

**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),

Town of Dartmouth

is authorized to discharge from the facility located at

**Town of Dartmouth Water Pollution Control Facility
759 Russells Mills Road
Dartmouth, MA 02748**

to receiving water named

Buzzards Bay (MA-95)

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

This permit shall become effective **on the first day of the calendar month immediately following 60 days after signature.**

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on November 13, 2003.

This permit consists of 10 pages in Part I including effluent limitations, monitoring requirements, Attachments A (Toxicity Test and Protocol), B (Sludge Guidance), C (Summary of Report Submittals) and Part II including Standard Conditions and Definitions.

Signed this 19th day of June, 2009

/S/ SIGNATURE ON FILE

Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

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

PART I

A.1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number 001, treated effluent to Buzzards Bay. Such discharges shall be limited and monitored as specified below.							
EFFLUENT CHARACTERISTIC		EFFLUENT LIMITS			MONITORING REQUIREMENTS		
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE ³ TYPE
FLOW	***	***	4.2 mgd ¹	***	Report mgd	CONTINUOUS	RECORDER
FLOW	***	***	***	***	Report mgd ¹	CONTINUOUS	RECORDER
BOD ₅ ⁴	1051lbs/Day 478 kgs/Day	1576 lbs/Day 716 kgs/Day	30 mg/l	45 mg/l	Report mg/l ²	1/WEEK	24-HOUR COMPOSITE ⁵
TSS ⁴	1051 lbs/Day 478 kgs/Day	1576 lbs/Day 716 kgs/Day	30 mg/l	45 mg/l	Report mg/l ²	1/WEEK	24-HOUR COMPOSITE ⁵
pH RANGE ²	6.5 - 8.5 SU SEE PERMIT PAGE 4 OF 10, PARAGRAPH I.A.1.b.					5/WEEK	GRAB
FECAL COLIFORM ^{2,6} (cfu/100ml)	***	***	14	***	28	1/WEEK	GRAB
ENTEROCOCCI ^{2,6} (cfu/100ml)	***	***	35	***	276	1/WEEK	GRAB
TOTAL NITROGEN	***	***	***	***	Report mg/l	2/MONTH	24-HOUR COMPOSITE ⁵
TOTAL KJELDAHL NITROGEN	***	***	***	***	Report mg/l	2/MONTH	24-HOUR COMPOSITE ⁵
TOTAL NITRATE AS NITROGEN	***	***	***	***	Report mg/l	2/MONTH	24-HOUR COMPOSITE ⁵
TOTAL AMMONIA AS NITROGEN	***	***	***	***	Report mg/l	2/MONTH	24-HOUR COMPOSITE ⁵
WHOLE EFFLUENT TOXICITY SEE FOOTNOTES 7, 8, 9 and 10	Acute LC ₅₀ , 100% Chronic C-NOEC, 11%					2/YEAR	24-HOUR COMPOSITE ⁵

Sampling location: All effluent samples shall be taken at the mixing chamber before the ultraviolet channels except for fecal coliform and enterococci which shall be taken after the ultraviolet channels.

Footnotes:

1. For flow, report maximum daily rates and total flow for each operating date. This is an annual average limit, which shall be reported as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's DMR will report the annual average flow that is calculated from that month and the previous 11 months.
2. Required for State Certification.
3. All required effluent samples 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. All samples shall be 24 hour composites unless specified as a grab sample in 40 CFR §136.

4. Sampling required for influent and effluent.
5. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken for a consecutive 24 hour period (e.g. 0700 Monday - 0700 Tuesday)
6. The monthly average limits for fecal coliform and enterococci are expressed as a geometric mean.
7. The permittee shall conduct chronic and acute toxicity tests two times per year. The permittee shall perform a 7-day chronic and modified acute test using Inland Silverside. Toxicity test samples shall be collected during the months of June and December. The test results shall be submitted by the last day of the month following the completion of the test. The results are due July 31st and January 31st, respectively. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Test Dates	Submit Results By:	Test Species	Acute Limit LC ₅₀	Chronic Limit C-NOEC
June December	July 31 st January 31 st	Inland Silverside	≥ 100%	≥ 11%

After submitting 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.

8. The LC_{50} 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.
9. 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 at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect. The "11% or greater" limit is defined as a sample which is composed of 11% (or greater) effluent, the remainder being dilution water. This is a maximum daily limit derived as a percentage of the inverse of the dilution factor of 8.52.
10. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment A Section IV., DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment A**, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment A**. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment A**.

Part I.A.1.

- 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 8.5 at any time, unless these values are exceeded as a result of an approved treatment process.
- 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. 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. 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 plans for further flow increases and discuss how the permittee will remain in compliance with the effluent limitations in the permit.
 - g. The results of sampling for any parameter above its required frequency must also be reported.
2. All POTWs must provide adequate notice to the Director of the following:
- a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; 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.
 - b. If, within 30 days after notice of an interference or pass through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action.
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.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I.A.1. 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). [Note: SSO Reporting Form (which includes MassDEP Regional Office telephone numbers) for submittal of written report to MassDEP is available on-line at: <http://www.mass.gov/dep/water/approvals/surffms.htm#sso>.]

C. 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:

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.

2. Preventative Maintenance Program

The permittee shall maintain an ongoing preventative 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.

3. Infiltration/Inflow Control Plan:

The permittee shall update its plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to EPA and MassDEP **within six (6) months of the effective date of this permit** (see page 1 of this permit for the effective date) and shall describe the permittee's program for preventing infiltration/inflow related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to excessive infiltration/inflow.

The plan shall include:

- An ongoing program to identify and remove sources of infiltration and inflow. The

program shall include the necessary funding level and the source(s) of funding.

- An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.
- Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of infiltration and inflow to the system.
- An educational public outreach program for all aspects of I/I control, particularly private inflow.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and the MassDEP annually, by March 31. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- Expenditures for any infiltration/inflow related maintenance activities and corrective actions taken during the previous year.
- A map with areas identified for I/I-related investigation/action in the coming year.
- A calculation of the annual average I/I, the maximum month I/I for the reporting year.
- A report of any infiltration/inflow related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and reported pursuant to the Unauthorized Discharges section of this permit.

4. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment works (as defined at 40 CFR §122.2)

D. 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 and with the CWA Section 405(d) technical standards.
2. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503), requirements.

3. The requirements and technical standards of 40 CFR part 503 apply to facilities which perform one or more of the following 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 40 CFR part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not 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 permittee shall use and comply with the attached compliance guidance document (see **Attachment B**) to determine appropriate conditions. Appropriate conditions contain the following elements:
 - General requirements
 - Pollutant limitations
 - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
 - Management practices
 - Record keeping
 - Monitoring
 - Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction 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 1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8.

8. The permittee shall submit an annual report containing the information specified in the guidance by **February 19**. Reports shall be submitted to the address contained in the reporting section of the permit. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal. The permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. In such case, the permittee is required only to submit an annual report by February 19 containing the following information:

- Name and address of contractor responsible for sludge disposal
- Quantity of sludge in dry metric tons removed from the facility by the sludge contractor

E. 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 **15th 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 is:

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
20 Riverside Drive
Lakeville, MA 02347

Signed and dated Discharge Monitoring Report Forms and toxicity test reports 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

F. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) 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 MassDEP 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.

Attachment C

Summary of Required Report Submittals*

Required Report	Date Due	Submitted By:	Submitted To: (see bottom of page for key)
Discharge Monitoring Report (DMR)	Monthly, postmarked by the 15 th of the month following the monitoring month (e.g. the March DMR is due by April 15 th).	Town of Dartmouth	1, 2, 3
Whole Effluent Toxicity (WET) Test Report (Part I.A.1)	April 30, July 31, October 31 and January 31 of each year	Town of Dartmouth	1, 2, 3
I/I Control Plan (Part I.C.3)	Within 6 months of permit effective date	Town of Dartmouth	1,2
I/I Annual Report (Part I.C.3)	By anniversary date of the effective date	Town of Dartmouth	1,2
Annual Sludge Report (Part I.D.8.)	February 19 each year	Town of Dartmouth	1,2

*This Table is a summary of reports required to be submitted under this NPDES permit as an aid to the permittee. If there are any discrepancies between the permit and this summary, the permittee shall follow the permit requirements.

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

2. Massachusetts Department of Environmental Protection
Bureau of Resource Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

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

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
ONE CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023**

FACT SHEET

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES**

NPDES PERMIT NO: MA0101605

NAME AND ADDRESS OF APPLICANT:

**Town of Dartmouth
400 Slocum Road
Dartmouth, MA 02747**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Town of Dartmouth
Water Pollution Control Facility
759 Russells Mills Road
Dartmouth, MA 02748**

RECEIVING WATERS: Buzzards Bay (MA-95)

CLASSIFICATION: Class - SA

I. PROPOSED ACTION

The above named applicant has applied to the U.S. Environmental Protection Agency for the re-issuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge into the designated receiving water. The current permit was signed on November 17, 2003 and became effective sixty (60) days later. The permit expired on January 17, 2008. The proposed draft permit has a term of five (5) years from its effective date.

II. TYPE OF FACILITY AND DISCHARGE LOCATION

The facility is a 4.2 million gallon per day (mgd) secondary wastewater treatment plant with ultraviolet (UV) disinfection. The collection system is a separate sanitary system and serves a population of 21,300. Sludge from the facility is composted and sold as a soil conditioner. A map showing the location of the facility and its outfall may be found in **Attachment A**. A description of the facility's discharge outfall is given below.

<u>Outfall</u>	<u>Description of Discharge</u>	<u>Outfall Location</u>
001	Treated Effluent	Buzzards Bay

III. DESCRIPTION OF DISCHARGE

A quantitative description of the discharge in terms of significant effluent parameters based on recent discharge monitoring reports (DMRs), January 2006 through November 2008 is shown on **Attachment B** of this fact sheet.

IV. LIMITATIONS AND CONDITIONS

The effluent limitations and monitoring requirements may be found in the draft NPDES permit.

V. PERMIT BASIS AND EXPLANATION OF EFFLUENT LIMITATION DERIVATION

A. PROCESS DESCRIPTION

The original Dartmouth Water Pollution Control Facility was completed in 1970. An expansion and upgrade of the facility was completed in 1992. The facility is designed to provide secondary treatment for an average annual daily flow of 4.2 MGD and a peak hourly flow of 10.3 MGD. At present, the annual average flow rate is 2.7 MGD. The treatment system includes the following units:

1. Headworks
2. Primary Clarifiers
3. Aeration Tanks
4. Secondary Clarifiers
5. UV Disinfection
6. Outfall

Influent enters the facility and is pumped up 35 feet to provide gravity flow through the treatment facility. At the headworks, influent passes through two (2) mechanically-cleaned bar screens and two (2) 10.33 mgd grit removal chambers. Influent is measured at a set of Parshall flumes. Septage/leachate is then fed into the plant at a controlled rate. Wastewater then flows to the two (2) primary clarifiers and then to four (4) aeration tanks followed by two (2) secondary clarifiers. Treated wastewater from the secondary clarifiers then flows through two 36 foot channels each with three (3) UV banks. Effluent then flows through 6.4 miles outfall and discharges into Buzzards Bay about 3,400 feet offshore in about 20 feet of water.

Waste activated sludge (WAS) is sent to the gravity belt thickener and then flows by gravity to the storage well. Thickened WAS and primary sludges are sent to the belt filter press where it is blended, polymer conditioned and dewatered. Sludge cake is then blended with wood chips to control moisture content. The blend is then composted for 21 days. The compost is then allowed to cure for an additional period of time. The final product is used as cover for the municipal landfill and is also sold commercially as Class I compost.

B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Overview of Federal and State Regulations

Under Section 301(b)(1) of the Clean Water Act ("CWA"), publicly owned treatment works ("POTWs") must have achieved effluent limitations based upon Secondary Treatment by July 1, 1977. The secondary treatment requirements are set forth at 40 C.F.R. Part 133.102. In addition, Section 301(b)(1)(C) of the CWA requires that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water.

Pursuant to 40 C.F.R. § 122.44 (d), permittees must achieve water quality standards established under Section 303 of the Clean Water Act (CWA), including state narrative criteria for water quality. Additionally, under 40 C.F.R. § 122.44 (d)(1)(i), "Limitations must control all pollutants or pollutant parameters which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard." When determining whether a discharge causes, or has the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numeric criterion, the permitting authority shall use procedures which account for existing controls on point and non-point sources of pollution, and where appropriate, consider the dilution of the effluent in the receiving water.

2. Water Quality Standards

Buzzards Bay is classified as Class SA waters in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). These waters are designated as an excellent habitat for fish, other aquatic life and wildlife and for primary and secondary contact recreation. Where designated for shellfishing, these waters shall be suitable for shellfish harvesting without depuration. These waters shall have excellent aesthetic value.

Shellfish beds located in the vicinity of the Dartmouth discharge are designated for shellfishing. There is an automatic closure zone around the outfall where shellfishing is prohibited.

3. Available Dilution

Some water quality- based limitations are established using a calculated available dilution. The dilution factor for this discharge was determined in the 1990 report, Environmental Data Report, Supplement to Facility Plan prepared by Jason M. Cortell and Associates, Inc. The report used the EPA recommended UMERGE model to determine initial dilution. At worst case conditions (slack tide), the model estimates that the plume dilution upon reaching the surface is 8.52.

Flow - The flow limit is based on the annual average design flow of the treatment plant, which is 4.2 mgd.

4. Conventional Pollutants

Biochemical Oxygen Demand (BOD₅) - The draft permit carries forward the average monthly and average weekly limits in the previous permit. The limits are based on the requirements set forth at 40 CFR 133.102 (b)(1), (2) and 40 CFR 122.45 (f). The secondary treatment limitations are monthly average BOD₅ concentrations of 30 mg/l, weekly average concentrations of 45 mg/l. The permittee shall report the maximum BOD value monthly, however, a maximum daily limit will not be set. The mass limitations for BOD are based on a 4.2 MGD design flow. The monitoring frequency is once per week.

Total Suspended Solids (TSS) - The draft permit carries forward the average monthly and average weekly limits in the previous permit. The limits are based on the requirements set forth at 40 CFR 133.102 (b)(1), (2) and 40 CFR 122.45 (f). The secondary treatment limitations are monthly average TSS concentrations of 30 mg/l, weekly average concentrations of 45 mg/l. The permittee shall report the maximum TSS value monthly, however, a maximum daily limit will not be set. The mass limitations for TSS are based on a 4.2 MGD design flow. The monitoring frequency is once per week.

BOD₅ and TSS Mass Loading Calculations:

Calculations of maximum allowable loads for average weekly and average monthly BOD₅ and TSS are based on the following equation:

$$L = C \times DF \times 8.34 \text{ or } L = C \times DF \times 3.79 \text{ where:}$$

L = Maximum allowable load in lbs/day.

C = Maximum allowable effluent concentration for reporting period in mg/l.

Reporting periods are average monthly and weekly.

DF = Design flow of facility in MGD.

8.34 = Factor to convert effluent concentration in mg/l and design flow in MGD to lb/day.

3.79 = Factor to convert effluent concentration in mg/l and design flow in MGD to kg/day.

$$(\text{Concentration limit}) [45] \times 8.34 (\text{Constant}) \times 4.2 (\text{design flow}) = 1576 \text{ lb/day}$$

$$(\text{Concentration limit}) [45] \times 3.79 (\text{Constant}) \times 4.2 (\text{design flow}) = 716 \text{ kg/day}$$

$$(\text{Concentration limit}) [30] \times 8.34 (\text{Constant}) \times 4.2 (\text{design flow}) = 1051 \text{ lb/day}$$

$$(\text{Concentration limit}) [30] \times 3.79 (\text{Constant}) \times 4.2 (\text{design flow}) = 478 \text{ kg/day}$$

Eighty-Five Percent (85%) BOD₅ and TSS Removal Requirement - the provisions of 40 CFR §133.102(3) requires that the 30 day average percent removal for BOD and TSS be not less than 85%. These limits are maintained in the draft permit.

pH - The draft permit includes pH limitations which are required by state water quality standards, and are more restrictive than pH limitations set forth at 40 C.F.R. §133.102(c). Class SA waters shall be in a range of 6.5 through 8.5 standard units and not more than 0.2 standard units outside of the normally occurring range (314 CMR 4.05 (4)(a)3). There shall be no change from background conditions that would impair any use assigned to this class. The monitoring frequency is five (5) times per week.

Fecal Coliform Bacteria - The draft permit includes bacteria limitations which are in accordance with the Massachusetts Surface Water Quality Standards 314 CMR 4.05 (4)(a)4. Buzzards Bay, in the vicinity of discharge, near Salters Point, is classified as a Class SA in the Massachusetts Surface Water Quality Standards and is designated for shellfishing outside closure zone, if local beds are open. Accordingly, the draft permit includes a monthly geometric mean fecal coliform limitation of 14 colony forming units (CFU) per 100 ml and a daily maximum limit of 28 CFU per 100 ml.

The MassDEP revised its surface water quality for bacteria in the revisions to the Massachusetts Surface Water Quality Standards (SWQS) 314 CMR 4.00 on December 29, 2006. EPA approved the changes to the bacteria criteria on September 19, 2007.

For salt waters, the SWQS criteria were revised from fecal coliform bacteria to either enterococci (for bathing beaches) or E.Coli (for non-beach inland waters). The updated SWQS changes the criteria from the previous standards which was for Class SA waters, a monthly geometric mean for fecal coliform bacteria of 14 cfu/100ml and no greater than 10% of the samples in a month to exceed 28 cfu/100ml.

The new criteria for enterococci are a monthly geometric mean of 35 cfu/100ml and single sample maximum (SSM) of 104 cfu/100ml for Class SA waters. MassDEP views the use of the 90% upper confidence level (lightly used full body contact recreation) of 276 cfu/100ml as appropriate for setting the maximum daily limit for enterococci in the draft permit.

Therefore, in addition to fecal coliform, EPA has established monthly average (geometric mean) effluent limit of 35 cfu/100ml and daily maximum effluent limit of 276 cfu/100ml for Enterococci in the draft permit in order to ensure that the discharge does not cause or contribute to exceedances of Massachusetts Surface Water Quality Standards found at 314 CMR 4.05 (4)(a)4.b.

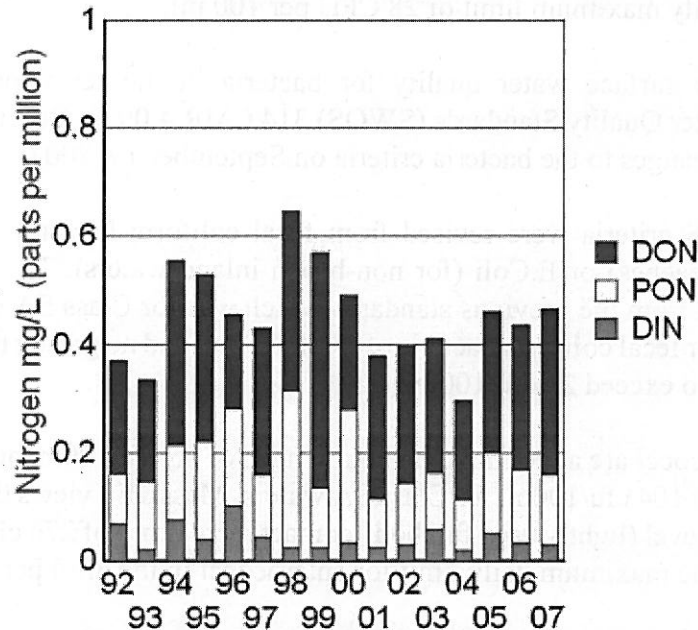
OUTFALL 001 - NON-CONVENTIONAL POLLUTANTS

Nitrogen - Nitrogen is an essential nutrient for the growth of algae. According to the report of the Comprehensive Conservation and Management Plan, Buzzards Bay Project, US EPA, MA EOE, Public Draft dated May, 1990, nitrogen loading is one of the most serious problems threatening many embayments in Buzzards Bay. During February 1994, the Buzzards Bay Project published a draft report titled "A Buzzards Bay Embayment

Subwater Evaluation : Establishing Priorities for Nitrogen Management Action". This report concluded that 62% of the nitrogen comes from sewage treatment discharges. The increased accumulation of algae can result in many adverse changes to coastal ecosystems, including limiting the transmission of light reaching eelgrass leaves, resulting in the loss of eelgrass beds that provide habitat for shellfish and other animals.

Baywatchers, a partner of Coalition for Buzzards Bay, conducted water quality monitoring in Apponagansett Bay from 1992 through 2007. Monitoring station AB6 in Apponagansett Bay is located near the mouth of Apponogansetts Bay and is the monitoring station nearest to the Dartmouth outfall for which nitrogen data was collected (monitoring data may be found at www.savebuzzardsbay.org/baywatchers). During the period from 1992 through 2007, total average nitrogen concentrations ranged from about 0.3 to 0.65 mg/l with an average value of less than 0.4 mg/l. See Graph below (from the Baywatchers web site).

Apponagansett Bay - AB6



DON = Dissolved Organic Nitrogen
PON = Particulate Organic Nitrogen
DIN = Dissolved Inorganic Nitrogen

The eutrophic condition in this embayment, as determined by the Coalition, is "fair to good". The nitrogen loading is not considered one of the most serious problems threatening this portion of the embayment. While there is no present indication that the discharge of nitrogen from the Dartmouth WWTF is causing particular harm at this time, due largely to the outfall's offshore location, EPA expects that the need for nitrogen limits may need to be revisited in the future.

The current permit includes monitoring requirements for total kjeldahl nitrogen (TKN), nitrate and ammonia. Monitoring results from DMRs from January 2006 to November

2008 indicate that TKN varies between 1.4 mg/l to 8.1 mg/l with an average value of 3.57 mg/l, nitrate varies between 1.34 mg/l to 23.7 mg/l with an average value of 11.5 mg/l and ammonia varies between 0.1 mg/l to 13.6 mg/l with an average value of 1.6 mg/l. The draft permit requires continued monitoring and reporting of nitrogen compounds to help support the Massachusetts Estuaries Project and related TMDL activities. When studies are complete, the need for nitrogen effluent limits will be re-visited.

Metals - Metals such as copper, lead, zinc and nickel, which are present in POTW discharges, can be toxic to aquatic life. There is a need to limit toxic metal concentrations in the effluent where aquatic life may be impacted. An evaluation (see below) of the reasonable potential of toxicity on the concentration of metals in the effluent shows that there is no reasonable potential of toxicity for metals. Therefore, no effluent limitations or monitoring requirements are proposed in the draft permit.

Calculation of reasonable potential for copper, lead, zinc and nickel :

Allowable Receiving Water Concentration, $C = \text{Criteria (Total Recoverable)} \times \text{Dilution Factor}$

Dilution Factor = 8.52

Metals criterion are taken from National Recommended Water Quality Criteria: 2002 . Effluent data for metals are from the chemical analysis performed in conjunction with whole effluent toxicity testing for the period from March 2006 to September 2008.

Copper : Chronic $C = 3.1 \times 8.52 = 26.4 \text{ ug/l}$, which is greater than the monthly average effluent concentration range of 10 to 25 ug/l, so there is no reasonable potential.

Acute $C = 4.8 \times 8.52 = 40.9 \text{ ug/l}$ which is greater than the maximum effluent concentration of 25 ug/l, so there is no reasonable potential.

Lead : Chronic $C = 8.1 \times 8.52 = 69 \text{ ug/l}$ which is greater than the monthly average effluent concentration range of 0 to 5 ug/l,, so there is no reasonable potential.

Acute $C = 210 \times 8.52 = 1789 \text{ ug/l}$ which is greater than the maximum effluent concentration of < 5 ug/l, so there is no reasonable potential.

Zinc : Chronic $C = 81 \times 8.52 = 690 \text{ ug/l}$ which is greater than the average of the monthly average effluent concentration range of 26 to 93 ug/l, so there is no reasonable potential.

Acute		$C = 90 \times 8.52 = 767$ ug/l which is greater than the average of the maximum effluent concentration of 93 ug/l, so there is no reasonable potential.
Nickel :	Chronic	$C = 8.2 \times 8.52 = 70$ ug/l which is greater than the monthly average effluent concentration range of 0 to 19 ug/l, so there is no reasonable potential.
	Acute	$C = 74 \times 8.52 = 630$ ug/l which is greater than the maximum effluent concentration of 19 ug/l,, so there is no reasonable potential.

OUTFALL 001 - WHOLE EFFLUENT TOXICITY (WET)

Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Massachusetts Surface Water Quality Standards include the following narrative statement that "All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife" and requires that EPA criteria established pursuant to Section 304(a)(1) of the CWA be used as guidance for interpretation of the following narrative criteria. .

National studies conducted by the EPA have demonstrated that domestic sources contribute toxic constituents to POTWs. These constituents include metals, chlorinated solvents, aromatic hydrocarbons and others. EPA recognizes that toxicity testing will also ensure that synergistic effects of pollutants in the discharge do not cause toxicity. Based on the potential for toxicity from domestic sources, the state narrative water quality criterion, the level of dilution at the discharge location, and in accordance with EPA national and regional policy, Massachusetts policy, and 40 C.F.R. § 122.44(d), the draft permit includes whole effluent chronic and acute toxicity limitations.. (See also "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants", 49 Fed. Reg. 9016 March 9, 1984, EPA's "Technical Support Document for Water Quality-Based Toxics Control", September, 1991, and MassDEP's "Implementation Policy for the Control of Toxic Pollutants in Surface Waters", February 23, 1990)

The LC₅₀ limit of $\geq 100\%$ is established pursuant to EPA/MassDEP policy for facilities with less than 10:1 dilution. The C-NOEC is established at the receiving water concentration ($1/\text{Dilution Factor} = 1/8.52$) which is 11%.

MassDEP's toxics policy requires toxicity testing for all major dischargers, such as the Town of Dartmouth WPCF. The current permit required quarterly chronic and acute toxicity tests. The permittee performed twice per year, in June and December, a 7-day

chronic and modified acute test using Inland Silverside and twice per year, in April and September, a 1-hour chronic fertilization test using Sea Urchin. A review of the toxicity tests reveal that the permittee is meeting more than eight consecutive times acute and chronic test limits. So, the requirements of toxicity tests are reduced from four times per year to two times per year in the draft permit. The new requirements are to perform two times per year in June and December a 7-day chronic and modified acute test using Inland Silverside. Tests must be performed in accordance with the test protocols specified in **Permit Attachment A**.

As a condition of this permit, the testing requirements may be reduced if certain conditions are met. The permit provision anticipates that the permittee may wish to request a reduction in the WET testing. After four consecutive WET tests, demonstrating compliance with the permit limits for whole effluent toxicity, the permittee may submit a written request to the EPA seeking a review of toxicity test results. The EPA will review the test results and pertinent information to make a determination. The permittee is required to continue testing at the frequency and species specified in the permit until the permit is either formally modified or until the permittee receives a certified letter from the EPA indicating a change in the permit conditions.

VI OPERATION AND MAINTENANCE REQUIREMENTS

The permit standard conditions for 'Proper Operation and Maintenance' are found at 40 CFR §122.41(e). These require proper operation and maintenance of permitted wastewater systems and related facilities to achieve permit conditions. Similarly, the permittee has a 'duty to mitigate' as stated in 40 CFR §122.41 (d). This requires the permittee to take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment.

EPA and MassDEP have included specific operation and maintenance requirements for the wastewater treatment plant and collection system. These requirements may be found in Part I.C. of the permit and include requirements for adequate staffing, preventative maintenance, infiltration and inflow (I/I) control, and alternate power needed at pump stations.

Of these requirements, only the I/I control requirements apply specifically to the collection system. EPA and MasDEP have determined that an I/I removal program is an integral component to ensuring permit compliance. I/I is extraneous water entering the wastewater collection system through a variety of sources.

Infiltration is groundwater that enters the collection system through physical defects such as cracked pipes, or deteriorated joints. Inflow is extraneous flow entering the collection system through point sources such as roof leaders, yard and area drains, sump pumps, manhole covers, tide gates, and cross connections from storm water systems.

Significant I/I in a collection system may displace sanitary flow reducing the capacity and the efficiency of the treatment works and may cause bypasses of secondary treatment. It greatly increases the potential for sanitary sewer overflows (SSO) in separate systems, and combined sewer overflows in combined systems.

The permittee shall develop an I/I removal program commensurate with the severity of the I/I in the collection system. Where portions of the collection system have little I/I, the control program will logically be scaled down

The MassDEP has stated that inclusion of the I/I conditions in the draft permit shall be a standard State Certification requirement under Section 401 of the Clean Water Act and 40 CFR §124.55(b).

VII SLUDGE INFORMATION AND REQUIREMENTS

Section 405(d) of the Clean Water Act requires that sludge conditions be included in all POTW permits. The Dartmouth WPCF waste activated sludge (WAS) is sent to the gravity belt thickener and then flows by gravity to the storage well. Thickened WAS and primary sludges are sent to the Belt Filter Press where it is blended, polymer conditioned and dewatered. Sludge cake is then blended with wood chips to control moisture content. The blend is then composted for 21 days. The compost is then allowed to cure for additional time. Final disposal is as cover for the municipal landfill and sold commercially as Class I compost. This method of sludge disposal is subject to the requirements of 40 CFR Part 503, Subpart B- Land Application. If the ultimate sludge disposal method changes, the permit requirements pertaining to sludge monitoring and other conditions would change accordingly.

VII PRETREATMENT

Pollutants introduced into POTWs by a nondomestic source shall not pass through the POTW or interfere with the operation or performance of the treatment.

IX ANTI-BACKSLIDING

Anti-backsliding as defined at 40 CFR §122.44(l)(1) requires reissued permits to contain limitations as stringent or more stringent than those of the previous permit unless the circumstances allow application of one of the defined exceptions to this regulation. Anti-backsliding does not apply when changes to limits are based on new information not available at the time of the previous permit reissuance (40 CFR §122.44 (l)(2)(i)(B)(1)) or when limits are changed as a result of material and substantial additions or alterations to the permitted facility which occurred after permit issuance which justify the application of less stringent limitations, as defined 40 CFR § 122.44 (l)(2)(i)(A).

X ANTI-DEGRADATION

The Massachusetts Anti-degradation Policy is found at Title 314 CMR 4.04. All existing uses of Buzzards Bay must be protected. This draft permit is being reissued with allowable discharge limits as or more stringent than the current permit with the same parameter coverage. There is no change in outfall location.

XI UNAUTHORIZED DISCHARGES

The permittee is not authorized to discharge wastewater from any pump station emergency overflow. Overflows must be reported in accordance with reporting requirements found in Section D.1.e. of Part II of the permit (24-hour reporting). If a discharge does occur, the permittee must notify the EPA, the MassDEP, and others, as appropriate (e.g. local Public Health Department), both orally and in writing as specified in the draft permit.

XII ESSENTIAL FISH HABITAT

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 *et seq.*(1998)), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat," 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," 16 U.S.C. § 1802(10). "Adverse impact" means any impact which reduces the quality and/or quantity of EFH, 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. *Id.*

Essential fish habitat is only designated for fish species for which federal Fisheries Management Plans exist. 16 U.S.C. § 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

EFH Species

The following is a list of the EFH species and applicable life stage(s) for the area that includes Atlantic Ocean waters around Dartmouth, MA.

Summary of Essential Fish Habitat (EFH) Designations

Name of Estuary/ Bay/ River: Buzzards Bay, Massachusetts

10' x 10' Square Coordinates:

Boundary	North	East	South	West
Coordinate	41° 40.0' N	70°50.0' W	41° 30.0' N	71° 00.0' W

Square Description (i.e. habitat, landmarks, coastline markers): Waters within Buzzards Bay within the Atlantic Ocean within the square affecting the following: south of Dartmouth, MA., New Bedford, MA., and Fairhaven, MA., from Scoticus Neck and the western part of West Island to Slocum Neck and Barney's Joy Point in Dartmouth, MA. Also affected are: Wilkes Ledge Mishaum Pt., Round Hill Pt., Smith Neck, Dumpling Rocks, Negro Ledge, Great Ledge, Phinney Rock, Pawn Rock, White Rock, Hussey Rock, Apponagansett Bay, Ricketson Pt. in South Dartmouth, MA., Apponagansett, MA., Clarks Cove, Clarks Pt., in Fairhaven, MA., Butler Flats, Mosher Ledge, Wilbur Pt. on Sconticut Neck, Bents Ledge, Middle Ledge, and West Ledge. These waters are also

within western Nasketucket Bay, east of Sconticut Neck and north of West I., and within New Bedford Harbor.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod (<i>Gadus morhua</i>)	X	X	X	X
haddock (<i>Melanogrammus aeglefinus</i>)	X	X		
red hake (<i>Urophycis chuss</i>)		X	X	X
winter flounder (<i>Pleuronectes americanus</i>)	X	X	X	X
windowpane flounder (<i>Scophthalmus aquosus</i>)	X	X	X	X
American plaice (<i>Hippoglossoides platessoides</i>)			X	X
Atlantic sea herring (<i>Clupea harengus</i>)			X	X
bluefish (<i>Pomatomus saltatrix</i>)			X	X
long finned squid (<i>Loligo pealei</i>)	n/a	n/a	X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)	X	X	X	X
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
summer flounder (<i>Paralichthys dentatus</i>)	X	X	X	X
scup (<i>Stenotomus chrysops</i>)	X	X	X	X
black sea bass (<i>Centropristus striata</i>)	n/a	X	X	X
surf clam (<i>Spisula solidissima</i>)	n/a	n/a	X	X
king mackerel (<i>Scomberomorus cavalla</i>)	X	X	X	X

Spanish mackerel (Scomberomorus maculatus)	X	X	X	X
cobia (Rachycentron canadum)	X	X	X	X
sandbar shark (Charcharinus plumbeus)				X
bluefin tuna (Thunnus thynnus)			X	

Buzzards Bay in the vicinity of the Dartmouth Water Pollution Control Facility discharge is designated essential fish habitat (EFH) for species of finfish. Based on the amount and frequency of the discharge, as well as effluent limitations and other permit requirements identified in this Fact Sheet that are designed to be protective of all aquatic species, including those with designated EFH, EPA has determined that there will be no adverse effects on these species based on the following :

This is a re-issuance of an existing permit;

The quantity of discharge from the WWTF is 4.2 mgd monthly average; effluent receives as a minimum secondary treatment using activated sludge processes;

Effluent is discharged into the Buzzards Bay with an estimated dilution ratio of 8.52:1;

Chronic and Acute toxicity tests will be conducted on Inland silverside two times per year;

The permit will prohibit any violation of state water quality standards.

EPA is coordinating a review of this finding with NMFS and/or USFWS through the Draft Permit and Fact Sheet and further consultation under Section 7 of the ESA with NMFS and/or USFWS is not required.

XIII COASTAL ZONE MANAGEMENT (CZM) CONSISTENCY REVIEW

40 CFR §122.49 (d) states: *The Coastal Zone Management Act, 16 U.S.C. 1451 et seq. section 307(c) of the Act and implementing regulations (15 CFR part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).*

The discharge is within the defined CZM boundaries. The permittee has submitted a letter to the Massachusetts Coastal Zone Management Program stating its activity comply with the policies of the Massachusetts approved coastal management program and will be

conducted in a manner consistent with such policies. CZM shall review the draft permit and the permit will only be issued after CZM certification.

XIV MONITORING AND REPORTING

The permittee is obliged to monitor and report sampling results to EPA and the MassDEP within the time specified in the permit. The effluent monitoring requirements have been established to yield data representative of the discharge by the authority under Section 308(a) of the CWA in accordance with 40 CFR 122.441(j), 122.44, and 122.48.

The remaining general conditions of the permit are based primarily on the NPDES regulations 40 CFR 122 through 125 and consist primarily of management requirements common to all permits.

XV STATE PERMIT CONDITIONS

The NPDES Permit is issued jointly by the U. S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection under federal and state law, respectively. As such, all the terms and conditions of the permit are, therefore, incorporated into and constitute a discharge permit issued by the MassDEP Commissioner.

XVI GENERAL CONDITIONS

The general conditions of the permit are based on 40 CFR Parts 122, Subparts A and D and 40 CFR 124, Subparts A, D, E, and F and are consistent with management requirements common to other permits.

XVII STATE CERTIFICATION REQUIREMENTS

The staff of the Massachusetts Department of Environmental Protection ("MassDEP") has reviewed the draft permit. EPA has requested permit certification by the State pursuant to 40 CFR § 124.53 and expects that the draft permit will be certified.

XVIII PUBLIC COMMENT PERIOD AND PROCEDURES FOR FINAL DECISION

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection, Municipal Permits Branch, One Congress Street, Suite-1100, Boston, Massachusetts 02114. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. Public hearings may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates a significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period and after a public hearing, if such a hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of

the final decision to the applicant and each person who has submitted written comments or requested notice.

XIX EPA CONTACT

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Suproakash Sarker
Office of Ecosystem Protection
U.S. Environmental Protection Agency
One Congress Street, Suite-1100 (CMP)
Boston, MA 02114-2023
Telephone: (617) 918-1639
sarker.soupy@epa.gov

April 2, 2009
Date

Kenneth Moraff, Acting Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

RESPONSE TO PUBLIC COMMENTS FOR
DRAFT NPDES PERMIT MA0101605

TOWN OF DARTMOUTH
DARTMOUTH WASTEWATER TREATMENT FACILITY
759 RUSSELLS MILLS ROAD
DARTMOUTH, MA 02748

On April 29, 2009, the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) released a draft National Pollutant Discharge Elimination System (NPDES) permit for public notice and comment, for the above facility. The public comment period for this draft permit ended on May 28, 2009. Comments received are reproduced below as received and have not been edited.

The following comments were received from **the Coalition For Buzzards Bay:**

WWTF Nitrogen Limits

While nitrogen pollution is the greatest long-term threat to the health of Buzzards Bay and its 30 harbors and coves including the Slocums River and Apponagansett Bay, The Coalition is not aware of any data which would support a nitrogen limit for the Dartmouth WWTF at this time. In fact, anecdotal evidence suggests that the water quality at this location remains relatively good. Due to the outfall's deep water, well flushed location, there is no present indication that the nitrogen discharge from the Dartmouth WWTF is adversely impacting water quality. However, we expect that the inclusion of nitrogen discharge limits may be an issue in a future permit in order to meet Baywide nitrogen reduction targets, such as those already in place in Long Island Sound and the Chesapeake Bay. The Coalition supports the draft permit's requirement of continued monitoring and reporting of nitrogen compounds to help support the Massachusetts Estuaries Project ("MEP") and related Total Maximum Daily Load ("TMDL") activities.

Nitrogen Limits in the Slocums/Little River and Apponagansett Bay

While current data do not support a nitrogen limit on the Dartmouth WWTF at this time, a final technical report issued by the MEP establishes enforceable nitrogen limits for the Slocums and Little Rivers. The MEP report defining nitrogen limits on Apponagansett Bay is due out later this year. These reports serve as the scientific foundation for TMDLs, those nitrogen limits the town will be required to meet under the Clean Water Act. The report clearly shows that the Slocums River is well beyond its ability to assimilate current nitrogen loadings. Since residential septic systems account for 37% of the local load to the system, it is likely that the town will need to expand sewer service in order to reduce the nitrogen load to these near-shore, nitrogen-impaired, estuaries. The Coalition encourages the town of Dartmouth to prioritize the available capacity at the WWTF to

serve areas which will reduce nitrogen load to impaired waterbodies including the Slocums River.

Response

We have noted your comments. EPA and MassDEP will review the final technical report for the Slocums River when it will be ready. Dartmouth WWTF has a monthly average design capacity for flow of 4.2 mgd. Current monthly average flow is approximately 3.1 mgd. EPA also encourages the Town of Dartmouth to prioritize the available capacity at the WWTF to serve areas which will reduce nitrogen load to impaired waterbodies including the Slocums River.