

NHG360022

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

Request for General Permit Authorization to Discharge Wastewater
(Notice of Intent (NOI) to be covered by the General Permit)

Hydroelectric Generating Facilities (HYDROGP)
NPDES General Permits No. MAG360000 and NHG360000

A. Facility Information

1. Indicate applicable General Permit for discharge: MAG360000
NHG360000

2. Facility Name, Location, and Data:
Name Pembroke Hydro Facility
Street/PO Box 100-2 Main St. City Suncook
State NH Zip Code 03275
Latitude 43.13953° Longitude -71.45396°
Type of Business Power Generation
SIC Code(s) _____

3. Facility Mailing Address (if different from Location Address):
Name Algonguin Power
Street/PO Box 24 Mill St. City Tilton
State NH Zip Code 03276

4. Facility Owner: Algonguin Power
Name Fund (America) Inc. e-mail (optional) _____
Street/PO Box 2945 Bristol Cr. City Oakville
State Ontario, Canada Zip Code L6H 7H7
Contact Person Armando Sanchez Telephone Number 905-465-4555
Owner is (check one): 1. Federal _____ 2. State _____ 3. Tribal _____ 4. Private
Other (Describe) _____

5. Facility Operator (if different from above):
Legal Name _____ e-mail (optional) _____
Street/PO Box _____ City _____
State _____ Zip Code _____
Contact Person _____ Telephone Number _____

6. Current permit status (please check Yes or No):
a. Has a prior NPDES permit (individual or general permit coverage) been granted for the discharge that is listed on the NOI? Yes _____ No If Yes, Permit Number: _____
b. Is the facility covered by an individual NPDES permit? Yes _____ No
If Yes, Permit Number _____
c. Is there a pending NPDES application on file with EPA for this discharge? Yes _____ No If Yes, date of submittal: _____ and permit number if available: _____

7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? Yes

8. Provide the number of turbines and the combined turbine discharge (installed capacity) at maximum and minimum output, in cubic feet per second (cfs). Number of turbines 1 Combined turbine discharge (installed capacity): maximum output, cfs 800 and minimum output, cfs 200

9. Is the hydroelectric generating facility operated as a pump storage project? No

B. Discharge Information (attach additional sheets as needed).

1. Name of receiving water into which discharge will occur: Suncook River
Freshwater: Marine Water:

2. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing flow, treatment units, outfalls, and receiving waters(s). Line drawing or flow schematic attached? Yes

3. List each outfall under the following categories and number sequentially: equipment-related cooling water; equipment and floor drain water; maintenance-related water; facility maintenance-related water during flood/high water events, and equipment-related backwash strainer water (see Parts I.A.1, 2, 3, and 4; or Parts I.B.1, 2, 3, and 4). Attach additional sheets to identify outfalls as needed.

Equipment-related cooling water

Equipment and floor drain water

See attached flow schematic

Maintenance-related water

Facility maintenance-related water during flood/high water events

See attached flow schematic

Equipment-related backwash strainer water

See attached flow schematic

4. List each outfall discharging any combination of the following to identify the combined discharges: equipment-related cooling water, equipment and floor drain water, maintenance-related water, equipment-related backwash strainer water, and facility maintenance-related water during flood/high water events (see Parts I.A.5 and B.5) and continue the sequential numbering. Attach additional sheets to identify outfalls as needed.

See attached flow schematic

5. Provide for each outfall the following:

a. Latitude and longitude to the nearest second (see EPA's siting tool at: http://www.epa.gov/tri/report/siting_tool/) and the name(s) of the receiving water(s) into which the discharge will occur.

43.13053° ; -71.45396° Suncook River

b. The operations contributing flow and the treatment received by the discharge. Indicate the average flow from each operation.

See attached flow schematic

c. Indicate if the discharge can be sampled at least once per year or can be sampled using the representative outfall sampling provisions (see Parts I.A.6 or B.6 and III.E).

See attached flow schematic

d. Note if the outfall discharges intermittently or seasonally.

See attached flow schematic

C. Chemical Additives

Are any non-toxic neutralization chemicals used in the discharge(s)? Yes ___ No X If so, include the chemical name and manufacturer; maximum and average daily quantity used on a monthly basis as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for typically acceptable aquatic organism).

D. Endangered Species Act Eligibility Information

A facility, with a previous ESA Section 7 consultation with the National Marine Fisheries Service (NMFS), seeking coverage under the Massachusetts general permit and discharging to the Connecticut River or Merrimack River should provide one of the following, if available.

1. A formal certification indicating consultation with the National Marine Fisheries Service (NMFS) resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharges are not likely to adversely affect the shortnose sturgeon or critical habitat. Information should also be provided indicating the hydroelectric facility's previous ESA Section 7 consultation with NMFS covered the discharges to be authorized under this general permit and demonstrating no significant changes in the discharges have occurred since the previous consultation.

2. Another operator's certificate of the ESA eligibility for those discharges to be authorized under this general permit.

E. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certification(s) required by the general permit.

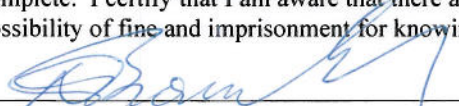
F. Signature Requirements

The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this general permit except for those used for pH adjustment and (2) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____



Date _____

Sep 22/11

Printed Name and Title _____

David Bronicheski, VP

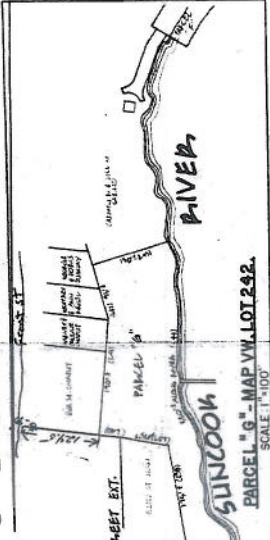
Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

JOHN W. DURGIN ASSOCIATES, INC.

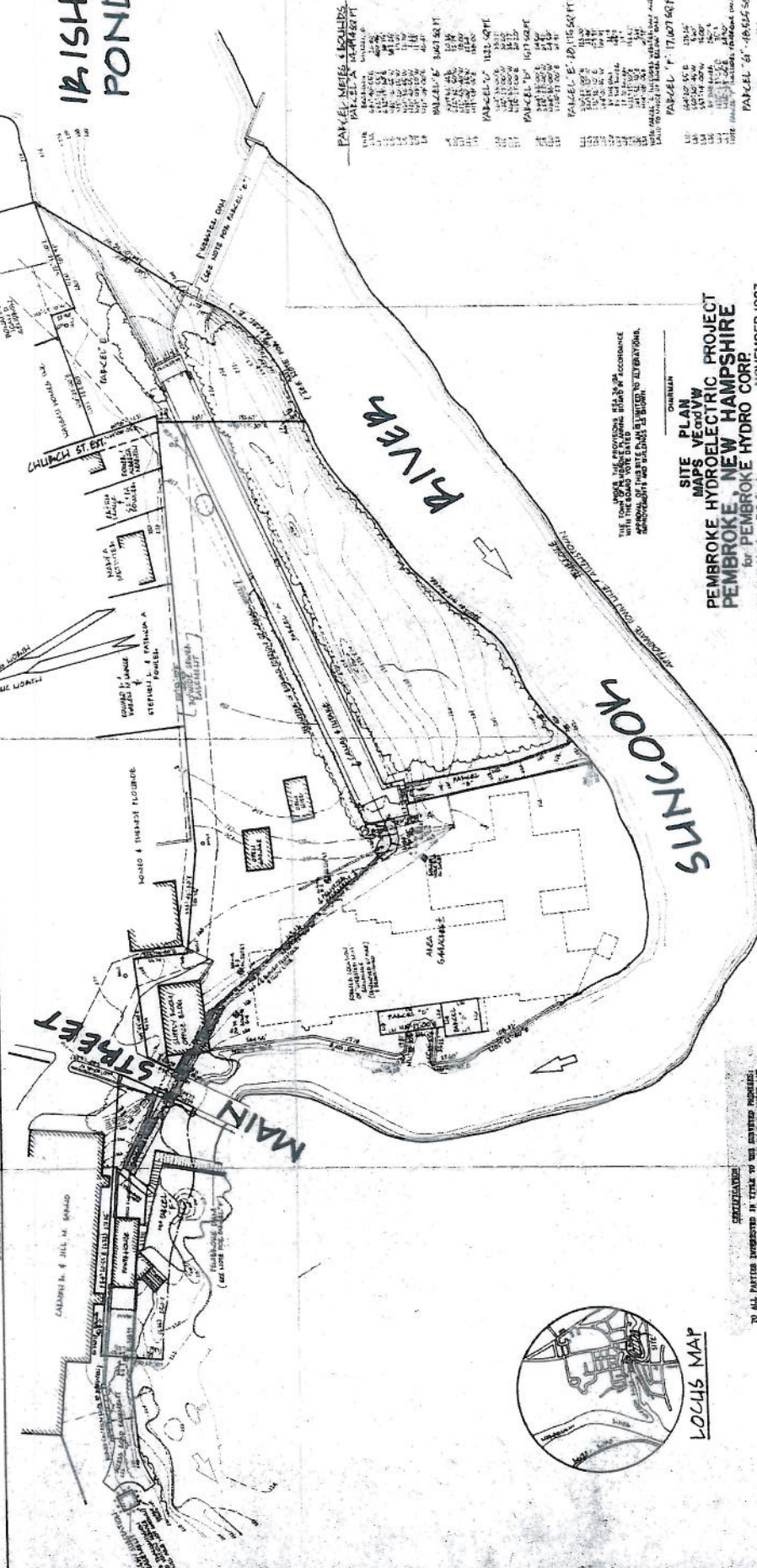
800 GREENLAND ROAD
SCHEMIDTOWN, N.J. 08054
SUITE 200
ROCHESTER, N.Y. 14607

ENGINEERS
SURVEYORS
DESIGNERS



NOTE: PARCEL 'G' AS SHOWN
DRAWN FROM TOWN OF
SUNCOOK MAP. OTHER
PRIVILEGE AREAS SHOWN
SHOWN ARE SCALED.

PARCEL 'G' - MAP VV, LOT 252.
SCALE: 1" = 100'



IRISH
POND

RIVERS

SUNCOOK

PARCEL	NET AREA	SQUARE FEET
PARCEL 'A'	12.5	1,350
PARCEL 'B'	15.0	1,620
PARCEL 'C'	18.0	1,944
PARCEL 'D'	20.0	2,160
PARCEL 'E'	25.0	2,700
PARCEL 'F'	30.0	3,240
PARCEL 'G'	35.0	3,780
PARCEL 'H'	40.0	4,320
TOTAL	175.0	18,720

THE TOWN OF SUNCOOK, NEW HAMPSHIRE, HAS REVIEWED THIS PLAN AND HAS NO OBJECTION TO ITS SUBMITTAL TO THE STATE ENGINEERING BOARD.

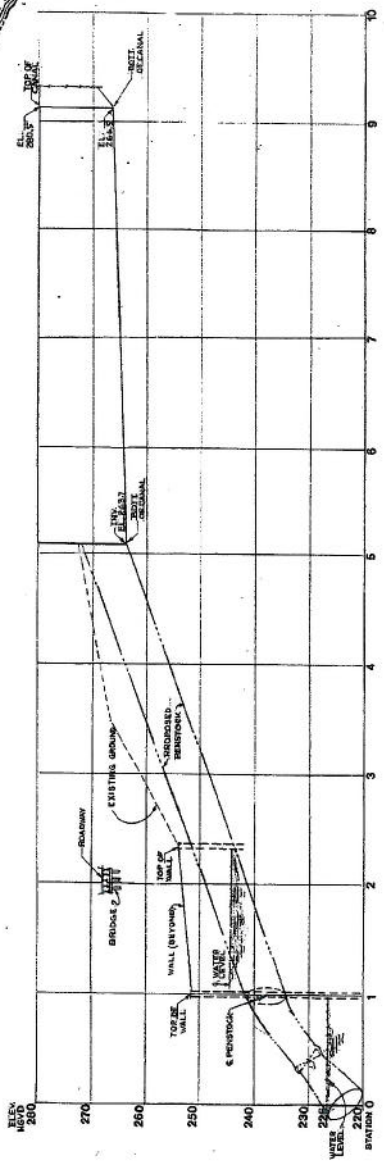
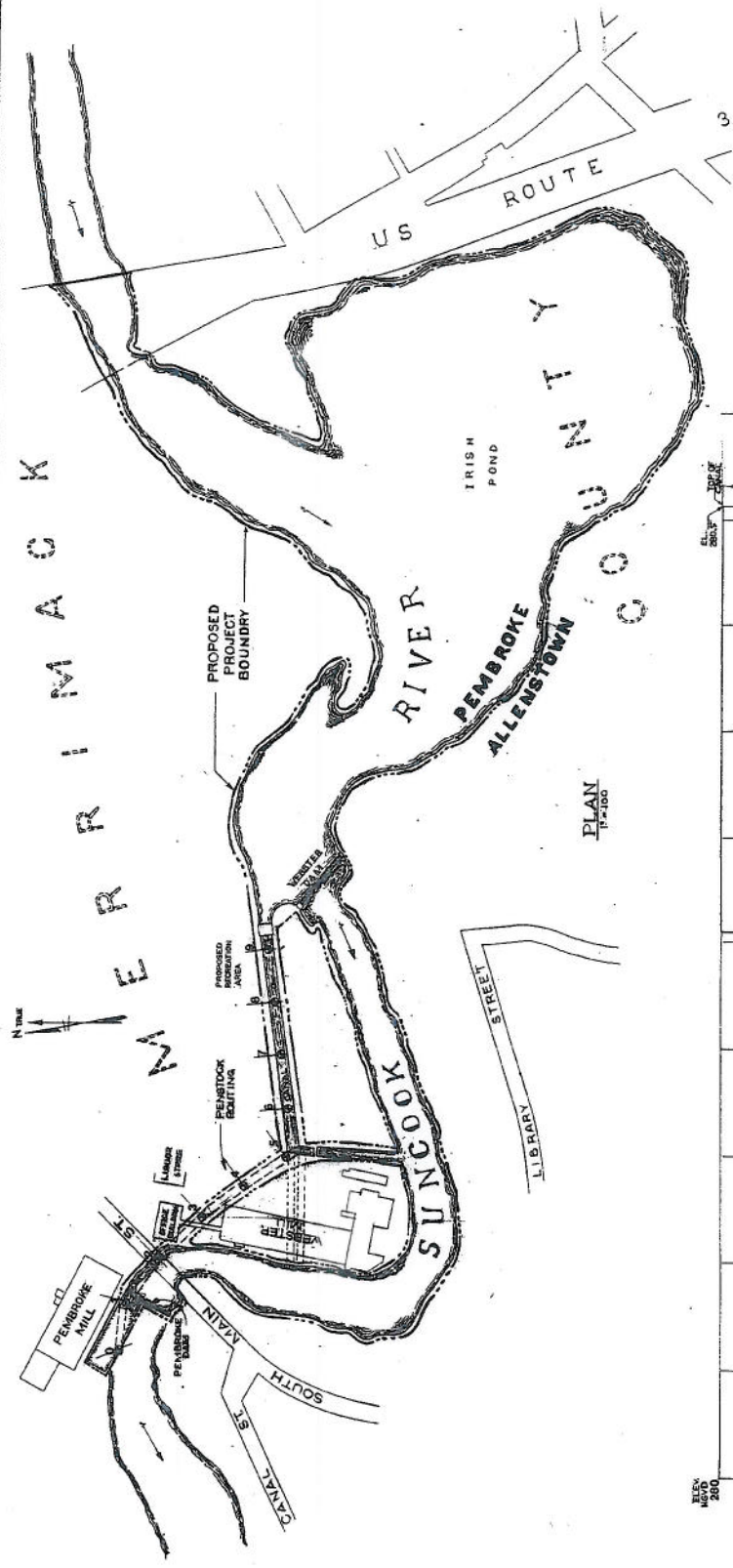
SITE PLAN
MAPS VV & VV
PEMBROKE HYDROELECTRIC PROJECT
PEMBROKE, NEW HAMPSHIRE
FOR PEMBROKE HYDRO CORP.
NOVEMBER 1983
SCALE: 1" = 50 FEET

TO ALL PARTIES INTERESTED IN THIS PROJECT: THIS PLAN IS THE PROPERTY OF JOHN W. DURGIN ASSOCIATES, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF JOHN W. DURGIN ASSOCIATES, INC.



LOCUS MAP

FILE NO. 3841
PLAN NO. 5019U-4



PROFILE OF PENSTOCK & CANAL
 SCALE: VERTICAL 1" = 10'
 HORIZONTAL 1" = 10'

SITE PLAN & PROFILE
 THE PEMBROKE
 HYDRO-ELECTRIC PROJECT
 PEMBROKE, N.H.
 PROJECT NO. B0009
 C2
 CLEVERDON, VARNEY & PIKE, INC.
 CONSULTING ENGINEERS
 126 HIGH ST. BOSTON, MASS.



Pembroke Generating Station – Site Location Map

Pembroke Hydro - Suncook, NH

**NPDES Permit Application
Water Flow Schematic**

