

**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"),

The Town of Seabrook

is authorized to discharge from the Wastewater Treatment Plant located at

Wright's Island  
Seabrook, New Hampshire 03874

to receiving water named

Gulf of Maine, Atlantic Ocean (Hydrologic Basin Code: 01060003)

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

This permit shall become effective on November 1, 2010.

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

This permit supersedes the permit issued on September 30, 1999.

This permit consists of 18 pages in Part I including effluent limitations, monitoring requirements; Whole Effluent Toxicity Protocol in Attachment A (10 pages); Sludge Compliance Guidance; and 25 pages in Part II including General Conditions and Definitions.

Signed this 4<sup>th</sup> day of August, 2010

**/S/ SIGNATURE ON FILE**

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Stephen S. Perkins, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency (EPA)  
Boston, Massachusetts

**PART I.**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated wastewater effluent from outfall serial number 001 into the Gulf of Maine, Atlantic Ocean. Such discharge shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at the end of all processes, including disinfection, or at an alternative representative location approved by the EPA and NHDES-WD.

Effluent Characteristic	Discharge Limitations			Monitoring Requirements	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow <sup>1</sup> , MGD	Report	---	Report	Continuous	Recorder
BOD <sub>5</sub> , Effluent, mg/l (lbs/day)	30 (451)	45 (676)	50 (751)	2/Week	24-Hour Composite
BOD <sub>5</sub> , Influent <sup>2</sup> , mg/l	Report	---	---	2/Month	24-Hour Composite
TSS, Effluent, mg/l (lbs/day)	30 (451)	45 (676)	50 (751)	2/Week	24-Hour Composite
TSS, Influent <sup>2</sup> , mg/l	Report	---	---	2/Month	24-Hour Composite
Total Recoverable Arsenic, mg/l	Report	---	Report	2/Month	24-Hour Composite
pH Range <sup>3</sup> , Standard Units		6.5 - 8.0		1/Day	Grab
Total Residual Chlorine <sup>4,5</sup> , mg/l	0.54	---	0.94	2/Day	Grab
Fecal Coliform <sup>4</sup> , Colonies/100 ml	14 <sup>6</sup>	---	---	1/Day	Grab
Fecal Coliform <sup>4</sup> , percent	---	---	See <sup>6</sup>	1/Day	Grab
Enterococci Bacteria <sup>4,7</sup> , Colonies/100 ml	35	---	104	1/Day	Grab

See pages 4 and 5 for explanation of superscripts

Part I.A.1, Continued

Effluent Characteristic	Monitoring Requirements		
	Maximum Daily	Measurement Frequency	Sample Type
Whole Effluent Toxicity <sup>8,9,10</sup> , LC <sub>50</sub> , % Effluent	100	1/Quarter	24-Hour Composite
Ammonia Nitrogen as Nitrogen <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Aluminum <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Cadmium <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Chromium <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Copper <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Lead <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Nickel <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite
Total Recoverable Zinc <sup>11</sup> ; mg/l	Report	1/Quarter	24-Hour Composite

See pages 4 and 5 for explanation of superscripts

**PART I.**  
**EXPLANATION OF SUPERSCRIPTS TO PART I.A.1:**

<sup>1</sup> The effluent flow shall be continuously measured and recorded using a flow meter and totalizer.

<sup>2</sup> The influent concentrations of both BOD<sub>5</sub> and TSS shall be monitored at a minimum of twice per month (2/month) using a 24-Hour composite sample and the results reported as average monthly values.

<sup>3</sup> State certification requirement.

<sup>4</sup> Samples for Fecal Coliform bacteria, Enterococci bacteria and Total Residual Chlorine shall be collected concurrently.

<sup>5</sup> Total Residual Chlorine shall be measured using any one of the following three methods listed in 40 Code of Federal Regulations (CFR) Part 136:

- a. Amperometric direct.
- b. DPD-FAS.
- c. Spectrophotometric, DPD.

<sup>6</sup> Fecal Coliform shall be tested using an approved method as specified in 40 C.F.R. Part 136, List of Approved Biological Methods for Wastewater and Sewage Sludge.

The Average Monthly value for Fecal Coliform shall be determined by calculating the geometric mean using the daily sample results. As a Daily Maximum, not more than 10 percent of the collected samples (over a monthly period) shall exceed a Most Probable Number (MPN) of 43 per 100 ml for a 5-tube decimal dilution test. Each month the percentage of collected samples that exceeds an MPN of 43 per 100 milliliters for the 5-tube decimal dilution test shall be reported at the Daily Maximum value. Furthermore, all Fecal Coliform data collected must be submitted with the monthly Discharge Monitoring Reports (DMRs).

<sup>7</sup> The Average Monthly value for Enterococci shall be determined by calculating the geometric mean using the daily sample results. Enterococci shall be tested using an approved method as specified in 40 C.F.R. Part 136, List of Approved Biological Methods for Wastewater and Sewage Sludge. All enterococci data collected must be submitted with the monthly Discharge Monitoring Reports (DMRs).

<sup>8</sup> The permittee shall conduct acute survival toxicity testing on effluent samples following the protocol in Attachment A (dated September 1996). The two species for these tests are *Menidia beryllina* and *Mysidopsis bahia*. Toxicity test samples shall be collected and tests completed four (4) times per year during the calendar quarters ending March 31<sup>st</sup>,

June 30<sup>th</sup>, September 30<sup>th</sup> and December 31<sup>st</sup>. Toxicity test results are to be reported by the 15<sup>th</sup> day of the month following the end of that quarter tested.

<sup>9</sup> LC50 (lethal concentration 50 percent) is the concentration of wastewater (effluent) causing mortality to 50 percent of the test organisms. The permit limit of 100% is defined as a sample which is composed of 100 percent effluent. Therefore, a 100 % limit means that a sample of 100 % effluent (no dilution) shall cause no greater than a 50 % mortality in that effluent sample. The limit is considered to be a maximum daily limit.

<sup>10</sup> This permit shall be modified, or alternatively, revoked and reissued to incorporate additional toxicity testing requirements, including chemical specific limits, if the results of these toxicity tests indicate that the discharge causes an exceedance of any water-quality criterion. Results from these toxicity tests are considered "New Information" and the permit may be modified as provided in 40 CFR §122.62(a)(2).

<sup>11</sup> For each Whole Effluent Toxicity test the permittee shall report on the appropriate DMR, the concentrations of Ammonia Nitrogen as Nitrogen, and Total Recoverable Aluminum, Cadmium, Chromium, Copper, Lead, Nickel and Zinc found in the 100 percent effluent sample. All these aforementioned chemical parameters shall be determined to at least the MLs shown in Attachment A on page A-8, or as amended. Also the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

2. The discharge shall not cause or contribute to a violation of the water quality standards of the receiving water.
3. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS. The percent removal shall be based on a comparison of average monthly influent concentration versus average monthly effluent concentration.
4. The discharge shall be adequately treated to insure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. It shall be adequately treated to insure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving waters which is not naturally occurring, and would render it unsuitable for its designated uses.
5. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.

6. When the effluent discharged for a period of 3 consecutive months exceeds 80 percent of the 1.8 MGD design flow (1.44 MGD), the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the permittee may be required to submit plans for facility improvements.
7. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to both EPA and the NHDES-WD of the following:
  - a. Any new introduction of pollutants into the POTW from an indirect discharger in a primary industry category (See 40 CFR Part 122, Appendix A as amended) 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.
8. Pollutants discharged to the Wastewater Treatment Plant by a non-domestic source (user) shall not pass through the treatment plant or interfere with the operation or performance of the Treatment Plant. The terms “user”, “pass through” and “interference” are defined in 40 CFR Section 403.3.
9. The Permittee shall submit to EPA and NHDES-WD the name of any Industrial User (IU) who commences discharge to the POTW after the effective date of this permit:
  - a. That are subject to Categorical Pretreatment Standards pursuant to 40 CFR §403.6 and established in 40 CFR Chapter I, Subchapter N (Parts 405-415, 417-436, 439-440, 443, 446-447, 454-455, 457-461, 463-469, and 471 as amended).
  - b. That discharges an average of 25,000 gallons per day or more of process wastewater into the POTW (excluding sanitary, non-contact cooling and boiler blow-down wastewater).

- c. That contributes a process wastewater which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW.
- d. That is designated as an IU by the Control Authority as defined in 40 CFR §403.12(a) on the basis that the industrial user has a reasonable potential to adversely affect the waste water treatment facility's operation, or violate any pretreatment standard or requirement in accordance with 40 CFR §403.8(f)(6).

## **B. UNAUTHORIZED DISCHARGES**

The permit only authorizes discharges 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 in accordance with Part II, Section D.1.e. of the General Requirements of this permit (twenty four hour reporting).

## **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. 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. This requirement shall be described in the Collection System O & M Plan required pursuant to Section C.5. below.

### **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. 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 each 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. combined manholes);
- d. All outfalls, including the treatment plant outfall(s), CSOs, combined manholes, and any known or suspected SSOs;
- 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 NHDES

1. A description of the collection system management goals, staffing, information management, and legal authorities;
  2. A description of the overall condition of the collection system including a list 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.7. below.
- b. The full Collection System O & M Plan shall be submitted and implemented to EPA and NPDES 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 preventative maintenance and monitoring program for the collection system;
  3. Sufficient staffing to properly operate and maintain the sanitary sewer collection system;
  4. Sufficient funding and the source(s) of funding 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, and a plan for addressing the overflows and back-ups consistent with the requirements of this permit;
  6. A description of the permittees 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.

#### 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 NHDES 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 1.8 mgd design flow (1.44 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.

#### **D. ALTERNATE POWER SOURCE**

In order to maintain compliance with the terms and conditions of this permit, the permittee shall provide an alternate power source with which to sufficiently operate the wastewater facility, as defined at 40 C.F.R. § 122.2, which references the definition at 40 C.F.R. § 403.3(o). Wastewater facility is defined by RSA 485A:2.XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge.

#### **E. SLUDGE CONDITIONS**

1. The permittee shall comply with all existing federal & 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 (Env-Wq 800) 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. Placement of sludge in a municipal solid waste landfill (See 40 CFR Section 503.4).
  - d. 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 do not apply to facilities which do not dispose of sewage sludge during the life of the permit, but rather treat the sludge (lagoons-reed beds), or are otherwise excluded under 40 CFR Section 503.6.
5. The permittee shall use and comply with the attached Sludge Compliance Guidance document 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 for the permittee's chosen sewage sludge use or disposal practices 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 plus	1/Month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR Section 503.8.
8. The permittee shall submit an annual report containing the information specified in the attached Sludge Compliance Guidance document. Reports are **due annually by February 19<sup>th</sup>**. Reports shall be submitted to both addresses (EPA-New England and NHDES-WD) contained in the reporting section of the permit.

## F. SPECIAL CONDITIONS

### 1. Whole Effluent Toxicity Test Frequency Adjustment

The permittee may submit a written request to the EPA requesting a reduction in the frequency (to not less than once per year) of the toxicity testing requirements contained in Part I.A.1 of this permit, after completion of a minimum of four (4) successive toxicity tests as required in Part I.A.1. All toxicity tests must be valid tests and must demonstrate compliance with the whole effluent toxicity limits as specified in Part I.A.1 of this permit. Until written notice is received by certified mail from the EPA indicating that a reduction in the Whole Effluent Testing requirement has been allowed, the permittee is required to continue testing at the frequency specified in the permit.

### 2. pH Limit Adjustment

The Permittee may submit a written request to EPA for a change in the permitted pH limit range provided that the new range is not less restrictive than 6.0 to 9.0 Standard Units found in the applicable National Effluent Limitation Guideline (Secondary Treatment Regulations in 40 CFR Part 133) for this facility. The Permittee's written request must include an approval letter from NHDES-WD containing an original signature (no copies), which shall certify that the Permittee has demonstrated to the State's satisfaction that as long as discharges to the receiving water from a specific outfall are within a specific numeric pH range, the naturally occurring receiving water pH will be unaltered. That letter must specify for each outfall the associated numeric pH limit range. Until written notice is received by certified mail from the EPA indicating the pH limit range has been changed, the Permittee is required to meet the existing permitted pH limit range in the Permit.

### 3. Requirements for POTWs with Effluent Diffusers

- a. The facility shall maintain elastomeric check valves on the diffuser ports to prevent ocean water intrusion into the outfall pipe.
- b. Effluent diffusers shall be maintained when necessary to ensure proper operation. Proper operation means that the plumes from each port will be balanced relative to each other and that they all have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, cleaning out of solids in the diffuser header pipe, removal of debris and repair/replacement of riser ports, and duckbill valves.
- c. Any necessary maintenance dredging must be performed only during the marine construction season authorized by the New Hampshire Fish and Game

Department and only after receiving all necessary permits including those from the NHDES Wetlands Bureau, U.S. Coast Guard, and the U.S. Army Corps of Engineers.

- d. To determine if maintenance will be required, the permittee shall have a licensed diver or licensed marine contractor inspect and videotape the operation of the diffuser. The inspections and videotaping shall be performed once every two years with the first inspection required during the first calendar year following final permit issuance.
- e. Copies of a report summarizing the results of each diffuser inspection shall be submitted to EPA and NHDES-WD by December 31<sup>st</sup> of the year the inspection occurred. Where it is determined that maintenance will be necessary, the permittee shall also provide the proposed schedule for the maintenance.

#### **G. MONITORING AND REPORTING CONDITIONS**

1. Monitoring results shall be summarized for each calendar month and reported on separate Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15<sup>th</sup> day of the month following the completed reporting period.

- a. Signed and Dated original 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 (SMR-04)  
5 Post Office Square - Suite 100  
Boston, MA 02109-3912

- b. Duplicate signed copies of all reports required above shall be submitted to the State at:

New Hampshire Department of Environmental Services  
Water Division  
Wastewater Engineering Bureau  
P.O. Box 95  
Concord, New Hampshire 03302-0095

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

2. **Within one year of the effective date of this permit**, all discharge monitoring reports (both federal DMRs and NHDES Monthly Operating Reports (MORs)), and other reports required by this permit shall be submitted to EPA using NetDMR, unless the permittee demonstrates a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR (an “opt out”). NetDMR is a web-based tool that allows permittees to submit discharge monitoring reports (DMRs) and reports to EPA electronically via a secure internet connection. NetDMR is accessed from: <http://www.epa.gov/netdmr>. Submittal of DMRs using NetDMR shall be made no later than the 15th day of the month following the end of the reporting period.

Opt out requests must be submitted 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 shall become effective upon the date of written approval by EPA and shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. Upon expiration, DMRs and reports shall be submitted to EPA using NetDMR unless the permittee has submitted a renewed opt out request 60 days prior to expiration of its opt out and such request is approved by EPA. Opt out requests shall be sent to the following address:

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

And

**Attn: Tracy L. Wood, P.E.**  
**New Hampshire Department of Environmental Services (NHDES)**  
**Water Division**  
**Wastewater Engineering Bureau**  
**P.O. Box 95**  
**Concord, New Hampshire 03302-0095**

When a permittee begins reporting using NetDMR, it is no longer required to submit hard copies of DMRs or other reports to EPA, nor will it be required to submit hard copies of DMRs or MORs to NHDES. However, until notified otherwise by NHDES, the permittee shall continue to send hard copies of all other reports, including toxicity test reports, to:

**New Hampshire Department of Environmental Services (NHDES)  
Water Division  
Wastewater Engineering Bureau  
P.O. Box 95  
Concord, New Hampshire 03302-0095**

3. The permittee shall immediately notify the Shellfish Section of NHDES-WD and the Massachusetts Division of Marine Fisheries Shellfish Program of possible high bacteria/virus loading events from the facility or its sewage collection infrastructure. Such events include:
  - a. Any lapse or interruption of normal operation of the WWTF disinfection system, or other event that results in discharge of sewage from the WWTF or sewer infrastructure (pump stations, sewer lines, manholes, etc.) that has not undergone full disinfection as specified in the NPDES permit, or
  - b. Average Daily flows in excess of the POTW's average daily design flow of 1.8 MGD.
  - c. Daily post-disinfection effluent sample result of 43 fecal coliform/100ml or greater. Notification shall also be made for instances where NPDES-required bacteria sampling is not completed, or where the results of such sampling are invalid.
  - d. Notification shall be made to the Shellfish Section of the NHDES-WD using the program's cell phone as well as the program's pager. Upon initial notification of a possible high bacteria/virus loading event, Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis.
  - e. Notification shall be made to the Massachusetts Division of Marine Fisheries Shellfish Program via email at [Shellfish.Newburyport@state.ma.us](mailto:Shellfish.Newburyport@state.ma.us).

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

1. The permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).

2. This NPDES Discharge Permit is issued by EPA under Federal and State law. Upon final issuance by EPA, the New Hampshire Department of Environmental Services-Water Division (NHDES-WD) may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13.
3. EPA shall have the right to enforce the terms and conditions of this Permit pursuant to federal law and NHDES-WD shall have the right to enforce the Permit pursuant to state law, if the Permit is adopted. 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 the Permit as issued by the other Agency.
4. Pursuant to New Hampshire Statute RSA 485-A:13,I(c), any person responsible for a bypass or upset at a *wastewater facility* shall give immediate notice of a bypass or upset to all public or privately owned water systems drawing water from the same receiving water and located within 20 miles downstream of the point of discharge regardless of whether or not it is on the same receiving water or on another surface water to which the receiving water is a tributary. Wastewater facility is defined at RSA 485-A:2XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge. The permittee shall maintain a list of persons, and their telephone numbers, who are to be notified immediately by telephone. In addition, written notification, which shall be postmarked within 3 days of the bypass or upset, shall be sent to such persons
5. The pH range of 6.5 to 8.0 Standard Units (S.U.) must be achieved in the final effluent unless the permittee can demonstrate to NHDES-WD: (1) that the range should be widened due to naturally occurring conditions in the receiving water or (2) that the naturally occurring receiving water pH is not significantly altered by the permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES-WD. In no case, shall the above procedure result in pH limits outside the range of 6.0 – 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR 133.102(c).
6. Pursuant to New Hampshire Code of Administrative Rules, Env-Wq 703.07(a):
  - a. Any person proposing to construct or modify any of the following shall submit an application for a sewer connection permit to the department:
    - (1) Any extension of a collector or interceptor, whether public or private, regardless of flow;
    - (2) Any wastewater connection or other discharge in excess of 5,000 gpd;

- (3) Any wastewater connection or other discharge to a WWTP operating in excess of 80 percent design flow capacity based on actual average flow for 3 consecutive months;
  - (4) Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity; and
  - (5) Any sewage pumping station greater than 50 gpm or serving more than one building.
7. For each new or increased discharge of industrial waste to the POTW, the permittee shall submit, in accordance with Env-Ws 904.14(e) an “Industrial Wastewater Discharge Request Application” approved by the permittee in accordance with 904.13(a). The “Industrial Wastewater Discharge Request Application” shall be prepared in accordance with Env-Ws 904.10.
8. Pursuant to Env-Ws 904.17, at a frequency no less than every five years, permittees are required to submit:
- a. A copy of its current sewer use ordinance. The sewer use ordinance shall include local limits pursuant to Env-Ws 904.04 (a).
  - b. A current list of all significant indirect discharger to the POTW. As a minimum, the list shall include for each industry, its name and address, the name and daytime telephone number of a contact person, products manufactured, industrial processes used, existing pretreatment processes, and discharge permit status.
  - c. A list of all permitted indirect dischargers; and
  - d. A certification that the municipality is strictly enforcing its sewer use ordinance and all discharge permits it has issued.
9. If chlorine is used for disinfection, a recorder which continuously records the chlorine residual prior to dechlorination shall be provided. The minimum, maximum and average daily residual chlorine values, measured prior to dechlorination, shall be submitted with monthly Discharge Monitoring Reports. Charts from the recorder, showing the continuous chlorine residual shall be maintained by the permittee for a period no less than (5) years.
10. In addition to submitting DMRs, monitoring results shall also be summarized for each calendar month and reported on separate Monthly Operating Report Form(s) (MORs)

postmarked or submitted electronically using NetDMR no later than the 15<sup>th</sup> day of the month following the completed reporting period. Signed and dated MORs, which are not submitted electronically using NetDMR, shall be submitted to:

New Hampshire Department of Environmental Services (NHDES)  
Water Division  
Wastewater Engineering Bureau  
P.O. Box 95  
Concord, New Hampshire 03302-0095

**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 PURSUANT TO THE  
CLEAN WATER ACT (CWA)**

**NPDES PERMIT NO.: NH0101303**

**CONTENTS:** The fact sheet consists of 21 pages, including Attachments A, B, and C.

**NAME AND MAILING ADDRESS OF APPLICANT:**

Seabrook Wastewater Treatment Facility  
P.O. Box 456  
99 Lafayette Road  
Seabrook, New Hampshire 03874

**NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:**

Seabrook Wastewater Treatment Facility  
Wright's Island, Route 286  
Seabrook, New Hampshire 03874

**RECEIVING WATERS:**

Gulf of Maine, Atlantic Ocean (Hydrologic Basin Code: 01060003)

**RECEIVING WATER CLASSIFICATION: B**

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## **I. Proposed Action, Type of Facility, and Discharge Location**

The above named applicant has applied to the U.S. Environmental Protection Agency for reissuance of its NPDES permit to discharge into the designated receiving water. The Town of Seabrook Wastewater Treatment Facility (Facility) collects and treats domestic, commercial, and industrial wastewater from the Town of Seabrook. The facility provides secondary (biological) treatment and has a design flow of 1.8 million gallons per day (mgd). Treatment systems include influent screening and grit removal, three oxidation tanks, two final settling tanks, a disinfection system, and sludge processing systems. The treatment facility outfall pipe discharges through a 20-port diffuser in the Atlantic Ocean. The diffuser (Outfall 001) is approximately 2,100 feet from shore at Latitude 42<sup>o</sup> 52' 24" N, Longitude 70<sup>o</sup> 48' 33"W, and is at a depth of approximately 30 feet below the water surface.

The Town's previous permit was issued on September 30, 1999 and expired September 30, 2004. The expired permit (hereafter referred to as the "existing permit") has been administratively extended pursuant to 40 C.F.R. §122.6.

The location of the facility, Outfall 001, and receiving water are shown in Attachment A.

Sludge generated at the facility is transported to New England Organics, an off site sludge treatment facility in Falmouth Maine.

## **II. Description of Discharge**

A quantitative description of significant effluent parameters based on Discharge Monitoring Reports (DMRs) is shown in Attachment B. The data are from November 2002 through October 2007.

## **III. Limitations and Conditions**

Effluent limitations, monitoring requirements, and any implementation schedule (if required) are found in PART I of the draft NPDES permit. The basis for each limit and condition is discussed in Section VI of this Fact Sheet.

## **IV. Statutory and Regulatory Authority**

### **A. General Statutory and Regulatory Background**

Congress enacted the Clean Water Act (CWA or Act), "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a). To achieve this objective, the CWA makes it unlawful for any person to discharge any pollutant into the waters of the United States from any point source, except as authorized by specified permitting sections of the Act, one of which is Section 402. See CWA §§ 301(a), 402(a). Section 402 establishes one of the CWA's principal permitting programs, the National Pollutant Discharge Elimination System ("NPDES"). Under this section of the Act, EPA may "issue a permit for the discharge of any pollutant, or combination of pollutants" in accordance with certain conditions. See CWA § 402(a). NPDES permits generally

contain discharge limitations and establish related monitoring and reporting requirements. See CWA § 402(a)(1)-(2).

Section 301 of the CWA provides for two types of effluent limitations to be included in NPDES permits: "technology-based" limitations and "water quality-based" limitations. See CWA §§ 301, 303, 304(b); 40 CFR Parts 122, 125, 131. Technology-based limitations, generally developed on an industry-by-industry basis, reflect a specified level of pollutant-reducing technology available and economically achievable for the type of facility being permitted. See CWA § 301(b). As a class, POTWs must meet performance-based requirements based on available wastewater treatment technology. CWA § 301(b)(1)(B). The performance level for POTWs is referred to as "secondary treatment." Secondary treatment is comprised of technology-based requirements expressed in terms of BOD<sub>5</sub>, TSS and pH. 40 C.F.R. Part 133.

Water quality-based effluent limits, on the other hand, are designed to ensure that state water quality standards are met regardless of the decision made with respect to technology and economics in establishing technology-based limitations. In particular, Section 301(b)(1)(C) requires achievement of "any more stringent limitation, including those necessary to meet water quality standards...established pursuant to any State law or regulation...." See 40 C.F.R. §§ 122.4(d), 122.44(d)(1) (providing that a permit must contain effluent limits as necessary to protect state water quality standards, "including State narrative criteria for water quality") (emphasis added) and 122.44(d)(5) (in part providing that a permit incorporate any more stringent limits required by Section 301(b)(1)(C) of the CWA).

The CWA requires that states develop water quality standards for all water bodies within the state. CWA § 303. These standards have three parts: (1) one or more "designated uses" for each water body or water body segment in the state; (2) water quality "criteria," consisting of numerical concentration levels and/or narrative statements specifying the amounts of various pollutants that may be present in each water body without impairing the designated uses of that water body; and (3) an antidegradation provision, focused on protecting high quality waters and protecting and maintaining water quality necessary to protect existing uses. CWA § 303(c)(2)(A); 40 C.F.R. § 131.12. The limits and conditions of the permit reflect the goal of the CWA and EPA to achieve and then to maintain water quality standards.

The applicable New Hampshire water quality standards can be found in Surface Water Quality Regulations, Chapter Env-Wq 1700 et seq. See generally, Title 50, Water Management and Protection, Chapter 485A, Water Pollution and Waste Disposal Section 485-A. Hereinafter, New Hampshire's Surface Water Quality Regulations are referred to as the NH Standards.

Receiving stream requirements are established according to numerical and narrative standards adopted under state law for each stream classification. When using chemical-specific numeric criteria from the state's water quality standards to develop permit limits, both the acute and chronic aquatic life criteria are used and expressed in terms of maximum allowable in stream pollutant concentrations. Acute aquatic life criteria are generally implemented through maximum daily limits and chronic aquatic life criteria are generally implemented through average monthly limits. Where a State has not established a numeric water quality criterion for a specific chemical pollutant that is present in the effluent in a

concentration that causes or has a reasonable potential to cause a violation of narrative water quality standards, the permitting authority must establish effluent limits in one of three ways: based on a “calculated numeric criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and fully protect the designated use”; on a “case-by-case basis” using CWA Section 304(a) recommended water quality criteria, supplemented as necessary by other relevant information; or, in certain circumstances, based on an “indicator parameter.” 40 CFR § 122.44(d)(1)(vi)(A-C).

All statutory deadlines for meeting various treatment technology-based effluent limitations established pursuant to the CWA have expired. When technology-based effluent limits are included in a permit, compliance with those limitations is from the date the issued permit becomes effective. See 40 CFR § 125.3(a)(1). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA cannot be authorized by an NPDES permit.

The regulations governing EPA's NPDES permit program are generally found in 40 CFR Parts 122, 124, 125 and 136.

EPA has also determined that the Seabrook Wastewater Treatment Plant outfall is seaward of the territorial sea baseline and, therefore, is subject to Section 403 of the CWA (Ocean Discharge Criteria Evaluation). The Ocean Discharge Criteria regulations are found at 40 CFR Part 125 – Subpart M and establish ocean discharge guidelines from which a permit writer must make a judgment that a discharge will, or will not, cause “unreasonable degradation” of the marine environment. A copy of the Clean Water Act Section 403(c) Ocean Discharge Criteria Evaluation for the Seabrook POTW is attached to this fact sheet.

## B. Development of Water Quality-based Limits

The permit must limit any pollutant or pollutant parameter (conventional, non-conventional, toxic and whole effluent toxicity) 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 standard, including narrative water quality criteria. See 40 CFR §122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion.

### 1. Reasonable Potential

In determining reasonable potential, EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from permit application, monthly discharge monitoring reports (DMRs), and State and Federal water quality reports; (3) sensitivity of the species to toxicity testing; (4) statistical approach outlined in *Technical Support Document for Water Quality-based Toxics Controls*, March 1991, EPA/505/2-90-001 in Section 3; and, where appropriate, (5) dilution of the effluent in the receiving water. In accordance with New Hampshire water quality standards (RSA 485-A:8, VI, Env-Wq 1705.02) available dilution for rivers and streams is based on a known or estimated value of the lowest average flow which occurs for seven (7)

consecutive days with a recurrence interval of once in ten (10) years (7Q10) for aquatic life and human health criteria for non-carcinogens, or the long-term harmonic mean flow for human health (carcinogens only) in the receiving water. Available dilution for tidal waters is based on conditions that result in dilution that is exceeded 99 percent of the time.

Furthermore, for all waters, 10 percent (%) of the receiving water's assimilative capacity is held in reserve for future needs in accordance with New Hampshire's Surface Water Quality Regulations Env-Wq 1705.01.

#### C. Anti-Backsliding

Section 402(o) of the CWA generally provides that the effluent limitations of a renewed, reissued, or modified permit must be at least as stringent as the comparable effluent limitations in the previous permit. Unless certain limited exceptions are met, “backsliding” from effluent limitations contained in previously issued permits is prohibited. EPA has also promulgated anti-backsliding regulations which are found at 40 C.F.R. § 122.44(l). Unless applicable anti-backsliding requirements are met, the limits and conditions in the reissued permit must be at least as stringent as those in the previous permit.

#### D. State Certification

Section 401(a)(1) of the CWA requires all NPDES permit applicants to obtain a certification from the appropriate state agency stating that the permit will comply with all applicable federal effluent limitation and state water quality standards. See CWA § 401(a)(1). The regulatory provisions pertaining to state certification provide that EPA may not issue a permit until a certification is granted or waived by the state in which the discharge originates. 40 C.F.R. § 124.53(a). The regulations further provide that, “when certification is required...no final permit shall be issued...unless the final permit incorporated the requirements specified in the certification under § 124.53(e).” 40 C.F.R. § 124.55(a)(2). Section 124.53(e) in turn provides that the State certification shall include “any conditions more stringent than those in the draft permit which the State finds necessary” to assure compliance with, among other things, State water quality standards, see 40 C.F.R. 124.53(e)(2), and shall also include “[a] statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of State law, including water quality standards,” see 40 C.F.R. 124.53(e)(3).

However, when EPA reasonably believes that a State water quality standard requires a more stringent permit limitation than that reflected in a state certification, it has an independent duty under CWA §301(b)(1)(C) to include more stringent permit limitations. See 40 C.F.R. §§ 122.44(d)(1) and (5). It should be noted that under CWA § 401, EPA’s duty to defer to considerations of State law is intended to prevent EPA from relaxing any requirements, limitations, or conditions imposed by State law. Therefore, “[a] State may not condition or deny a certification on the grounds that State law allows a less stringent permit condition.” 40 C.F.R. § 124.55(c). In such an instance, the regulations provide that, “The Regional Administrator shall disregard any such certification conditions or denials as waivers of certification.” Id. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. § 122.4(d) and 40 C.F.R. § 122.44(d).

## V. Description of Receiving Water

The Atlantic Ocean in the vicinity of the discharge is classified as Class B water by the New Hampshire State Legislature. Designated uses for the receiving water are: protection and propagation of aquatic life and wildlife, fish consumption, shellfish consumption, drinking water supply after adequate treatment, and primary and secondary contact recreation.

## VI. Permit Basis and Explanation of Effluent Limitation Derivation

### A. Flow

Effluent flow must be continuously measured. If the effluent discharged for a period of three consecutive months exceeds 80 percent of the 1.8 MGD design flow (1.44 MGD), the permittee must notify EPA and NHDES-WD, and implement a program for maintaining satisfactory treatment levels. See Part I.A.6 of the proposed Draft Permit.

The facility's design flow rate of 1.8 MGD is used to calculate the mass and concentration limits for five-day biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS), as discussed below.

### B. Conventional Pollutants

#### 1. Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids

Average monthly and average weekly concentration and percent removal effluent limits in the draft permit for Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS) are based on requirements under Section 301(b)(1)(B) of the CWA as defined in 40 C.F.R. §133.102. These secondary treatment standards require: (1) concentration based limits for BOD<sub>5</sub> and TSS of 30 mg/l average monthly, 45 mg/l weekly average, and; (2) at least 85 percent removal of BOD<sub>5</sub> and TSS. The average monthly, average weekly, and maximum daily concentration limits for BOD<sub>5</sub> and TSS are also the same as the limits in the existing permit and therefore are in accordance with the anti-backsliding requirement found in 40 C.F.R. §122.44.

The draft permit also contains average monthly, average weekly, and maximum daily mass (i.e. lbs/day) effluent limits for BOD<sub>5</sub> and TSS. Mass limits are incorporated into the permit based on 40 C.F.R. §122.45(f). These mass limits were calculated using the appropriate concentration limits and the design flow using the following equation:

$$\text{Effluent Limit} = (\text{allowable concentration}) \times (\text{plant design flow}) \times (\text{conversion factor})$$

$$\text{Average Monthly Limit} = (30 \text{ mg/l}) \times (1.8 \text{ MGD}) \times 8.345 = 451 \text{ pounds/day}$$

$$\text{Average Weekly Limit} = (45 \text{ mg/l}) \times (1.8 \text{ MGD}) \times 8.345 = 676 \text{ pounds/day}$$

$$\text{Maximum Daily Limit} = (50 \text{ mg/l}) \times (1.8 \text{ MGD}) \times 8.345 = 751 \text{ pounds/day}$$

## 2. Fecal Coliform and Enterococci Bacteria

The existing permit includes average monthly, average weekly and maximum daily effluent limits for *fecal coliform* bacteria, and reporting requirements for *total coliform* bacteria. The draft permit includes average monthly and maximum daily effluent limits for *fecal coliform* bacteria and new (first-time) average monthly and maximum daily effluent limits for *enterococci* bacteria. The draft permit does not include reporting requirements for *total coliform* bacteria.

Bacteria criteria applicable to the Atlantic Ocean in the vicinity of the Seabrook WWTF outfall are found in NH RSA 485-A:8.V, which states: *“Tidal waters utilized for swimming purposes shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 35 enterococci per 100 milliliters, or 104 enterococci per 100 milliliters in any one sample, unless naturally occurring. Those tidal waters used for growing or taking of shellfish for human consumption shall, in addition to the foregoing requirements, be in accordance with the criteria recommended under the National Shellfish Program Manual of Operation, United States Department of Food and Drug Administration.*

The draft permit includes average monthly and maximum daily limits for enterococci bacteria for protection of swimming uses in the receiving water, including Seabrook Beach, which is approximately 2100 feet from the Seabrook WWTF outfall. The NHDES-WD has determined that the geometric mean water quality standard of 35 enterococci per 100 milliliters applies to NPDES permits as an average monthly geometric mean limit and the single sample maximum standard applies as a maximum daily limit. The criteria have been incorporated as end of pipe effluent limitations (i.e no dilution) in accordance with the NH Standards (see NH Code of Administrative Rules, Part Env-Wq 1703.06)

The draft permit also includes average monthly and maximum daily limits of fecal coliform bacteria for protection of shellfishing uses. The Shellfish Program Manual referenced in NH RSA 485-A: 8.V includes recommended criteria for either total coliform bacteria or fecal coliform bacteria. The draft permit is based on the fecal coliform bacteria recommendations in the Shellfish Program Manual, which requires that the geometric mean fecal coliform most probable number (MPN) not exceed 14 per 100 milliliters and not more than 10 percent of the samples exceed an MPN of 43 per 100 milliliters for a 5-tube decimal dilution test. The NHDES-WD has determined that the geometric mean fecal coliform value of 14 colonies per 100 milliliters applies to NPDES permits as an average monthly geometric mean limit, and the requirement that not more than 10 percent of the samples exceed an MPN of 43 per 100 milliliters applies as a maximum daily limit. The average monthly value is determined by calculating the geometric mean of the daily sample values. The fecal coliform criteria have been incorporated as end of pipe effluent limitations (i.e no dilution) in accordance with the NH Standards (see NH Code of Administrative Rules, Part Env-Wq 1703.06)

The draft permit limits for fecal coliform and enterococci bacteria are protective of existing and designated uses of the receiving water.

### 3. pH

The pH limit range of 6.5 – 8.0 Standard Units (S.U.) in the draft permit remains unchanged from the existing permit. Language under State Permit Conditions (PART I.H.5.) allows for a change in the pH limit under certain conditions. A change would be considered if the applicant can demonstrate to the satisfaction of NHDES-WD that the pH standard of the receiving water will be protected when the discharge is outside the permitted range, then the applicant or NHDES-WD may request (in writing) that the permit limits be modified by EPA to incorporate the results of the demonstration. Anticipating the situation where NHDES-WD grants a formal approval changing the pH limit to outside 6.5 to 8.0 S.U., EPA has added a provision to the draft permit (see SPECIAL CONDITIONS section). That provision will allow EPA to modify the pH limit using a certified letter approach. This change will be allowed only if it is demonstrated that the revised pH limit range does not alter the naturally occurring receiving water pH. However, the pH limit range cannot be less restrictive than 6.0 to 9.0 S.U. found in the applicable National Effluent Limitation Guideline (Secondary Treatment Regulations in 40 C.F.R. Part 133) for the facility.

### C. Non-Conventional and Toxic Pollutants

Water quality based limits for specific toxic pollutants such as chlorine, ammonia, and copper are determined from numeric chemical specific criteria derived from extensive scientific studies. The EPA has summarized and published specific toxic pollutants and their associated toxicity criteria in Quality Criteria for Water, 1986, EPA440/5-86-001 as amended, commonly known as the federal “Gold Book”. Each pollutant generally includes acute aquatic life criteria to protect against short term aquatic life effects, such as death; chronic aquatic life criteria to protect against long term aquatic life effects, such as poor reproduction or impaired growth; and human health criteria to protect water and fish consumption uses. New Hampshire adopted these “Gold Book” criteria, with certain exceptions, and included them as part of the State’s Surface Water Quality Regulations adopted on December 10, 1999. EPA uses these pollutant specific criteria along with available dilution in the receiving water to determine pollutant specific draft permit limits.

#### 1. Available Dilution

The existing permit is based upon a dilution factor of 72, which was arrived at through Cornell Mixing Zone Expert System (CORMIX) modeling completed by the Town of Seabrook’s consultant in 1999. The facility modified the diffuser in 2001 by installing pinch valves on each of the twenty diffuser ports. CORMIX modeling by the NHDES-WD determined that this change would not affect the dilution factor. Therefore, the draft permit is based on a dilution factor of 72.

#### 2. Total Residual Chlorine

The total residual chlorine (TRC) limits in the draft permit are based on available dilution and the State’s acute and chronic water-quality criteria. The limits are derived as follows:

Effluent Limit = (Dilution Factor) x (Water-Quality Standard)

Average Monthly Limit =  $72 \times 0.0075 \text{ mg/l} = 0.54 \text{ mg/l}$

Maximum Daily Limit =  $72 \times 0.013 \text{ mg/l} = 0.94 \text{ mg/l}$

The TRC limits in the draft permit are the same as those in the existing permit.

### 3. Arsenic

The New Hampshire Standards include marine chronic and acute aquatic life criteria of 36ug/l and 69ug/l respectively, a human health fish consumption criterion of 0.14 ug/l, and a human health water and fish ingestion criterion of 0.018ug/l. However, the Atlantic Ocean in the vicinity of the outfall is not used as a drinking water supply and therefore the protection of human health criteria for water and fish ingestion does not apply. Of the applicable criteria, the human health criteria for fish consumption (0.14ug/l) is the most stringent. An effluent limit of 10ug/l could be calculated using this human health criteria and the dilution factor ( $0.14\text{ug/l} \times 72 = 10\text{ug/l}$ ). The three effluent arsenic sample results for the existing WWTF included in the facility's reapplication indicated arsenic at 5ug/l, 7ug/l and 8ug/l. However, the Town of Seabrook is constructing a new arsenic removal treatment system for its drinking water system, and this should lead to decreased arsenic influent loads at the wastewater treatment plant, and decreased arsenic levels in the WWTF effluent.

The measured effluent concentrations reported in the facility's reapplication (5ug/l, 7ug/l and 8ug/l) are less than the calculated maximum allowable value of 10 ug/l, and it is likely that arsenic levels in the effluent will be lower in the future due to the Town's plans to reduce arsenic levels in its drinking water system. Therefore, the draft permit does not include an effluent limit for arsenic. However, the draft permit requires effluent arsenic monitoring at a frequency of twice per month to better characterize the facility's discharge, and to identify any arsenic concentration trends that may occur over the term of the permit. The permit will be modified, or alternatively, revoked and reissued to incorporate additional effluent limitations if the arsenic monitoring results indicate that the discharge causes or has reasonable potential to cause an exceedance of any water quality criterion.

### 4. Other Pollutants

The permittee provided expanded effluent testing results (based on 3 samples) for toxics in the discharge from outfall 001 as part of its permit application. The concentrations of these pollutants were compared to the Water Quality Criteria for Toxic Substances listed in New Hampshire's Surface Water Quality Regulations (and accounting for dilution). This comparison indicated that there were no additional pollutants that showed reasonable potential to cause or contribute to exceedances of water quality standards and for which permit limits should be established.

#### D. Whole Effluent Toxicity

EPA's **Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991**, recommends using an "integrated strategy" containing both a pollutant (chemical) specific approach and a whole effluent (biological) toxicity approach to control toxic pollutants from entering the nation's waterways from permitted discharges. EPA-New England adopted this "integrated strategy" on July 1, 1991, for use in permit development and issuance. Both approaches are designed to protect aquatic life and human health.

Pollutant specific approaches to control toxics, such as those in the Gold Book and State regulations, address individual chemicals, whereas, a whole effluent toxicity (WET) approach to toxics control evaluates interactions between pollutants, thus rendering an "overall" or "aggregate" toxicity assessment of the effluent. Furthermore, WET measures the "Additivity" and/or "Antagonistic" effects of individual chemical pollutants while pollutant specific derived permit limits do not, thus the need for both approaches. In addition, the presence of an unknown toxic pollutant can be discovered and addressed through the process of WET testing.

New Hampshire law states that, "all surface waters shall be free from toxic substances or chemical constituents in concentrations or combination that injure or are inimical to plants, animals, humans, or aquatic life;...." (N.H. RSA 485-A:8, VI and the N.H. Code of Administrative Rules, PART Env-Wq 1703.21(a)(1)). The federal NPDES regulations at 40 CFR §122.44(d)(1)(v) require whole effluent toxicity limits in a permit when a discharge has a "reasonable potential" to cause or contribute to an excursion above the State's narrative criterion for toxicity.

EPA-New England's current policy requires toxicity testing in all municipal permits with the type of toxicity test (acute and/or chronic) and effluent limitation based on a range of available dilution. EPA-New England's policy requires that secondary treatment facilities with a dilution factor between 20 and 100 meet an acute toxicity limit of LC<sub>50</sub> of 100 percent effluent (no chronic limit). Therefore, the draft permit requires the facility to meet this toxicity limit.

The WET limits in the draft permit include conditions to allow EPA-New England to modify, or alternatively, revoke and reissue to incorporate additional toxicity testing requirements, including chemical specific limits, if the results of the toxicity tests indicate the discharge causes an exceedance of any State water quality criterion. Results from these toxicity tests are considered "New Information" and the permit may be modified as provided in 40 CFR §122.62(a)(2). Alternately, if a permittee has consistently demonstrated on a maximum daily basis that its discharge, based on data for the most recent one-year period, or four sampling events, whichever yields the greater time period, causes no acute and chronic toxicity, the permitted limits will be considered eligible for a reduced frequency of toxicity testing. This reduction in testing frequency is evaluated on a case-by-case basis. Accordingly, a special condition has been carried forward from the existing permit into the draft permit that allows for a reduced frequency of WET testing using a certified letter from EPA-New England. This permit provision anticipates the time when the permittee requests a reduction in WET testing that is approvable by both EPA New England and the NHDES-WD. As previously stated, EPA-New England's current policy is that after completion of a minimum of four consecutive WET

tests all of which must be valid tests and must demonstrate compliance with the permit limits for whole effluent toxicity, the permittee may submit a written request to EPA-New England seeking a review of the toxicity test results. EPA-New England's policy is to reduce the frequency of toxicity testing to no less than once per year. The permittee is required to continue testing at the frequency specified in the permit until the permit is either formally modified or until the permittee receives a certified letter from EPA-New England indicating a change in the permit condition. This special condition does not negate the permittee's right to request a permit modification at any time prior to the permit expiration.

This draft permit, as in the existing permit, requires the permittee to continue reporting selected parameters from the chemical analysis of the WET tests' 100 percent effluent sample. Specifically, total ammonia nitrogen as nitrogen, and total recoverable aluminum, cadmium, copper, chromium, lead, nickel and zinc are to be reported on the appropriate DMR for entry into EPA's data base. EPA-New England does not consider these reporting requirements an unnecessary burden as reporting these constituents is already required with the submission of each toxicity testing report.

#### E. Sludge

Section 405(d) of the CWA requires that EPA develop technical standards regulating the use and disposal of sewage sludge. These regulations were signed on November 25, 1992, published in the Federal Register on February 19, 1993, and became effective on March 22, 1993. Domestic sludge which is land applied, disposed of in a surface disposal unit, or fired in a sewage sludge incinerator is subject to Part 503 technical and to State Env-Wq 800 standards. Part 503 regulations have a self-implementing provision, however, the CWA requires implementation through permits. Domestic sludge which is disposed of in municipal solid waste landfills is in compliance with Part 503 regulations provided the sludge meets the quality criteria of the landfill and the landfill meets the requirements of 40 CFR Part 258.

This draft permit has been conditioned to ensure that sewage sludge use and disposal practices meet the CWA Section 405(d) Technical Standards. In addition, EPA-New England has included with the draft permit 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.

The permittee is required to submit an annual report to EPA-New England and the NHDES-WD, by February 19<sup>th</sup> each year, containing the information specified in the Sludge Compliance Guidance document for their chosen method of sewage sludge use or disposal practices.

The Facility's permit application identified New England Organics in Falmouth Maine as the disposal site for approximately 177 dry metric tons (annually) of its sludge.

#### F. Industrial Users (Pretreatment Program)

The permittee is not required to administer a pretreatment program based on the authority granted under 40 CFR §122.44(j), 40 CFR §403 and Section 307 of the Act. However, the draft permit

contains conditions that are necessary to allow EPA and NHDES-WD to ensure that pollutants from industrial users will not pass through the facility and cause water quality standards violations and/or sludge use and disposal difficulties or cause interference with the operation of the treatment facility. The permittee is required to notify EPA and NHDES-WD whenever a process wastewater discharge to the facility from a primary industrial category (see 40 CFR §122 Appendix A for list) is planned or if there is any substantial change in the volume or character of pollutants being discharged into the facility by a source that was discharging at the time of issuance of the permit. The permit also contains the requirements to: 1) report to EPA and NHDES-WD the name(s) of all Industrial Users subject to Categorical Pretreatment Standards (see 40 CFR §403 Appendix C for list) who commence discharge to the POTW after the effective date of the finally issued permit, and 2) submit copies of Baseline Monitoring Reports and other pretreatment reports submitted by industrial users to EPA and NHDES-WD.

#### G. Operation and Maintenance

Regulations regarding proper operation and maintenance are found at 40 C.F.R. § 122.41(e). These regulations require, “that the permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit.” The treatment plant and the collection system are included in the definition “facilities and systems of treatment and control” and are therefore subject to proper operation and maintenance requirements.

Similarly, a permittee has a “duty to mitigate” pursuant to 40 C.F.R. § 122.41(d), which requires the permittee to “take all reasonable steps to minimize or prevent any discharge in violations of the permit which has a reasonable likelihood of adversely affecting human health or the environment.”

General requirements for proper operation and maintenance, and mitigation have been included in Part II of the permit. Specific permit conditions have also been included in Part I.B., I.C., and I.D. of the draft permit. These requirements include mapping of the wastewater collection system, reporting of unauthorized discharges including SSOs, maintaining an adequate maintenance staff, performing preventative maintenance, controlling inflow and infiltration to the extent necessary to prevent SSOs and I/I related effluent violations at the wastewater treatment plant, and maintaining alternate power where necessary.

#### H. Antidegradation

This draft permit is being reissued with no change in outfall location, and with effluent limits and monitoring requirements identical to those in the current permit, except the draft permit includes new (first time) effluent limits for enterococci bacteria. The State of New Hampshire has indicated that there is no lowering of water quality and no loss of existing water uses and that no additional antidegradation review is warranted at this time.

### I. Additional Requirements and Conditions

The draft permit compliance monitoring frequencies and sample types for Flow, BOD<sub>5</sub>, TSS, pH, TRC, arsenic, and bacteria are consistent with the latest version of EPA/NHDES-WD's Effluent Monitoring Guidance (EMG) mutually agreed upon and first implemented in March 1993 and last revised on July 19, 1999. In addition, the WET test monitoring requirements are consistent with EPA-New England's Municipal Toxicity Policy. It is the intent of EPA-New England and NHDES-WD to establish minimum monitoring frequencies in all NPDES permits that (1) are reasonable from environmental and human health perspective; and, (2) are in accordance with the EMG. The effluent monitoring requirements in the draft permit have been established to yield data representative of the discharge under the authority of Section 308(a) of the CWA in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

The draft permit includes a special condition which requires the facility to perform periodic videotape inspections and routine maintenance of the outfall diffuser. EPA and NH DES are concerned that there is a potential for debris or boating activities to damage the diffuser ports. Damage may reduce the designed mixing properties of the diffuser, thereby reducing available dilution in the receiving water. The special condition also requires the facility to maintain "duckbill" elastomeric check valves on the diffuser ports to prevent ocean water intrusion into the outfall pipe.

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

### J. Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104267), established a new requirement to describe and identify (designate) "essential fish habitat" (EFH) in each federal fishery management plan. Only species managed under a federal fishery management plan are covered. Fishery Management Councils determine which area will be designated as EFH. The Councils have prepared written descriptions and maps of EFH, and include them in fishery management plans or their amendments. EFH designations for New England were approved by the Secretary of Commerce on March 3, 1999.

The 1996 Sustainable Fisheries Act broadly defined EFH as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Waters include aquatic areas and their associated physical, chemical, and biological properties. Substrate includes sediment, hard bottom, and structures underlying the waters. Necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. Spawning, breeding, feeding, or growth to maturity covers all habitat types utilized by a species throughout its life cycle. Adversely affect means any impact which reduces the quality and/or quantity of EFH. Adverse impacts may include direct (i.e. contamination, physical disruption), indirect (i.e. loss of prey), site specific or habitat wide impacts including individual, cumulative, or synergistic consequences of actions.

According to the Guide to Essential Fish Habitat Designations in the Northeastern United States obtained from the NMFS – Northeast Regional Office, the Gulf of Maine (Atlantic Ocean) in the area of Seabrook’s discharge has been designated as EFH for the species listed in Attachment C

EPA has concluded that the limits and conditions contained in this draft permit minimize adverse effects to EFH for the following reasons:

- The permit requires toxicity testing four (4) times per year using mysid shrimp and inland silversides to ensure that the discharge does not present toxicity problems. The existing permit contains effluent limitations for toxicity which the permittee has been in compliance with;
- The permit prohibits the discharge to cause a violation of state water quality standards;
- The permit prohibits the discharge of any pollutant or combination of pollutants in toxic amounts;
- The permit contains water quality base limits for total residual chlorine.

EPA believes the draft permit adequately protects EFH and therefore additional mitigation is not warranted. NMFS will be notified and an EFH consultation will be reinitiated 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 these conclusions

#### K. Endangered Species

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 or Commerce, to ensure 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) typically administer Section 7 consultations for fresh water species, and the National Marine Fisheries Services (NMFS) administers Section 7 consultations for marine species and anadromous fish.

Based on EPA’s review of federally-listed species information for New England waters, several species of whales and sea turtles are known to be seasonally present in the general vicinity of Seabrook’s discharge. These species are under the purview of NMFS and include: North Atlantic right whales (*Eubalaena glacialis*), humpback whales (*Megaptera novaeangliae*), Fin whale (*Balaenoptera physalus*), sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*), loggerhead sea turtle (*Caretta caretta*), Kemp’s ridley sea turtle (*Lepidochelys kempi*), and the Green sea turtle (*Chelonia mydas*).

It is EPA’s opinion that the discharge from the Seabrook Wastewater Treatment Facility, as governed by the reissuance of this NPDES permit, is not likely to adversely affect any whale or sea turtle

species, or their critical habitat. As with the Essential Fish Habitat analysis conducted above, the following information supports this determination:

- This is a reissuance of an existing permit with no increase in the authorized discharge of pollutants as compared to the existing permit;
- The permit will prohibit violations of State water quality standards in the receiving water;
- The dilution for the facility is 72;
- The discharge is disinfected with sodium hypochlorite and then dechlorinated prior to discharge. The permit contains a water quality based limit for total residual chlorine;
- There are no combined sewer overflows in the system;
- The permit required the permittee to perform quarterly toxicity testing. If the results of the pass/fail WET test indicates that the discharge exceeds an LC50 of 100% (Note: effluent concentration which means 50% or greater of the test organisms must survive in an effluent sample composed of 100% effluent), or exhibits significant toxicity for survival and growth, then the permit may be modified, or alternatively, revoked and reissued to incorporate additional toxicity testing requirements, including chemical specific limits; and
- The permittee has been in compliance with the effluent toxicity limits in the existing permit.

EPA is seeking concurrence from NMFS on these opinions through informal ESA section 7 consultation.

## **VII. State Certification Requirements**

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations and/or conditions contained in the permit are stringent enough to assure, among other things, that the discharge will not cause the receiving water to violate NH Standards or waives its right to certify as set forth in 40 CFR §124.53.

Upon public noticing of the draft permit, EPA is formally requesting that the State's certifying authority make a written determination concerning certification. The State will be deemed to have waived its right to certify unless certification is received within 60 days of receipt of this request.

The NHDES-WD is the certifying authority. EPA has discussed this draft permit with the Staff of the NHDES-WD Wastewater Engineering Bureau and expects that the draft permit will be certified. Regulations governing state certification are set forth in 40 CFR §§ 124.53 and 124.55.

The State's certification should include the specific conditions necessary to assure compliance with applicable provisions of the Clean Water Act Sections 208(e), 301, 302, 303, 306 and 307 and with appropriate requirements of State law. In addition, the State should provide a statement of the extent to which each condition of the draft permit can be made less stringent without violating the requirements of State law. Since the State's certification is provided prior to permit issuance, any failure by the State to provide this statement waives the State's right to certify or object to any less stringent condition. These less stringent conditions may be established by EPA during the permit issuance process based on information received following the public noticing. If the State believes that any conditions more

stringent than those contained in the draft permit are necessary to meet the requirements of either the CWA or State law, the State should include such conditions and, in each case, cite the CWA or State law reference upon which that condition is based. Failure to provide such a citation waives the right to certify as to that condition. The only exception to this is the sludge conditions/requirements implementing Section 405(d) of the CWA are not subject to the Section 401 State Certification requirements.

Reviews and appeals of limitations and conditions attributable to State certification shall be made through the applicable procedures of the State and may not be made through the applicable procedures of 40 CFR Part 124.

### **VIII. 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:

Dan Arsenault  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100-CMP  
Boston, MA 02109-3912  
Phone: (617) 918-1562  
Fax: (617) 918-0562

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 issue proposed to be raised at the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Regional Administrator finds that response to this notice indicates 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 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. Permits may be appealed to the Environmental Appeals Board in the manner described at 40 CFR § 124.19.

**IX. EPA Contact**

Additional information concerning the draft permit may be obtained between the hours of 9:00 A.M. and 5:00 P.M. (8:00 A.M. and 4:00 P.M. for the state), Monday through Friday, excluding holidays from:

Dan Arsenault  
U.S. Environmental Protection Agency  
5 Post Office Square, Suite 100-CMP  
Boston, MA 02109-3912  
Phone: (617) 918-1562  
Fax: (617) 918-0562

3/24/10  
Date:

**Stephen S. Perkins, Director**  
**Office of Ecosystem Protection**  
**U.S. Environmental Protection Agency**

**Attachment A - Location of Seabrook Wastewater Treatment Facility and Outfall**



**Attachment B - Effluent Characteristics**

The following effluent characteristics were derived from analysis of discharge monitoring data collected from Outfall 001 from January 2004 through November 2009. This data was taken from the monthly Discharge Monitoring Reports (DMR's) submitted by the Town of Seabrook Wastewater Treatment Plant. These effluent values characterize the treated sanitary waste water discharged from this facility.

<b>Parameter</b>	<b>Average of Monthly Averages</b>	<b>Range of Monthly Averages</b>	<b>Maximum Daily<sup>1</sup></b>
Flow (mgd)	0.823	0.664 – 1.222	2.73, 2.04, 1.76
BOD <sub>5</sub> (lb/d)	61	23 - 138	686, 354, 215
BOD <sub>5</sub> (mg/l)	8.7	3.5 – 17.1	112, 31.1, 30.6
BOD <sub>5</sub> (% Removal)	97.1	---	---
TSS (lb/d)	63.8	17 - 208	1708, 567, 298
TSS (mg/l)	9.1	2.8 – 29.2	279, 37.7, 33.7
TSS (% Removal)	96.6	---	---
Fecal Coliform (Colonies/100 ml)	1.5	1 – 5	15,500; 672; 268
Total Coliform (Colonies/100 ml)	77	1 – 584	3175, 2440, 1980
pH (Standard Units) <sup>3</sup>	N/A	6.17 – 7.78	N/A
Total Residual Chlorine (mg/l)	0.10	0.03 – 0.26	0.935, 0.93, 0.91
<b>WET Test Results</b>			
	<b>Average</b>	<b>Range</b>	<b>Maximum Values</b>
LC50 <i>Mysidopsis bahia</i> (%Effluent)	---	---	100, 100, 100
LC50 <i>Menidia beryllina</i> (% Effluent)	---	---	100, 100, 100

1. More than one value represents the second and third highest values
2. Numbers listed are the minimum and maximum daily values
3. Minimum daily values

**Attachment C - Summary of Essential Fish Habitat (EFH) Designation**

Area Description: Gulf of Maine within the square affecting the following: from east of Salisbury, MA, north up to Rye, NH, including waters affecting Smithtown, NH, Hampton Beach and Hampton, NH. Other features affected include: Lockes Neck, Jenness Beach, Rye Ledge, Rye Beach, Fox Hill Pt., Little Boars Head Pt., North Beach, Great Boars Head, Hampton Harbor, Hampton Shoal Ledge, Seabrook Beach, Round Rock, Breaking Rocks, Salisbury Beach, and Cushing, MA. Also, the waters within this square affect east of Seabrook, NH, and the Seabrook Nuclear Power Station near Seabrook Beach.

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	
Whiting ( <i>Merluccius bilineraris</i> )	X	X	X	X
Offshore hake ( <i>Merluccius albidus</i> )				
Red hake ( <i>Urophycis chuss</i> )	X	X	X	X
White hake ( <i>Urophycis Tenuis</i> )				
Redfish ( <i>Sebastes fasciatus</i> )	n/a	X	X	X
Witch flounder ( <i>Flyptocephalus cynoglossus</i> )				
Winter flounder ( <i>Pleuronectus americanus</i> )	X	X	X	X
Yellowtail flounder ( <i>Pleuronectes ferruginea</i> )			X	X
Windowpane flounder ( <i>Scopthalmus aquosus</i> )			X	X
American plaice ( <i>Hippoglossoides platessoides</i> )			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
Monkfish ( <i>Lophius americanus</i> )	X	X	X	X
Bluefish ( <i>Pomatomus saltatrix</i> )				
Long finned squid ( <i>Loligo pealei</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>Centropristus striata</i> )	n/a			
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		
Tilefish ( <i>Lopholatilus chamaeleonticeps</i> )				
Bluefin tuna ( <i>Thunnus thyunnus</i> )				X

**RESPONSE TO COMMENTS – JULY 28, 2010**  
**REISSUANCE OF NPDES PERMIT NO. NH0101303**  
**SEABROOK WASTEWATER TREATMENT FACILITY**  
**SEABROOK, NEW HAMPSHIRE**

From May 26 through June 24, 2010, the U.S. Environmental Protection Agency (EPA-New England) and the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) solicited public comments on the draft National Pollutant Discharge Elimination System (NPDES) permit to be reissued to the Seabrook Wastewater Treatment Facility located in Seabrook, New Hampshire.

EPA-New England and NHDES-WD received comments from the Town of Seabrook in a letter dated June 21, 2010. The following are joint responses on behalf of EPA-New England and NHDES-WD to those comments and descriptions of any changes made to the public-noticed permit as a result of those comments.<sup>1</sup>

A copy of the final permit may be obtained by writing or calling Dan Arsenault, United States Environmental Protection Agency, 5 Post Office Square, Suite 100 (OEP06-1), Boston, MA 02109-3912; Telephone (617) 918-1562. Copies may also be obtained from the EPA Region I web site at <http://www.epa.gov/region1/npdes/index.html>.

**COMMENTS FROM THE TOWN OF SEABROOK**

**COMMENT 1:**

In Part I of the draft in the Section labeled, Explanation of superscripts to part I.A.1.; item 6 on page 4 does not specify any approved method number. It does reference 40 C.F.R. Part 136 as the approved source for methods. In the following paragraph, the limits for daily maximum sample results are listed as a 10% rule of collected samples over a monthly period. This limit of 43 per 100 mls for a 5 tube decimal dilution test implies that the multiple tube fermentation method be used to monitor this parameter. Currently, the Standard Method 9222-D 19<sup>th</sup> ed. Method, which is a filtration technique, has been acceptable for providing accurate fecal coliform test results. The Town of Seabrook requests that the SM 9222-D procedure be allowed to continue to be used to monitor this parameter. The final sentence states that “all Fecal Coliform data must be submitted with the monthly DMRs” and does not specify to what extent does the word data refer to. Does this refer to test results or does it require all or part of the procedural information required in the specified test protocol. Essentially, what are you looking for?

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<sup>1</sup> After EPA issues a final NPDES permit for a New Hampshire point source, the State interprets its water pollution control statute to authorize subsequent adoption of the federal permit as a state surface water discharge permit.

**RESPONSE 1:**

Standard Method 9222-D is an approved method for the monitoring of fecal coliform found in 40 CFR § 136.3. The Town may continue using method 9222-D.

With respect to the permit requirement that all fecal coliform data collected must be submitted with the monthly discharge monitoring reports (DMRs), this refers to all fecal coliform test results.

**COMMENT 2:**

Section 7 is the specification for monitoring Enterococci as an effluent characteristic. Can a procedure such as the Enterolert<sup>TM</sup> distributed by IDEXX Inc. be used as an approved method? Again, the statement of submitting all data collected with the monthly DMRs is not clear.

**RESPONSE 2:**

Enterolert<sup>TM</sup> is an approved method found in 40 CFR § 136.3 for the monitoring of Enterococci and therefore may be used by the Town.

As with the fecal coliform, all enterococci monitoring test results shall be submitted with the monthly DMRs.