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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),

**Board of Water and Sewer Commissioners  
Town of Bridgewater Academy Building  
Bridgewater, MA 02134**

is authorized to discharge from the facility located at

**Bridgewater Wastewater Treatment Facility  
100 Morris Avenue  
Bridgewater, Massachusetts 02134**

to receiving water named

**Town River (Taunton River Basin MA62-13)**

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

This permit will become effective on the first day of the calendar month immediately following sixty days after signature.

This permit expires at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on December 30, 2003.

This permit consists of **Part I** (19 pages including effluent limitations and monitoring requirements); **Attachment A** (USEPA Region 1 Freshwater Acute Toxicity Test Procedure and Protocol, February 2011, 8 pages); **Attachment B** (USEPA Region 1 Freshwater Chronic Toxicity Test Procedure and Protocol, February March 2013, 7 pages); and **Part II** (25 pages including NPDES Part II Standard Conditions).

Signed this        day of

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Ken Moraff, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

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David R. Ferris, Director  
Massachusetts Wastewater Management Program  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

PART I

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS <sup>3</sup>			
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE		
FLOW <sup>2</sup>	*****	*****	1.44 mgd	*****	Report mgd	CONTINUOUS	RECORDER		
FLOW <sup>2</sup>	*****	*****	Report mgd	*****	*****	CONTINUOUS	RECORDER		
BOD <sub>5</sub> <sup>4</sup>	240 lb/day	360 lb/day	20 mg/l	30 mg/l	Report mg/l	2/WEEK	24-HOUR COMPOSITE <sup>5</sup>		
TSS <sup>4</sup>	240 lb/day	360 lb/day	20 mg/l	30 mg/l	Report mg/l	2/WEEK	24-HOUR COMPOSITE <sup>5</sup>		
pH RANGE <sup>1</sup>	6.5 - 8.3 S.U. (SEE PERMIT PARAGRAPH I.A.1.b.)								
ESCHERICHIA COLI <sup>1,6</sup> (April 1 - October 31)	*****	*****	126 cfu/100 ml	*****	409 cfu/100 ml	2/WEEK	GRAB		
TOTAL RESIDUAL CHLORINE <sup>1,6,7</sup>	*****	*****	24 ug/l	*****	42 ug/l	1/DAY	GRAB		
TOTAL COPPER <sup>8</sup>	*****	*****	35 ug/l	*****	46 ug/l	1/MONTH	24-HOUR COMPOSITE <sup>5</sup>		
TOTAL PHOSPHORUS <sup>9</sup> (April 1 - October 31)	*****	*****	200 ug/l	*****	Report mg/l	1/WEEK	24-HOUR COMPOSITE <sup>5</sup>		
TOTAL PHOSPHORUS <sup>9</sup> (November 1 - March 31)	*****	*****	Report mg/l	*****	Report mg/l	1/MONTH	GRAB		
DISSOLVED OXYGEN (April 1 - October 31)	NOT LESS THAN 6.0 mg/l								
						1/DAY	GRAB		

Sampling Location: after chlorination

CONTINUED FROM PREVIOUS PAGE

A.1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001 to the Town River. Such discharges shall be limited and monitored as specified below.									
EFFLUENT CHARACTERISTICS					MONITORING REQUIREMENTS <sup>3</sup>				
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE		
AMMONIA-NITROGEN (April 1 - October 31)	36 lb/day	*****	3 mg/l	*****	*****	3/WEEK	24-HOUR COMPOSITE <sup>5</sup>		
AMMONIA-NITROGEN (November 1 - March 31)	Report lb/day	*****	Report mg/l	*****	Report mg/l	1/MONTH	24-HOUR COMPOSITE <sup>5</sup>		
TOTAL NITROGEN <sup>9</sup> (May 1 - October 31)	60 lbs/day		Report mg/l						
TOTAL NITRATE NITROGEN	Report lbs/day		Report mg/l						
TOTAL NITRITE NITROGEN	Report lbs/day		Report mg/l						
TOTAL KJELDAHL NITROGEN	Report lbs/day	*****	Report mg/l	*****	Report mg/l	2/WEEK	24-HOUR COMPOSITE <sup>5</sup>		
TOTAL NITROGEN <sup>9,12</sup> (November 1 - April 30)	Report lbs/day		Report mg/l						
TOTAL NITRATE NITROGEN	Report lbs/day		Report mg/l						
TOTAL NITRITE NITROGEN	Report lbs/day		Report mg/l						
TOTAL KJELDAHL NITROGEN	Report lbs/day	*****	Report mg/l	*****	Report mg/l	1/MONTH	24-HOUR COMPOSITE <sup>5</sup>		
WHOLE EFFLUENT TOXICITY <sup>13,14,15,16</sup>	Acute LC <sub>50</sub> ≥ 100% Chronic C-NOEC ≥ 45%					4/YEAR	24-HOUR COMPOSITE <sup>5</sup>		

Sampling Location: after chlorination

CONTINUED FROM PREVIOUS PAGE

A.1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001 to the Town River. Such discharges shall be limited and monitored as specified below.		Report mg/l	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Hardness <sup>16</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Ammonia Nitrogen as N <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Aluminum <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Cadmium <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Copper <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Nickel <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Lead <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>
Total Recoverable Zinc <sup>17</sup>	*****	*****	4/YEAR	24-HOUR COMPOSITE <sup>5</sup>

Sampling Location: after chlorination

B.1. (continued). During the period beginning on the effective date and lasting through expiration, the permittee shall conduct ambient sampling from May 1 through October 1. The monitoring and reporting requirements are specified below.

AMBIENT CHARACTERISTICS		AMBIENT REPORTING				MONITORING REQUIREMENTS <sup>3</sup>	
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH RANGE <sup>10</sup>	*****	*****	Report	*****	*****	1/MONTH	GRAB
DISSOLVED OXYGEN <sup>10</sup> (May 1 - October 31)	Report	*****	Report	*****	*****	1/MONTH	GRAB
TOTAL PHOSPHORUS <sup>11</sup> (May 1 - October 31)	*****	*****	Report mg/l	*****	Report mg/l	1/MONTH	GRAB
TOTAL NITROGEN <sup>11</sup> (May 1 - October 31)	Report lbs/day		Report mg/l			1/MONTH	GRAB
TOTAL NITRATE NITROGEN	Report lbs/day		Report mg/l		*****		
TOTAL NITRITE NITROGEN	Report lbs/day		Report mg/l				
TOTAL KJELDAHL NITROGEN	Report lbs/day		Report mg/l				

## Footnotes:

1. Required for State Certification.
2. Report annual average, monthly average, and the maximum daily flow. The limit is an annual average, which shall be reported as a rolling average. The value will be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the previous eleven months.
3. Effluent sampling shall be of the discharge and shall be collected at the point specified on page 2. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP.

A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented in correspondence appended to the applicable discharge monitoring report.

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. Sampling required for influent and effluent.
5. 24-hour composite samples will consist of at least twenty four (24) grab samples taken during one consecutive 24 hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportionally to flow.
6. The monthly average limit for Escherichia coli (E.coli) is expressed as a geometric mean. E. coli monitoring shall be conducted concurrently with a total residual chlorine (TRC) sample.
7. TRC monitoring is required whenever chlorine is added to the treatment process (i.e. TRC sampling is not required if chlorine is not added for disinfection or other purpose). The limitations are in effect year-round.

The minimum level (ML) for TRC is defined as 20 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.

Chlorination and dechlorination systems shall include an alarm system for indicating system interruptions or malfunctions. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection, or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported with the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.

8. The minimum level (ML) for copper is defined as 3 ug/l. This value is the minimum level for copper using the Furnace Atomic Absorption analytical method (EPA Method 220.2). Sampling results of 3 ug/l or less shall be reported as zero on the Discharge Monitoring Report.
9. The permittee shall comply with the 200 ug/l total phosphorus limit, the 60 lbs/day total nitrogen limit and the optimization requirement of footnote 12 in accordance with the schedule contained in Section G below.

The total nitrogen, in effective from May 1– October 31 of each year, shall be reported as a seasonal rolling average. The first value for the seasonal average will be reported after an entire May – October period has elapsed following the effective date of the permit (results do not have to be from the same year). For example, if the permit becomes effective on December 1, 2016, the permittee will calculate the first seasonal average from samples collected during the months of May through October 2017, and report this average on the October 2017 DMR. For each subsequent month that the seasonal limit is in effect, the seasonal average shall be calculated using samples from that month and the previous five months that the limit was in effect.

The permittee shall comply with the 60 lbs/day total nitrogen limit in accordance with the schedule described in Section H below. Upon the effective date of the permit, and until the date specified in Section G for completion of the treatment plant upgrade, monitoring for total nitrogen shall be conducted once per week.

10. A monthly grab sample recorded for dissolve oxygen (DO) and pH at Hayward Street in the early morning (before 8:00 a.m.) and in the late afternoon (after 3:00 p.m.) Samples shall be taken from mid-stream on the same week and day of each month. Individual sample results, including the corresponding river flow from the USGS gage in Bridgewater, shall be reported on a separate sheet of paper and submitted with the November DMR report. If the river cannot be reasonably accessed at the mouth than the sample shall be taken at the nearest accessible point upstream of the mouth.
11. From May through October, the permittee will conduct monthly ambient sampling for total phosphorus and total nitrogen (ammonia + organic nitrogen + nitrite + nitrate) immediately upstream of the discharge and at the mouth of the Town River. The sample collected at the mouth of the Town River will be upstream of the confluence with the Matfield River. Samples shall be taken from mid-stream on the same week and day of each month. An EPA approved analytical method that achieves the lowest possible quantification level shall be used. Individual sample results, including the corresponding river flow from the USGS gage in Bridgewater, shall be reported on a separate sheet of paper and submitted with the November DMR report. If the river cannot be reasonably accessed at the mouth than the sample shall be taken at the nearest accessible point upstream of the mouth.
12. The permittee shall operate the treatment facility to reduce the discharge of total nitrogen during the months of November through April to the maximum extent practicable while maintaining compliance with all other permit conditions. All available treatment equipment in place at the facility shall be operated by the permittee unless equal or better performance can be achieved by the permittee in a reduced operational mode. The addition of a carbon source that may be necessary in order to meet the total nitrogen limit during the months of May through October is not required during the months of November through April.
13. The permittee shall conduct acute and chronic toxicity tests *four* times per year. The permittee shall test the daphnid, Ceriodaphnia dubia, only. Toxicity test samples shall be collected during the second week of the months of February, May, August and November. The test results shall be



submitted by the last day of the month following the completion of the test. The results are due March 31, June 30, September 30 and December 31, respectively. The tests must be performed in accordance with test procedures and protocols specified in **Attachments A and B** of this permit.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>	Chronic Limit C-NOEC
February May August November	March 31 June 30 September 30 December 31	<u>Ceriodaphnia dubia</u> (daphnid)	≥ 100%	≥ 45%

After submitting **one year** and a **minimum** of four consecutive sets of WET test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

14. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
15. C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction, based on a statistically significant difference from dilution control, at a specific time of observation as determined from hypothesis testing. As described in the EPA WET Method Manual EPA 821-R-02-013, Section 10.2.6.2, all test results are to be reviewed and reported in accordance with EPA guidance on the evaluation of the concentration-response relationship. The "45% or greater" limit is defined as a sample which is composed of 45% (or greater) effluent, the remainder being dilution water.
16. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall either follow procedures outlined in **Attachment A (Toxicity Test Procedure and Protocol) Section IV., DILUTION WATER** in order to obtain an individual approval for use of an alternate dilution water, or the permittee shall follow the Self-Implementing Alternative Dilution Water Guidance, which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance is found in Attachment G of *NPDES Program Instructions for the Discharge Monitoring Report Forms (DMRs)*, which may be found on the EPA Region I web site at <http://www.epa.gov/Region1/enforcementandassistance/dmr.html>. If this guidance is revoked, the permittee shall revert to obtaining individual approval as outlined in **Attachments A and B**. Any modification or revocation to this guidance will be transmitted to the permittees. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachments A and B**.
17. For each whole effluent toxicity test, the permittee shall report on the appropriate discharge monitoring report (DMR) the concentrations of the hardness, ammonia nitrogen as nitrogen, total recoverable aluminum, cadmium, copper, lead, nickel, and zinc found in the 100 percent effluent sample. All these aforementioned chemical parameters shall be determined to at least the

minimum quantification level shown in **Attachments A and B**. Also the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.

**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 or greater than 8.3 at any time.
  - c. The discharge shall not cause objectionable discoloration of the receiving waters.
  - d. The effluent shall not contain a visible oil sheen, foam, or floating solids at any time.
  - e. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.
  - f. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.
  - g. The results of sampling for any parameter done in accordance with EPA approved methods above its required frequency must also be reported.
  - h. If the average annual flow in any calendar year exceeds 80 percent of the facility's design flow, the permittee shall submit a report to MassDEP by March 31 of the following calendar year describing its plans for further flow increases and describing how it will maintain compliance with the flow limit and all other effluent limitations and conditions.
2. All POTWs must provide adequate notice to the Director of the following:
- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
  - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  - c. For purposes of this paragraph, adequate notice shall include information on:
    - (1) The quantity and quality of effluent introduced into the POTW; and
    - (2) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
3. Prohibitions Concerning Interference and Pass Through:
- a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

## 4. 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.

## 5. Numerical Effluent Limitations for Toxicants

EPA or MassDEP 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.

**C. UNAUTHORIZED DISCHARGES**

This permit authorizes discharges only from the outfall(s) listed in Part I.A.1, in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit and shall be reported to EPA and MassDEP in accordance with Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).

Notification of SSOs to MassDEP shall be made on its SSO Reporting Form (which includes DEP Regional Office telephone numbers). The reporting form and instruction for its completion may be found on-line at <http://www.mass.gov/eea/agencies/massdep/service/approvals/sanitary-sewer-overflow-bypass-backup-notification.html>.

**D. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM**

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions. The permittee is required to complete the following activities for the collection system which it owns:

## 1. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. Provisions to meet this requirement shall be described in the Collection System O & M Plan required pursuant to Section D.5. below.

## 2. Preventive Maintenance Program

The permittee shall maintain an ongoing preventive maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges. Plans and programs to meet this requirement shall be described in the Collection System O & M Plan required pursuant to Section D.5. below.

## 3. Infiltration/Inflow

The permittee shall control infiltration and inflow (I/I) into the sewer system as necessary to prevent high flow related unauthorized discharges from their collection systems and high flow related violations of the wastewater treatment plant's effluent limitations. Plans and programs to control I/I shall be described in the Collection System O & M Plan required pursuant to Section D.5. below.

## 4. Collection System Mapping

**Within 30 months of the effective date of this permit**, the permittee shall prepare a map of the sewer collection system it owns (see page 1 of this permit for the effective date). The map shall be on a street map of the community, with sufficient detail and at a scale to allow easy interpretation. The collection system information shown on the map shall be based on current conditions and shall be kept up to date and available for review by federal, state, or local agencies. Such map(s) shall include, but not be limited to the following:

- a. All sanitary sewer lines and related manholes;
- b. All combined sewer lines, related manholes, and catch basins;
- c. All combined sewer regulators and any known or suspected connections between the sanitary sewer and storm drain systems (e.g. combination manholes);
- d. All outfalls, including the treatment plant outfall(s), CSOs, and any known or suspected SSOs, including stormwater outfalls that are connected to combination manholes;
- e. All pump stations and force mains;
- f. The wastewater treatment facility(ies);
- g. All surface waters (labeled);
- h. Other major appurtenances such as inverted siphons and air release valves;
- i. A numbering system which uniquely identifies manholes, catch basins, overflow points, regulators and outfalls;
- j. The scale and a north arrow; and
- k. The pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow.

## 5. Collection System Operation and Maintenance Plan

The permittee shall develop and implement a Collection System Operation and Maintenance Plan.

- a. Within six (6) months of the effective date of the permit, the permittee shall submit to EPA and MassDEP
  - (1) A description of the collection system management goals, staffing, information management, and legal authorities;
  - (2) A description of the collection system and the overall condition of the collection system including a list of all pump stations and a description of recent studies and construction activities; and
  - (3) A schedule for the development and implementation of the full Collection System O & M Plan including the elements in paragraphs b.1. through b.8. below.

- b. The full Collection System O & M Plan shall be completed, implemented and submitted to EPA and MassDEP within twenty four (24) months from the effective date of this permit. The Plan shall include:
- (1) The required submittal from paragraph 5.a. above, updated to reflect current information;
  - (2) A preventive maintenance and monitoring program for the collection system;
  - (3) Description of sufficient staffing necessary to properly operate and maintain the sanitary sewer collection system and how the operation and maintenance program is staffed;
  - (4) Description of funding, the source(s) of funding and provisions for funding sufficient for implementing the plan;
  - (5) Identification of known and suspected overflows and back-ups, including manholes. A description of the cause of the identified overflows and back-ups, corrective actions taken, and a plan for addressing the overflows and back-ups consistent with the requirements of this permit;
  - (6) A description of the permittee's programs for preventing I/I related effluent violations and all unauthorized discharges of wastewater, including overflows and by-passes and the ongoing program to identify and remove sources of I/I. The program shall include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts; and
  - (7) An educational public outreach program for all aspects of I/I control, particularly private inflow.
  - (8) An Overflow Emergency Response Plan to protect public health from overflows and unanticipated bypasses or upsets that exceed any effluent limitation in the permit.

6. Annual Reporting Requirement

The permittee shall submit a summary report of activities related to the implementation of its Collection System O & M Plan during the previous calendar year. The report shall be submitted to EPA and MassDEP annually by March 31. The summary report shall, at a minimum, include:

- a. A description of the staffing levels maintained during the year;
- b. A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year;
- c. Expenditures for any collection system maintenance activities and corrective actions taken during the previous year;
- d. A map with areas identified for investigation/action in the coming year;
- e. If treatment plant flow has reached 80% of its design flow [1.15 MGD] based on the annual average flow during the reporting year, or there have been capacity related overflows, submit a calculation of the maximum daily, weekly, and monthly infiltration and the maximum daily, weekly, and monthly inflow for the reporting year; and
- f. A summary of unauthorized discharges during the past year and their causes and a report of any corrective actions taken as a result of the unauthorized discharges reported pursuant to the Unauthorized Discharges section of this permit.

7. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall

provide an alternative power source(s) sufficient to operate the portion of the publicly owned treatment works<sup>1</sup> it owns and operates.

**E. SLUDGE CONDITIONS**

1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including EPA regulations promulgated at 40 CFR Part 503, which prescribe “Standards for the Use or Disposal of Sewage Sludge” pursuant to Section 405(d) of the CWA, 33 U.S.C. § 1345(d).
2. If both state and federal requirements apply to the permittee’s sludge use and/or disposal practices, the permittee shall comply with the more stringent of the applicable requirements.
3. The requirements and technical standards of 40 CFR Part 503 apply to the following sludge use or disposal practices.
  - a. Land application - the use of sewage sludge to condition or fertilize the soil
  - b. Surface disposal - the placement of sewage sludge in a sludge only landfill
  - c. Sewage sludge incineration in a sludge only incinerator
4. The requirements of 40 CFR Part 503 do not apply to facilities which dispose of sludge in a municipal solid waste landfill. 40 CFR § 503.4. These requirements also do not apply to facilities which do not use or dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g. lagoons, reed beds), or are otherwise excluded under 40 CFR § 503.6.
5. The 40 CFR. Part 503 requirements including the following elements:
  - General requirements
  - Pollutant limitations
  - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
  - Management practices
  - Record keeping
  - Monitoring
  - Reporting

Which of the 40 C.F.R. Part 503 requirements apply to the permittee will depend upon the use or disposal practice followed and upon the quality of material produced by a facility. The EPA Region 1 Guidance document, “EPA Region 1 - NPDES Permit Sludge Compliance Guidance” (November 4, 1999), may be used by the permittee to assist it in determining the applicable requirements.<sup>2</sup>

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<sup>1</sup> As defined at 40 CFR §122.2, which references the definition at 40 CFR §403.3

<sup>2</sup> This guidance document is available upon request from EPA Region 1 and may also be found at: <http://www.epa.gov/region1/npdes/permits/generic/sludgeguidance.pdf>

6. The sludge shall be monitored for pollutant concentrations (all Part 503 methods) and pathogen reduction and vector attraction reduction (land application and surface disposal) at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year:

less than 290	1/ year
290 to less than 1,500	1 /quarter
1,500 to less than 15,000	6 /year
15,000 +	1 /month

Sampling of the sewage sludge shall use the procedures detailed in 40 CFR § 503.8.

7. Under 40 CFR § 503.9(r), the permittee is a “person who prepares sewage sludge” because it “is ... the person who generates sewage sludge during the treatment of domestic sewage in a treatment works ....” If the permittee contracts with *another* “person who prepares sewage sludge” under 40 CFR § 503.9(r) – i.e., with “a person who derives a material from sewage sludge” – for use or disposal of the sludge, then compliance with Part 503 requirements is the responsibility of the contractor engaged for that purpose. If the permittee does not engage a “person who prepares sewage sludge,” as defined in 40 CFR § 503.9(r), for use or disposal, then the permittee remains responsible to ensure that the applicable requirements in Part 503 are met. 40 CFR § 503.7. If the ultimate use or disposal method is land application, the permittee is responsible for providing the person receiving the sludge with notice and necessary information to comply with the requirements of 40 CFR Part 503 Subpart B.
8. The permittee shall submit an annual report containing the information specified in the 40 CFR Part 503 requirements (§ 503.18 (land application), § 503.28 (surface disposal), or § 503.48 (incineration)) by **February 19** (*see also* “EPA Region 1 - NPDES Permit Sludge Compliance Guidance”). Reports shall be submitted to the address contained in the reporting section of the permit. If the permittee engages a contractor or contractors for sludge preparation and ultimate use or disposal, the annual report need contain only the following information:
- Name and address of contractor(s) responsible for sludge preparation, use or disposal
  - Quantity of sludge (in dry metric tons) from the POTW that is transferred to the sludge contractor(s), and the method(s) by which the contractor will prepare and use or dispose of the sewage sludge.

## F. MONITORING AND REPORTING

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures found in 40 CFR Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified within the permit.

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs and the Use of NetDMR

**Beginning the effective date of the permit** the permittee must submit its monthly monitoring

data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month following the completed reporting period. **For a period of six months from the effective date of the permit**, the permittee may submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP either in hard copy form, as described in Part I.E.5, or in DMRs electronically submitted using NetDMR. NetDMR is a web-based tool that allows permittees to electronically submit DMRs and other required reports via a secure internet connection. NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Beginning no later than six months after the effective date of the permit**, the permittee shall begin reporting monthly monitoring data using NetDMR, unless, in accordance with Part I.E.7, the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs. The permittee must continue to use the NetDMR after the permittee begins to do so. When a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs to EPA or MassDEP.

2. Submittal of Reports as NetDMR Attachments

After the permittee begins submitting DMR reports to EPA electronically using NetDMR, the permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies, unless otherwise specified in this permit. Permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP. (See Part I.E.6. for more information on state reporting.) Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15<sup>th</sup> day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Pre-treatment Related Reports

All reports and information required of the permittee in the Industrial Users and Pretreatment Program section of this permit shall be submitted to the Office of Ecosystem Protection's Pretreatment Coordinator in Region 1 EPA's Office of Ecosystem Protection (OEP). These requests, reports and notices include:

- A. Annual Pretreatment Reports,
- B. Pretreatment Reports Reassessment of Technically Based Industrial Discharge Limits Form,
- C. Revisions to Industrial Discharge Limits,
- D. Report describing Pretreatment Program activities, and
- E. Proposed changes to a Pretreatment Program

This information shall be submitted to EPA/OEP as a hard copy at the following address:

**U.S. Environmental Protection Agency  
Office of Ecosystem Protection  
Regional Pretreatment Coordinator  
5 Post Office Square - Suite 100 (OEP06-03)  
Boston, MA 02109-3912**



4. Submittal of Requests and Reports to EPA/OEP

The following requests, reports, and information described in this permit shall be submitted to the EPA/OEP NPDES Applications Coordinator in the EPA Office Ecosystem Protection (OEP).

- A. Transfer of Permit notice
- B. Request for changes in sampling location
- C. Request for reduction in testing frequency
- D. Request for Reduction in WET Testing Requirement
- E. Report on unacceptable dilution water / request for alternative dilution water for WET testing

These reports, information, and requests shall be submitted to EPA/OEP electronically at [R1NPDES.Notices.OEP@epa.gov](mailto:R1NPDES.Notices.OEP@epa.gov) or by hard copy mail to the following address

**U.S. Environmental Protection Agency  
Office of Ecosystem Protection  
EPA/OEP NPDES Applications Coordinator  
5 Post Office Square - Suite 100 (OEP06-03)  
Boston, MA 02109-3912**

5. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to EPA.

- A. Written notifications required under Part II
- B. Notice of unauthorized discharges, including Sanitary Sewer Overflow (SSO) reporting
- C. Reports and DMRs submitted prior to the use of NetDMR

This information shall be submitted to EPA/OES at the following address:

**U.S. Environmental Protection Agency  
Office of Environmental Stewardship (OES)  
Water Technical Unit  
5 Post Office Square, Suite 100 (OES04-4)  
Boston, MA 02109-3912**

6. State Reporting

Unless otherwise specified in this permit, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.E.3, I.E.4, and I.E.5 also shall be submitted to the State at the following addresses:

**MassDEP – Southeast Region  
Bureau of Water Resources  
20 Riverside Drive  
Lakeville, MA 02347**

Copies of toxicity tests only shall be submitted to:

**Massachusetts Department of Environmental Protection  
Watershed Planning Program  
8 New Bond Street  
Worcester, Massachusetts 01606**

7. Submittal of NetDMR Opt-Out Requests

NetDMR opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request be approved by EPA. All opt-out requests should be sent to the following addresses:

**Attn: NetDMR Coordinator  
U.S. Environmental Protection Agency, Water Technical Unit  
5 Post Office Square, Suite 100 (OES04-4)  
Boston, MA 02109-3912**

And

**Massachusetts Department of Environmental Protection  
Surface Water Discharge Permit Program  
627 Main Street, 2<sup>nd</sup> Floor  
Worcester, Massachusetts 01608**

8. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA-New England and to MassDEP. This includes verbal reports and notifications notification which require reporting within 24-hours. (As examples, see Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.) Verbal reports and verbal notifications shall be made to EPA's Office of Environmental Stewardship at:

**U.S. Environmental Protection Agency  
Office of Environmental Stewardship  
5 Post Office Square, Suite 100 (OES04-4)  
Boston, MA 02109-3912  
617-918-1850**

**G. COMPLIANCE SCHEDULE**

In order to comply with the new permit limits for total nitrogen and total phosphorus, the permittee shall take the following actions:

1. Within one year of the effective date of the permit, the Permittee shall submit to EPA and MassDEP a status report relative to the planning and design of the facilities necessary to achieve the total nitrogen and total phosphorus permit limits.
2. Within two years of the effective date of the permit, the Permittee shall complete design of the facility improvements required to achieve the total nitrogen and total phosphorus permit limits.
3. Within three years of the effective date of the permit, the Permittee shall initiate construction of the facility improvements required to achieve the total nitrogen and total phosphorus permit limits.
4. Within four years of the effective date of the permit, the Permittee shall submit to EPA and MassDEP a status report relative to construction of the facility improvements required to achieve the total nitrogen and total phosphorus permit limits.
5. Within fifty-four (54) months of the effective date of the permit, the Permittee shall complete construction of the facility improvements required to achieve the total nitrogen and total phosphorus permit limits.
6. The permit limits of 60 lbs/day total nitrogen and 200 ug/l total phosphorus shall go into effect sixty (60) months from the effective date of the permit. Until such date the existing permit limit of 1.0 mg/l total phosphorus shall remain in effect.
7. The permittee shall notify EPA and MassDEP of its compliance or noncompliance with the requirements of this part in writing no later than 14 days after each interim or final date of compliance.

#### **H. STATE PERMIT CONDITIONS**

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.
2. This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 C.F.R. 124.53, M.G.L. c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.
3. 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 a 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.

