

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
**Department of
Environmental Protection**

William F. Weld
Governor
Tuday Cord
Secretary, DEPA
Thomas B. Powers
Acting Commissioner

December 14, 1994

Cleve Kapala
Director, Hydro Relicensing
New England Power Company
4 Park Street
Concord, MA 03301

Re: Water Quality Certification
Deerfield River Project
FERC Project No. 2323-013

Dear Mr. Kapala:

The Massachusetts Department of Environmental Protection has finalized the water quality certification for the referenced project for which New England Power Company originally applied on December 23, 1991. The Department feels that compliance with the conditions of this certification will assure compliance with the Massachusetts Surface Water Quality Standards (MSWQS: 314 CMR 4.00).

The Department acknowledges that the conditions of the certification will not be accomplished until the issuance of the final license from the Federal Energy Regulatory Commission. The Department reserves the right to modify this certification if the final conditions of the FERC license will not lead to compliance with this certification and the MSWQS.

If you have any questions concerning this certification, please contact me (617-292-5653) or Paul Hogan (508-792-7470) at your convenience.

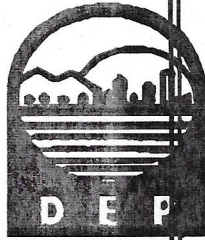
Very truly yours,

PPH

Andrew Gottlieb
Director

Office of Watershed Management

attachment (1)
cc: M. Slade, NEP-Westborough



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401 Water Quality Certification
Applicant: New England Power Company
Deerfield River Hydroelectric Project
DRHP29
Application # 370

Introduction: The Massachusetts Department of Environmental Protection (MADEP) has reviewed the application for a Water Quality Certification (WQC) for the Deerfield River Hydroelectric Project (DRHP) submitted by New England Power Company (NEP) and has determined to issue a water quality certification according to conditions outlined below. A chronology of milestones related to the issuance of this certification include:

- * Water Quality Certification application submitted to the Department by New England Power Company on December 23, 1991
- * an alternative fee and schedule agreement as provided in M.G.L. c.21A s.18 and 310 CMR 4.00 was concluded by MADEP and NEP on April 16, 1992
- * a draft water quality certification was issued to New England Power Company on August 14, 1992
- * New England Power Company withdrew and reapplied for a water quality certification in 1993, 1993 and 1994
- * The offer of settlement was signed by New England Power Company and numerous other groups who participated in the settlement process on October 5, 1994
- * The Massachusetts Office of Attorney General submitted the Commonwealth's recommendations to the Federal Energy Regulatory Commission on October 5, 1994; the recommendations endorsed the terms and conditions of the offer of settlement
- * The Department held a public hearing on the draft certification on October 25, 1994
- * The period for submittal of final comments on the draft certification ended on November 25, 1994.

NEP filed for a new license for the DRHP with the Federal Energy Regulatory Commission (FERC) to continue to generate hydropower at five sites on the Deerfield River in Massachusetts. The application (FERC # 2323) was filed on December 27, 1991 with copies of the application submitted to the Department for review as part of the WQC process. The information contained in the application, subsequent information gathered during the WQC review, and input from numerous entities involved in the license application, particularly the negotiated offer of settlement (signed by New England Power Company and numerous governmental resource agencies and non-governmental conservation organizations on October 5, 1994) were used in making the final WQC determination and its conditions. This certification will outline the regulatory jurisdiction of the WQC and the conditions required for the project.

The Department also received an application for a water quality certification from Western Massachusetts Electric Company (WMEC) for the Gardner Falls Hydroelectric Project located on the Deerfield River. The hydrodynamics of the two projects are linked thus the Department is reviewing the certification conditions of both projects collectively. The Department is issuing a certification for the WMEC project at the same time as for the DRMP.

The Deerfield River is designated under 314 CMR 4.06(3) as a Class B river for its entire length. The river from the Vermont-Massachusetts state line to the confluence with the North River is designated as a cold water fishery while the river from the North River to the confluence with the Connecticut River is designated as a warm water fishery. The Massachusetts Surface Water Quality Standards (314 CMR 4.00) contain minimum criteria for numerous water quality indicators which are required to achieve compliance with the Deerfield River water quality standards designation.

Project Description: NEP generates hydropower at five sites on the Deerfield River in Massachusetts (Sherman Reservoir and Powerhouse: River Mile 42; #5 Dam: River Mile 41.2 and Powerhouse: River Mile 38.5; #4 Dam: River Mile 20.0 and Powerhouse: River Mile 18.5; #3 Dam: River Mile 17.0 and Powerhouse: River Mile 16.8; and #2 Dam and Powerhouse: River Mile 13.2) which are subject to the FERC application #2323 and this WQC. NEP operates the Bear Swamp/Rife Brook hydroelectric project under a separate FERC license which is not subject to re-licensing at this time. The power generation augments peak power generation for the NEP regional electric network. This operation of the Deerfield River Hydroelectric Project creates by-pass reaches below #5, #4, and #3 Dams in the Deerfield River and below the #2 Powerhouse which are subject to episodic low and high flow conditions due to the current nature of the hydroelectricity generation. A by-pass reach can be defined as the river reach from below each dam to the confluence with the tailrace. Minimum flows must be provided within these by-pass reaches in order to maintain a viable biological community as it relates to designated uses as defined in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). These uses include various recreational as well as biological designations of the Deerfield River in concert with the hydroelectric power generation from the Deerfield River Hydroelectric Project sites.

Deerfield River Resource Management: The Massachusetts Division of Fisheries and Wildlife (MADF&W) has developed the Massachusetts Fisheries and Wildlife Management Plan: Deerfield River 1991-2011 (DRMP). This plan calls for the creation of suitable river flow in the by-pass reaches at sites #3, #4 and #5. This certification requires that minimum flows be maintained in the by-pass reaches which are deemed acceptable to the goals of the DRMP. Those flows are the result of stream flow needs determined by the Instream Flow Incremental Methodology (IFIM) studies conducted by NEP and other stream flow analysis such as the Aquatic Base Flow (ABF). Additional information requested as part of the FERC application process by application reviewers was also used to evaluate required stream flows which are part of the conditions of this certification. The MADF&W DRMP calls for the creation of downstream fish passage facilities at #2, #3, and #4 Dams and for the development of an upstream salmon trap below dam #2 to provide for the capture and upstream transport of migrant Atlantic salmon.

Certification Provisions: In accordance with the provisions of MGL Ch. 21, s. 26-28, 314 CMR 4.00, 314 CMR 9.00, and Section 401 of the Federal Clean Water Act (Public Law 92-500 as amended), this Department has determined that the project can be operated to minimize impacts to waters and wetlands and that there is reasonable assurance that the project can be conducted in a manner which will not violate applicable water quality standards, as required by 314 CMR 4.00 and 314 CMR 9.04, and will be in compliance with Sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act. The Department issues this Water Quality Certification relative to this project subject to the following conditions:

A. The project shall be operated in accordance with the provisions included in the FERC application (#2323), any modification made to the application based upon supplemental information, the Offer of Settlement provisions as related to water quality and with the conditions contained in this certification. The operation of the hydrofacilities (including high flow, peaking releases) should not interfere with the attainment of the designated uses of the Deerfield River as outlined in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and the maintenance of an integrated and diverse biological community in the Deerfield River.

B. The release and maintenance of minimum flows at the by-pass reaches and at the powerhouses which are consistent with the goals of the DAMP and the Offer of Settlement. The required flows at the sites are as follows:

1. Location: Below No. 5 Dam
Flow: the lesser of 73 cfs or inflow
Special Condition: inflow will not be less than the 57 cfs guaranteed at Harriman Reservoir in Vermont
2. Location: Below No. 4 Dam
Flow:
October 1 to May 31- the lesser of 100 cfs or inflow
June 1 to September 30- the lesser of 125 cfs or inflow
3. Location: Below No. 3 Dam
Flow: the lesser of 100 cfs or inflow
4. Location: Below No. 2 Dam
Flow: 200 cfs
Special Condition: minimum flow guaranteed from storage

C. This certification requires the following conditions related to fisheries in the Deerfield River:

1. Location: At Dam No. 4
Requirement:
 - a. construction of downstream fish passage facility in accordance with Plan N-64755-P (submitted as part of the FERC application and as modified by comments from United States Fish and Wildlife Service (USFWS) on August 12, 1994) and as agreed to in the Offer of Settlement
 - b. facility operational within two construction seasons after issuance of the new FERC license
2. Location: At Dam No. 3
Requirement:
 - a. construction of downstream fish passage facility in accordance with Plan N-64757-P (submitted as part of the FERC application and as modified by comments from USFWS on August 12, 1994) and as agreed to in the Offer of Settlement
 - b. facility operational within two construction seasons after issuance of the new FERC license
3. Location: At Dam No. 2
Requirements:
 - a. construction of downstream fish passage facility in accordance with Plan N-64758-P (submitted as part of the FERC application and as modified by comments from USFWS on August 12, 1994) and as agreed to in the Offer of Settlement
 - b. downstream passage facility operational within two construction seasons after the issuance of the new FERC license

- c. provide upstream fish passage by implementing an interim trapping program as agreed to in the offer of settlement
 - d. install a permanent upstream trap facility in accordance with plan N-64756 (submitted as part of the PERC application and as modified by comments from USFWS on August 12, 1994) within two construction seasons if trigger numbers (as agreed to in the Offer of Settlement) of returning salmon have been met or implement an alternative system mutually agreeable to NEP, MADFW, and USFWS
- D. Any construction activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act (MGL c.131, s.40).
2. The applicant shall comply with MGL c.91.
- F. All maintenance and repair activities, including disposal of debris and removal of sediments in impounded areas, and construction of fish passage facilities shall be conducted in a manner so as not to impair water quality.
- G. Any recreational facilities and/or recreational uses of the project area shall be planned and conducted in such a manner as to protect and maintain water quality of the Deerfield River. The applicant shall maximize access for recreational uses, including those described in the Comprehensive Recreation Plan referenced in the Offer of Settlement dated October 5, 1994.
- H. The applicant shall continue to provide telephone recorded flow information to support the recreational use of the Deerfield River.
- I. Any modification of the operation of the project which would affect the conditions of this certification must be approved by this Department.
- J. This Department reserves the right to review, and modify if necessary, the conditions of this certification if the State of Vermont Water Quality Certification (or future changes therein) results in non-compliance with this certification.
- K. This Department may request, at any time during which this certification is in effect, that the Federal Energy Regulatory Commission reopen the license to make modifications necessary to maintain compliance with the Massachusetts Surface Water Quality Standards.

Compliance: should any violation of the Massachusetts Surface Water Quality Standards (314 CMR 4.00) or the terms of this certification occur as a result of the proposed activity, this Department will direct that the violation be corrected. Non-compliance on the part of New England Power Company will be cause for this Department to recommend the revocation of the permit(s) and/or certification issued therefor or to take such other action as is authorized by the General Laws of the Commonwealth. Substantial civil and criminal penalties are authorized under MGL Ch. 21, section 42 for discharging into Massachusetts waters in violation of an order or permit issued by this Department. This certification does not relieve New England Power Company of the duty to comply with other applicable Massachusetts statutes and regulations.

Dated: December 14, 1994

Signed: 

Andrew Gottlieb, Director
Office of Watershed Management
Boston, MA