

APPENDIX 1-2
FERC LETTER DATED FEBRUARY 28, 1986

FEB 28 1986

Project No. 3240
Rolfe Canal Project
Priar-Hydro Associates

Mr. Howard M. Moffett
Orr and Reno P.A.
One Eagle Square
P.O. Box 709
Concord, NH 03301

Dear Mr. Moffett:

We have reviewed your October 25, 1985, letter concerning the design changes of the Rolfe Canal Project, FERC No. 3240. Also considered was the additional information furnished during the January 21, 1986, meeting between Mr. Thomas Tarpey and Mr. Daniel Mahoney.

The proposed design changes will be made to facilities located in the off-stream existing Rolfe Canal and will not affect the flow regime of the Contoocook River. The changes will include moving the powerhouse approximately 900 feet downstream of the existing canal dam, constructing a new inlet control structure, and using a 14-foot buried penstock to convey water to the powerhouse. The rated installed capacity of the powerhouse will also be increased from 3,350 kW to 4,285 kW, an increase of 27.6%, and the hydraulic capacity will be increased from 1,600 cfs to 2,000 cfs, an increase of 25.0%. The minimum flow prescribed in the license for the Contoocook River remains unchanged.

The proposed changes will raise the level of the canal water surface elevation approximately 5 feet at the site of the proposed intake control structure. In addition, the proposed changes will result in bypassing approximately 1250 feet of the canal.

It is noted that your proposal has been reviewed by the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the New Hampshire Water Resource Board and no objections have been raised. However, in addition to the mitigation measures included in the license, the following additional requirements have been stipulated by the environmental agencies:

1. A minimum of 5 cfs will be spilled at the intake control structure on a year-round basis to maintain habitat in the bypassed section of the canal.

2. After consultation with the U.S. Fish and Wildlife Service, and New Hampshire Department of Fish and Game, a system of timber weirs will be constructed in the bypassed reach of the canal to optimize the use of the bypass flow to preserve existing habitat.

An amendment to your license will not be necessary at this time. The above changes should be reflected in the plans and specifications and the revised as-built Exhibits A and F, submitted in accordance with Articles 27 and 28, respectively. Furthermore, at the time of approval of the as-built Exhibits A and F, the license will be amended to include the minimum flow and mitigative measures described above.

Sincerely,

Ronald A. Corso

Ronald A. Corso, Director
Division of Inspections

OHL/DINS
Mahoney, D.J./rp
02/06/86

cc: DINS, NYRO, FILES, DEA, RIMS, Mahoney

ORR AND RENO

PROFESSIONAL ASSOCIATION

ONE EAGLE SQUARE

P. O. BOX 709

CONCORD, NEW HAMPSHIRE 03301-0709

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MARY N. WILKE
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DUDLEY W. ORR
ROBERT H. RENO
OF COUNSEL

FILED
OCT 29 11 10:46
FEDERAL ENERGY
October 25, 1985

Mr. Ronald Corso
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Room 108 RB
Washington, D.C. 20426

RE: Briar-Hydro Associates Project No. 3240-001

Dear Mr. Corso:

On December 5, 1984, Briar-Hydro Associates (Briar-Hydro) was issued a license (major) by order of the Federal Energy Regulatory Commission to construct, operate and maintain the Rolfe Canal Project (No. 3240) in Penacook, New Hampshire.

Subsequent to issuance of the order, Briar-Hydro has completed the final engineering work necessary to construct its proposed facility. In the course of that engineering work it was determined that a reconfiguration of the proposed project would be desirable. Briar-Hydro desires to relocate the powerhouse approximately 900 feet downstream from its original location and install a 14-foot diameter buried penstock to carry water from the intake canal to the powerhouse. This modification would substantially reduce the amount of rock excavation required in the tailrace, permitting a more economic construction plan. The modification would also result in an increase in head with accompanying increases in capacity and energy, without additional inundation of lands. All of the project's facilities will be constructed on an existing man-made canal, which encompasses both the intake and tailrace canals.

Attached as Exhibit I is a plan showing the project reconfiguration, designated on the plan as Alternate A. (Under the configuration in Briar-Hydro's application, the powerhouse would have been located at the point labeled "exist dam" on Exhibit I.) Exhibit IV is a table showing how the change affects various project parameters.

Mr. Ronald Corso
October 25, 1985
Page 2

This reconfiguration has been reviewed and approved by appropriate state and federal fish and wildlife agencies who have determined this plan to be more desirable than the original project configuration. Exhibits II and III hereto state the concurrence of New Hampshire Fish and Game Department and U.S. Fish and Wildlife Service with the revised plan. Briar-Hydro will follow the suggestions contained in those letters.

The land upon which we propose to construct the penstock is owned by Briar Pipe Associates, which also owns other land that will be used in connection with the project. James Steenbeke, Jr., managing partner of Briar Pipe Associates, has no objection to the proposed reconfiguration, and thus the new plans do not require the consent of any additional private landowners.

Accordingly, Briar-Hydro Associates requests confirmation that no further authority is required to modify construction plans and specifications of the Rolfe Canal Project and to construct and operate the Project as shown in Exhibit I.

Sincerely yours,

BRIAR-HYDRO ASSOCIATES
By Its Attorney:


Howard M. Moffett

Orr and Reno P.A.
One Eagle Square
P.O. Box 709
Concord, New Hampshire 03301

HMM/jlw
Attachments

LOCATION OF INLET CONTROL STRUCTURE

PROVIDE NEW INLET CONTROL STRUCTURE

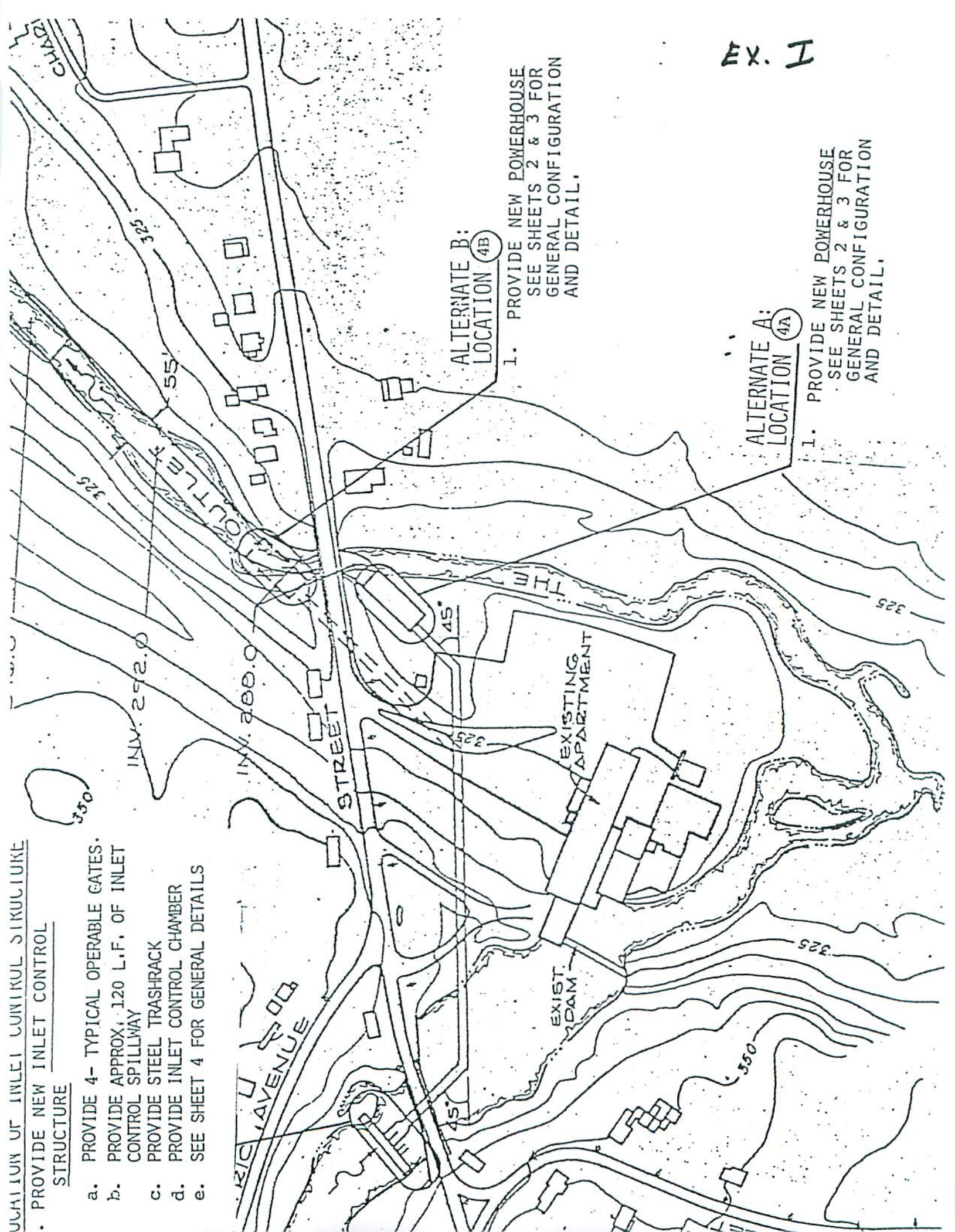
- a. PROVIDE 4- TYPICAL OPERABLE GATES.
- b. PROVIDE APPROX. 120 L.F. OF INLET CONTROL SPILLWAY
- c. PROVIDE STEEL TRASHRACK
- d. PROVIDE INLET CONTROL CHAMBER
- e. SEE SHEET 4 FOR GENERAL DETAILS

ALTERNATE B:
LOCATION 4B

- 1. PROVIDE NEW POWERHOUSE
SEE SHEETS 2 & 3 FOR
GENERAL CONFIGURATION
AND DETAIL.

ALTERNATE A:
LOCATION 4A

- 1. PROVIDE NEW POWERHOUSE
SEE SHEETS 2 & 3 FOR
GENERAL CONFIGURATION
AND DETAIL.



EX. II

STATE OF NEW HAMPSHIRE

FISH AND GAME DEPARTMENT

CHARLES E. BARRY
EXECUTIVE DIRECTOR



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

June 7, 1985

Thomas A. Tarpey
27 Albin Street
Concord NH 03301

REF. N.H. Dam #51.94
Briar Hydroelectric Project
Contoocook River
Concord N.H.
FERC No. 3240

Dear Mr. Tarpey:

Thank you for the opportunity to comment on your proposed amendment to FERC license for the Briar Hydroelectric Project on the Contoocook River in Concord, New Hampshire. The New Hampshire Fish and Game Department is providing 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 has determined that the proposed amendment will have less impact on fish and wildlife in that approximately 2200 feet of river channel will not be excavated to accommodate tailrace flows. The Department recommends that in order to protect aquatic habitat in the 2200 foot bypassed reach, existing water levels be maintained and a series of weirs be constructed in the channel to assure that the existing habitat is maintained. During project construction coordination and consultation with fish and wildlife agencies should be continued. All other conditions of the license shall remain in effect.

If you have any questions, please contact Fish and Wildlife Ecologist William Ingham, Jr., at 271-2501.

Sincerely yours,

Charles E. Barry
Executive Director

nkc

cc: Gordon Beckett, Supervisor
New England Area Office
U.S. Fish and Wildlife Service

EX III



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

REF: FERC #3240

JUN 7 1985

Mr. Thomas A. Tarpey, Jr.
27 Albin Street
Concord, New Hampshire 03301

Dear Mr. Tarpey:

We have reviewed the plan to modify the proposed Rolfe Canal Hydroelectric Project, located on the Contoocook River in Merrimack County, New Hampshire. We understand that the modification calls for moving the location of the powerhouse approximately 2,200 feet downstream in the power canal. There would also be a diversion of flows via a penstock from a point above the Briar Pipe dam to the new powerhouse.

The section of the power canal that would be bypassed and adjacent riparian areas provide habitat for resident fish and wildlife resources. While the original plans called for dredging this canal section to accommodate project discharges, diversion of all flows would have an adverse impact. We note that you recognize this potential impact, and have proposed to maintain a flow between the intake structure and powerhouse, and to construct a series of weirs to maintain existing water levels in the canal.

Your plans to mitigate potentially adverse impacts resulting from the new powerhouse location appear to be acceptable. However, you should maintain close coordination with us and the New Hampshire Fish and Game Department in determining design criteria for the weirs and in establishing an acceptable instream flow release for the bypassed reach.

If you have any questions or require further assistance, please contact Mr. Gordon Russell of my staff at (603) 224-2585.

Sincerely yours,

Gordon E. Beckett
Supervisor
New England Area

Comparisons

	<u>Project per Application</u>	<u>Reconfigured Project</u>
Reservoir Elevation (Feet MSL)	334.5	340
Net Head (Feet)	25.5	28
Nameplate Capacity (Kw)	3360	4000
Energy Output (Gwh)	12.3	14.5
Hydraulic Capacity (Cfs)	1600	1685
Minimum Flow (Contoocook River)(cfs)		
May-June	400	400
July-April	50	50

ORR AND RENO

PROFESSIONAL ASSOCIATION

ONE EAGLE SQUARE

P. O. BOX 709

CONCORD, NEW HAMPSHIRE 03301-0709

TELEPHONE 603-224-2381

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October 25, 1985

Mr. Ronald Corso
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Room 108 RB
Washington, D.C. 20426

RE: Briar-Hydro Associates Project No. 3240-001

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Attached as Exhibit I is a plan showing the project reconfiguration, designated on the plan as Alternate A. (Under the configuration in Briar-Hydro's application, the powerhouse would have been located at the point labeled "exist dam" on Exhibit I.) Exhibit IV is a table showing how the change affects various project parameters.

Mr. Ronald Corso
October 25, 1985
Page 2

This reconfiguration has been reviewed and approved by appropriate state and federal fish and wildlife agencies who have determined this plan to be more desirable than the original project configuration. Exhibits II and III hereto state the concurrence of New Hampshire Fish and Game Department and U.S. Fish and Wildlife Service with the revised plan. Briar-Hydro will follow the suggestions contained in those letters.

The land upon which we propose to construct the penstock is owned by Briar Pipe Associates, which also owns other land that will be used in connection with the project. James Steenbeke, Jr., managing partner of Briar Pipe Associates, has no objection to the proposed reconfiguration, and thus the new plans do not require the consent of any additional private landowners.

Accordingly, Briar-Hydro Associates requests confirmation that no further authority is required to modify construction plans and specifications of the Rolfe Canal Project and to construct and operate the Project as shown in Exhibit I.

Sincerely yours,

BRIAR-HYDRO ASSOCIATES
By Its Attorney:


Howard M. Moffett

Orr and Reno P.A.
One Eagle Square
P.O. Box 709
Concord, New Hampshire 03301

HMM/jlw
Attachments

STATE OF NEW HAMPSHIRE

CHARLES E. BARRY
EXECUTIVE DIRECTOR



EX. D
FISH AND GAME DEPARTMENT

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

June 7, 1985

Thomas A. Tarpey
27 Albin Street
Concord NH 03301

REF. N.H. Dam #51.94
Briar Hydroelectric Project
Contoocook River
Concord N.H.
FERC No. 3240

Dear Mr. Tarpey:

Thank you for the opportunity to comment on your proposed amendment to FERC license for the Briar Hydroelectric Project on the Contoocook River in Concord, New Hampshire. The New Hampshire Fish and Game Department is providing 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 has determined that the proposed amendment will have less impact on fish and wildlife in that approximately 2200 feet of river channel will not be excavated to accommodate tailrace flows. The Department recommends that in order to protect aquatic habitat in the 2200 foot bypassed reach, existing water levels be maintained and a series of weirs be constructed in the channel to assure that the existing habitat is maintained. During project construction coordination and consultation with fish and wildlife agencies should be continued. All other conditions of the license shall remain in effect.

If you have any questions, please contact Fish and Wildlife Ecologist William Ingham, Jr., at 271-2501.

Sincerely yours,

Charles E. Barry
Executive Director

nkc
cc: Gordon Beckett, Supervisor
New England Area Office
U.S. Fish and Wildlife Service

EX III



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

REF: FERC #3240

JUN 7 1985

Mr. Thomas A. Tarpey, Jr.
27 Albin Street
Concord, New Hampshire 03301

Dear Mr. Tarpey:

We have reviewed the plan to modify the proposed Rolfe Canal Hydroelectric Project, located on the Contoocook River in Merrimack County, New Hampshire. We understand that the modification calls for moving the location of the powerhouse approximately 2,200 feet downstream in the power canal. There would also be a diversion of flows via a penstock from a point above the Briar Pipe dam to the new powerhouse.

The section of the power canal that would be bypassed and adjacent riparian areas provide habitat for resident fish and wildlife resources. While the original plans called for dredging this canal section to accommodate project discharges, diversion of all flows would have an adverse impact. We note that you recognize this potential impact, and have proposed to maintain a flow between the intake structure and powerhouse, and to construct a series of weirs to maintain existing water levels in the canal.

Your plans to mitigate potentially adverse impacts resulting from the new powerhouse location appear to be acceptable. However, you should maintain close coordination with us and the New Hampshire Fish and Game Department in determining design criteria for the weirs and in establishing an acceptable instream flow release for the bypassed reach.

If you have any questions or require further assistance, please contact Mr. Gordon Russell of my staff at (603) 224-2585.

Sincerely yours,

A handwritten signature in cursive script that reads "Gordon E. Beckett".

Gordon E. Beckett
Supervisor
New England Area

Exhibit IV

Comparisons

	<u>Project per Application</u>	<u>Reconfigured Project</u>
Reservoir Elevation (Feet MSL)	334.5	340
Net Head (Feet)	25.5	28
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Minimum Flow (Contoocook River)(cfs)		
May-June	400	400
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STATE OF NEW HAMPSHIRE

FISH AND GAME DEPARTMENT

CHARLES E. BARRY
EXECUTIVE DIRECTOR



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

November 18, 1985

Thomas A. Tarpey, Agent
Briar Hydro Associates
27 Albin Street
Concord NH 03301

REF. N.H. Dam #51.02-.04
Rolfe Canal Hydro Project
Contoocook River
Concord, N.H. 03301
FERC Project No.: 3240

Dear Mr. Tarpey:

Thank you for your letter of November 15 regarding the above referenced hydro project. The NH Fish and Game Department is providing 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.

In your letter you state that the hydraulic capacity of the project is to be increased from 1600 CFS to 2000 CFS; however, all other aspects of the project including the agreed upon minimum flow releases in the Contoocook River and the bypassed section of the old tailrace canal will remain the same.

The Fish and Game Department has determined that the proposed increase in hydraulic capacity will not have a significant impact on the fish and wildlife resources and therefore no additional mitigation will be required.

If you have any questions, you may contact Fisheries and Wildlife Ecologist, William Ingham, Jr. at 271-2501.

Sincerely yours,

Charles E. Barry
Charles E. Barry

Thomas Tarpey
page 2
November 18, 1985

cc: Gordon Beckett, USFWS
Thomas Bigford, NMFS
William Ingham, NHFGD



United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. BOX 1518
CONCORD, NEW HAMPSHIRE 03301

Mr. Thomas A. Tarpey
27 Albin Street
Concord, New Hampshire 03301

NOV 15 1985

Dear Mr. Tarpey:

This is in response to your letter, dated November 15, 1985, regarding design changes at the Rolfe Canal Hydroelectric Project, located on the Contoocook River in Merrimack County, New Hampshire. The following comments are provided in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

You state that the hydraulic capacity is to be increased to 2,000 cfs from 1,600 cfs. All other aspects of the project, including required instream flow releases would remain unchanged.

We do not believe that the increase in capacity will have a significant effect on fish and wildlife resources. Consequently, it should not be necessary to modify or provide additional mitigation measures.

If you have any questions or require additional assistance, please contact Mr. Gordon Russell of my staff at (603) 224-2585.

Sincerely yours,

Gordon E. Beckett
Supervisor
New England Area

CC: RO/HR Reading File
NMFS, Gloucester
EPA, Boston
NHFG
Merrimack River Coordinator
ES: GRussell:jd:11-15-85:834-4797