

Project No. 2334-001--

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Elizabeth Anne Moler, Chair;  
Vicky A. Bailey, James J. Hoecker,  
William L. Massey, and Donald F. Santa, Jr.

Western Massachusetts Electric Company ) Project No. 2334-001  
Company

ORDER ISSUING NEW LICENSE

(Issued April 4, 1997)

Western Massachusetts Electric Company (WMEC), a wholly-owned subsidiary of Northeast Utilities Service Company (Northeast Utilities), filed an application pursuant to Sections 4(e) and 15 of the Federal Power Act (FPA) <sup>/16 U.S.C. §§ 797(e), 808.</sup> for a new license authorizing the continued operation and maintenance of the 3.58-megawatt (MW) Gardners Falls Project, located on the Deerfield River, a navigable waterway of the United States, in Franklin County, Massachusetts. <sup>/</sup>

The Commission issued the original license for the Gardners Falls Project on July 15, 1964. <sup>/32 FPC 129 (1964).</sup> That license expired on December 31, 1993, and since then WMEC has operated the project pursuant to successive annual licenses pending the disposition of its application for a new license. For the reasons discussed below, we will issue a new license to WMEC for the Gardners Falls Project.

I. BACKGROUND

Notice of the application has been published. Motions to

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<sup>/16 U.S.C. §§ 797(e), 808.</sup>

<sup>/</sup> See New England Power Company, 30 FPC 1120 (1963).

<sup>/32 FPC 129 (1964).</sup>

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intervene were filed by the Deerfield River Watershed Association, the Deerfield River Compact, the United States Environmental Protection Agency, the United States Department of the Interior (Interior), the Commonwealth of Massachusetts (Massachusetts), and North American Whitewater Expeditions. A motion to intervene in opposition to relicensing was filed by

Trout Unlimited. /Trout Unlimited does not ask for any specific relief associated with denial of WMEC's relicense application.

The Commission's staff issued a Draft Environmental Impact Statement (EIS) for Gardners Falls and two other projects in the

~~Those projects are New England Power Company's Deerfield River Project No. 2323 and Bear Swamp Project No. 2669.~~  
Deerfield River Basin on March 8, 1996.

Numerous

comments on

the draft EIS were filed, and the Commission's staff considered these comments in preparing the final EIS, which was issued on August 23, 1996, and is incorporated by reference in this order. The staff also prepared a Safety and Design Assessment, which is available in the Commission's public file for this project.

## II. PROJECT DESCRIPTION

The Gardners Falls Project is located on the Deerfield River between the Deerfield No. 2 and Deerfield No. 3 developments of New England Power Company's Deerfield River Project No. 2323. Flows to the project are regulated by releases from the Deerfield No. 3 development, located about one mile upstream, and may vary considerably. Water is released from the Gardners Falls powerhouse directly into the Deerfield No. 2 impoundment.

The existing project consists of a dam, an impoundment with a surface area of 21 acres, a powerhouse containing four turbine-generator units with a total installed capacity of 3.58 MW, and appurtenant facilities. A more detailed description of the project is set forth in ordering paragraph B(2). WMEC proposes no new capacity and no new construction.

## III. APPLICANT'S PLANS AND CAPABILITIES

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/Trout Unlimited does not ask for any specific relief associated with denial of WMEC's relicense application.

/Those projects are New England Power Company's Deerfield River Project No. 2323 and Bear Swamp Project No. 2669.

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In accordance with Sections 10(a)(2)(C) and 15(a) of the FPA,<sup>16</sup> U.S.C. §§ 803(a)(2)(C) and 808(a), we have evaluated WMEC's record as a licensee with respect to the following areas: (A) consumption improvement program; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public.

A. Consumption Improvement Program

Appendix J of WMEC's application for the new license contains a copy of the 1990 WMEC Annual Conservation and Load Management (C&LM) Report, outlining the content of WMEC's C&LM programs. The Massachusetts Department of Public Utilities (DPU) requires WMEC to file to conservation and load-management programs with the Department annually for approval. WMEC has complied with this requirement since its existence in 1990. All programs comply with the directives set forth by the DPU. We conclude that WMEC has in place an adequate electricity consumption improvement program.

B. Compliance History and Ability to Comply with the New License

We have reviewed WMEC's compliance with the terms and conditions of the existing license. WMEC's overall record of making timely filings and compliance with its license is satisfactory. Therefore, we believe WMEC can satisfy the conditions of a new license and of orders issued thereunder.

C. Safe Management, Operation and Maintenance of the Project

WMEC owns and operates the Gardners Falls Project. The project dam and appurtenant facilities are subject to Part 12 of the Commission's regulations, concerning project safety. We have reviewed WMEC's management, operation, and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements, such as warning signs and boat barriers.

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<sup>16</sup>U.S.C. §§ 803(a)(2)(C) and 808(a).

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The emergency action plan, and the independent consultant's safety inspection report. We conclude that the project is being safely managed, operated, and maintained.

D. Ability to Provide Efficient and Reliable Service

Coordination and management of generation dispatch of all the Deerfield River hydroelectric facilities (including the Gardners Falls Project) is performed by the New England Power Exchange (NEPEX). NEPEX is a region-wide electricity coordinating body which dispatches regional facilities in the manner that will provide regional consumers with the lowest-cost capacity and energy. We conclude that WMEC's plans and abilities are adequate to operate and maintain the project in a manner that will continue to provide efficient and reliable electric service.

E. Need for Power

The Gardners Falls Project is located in the New England Power Pool (NEPOOL) Sub-Region of the Northeast Power Coordinating Council (NPCC). NPCC annually forecasts electrical supply and demand in the nation and in the region for a ten-year period. These reports are mandated by the United States Department of Energy (DOE) and are referred to as DOE Form OE-411 Reports.

NPCC's 1995 OE-411 Report forecasts a continued demand growth rate during the ten-year period in the NEPOOL area and little or no net resource additions, resulting in decreased reserve margins. The Gardners Fall Project, which generates about 14.0 gigawatt-hours annually, is included in this forecast as part of the existing resource mix. The electricity generated from the project would benefit the region by providing a portion of the needed regional power.

We conclude that present and future use of the project's power, its displacement of non-renewable fossil-fired generation, and its contribution to a diversified generation mix support a finding that the power from the Gardners Falls Project will help meet a need for power in the NEPOOL area in the short and long terms.

F. Transmission Services

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The existing transmission services consist of a line extending from the project site to WMEC's Montague substation, which is part of the Northeast Utilities' transmission system.

#### G. Cost Effectiveness of Plans

WMEC has no plans for additional facilities or project modifications, other than recreational and environmental enhancements. We conclude that the project, as presently configured and as operated according to this order consistent with environmental considerations, fully develops the economical hydropower potential of the site in a cost-effective manner.

#### H. Actions Affecting the Public

The environmental enhancement measures included in this license will result in beneficial changes to the environmental quality of the project area, including aquatic resources, and to public recreation. These measures are discussed below.

### IV. WATERQUALITY CERTIFICATION

Under Section 401(a)(1) of the Clean Water Act (CWA),<sup>33 U.S.C. § 1341(a)(1)</sup> an applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters must obtain from the state in which the discharge originates certification that any such discharge will comply with applicable water quality standards. The Commission may therefore not issue a license for a hydropower project unless the relevant state agency either has issued a water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year.<sup>1</sup>

The Massachusetts Department of Environmental Protection, on December 14, 1994, issued a Section 401 certification for Gardners Falls Project located in Massachusetts.<sup>1</sup> The

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<sup>1</sup>33 U.S.C. § 1341(a)(1).

<sup>1</sup> Id.

<sup>1</sup> See Appendix A to this order.

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certification contains ten conditions, labeled A to J. All the certification conditions are included in the new license, except for those discussed next, which we conclude are beyond the scope of CWA Section 401.

Condition H of the certification provides that any modification of project operation that would affect the state's certification conditions must be approved by Massachusetts, and Condition J reserves Massachusetts' right to review, and modify if necessary, its certification conditions if the Vermont certification for the Vermont developments of Project No. 2323 results in non-compliance with the Massachusetts certification. These conditions in effect give Massachusetts the opportunity to revisit its certification. Section 401(a)(3) of the CWA sets out the exclusive manner in which state certifications may be modified and makes clear that the process is to be initiated by the federal licensing agency, not the state.<sup>1</sup> Thus, the Commission determines whether proposed license amendments require

~~The Commission's regulations, 18 C.F.R. § 4.38(7)(iii), provide that, if an applicant seeks to amend its application or license, it must make a new request for water quality certification if the amendment would have a material adverse impact on the discharge from the project.~~

Conditions H and J are therefore beyond the scope of Massachusetts' authority under Section 401 and will not be included in the license.

## V. SECTION 18 FISHWAY PRESCRIPTIONS

Section 18 of the FPA<sup>16</sup> U.S.C. § 811. provides that the Commission shall require construction, operation and maintenance by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. Interior, on October 5, 1994, submitted its Section 18 fishway

<sup>1</sup> See, e.g., Great Northern Paper, Inc., 77 FERC ¶ 61,068 at pp. 61,271-73 (1996).

~~The Commission's regulations, 18 C.F.R. § 4.38(7)(iii), provide that, if an applicant seeks to amend its application or license, it must make a new request for water quality certification if the amendment would have a material adverse impact on the discharge from the project.~~

<sup>16</sup> U.S.C. § 811.

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prescription, requiring construction of a permanent downstream fishway at the project. Interior further requests reservation of its authority to prescribe fishways.

A valid Section 18 prescription should mandate a specific physical structure, facility, or device for fish passage, or measures related to such structures. Interior's purported prescription includes conditions that are beyond the scope of its authority under FPA Section 18. Interior discussed the licensee's proposal to install a louver system with bypass at the project but did not adopt the proposal as its own. Interior did not specify the exact type of downstream fish passage facility to be installed at the project. Interior would require WMEC to provide functional design drawings for Interior's approval four months from the issuance date of the license and final designs within two years after issuing the license. The Commission, however, retains final authority to approve all project

structures, including fishways. <sup>/Lynchburg Hydro Associates, 39 FERC ¶ 61,079 (1987).</sup> Interior would require that

the facility be constructed and operational within two years of the issuance of the license. Only the Commission, however, has the authority to control the timing of activities under a Commission-issued license. We conclude that in these respects Interior's October 5, 1994 submission is not a valid Section 18 prescription. We will, however, follow the recommendations of the EIS, and require, in Article 403, that the licensee submit a plan to the Commission for the construction of downstream fish passage facilities at the project.

We recognize that future fish passage needs cannot always be determined at the time of project licensing. The Commission's practice has been to include a license article that reserves the Secretary's authority to prescribe facilities for fish

passage. <sup>/The Commission has specifically sanctioned the reservation of fishway prescription authority at relicensing.</sup> Therefore, Article 405 reserves the Commission's authority to require fishways that the Secretary of the Interior

<sup>/Lynchburg Hydro Associates, 39 FERC ¶ 61,079 (1987).</sup>

<sup>/The Commission has specifically sanctioned the reservation of fishway prescription authority</sup>

See

Wisconsin Public Service Corporation, 62 FERC ¶ 61,095 (1993), aff'd, Wisconsin Public Service Corporation v. FERC, 32 F.3d 1165 (7th Cir. 1994).

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may prescribe in the future.

## VI. RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES AND THE SECTION 10(J) PROCESS

Section 10(j)(1) of the FPA <sup>/16 U.S.C. § 803(j)(1).</sup> requires the Commission, when issuing a license, to include license conditions, based on recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, to “adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)” affected by the project.

By letter of October 5, 1994, Massachusetts, on behalf of its Department of Environmental Management, Department of Environmental Protection, and Division of Fisheries and Wildlife and Environmental Law Enforcement, submitted Section 10(j) recommendations concerning minimum flows and downstream fish passage. Interior’s October 5, 1994 filing submitted recommendations pursuant to Section 10(j) concerning minimum flows and monitoring the effectiveness of the downstream fish passage facilities. The license contains conditions consistent with those recommendations.

## VII. OTHER AGENCY RECOMMENDATIONS

Massachusetts’ and Interior’s letters of October 5, 1994, included recommendations pursuant to Section 10(a) of the

FPA. <sup>/16 U.S.C. § 803(a).</sup> Massachusetts and Interior both recommend that WMEC be required to establish an environmental enhancement fund in the amount of \$50,000, to finance future watershed conservation, and the development and maintenance of low impact recreational and educational projects and facilities in the Deerfield River Basin. The agencies propose that the fund be operated and administered similarly to the enhancement fund proposed by New England Power

The Environmental Enhancement Fund proposed in the Offer of Settlement in the relicensing proceeding for New England Power’s Deerfield River Project No. 2323 provides for expenditures by the licensee in addition to its obligations to provide specific recreational and fish

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<sup>/16 U.S.C. § 803(j)(1).</sup>

<sup>/16 U.S.C. § 803(a).</sup>

<sup>/The Environmental Enhancement Fund proposed in the Offer of Settlement in the relicensing proceeding for New England Power’s Deerfield River Project No. 2323 provides for expenditures by the licensee in addition to its obligations to provide specific recreational and fish a</sup>



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and wildlife enhancements for that project.

The recreational and fish and wildlife measures we are requiring of WMEC in the new license will provide sufficient mitigation and enhancement for recreational and fish and wildlife resources affected by the Gardners Falls Project. We determine that Massachusetts and Interior have not demonstrated why WMEC should be required to establish an enhancement fund in addition to the obligations required by the new license. We further note that, unlike New England Power, WMEC neither proposed nor agreed to the establishment of such a fund.

Massachusetts also recommends that WMEC be required to place interpretive signs at all cultural and historic sites throughout the project. The appropriate handling of these matters will be decided through the procedures under the Programmatic Agreement for the Gardners Falls Project implemented in the new license (Article 408).

Finally, Massachusetts recommends that WMEC be required to provide teacher training workshops in area schools, to address the natural resources of the project area. We find that Massachusetts has not shown how this measure relates to resources affected by the project or is an appropriate measure for this project under the FPA.

## VIII. COMPREHENSIVE PLANS

Section 10(a)(2)(A) of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.

Of the comprehensive plans filed with the Commission, the Commission staff identified 18 plans (four Massachusetts plans, ten Vermont plans, and four federal plans) as relevant to the hydroelectric projects on the Deerfield River and reviewed those plans.<sup>1</sup> The Commission staff also reviewed another plan that

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nd wildlife enhancements for that project.

<sup>1</sup>Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (1996).

<sup>1</sup> Massachusetts plans: (1) Deerfield River comprehensive management plan, Franklin County Planning Department, June 1990; (2) Massachusetts outdoors for our common good: open

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addresses resource concerns for the area but is not designated as

/Green Mountain National Forest Land and Resource Management Plan, U.S. Forest Service 1986.  
a Commission-approved comprehensive plan.

The project does

not conflict with any of the comprehensive plans.

## IX. COMPREHENSIVE DEVELOPMENT

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space and outdoor recreation in Massachusetts, Massachusetts Department of Environmental Management, Division of Planning and Development, December 1988; (3) Connecticut River Basin water quality management plan, Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control, June 1983; and (4) Connecticut River Basin fish passage, flow, and habitat alteration considerations in relation to anadromous fish restoration, Technical Committee for Fisheries Management of the Connecticut River, October 1981.

Vermont plans: (1) The waterfalls, cascades, and gorges of Vermont, Jenkins, J. and P. Zika, Vermont Agency of Natural Resources, May 1986; (2) Vermont state comprehensive outdoor recreation plan, 1983-1988, Vermont Agency of Environmental Conservation, June 1983; (3) Vermont Rivers Study, Vermont Agency of Environmental Conservation, 1986; (4) Hydropower in Vermont: an assessment of environmental problems and opportunities, Vermont Agency of Natural Resources, Department of Environmental Conservation, May 1988; (5) Preliminary comprehensive rivers plan for the Deerfield River, Vermont: an inventory of uses, values, and goals, Vermont Agency of Natural Resources, Department of Environmental Conservation, Windham Regional Commission, July 1991; (6) Comprehensive river plan for the Deerfield River watershed, Vermont Department of Environmental Conservation, November 1992; (7) 1988 Vermont recreation plan, Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, 1988; (8) Wetlands component of the 1988 Vermont recreation plan, Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, Wetlands Steering Committee, July 1988; (9) Vermont's lake trout management plan for inland waters, Vermont Agency of Natural Resources, Department of Fish and Wildlife, May and July, 1990; and (10) A strategic plan for the restoration of Atlantic salmon to the Connecticut River

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Sections 4(e) and 10(a)(1) of the FPA <sup>/16 U.S.C. §§ 797(e) and 803(a)(1).</sup> require the

Commission, in acting on applications for license, to give equal consideration to the power and development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The project as proposed by WMEC, and based on current economic conditions without future escalation or inflation, would cost about \$799,000 annually (47.6 mills/Kwh) and would produce about 16.8 Gwh of energy annually having a current value of about \$903,000 (53.8 mills/Kwh) for a current net annual power benefit of about \$104,000 (6.2 mills/Kwh). If licensed with the added requirements of the Massachusetts water quality certification and the new license, the project will produce about 13.8 Gwh of energy annually, at a current net annual loss of about \$66,000.

The EIS recommends a number of measures to protect and enhance environmental resources, which we have adopted and included in the new license. These measures include: minimum flows (Article 401); preparation and implementation of a flow monitoring plan (Article 402); downstream fish passage facilities (Article 403); preparation and implementation of a plan to

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Basin, Policy Committee for Fisheries Management of the Connecticut River, September 1982.

Federal plans: (1) North American waterfowl management plan, U.S. Fish and Wildlife Service, May 1986;

(2) Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, undated; (3) Final environmental impact statement - restoration of Atlantic salmon to New England rivers, Department of the Interior, May 1989; and (4) The Nationwide rivers inventory, National Park Service, January 1982.

/Green Mountain National Forest Land and Resource Management Plan, U.S. Forest Service 1986.

/16 U.S.C. §§ 797(e) and 803(a)(1).

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monitor the effectiveness of the permanent downstream fish passage facilities (Article 404); recreation enhancements (Article 406); and preparation of a recreational use erosion and sediment control plan (Article 407).

Based on our review and evaluation of the existing Gardners Falls Project, the agencies' recommendations, and the alternatives documented in the EIS prepared in this proceeding, we find that the Gardners Falls Project, with our mitigative and enhancement measures, will be best adapted to comprehensive development of the Deerfield River for beneficial public use under Sections 4(e) and 10(a)(1) of the FPA. Although we find that the project would be operated at a loss, ultimately it is WMEC which must decide whether it wishes to continue operating the project.

#### X. LICENSE TERM

Pursuant to Section 15(e) of the FPA,<sup>/16 U.S.C. § 808(e).</sup> relicense terms shall be for a term that the Commission determines to be in the public interest, but not less than 30 years, nor more than 50 years from the date on which the license is issued. Commission policy is to grant 30-year terms for the licenses of projects with little or no redevelopment, new construction, new capacity or environmental mitigative or enhancement measures; 40-year terms for projects with a moderate amount thereof; and 50-year terms for projects with an extensive amount thereof.

This license does not authorize construction of new capacity or project redevelopment. Although the license requires additional expenditures by WMEC for mitigation and enhancement measures, as well as changes in minimum flow releases, we do not believe they warrant a term longer than 30 years. However, concurrently with this order, we are issuing New England Power a new license for a 40-year term for its Deerfield River Project No. 2323. In accordance with the Commission's policy of coordinating the expiration dates of licenses for projects located within the same river basin,<sup>/</sup> we are issuing the new license to WMEC for a 40-year term.

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<sup>/16 U.S.C. § 808(e).</sup>

<sup>/</sup> See 18 C.F.R. § 2.23.

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## XI. SUMMARY

The EIS issued for this project includes background information, analysis of impacts, and support for related license articles. Issuance of this license is a major federal action significantly affecting the quality of the human environment.

The design of this project is consistent with engineering safety standards. The project will be safe if operated and maintained in accordance with the requirements of this license. We provide analysis of related issues in the Safety and Design Assessment prepared for this project.

### The Commission orders:

(A) This license is issued to the Western Massachusetts Electric Company (licensee) for a term of 40 years, effective the first day of the month in which it is issued, to operate and maintain the Gardners Falls Project No. 2334. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of WMEC's interests in those lands, shown by Exhibit G:

#### Exhibit GFERC No. Showing

Sheet 1 of 62334-2008Detail Project Map

Sheet 2 of 62334-2009Detail Project Map

Sheet 3 of 62334-2010Detail Project Map

Sheet 4 of 62334-2011Detail Project Map

Sheet 5 of 62334-2012Detail Project Map

Sheet 6 of 62334-2013Detail Project Map

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(2) Project works consisting of: (1) a concrete gravity dam, 337 feet long with a maximum height of 30 feet at permanent crest elevation 332.79 feet mean sea level (msl) and flashboard elevation 334.79 feet msl, (2) an impoundment 3,200 feet long, with a surface area of 21 acres, 190 acre-feet gross storage, and 37.2 acre-feet usable storage, (3) a brick and concrete powerhouse equipped with four turbine-generator units with total capacity 3.58 MW, (4) a 1300-foot power canal 31 feet wide and 15 feet deep, and (5) a double circuit 13.8 kV transmission line connecting the Gardners Falls project to the Montague substation.

The project works generally described above are more specifically shown and described by the following exhibits that also form a part of the application for license and that are designed and described as:

Exhibit A:

Exhibit A, Section 1.0 entitled TURBINES, Section 2.0 entitled GENERATORS, and Subsection 8.5 entitled TRANSMISSION FACILITIES, filed on December 20, 1991 with the application for license.

Exhibit F: Project Drawings

Exhibit F Drawing FERC No. Description

Sheet 12334-2001 Plan and Sections of Dam and Headgates

Sheet 22334-2002 Elevations and Sections of Dam

Sheet 32334-2003 Plan and Sections of Power Canal

Sheet 42334-2004 Plan of Powerhouse

Sheet 5 2334-2005 Cross Section of Generating Unit 2

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Sheet 62334-2006 Cross Section of  
Generating Units 3 & 4

Sheet 72334-2007 Cross Section of  
Generating Unit 5

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, F and G of the license application are approved and made part of the license.

(D) This license is subject to the articles set forth in Form L-3 (October 1975) entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States" and the following additional articles:

Article 201. The Licensee shall pay the United States an annual charge effective as of the first day of the month in which this license is issued, for the purposes of reimbursing the United States for the Commission's administrative costs, pursuant to Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 3,600 kilowatts.

Article 202. If the Licensee's project was directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license.

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Article 203. Pursuant to Section 10(d) of the FPA, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The Licensee shall set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the Licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The Licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The Licensee shall maintain the amounts established in the project amortization reserved account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly includible in the Licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10 year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 301. Within 90 days of completion of the construction of the facilities authorized by this license, the Licensee shall file with the Commission for approval, the appropriate revised Exhibit F drawings, to show those facilities as-built.

Article 401. The Licensee shall release from Gardners Falls Dam a minimum flow of 150 cubic feet per second (cfs), or inflow to the project reservoir, whichever is less, for the protection and enhancement of fish resources in the bypassed reach of the Deerfield River. The minimum flow shall be comprised of the total flows over the dam and flows through the



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downstream fish passage facility.

This flow may be temporarily modified if required by operating emergencies beyond the control of the Licensee, and for short periods upon agreement between the Licensee and the Massachusetts Division of Fisheries and Wildlife. If the flow is so modified, the Licensee shall notify the Commission as soon as possible, but no later than ten days after each such incident.

Article 402. Within 180 days from the date of issuance of this license, the Licensee shall file with the Commission, for approval, a plan to monitor the flows required in Article 401.

The monitoring plan shall include, but not be limited to: (1) a schedule for installing the monitoring equipment; (2) the proposed location, design, and calibration of the monitoring equipment; (3) the method of flow data collection; (4) methods of maintaining flow records; (5) a schedule for consulting with the appropriate federal and state agencies concerning the results of the monitoring; and (6) filing of the results of agency comments, and the Licensee's response to agency comments, with the Commission.

The Licensee shall prepare the monitoring plan after consultation with the Massachusetts Division of Fisheries and Wildlife and the U.S. Fish and Wildlife Service. The Licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the Licensee shall implement the Minimum Flow Monitoring Plan, including any changes required by the Commission.

If the results of the monitoring indicate that changes in project structures or operations, including alternative flow

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releases, are necessary to protect fishery resources, the Commission reserves the right to direct the Licensee to modify project structures or operations accordingly.

Article 403. Within 120 days from the date of issuance of this license, and before any land-clearing or land-disturbing activities at the project site, the Licensee shall file, for Commission approval, detailed design drawings of the Licensee's proposed downstream fish passage facilities together with a plan and schedule to construct and install the facilities.

The plan shall include quantification of flows required to operate the proposed facility, an operation and maintenance schedule, measures to control erosion and sedimentation during project construction, and a construction schedule for installation of the fish passage facilities, with a target date that the facilities be operational within two years from the date of issuance of this license. Once constructed, the Licensee shall operate the downstream fish passage facilities from April 1 through June 15 and from September 15 to November 15 each year. The Licensee shall provide as-built drawings to the U.S. Fish and Wildlife Service within 30 days from the completion of construction of the downstream fish passage facilities.

The Licensee shall prepare the aforementioned drawings and schedule after consultation with the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall include with the drawings documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the Licensee's facilities. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings and schedule with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. Upon Commission approval, the Licensee shall implement the downstream fishways plan and schedule, including any changes required by the Commission.

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Article 404. Within one year from the date of issuance of this license, the Licensee shall file with the Commission, for approval, a plan to monitor the effectiveness of the permanent downstream fish passage facilities required by Article 403 and associated operational flows at the facility to safely and efficiently pass Atlantic salmon smolts down the Deerfield River past the Gardners Falls Project. The Licensee shall also provide this monitoring plan to the Massachusetts Division of Fisheries and Wildlife within one year from the date of issuance of this license.

The plan shall include provisions for: (1) facility oversight and personnel commitments; and (2) back-up equipment and supplies that would be maintained to ensure efficient and consistent operation of the facilities. The monitoring plan shall also include a schedule for: (1) implementing the plan; (2) consulting with appropriate federal and state agencies concerning the results of the monitoring; (3) assessing the effectiveness of the bypassed facilities to reduce fish injury and mortality; and (4) filing the results, agency comments, and Licensee's responses to agency comments with the Commission.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the monitoring plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The monitoring program shall not begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 405. Authority is reserved to the Commission to require the Licensee to construct, operate, and maintain, or to

Project No. 2334-001--

provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior.

Article 406. Within one year of license issuance, the Licensee shall file with the Commission, for approval, a Recreation Plan describing existing recreation facilities, evaluating whether the existing recreation facilities are meeting public recreation needs, and proposing specific recreation improvements to address the need for new public recreation facilities and improvements at the project. The Recreation Plan shall provide for implementing specific new recreation facilities and improvements as already agreed to by the Licensee in consultation with federal and state fish and wildlife agencies. These specific agreed-upon recreation facilities and improvements are described below.

The Licensee shall prepare the Recreation Plan in consultation with the National Park Service, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Massachusetts Department of Environmental Management, and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall make the Recreation Plan available to consulting entities for comment at least 30 days prior to filing the Recreation Plan with the Commission for approval. The Licensee's documentation of consultation shall include copies of the consulted entities' comments and recommendations on the completed plan and a discussion of how the entities' comments are specifically accommodated by the Recreation Plan. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Recreation Plan filed pursuant to this article shall provide for implementing the recreational facilities and improvements described in WMEC's Gardners Falls Project recreation plan, filed on December 23, 1991, and supplemented on December 11, 1992, including: (1) providing an impoundment boat launch; (2) improving the Gardners Falls Picnic Area, the Gardners Falls Nature Trail, and the Powerhouse Access Area; (3) improving the Wilcox Hollow Access Area by paving the access road entrance, improving the access road, expanding parking; and providing directional signs, trash barrels, restroom facilities, and a carry-in boat launch.

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The Commission reserves the right to require changes to the Recreation Plan. No land-disturbing or land-clearing activities for recreation facilities shall begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Within six months from the completion of these facilities, the Licensee shall file with the Commission, for approval, the as-built drawings, which shall include the identity of the entity responsible for operation and maintenance of the facilities.

Article 407. Within 180 days after the license is issued, the Licensee shall file with the Commission, for approval, a Recreational Use Erosion and Sediment Control Plan.

The plan shall include provisions for: (1) designing and implementing appropriate erosion and sediment control measures and measures for revegetation for land-clearances and ground-disturbances associated with improvement and construction of any new recreational facilities not covered by this licensing action; and (2) regularly-scheduled monitoring and maintenance for all recreational use areas at the Gardners Falls Project for the purpose of identifying and implementing appropriate and timely measures to control and remedy erosion, sediment, and reservoir and river bank problems which may develop over time as a result of recreational use at the project.

The Licensee shall prepare the plan after consultation with the National Park Service, the U.S. Fish and Wildlife Service, the Massachusetts Department of Environmental Management, and the Natural Resources Conservation Service. The Licensee shall include with the plan, documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comments and make recommendations before filing the plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the

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plan. Upon Commission approval, the Licensee shall implement the Recreation Use Erosion and Sediment Control Plan, including any changes required by the Commission.

Article 408. The Licensee shall implement the "Programmatic Agreement among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the Massachusetts State Historic Preservation Officer, for Managing Historic Properties that May Be Affected by a License Issuing to the Western Massachusetts Electric Company for the Continued Operation of the Gardners Falls Hydroelectric Power Project in Massachusetts," executed on September 4, 1996, including the Cultural Resources Management Plan for the project. In the event that the Programmatic Agreement is terminated, the Licensee shall implement the provisions of its approved Cultural Resources Management Plan. The Commission reserves the authority to require changes to the Cultural Resources Management Plan at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the Cultural Resources Management Plan, then the Licensee shall obtain Commission approval before engaging in any ground-disturbing activities or taking any other action that may affect any cultural properties within the project's area of potential effect.

Article 409. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance

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made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where

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all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kilovolts or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the Licensee shall so inform the Commission and the Regional Director in writing no later than January 31 of each year.

(d) The Licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

- (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;
- (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;
- (3) other pipelines that cross project lands or waters but do not discharge into project waters;
- (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;
- (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;
- (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and
- (7) other uses, if:
  - (i) the amount of land conveyed for a particular use is five acres or less;
  - (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and
  - (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying



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any interest in project lands under this paragraph (d), the Licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the Massachusetts State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational,

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and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the Licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(E) This license is subject to the conditions submitted by the Massachusetts Department of Environmental Protection under Section 401 of the Clean Water Act, as those conditions are set forth in Appendix A to this order, except Conditions H and J.

(F) The Licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is final unless a request for rehearing is filed within 30 days of the date of its issuance, as provided in Section 313 of the Federal Power Act. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file a request for rehearing shall constitute acceptance of this license.

Project No. 2334-001--

By the Commission.

( S E A L )

Lois D. Cashell,  
Secretary.

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## APPENDIX A

### WATERQUALITY CERTIFICATION CONDITIONS

In accordance with the provisions of MGL Ch. 21, s.26-53, 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 for this project subject to the following conditions:

- A. The project shall be operated in accordance with the conditions contained in this certification and the provisions included in the FERC application (#2334) and any modifications made thereto, to the extent such application provisions and modifications are consistent with this water quality certification. The operation of the hydrofacility (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 reach and at the powerhouse which are consistent with the goals of the DRFMP. The required flow at the site is as follows:

1. Location: Below Gardners Falls Dam

Flow: 150 cubic feet per second (cfs) continuous minimum or inflow from New England Power Company #3 project if such inflow is lower than 150 cfs; minimum flow is comprised of the total flow through the fish passage unit (attraction and transport flows) and flow over the dam

Condition: flow into the by-pass reach should be maintained at 150 cfs during high flow conditions if operationally possible

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

1. Location: At Gardners Falls Dam

Requirements:

- a. construction of a louver system (or other bypass system approved by MADF&W and United States Fish and Wildlife Service (USFWS)) for downstream salmon smolt passage
- b. facility operational within two construction seasons after issuance of the new FERC license
- c. flows necessary to operate the facility should be provided during the periods of downstream migration (April 1 to June 15 and September 15 to November 15); these flow periods can be modified by this Department if additional information regarding the period of migration warrants such change
- d. plans to evaluate the effectiveness of the facility should be submitted by WMECO to MADF&W within one year of the issuance of the FERC license

D. Any construction activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act (MGL c.131, s.40).

E. 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 presented in the FERC application and conducted to protect and maintain water quality of the Deerfield River. The applicant shall enhance access for recreational uses according to the recreation plan submitted as part of the FERC application. Recreational access must comply with applicable state and federal regulations.

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H. Any modification of the operation of the project which would affect the conditions of this certification must be approved by this Department.

I. 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.

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.

UNITED STATES OF AMERICA 79 FERC •61,007  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Elizabeth Anne Moler, Chair;  
Vicky A. Bailey, James J. Hoecker,  
William L. Massey, and Donald F. Santa, Jr.

Western Massachusetts Electric ) Project No. 2334-001  
Company

ORDER ISSUING NEW LICENSE

(Issued April 4, 1997)

Western Massachusetts Electric Company (WMEC), a wholly-owned subsidiary of Northeast Utilities Service Company (Northeast Utilities), filed an application pursuant to Sections 4(e) and 15 of the Federal Power Act (FPA) 1/ for a new license authorizing the continued operation and maintenance of the 3.58-megawatt (MW) Gardners Falls Project, located on the Deerfield River, a navigable waterway of the United States, in Franklin County, Massachusetts. 2/

The Commission issued the original license for the Gardners Falls Project on July 15, 1964. 3/ That license expired on December 31, 1993, and since then WMEC has operated the project pursuant to successive annual licenses pending the disposition of its application for a new license. For the reasons discussed below, we will issue a new license to WMEC for the Gardners Falls Project.

I. BACKGROUND

Notice of the application has been published. Motions to intervene were filed by the Deerfield River Watershed Association, the Deerfield River Compact, the United States Environmental Protection Agency, the United States Department of the Interior (Interior), the Commonwealth of Massachusetts (Massachusetts), and North American Whitewater Expeditions. A

/ 16 U.S.C. •• 797(e), 808.

/ See New England Power Company, 30 FPC 1120 (1963).

/ 32 FPC 129 (1964).

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motion to intervene in opposition to relicensing was filed by Trout Unlimited. 4/

The Commission s staff issued a Draft Environmental Impact Statement (EIS) for Gardners Falls and two other projects in the Deerfield River Basin on March 8, 1996. 5/ Numerous comments on the draft EIS were filed, and the Commission s staff considered these comments in preparing the final EIS, which was issued on August 23, 1996, and is incorporated by reference in this order. The staff also prepared a Safety and Design Assessment, which is available in the Commission s public file for this project.

## II. PROJECT DESCRIPTION

The Gardners Falls Project is located on the Deerfield River between the Deerfield No. 2 and Deerfield No. 3 developments of New England Power Company s Deerfield River Project No. 2323. Flows to the project are regulated by releases from the Deerfield No. 3 development, located about one mile upstream, and may vary considerably. Water is released from the Gardners Falls powerhouse directly into the Deerfield No. 2 impoundment.

The existing project consists of a dam, an impoundment with a surface area of 21 acres, a powerhouse containing four turbine-generator units with a total installed capacity of 3.58 MW, and appurtenant facilities. A more detailed description of the project is set forth in ordering paragraph B(2). WMEC proposes no new capacity and no new construction.

## III. APPLICANT S PLANS AND CAPABILITIES

In accordance with Sections 10(a)(2)(C) and 15(a) of the FPA, 6/ we have evaluated WMEC s record as a licensee with respect to the following areas: (A) consumption improvement program; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public.

/ Trout Unlimited does not ask for any specific relief associated with denial of WMEC s relicense application.

/ Those projects are New England Power Company s Deerfield River Project No. 2323 and Bear Swamp Project No. 2669.

/ 16 U.S.C. •• 803(a)(2)(C) and 808(a).



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**A. Consumption Improvement Program**

Appendix J of WMEC's application for the new license contains a copy of the 1990 WMEC Annual Conservation and Load Management (C&LM) Report, outlining the content of WMEC's C&LM programs. The Massachusetts Department of Public Utilities (DPU) requires WMEC to file to conservation and load-management programs with the Department annually for approval. WMEC has complied with this requirement since its existence in 1990. All programs comply with the directives set forth by the DPU. We conclude that WMEC has in place an adequate electricity consumption improvement program.

**B. Compliance History and Ability to Comply with the New License**

We have reviewed WMEC's compliance with the terms and conditions of the existing license. WMEC's overall record of making timely filings and compliance with its license is satisfactory. Therefore, we believe WMEC can satisfy the conditions of a new license and of orders issued thereunder.

**C. Safe Management, Operation and Maintenance of the Project**

WMEC owns and operates the Gardners Falls Project. The project dam and appurtenant facilities are subject to Part 12 of the Commission's regulations, concerning project safety. We have reviewed WMEC's management, operation, and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements, such as warning signs and boat barriers. The emergency action plan, and the independent consultant's safety inspection report. We conclude that the project is being safely managed, operated, and maintained.

**D. Ability to Provide Efficient and Reliable Service**

Coordination and management of generation dispatch of all the Deerfield River hydroelectric facilities (including the Gardners Falls Project) is performed by the New England Power Exchange (NEPEX). NEPEX is a region-wide electricity coordinating body which dispatches regional facilities in the manner that will provide regional consumers with the lowest-cost capacity and energy. We conclude that WMEC's plans and abilities are adequate to operate and maintain the project in a manner that will continue to provide efficient and reliable electric service.

**E. Need for Power**

The Gardners Falls Project is located in the New England Power Pool (NEPOOL) Sub-Region of the Northeast Power Coordinating Council (NPCC). NPCC annually forecasts electrical

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supply and demand in the nation and in the region for a ten-year period. These reports are mandated by the United States Department of Energy (DOE) and are referred to as DOE Form OE-411 Reports.

NPCC's 1995 OE-411 Report forecasts a continued demand growth rate during the ten-year period in the NEPOOL area and little or no net resource additions, resulting in decreased reserve margins. The Gardners Fall Project, which generates about 14.0 gigawatt-hours annually, is included in this forecast as part of the existing resource mix. The electricity generated from the project would benefit the region by providing a portion of the needed regional power.

We conclude that present and future use of the project's power, its displacement of non-renewable fossil-fired generation, and its contribution to a diversified generation mix support a finding that the power from the Gardners Falls Project will help meet a need for power in the NEPOOL area in the short and long terms.

#### F. Transmission Services

The existing transmission services consist of a line extending from the project site to WMEC's Montague substation, which is part of the Northeast Utilities transmission system.

#### G. Cost Effectiveness of Plans

WMEC has no plans for additional facilities or project modifications, other than recreational and environmental enhancements. We conclude that the project, as presently configured and as operated according to this order consistent with environmental considerations, fully develops the economical hydropower potential of the site in a cost-effective manner.

#### H. Actions Affecting the Public

The environmental enhancement measures included in this license will result in beneficial changes to the environmental quality of the project area, including aquatic resources, and to public recreation. These measures are discussed below.

### IV. WATER QUALITY CERTIFICATION

Under Section 401(a)(1) of the Clean Water Act (CWA), 7/ an applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters must

/ 33 U.S.C. • 1341(a)(1).

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obtain from the state in which the discharge originates certification that any such discharge will comply with applicable water quality standards. The Commission may therefore not issue a license for a hydropower project unless the relevant state agency either has issued a water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. 8/

The Massachusetts Department of Environmental Protection, on December 14, 1994, issued a Section 401 certification for Gardners Falls Project located in Massachusetts. 9/ The certification contains ten conditions, labeled A to J. All the certification conditions are included in the new license, except for those discussed next, which we conclude are beyond the scope of CWA Section 401.

Condition H of the certification provides that any modification of project operation that would affect the state s certification conditions must be approved by Massachusetts, and Condition J reserves Massachusetts right to review, and modify if necessary, its certification conditions if the Vermont certification for the Vermont developments of Project No. 2323 results in non-compliance with the Massachusetts certification. These conditions in effect give Massachusetts the opportunity to revisit its certification. Section 401(a)(3) of the CWA sets out the exclusive manner in which state certifications may be modified and makes clear that the process is to be initiated by the federal licensing agency, not the state. 10/ Thus, the Commission determines whether proposed license amendments require new water quality certification. 11/ Conditions H and J are therefore beyond the scope of Massachusetts authority under Section 401 and will not be included in the license.

/ Id.

/ See Appendix A to this order.

/ See, e.g., Great Northern Paper, Inc., 77 FERC • 61,068 at pp. 61,271-73 (1996).

/ The Commission s regulations, 18 C.F.R. • 4.38(7)(iii), provide that, if an applicant seeks to amend its application or license, it must make a new request for water quality certification if the amendment would have a material adverse impact on the discharge from the project.

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## V. SECTION 18 FISHWAY PRESCRIPTIONS

Section 18 of the FPA 12/ provides that the Commission shall require construction, operation and maintenance by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. Interior, on October 5, 1994, submitted its Section 18 fishway prescription, requiring construction of a permanent downstream fishway at the project. Interior further requests reservation of its authority to prescribe fishways.

A valid Section 18 prescription should mandate a specific physical structure, facility, or device for fish passage, or measures related to such structures. Interior's purported prescription includes conditions that are beyond the scope of its authority under FPA Section 18. Interior discussed the licensee's proposal to install a louver system with bypass at the project but did not adopt the proposal as its own. Interior did not specify the exact type of downstream fish passage facility to be installed at the project. Interior would require WMEC to provide functional design drawings for Interior's approval four months from the issuance date of the license and final designs within two years after issuing the license. The Commission, however, retains final authority to approve all project structures, including fishways. 13/ Interior would require that the facility be constructed and operational within two years of the issuance of the license. Only the Commission, however, has the authority to control the timing of activities under a Commission-issued license. We conclude that in these respects Interior's October 5, 1994 submission is not a valid Section 18 prescription. We will, however, follow the recommendations of the EIS, and require, in Article 403, that the licensee submit a plan to the Commission for the construction of downstream fish passage facilities at the project.

We recognize that future fish passage needs cannot always be determined at the time of project licensing. The Commission's practice has been to include a license article that reserves the Secretary's authority to prescribe facilities for fish passage. 14/ Therefore, Article 405 reserves the Commission's

/ 16 U.S.C. • 811.

/ Lynchburg Hydro Associates, 39 FERC • 61,079 (1987).

/ The Commission has specifically sanctioned the reservation of fishway prescription authority at relicensing. See

Wisconsin Public Service Corporation, 62 FERC • 61,095  
(continued...)

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authority to require fishways that the Secretary of the Interior may prescribe in the future.

WILDLIFE

VI. RECOMMENDATIONS OF FEDERAL AND STATE FISH AND AGENCIES AND THE SECTION 10(J) PROCESS

Commission, on agencies Act, to grounds

Section 10(j)(1) of the FPA 15/ requires the when issuing a license, to include license conditions, based on recommendations of federal and state fish and wildlife submitted pursuant to the Fish and Wildlife Coordination Act, to adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning and habitat) affected by the project.

behalf of Wildlife

By letter of October 5, 1994, Massachusetts, on its Department of Environmental Management, Department of Environmental Protection, and Division of Fisheries and and Environmental Law Enforcement, submitted Section 10(j) recommendations concerning minimum flows and downstream fish passage. Interior s October 5, 1994 filing submitted recommendations pursuant to Section 10(j) concerning minimum flows and monitoring the effectiveness of the downstream passage facilities. The license contains conditions with those recommendations.

fish consistent

VII. OTHER AGENCY RECOMMENDATIONS

1994,

Massachusetts and Interior s letters of October 5, included recommendations pursuant to Section 10(a) of the FPA. 16/ Massachusetts and Interior both recommend that required to establish an environmental enhancement fund in amount of \$50,000, to finance future watershed conservation, the development and maintenance of low impact recreational educational projects and facilities in the Deerfield River Basin. The agencies propose that the fund be operated and administered similarly to the enhancement fund proposed by New England Power for its Deerfield River Project No. 2323. 17/

WMEC be the and and Basin. administered Power

(...continued) (1993), aff d, Wisconsin Public Service Corporation v. FERC, 32 F.3d 1165 (7th Cir. 1994). / 16 U.S.C. • 803(j)(1). / 16 U.S.C. • 803(a). / The Environmental Enhancement Fund proposed in the Offer of Settlement in the relicensing proceeding for New England Power s Deerfield River Project No. 2323 provides for (continued...)

wildlife  
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The recreational and fish and wildlife measures we are requiring of WMEC in the new license will provide sufficient mitigation and enhancement for recreational and fish and resources affected by the Gardners Falls Project. We that Massachusetts and Interior have not demonstrated why should be required to establish an enhancement fund in addition to the obligations required by the new license. We further note that, unlike New England Power, WMEC neither proposed nor agreed to the establishment of such a fund.

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Massachusetts also recommends that WMEC be required to place interpretive signs at all cultural and historic sites throughout the project. The appropriate handling of these matters will be decided through the procedures under the Programmatic Agreement for the Gardners Falls Project implemented in the new license (Article 408).

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Finally, Massachusetts recommends that WMEC be required to provide teacher training workshops in area schools, to address the natural resources of the project area. We find that Massachusetts has not shown how this measure relates to resources affected by the project or is an appropriate measure for this project under the FPA.

VIII. COMPREHENSIVE PLANS

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Section 10(a)(2)(A) of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. 18/ Of the comprehensive plans filed with the Commission, the Commission staff identified 18 plans (four Massachusetts plans, ten Vermont plans, and four federal plans) as relevant to the hydroelectric projects on the Deerfield River and reviewed those

(...continued)  
expenditures by the licensee in addition to its obligations to provide specific recreational and fish and wildlife enhancements for that project.

/ Comprehensive plans for this purpose are defined at 18 C.F.R. • 2.19 (1996).

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plans. 19/ The Commission staff also reviewed another plan that

/ Massachusetts plans: (1) Deerfield River comprehensive management plan, Franklin County Planning Department, June 1990; (2) Massachusetts outdoors for our common good: open space and outdoor recreation in Massachusetts, Massachusetts Department of Environmental Management, Division of Planning and Development, December 1988; (3) Connecticut River Basin water quality management plan, Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control, June 1983; and (4) Connecticut River Basin fish passage, flow, and habitat alteration considerations in relation to anadromous fish restoration, Technical Committee for Fisheries Management of the Connecticut River, October 1981.

Vermont plans: (1) The waterfalls, cascades, and gorges of Vermont, Jenkins, J. and P. Zika, Vermont Agency of Natural Resources, May 1986; (2) Vermont state comprehensive outdoor recreation plan, 1983-1988, Vermont Agency of Environmental Conservation, June 1983; (3) Vermont Rivers Study, Vermont Agency of Environmental Conservation, 1986; (4) Hydropower in Vermont: an assessment of environmental problems and opportunities, Vermont Agency of Natural Resources, Department of Environmental Conservation, May 1988; (5) Preliminary comprehensive rivers plan for the Deerfield River, Vermont: an inventory of uses, values, and goals, Vermont Agency of Natural Resources, Department of Environmental Conservation, Windham Regional Commission, July 1991; (6) Comprehensive river plan for the Deerfield River watershed, Vermont Department of Environmental Conservation, November 1992; (7) 1988 Vermont recreation plan, Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, 1988; (8) Wetlands component of the 1988 Vermont recreation plan, Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, Wetlands Steering Committee, July 1988; (9) Vermont's lake trout management plan for inland waters, Vermont Agency of Natural Resources, Department of Fish and Wildlife, May and July, 1990; and (10) A strategic plan for the restoration of Atlantic salmon to the Connecticut River Basin, Policy Committee for Fisheries Management of the Connecticut River, September 1982.

Federal plans: (1) North American waterfowl management plan, U.S. Fish and Wildlife Service, May 1986; (2) Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, undated; (3) Final environmental impact statement -  
(continued...)



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addresses resource concerns for the area but is not designated as  
a Commission-approved comprehensive plan. 20/ The project  
does not conflict with any of the comprehensive plans.

## IX. COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA 21/ require  
the Commission, in acting on applications for license, to give equal  
consideration to the power and development purposes and to the  
purposes of energy conservation, the protection, mitigation of  
damage to, and enhancement of fish and wildlife, the protection  
of recreational opportunities, and the preservation of other  
aspects of environmental quality. Any license issued shall be  
such as in the Commission's judgment will be best adapted to a  
comprehensive plan for improving or developing a waterway or  
waterways for all beneficial public uses. The decision to  
license this project, and the terms and conditions included  
herein, reflect such consideration.

The project as proposed by WMEC, and based on current  
economic conditions without future escalation or inflation, would  
cost about \$799,000 annually (47.6 mills/Kwh) and would produce  
about 16.8 Gwh of energy annually having a current value of about  
\$903,000 (53.8 mills/Kwh) for a current net annual power benefit  
of about \$104,000 (6.2 mills/Kwh). If licensed with the added  
requirements of the Massachusetts water quality certification and  
the new license, the project will produce about 13.8 Gwh of  
energy annually, at a current net annual loss of about \$66,000.

The EIS recommends a number of measures to protect and  
enhance environmental resources, which we have adopted and  
included in the new license. These measures include: minimum  
flows (Article 401); preparation and implementation of a flow  
monitoring plan (Article 402); downstream fish passage facilities  
(Article 403); preparation and implementation of a plan to  
monitor the effectiveness of the permanent downstream fish  
passage facilities (Article 404); recreation enhancements  
(Article 406); and preparation of a recreational use erosion and  
sediment control plan (Article 407).

(...continued)

restoration of Atlantic salmon to New England rivers, Department  
of the Interior, May 1989; and (4) The Nationwide rivers  
inventory, National Park Service, January 1982.

/ Green Mountain National Forest Land and Resource Management  
Plan, U.S. Forest Service 1986.

/ 16 U.S.C. •• 797(e) and 803(a)(1).

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Based on our review and evaluation of the existing Gardners Falls Project, the agencies recommendations, and the alternatives documented in the EIS prepared in this proceeding, we find that the Gardners Falls Project, with our mitigative and enhancement measures, will be best adapted to comprehensive development of the Deerfield River for beneficial public use under Sections 4(e) and 10(a)(1) of the FPA. Although we find that the project would be operated at a loss, ultimately it is WMEC which must decide whether it wishes to continue operating the project.

#### X. LICENSE TERM

Pursuant to Section 15(e) of the FPA, 22/ relicense terms shall be for a term that the Commission determines to be in the public interest, but not less than 30 years, nor more than 50 years from the date on which the license is issued. Commission policy is to grant 30-year terms for the licenses of projects with little or no redevelopment, new construction, new capacity or environmental mitigative or enhancement measures; 40-year terms for projects with a moderate amount thereof; and 50-year terms for projects with an extensive amount thereof.

This license does not authorize construction of new capacity or project redevelopment. Although the license requires additional expenditures by WMEC for mitigation and enhancement measures, as well as changes in minimum flow releases, we do not believe they warrant a term longer than 30 years. However, concurrently with this order, we are issuing New England Power a new license for a 40-year term for its Deerfield River Project No. 2323. In accordance with the Commission's policy of coordinating the expiration dates of licenses for projects located within the same river basin, 23/ we are issuing the new license to WMEC for a 40-year term.

#### XI. SUMMARY

The EIS issued for this project includes background information, analysis of impacts, and support for related license articles. Issuance of this license is a major federal action significantly affecting the quality of the human environment.

The design of this project is consistent with engineering safety standards. The project will be safe if operated and maintained in accordance with the requirements of this license.

/ 16 U.S.C. • 808(e).

/ See 18 C.F.R. • 2.23.

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We provide analysis of related issues in the Safety and Design Assessment prepared for this project.

The Commission orders:

(A) This license is issued to the Western Massachusetts Electric Company (licensee) for a term of 40 years, effective the first day of the month in which it is issued, to operate and maintain the Gardners Falls Project No. 2334. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of WMEC's interests in those lands, shown by Exhibit G:

Exhibit G	FERC No.	Showing
Sheet 1 of 6	2334-2008	Detail Project Map
Sheet 2 of 6	2334-2009	Detail Project Map
Sheet 3 of 6	2334-2010	Detail Project Map
Sheet 4 of 6	2334-2011	Detail Project Map
Sheet 5 of 6	2334-2012	Detail Project Map
Sheet 6 of 6	2334-2013	Detail Project Map

(2) Project works consisting of: (1) a concrete gravity dam, 337 feet long with a maximum height of 30 feet at permanent crest elevation 332.79 feet mean sea level (msl) and flashboard elevation 334.79 feet msl, (2) an impoundment 3,200 feet long, with a surface area of 21 acres, 190 acre-feet gross storage, and 37.2 acre-feet usable storage, (3) a brick and concrete powerhouse equipped with four turbine-generator units with total capacity 3.58 MW, (4) a 1300-foot power canal 31 feet wide and 15 feet deep, and (5) a double circuit 13.8 kV transmission line connecting the Gardners Falls project to the Montague substation.

The project works generally described above are more specifically shown and described by the following exhibits that also form a part of the application for license and that are designed and described as:

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## Exhibit A:

Exhibit A, Section 1.0 entitled TURBINES, Section 2.0 entitled GENERATORS, and Subsection 8.5 entitled TRANSMISSION FACILITIES, filed on December 20, 1991 with the application for license.

## Exhibit F: Project Drawings

Exhibit F Drawing	FERC No.	Description
Sheet 1	2334-2001	Plan and Sections of Dam and Headgates
Sheet 2	2334-2002	Elevations and Sections of Dam
Sheet 3	2334-2003	Plan and Sections of Power Canal
Sheet 4	2334-2004	Plan of Powerhouse
Sheet 5	2334-2005	Cross Section of Generating Unit 2
Sheet 6	2334-2006	Cross Section of Generating Units 3 & 4
Sheet 7	2334-2007	Cross Section of Generating Unit 5

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, F and G of the license application are approved and made part of the license.

(D) This license is subject to the articles set forth in Form L-3 (October 1975) entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States" and the following additional articles:

Article 201. The Licensee shall pay the United States an annual charge effective as of the first day of the month in which this license is issued, for the purposes of reimbursing the United States for the Commission's administrative costs, pursuant

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to Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 3,600 kilowatts.

Article 202. If the Licensee's project was directly benefitted by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license.

Article 203. Pursuant to Section 10(d) of the FPA, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The Licensee shall set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the Licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The Licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The Licensee shall maintain the amounts established in the project amortization reserved account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly includible in the Licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10 year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 301. Within 90 days of completion of the construction of the facilities authorized by this license, the Licensee shall file with the Commission for approval, the

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appropriate revised Exhibit F drawings, to show those facilities as-built.

Article 401. The Licensee shall release from Gardners Falls Dam a minimum flow of 150 cubic feet per second (cfs), or inflow to the project reservoir, whichever is less, for the protection and enhancement of fish resources in the bypassed reach of the Deerfield River. The minimum flow shall be comprised of the total flows over the dam and flows through the downstream fish passage facility.

This flow may be temporarily modified if required by operating emergencies beyond the control of the Licensee, and for short periods upon agreement between the Licensee and the Massachusetts Division of Fisheries and Wildlife. If the flow is so modified, the Licensee shall notify the Commission as soon as possible, but no later than ten days after each such incident.

Article 402. Within 180 days from the date of issuance of this license, the Licensee shall file with the Commission, for approval, a plan to monitor the flows required in Article 401.

The monitoring plan shall include, but not be limited to: (1) a schedule for installing the monitoring equipment; (2) the proposed location, design, and calibration of the monitoring equipment; (3) the method of flow data collection; (4) methods of maintaining flow records; (5) a schedule for consulting with the appropriate federal and state agencies concerning the results of the monitoring; and (6) filing of the results of agency comments, and the Licensee's response to agency comments, with the Commission.

The Licensee shall prepare the monitoring plan after consultation with the Massachusetts Division of Fisheries and Wildlife and the U.S. Fish and Wildlife Service. The Licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the Licensee shall implement the Minimum Flow Monitoring Plan, including any changes required by the Commission.

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If the results of the monitoring indicate that changes in project structures or operations, including alternative flow releases, are necessary to protect fishery resources, the Commission reserves the right to direct the Licensee to modify project structures or operations accordingly.

Article 403. Within 120 days from the date of issuance of this license, and before any land-clearing or land-disturbing activities at the project site, the Licensee shall file, for Commission approval, detailed design drawings of the Licensee's proposed downstream fish passage facilities together with a plan and schedule to construct and install the facilities.

The plan shall include quantification of flows required to operate the proposed facility, an operation and maintenance schedule, measures to control erosion and sedimentation during project construction, and a construction schedule for installation of the fish passage facilities, with a target date that the facilities be operational within two years from the date of issuance of this license. Once constructed, the Licensee shall operate the downstream fish passage facilities from April 1 through June 15 and from September 15 to November 15 each year. The Licensee shall provide as-built drawings to the U.S. Fish and Wildlife Service within 30 days from the completion of construction of the downstream fish passage facilities.

The Licensee shall prepare the aforementioned drawings and schedule after consultation with the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall include with the drawings documentation of consultation, copies of comments and recommendations on the drawings and schedule after they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the Licensee's facilities. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings and schedule with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the proposed facilities and schedule. Upon Commission approval, the Licensee shall implement the downstream fishways plan and schedule, including any changes required by the Commission.

Article 404. Within one year from the date of issuance of this license, the Licensee shall file with the Commission, for approval, a plan to monitor the effectiveness of the permanent downstream fish passage facilities required by Article 403 and associated operational flows at the facility to safely and efficiently pass Atlantic salmon smolts down the Deerfield River

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past the Gardners Falls Project. The Licensee shall also provide this monitoring plan to the Massachusetts Division of Fisheries and Wildlife within one year from the date of issuance of this license.

The plan shall include provisions for: (1) facility oversight and personnel commitments; and (2) back-up equipment and supplies that would be maintained to ensure efficient and consistent operation of the facilities. The monitoring plan shall also include a schedule for: (1) implementing the plan; (2) consulting with appropriate federal and state agencies concerning the results of the monitoring; (3) assessing the effectiveness of the bypassed facilities to reduce fish injury and mortality; and (4) filing the results, agency comments, and Licensee's responses to agency comments with the Commission.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the monitoring plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. The monitoring program shall not begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 405. Authority is reserved to the Commission to require the Licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior.

Article 406. Within one year of license issuance, the Licensee shall file with the Commission, for approval, a Recreation Plan describing existing recreation facilities, evaluating whether the existing recreation facilities are meeting public recreation needs, and proposing specific recreation improvements to address the need for new public recreation facilities and improvements at the project. The Recreation Plan shall provide for implementing specific new recreation facilities and improvements as already agreed to by the Licensee in consultation with federal and state fish and wildlife agencies.



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These specific agreed-upon recreation facilities and improvements are described below.

The Licensee shall prepare the Recreation Plan in consultation with the National Park Service, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Massachusetts Department of Environmental Management, and the Massachusetts Division of Fisheries and Wildlife. The Licensee shall make the Recreation Plan available to consulting entities for comment at least 30 days prior to filing the Recreation Plan with the Commission for approval. The Licensee's documentation of consultation shall include copies of the consulted entities' comments and recommendations on the completed plan and a discussion of how the entities' comments are specifically accommodated by the Recreation Plan. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Recreation Plan filed pursuant to this article shall provide for implementing the recreational facilities and improvements described in WMEC's Gardners Falls Project recreation plan, filed on December 23, 1991, and supplemented on December 11, 1992, including: (1) providing an impoundment boat launch; (2) improving the Gardners Falls Picnic Area, the Gardners Falls Nature Trail, and the Powerhouse Access Area; (3) improving the Wilcox Hollow Access Area by paving the access road entrance, improving the access road, expanding parking; and providing directional signs, trash barrels, restroom facilities, and a carry-in boat launch.

The Commission reserves the right to require changes to the Recreation Plan. No land-disturbing or land-clearing activities for recreation facilities shall begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Within six months from the completion of these facilities, the Licensee shall file with the Commission, for approval, the as-built drawings, which shall include the identity of the entity responsible for operation and maintenance of the facilities.

Article 407. Within 180 days after the license is issued, the Licensee shall file with the Commission, for approval, a Recreational Use Erosion and Sediment Control Plan.

The plan shall include provisions for: (1) designing and implementing appropriate erosion and sediment control measures and measures for revegetation for land-clearances and ground-disturbances associated with improvement and construction of any new recreational facilities not covered by this licensing action;

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and (2) regularly-scheduled monitoring and maintenance for all recreational use areas at the Gardners Falls Project for the purpose of identifying and implementing appropriate and timely measures to control and remedy erosion, sediment, and reservoir and river bank problems which may develop over time as a result of recreational use at the project.

The Licensee shall prepare the plan after consultation with the National Park Service, the U.S. Fish and Wildlife Service, the Massachusetts Department of Environmental Management, and the Natural Resources Conservation Service. The Licensee shall include with the plan, documentation of consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the agencies to comments and make recommendations before filing the plan with the Commission. If the Licensee does not adopt a recommendation, the filing shall include the Licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Upon Commission approval, the Licensee shall implement the Recreation Use Erosion and Sediment Control Plan, including any changes required by the Commission.

Article 408. The Licensee shall implement the "Programmatic Agreement among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the Massachusetts State Historic Preservation Officer, for Managing Historic Properties that May Be Affected by a License Issuing to the Western Massachusetts Electric Company for the Continued Operation of the Gardners Falls Hydroelectric Power Project in Massachusetts," executed on September 4, 1996, including the Cultural Resources Management Plan for the project. In the event that the Programmatic Agreement is terminated, the Licensee shall implement the provisions of its approved Cultural Resources Management Plan. The Commission reserves the authority to require changes to the Cultural Resources Management Plan at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the Cultural Resources Management Plan, then the Licensee shall obtain Commission approval before engaging in any ground-disturbing activities or taking any other action that may affect any cultural properties within the project's area of potential effect.

Article 409. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands

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and waters for certain types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines,

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and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kilovolts or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the Licensee shall so inform the Commission and the Regional Director in writing no later than January 31 of each year.

(d) The Licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the Licensee must submit a letter to the Director, Office of

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Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the Massachusetts State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and

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maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the Licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(E) This license is subject to the conditions submitted by the Massachusetts Department of Environmental Protection under Section 401 of the Clean Water Act, as those conditions are set forth in Appendix A to this order, except Conditions H and J.

(F) The Licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is final unless a request for rehearing is filed within 30 days of the date of its issuance, as provided in Section 313 of the Federal Power Act. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file a request for rehearing shall constitute acceptance of this license.

By the Commission.

( S E A L )

Lois D. Cashell,  
Secretary.

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## APPENDIX A

## WATER QUALITY CERTIFICATION CONDITIONS

In accordance with the provisions of MGL Ch. 21, s.26-53, 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 for this project subject to the following conditions:

A. The project shall be operated in accordance with the conditions contained in this certification and the provisions included in the FERC application (#2334) and any modifications made thereto, to the extent such application provisions and modifications are consistent with this water quality certification. The operation of the hydrofacility (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 reach and at the powerhouse which are consistent with the goals of the DRFMP. The required flow at the site is as follows:

1. Location: Below Gardners Falls Dam  
Flow: 150 cubic feet per second (cfs) continuous minimum or inflow from New England Power Company #3 project if such inflow is lower than 150 cfs; minimum flow is comprised of the total flow through the fish passage unit (attraction and transport flows) and flow over the dam  
Condition: flow into the by-pass reach should be maintained at 150 cfs during high flow conditions if operationally possible

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

1. Location: At Gardners Falls Dam  
Requirements:
  - a. construction of a louver system (or other bypass system approved by MADF&W and United States Fish

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and Wildlife Service (USFWS)) for downstream salmon smolt passage

- b. facility operational within two construction seasons after issuance of the new FERC license
- c. flows necessary to operate the facility should be provided during the periods of downstream migration (April 1 to June 15 and September 15 to November 15); these flow periods can be modified by this Department if additional information regarding the period of migration warrants such change
- d. plans to evaluate the effectiveness of the facility should be submitted by WMECO to MADF&W within one year of the issuance of the FERC license

D. Any construction activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act (MGL c.131, s.40).

E. 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 presented in the FERC application and conducted to protect and maintain water quality of the Deerfield River. The applicant shall enhance access for recreational uses according to the recreation plan submitted as part of the FERC application. Recreational access must comply with applicable state and federal regulations.

H. Any modification of the operation of the project which would affect the conditions of this certification must be approved by this Department.

I. 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.

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.





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