

**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 Scituate
Department of Public Works**

is authorized to discharge from the facility located at

**Scituate Wastewater Treatment Plant
161 Driftway
Scituate, MA 02066**

to receiving water named

**Tidal Creek to Herring River
(South Coastal Watershed - MA 94-07)**

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

This permit shall become effective on (See ** below)

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

This permit supersedes the permit issued on November 22, 2004.

This permit consists of 15 pages in Part I including effluent limitations and monitoring requirements, 25 pages in Part II including Standard Conditions, Attachment A – Whole Effluent Toxicity Test Protocol, and Attachment B - Summary of Required Report Submittals.

Signed this day of

Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Director
Massachusetts Wastewater
Management Program
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

** This permit will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will be made effective no sooner than 30 days after signature

DRAFT

NPDES Permit No. MA0102695

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PART I

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 tidal creek tributary to the Herring River. Such discharges shall be limited and monitored as specified below.

<u>EFFLUENT CHARACTERISTIC</u>	<u>EFFLUENT LIMITS</u>				<u>MONITORING REQUIREMENTS</u> ³		
<u>PARAMETER</u>	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE</u> ³ <u>TYPE</u>
FLOW ²	*****	*****	1.6 MGD	*****	Report MGD	CONTINUOUS	RECORDER
FLOW ²	*****	*****	Report MGD	*****	*****	CONTINUOUS	RECORDER
CBOD ₅ ⁴	133 lbs/day	*****	10 mg/l	15 mg/l	Report mg/l ¹	1/WEEK	24-HOUR COMPOSITE ⁵
TSS ⁴	133 lbs/day	*****	10 mg/l	15 mg/l	Report mg/l ¹	1/WEEK	24-HOUR COMPOSITE ⁵
pH RANGE ¹	6.5 - 8.5 SU (SEE PERMIT PAGE 5 OF 15, PARAGRAPH I.A.1.b.)					3/WEEK	GRAB
ENTEROCOCCUS ^{1,6}	*****	*****	35 MPN/100 ml	*****	276 MPN/100 ml	3/WEEK	GRAB
FECAL COLIFORM ^{1,6}	*****	*****	14 MPN/100ml	*****	28 MPN/100ml	3/WEEK	GRAB
DISSOLVED OXYGEN	*****	*****	≥ 6.0 mg/l	*****	Report mg/l	1/WEEK	GRAB
TOTAL COPPER ⁷	*****	*****	4 ug/l	*****	6 ug/l	1/MONTH	24-HOUR COMPOSITE ⁵
TOTAL NICKEL ⁷	*****	*****	8 ug/l	*****	Report ug/l	1/MONTH	24-HOUR COMPOSITE ⁵
TOTAL ZINC	*****	*****	86 ug/l	*****	95 ug/l	1/MONTH	24-HOUR COMPOSITE ⁵
TOTAL NITROGEN	53 lbs/day	*****	4.0 mg/l	*****	Report mg/l	1/WEEK	24-HOUR COMPOSITE ⁵
WHOLE EFFLUENT TOXICITY ^{8,11}	Acute ⁹ LC ₅₀ ≥100% Chronic ¹⁰ C-NOEC ≥100%					4/YEAR	24-HOUR COMPOSITE

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 samples shall be collected at the point specified in the table below. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP.

Parameter	Sample Location
Flow	Parshall flume
CBOD ₅ TSS Total nitrogen Total copper Total nickel Total zinc Whole effluent toxicity	Collect sample from the automatic sampler located after the UV disinfection unit CBOD ₅ and TSS influent samples shall be taken from the influent wet well
pH Dissolved oxygen Fecal coliform bacteria <i>Enterococcus</i>	Collect sample after the effluent Parshall flume

All samples shall be tested using the analytical methods found in 40 CFR Part 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR Part 136.

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.

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. Fecal coliform and *Enterococcus* monitoring will be conducted year-round.

7. The permittee shall analyze total copper and total nickel samples using an EPA approved method found in 40 CFR §136. The method(s) shall have a minimum level (ML) lower than the effluent limits for these pollutants. The ML is the level at which the entire analytical system gives recognizable mass spectra and acceptable calibration points when analyzing for pollutants of concern. The level corresponds to the lowest point at which the calibration curve is determined for the pollutant of concern.
8. The permittee shall conduct chronic (and modified acute) toxicity tests *four* times per year. The chronic test may be used to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test Inland Silverside, *Menidia beryllina* and Sea Urchin, *Arbacia punctulata*.

Toxicity test samples shall be collected during the months listed below. The test results shall be submitted by the last day of the month following the completion of the test. 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
January April July October	February 28 th May 31 st August 31 st November 30 th	<i>Arbacia punctulata</i> <i>Menidia beryllina</i> (see Attachment A)	***** ≥100%	≥100% ≥100%

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.

9. The Lethal Concentration₅₀ (LC₅₀) 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.
10. 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 "100% or greater" limit is defined as a sample which is composed of 100% (or greater) effluent, the remainder being dilution water.

11. 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 **Attachment A**. 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 **Attachment A**.

Part I.A.1. (Continued)

- a. The discharge shall not cause a violation of the state water quality standards of the receiving waters.
- b. The pH of the effluent shall not be less than 6.5 or greater than 8.5 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 CBOD₅. The percent removal shall be based on monthly average values.
- f. The results of sampling for any parameter done in accordance with EPA approved methods above its required frequency must also be reported.

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 Part II 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/dep/water/approvals/surffms.htm#sso>.

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance (O & M) 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 C.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 C.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 C.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 submitted and implemented 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 the design flow [1.28 mgd] 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 works¹ it owns and operates.

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, 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.

¹ As defined at 40 CFR §122.2, which references the definition at 40 CFR §403.3

- 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.²

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"

² 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>

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:
 - a. Name and address of contractor(s) responsible for sludge preparation, use or disposal
 - b. 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.

E. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis that precludes the use of NetDMR for submitting DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

a. Submittal of Reports Using NetDMR

NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”).

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA, including the MassDEP Monthly Operations and Maintenance Report, as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs (including Monthly Operation and Maintenance Reports) to MassDEP until further notice from MassDEP.

b. Submittal of NetDMR Opt-Out Requests

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 is 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, 2nd Floor
Worcester, Massachusetts 01608

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit, including MassDEP Monthly Operation and Maintenance Reports, shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

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

Duplicate signed copies of all reports or notifications required above shall be submitted to the State at the following addresses:

MassDEP – Southeast Region
Bureau of Resource Protection (Municipal) or
Bureau of Waste Prevention (Industrial)
20 Riverside Drive
Lakeville, MA 02347

Copies of whole effluent toxicity reports only:

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

Any verbal reports, if required in **Parts I** and/or **II** of this permit, shall be made to both EPA-New England and to MassDEP.

F. 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.

Summary of Required Report Submittals

This table is a summary of the reports required to be submitted under this NPDES permit as an aid to the permittee(s). If there are any discrepancies between the permit and this summary, the permittee(s) shall follow the permit requirements. The addresses are for the submittal of hard copies.

When the permittee begins reporting using NetDMR, submittal of hard copies of many of the required reports will not be necessary. See permit conditions for details.

1 U.S. Environmental Protection Agency Water Technical Unit (OES04-SMR) 5 Post Office Square - Suite 100 Boston, MA 02109-3912	2 MassDEP Division of Watershed Management Surface Water Discharge Permit Program 627 Main Street, 2nd Floor Worcester, MA 01608
3 Massachusetts Department of Environmental Protection Southeast Region Bureau of Resource Protection 20 Riverside Drive Lakeville, MA02347	

Requirement	Due Date	Addressees
Toxicity test samples shall be collected during the months of. January, April, July, and October [Part I.A Footnote 8]	Results shall be submitted by February 28 th , May 31 st , August 31 st , and November 30 th of each year	1 and 2
If the average annual flow in any calendar year exceeds 80% of the facility's design flow, the permittee shall submit a report to MassDEP. [Part I.A.2.g.]	By March 31 of the following calendar year	1, 2 and 3
Notification of Sanitary Sewer Overflows [Part I.B]	Within 24 hours of SSO event.	1 and 3
The permittee shall prepare a map of the sewer collection system it owns.	Within 30 months of the effective date of this permit	1, and 3
The permittee shall develop and implement a Collection System Operation and Maintenance Plan.	Within six (6) months of the effective date of the permit, the permittee shall submit to EPA and MassDEP	1, and 3
The full Collection System O & M Plan shall be submitted and implemented to EPA and MassDEP	Within twenty four (24) months from the effective date of this permit.	1 and 3

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	1 and 3
Annual Sludge Report [Part I.D.8]	Annually by February 19	1 and 3
Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) [Part I.G]	Postmarked no later than the 15th day of the following month.	1 and 3

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
FIVE POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912**

FACT SHEET

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

NPDES PERMIT NO: **MA0102695**

PUBLIC NOTICE DATE: November 4, 2011 – December 3, 2011

NAME AND ADDRESS OF APPLICANT:

**Department of Public Works
Town of Scituate
600 Chief Justice Cushing Way
Scituate, MA 02066**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Scituate Wastewater Treatment Plant
161 Driftway
Scituate, MA 02066**

RECEIVING WATERS: **Tidal Creek to Herring River
(South Shore Coastal Watershed - MA 94-07)**

CLASSIFICATION: **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 issued November 22, 2004. On December 27, 2004, Scituate filed a petition for review (appeal) of the permit with the Environmental Appeals Board ("Board"), seeking that the permit be remanded back to EPA New England on several grounds. The Board issued an Order Denying Review on April 19, 2006. All conditions in the November 22, 2004 permit went into effect on June 1, 2006. The expiration date is June 1, 2011. A timely re-application was received. The proposed term of this draft permit is five years. This fact sheet includes: Attachment A- Discharge Monitoring Report Data, Figure 1- Location Map, Location Satellite view, and a Process Flow Schematic.

TYPE OF FACILITY AND DISCHARGE LOCATION

The Town of Scituate Wastewater Treatment Plant (WWTP) is a 1.6 million gallon per day (mgd) advanced treatment facility providing treatment to primarily domestic and commercial wastewater. The current annual average effluent flow is 1.31 mgd and the maximum daily flow is 3.90 mgd^a

The wastewater treatment facility was initially put in operation in 1965 and upgraded in 1980 and 2000. The facility discharges through outfall 001, to an unnamed tidal creek that is a tributary to the Herring River, which in turn discharges into the North River Estuary. This facility serves a population of 7,500. The collection system is a separate sanitary sewer system.

II. DESCRIPTION OF DISCHARGE

A quantitative description of the discharge in terms of significant effluent parameters based on recent discharge monitoring reports (DMRs), March 1, 2009 through February 28, 2011, is shown in Attachment A of this fact sheet.

III. LIMITATIONS AND CONDITIONS

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

IV. PERMIT BASIS AND EXPLANATION OF EFFLUENT LIMITATION DERIVATION

A. PROCESS DESCRIPTION

Raw influent arrives at the WWTP through a 36 inch diameter sewer. Preliminary treatment consists of a mechanical bar screen or optional manual (hand) screen followed by two wet wells and two aerated grit tanks. Wastewater then flows from the grit tank to a distribution tank, where it is distributed to the (new) Number 4 aeration tank. Flows greater than can be handled by tank Number 4 are sent to the three older aeration tanks as offline storage. Following aeration, flow is channeled to three settling tanks followed by four down-flow filters (for nitrogen removal). Disinfection is by two banks of ultraviolet lights. The effluent receives post treatment aeration in 2 tanks and flow is measured by a Parshall flume prior to discharge through a 20 inch diameter pipe to the tidal creek.

Disinfection -The WWTP has two parallel ultra-violet disinfection units consisting of two 36-foot channels with three lamp banks each. Each channel is designed to provide an energy dose level of approximately 64,000 uW-sec/cm² at peak flow, with a 45 second retention time at peak flow. The power supply is automatically varied in direct proportion to plant flow.

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 achieve 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.

^a December 15, 2010 Application

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; Designated Use; Outfall 001

The Scituate Wastewater Treatment Plant discharges to a 2,000 foot long (approximate) tidal creek which runs through a salt marsh and empties into the Herring River, which is tributary to the North River, which in turn empties into Massachusetts Bay.

The tidal creek and the Herring River are not specifically designated in the Tables or Figures in 314 CMR 4.06, and so are classified SA pursuant to 314CMR 4.06 (4). According to 314 CMR 4.05(4), Class SA waters are designated as an excellent habitat for fish, other aquatic life, and wildlife, and for primary and secondary contact recreation. In approved areas they shall be suitable for shellfish harvesting without depuration (Open Shellfish Areas). These waters shall have excellent aesthetic value.

The North River is designated in the Tables in 314 CMR 4.06 as SA water, and the segment at the confluence with the Herring River (Main Street to Massachusetts Bay) is designated for shellfishing.

The objective of the Federal Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. To meet this goal the CWA requires states to develop information on the quality of their water resources and report this information to the U.S. Environmental Protection Agency (EPA), the U.S. Congress, and the public. To this end, the EPA released guidance on November 19, 2001, for the preparation of an integrated List of Waters that could combine reporting elements of both 305(b) and 303(d) of the CWA. The integrated list format allows the states to provide the status of all their assessed waters in one list. States choosing this option must list each water body or segment in one of the following five categories:

1) Unimpaired and not threatened for all designated uses; 2) Unimpaired waters for some uses and not assessed for others; 3) Insufficient information to make assessments for any uses; 4) Impaired or threatened for one or more uses but not requiring the calculation of a Total Maximum Daily Load (TMDL); and 5) impaired or threatened for one or more uses and requiring a TMDL.

Section 303(d) of the Federal Clean Water Act (CWA) requires states to identify those water-bodies that are not expected to meet surface water quality standards after the implementation of technology-based controls and, as such require the development of total maximum daily

loads (TMDL). The Herring and North Rivers are listed in the 2008 Massachusetts Integrated List in Category 5, for pathogens. The WWTP had two average monthly exceedances and four maximum day exceedances of the fecal coliform limits during the 24 month period from March 1, 2009 through February of 2011.

OUTFALL 001 - POLLUTANTS

Carbonaceous Biochemical Oxygen Demand (CBOD₅) and Total Suspended Solids (TSS) – The total BOD of a wastewater is composed of two components – a carbonaceous oxygen demand and a nitrogenous oxygen demand. Due to the slow growth rates of the nitrifying organisms that exert the nitrogenous demand, it is normally assumed that no nitrogenous demand is exerted during the 5-day BOD₅ test. Because this WWTP is designed to remove nitrogen, nitrifying organisms are cultivated in the treatment process and exerted in the five day BOD test. The CBOD₅ test includes the addition of a chemical that inhibits the growth of nitrifying organisms, thus measuring only the carbonaceous oxygen demand. Nitrogenous oxygen demand in the facility's discharge is controlled through effluent limits on total nitrogen.

The draft permit carries forward the average monthly and average weekly limits, and the maximum daily reporting requirements found in the previous permit. The draft permit includes average monthly and average weekly CBOD₅ and total suspended solids (TSS) concentration limits originating from the model used in a facility planning study (1995^b). The model recommended limits of 10 mg/l average monthly and 15 mg/l average weekly for both CBOD₅ and TSS. The maximum daily reporting requirements were included by request of the MassDEP in the last permit and continue to be a requirement in this permit. The CBOD₅ and TSS average monthly 85% percent removal limitations are based on requirements found at 40 CFR §133.102(b).

The draft permit also includes average monthly mass limitations (lbs/day) for both CBOD₅ and TSS based upon design flow and the average monthly concentration limits (mg/l). The loading limits are carried forward from the current permit. In its Section 401 State Water Quality Certification letter, dated November 2, 2004, MassDEP stated that the loading requirements are based on Surface Water Quality Standards Antidegradation provisions found at 314 CMR4.04(1). The pounds per day limits are calculated using the annual average design flow of 1.6 mgd.

The frequency of monitoring for CBOD₅ and TSS remains at 1/week.

CBOD₅ and TSS Mass Loading Calculations:

Calculations of allowable loads for both average monthly CBOD₅ and TSS are based on the following equation:

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

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 and daily maximum.

DF = Design flow of facility in MGD.

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

^b (WQONN: Water Quality of Networks/Nutrient Version; reference: Harleman et al 1977)

(Concentration limit) [10] X 8.34 (Constant) X 1.6 (design flow) = 133 lb/day

pH - The draft permit includes pH limitations which are required by state water quality standards, and are at least as stringent as 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 4.04 (4)(a)3]. There shall be no change from background conditions that would impair any use assigned to this class.

Bacteria limits - Fecal Coliform Bacteria and *Enterococci* Bacteria. The effluent limits for bacteria are based on the Massachusetts Surface Water Quality Standards (MSWQS) for Class SA waters, as promulgated in 2006 and approved by EPA in 2007.

Fecal Coliform Bacteria - The MSWQS (314 CMR § 4.05(4)(a)4) require that in SA waters designated for shellfishing: “fecal coliform shall not exceed a geometric mean Most Probable Number (MPN^c) of 14 organisms per 100 ml, nor shall more than 10% of the samples exceed a MPN of 28 per 100 ml, or other values of equivalent protection based on sampling and analytical methods used by the Massachusetts Division of Marine Fisheries and approved by the National Shellfish Sanitation Program in the latest revision of the *Guide for the Control of Molluscan Shellfish*.”

The monthly average limit in the current permit (14 cfu/100 ml) is consistent with the current MSWQS and has been retained in the draft permit. The maximum daily limit in the current permit is 43 cfu/100 ml, which was based on previous Massachusetts Water Quality Standards for waters designated for shellfishing, and are less stringent than the criteria in the current Massachusetts water Quality Standards (28 MPN/100 ml). Accordingly, the maximum daily limit in the draft permit has been lowered to 28 cfu/100 ml.

The monitoring frequency (3/week) proposed in the draft permit is the same as in the current permit.

Enterococci Bacteria - MassDEP added new criteria to its surface water quality standards for bacteria in a revision to the Massachusetts Surface Water Quality Standards (314 CMR 4.00) on December 29, 2006. EPA approved the changes to the bacteria criteria on September 19, 2007. The criteria require that no single *Enterococci* sample exceed 104 colonies per 100 ml and that geometric mean of all samples taken within the most recent six months based on a minimum of five samples shall not exceed 35 *Enterococci* colonies per 100 ml.

MassDEP views the use of the 90% upper confidence level of 276 cfu/100ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit.

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)4b. Sampling is required three times per week.

^c Under the MPN method, gasses expelled by coliform colonies are collected in fermentation tubes. The number of tubes testing positively (gas is collected) or negatively (no gas is collected) is interpreted statistically to yield the most probable number. Under the CFU method, coliform colonies are grown on filter paper that is used to strain effluent. The method provides a direct visual measure of coliform counts. Both methods are approved EPA methods under 40 CFR Part 136 and give the same results.

Dissolved Oxygen (DO) – The dissolved oxygen limit in the draft permit is ≥ 6.0 mg/l in accordance with Massachusetts Surface Water Quality Standards 314 CMR 4.05 (4)(a)(1) for Class SA water.

Total Copper, Total Zinc, and Total Nickel

EPA is required to limit any pollutant that is or may be discharged at a level that causes, or has reasonable potential to cause, or contribute to an excursion above any water quality criterion (40 CFR §122.44(d)). Copper, zinc, and nickel are toxic to aquatic life at low concentrations. Recent effluent monitoring data were evaluated against the criteria to determine if there is a reasonable potential for metals in the effluent to cause or contribute to a violation of water quality standards. Dilution was not considered because under certain tidal conditions there is no dilution flow available. EPA and MassDEP compared the criterion maximum concentration (CMC), or acute criteria, and the criterion continues concentration (CCC), or chronic criteria, to effluent metals concentrations. The highest reported discharge concentrations (See Fact Sheet Attachment A) for total copper, zinc, and nickel were each found to be higher than the applicable water quality criteria, and therefore, must be limited in the draft permit.

The criteria found in EPA’s *National Recommended Water Quality Criteria:2002* were published in the Federal Register in November 2002 (EPA-822-R-02-047). Pollutant-specific conversion factors (CF) are used for converting a metal criterion expressed as a total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column. The conversion factors for each of the metals are listed in the Federal Register notice and subsequent correction. 40 CFR §122.45(c) requires that permit limits be expressed as total recoverable metal. See the following table and subsequent limit calculations.

Parameter	Dissolved Criteria CMC ug/l (Acute)	Dissolved Criteria CCC ug/l (Chronic)	Translator	Total Criteria CMC ug/l	Total Criteria CCC ug/l	Highest ^d Reported Discharge Concentration
Total Copper	4.8	3.1	0.83	5.8	3.7	14
Total Nickel	74	8.2	0.990	74.7	8.3	16
Total Zinc	90	81	0.946	95	86	120

(Note: A translator for CCC is not available; EPA uses CMC translator for both CCC & CMC)

The calculations for the criteria and limits are as follows:

- Chronic criteria (CCC) for dissolved copper = 3.1 ug/l
- conversion factor for dissolved versus total recoverable copper = 0.83
- 3.1 ug/l/0.83 equivalent value to total recoverable copper is = 3.7 ug/l \approx 4 ug/l

^d During the 24 month period of March 1, 2009 through February of 2010, as found in Scituate Discharge Monitoring Reports

- Acute criteria (CMC) for dissolved copper = 4.8 ug/l
- conversion factor for dissolved versus total recoverable copper = 0.83
- 4.8 ug/l/0.83 equivalent value to total recoverable copper is = 5.8 ug/l \approx 6 ug/l

The average monthly limit for total recoverable copper based on the chronic water quality criteria will be 4 ug/l and the maximum daily limit, based on the acute criteria, will be 6 ug/l. These limits are the same as those in the current permit.

EPA Administrative Order (AO) number 07-038 was issued to the Town of Scituate on September 26, 2007 to address total copper limits violations. In addition to measures to decrease the discharge of copper from the WWTP, the AO sets an average monthly interim limit of 20 ug/l. The discharge consistently achieves the interim limit.

The average monthly limit for total recoverable nickel based on the chronic water quality criteria will be 8 ug/l, with no maximum daily limit.

- Chronic criteria (CCC) for dissolved nickel = 8.2
- conversion factor for dissolved versus total recoverable nickel = 0.990
- 8.2 ug/l/0.990 equivalent value to total recoverable nickel is = 8.3 ug/l \approx 8 ug/l
- Acute criteria (CMC) for dissolved nickel = 74 ug/l
- conversion factor for dissolved versus total recoverable nickel = 0.990
- 74 ug/l/0.990 equivalent value to total recoverable nickel is = 74.7 \approx 75 ug/l

Scituate has exceeded the average monthly discharge limit for nickel twice during the period of March 1, 2009 through February of 2010. The current limit is retained in the draft permit.

The average monthly limit for total recoverable zinc based on the chronic water quality criteria will be 86 ug/l and the maximum daily limit, based on the acute criteria, will be 95 ug/l.

- Chronic criteria (CCC) for dissolved zinc = 81 ug/l
- conversion factor for dissolved versus total recoverable zinc = 0.946
- 81 ug/l/0.946 equivalent value to total recoverable zinc is = 86 ug/l
- Acute criteria (CMC) for dissolved zinc = 90 ug/l
- conversion factor for dissolved versus total recoverable zinc = 0.946
- 90 ug/l/0.946 equivalent value to total recoverable zinc is = 95 ug/l

Scituate has exceeded the average monthly discharge limit for total zinc once during the period of March 1, 2009 through February of 2010. The current limit is retained in the draft permit.

Total nitrogen limits are carried forward in this draft permit, from the current permit. The efficacy of the TN limit in the permit issued January 30, 1997, was raised by Alvin Firman of CDM, during a meeting with the representatives of the Town of Scituate, EPA, and MassDEP, held on April 9, 2003. The purpose of the meeting was to discuss conditions to be implemented in the forthcoming draft NPDES permit. Mr. Firman used the Town of Wareham, MA, Water Pollution Control Facility Permit (MA0101893) as an example, as CDM was also consulting with Wareham on the same nitrogen issue.

Mr. Firman asserted that a portion of the TN measured in the TN test is refractory, or resistant to treatment and not readily bioavailable. This non-reactive residual inorganic nitrogen accounted

for 1-1.5 mg/l of the TN measured in the effluent. The 39.5 lbs/day annual rolling average TN in the Scituate permit is based on a TN concentration limit of 3 mg/l at the flow limit of 1.6 MGD.

To prevent detrimental effect to the estuary, the future nitrogen loading to the estuary would remain at the existing level of 39 lbs/d. Based on an average design flow of 1.6 mgd, a total nitrogen concentration of 3 mg/l in the effluent is required to maintain the existing nitrogen load. [The Final Facilities Plan and Environmental Impact Report for Wastewater Management Volume I - Final Facilities Plan, March 1, 1995, Metcalf and Eddy, Page 1-7-7]

The recalculated mass limit of 53 lbs/day for TN in the November 22, 2004 Scituate permit is defined in the March 24, 2003 MEDEP anti-degradation evaluation which says in part:

The permit limit was raised from 39.5 lbs/day to 53.0 lbs/day total nitrogen [which includes approximately 1.0-1.5 mg/l of low reactive, less available soluble, organic nitrogen]. It is the opinion of the Department that the change from 39.5 lbs/day to 53.0 lbs/day will not result in a lowering of water quality [due to the low availability of the organic nitrogen] and is acceptable within the anti-degradation provisions of 314 CMR 4.04

The 4.0 mg/l total nitrogen (TN) concentration limit in both the Scituate and Wareham permits are technology based and reflect the MADEP "highest and best practical level of treatment" under 314 CMR 4.04(5).

The mass limits serve to protect the watershed from an increase in the nitrogen discharged above that measured prior to the plant upgrade and the concentration limit serves to set level of performance ("highest and best") for the treatment system. During extended periods when the plant flow is below the 1.6 MGD limit, the permittee could operate the denitrification inefficiently in the absence of a concentration limit. Conversely, if the mass limit is eliminated, extended flows above the 1.6 MGD limit may result in a discharge of TN above pre-upgrade level counter the State antidegradation provisions.

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 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: "All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife" [314 CMR § 4.05(5)(e)].

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. 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 and 40 C.F.R. § 122.44(d), the draft permit includes a whole effluent acute toxicity (LC50) limitation. (See also "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants", 49 Fed. Reg. 9016 March 9, 1984, and EPA's "Technical Support Document for Water Quality-Based Toxics Control", March, 1991.)

MassDEP's *Implementation Policy for the Control of Toxic Pollutants in Surface Waters* (February 23, 1990) requires limits and monitoring of whole effluent toxicity in NPDES permits. In addition, EPA recognizes that toxicity testing is required to assure that the synergistic effect of the pollutants in the discharge does not cause toxicity, even though the pollutants may be at low concentrations in the effluent. Thus, the draft permit includes a whole effluent toxicity limitation requirement for the 001 outfall, to assure that the facility does not discharge combinations of toxic compounds into the tidal creek and into the Herring River in amounts which would affect aquatic or human life.

Consistent with the EPA/MassDEP policies, an LC₅₀ limit of $\geq 100\%$ and a chronic NOEC limit of 100 percent have been included in the draft permit. The LC50 limit is the recommended limit for facilities with dilution factors less than 10, and the chronic NOEC limit is established at the receiving water concentration of one hundred percent (i.e. no dilution)

The draft permit carries forward a monitoring frequency of four chronic (modified acute) tests per year using two species. The required species are Mysid Shrimp (*Mysidopsis bahia* or *Americamysis bahia*) and Sea Urchin (*Arbacia punctulata*) in accordance with existing permit conditions, and are to be conducted in accordance with the EPA Region I Toxicity protocol found in the 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.

V. SEWER SYSTEM OPERATION AND MAINTENANCE

EPA regulations set forth a standard condition for "Proper Operation and Maintenance" that is included in all NPDES permits. See 40 CFR § 122.41(e). This condition is specified in Part II.B.1 (General Conditions) of the draft permit and it requires the proper operation and maintenance of all wastewater treatment systems and related facilities installed or used to achieve permit conditions.

EPA regulations also specify a standard condition to be included in all NPDES permits that specifically imposes on permittees a "duty to mitigate." See 40 CFR § 122.41(d).

This condition is specified in Part II.B.3 of the draft permit and it requires permittees to take all reasonable steps – which in some cases may include operations and maintenance work - to minimize or prevent any discharge in violation of the permit which has the reasonable likelihood of adversely affecting human health or the environment.

Proper operation of collection systems is critical to prevent blockages and equipment failures that would cause overflows of the collection system (sanitary sewer overflows, or SSOs), and to limit the amount of non-wastewater flow entering the collection system (inflow and infiltration or I/I). I/I in a collection system can pose a significant environmental problem because it may displace wastewater flow and thereby cause, or contribute to causing, SSOs. Moreover, I/I could reduce the capacity and efficiency of the treatment plant and cause bypasses of secondary treatment.

Therefore, reducing I/I will help to minimize any SSOs and maximize the flow receiving proper treatment at the treatment plant. There is presently estimated to be approximately 659,000 gpd of (I/I) in the sewer system. MassDEP has stated that the inclusion in NPDES permits of I/I control conditions is a standard State Certification requirement under Section 401 of the CWA and 40 CFR § 124.55(b).

Therefore, specific permit conditions have been included in Part I.B. and I.C. of the draft permit. These requirements include mapping of the wastewater collection system, preparing and implementing a collection system operation and maintenance plan, reporting unauthorized discharges including SSOs, maintaining an adequate maintenance staff, performing preventative maintenance, controlling infiltration and inflow to the extent necessary to prevent SSOs and I/I related-effluent violations at the wastewater treatment plant, and maintaining alternate power where necessary. These requirements are intended to minimize the occurrence of permit violations that have a reasonable likelihood of adversely affecting human health or the environment.

Several of the requirements in the draft permit are not included in the current permit, including collection system mapping, and preparation of a collection system operation and maintenance plan. EPA has determined that these additional requirements are necessary to ensure the proper operation and maintenance of the collection system and has included schedules for completing these requirements in the draft permit.

VI. SLUDGE INFORMATION AND REQUIREMENTS

The WWTP produces 164.21 dry metric tons of sludge per year. The Scituate WWTP has its sludge cake hauled off-site by Wastestream Environmental US Liquids – Northeast. The sludge cake is transported to Soil Preparation, Inc. of Plymouth, Maine for composting.

The draft permit has been conditioned to ensure that sewage sludge use and disposal practices meet the CWA Section 405(d) Technical Standards and the 40 CFR Part 503 regulations. In addition, EPA Region I has prepared a 72-page document entitled “EPA Region I NPDES Permit Sludge Compliance Guidance, November 1999” for use by the permittee in determining the appropriate sludge conditions for the chosen method of sewage sludge use or disposal practices. This guidance document is available upon request from EPA Region I and may also be found at: <http://www.epa.gov/region1/npdes/permits/generic/sludgeguidance.pdf>

If the ultimate sludge disposal method changes, the permittee must notify EPA and MassDEP and the requirements pertaining to sludge monitoring and other conditions would change accordingly

VII. ANTI-BACKSLIDING

Anti-backsliding as defined at 402(o) of the CWA and 40 CFR §122.44(l)(1) requires reissued permits to contain limitations as stringent or more stringent than those of the previous permit except under certain circumstances including those defined Section 402 and 303(d) of the CWA and 40 CFR § 122.44 (l).

VIII. ANTI-DEGRADATION

The Massachusetts Anti-degradation Policy is found at Title 314 CMR 4.04. All existing uses of Massachusetts Bay/Atlantic Ocean 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 and no change in outfall location and is consistent with the state anti-degradation policy.

IX. 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 (i.e. local Public Health Department), both orally and in writing as specified in the draft permit.

X. 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 Fisheries Services (NOAA Fisheries) if EPA's action or proposed action that it funds, permits, or undertakes, may adversely impact any essential fish habitat (EFH). The Amendments broadly define essential fish habitat as: waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. §1802 (10)). Adversely 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.

Essential fish habitat is only designated for 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.

As the federal agency charged with authorizing the discharge from this facility, EPA will provide a copy of the Draft Permit and this Fact Sheet to NOAA Fisheries Habitat Division to satisfy EPA's consultation responsibilities regarding EFH.

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

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod (<i>Gadus morhua</i>)	X	X	X	X
haddock (<i>Melanogrammus aeglefinus</i>)	X			
pollock (<i>Pollachius virens</i>)	X	X	X	X
whiting (<i>Merluccius bilinearis</i>)	X	X	X	X
red hake (<i>Urophycis chuss</i>)	X	X	X	X
white hake (<i>Urophycis tenuis</i>)	X	X	X	X
winter flounder (<i>Pseudopleuronectes americanus</i>)	X	X	X	X
yellowtail flounder (<i>Limanda ferruginea</i>)	X		X	X
windowpane flounder (<i>Scophthalmus aquosus</i>)	X	X	X	X
American plaice (<i>Hippoglossoides platessoides</i>)	X	X	X	X
ocean pout (<i>Macrozoarces americanus</i>)	X	X	X	X
Atlantic halibut (<i>Hippoglossus hippoglossus</i>)	X	X	X	X
Atlantic sea scallop (<i>Placopecten magellanicus</i>)	X	X	X	X
Atlantic sea herring (<i>Clupea harengus</i>)		X	X	X
monkfish (<i>Lophius americanus</i>)	X	X		X
bluefish (<i>Pomatomus saltatrix</i>)			X	X
long finned squid (<i>Loligo pealeii</i>)	n/a	n/a	X	X
short finned squid (<i>Illex illecebrosus</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
scup (<i>Stenotomus chrysops</i>)	n/a	n/a	X	X
black sea bass (<i>Centropristis striata</i>)	n/a		X	X
surf clam (<i>Spisula solidissima</i>)	n/a	n/a	X	X
ocean quahog (<i>Artica islandica</i>)	n/a	n/a		
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a		X

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The species in the table above are the only managed species believed to be present during one or more life stages within the area which encompasses the discharge site. No “habitat areas of particular concern”, as defined under §600.815(a)(9) of the Magnuson-Stevens Act, have been designated for this site.

It is EPA’s opinion that the operation of this facility, as governed by this permit action, is not likely to adversely affect the species of concern or its habitat for the following reasons:

- All conditions in this draft permit are as stringent as the previous permit. The current and previous dilution calculation for toxic pollutants are based on the premise there is no dilution of the effluent.
- The draft permit includes both *Enterococci* and fecal coliform bacteria limits, based on state water quality standards modified in 2007 and found at 314 CMR 4.05.(4)(a)(4). *Enterococci* bacteria limits shall be added to the existing fecal coliform bacteria requirements.
- The facility withdraws no water and therefore has no water intake structure in operation. No impingement or entrainment impacts to EFH species are associated with this proposed permit action.
- The permit contains requirements to comply with all state water quality standards for the protection of fish and fish habitat.

EPA Finding

EPA believes that the draft permit limits adequately protect the EFH species, and therefore additional mitigation is not warranted. If adverse impacts to EFH are detected as a result of this permit action, or if new information is received that changes the basis for our conclusion, NOAA Fisheries will be notified and an EFH consultation will be reinitiated.

XI. ENDANGERED SPECIES ACT

Endangered Species Act

Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants (“listed species”) and habitat of such species that has been designated as critical (a “critical habitat”). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Marine Fisheries Service (NOAA Fisheries) administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit.

According to the Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program list of rare species by Town, there is only one federally listed threatened species in Scituate, the Piping Plover, (*Charadrius melodus*)^e.

The U.S. Fish and Wildlife Service, Endangered Species Program^f lists, the following species for Plymouth County; Piping Plover (*Charadrius melodus*), Leatherback sea turtle (*Dermochelys coriacea*), Green sea turtle (*Chelonia mydas*), Loggerhead sea turtle (*Caretta caretta*), Plymouth Red-Bellied Turtle (*Pseudemys rubriventris bangsi*). The Piping Plover nests and feeds along coastal sand and gravel beaches, such habitat is not in immediate proximity to the discharge. The sea turtles can be found primarily in the open ocean, or open embayments. The thin tidal stream and shallow Herring River are not well suited for sea turtles. The Plymouth Red-Bellied Turtle is a fresh water species. The permit limits do not allow any dilution for toxic pollutants so that the effluent must meet the ambient water quality criteria at the point of discharge. Pollutants will be diluted to the point they are undetectable before the effluent will reach potential turtle habitat.

^e http://www.mass.gov/dfwele/dfw/nhosp/species_info/town_lists/town_q.htm

^f http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=25023

EPA Finding

EPA believes the proposed limits are sufficiently stringent to assure that water quality standards will be met and to ensure protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The Region finds that adoption of the proposed permit is unlikely to adversely affect any threatened or endangered species or its critical habitat. If adverse effects do occur as a result of this permit action, or if new information becomes available that changes the basis for this conclusion, then EPA will notify and consultation will be promptly initiated with both the USFWS and the NOAA Fisheries. A copy of the Draft Permit has been provided to both USFWS and NOAA Fisheries for review and comment.

XII. COASTAL ZONE MANAGEMENT (CZM) CONSISTENCY REVIEW

40CFR §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 shall submit a letter to the Massachusetts Coastal Zone Management Program stating their intention to abide by the CZM water quality and habitat policies.

XIII. MONITORING AND REPORTING

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §§ 122.41 (j), 122.44 (l), and 122.48. The monitoring program in the permit specifies routine sampling and analysis which will provide continuous information on the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures are to be found in 40 CFR 136 unless other procedures are explicitly required in the permit.

The draft permit includes new provisions related to Discharge Monitoring Report (DMR) submittals to EPA and the State. The draft permit requires that, no later than one year after the effective date of the permit, the permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR, unless the permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”). In the interim (until one year from the effective date of the permit), the permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR. NetDMR is a national web-based tool for regulated CWA permittees to submit DMRs electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR §§ 122.41 and 403.12. NetDMR is accessed from the following URL: <http://www.epa.gov/netdmr>. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website.

EPA currently conducts free training on the use of NetDMR, and anticipates that the availability of this training will continue to assist permittees with the transition to use of NetDMR. To participate in upcoming trainings, visit <http://www.epa.gov/netdmr> for contact information for Massachusetts.

The draft permit requires the permittee to report monitoring results obtained during each calendar month using NetDMR, no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees must continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP. The draft permit also includes an “opt-out” request process. Permittees who believe they cannot use NetDMR due to technical or administrative infeasibilities, or other logical reasons, must demonstrate the reasonable basis that precludes the use of NetDMR. These permittees must submit the justification, in writing, to EPA at least sixty (60) days prior to the date the facility would otherwise be required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months from the date of EPA approval. The opt-outs expire at the end of this twelve (12) month period. Upon expiration, the permittee must submit DMRs and reports to EPA using NetDMR, unless the permittee submits a renewed opt-out request sixty (60) days prior to expiration of its opt-out, and such a request is approved by EPA.

Until electronic reporting using NetDMR begins, or for those permittees that receive written approval from EPA to continue to submit hard copies of DMRs, the draft permit requires that submittal of DMRs and other reports required by the permit continue in hard copy format. Hard copies of DMRs must be postmarked no later than the 15th day of the month following the completed reporting period.

XIV. 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.

XV. GENERAL CONDITIONS

The 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.

XVI. STATE CERTIFICATION REQUIREMENTS

Under CWA section 401(a)(1), EPA may not issue a permit unless the MassDEP either certifies that the effluent limitations contained in this permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or waives its right to such a certification. EPA has requested that MassDEP certify the permit. EPA expects that the permit will be certified. Regulations governing state certification are set forth in 40 CFR §§ 124.53 and 124.55.

XVII. COMMENT PERIOD, HEARING REQUESTS, and PROCEDURES FOR FINAL DECISIONS

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 Mr. Doug Corb, U.S. Environmental Protection Agency, Region 1 (New England), 5 Post Office Square - Suite 100, Mail Code OEP06-1, Boston, MA 02109-3912.

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. A public meeting may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the draft permit, the EPA 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 any public hearings, if such hearings are held, the EPA 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. Within 30 days following the notice of the final permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 CFR § 124.19.

XVIII. 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:

Doug Corb
Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square Suite 100
Mail Code OEP06-1
Boston, MA 02109-3912
Telephone: (617) 918-1565
Fax: (617) 918-0565
corb.doug@epa.gov

Cathy Vakalopoulos
MA Department of Environmental Protection
Wastewater Management Program
1 Winter St.
Boston, MA 02108
Telephone: (617) 348-4026
Fax: (617) 292-5696
Catherine.Vakalopoulos@state.ma.us

Date: October 4, 2011
Stephen S. Perkins, Director *
Office of Ecosystem Protection
U.S. Environmental Protection Agency

*Please address all comments to Doug Corb and Cathy Vakalopoulos at the addresses above.

Scituate Wastewater Treatment Plant
MA0102695-Fact Sheet Attachment A

Month	Flow		CBOD5				TSS				TSS % Removal		Disolved
	1.6 Mgal/d	Mon Mgd/D	133 lb/d	15 mg/L	Mon mg/L	Min 85%	133 lb/d	10 mg/L	15 mg/L	Mon mg/L	Min 85%	6 mg/L	
MP Date	ROLL AVG	DAILY MX	MO AVG	WKLY AVE	DAILY MX	MO AV MN	MO AVG	MO AVG	WKLY AVE	DAILY MX	MO AV MN	MO AV MN	
03/31/09	1.269	2.255	36.3	5.6	5.6	97.4	43.8	3.5	4.4	5.	97.5	6.4	
04/30/09	1.307	2.723	37.	3.05	3.3	97.5	36.2	2.5	4.7	4.7	97.9	6.4	
05/31/09	1.32	1.83	47.	5.	6.3	96.4	23.5	2.1	2.9	3.3	98.5	6.3	
06/30/09	1.329	1.268	34.6	4.9	6.4	97.3	23.5	32.	3.65	4.5	98.5	6.3	
07/31/09	1.367	3.066	30.2	3.4	3.4	98.3	38.9	3.6	7.3	7.3	98.4	6.3	
08/31/09	1.389	2.245	55.6	7.	8.5	95.6	51.56	5.2	7.	8.5	96.6	6.1	
09/30/09	1.399	1.815	29.8	4.65	4.9	97.4	30.8	3.1	4.45	6.1	97.9	6.3	
10/31/09	1.411	2.069	34.6	3.7	3.7	97.4	47.	3.8	5.8	5.8	97.3	6.1	
11/30/09	1.424	1.617	23.4	3.9	3.9	97.9	25.6	2.4	2.9	3.8	98.3	6.2	
12/31/09	1.289	2.278	19.1	1.6	2.3	98.4	26.	1.9	3.2	3.2	98.1	6.2	
01/31/10	1.4	2.398	49.8	5.3	5.5	96.6	33.6	2.5	3.6	4.8	98.	6.1	
02/28/10	1.4	3.05	37.8	3.35	3.8	97.4	38.7	3.1	4.35	5.5	97.4	6.3	
03/31/10	1.492	3.897	82.8	7.6	7.8	94.8	87.1	4.	8.	10.7	95.4	6.2	
04/30/10	1.499	3.64	39.7	6.3	6.3	96.9	24.4	1.6	2.	2.3	98.7	6.4	
05/31/10	1.475	1.296	28.2	6.1	6.1	98.	19.4	2.2	3.8	3.8	98.6	6.3	
06/30/10	1.461	1.015	23.7	4.3	4.6	97.9	33.4	4.3	5.4	5.8	98.2	6.4	
07/31/10	1.416	.87	12.7	3.4	4.4	98.8	31.7	5.	12.7	12.7	98.2	6.2	
08/31/10	1.385	1.388	18.4	3.2	5.2	98.7	29.4	4.3	5.1	7.3	98.2	6.2	
09/30/10	1.355	1.3	17.4	4.3	4.3	98.6	27.9	4.	6.	7.1	98.4	6.3	
10/31/10	1.309	1.385	26.1	7.4	11.	97.1	34.5	4.5	10.25	13.5	98.	6.2	
11/30/10	1.291	1.5	29.2	4.2	4.2	97.8	39.8	4.5	8.9	9.8	97.7	6.3	
12/31/10	1.257	2.861	65.	8.6	8.6	95.9	37.1	3.6	4.5	5.8	98.3	6.3	
01/31/11	1.237	1.871	59.3	6.35	10.3	94.5	30.8	2.7	2.85	4.	97.8	6.4	
02/28/11	1.253	1.871	88.2	7.3	8.2	93.8	28.5	2.	3.55	4.4	98.8	6.3	

Permit exceedances are in bold (red) print

Scituate Wastewater Treatment Plant
MA0102695-Fact Sheet Attachment A

<u>Month</u>	TSS 133 lb/d	TSS 10 mg/L	TSS 15 mg/L	TSS % Remova Min 85%	Fecal Coliform 14 CFU/100m	Fecal Coliform 43 CFU/100mL	Total Copper* 20 ug/L	Total Nickel 8 ug/L	Total Zinc 86 ug/L	pH 6.5 SU	pH 8.5 SU
MP Date	MO AVG	MO AVG	WKLY AVE	MO AV MN	GEO MEAN	DAILY MX	MO AVG	MO AVG	MO AVG	MINIMUM	MAXIMUM
03/31/09	43.8	3.5	4.4	97.5	.15	1.75	10.	4.	80.	6.3	7.1
04/30/09	36.2	2.5	4.7	97.9	.33	10.5	7.	4.	80.	6.5	7.1
05/31/09	23.5	2.1	2.9	98.5	.35	4.25	4.	4.	80.	6.6	7.4
06/30/09	23.5	32.	3.65	98.5	.53	16.25	11.	4.	80.	6.9	7.5
07/31/09	38.9	3.6	7.3	98.4	1.06	11.5	13.	4.	80.	6.6	7.5
08/31/09	51.56	5.2	7.	96.6	2.9	34.8	10.	4.	80.	6.8	7.4
09/30/09	30.8	3.1	4.45	97.9	1.6	31.5	8.	4.	80.	6.8	7.5
10/31/09	47.	3.8	5.8	97.3	3.3	TNTC	8.	4.	80.	7.	7.6
11/30/09	25.6	2.4	2.9	98.3	.09	.5	5.	4.	80.	7.	7.6
12/31/09	26.	1.9	3.2	98.1	.02	.25	7.	7.	80.	6.9	7.3
01/31/10	33.6	2.5	3.6	98.	.05	.5	6.	8.	120.	6.9	7.5
02/28/10	38.7	3.1	4.35	97.4	.06	.25	13.	16.	80.	6.8	7.6
03/31/10	87.1	4.	8.	95.4	.14	.75	14.	14.	60.	6.4	7.4
04/30/10	24.4	1.6	2.	98.7	.17	3.5	4.	5.	50.	6.3	7.5
05/31/10	19.4	2.2	3.8	98.6	.85	13.25	5.	5.	50.	7.1	7.7
06/30/10	33.4	4.3	5.4	98.2	TNTC	TNTC	6.	4.	50.	7.1	7.9
07/31/10	31.7	5.	12.7	98.2	TNTC	TNTC	4.	1.	5.	7.1	7.9
08/31/10	29.4	4.3	5.1	98.2	3.	53.	6.	5.	60.	7.2	7.9
09/30/10	27.9	4.	6.	98.4	.7	3.1	5.	1.	19.	7.3	7.9
10/31/10	34.5	4.5	10.25	98.	1.3	19.9	5.	1.	28.	7.1	8.1
11/30/10	39.8	4.5	8.9	97.7	.79	18.8	5.	1.	7.	7.4	7.7
12/31/10	37.1	3.6	4.5	98.3	.94	18.2	5.	1.	26.	6.8	7.8
01/31/11	30.8	2.7	2.85	97.8	1.4	89.1	6.	1.	36.	7.	7.9
02/28/11	28.5	2.	3.55	98.8	.1	1.4	6.	1.	27.	6.6	7.6

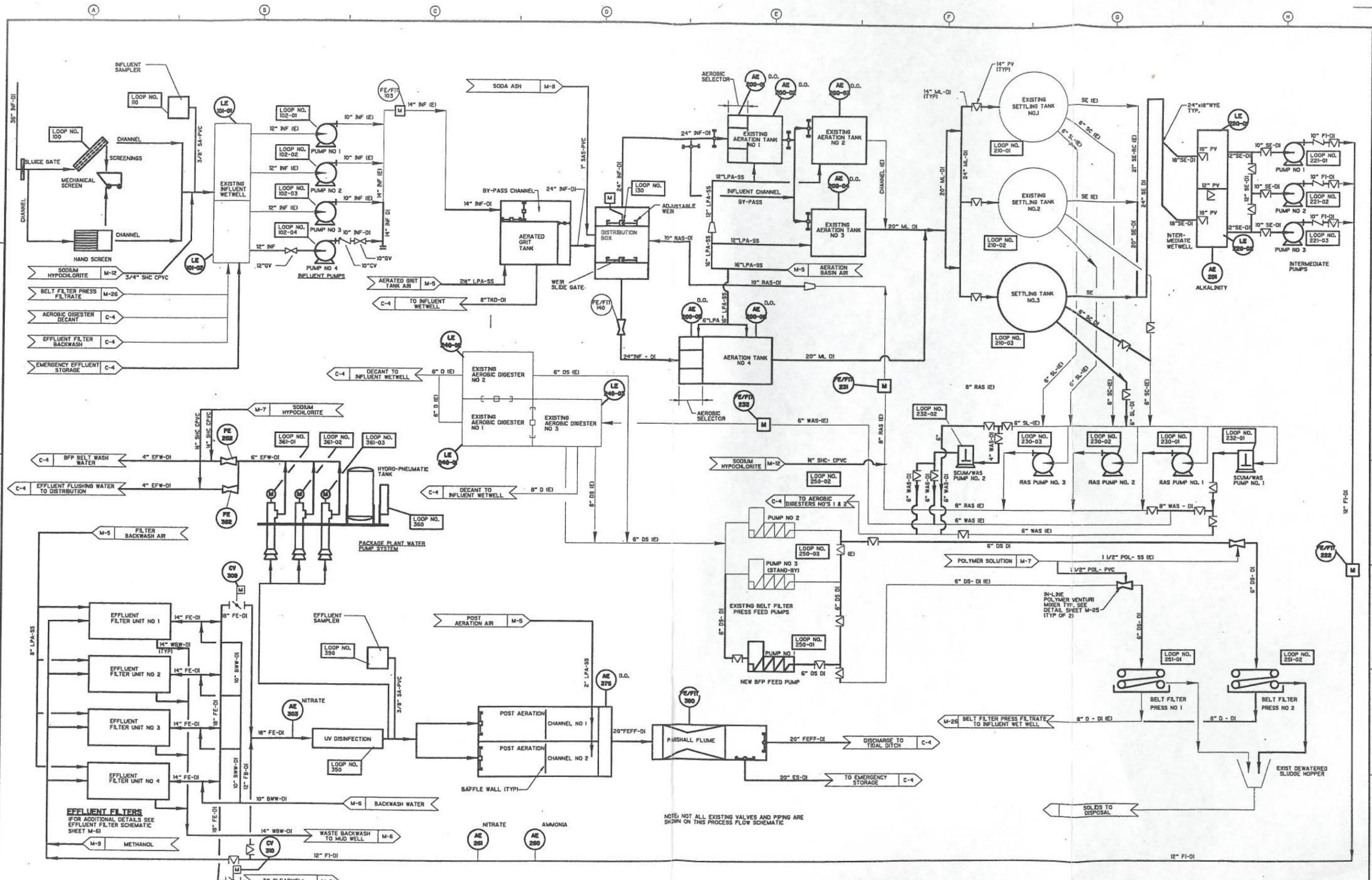
*See Administrative order

TNTC = To numerouse to count

Scituate Wastewater Treatment Plant
 MA0102695-Fact Sheet Attachment A

Total Nitrogen 53 lb/d Total Nitrogen 4 mg/L Total Nitrogen Mon. mg/L LC50 Static 48Hr Acute Menidia 100% Noel 1Hr Fert Chr Arbacia 100% Noel Chro Menidia 100%

MP Date	ROLL AVG	MO AVG	DAILY MX	MP Date	DAILY MN	DAILY MN	DAILY MN
03/31/2009	28.6	2.5	3.2	01/31/2009	100.	100.	100.
04/30/2009	28.8	1.9	5.6	04/30/2009	100.	100.	100.
05/31/2009	29.5	3.3	5.9	07/31/2009	100.	100.	12.5
06/30/2009	30.7	5.6	19.5	10/31/2009	100.	100.	100.
07/31/2009	31.3	3.5	5.7	01/31/2010	100.	100.	100.
08/31/2009	31.	2.7	3.7	04/30/2010	100.	100.	100.
09/30/2009	31.6	3.	5.5	07/31/2010	100.	100.	100.
10/31/2009	30.5	2.1	3.	10/31/2010	100.	100.	100.
11/30/2009	30.	1.9	3.5	01/31/2011	100.	100.	100.
12/31/2009	31.3	3.	5.6				
01/31/2010	32.	2.8	5.				
02/28/2010	31.6	2.6	3.4				
03/31/2010	33.7	2.6	3.5				
04/30/2010	35.3	3.1	4.5				
05/31/2010	34.6	3.1	4.1				
06/30/2010	33.3	4.9	16.1				
07/31/2010	31.5	1.7	3.				
08/31/2010	30.7	2.6	3.3				
09/30/2010	29.2	2.	2.9				
10/31/2010	28.1	1.5	2.7				
11/30/2010	27.4	1.2	1.5				
12/31/2010	25.4	1.8	3.3				
01/31/2011	24.1	1.6	2.7				
02/28/2011	24.	2.1	2.3				



5/23/98 10:46:33
 MPR0004
 5/23/98 10:46:33
 MPR0004
 5/23/98 10:46:33
 MPR0004

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. GLARDE
 DRAWN BY: W. DORSEY
 SHEET CH'G'D BY: T. GLARDE
 CROSS CH'G'D BY: T. GLARDE
 APPROVED BY: A. FERMIN
 DATE: JUNE 1997

CDM Camp Dresser & McKee Inc.
 PROJECT NO. 0585-10450
 FILE NAME: MPR0004

TOWN OF SCITUATE, MASSACHUSETTS
 WASTEWATER SYSTEM IMPROVEMENTS
 CONTRACT NO. 96-WW-1
WATER POLLUTION CONTROL PLANT UPGRADE

PROCESS FLOW SCHEMATIC
 SHEET NO. **M-4**

PROJECT NO. 0585-10450
 FILE NAME: MPR0004
 SHEET NO. **M-4**
 PLOT DATE: 08-NOV-01
 Accession No: 0585-56039



FIGURE 1
TOWN OF SCITUATE, MASSACHUSETTS

USGS LOCUS MAP

SCALE: 1:2500

MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION
COMMONWEALTH OF MASSACHUSETTS
1 WINTER STREET
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE INTO THE WATERS
OF THE UNITED STATES UNDER SECTION 301 AND 402 OF THE CLEAN
WATER ACT (THE "ACT"), AS AMENDED, AND REQUEST FOR STATE
CERTIFICATION UNDER SECTION 401 OF THE ACT.

DATE OF NOTICE: November 4, 2011

PERMIT NUMBER: **MA0102695**

PUBLIC NOTICE NUMBER: MA-003-11

NAME AND MAILING ADDRESS OF PERMITTEE:

**Department of Public Works
Town of Scituate
Scituate, MA 02066**

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

**Scituate Wastewater Treatment Plant
161 Driftway
Scituate, MA 02066**

RECEIVING WATERS: **Tidal Creek to Herring River
(South Shore Coastal Watershed – MA 94-07)**

RECEIVING WATER CLASSIFICATION: **SA**

PREPARATION OF THE DRAFT PERMIT:

The U.S. Environmental Protection Agency, (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) have cooperated in the development of a permit for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure compliance with the Clean Water Act, 33 U.S.C. sections 1251 et seq., the Massachusetts Clean Waters Act, G.L.c. 21 §26-53, 314 CMR 3.00 and State Surface Water Quality Standards at 314 CMR 4.00. EPA has formally requested that the State certify this draft permit pursuant to

Section 401 of the Clean Water Act and expects that the draft permit will be certified. However, sludge conditions in the draft permit are not subject to State certification requirements.

INFORMATION ABOUT THE DRAFT PERMIT:

A fact sheet (describing the type of facility; type and quantities of wastes; a brief summary of the basis for the draft permit conditions; and significant factual, legal and policy questions considered in preparing this draft permit) and the draft permit may be obtained at no cost at: http://www.epa.gov/region1/npdes/draft_permits_listing_ma.html or by writing or calling EPA's contact person named below:

Doug Corb
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1565

The administrative record containing all documents relating to this draft permit is on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by **December 3, 2011**, to the U.S. EPA, 5 Post Office Square, Suite 100, Mailcode OEP 06-1, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing to EPA and the MassDEP for a public hearing to consider this draft permit. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on this draft permit the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such 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. Within 30 days following the notice of the final permit decision any interested person may submit petition to the Environmental Appeals Board to reconsider or contest the final decision.

David Ferris, Director
MASACHUSETTS WASTE WATER
MANAGEMENT PROGRAM
MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Stephen S. Perkins, Director
OFFICE OF ECOSYSTEM PROTECTION
ENVIRONMENTAL PROTECTION
AGENCY – REGION 1

