Town of Newmarket withdraw their Preliminary Permit application. Also, no amount of mitigation would make the hydro project acceptable.

If you have any questions please contact Ecologist William Ingham Jr. at (603) 271-0453.

Sincerely



Wayne E. Vetter
Executive Director

WEV/WCI

David Boergers

Page 4

February 17, 2000

Enclosures

cc: William Ingham Jr. NHFGD

John Nelson NHFGD

Michael Bartlett USFWS

Richard Moquin NH Fish and Game Com.

Director, Div. Of Project Rev. FERC

John Lavigne SFC Engineering

FILED
OFFICE OF THE SECRETARY

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FEDERAL ENERGY
REGULATORY
COMMISSION

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REC'D ROCKINGHAM COUNTY
REGISTRY OF DEEDS

2091 384

AGREEMENT

This indenture, made this 17th day of August 1971, between and by the PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, Grantor, and the STATE OF NEW HAMPSHIRE by the Director of the FISH AND GAME DEPARTMENT, Grantee.

For consideration paid, the Grantor does hereby grant permission to the Grantee to enter upon and to construct, maintain, and to have exclusive control of a fish ladder and weirs at the Lamprey River dam, being the first dam upstream from tidewater in the Town of Newmarket, and to maintain water upon so much of the Grantor's land as will be flooded when the fishway and weirs are holding water to full capacity.

Said fish ladder will have an upstream inlet depth not greater than 2'-6" below the crest of the dam and an interior width of 3'-0".

It is agreed that operation of the fishway will be limited to the use of water that is in excess to the Grantor's needs or production purposes.

It is further agreed that the Grantor shall not be liable in any way for:

- 1) Injuries to any person or damage to property in connection with the construction, maintenance, or use of said fish ladder.
- 2) Any damage caused by the failure of said fish ladder.
- 3) Any costs of construction or maintaining the fish ladder or its parts.

It is further understood and agreed that the Grantor grants only those rights which are herein expressly provided for and no others.

* * * * *

IN WITNESS WHEREOF, the said parties have hereunto set their hands interchangeably the day and year first written above.

(Executed in duplicate)

STATE OF NEW HAMPSHIRE
FISH AND GAME DEPARTMENT

PUBLIC SERVICE COMPANY OF N. H.



[Signature]
Director

By: *[Signature]*
Vice President (Title)

APPROVED AS TO FORM AND EXECUTION

FILED
OFFICE OF THE SECRETARY
00 FEB 23 PM 4: 23

FEDERAL ENERGY
REGULATORY
COMMISSION

Table 1. Numbers of river herring returning to fishways on coastal New Hampshire rivers from 1972-1999.

YEAR	COCHECO RIVER	EXETER RIVER	OYSTER RIVER	LAMPREY RIVER	TAYLOR RIVER	WINNICUT RIVER
1972				2,528		*
1973				1,380		*
1974				1,627		*
1975		2,639		2,882		*
1976	9,500		11,777	3,951	450,000	*
1977	29,500		359	11,256		2,700**
1978	1,925	205	419	20,461	168,256	3,229**
1979	586	186	496	23,747	375,302	2,410**
1980	7,713	2,516	2,921	26,512	205,420	4,393**
1981	6,559	15,626	5,099	50,226	94,060	2,316**
1982	4,129	542	6,563	66,189	126,182	2,500**
1983	968	1	8,866	54,546	151,100	*
1984	477		5,179	40,213	45,600	*
1985	974		4,116	54,365	108,201	*
1986	2,612	1,125	93,024	46,623	117,000	1,000**
1987	3,557	220	57,745	45,895	63,514	*
1988	3,915		73,866	31,897	30,297	*
1989	18,455		38,925	26,149	41,395	*
1990	31,697		154,588	25,457	27,210	*
1991	25,753	313	151,975	29,871	46,392	*
1992	72,491	537	157,024	16,511	49,108	*
1993	40,372	278	73,788	25,289	84,859	*
1994	33,140	*	91,974	14,119	42,164	*
1995	79,385	592	82,895	15,904	14,757	*
1996	32,767	248	82,362	11,200	10,113	*
1997	31,182	1,302	57,920	13,788	20,420	*
1998	25,277	392	85,116	15,947	11,979	219

* - Due to damage to the fish trap, fishway became a swim through operation.

* - Fishway unable to pass fish until modifications in 1997.

** - Fish netted and hand passed over Winnicut River dam.

STATE OF NEW HAMPSHIRE

ALLEN F. CRABTREE, III
EXECUTIVE DIRECTOR



Bill/ File
FISH AND GAME DEPARTMENT

34 Bridge Street
Concord, N.H. 03301
(603) 271-3421

February 12, 1986

Kenneth Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol St., NE
Washington, DC 20426

REF. N.H. Dam #177.01
Macallen Dam
Lamprey River
Newmarket, N.H.

FERC PROJECT NO.: 8958

PROTEST AND COMMENTS

Dear Secretary Plumb:

Thank you for the opportunity to provide Protest and Comments regarding the Notice of Application for a Minor License filed with your commission for the above referenced project. The New Hampshire Fish and Game Department is providing Protest and Comments pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.) and New Hampshire RSA 206:9 and 206:10. The Fish and Game Department also provided to you Protest and Comments and a Motion to Intervene regarding a competing application for a Minor License (FERC #6602) dated November 14, 1985, and November 15, 1985, respectively.

The New Hampshire Fish and Game Department has determined that no hydro facility of any design or operating mode should be retrofitted or constructed at the Macallen Dam as it would interfere with the efficient operation of an already existing fish ladder and an ongoing and successful anadromous fish restoration program to the Lamprey River. This determination is based on the fact that the existing fish ladder has been efficiently operating since 1971 in the absence of a hydro facility and that the information and mitigation supplied by the applicant to this department and the FERC is conceptual and not based on fact or actual operating conditions at any other hydro facilities where a fish ladder is located and operated. Also, the Fish and Game Department has a binding legal agreement with the Public Service Co. of New Hampshire for use of water at the dam for the operation of our fish ladder.

Page 2
Kenneth Plumb
February 12, 1986

Since this agreement (enclosure) was signed in 1971, it had been more than satisfactory. This agreement will not be amended or abrogated.

In consideration of the above, the New Hampshire Fish and Game Commission on April 17, 1985, unanimously adopted the following resolution:

WHEREAS, the State of New Hampshire lacks a balanced and comprehensive river resource protection and hydro power energy development plan for the long range use of its river resources which will reduce the loss of important river resources while encouraging hydro power development projects which minimize negative environmental impact, and

WHEREAS, such a plan would be in the best interest of the people of the State of New Hampshire which has undertaken anadromous, shad, alewife and salmonid restoration and introduction programs in the coastal Cocheco and Lamprey rivers since 1969 with considerable investment, and

WHEREAS, those rivers possess highly significant composite resource values as revealed by demonstrated public use and public preference with the Lamprey River being recognized as the state's most significant river for all anadromous species, and

WHEREAS, the success of these programs have the potential to contribute significantly to the recreational usage and resulting economic well being of the seacoast region and the State of New Hampshire in general, and

WHEREAS, it has been demonstrated that a negative environmental impact results when operating hydro power facilities during upstream and downstream anadromous fish migrations, and

WHEREAS, the proposed siting of hydro power generating facilities at the Macallen Dam in Newmarket and the operation of the Cocheco Falls dam hydro power facility in Dover would cause considerable negative environmental impact and do not represent the best use of these river resources, and

WHEREAS, the economic viability of these hydro development projects is questionable and is based on ill conceived state and federal financial incentives which benefit the developer and not the consumer,

THEREFORE, BE IT RESOLVED that by the House of Representatives and Senate in General Court convened opposes any further hydro power activities that would compromise the composite resource value of these rivers;

That the general court opposes the expansion of the hydropower facility located in Dover; and

That the general court opposes the siting of a hydropower facility in Newmarket.

If the FERC in its deliberations determines that the estimated 2,300,000 kilowatt-hours of electricity proposed to be generated by this hydro facility is in the greater public interest than the ongoing anadromous fish programs and issues a

Page 3
Kenneth Plumb
February 12, 1986

license, the Fish and Game Strongly recommends that the following be included as Articles to that license:

1. The Licensee incur any and all costs associated with design and construction changes to the fish ladder.
2. The Licensee provide a schedule of construction to be reviewed by the New Hampshire Fish and Game Department. Such construction work will not interfere with upstream or downstream passage of anadromous fish or spawning by any fish species in the project area.
3. The Licensee provide vehicular access at all times to the fish ladder by representatives of the New Hampshire Fish and Game Department.
4. Design changes to the fish ladder be reviewed by Benedetto Rizzo, U.S. Fish and Wildlife Service Hydraulic Engineer, and incorporated by the Licensee into the plans before construction commences (enclosure dated 7-29-85).
5. The Licensee construct, maintain and operate efficient downstream fish passage facilities at the project capable of safely passing adult and juvenile anadromous fish. The facility design must be reviewed by Mr. Rizzo and must be incorporated before construction commences.
6. The dates of operation of downstream and upstream fish passage facilities will be determined by the New Hampshire Fish and Game Dept.
7. Flows necessary to operate fish passage facilities will take precedence over flows utilized by the hydro operation.
8. The Licensee conduct studies to insure that tailrace flows do not interfere with upstream migrations of anadromous fish.
9. The Licensee provide an instantaneous flow of 105 CFS or inflow, whichever is less, from the project.
10. The Licensee assume financial responsibility for damage to the fish ladder during construction or for damage resulting from operation of the hydro facility.
11. All conditions of the license shall be conveyed by sale or lease of the project in order to protect the fish and wildlife resources.
12. The Licensee provide a means for monitoring flows to all structures within the project.

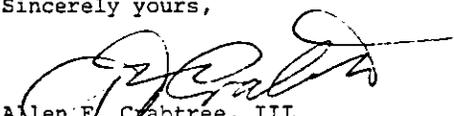
The description of the project in the Notice of Application states that the project would consist of new 2 foot high flashboards at the dam. The applicant's original and amended applications do not address the impact to existing fish and

Page 4
Kenneth Plumb
February 12, 1986

wildlife habitat in the impoundment, particularly wetlands, from an increase in water level.

Again, the New Hampshire Fish and Game Department has reviewed the application for Minor License and has determined that no hydro facility of any design or operating mode should be constructed at the Macallen Dam.

Sincerely yours,



Allen F. Crabtree, III
Executive Director

WCI/AFC/rjj
cc: John Webster
Fred Springer
Thomas Bigford
John Monson
Enc.



State of New Hampshire

HOUSE OF REPRESENTATIVES

CONCORD

COMMITTEE ON FISH AND GAME

177.01

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- Wheeler, Robert J.
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- Young, Anita A.
- Wagoner, Roland M.

28 June 1985

Mr. Kenneth F. Plumb, Secretary
 Federal Energy Regulatory Commission
 825 North Capitol Street, N.E.
 Washington, D.C. 20426

Dear Mr. Plumb:

We, the undersigned members of the New Hampshire House of Representatives Committee on Fish and Game, wish to bring to your attention our concerns with several proposed hydroelectric power projects in our state. New Hampshire, with its abundant streams and rivers, has experienced a boom recently in the development of low-head hydropower facilities.

The committee understands that hydropower can make a contribution to our electrical needs, and that at many sites it can be a relatively benign source of energy. But we also recognize that in certain instances it can create severe and unmitigatable impacts on fish, wildlife, agricultural, and recreational resources, and in those instances the losses may far outweigh the benefits.

At present, we believe that New Hampshire is faced with at least three such projects. First, the Sewalls Falls Hydroelectric Project (FERC #7216) in Concord would destroy several miles of free-flowing river, thereby eliminating a very excellent cold-water fishery, jeopardizing the restoration of Atlantic salmon to the Merrimack River, and threatening agricultural operations upstream of the proposed dam. The New Hampshire Fish and Game Department has taken a very strong position against this project, and we concur. Further, we endorse the Fish and Game Commission's resolution on Sewalls Falls, adopted on 17 April and enclosed herein.

On our seacoast, there are two projects which threaten the successful restoration of anadromous fish to important coastal rivers. We believe, after first-hand observation and study, that the siting of hydropower facilities at the Macallen Dam (FERC #8958) on the Lamprey River in Newmarket and the expanded operation of the Cocheco Falls Dam (FERC #4718) hydropower facility on the Cocheco River in Dover would present sustained and unavoidable negative impacts on the restoration of anadromous fish to these rivers. And, given the negligible amount of power that would be produced by these facilities, we believe that the

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best interest of the State of New Hampshire would be served if they were not constructed or expanded.

We appreciate this opportunity to express our concerns about, and opposition to, these facilities, and we hope that they will be of value in your deliberations over the license applications for these three projects.

Sincerely,

Members, House of Representatives,
Committee on Fish and Game

by Mary Ann Lewis

WHEREAS, the State of New Hampshire has a balanced and comprehensive river resource protection and hydro power energy development plan for the long range use of its river resources which will reduce the loss of important river resources while encouraging hydro power development projects which minimize negative environmental impact, and

WHEREAS, such a plan would be in the best interest of the people of the State of New Hampshire which has undertaken anadromous, shad, alewife and salmonid restoration and introduction programs in the coastal Cocheco and Lamprey rivers since 1969 with considerable investment, and

WHEREAS, those rivers possess highly significant composite resource values as revealed by demonstrated public use and public preference with the Lamprey River being recognized as the state's most significant river for all anadromous species, and

WHEREAS, the success of these programs have the potential to contribute significantly to the recreational usage and resulting economic well being of the seacoast region and the State of New Hampshire in general, and

WHEREAS, it has been demonstrated that a negative environmental impact results when operating hydro power facilities during upstream and downstream anadromous fish migrations, and

WHEREAS, the proposed siting of hydro power generating facilities at the Macallen Dam in Newmarket and the operation of the Cocheco Falls dam hydro power facility in Dover would cause considerable negative environmental impact and do not represent the best use of these river resources, and

WHEREAS, the economic viability of these hydro development projects is questionable and is based on ill conceived state and federal financial incentives which benefit the developer and not the consumer,

THEREFORE, BE IT RESOLVED that by the House of Representatives and Senate in General Court convened opposes any further hydro power activities that would compromise the composite resource value of these rivers;

That the general court opposes the expansion of the hydropower facility located in Dover; and

That the general court opposes the siting of a hydropower facility in Newmarket.



Webster

OFFICE OF
THE SELECTMEN

NEWMARKET,
NEW HAMPSHIRE 03887

February 26, 1986

Mr. Kenneth Plumb, Director
Federal Energy Regulatory Agency
825 N. Capital Street NE
Washington, DC 20426

RE: MOTION TO INTERVENE
PROJECT # 8958-000
NH DAM # 177-01
APPLICANT: HYDRO DEVELOPMENT INCORPORATED
APPLICATION FILED ON FEBRUARY 15, 1985
WATER BODY; LAMPREY RIVER
DAM: MACALLEN

COMMENTS ALSO APPLY TO PROJECT # 6602-003, FILED JANUARY 28, 1985.

Dear Mr. Plumb:

We, the Newmarket Board of Selectmen, are filing this motion because we are concerned that the following issues have not been investigated thoroughly:

1. It is our opinion there has not been demonstrated a strong need for this hydro project. According to the application it would serve very few homes, while interrupting the delicate ecology of the region, and particularly the aquatic life forms of the river.

2. There has not been any impact study on the effects of the project on the water system basin wide. Because there are other applications for projects on this river, this should be done before a license is issued.

3. Presently, there are andromous fisheries restoration and introduction

programs being undertaken by federal, state, and private groups. It is very important for the local economy and for recreational opportunities and should not be placed in jeopardy by such a small hydro project without complete assurances and guarantees it will not have an adverse effect.

4. It has not been demonstrated there will not be an adverse effect on the salmon migration. Since this type of project has no historical precedent to show the effects, there is no sound, proved method to demonstrate beyond a shadow of a doubt there will not be an adverse effect. All the developer has used for "proof" to date is theoretical data to substantiate his case. However, if his data proves incorrect, there will be no way to reverse the damage to the salmon population.

5. The developer has not addressed the issue of septic systems being impacted from the increased water table.

6. Recreational opportunities will be diminished if the salmon population is effected by the project. The Town has just completed a Waterfront Project, including a launch, in part with federal conservation funds. Consequently, this would effect the local economy. For instance, a restaurant opened in this adjacent area because of the increased interest in the waterfront.

7. The developer has not addressed long term maintenance of the equipment and dam. This creates concern. In the scenario that the project did create adverse ecological problems, the project could simply be abandoned.

8. We also think that it has not been demonstrated that wild life that relies on this native habitat will not be impacted. The community is in on of the highest growth areas of the nation. Soon

there will be no place for the animals to go to if a habitat is destroyed.

Please keep us informed concerning the status of this project. We are acutely concerned there is a possibility our unique resources will be impacted with no return for the community.

Respectfully,

Newmarket Board of Selectmen

JoAnne Hauschel, Chairman

Albert Caswell, Jr.

Ronald S. Coker



Coastal Conservation Association of New Hampshire

Office, Box 242 • Center Barnstead, NH 03225
Phone: (603) 776-3474 • Fax: (603) 776-2992

00 MAR -3 PM 2:54

February 28, 2000 FEDERAL ENERGY REGULATORY COMMISSION

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David Boergers, Secretary
Federal Energy Regulatory Commission
888 First St.,
Washington, DC 20426

REF: NH Dam #177.01
NE Macallen Dam
Lamprey River, Newmarket, NH
FERC #P-11823

PROTEST

Dear Secretary Boergers:

The Coastal Conservation Association is providing the following comments in the form of a Protest regarding the application for a Preliminary Permit for the Macallen Dam. Our protest is pursuant to FERC rules 18 CFR 385.210, 211 and 214.

The Town of Newmarket has proposed a study of the feasibility of developing a hydro facility at the existing Macallen Dam to which the Town recently secured ownership. The Town is proposing, among other things, to install a generating unit and 24" tall flashboards to the top of the spillway.

New Hampshire Fish & Game Department constructed a fish ladder at Macallen Dam in 1971 as part of the ongoing anadromous fish restoration program for the Great Bay area of the state. Construction permits and an agreement for sufficient flows to operate the fish ladder were secured in agreement with the then dam owner. Though ownership of the dam has changed, the Department asserts that the rights under that Agreement are still in effect and must be honored.

The fish ladder is designed for River Herring, Shad and Atlantic Salmon. In 1985 the Fish & Game Commission which sets policy for New Hampshire Fish & Game Department, unanimously adopted a resolution opposing the siting of a hydroelectric facility at Macallen Dam. That resolution was also adopted by the New Hampshire House of Representatives and Senate, then forwarded to FERC. On February 17, 2000 the New Hampshire Fish & Game Dept. in a letter of protest, reaffirmed their opposition to said hydroelectric facility being constructed.

The proposed 24" flashboards at the Macallen Dam would render the existing fish ladder inoperable for passage of Shad, River Herring or Atlantic Salmon. Shad and River Herring species are declared over fished by the

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MAR 3 - 2000

David Boergers
Page 2
February 28, 2000

National Marine Fisheries Service(NMFS) and extensive restoration projects are underway by the combined Northeastern States. Such a project is underway in New Hampshire on the Lamprey River. In 1999 the Interior Department budgeted significant funding to constructed a fish ladder for those species at the next upriver barrier; Wiswell Dam. Construction of that facility would begin in 2000. The proposed flashboards would effectively block Shad or River Herring from reaching the Wiswell Dam fish ladder.

The Coastal Conservation Association is a nonprofit, 501c3 organization with chapters in fifteen coastal states from Texas to Maine consisting of more than 73,000 members. We are dedicated to the restoration and protection of coastal marine species and habitat both inshore and offshore.

Based on cumulative impacts, which would adversely effect anadromous fish and wildlife resources of the Lamprey River system, Coastal Conservation Association opposes any development at Macallen Dam of a hydroelectric facility and we earnestly recommend the application be withdrawn. If you have any questions please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "W.D. Hubbard", written in a cursive style.

William D. Hubbard, President
Coastal Conservation Association

David Boergers
Page 3
February 28, 2000

cc: Wayne E. Vetter, Ex.Director, NH Fish & Game Dept.
Richard Moquin, Chairman, NH Fish & Game Commission
John I. Nelson, Chief, NH Div. Marine Fisheries
William Ingham, Jr., NH Fish & Game Dept.
Michael J. Bartlett, US Fish & Wildlife Service
Dir. Div. of Project Review, FERC
John Lavigne, SFC Engineering

ORIGINAL



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
One Blackburn Drive
Gloucester, MA 01930-2298

MAR 3 2000

David Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

RE: FERC Project # 11823-000
Macallen Dam Project, Newmarket, NH

FILED
OFFICE OF THE SECRETARY
00 MAR -6 PM 12:57
FEDERAL ENERGY
REGULATORY
COMMISSION

COMMENTS

Dear Secretary Boergers:

The National Marine Fisheries Service (NMFS) is responding to the Notice of Application for a preliminary permit dated January 11, 2000 for project # P-11823-000 submitted by the Town of Newmarket, NH. NMFS is providing these comments and requesting continued involvement in this process pursuant to 18 CFR 385.210, .211 and .214.

The Town of Newmarket is proposing to amend the existing 27-foot-high Macallen Dam on the Lamprey River with the installation of 24-inch-high flashboards to create a 600 kw generating facility. The project will increase the existing reservoir to 140 acres surface area and 740 acre-foot storage capacity.

In 1996, the U.S. Congress, understanding the importance of sustainable fisheries to coastal states such as New Hampshire, and recognizing the dependency of fish on their coastal and riverine habitats, reauthorized the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) with amendments aimed at promoting and maintaining healthy habitats for managed fish species. Section 303(a)(7) of the MSFCMA required that the fishery management councils designate essential fish habitat (EFH) for all life stages of all federally managed species. The New England and Mid-Atlantic Fishery Management Councils and NMFS have designated EFH for 59 species in the Northeast

Section 305(b)(2) of the MSFCMA also requires federal agencies to consult with NMFS regarding all activities they fund, permit, or carry out that may adversely affect designated EFH. An adverse effect has been defined in the MSFCMA as "any impacts which reduce the quality and/or quantity of EFH. Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species fecundity), site-specific, or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions."

The Lamprey River has been designated as EFH for Atlantic salmon, winter flounder, Atlantic sea herring, and bluefish, with Atlantic salmon being of particular concern for this project. The

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Macallen Dam establishes the head-of-tide for the Lamprey River. The Lamprey River and its tributaries have been designated as EFH for Atlantic salmon due to its historic and current accessibility and the overall importance of this river to many life stages of this anadromous species. Additionally, NMFS is concerned about the potential adverse effects to other anadromous species, such as river herring, rainbow smelt, and American shad, that pass through the State's existing Denil fish ladder to upstream spawning grounds. Construction of a hydropower facility at this location has the potential to adversely affect EFH and related species by disrupting anadromous fish passage and reducing free flowing stream habitats.

In order to comply with the requirements of the MSFCMA, the Federal Energy Regulatory Commission (FERC) must consult with NMFS on this project. Typically, consultation is initiated with NMFS' receipt of an EFH assessment that details the potential effects on EFH. The EFH assessment can be submitted as part of a draft Environmental Assessment (EA) or as a separate document. Should the applicant decide to pursue the preliminary permit, an EFH assessment will have to be submitted to NMFS to formally initiate consultation. NMFS requests participation in any meetings and copies of correspondence used to develop a scope of work for an environmental assessment or an EFH assessment.

Mandatory components of an EFH assessment include the following:

1. A description of the proposed action
2. An analysis of the effects, including cumulative effects of the proposed action on EFH, the managed species, and associated species such as major prey species, including affected life history stages
3. The FERC's views regarding the effects of the action on EFH
4. Proposed mitigation, if applicable

Other information that should be incorporated into an EFH assessment, as appropriate, includes the results of on-site inspections to evaluate the habitat, the site-specific effects of the project, the views of recognized experts on the habitat or species affected, a review of pertinent literature and related information, and an analysis of alternatives to the proposed action.

Additional information pertaining to life history and habitat requirements of the EFH species can be found in the NMFS Habitat Conservation Division web site at:

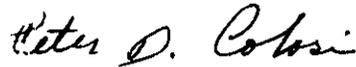
www.nrc.nmfs.gov/ro/doc/hcd.htm, under the topic of Guide to Essential Fish Habitat Designations.

Pursuant to section 305(b)(4)(A) of the MSFCMA, once received, NMFS will review the EFH assessment and provide the FERC with comments and EFH conservation recommendations as appropriate. NMFS' recommendations may include measures to avoid, minimize, mitigate, or otherwise offset the adverse impacts to EFH. Section 305(b)(4)(B) of the MSFCMA requires the FERC to provide NMFS with a detailed written response to the conservation recommendations, including a description of measures adopted by the FERC for avoiding, minimizing, or offsetting the impact of the project on EFH. In the case of a response that is inconsistent with NMFS' recommendations, the FERC must explain its reasons for not following the recommendations,

including the scientific justification for any disagreements with NMFS over the anticipated effects of the proposed action and the measures needed to avoid minimize, mitigate, or offset such effects [50 CFR 600.920(J)].

We look forward to continued coordination on this project. Should you have any questions regarding this matter or EFH in general, please contact Mr. Lou Chiarella, EFH Coordinator, at (978) 281-9277.

Sincerely,



Peter D. Colosi
Assistant Regional Administrator
for Habitat Conservation

cc: John R Lavigne, SFC Engineering
25 Sundial Ave, Suite 205W
Manchester, NH 03103
William Ingham, NHFGD, Concord
Michael Bartlett, USFWS, Concord
Director, Div of Project Review, FERC
Lou Chiarella, NMFS
Eric Hutchins, NMFS

Kirsten and Hunter Brownlie
13C Piscassic Street
Newmarket, NH 03857

FILED
OFFICE OF THE SECRETARY
00 MAR -6 PM 3:46
FEDERAL ENERGY
REGULATORY COMMISSION

March 3, 2000

David Boergers
Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear David Boergers:

This is a letter of protest for project # P-11823-000, an application for a hydroelectric plant at the Macallen Dam located in Newmarket, New Hampshire.

As citizens in Newmarket, we are concerned about the following issues:

- 1) Increasing the potential for flooding upriver in residential areas on both the Lamprey River and the Piscassic River.
- 2) The increase in the water flow through the fish ladder could deter fish from moving upriver.
- 3) Downstream fish being attracted to the hydro-outflows rather than being attracted to using the ladder.
- 4) The potential damage to vegetation on the riverbanks and increase in erosion problems.

Thank you for your consideration.

Sincerely,



Hunter D. Brownlie Kirsten O. Brownlie

FERC DOCKETED

MAR - 6 2000

AX

000310-0148-3



OFFICE OF THE
TOWN ADMINISTRATOR
E-MAIL - NEWMARKET1@AOL.COM
WEBSITE - WWW.NEWMARKET-NH.COM

INCORPORATED
DECEMBER 15, 1727
CHARTER JANUARY 1, 1991

March 6, 2000

Federal Energy Regulatory Commission
ATTN: Secretary
888 First Street, NE
Washington, DC 20426

RE: Project No.: P-11823-000
Project Name: Macallen Dam Project

FILED
OFFICE OF THE SECRETARY
00 MAR - 9 AM 11:38
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Mr. Spencer:

Please withdraw the application for Preliminary Permit for the above-cited project from any further consideration by your agency.

Sincerely,

Alphonse R. Dixon
Alphonse R. Dixon
Town Administrator

ARD/dml
Pc: File

C:\000306A.docHYDRO

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TOWN HALL
186 MAIN STREET, NEWMARKET, NEW HAMPSHIRE 03857
TELEPHONE (603) 659-3617 • FAX (603) 659-8508

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ORIGINAL



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New England Field Office
22 Bridge Street, Unit 101
Concord, New Hampshire 03301-4986

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OFFICE OF THE SECRETARY
00 MAR 10 PM 12:34
COMPLETION

In Reply Refer To: FERC #11823-000
Comments

March 7, 2000

Mr. David P. Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street, N. E.
Washington, DC 20426

Dear Mr. Boergers:

This responds to your public notice, dated January 11, 2000, regarding the application for preliminary permit for the Macallen Dam Project, located on the Lamprey River in Rockingham County, New Hampshire.

In determining the environmental feasibility of this project, the applicant should devote special attention to the following areas of concern:

Fishery Resources

The Lamprey River "is recognized as the state's most important anadromous fishery because of its species diversity and habitat quality."¹ Since 1971 the New Hampshire Fish and Game Department has operated a fish ladder at the Macallen Dam (the first barrier on the river). Presently both anadromous and catadromous fish are able to pass Macallen Dam safely. Fish passage measures are scheduled for installation at Wiswall Dam, the next barrier to migrating fish, in the near future. Once Wiswall becomes passable, an additional 43 miles of spawning and rearing habitat will be available to anadromous fish.

Wild and Scenic River Status

The portion of the Lamprey River flowing through the towns of Lee and Durham was designated as a protected river under the New Hampshire Rivers Management and Protection Program in 1991. In addition, on November 12, 1996, the 11.5-mile segment of the Lamprey River from the southern Lee town line to the Piscassic River was designated a Wild and Scenic River by

¹National Park Service, U.S. Department of the Interior. 1995 *Lamprey Wild and Scenic River Study Draft Report*. North Atlantic Regional Office, Boston.

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Congress. The designation was the culmination of a concerted effort by the communities of Lee, Durham, and Newmarket, in recognition of the Lamprey River's unique resources (including a diverse mussel community and healthy runs of diadromous fish). The implications of the permit application on this important designation will be discussed in depth by the National Park Service under separate cover.

Previous Hydro Proposals

In the early 1980's, two parties investigated the possibility of developing Macallen Dam for hydroelectricity. Those proposals were similar to the one now before the Commission (including the addition of 2-ft. flashboards). At the time, state agencies, the state legislature, local landowners, the Lamprey River Watershed Association, Salmon Unlimited and the Towns of Newmarket and Durham all had major concerns with the impact that adding hydro generation and raising the impoundment would have on the surrounding aquatic and riparian resources. Some of the issues identified in the previous licensing attempts include:

- Tailrace flows would compete with ladder flows for attracting upstream migrants.
- The increased impoundment elevations would necessitate modifying the ladder exit
- The intake to the turbine would have to be screened and a downstream bypass facility constructed to minimize entrainment of outmigrants.
- Flashboards would: (1) inundate up to 650-ft. of free-flowing habitat; (2) impact 24 acres of wetlands; (3) flood 5-7 acres of agricultural land; and (4) reduce waterfront property of local landowners.

The Commission issued a draft Environmental Assessment for the two license applications on March 7, 1988. Staff determined that increased water turbidity, soil erosion, inundation of wetlands and agricultural land, and loss of riverine habitat would be unavoidable impacts resulting from the installation of flashboards at Macallen Dam. Based on these findings, the dEA recommended that boards not be included in any license issued for the site.

Subsequent to the dEA, the Commission notified the applicants that their projects could not be justified as economically and financially feasible (by letter dated June 30, 1988). In response to the notification, the application for Project number 6602 was withdrawn. In view of the fact that two previous applicants invested substantial time and money in a 5-year process that proved unsuccessful, we strongly suggest that the current applicant examine the site's past history before moving forward with this proposal, which likely will face opposition at the local, regional, state and federal level.

Given the well-documented negative impacts that hydro development would have at this site, it is our recommendation that the applicant not pursue development of hydro power at this site. The Lamprey River is one of the few New England rivers with no hydro development on it. There are only three migratory barriers on the river, one of which has an effective fishway that is integral to the successful restoration of diadromous fish to the Lamprey River watershed.

Should the applicant continue to pursue the proposed project, the following should be taken into consideration during the consultation process.

1. Fish and Wildlife Resources

The Permittee will need to investigate and document the fish and wildlife resources that will be affected by the construction and operation of the project. State and federal fish and wildlife agencies should be consulted early in the planning process for their advice on impact assessment studies. After the Permittee has conducted the necessary studies, the resource agencies should again be consulted for their recommendations on measures needed to mitigate adverse impacts and compensate for unavoidable losses to fish and wildlife resources. The address for our Fish and Wildlife Service Office is 22 Bridge Street, Unit #1, Concord, New Hampshire 03301-4986.

2. Cultural Resources

The State Historic Preservation Officer (SHPO) should be consulted concerning the project to ensure compliance by the applicant and the Federal Energy Regulatory Commission (FERC) with all preservation legislation. Consideration of project effects on any existing or potential cultural resources should take place as part of the environmental evaluation during the preliminary permit period. We suggest that Article 7 in Order No. 54 Final Rule, FERC, October 22, 1979, be included in the preliminary permit. For New Hampshire, the SHPO is Nancy Dutton, Division of Historical Resources, 19 Pillsbury Street, Concord, New Hampshire 03301 (telephone 603/271-3483).

3. Recreational Resources

An assessment of the recreation potential of the project should be undertaken during the preliminary permit period in consultation with the State Liaison Officer (SLO), county officials, and local community groups and agencies concerned with providing opportunities for public recreation. The assessment should include consideration of recreation needs and priorities identified in the Statewide Comprehensive Outdoor Recreation Plan. The SLO for New Hampshire is Commissioner William S. Bartlett, Department of Resource and Economic Development, 172 Pembroke Road, P.O. Box 1856, Concord, New Hampshire 03301 (telephone 603/271-2411).

Thank you for the opportunity to comment on this application.

Sincerely yours,



Michael J. Bartlett
Supervisor
New England Field Office

CC: John R. Lavigne, Jr.
SFC Engineering Partnership, Inc.
25 Sundial Avenue, Suite 205W
Manchester, NH 03103
EPA, Ralph Abele
NHFGD, Bill Ingham
NHFGD, Doug Grout (Durham)
NPS, Jamie Fosburgh (Boston)
CCANH, Bill Hubbard
ES: MGrader:dw:3-07-00:(603)225-1411

ORIGINAL

michael.spencer@FER, 04:38 AM 3/8/00 -, Project number P-11823-000 in

To: michael.spencer@FERC.fed.us
From: Preston Samuel <pls3116@nh.ultranet.com>
Subject: Project number P-11823-000 in the Town of Newmarket at the Macallen Dam
Cc:
Bcc:
Attached:

I am a property owner on the Lamprey River, about a quarter mile above the MacAllen Dam in Newmarket, NH. I was recently advised that someone was considering hydro power at the dam. It has been said that the project would add flashboards with an additional elevation of between two to four feet.

The use of the dam for power has been dormant for many years. During that time, residential projects have been built on both sides of the river all the way upstream to the Newmarket Town Line. If the water level were raised, it would affect all of these homes to one degree or another.

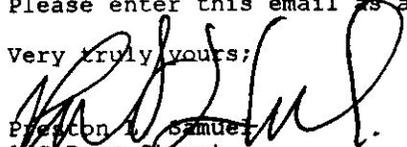
During a reputed 100 year storm three years ago, several houses were flooded to the degree that they were evacuated. The water was dangerously close to flood a major apartment building owned by the Cheney Corporation. The water backed up in several small tributaries and flooded streets in surrounding subdivisions to the point that it was becoming difficult to get in to certain areas of town.

Obviously, the construction of flashboards would have an affect on the hundred year floodplain in the future. It would jepordize an untold number of homes directly abutting the water, and for several blocks back.

In my opinion, the filing of the application to study the hydro power proposal was premature, understudied, inconsiderate, and a waste of government time and money. I wish to go on record as strongly opposing the current proposal, although I do support low-head hydro power.

Please enter this email as a record in the appropriate public comment file.

Very truly yours;


Preston Samuel
1 G Bass Street
Newmarket, NH 03857
(603) 659 - 3518

cc: Al Dixon, Town Administrator

David Boergers
Secy. Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

FILED
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00 MAR 10 PM 12:37
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REGULATORY
COMMISSION

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