

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Massachusetts Water Resources Authority
Wachusett Lower Gatehouse, and Wachusett Aqueduct

is authorized to discharge from the facility located at

off D'Angelo Drive
Marlborough, Massachusetts 01702

to receiving water named

**Wachusett Aqueduct Forebay, Open Channel &
Sudbury Reservoir**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective thirty days from the date of signature.

This permit and the authorization to discharge expire at midnight, one (1) year from the effective date.

This permit consists of 6 pages in Part I including effluent limitations, monitoring requirements, and 35 pages in Part II including General Conditions and Definitions.

Signed this 16th day of July, 2002

/Signature on file/

Linda M. Murphy
Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Glenn Haas
Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A.1. During the period beginning with the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number **001, flows from the Wachusett Aqueduct Forebay to the Wachusett Aqueduct Open Channel and Sudbury Reservoir.** Such discharges shall be limited and monitored as specified below.

<u>EFFLUENT CHARACTERISTIC</u>	<u>EFFLUENT LIMITS</u>			<u>MONITORING REQUIREMENTS</u>	
PARAMETER	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE³ TYPE</u>
FLOW ²	****	Report	Report	CONTINUOUS	RECORDER
TEMPERATURE ^{1,6}	****	Report	****	CONTINUOUS	RECORDER/GRAB
pH ¹	6.5-8.3 SU SEE PERMIT PAGE 3 of 6, PARAGRAPH I.A.1.b.			2/WEEK	GRAB
TURBIDITY	30 NTU	****	60 NTU	1/WEEK	GRAB
TOTAL COPPER ^{4,5}	Report	****	Report	1/MONTH	GRAB

Footnotes:

1. Required for State Certification.
2. For flow, report weekly average and maximum daily on discharge monitoring reports. In addition, attach data to the monthly DMR reporting maximum daily flow rates and total flow for each operating date.
3. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.
4. One copper sample shall be taken prior to the beginning of WHCP-1 test and one prior to WHCP-2 test. One copper sample per month shall be taken during CP-1 and CP-2 test.
5. The flow capacity test at the Lower Gate House and at the Aqueduct shall take place at least two weeks after all copper sulfate applications to the Wachusett Reservoir.
6. Additional instream temperature samples of the river shall be taken before the WHCP-2 start-up tests occur, during the testing and within three days after testing is complete. The sampling locations are at; 1) the intake valve at the Wachusett Reservoir Dam, 2) the point of discharge at the Aqueduct Forebay, 3) Northboro Road, 4) Deerfoot Road, and 5) the intake valve of the Sudbury Reservoir. Grab samples shall be taken at Northboro Road and Deerfoot Road. Sampling results shall be reported to EPA and MA DEP in accordance with Section D.of the permit.

Part I.A.1. (Continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
 - b. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 at any time, unless these values are exceeded as a result of an approved treatment process, or naturally occurring background conditions.
 - c. The discharge shall not cause objectionable discoloration of the receiving waters.
 - d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
 - e. No disinfection agent shall be added to the aqueduct system.
2. Toxics Control
 - a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
 - b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.
 3. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop

numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

B. BEST MANAGEMENT PRACTICES PLAN (BMP's)

The permittee shall implement Best Management Practices (BMP) to achieve the stated objectives and which conforms to the following requirements:

1. General Conditions

a. General Objectives

The objectives of the BMP are to minimize the potential for violations of the terms of the permit; to protect the designated water uses of the surrounding surface water bodies.

b. General Requirements

The BMP measures shall:

(1) Establish specific objectives for the control of temperature, and copper.

(a) Temperature

The permittee shall draw water from the appropriate intake of the Wachusett Reservoir to minimize the temperature difference between the Wachusett Reservoir and the Sudbury Reservoir during modifications for the Wachusett Intake Lower Gatehouse (WHCP-1) and Wachusett Aqueduct Rehabilitation (WHCP-2).

Schedule testing for WHCP-2 for mid-September to mid-October when the temperature difference between the surface and the depth of the Wachusett and Sudbury Reservoirs are small.

To acclimate fish to lower temperatures during modifications to WHCP-2, the permittee shall gradually increase flow when the temperature difference between the Wachusett Reservoir and the Sudbury Reservoir is greater than 5 degrees Fahrenheit in order to avoid temperature shock effects.

Prior to WHCP-2 testing, daily monitoring will be conducted at different intake levels within Sudbury Reservoir and Wachusett Reservoir to determine temperature variations with depth. Testing shall begin only when the temperatures of the Wachusett and Sudbury Reservoirs are within 5⁰ F of each other. Once testing has begun, daily monitoring will be conducted to document temperature variations.

(b) Copper

No start-up or testing withdrawal shall be made in the Wachusett Reservoir within two weeks of a copper sulfate application.

(2) Include any special conditions established in accordance with Part I.B.2 Specific Conditions, below.

(3) Be reviewed by plant engineering staff and the terminal manager.

c. Modification for Ineffectiveness

If the BMP proves to be ineffective in achieving the general objective of preventing temperature impacts to the fish community, and/or preventing copper levels to impact water quality of the receiving water, the

BMP plan shall be subject to modification (40 CFR §122.64 and §122.63) to incorporate revised BMP requirements.

C. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfalls listed in Part I A.1. of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and shall be reported in accordance with Section D.1.e. (1) of the General Requirements of this permit (Twenty-four hour reporting).

D. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked no later than the 21st day of the following month.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

The State Agency's are:

Massachusetts Department of Environmental Protection
Northeast Regional Office - Bureau of Resource Protection
205A Lowell Street
Wilmington, MA 01887

and

Massachusetts Department of Environmental Protection
Central Regional Office - Bureau of Resource Protection
627 Main Street
Worcester, Massachusetts 01608

Signed and dated Discharge Monitoring Report Forms required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

G. STATE PERMIT CONDITIONS

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.