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"),

South Essex Sewerage District *(SESD)*

is authorized to discharge from the facility located at:

South Essex Wastewater Treatment Facility
50 Fort Avenue
Salem, MA 01970

to receiving water named: **Salem Sound (MA-93-25)** in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

The municipalities of Beverly, Danvers, Marblehead, Peabody and Salem are co-permittees for Part I.C., Operation and Maintenance and Part I.D., Unauthorized Discharges which include conditions regarding the operation and maintenance of the portion of the collection systems owned and operated by the individual municipalities. The Municipalities are also responsible for the requirements found in Part I.G. State Permit Conditions. The responsible municipal departments are:

City of Beverly
c/o City Engineer
Beverly City Hall
191 Cabot Street
Beverly, MA 01915

Town of Danvers
c/o Town Engineer
Public Works Engineering Division
1 Burroughs Street
Danvers, MA 01923

Town of Marblehead
c/o Superintendent
Water/Sewer Department
P.O. Box 1108
Marblehead, MA 01945

City of Peabody
c/o Mayor
24 Lowell Street
Peabody, MA 01960

City of Salem
c/o City Engineer
120 Washington Street, 4th Fl
Salem, MA 01970

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

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

This permit supersedes the permit issued on February 9, 2001 and effective on October 10, 2001.

This permit consists of 13 pages in Part I including effluent limitations, monitoring requirements, **Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, July 2012, 10 pages); **Attachment B** (Marine Chronic Toxicity Test Procedure and Protocol, November 2013, 12 pages); **Attachment C** (Reassessment of Technically Based Industrial Discharge Limits, 9 pages), **Attachment D** (NPDES Permit Requirement for Industrial Pretreatment Annual Report, 2 pages) and Part II including General Conditions and Definitions.

Signed this 5th day of May, 2016

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

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number 001, treated effluent to Salem Sound. The discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Effluent Limits						Monitoring Requirements	
	Mass Limits			Concentration Limits				
	Average Monthly	Average Weekly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[3]
Flow[2]	***	***	***	29.7 MGD	***	Report MGD	Continuous	Recorder
Flow[2]	***	***	***	Report MGD	***	***	Continuous	Recorder
$CBOD_5$[4]	6,194 lbs/day	9,911 lbs/day	Report	25 mg/l	40mg/l	Report mg/l	1/Day	24-Hour Composite[5]
TSS[4]	7,433 lbs/day	11,150 lbs/day	Report	30 mg/l	45 mg/l	Report mg/l	1/Day	24-Hour Composite[5]
pH[1]	6.5 - 8.5 SU SEE PERMIT PAGE 5 OF 12, PARAGRAPH I.A.2.b.						1/Day	Grab
Fecal Coliform Bacteria[1,6]	***	***	***	88 CFU/100 ml	***	Report CFU/100 ml	2/Day	Grab
Enterococci[1,6]	***	***	***	35 Colonies/100 ml	***	276 Colonies/100 ml	2/Day	Grab
Total Residual Chlorine[1,6,7,8,9]	***	***	***	***	***	0.24 mg/l	2/Day	Grab
Total Nitrate/Nitrite	***	***	***	***	***	Report mg/l	1/Month	24-Hour Composite[5]
Total Ammonia Nitrogen, as N	***	***	***	***	***	Report mg/l	1/Month	24-Hour Composite[5]
Total Kjeldahl Nitrogen	***	***	***	***	***	Report mg/l	1/Month	24-Hour Composite[5]
Whole Effluent Toxicity [10,12,13,14,15 16]	Acute $LC_{50} \geq 100\%$						4/Year	24-Hour Composite[5]
Whole Effluent Toxicity [10,11,13,14,15,16]	Chronic Report NOEC						4/Year	24-Hour Composite[5]

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 taken after dechlorination and prior to discharge to the effluent pipe for the parameters: pH, TRC, fecal coliform and enterococci. Sampling for all other parameters can be taken prior to chlorination. All sampling shall be representative of the effluent that is discharged through Outfall 001 to Salem Sound. A routine sampling program shall be developed in which samples are taken at the same location, same time and same day(s) of every month. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is submitted to EPA. In addition, all samples shall be analyzed using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.

4. Sampling required for influent and effluent once per day.

5. A 24-hour composite sample will consist of at least twenty-four (24) grab samples, flow proportional, taken for a consecutive 24-hour period (e.g. 0700 Monday - 0700 Tuesday).

6. Fecal coliform bacteria, enterococci and total residual chlorine limits and monitoring requirements are in effect year round. As enterococci is a new requirement, the permittee shall monitor-only for the first year of the permit without an effluent limit. After one year the effluent limits for enterococci apply. The average monthly limits *are* expressed as a geometric means. Samples for fecal coliform bacteria and enterococci shall be taken at the same time as a total residual chlorine sample.

   Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units (cfu) per 100 ml, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 cfu per 100 ml. The permittee shall report the percent of samples exceeding 260 cfu per 100 ml on its discharge monitoring report and submit the sample results with the discharge monitoring report.

7. Total residual chlorine monitoring is required whenever chlorine is added to the treatment process (i.e. TRC sampling is not required if chlorine is not added for disinfection or other purpose). The limitations are in effect year-round.

   The minimum level (ML) for total residual chlorine is defined as 20 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 ug/l, the compliance level will be the ML. Sampling results less than the detection limit shall be reported as "≤ [detection limit]" on the Discharge Monitoring Report.

8. For every day that more than two samples are analyzed, the monthly DMR shall include an attachment documenting the individual grab sample results for that day, the date and time of each

sample, the analytical method, and a summary of any operational modifications implemented in response to the sample results. This requirement applies to all samples taken, including screening level and process control samples. All test results utilizing an EPA approved analytical method shall be used in the calculation and reporting of the monthly average and maximum daily data submitted on the DMR (see Part II. Section D.1.d(2)).

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

10. The permittee shall conduct chronic and acute toxicity tests four (4) times per year using Arbacia and Menidia beryllina, respectively. Toxicity test samples shall be collected during the months of February, April, June and August. The test results shall be submitted by the last day of the month following the completion of the test. The results are due by **March 31, May 31, July 31 and September 30**, respectively. The tests must be performed in accordance with test procedures and protocols specified in Attachments A and B of this permit.

Test Month Same week of each month (i.e. 1st, 2nd, etc.)	Submit Results By:	Test Species	Acute Limit LC_{50}	Chronic
February April June August	March 31st May 31st July 31st September 30th	Arbacia Menidia beryllina See Attachments A & B	100%	Report NOEC

11. The LC_{50} is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.

12. C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear-dose relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect.

13. The permittee must use the receiving water as diluent in WET testing unless authorized after following the procedures in Attachment C, *#17.*

14. 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** (Marine Acute Toxicity Test Procedure and Protocol, July 2012, 10 pages) **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 also be found as Attachment C to this permit or 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**.

15. For each whole effluent toxicity test, the permittee shall report on the appropriate discharge monitoring report, (DMR), the concentrations of the hardness, ammonia nitrogen as nitrogen, total recoverable cadmium, copper, lead, nickel, and zinc found in the 100 percent effluent sample. All these aforementioned chemical parameters shall be determined to at least the minimum quantification level shown in **Attachment A**. Also the permittee should note that all chemical parameter results must still be reported in the appropriate toxicity report.

16. The permit shall be modified, or alternatively revoked and reissued, 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 tests are considered "new information" and the permit may be modified pursuant to 40 CFR 122.6(a)(2).

Part I.A.2.

a. The discharge shall not cause a violation of the water quality standards of the receiving waters.

b. The pH of the effluent shall not be less than 6.5 nor greater than 8.5. There shall be no change from natural background conditions that would impair any use assigned to this Class.

c. The discharge shall not cause objectionable discoloration of the receiving waters.

d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

e. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both $CBOD_5$ and TSS. The percent removal shall be based on monthly average values.

f. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

g. The results of sampling for any parameter above its required frequency must also be reported.

3. All POTWs must provide adequate notice to the Director of the following:

a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; and

b. Any substantial change in the volume or character of pollutants being introduced into that

POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For purposes of this paragraph, adequate notice shall include information on:

(1) the quantity and quality of effluent introduced into the POTW; and

(2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. Prohibitions Concerning Interference and Pass Through:

a. Pollutants introduced into a POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

5. Toxics Control

a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

6. 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. INDUSTRIAL USERS AND PRETREATMENT PROGRAM

1. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure continued compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond. Within **120 days of the effective date of this permit**, the permittee shall prepare and submit a written technical evaluation to the EPA analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee shall complete and submit the attached form (Attachment D) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and

conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. The Permittee shall carry out the local limits revisions in accordance with EPA's Local Limit Development Guidance (July 2004).

2. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, 40 CFR 403. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

   b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.

   c. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement.

   d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.

3. The permittee shall provide the EPA and MassDEP with an annual report describing the permittee's pretreatment program activities for the twelve (12) month period ending 60 days prior to the due date in accordance with 403.12(i). The annual report shall be consistent with the format described in Attachment D of this permit and shall be submitted no later than **March 1** of each year.

4. The permittee must obtain approval from EPA prior to making any significant changes to the industrial pretreatment program in accordance with 40 CFR 403.18(c).

5. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the Federal Regulations at 40 CFR 405 et. seq.

6. The permittee must modify its pretreatment program, if necessary, to conform to all changes in the Federal Regulations that pertain to the implementation and enforcement of the industrial pretreatment program. The permittee must provide EPA, in writing, within 180 days of this permit's effective date proposed changes, if applicable, to the permittee's pretreatment program deemed necessary to assure conformity with current Federal Regulations. At a minimum, the permittee must address in its written submission the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending

EPA Region I's approval under 40 CFR 403.18. This submission is separate and distinct from any local limits analysis submission described in Part I.B.3.b.

7. On October 14, 2005 EPA published in the Federal Register final changes to the General Pretreatment Regulations. The final "Pretreatment Streamlining Rule" is designed to reduce the burden to industrial users and provide regulatory flexibility in technical and administrative requirements of industrial users and POTWs. Within 60 days of the effective date of this permit, the permittee must submit to EPA all required modifications of the Streamlining Rule in order to be consistent with the provisions of the newly promulgated Rule. To the extent that the POTW legal authority is not consistent with the required changes, they must be revised and submitted to EPA for review.

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 and co-permittees are required to complete the following activities for the collection system which it owns:

1. Maintenance Staff

The permittee and co-permittees 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 and co-permittees 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 and co-permittees 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 and co-permittees 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 and co-permittees 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 and co-permittees 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 [23.77 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 and co-permittees shall provide an alternative power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates.

D. UNAUTHORIZED DISCHARGES

The permittee and co-permittees are authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall(s) 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 Section D.1.e. (1) of the General Requirements of this permit (**Twenty-four hour reporting**).

Notification of SSOs to MassDEP shall be made on its SSO Reporting Form (which includes DEP Regional Office telephone numbers). The reporting form and instruction for its completion

may be found on-line at *http://www.mass.gov/eea/agencies/massdep/service/approvals/sanitary-sewer-overflow-bypass-backup-notification.html.*

E. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that 1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including EPA regulations promulgated at 40 CFR Part 503, which prescribe "Standards for the Use or Disposal of Sewage Sludge" pursuant to Section 405(d) of the CWA, 33 U.S.C. § 1345(d).

2. If both state and federal requirements apply to the permittee's sludge use and/or disposal practices, the permittee shall comply with the more stringent of the applicable requirements.

3. The requirements and technical standards of 40 CFR Part 503 apply to the following sludge use or disposal practices.

   a. Land application - the use of sewage sludge to condition or fertilize the soil
   b. Surface disposal - the placement of sewage sludge in a sludge only landfill
   c. Sewage sludge incineration in a sludge only incinerator

4. The requirements of 40 CFR Part 503 do not apply to facilities which dispose of sludge in a municipal solid waste landfill. 40 CFR § 503.4. These requirements also do not apply to facilities which do not use or dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g., lagoons, reed beds), or are otherwise excluded under 40 CFR § 503.6.

5. The 40 CFR. Part 503 requirements including the following elements:

   - General requirements
   - Pollutant limitations
   - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
   - Management practices
   - Record keeping
   - Monitoring
   - Reporting

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

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

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

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

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

7. Under 40 CFR § 503.9(r), the permittee is a "person who prepares sewage sludge" because it "is … the person who generates sewage sludge during the treatment of domestic sewage in a treatment works …." If the permittee contracts with *another* "person who prepares sewage sludge" under 40 CFR § 503.9(r) – i.e., with "a person who derives a material from sewage sludge" – for use or disposal of the sludge, then compliance with Part 503 requirements is the responsibility of the contractor engaged for that purpose. If the permittee does not engage a "person who prepares sewage sludge," as defined in 40 CFR § 503.9(r), for use or disposal, then the permittee remains responsible to ensure that the applicable requirements in Part 503 are met. 40 CFR § 503.7. If the ultimate use or disposal method is land application, the permittee is responsible for providing the person receiving the sludge with notice and necessary information to comply with the requirements of 40 CFR Part 503 Subpart B.

8. The permittee shall submit an annual report containing the information specified in the 40 CFR Part 503 requirements (§ 503.18 (land application), § 503.28 (surface disposal), or § 503.48 (incineration)) by **February 19** (*see also* "EPA Region 1 - NPDES Permit Sludge Compliance Guidance"). Reports shall be submitted to the address contained in the reporting section of the permit. If the permittee engages a contractor or contractors for sludge preparation and ultimate use or disposal, the annual report need contain only the following information:

   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

F. MONITORING AND REPORTING

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

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

1. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month electronically using NetDMR. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or MassDEP.

2. Submittal of Reports as NetDMR Attachments

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

3. Submittal of Pre-treatment Related Reports

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

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

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

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

4. Submittal of Requests and Reports to EPA/OEP

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

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

These reports, information, and requests shall be submitted to EPA/OEP electronically at

R1NPDES.Notices.OEP@epa.gov or by hard copy mail to the following address:

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

5. Submittal of Reports in Hard Copy Form

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

A. Written notifications required under Part II
B. Notice of unauthorized discharges, including Sanitary Sewer Overflow (SSO) reporting
C. Collection System Operation and Maintenance Plan (from co-permittee)
D. Report on annual activities related to O&M Plan (from co-permittee)
E. Sludge monitoring reports

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

U.S. Environmental Protection Agency
Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES4-SMR)
Boston, MA 02109-3912

All sludge monitoring reports required herein shall be submitted only to:

U.S. Environmental Protection Agency, Region 7
Biosolids Center
Water Enforcement Branch
11201 Renner Boulevard
Lenexa, Kansas 66219

6. State Reporting

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

MassDEP – Northeast Region
Bureau of Water Resources
205B Lowell Street
Wilmington, MA 01887

Copies of toxicity tests only shall be submitted to:

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

7. Verbal Reports and Verbal Notifications

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

U.S. Environmental Protection Agency
Office of Environmental Stewardship
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912
617-918-1510

Within twenty-four hours of a permit excursion for fecal coliform or if a plant failure occurs, the permittee shall notify:

Division of Marine Fisheries
Shellfish Management Program
30 Emerson Avenue
Gloucester, MA 01930
via telephone (978)282-0308 extension 160
or via email at Shellfish.Newburyport@state.ma.us.

G. STATE PERMIT CONDITIONS

1. 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.

ATTACHMENT A

MARINE ACUTE
TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable acute toxicity tests in accordance with the appropriate test protocols described below:

- **2007.0 - Mysid Shrimp (Americamysis bahia) definitive 48 hour test.**

- **2006.0 - Inland Silverside (Menidia beryllina) definitive 48 hour test.**

Acute toxicity data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use the most recent 40 CFR Part 136 methods. Whole Effluent Toxicity (WET) Test Methods and guidance may be found at:

http://water.epa.gov/scitech/methods/cwa/wet/index.cfm#methods

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. This protocol defines more specific requirements while still being consistent with the Part 136 methods. If, due to modifications of Part 136, there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION

A discharge and receiving water sample shall be collected. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. The acceptable holding times until initial use of a sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any holding time extension. Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine[1] (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. TRC analysis may be performed on-site or by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate

[1] For this protocol, total residual chlorine is synonymous with total residual oxidants.

prior to sample use for toxicity testing. If performed on site the results should be included on the chain of custody (COC) presented to WET laboratory.

Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1 mg/L chlorine. If dechlorination is necessary, a thiosulfate control consisting of the maximum concentration of thiosulfate used to dechlorinate the sample in the toxicity test control water must also be run in the WET test.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol. Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6^{o} C.

IV. DILUTION WATER

Samples of receiving water must be collected from a reasonably accessible location in the receiving water body immediately upstream of the permitted discharge's zone of influence. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2,Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable TAC. When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

If the use of alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

If the receiving water is found to be, or suspected to be toxic or unreliable, ADW of known quality with hardness similar to that of the receiving water may be substituted. Substitution is

species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species. Substitution to an ADW is authorized in two cases. The first case is when repeating a test due to toxicity in the site dilution water requires an **immediate decision** for ADW use by the permittee and toxicity testing laboratory. The second is when two of the most recent documented incidents of unacceptable site dilution water toxicity require ADW use in future WET testing.

For the second case, written notification from the permittee requesting ADW use **and** written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW must be mailed with supporting documentation to the following addresses:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency, Region 1
Five Post Office Square, Suite 100
Mail Code OEP06-5
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
Five Post Office Square, Suite 100
Mail Code OES04-4
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at http://www.epa.gov/region1/enforcementandassistance/dmr.html for further important details on alternate dilution water substitution requests.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

EPA Region 1 requires tests be performed using four replicates of each control and effluent concentration because the non-parametric statistical tests cannot be used with data from fewer replicates. The following tables summarize the accepted Americamysis and Menidia toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND EFFLUENT TOXICITY TEST CONDITIONS FOR THE MYSID, AMERICAMYSIS BAHIA 48 HOUR TEST[1]

1. Test type	48hr Static, non-renewal
2. Salinity	25ppt ± 10 percent for all dilutions by adding dry ocean salts
3. Temperature (^{o}C)	20^{o}C ± 1^{o}C or 25^{o}C ± 1^{o}C, temperature must not deviate by more than 3^{o}C during test
4. Light quality	Ambient laboratory illumination
5. Photoperiod	16 hour light, 8 hour dark
6. Test chamber size	250 ml (minimum)
7. Test solution volume	200 ml/replicate (minimum)
8. Age of test organisms	1-5 days, < 24 hours age range
9. No. Mysids per test chamber	10
10. No. of replicate test chambers per treatment	4
11. Total no. Mysids per test concentration	40
12. Feeding regime	Light feeding using concentrated Artemia naupli while holding prior to initiating the test
13. Aeration [2]	None
14. Dilution water	5-30 ppt, +/- 10%; Natural seawater, or deionized water mixed with artificial sea salts
15. Dilution factor	≥ 0.5
16. Number of dilutions [3]	5 plus a control. An additional dilution at the permitted effluent concentration (%

	effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality - no movement of body appendages on gentle prodding
18. Test acceptability	90% or greater survival of test organisms in control solution
19. Sampling requirements	For on-site tests, samples are used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must be first used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks are recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

EPA NEW ENGLAND TOXICITY TEST CONDITIONS FOR THE INLAND SILVERSIDE, MENIDIA BERYLLINA 48 HOUR TEST[1]

1. Test Type	48 hr Static, non-renewal
2. Salinity	25 ppt ± 10 % by adding dry ocean salts
3. Temperature	20°C ± 1°C or 25°C ± 1°C, temperature must not deviate by more than 3°C during test
4. Light Quality	Ambient laboratory illumination
5. Photoperiod	16 hr light, 8 hr dark
6. Size of test vessel	250 mL (minimum)
7. Volume of test solution	200 mL/replicate (minimum)
8. Age of fish	9-14 days; 24 hr age range
9. No. fish per chamber	10 (not to exceed loading limits)
10. No. of replicate test vessels per treatment	4
11. Total no. organisms per concentration	40
12. Feeding regime	Light feeding using concentrated Artemia nauplii while holding prior to initiating the test
13. Aeration[2]	None
14. Dilution water	5-32 ppt, +/- 10% ; Natural seawater, or deionized water mixed with artificial sea salts.
15. Dilution factor	≥ 0.5
16. Number of dilutions[3]	5 plus a control. An additional dilution at the permitted concentration (% effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality-no movement on gentle prodding.

18. Test acceptability	90% or greater survival of test organisms in control solution.
19. Sampling requirements	For on-site tests, samples must be used within 24 hours of the time they are removed from the sampling device. Off-site test samples must be used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters.

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

V.1. Test Acceptability Criteria

If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.2. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

In general, if reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary as prescribed below.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.2.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established **upper** control limits i.e. ≥3 standard deviations for IC25s and LC50 values and ≥ two concentration intervals for NOECs or NOAECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

VI. CHEMICAL ANALYSIS

At the beginning of the static acute test, pH, salinity, and temperature must be measured at the beginning and end of each 24 hour period in each dilution and in the controls. The following chemical analyses shall be performed for each sampling event.

Parameter	Effluent	Diluent	Minimum Level for effluent[*1] (mg/L)
pH	x	x	---
Salinity	x	x	ppt(o/oo)
Total Residual Chlorine [*2]	x	x	0.02
Total Solids and Suspended Solids	x	x	---
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005

Superscript:

[*1] These are the minimum levels for effluent (fresh water) samples. Tests on diluents (marine waters) shall be conducted using the Part 136 methods that yield the lowest MLs.

[*2] Either of the following methods from the 18th Edition of the APHA Standard Methods for the Examination of Water and Wastewater must be used for these analyses:

-Method 4500-Cl E Low Level Amperometric Titration (the preferred method);
-Method 4500-CL G DPD Photometric Method.

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration

An estimate of the concentration of effluent or toxicant that is lethal to 50% of the test organisms during the time prescribed by the test method.

Methods of Estimation:

- Probit Method
- Spearman-Karber
- Trimmed Spearman-Karber
- Graphical

See flow chart in Figure 6 on page 73 of EPA 821-R-02-012 for appropriate method to use on a given data set.

No Observed Acute Effect Level (NOAEL)

See flow chart in Figure 13 on page 87 of EPA 821-R-02-012.

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Toxicity Test summary sheet(s) (Attachment F to the DMR Instructions) which includes:
    - Facility name
    - NPDES permit number
    - Outfall number
    - Sample type
    - Sampling method
    - Effluent TRC concentration
    - Dilution water used
    - Receiving water name and sampling location
    - Test type and species
    - Test start date
    - Effluent concentrations tested (%) and permit limit concentration
    - Applicable reference toxicity test date and whether acceptable or not
    - Age, age range and source of test organisms used for testing
    - Results of TAC review for all applicable controls
    - Permit limit and toxicity test results
    - Summary of any test sensitivity and concentration response evaluation that was conducted

Please note: The NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) are available on EPA's website at http://www.epa.gov/NE/enforcementandassistance/dmr.html

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures;
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s);
- Reference toxicity test control charts;
- All sample chemical/physical data generated, including minimum levels (MLs) and analytical methods used;
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis;
- A discussion of any deviations from test conditions; and
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review per species per endpoint.

ATTACHMENT B

MARINE CHRONIC

TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall be responsible for the conduct of acceptable silverside chronic and sea urchin chronic toxicity tests in accordance with the appropriate test protocols described below:

- Inland Silverside (Menidia beryllina) Larval Growth and Survival Test
- Sea Urchin (Arbacia punctulata) 1 Hour Fertilization Test

Chronic toxicity data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use 40 CFR Part 136 methods. Methods and guidance may be found at:

http://water.epa.gov/scitech/swguidance/methods/wet/index.cfm#methods

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. Where there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION AND USE

A total of three fresh samples of effluent and receiving water are required for initiation and subsequent renewals of a marine, chronic, toxicity test. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. Fresh samples are recommended for use on test days 1, 3, and 5. However, provided a total of three samples are used for testing over the test period, an alternate sampling schedule is acceptable. The acceptable holding times until initial use of a fresh sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any hold time extension. All fresh test samples collected may be used for 24, 48 and 72 hour renewals after initial use. All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6^{o} C.

If any of the renewal samples are of sufficient potency to cause lethality to 50 percent or more of the test organisms in any of the test treatments for either species or, if the test fails to meet its permit limits, then chemical analysis for total metals (originally required for the initial sample only in Section VI) will be required on the renewal sample(s) as well.

Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. For TRC analysis performed on site the results must be included on the chain of custody (COC) presented to WET laboratory. For the purpose of sample preparation, i.e. eliminating chlorine prior to toxicity testing, if called for by the permit, TRC analysis may also be performed by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate prior to sample use for toxicity testing. According to Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992) dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1 mg/L chlorine.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol. Grab samples must be used for pH, temperature, and total residual oxidants (as per 40 CFR Part 122.21).

IV. DILUTION WATER

Samples of receiving water must be collected from a location in the receiving water body immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2,Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable test acceptability criteria (TAC). When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.
If the receiving water diluent is found to be, or suspected to be toxic or unreliable, an alternatedilution water (ADW) of known quality with hardness similar to that of the receiving water may be substituted. Substitution is species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species.

Substitution to an ADW is authorized in two cases. The first is the case where repeating a test due to toxicity in the site dilution water requires an immediate decision for ADW use be made by the permittee and toxicity testing laboratory. The second is in the case where two of the most recent documented incidents of unacceptable site dilution water toxicity requires ADW use in future WET testing. For the second case, written notification from the permittee requesting ADW use and written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW must be mailed with supporting documentation to the following addresses:

Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency, Region 1
Five Post Office Square, Suite 100
Mail Code OEP06-5
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
Five Post Office Square, Suite 100
Mail Code OES04-4
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions, which can be found on the EPA Region 1 website at http://www.epa.gov/region1/enforcementandassistance/dmr.html for further important details on alternate dilution water substitution requests.

If the use of an alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

EPA New England requires that if a reference toxicant test was being performed concurrently with an effluent or receiving water test and fails, both tests must be repeated.

The following tables summarize the accepted Menidia and Arbacia toxicity test conditions and

test acceptability criteria:

EPA NEW ENGLAND RECOMMENDED TEST CONDITIONS FOR THE SEA URCHIN, ARBACIA PUNCTULATA, FERTILIZATION TEST[1]

1. Test type	Static, non-renewal
2. Salinity	30 o/oo $\pm$ 2 o/oo by adding dry ocean salts
3. Temperature	20 $\pm$ 1^{o}C temperature must not deviate by more than 3^{o}C during test
4. Light quality	Ambient laboratory illumination
5. Light intensity	10-20 uE/m^2/s, or 50-100 ft-c (Ambient Laboratory Levels)
6. Test vessel size	Disposal (glass) liquid scintillation vials (20 ml capacity), presoaked in control water
7. Test solution volume	5 ml
8. Number of sea urchins	Pooled sperm from four males and pooled eggs from four females are used per test
9. Number of egg and sperm cells	About 2000 eggs per chamber and 5,000,000 sperm cells per vial
10. Number of replicate chambers	4 per treatment
11. Dilution water	Uncontaminated source of natural seawater or deionized water mixed with artificial sea salts
12. Dilution factor	Approximately 0.5, must bracket the permitted RWC
13. Test duration	1 hour and 20 minutes
14. Effects measured	Fertilization of sea urchin eggs
15. Number of treatments per test[2]	5 and a control. (receiving water and laboratory water control) An additional dilution at the permitted effluent concentration (% effluent) is required.

16. Acceptability of test	70% - 90% egg fertilization in all controls. Minimum of 70% fertilization in dilution water control. Effluent concentrations exhibiting greater than 70% fertilization, flagged as statistically significantly different from the controls, will not be considered statistically different from the controls for NOEC reporting.
17. Sampling requirements	For on-site tests, samples are to be used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must be first used within 36 hours of collection.
18. Sample volume required	Minimum 1 liter

Footnotes:

[1] Adapted from EPA 821-R-02-014

EPA NEW ENGLAND RECOMMENDED TEST CONDITIONS FOR THE INLAND SILVERSIDE, MENIDIA BERYLLINA, GROWTH AND SURVIVAL TEST[1]

1. Test type	Static, renewal
2. Salinity	5 o/oo to 32 o/oo +/- 2 o/oo of the selected salinity by adding artificial sea salts
3. Temperature	25 ± 1°C, temperature must not deviate by more than 3°C during test
4. Light quality	Ambient laboratory light
5. Light intensity	10-20 uE/m^2/s, or 50-100 ft-C (Ambient Laboratory Levels)
6. Photoperiod	16 hr light, 8 hr darkness
7. Test vessel size	600 - 1000 mL beakers or equivalent (glass test chambers should be used)
8. Test solution volume	500-750 mL/replicate loading and DO restrictions must be met)
9. Renewal of test solutions	Daily using most recently collected sample
10. Age of test organisms	Seven to eleven days post hatch; 24 hr range in age
11. Larvae/test chamber	15 (minimum of 10)
12. Number of replicate chambers	4 per treatment
13. Source of food	Newly hatched and rinsed Artemia nauplii less than 24 hr old
14. Feeding regime	Feed once a day 0.10 g wet wt Artemia nauplii per replicate on days 0 – 2 feed 0.15 g wet wt Artemia nauplii per replicate on days 3-6
15. Cleaning	Siphon daily, immediately before test solution renewal and feeding
16. Aeration[2]	None
17. Dilution water	Uncontaminated source of natural seawater; or deionized water mixed with artificial sea salts

18. Effluent concentrations	5 and a control (receiving water and laboratory water control) An additional dilution at the permitted effluent concentration (% effluent) is required
19. Dilution factor	$\geq$ 0.5, must bracket the permitted RWC
20. Test duration	7 days
21. Effects measured	Survival and growth (weight)
22. Acceptability of test	The average survival of dilution water control larvae is a minimum of 80%, and the average dry wt of unpreserved control larvae is a minimum of 0.5 mg, or the average dry wt of preserved control larvae is a minimum of 0.43 mg if preserved not more than 7 days in 4% formalin or 70% ethanol
23. Sampling requirements	For on-site tests, samples are collected daily and used within 24 hours of the time they are removed from the sampling device. For off-site tests, samples must be first used within 36 hours of collection.
24. Sample Volume Required	Minimum of 6 liters/day.

Footnotes:

[1] Adapted from EPA 821-R-02-014

[2] If dissolved oxygen (D.O.) falls below 4.0 mg/L, aerate all chambers at a rate of less than 100 bubbles/min. Routine D.O. checks are recommended.

V.1. Test Acceptability Criteria

If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.2. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

In general, if reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary as prescribed below.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.2.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established upper control limits i.e. $\geq$3 standard deviations for IC25s values and $\geq$ two concentration intervals for NOECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

VI. CHEMICAL ANALYSIS

The toxicity test requires measurement of pH, salinity, and temperature at the beginning and end of each 24 hour period in each dilution and controls for both daily test renewal and waste. The following chemical analyses shall be performed for each initial sample as well as any renewal samples, if necessary pursuant to the requirement of Part III above.

Parameter	Effluent	Diluent	Minimum Level for effluent[*1] (mg/L)
pH	x	x	---
Salinity	x	x	ppt(o/oo)
Total Residual Chlorine [*2]	x	x	0.02
Total Solids and Suspended Solids	x	x	---
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005

Superscript:

[*1] These are the minimum levels for effluent (fresh water) samples. Tests on diluents (marine waters) shall be conducted using the Part 136 methods that yield the lowest MLs.

[*2] Either of the following methods from the 18th Edition of the APHA Standard Methods for the Examination of Water and Wastewater must be used for these analyses:

-Method 4500-Cl E Low Level Amperometric Titration (the preferred method);
-Method 4500-CL G DPD Photometric Method.

VII. TOXICITY TEST DATA ANALYSIS AND REVIEW

A. Test Review

1. Concentration / Response Relationship

A concentration/response relationship evaluation is required for test endpoint determinations from both Hypothesis Testing and Point Estimate techniques. The test report is to include documentation of this evaluation in support of the endpoint values reported.

The dose-response review must be performed as required in Section 10.2.6 of EPA-821-R-02-014. Guidance for this review can be found at http://water.epa.gov/scitech/methods/cwa/wet/upload/2007_07_10_methods_wet_disk1_ctm.pdf.

In most cases, the review will result in one of the following three conclusions: (1) Results are reliable and reportable; (2) Results are anomalous and require explanation; or (3) Results are inconclusive and a retest with fresh samples is required.

2. Test Variability (Test Sensitivity)

This review step is separate from the determination of whether a test meets or does not meet TAC. Within test variability is to be examined for the purpose of evaluating test sensitivity. This evaluation is to be performed for the sub-lethal hypothesis testing endpoint growth for *Menidia beryllina* as required by the permit. The test report is to include documentation of this evaluation to support that the endpoint values reported resulted from a toxicity test of adequate sensitivity. This evaluation must be performed as required in Section 10.2.8 of EPA-821-R-02-014.

To determine the adequacy of test sensitivity, USEPA requires the calculation of test percent minimum significant difference (PMSD) values. In cases where NOEC determinations are made based on a non-parametric technique, calculation of a test PMSD value, for the sole purpose of assessing test sensitivity, shall be calculated using a comparable parametric statistical analysis technique. The calculated test PMSD is then compared to the upper and lower PMSD bounds shown for marine tests in Section 10.2.8.3, p. 54, Table 6 of EPA-821-R-02-014. The comparison will yield one of the following determinations.

- The test PMSD exceeds the PMSD upper bound test variability criterion in Table 6, the test results are considered highly variable and the test may not be sensitive enough to determine the presence of toxicity at the permit limit concentration (PLC). If the test results indicate that the discharge is not toxic at the PLC, then the test is considered insufficiently sensitive and must be repeated within 30 days of the initial test completion using fresh samples. If the test results indicate that the discharge is toxic at the PLC, the test is considered acceptable and does not have to be repeated.

- The test PMSD falls below the PMSD lower bound test variability criterion in Table 6, the test is determined to be very sensitive. In order to determine which treatment(s) are statistically significant and which are not, for the purpose of reporting a NOEC, the relative percent difference (RPD) between the control and each treatment must be calculated and compared to the lower PMSD boundary. See *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program*, EPA 833-R-00-003, June 2002, Section 6.4.2. The document can be located under Guidance Documents

at the following website location http://water.epa.gov/scitech/methods/cwa/wet/index.cfm#guidance. If the RPD for a treatment falls below the PMSD lower bound, the difference is considered statistically insignificant. If the RPD for a treatment is greater that the PMSD lower bound, then the treatment is considered statistically significant.

- The test PMSD falls within the PMSD upper and lower bounds in Table 6, the sub-lethal test endpoint values shall be reported as is.

B. Statistical Analysis

1. General - Recommended Statistical Analysis Method

Refer to general data analysis flowchart, EPA 821-R-02-014, page 45

For discussion on Hypothesis Testing, refer to EPA 821-R-02-014, Section 9.6

For discussion on Point Estimation Techniques, refer to EPA 821-R-02-014, Section 9.7

2. *Menidia beryllina*

Refer to survival hypothesis testing analysis flowchart, EPA 821-R-02-014, page 181

Refer to survival point estimate techniques flowchart, EPA 821-R-02-013, page 182

Refer to growth data statistical analysis flowchart, EPA 821-R-02-014, page 193

3. *Arbacia punctulata*

Refer to fertilization data testing flowchart, EPA 821-R-02-014, page 312

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Toxicity Test summary sheet(s) (Attachment F to the DMR Instructions) which includes:
  - Facility name
  - NPDES permit number
  - Outfall number
  - Sample type
  - Sampling method
  - Effluent TRC concentration
  - Dilution water used
  - Receiving water name and sampling location
  - Test type and species
  - Test start date
  - Effluent concentrations tested (%) and permit limit concentration
  - Applicable reference toxicity test date and whether acceptable or not
  - Age, age range and source of test organisms used for testing
  - Results of TAC review for all applicable controls
  - Test sensitivity evaluation results (test PMSD for growth)
  - Permit limit and toxicity test results
  - Summary of test sensitivity and concentration response evaluation

Please note: The NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) are available on EPA's website at http://www.epa.gov/NE/enforcementandassistance/dmr.html

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures;
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s);
- Reference toxicity test control charts;
- All sample chemical/physical data generated, including minimum limits (MLs) and analytical methods used;
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis;
- A discussion of any deviations from test conditions; and
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review.

Attachment C -

EPA - New England

Reassessment of Technically Based Industrial Discharge Limits

Under 40 CFR §122.21(j)(4), all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the following information to the Director: a written evaluation of the need to revise local industrial discharge limits under 40 CFR §403.5(c)(1).

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and EPA to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW.

Please read direction below before filling out form.

ITEM I.

* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.

* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.

* In Column (1), list what dilution ratio and/or 7Q10 value was used in your old/expired NPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your new/reissued NPDES permit.

  The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten year period. The 7Q10 value and/or dilution ratio used by EPA in your new NPDES permit can be found in your NPDES permit "Fact Sheet."

* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.

* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

ITEM II.

* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

ITEM III.

* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

ITEM IV.

* Since your existing TBLLs were calculated, identify the following in detail:

  (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.

  (2) if your POTW is presently violating any of its current NPDES permit limitations - include toxicity.

ITEM V.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

  All influent data collected and analyzed must be in accordance with 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* Based on your existing TBLLs, as presented in Item II., list in Column (2), for each pollutant the Maximum Allowable Headwork Loading (MAHL) values derived from an applicable environmental criteria or standard, e.g. water quality, sludge, NPDES, inhibition, etc. For more information, please see EPA's Local Limit Guidance Document (July 2004).

Item VI.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period.

(Item VI. continued)

All effluent data collected and analyzed must be in accordance with 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* List in Column (2A) what the Water Quality Standards (WQS) were (in micrograms per liter) when your TBLLs were calculated, please note what hardness value was used at that time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

  List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued NPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 25 mg/l - Calcium Carbonate (copper's chronic WQS equals 6.54 ug/l) the chronic NPDES permit limit for copper would equal 156.25 ug/l.

ITEM VII.

* In Column (1), list all pollutants (in micrograms per liter) limited in your new/reissued NPDES permit. In Column (2), list all pollutants limited in your old/expired NPDES permit.

ITEM VIII.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24 month period. Results are to be expressed as total dry weight.

  All biosolids data collected and analyzed must be in accordance with 40 CFR §136.

  In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at EPA - New England.

REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)

POTW Name & Address : _____

NPDES PERMIT # : _____

Date EPA approved current TBLLs : _____

Date EPA approved current Sewer Use Ordinance : _____

ITEM I.

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.		
	Column (1) EXISTING TBLLs	Column (2) PRESENT CONDITIONS
POTW Flow (MGD)		
Dilution Ratio or 7Q10 (from NPDES Permit)		
SIU Flow (MGD)		
Safety Factor		N/A
Biosolids Disposal Method(s)		

ITEM II.

EXISTING TBLLs			
POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)	POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)

ITEM III.

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

ITEM IV.

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?
If yes, explain.

_____

_____

Has your POTW violated any of its NPDES permit limits and/or toxicity test requirements?

If yes, explain.

_____

_____

ITEM V.

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Headwork Loading (MAHL) values used to derive your TBLLs listed in Item II. In addition, please note the Environmental Criteria for which each MAHL value was established, i.e. water quality, sludge, NPDES etc.				
Pollutant	Column (1) Influent Data Analyses Maximum (lb/day)	Average (lb/day)	Column (2) MAHL Values (lb/day)	Criteria
Arsenic				
Cadmium				
Chromium				
Copper				
Cyanide				
Lead				
Mercury				
Nickel				
Silver				
Zinc				
Other (List)				

ITEM VI.

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Water Quality Standards (Gold Book Criteria) were at the time your existing TBLLs were developed. List in Column (2B) current Gold Book values multiplied by the dilution ratio used in your new/reissued NPDES permit.

Pollutant	Column (1) Effluent Data Analyses		Columns (2A) (2B) Water Quality Criteria (Gold Book) From TBLLs Today	
	Maximum (ug/l)	Average (ug/l)	(ug/l)	(ug/l)
Arsenic				
*Cadmium				
*Chromium				
*Copper				
Cyanide				
*Lead				
Mercury				
*Nickel				
Silver				
*Zinc				
Other (List)				

*Hardness Dependent (mg/l - CaCO3)

ITEM VII.

In Column (1), identify all pollutants limited in your new/reissued NPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.			
Column (1) NEW PERMIT Pollutants Limitations (ug/l)		Column (2) OLD PERMIT Pollutants	Limitations (ug/l)

ITEM VIII.

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

Pollutant	Column (1) Biosolids Data Analyses Average (mg/kg)	Columns (2A) (2B) Biosolids Criteria From TBLLs New (mg/kg)	(mg/kg)
Arsenic			
Cadmium			
Chromium			
Copper			
Cyanide			
Lead			
Mercury			
Nickel			
Silver			
Zinc			
Molybdenum			
Selenium			
Other (List)			

ATTACHMENT D

NPDES PERMIT REQUIREMENT
FOR
INDUSTRIAL PRETREATMENT ANNUAL REPORT

The information described below shall be included in the pretreatment program annual reports:

1. An updated list of all industrial users by category, as set forth in 40 C.F.R. 403.8(f)(2)(i), indicating compliance or noncompliance with the following:
   - baseline monitoring reporting requirements for newly promulgated industries
   - compliance status reporting requirements for newly promulgated industries
   - periodic (semi-annual) monitoring reporting requirements,
   - categorical standards, and
   - local limits;

2. A summary of compliance and enforcement activities during the preceding year, including the number of:
   - significant industrial users inspected by POTW (include inspection dates for each industrial user),
   - significant industrial users sampled by POTW (include sampling dates for each industrial user),
   - compliance schedules issued (include list of subject users),
   - written notices of violations issued (include list of subject users),
   - administrative orders issued (include list of subject users),
   - criminal or civil suits filed (include list of subject users) and,
   - penalties obtained (include list of subject users and penalty amounts);

3. A list of significantly violating industries required to be published in a local newspaper in accordance with 40 C.F.R. 403.8(f)(2)(vii);

4. A narrative description of program effectiveness including present and proposed changes to the program, such as funding, staffing, ordinances, regulations, rules and/or statutory authority;

5. A summary of all pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus threshold inhibitory concentrations for the Wastewater Treatment System and effluent sampling results versus water quality standards. Such a comparison shall be based on the sampling program described in the paragraph below or any similar sampling program described in this Permit.

At a minimum, annual sampling and analysis of the influent and effluent of the Wastewater Treatment Plant shall be conducted for the following pollutants:

a.) Total Cadmium	f.) Total Nickel
b.) Total Chromium	g.) Total Silver
c.) Total Copper	h.) Total Zinc
d.) Total Lead	i.) Total Cyanide
e.) Total Mercury	j.) Total Arsenic

The sampling program shall consist of one 24-hour flow-proportioned composite and at least one grab sample that is representative of the flows received by the POTW. The composite shall consist of hourly flow-proportioned grab samples taken over a 24-hour period if the sample is collected manually or shall consist of a minimum of 48 samples collected at 30 minute intervals if an automated sampler is used. Cyanide shall be taken as a grab sample during the same period as the composite sample. Sampling and preservation shall be consistent with 40 CFR Part 136.

6. A detailed description of all interference and pass-through that occurred during the past year;

7. A thorough description of all investigations into interference and pass-through during the past year;

8. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying parameters and frequencies;

9. A description of actions being taken to reduce the incidence of significant violations by significant industrial users; and,

10. The date of the latest adoption of local limits and an indication as to whether or not the permittee is under a State or Federal compliance schedule that includes steps to be taken to revise local limits.

NPDES PART II STANDARD CONDITIONS
(January, 2007)

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed $25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

Note: See 40 CFR §122.41(a)(2) for complete "Duty to Comply" regulations.

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or notifications of planned changes or anticipated noncompliance does not stay any permit condition.

3. Duty to Provide Information

The permittee shall furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit.

4. Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including "sludge-only facilities"), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or permittee;
(2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).

c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

8. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Administrator. (The Regional Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, or local laws and regulations.

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly 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 this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can be reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) i) The permittee submitted notices as required under Paragraph 4.c. of this section.
ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

a. Definition. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated;
(3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
(4) The permittee complied with any remedial measures required under B.3. above.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.

d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.

e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by

imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The permittee shall allow the Regional Administrator or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. Planned Changes. The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
(2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Anticipated noncompliance. The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Transfers. This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

(2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. Twenty-four hour reporting.

(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
(b) Any upset which exceeds any effluent limitation in the permit.
(c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)

(3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.

h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and Federal standards and limitations to which a “discharge”, a “sewage sludge use or disposal practice”, or a related activity is subject to, including “effluent limitations”, water quality standards, standards of performance, toxic effluent standards or prohibitions, “best management practices”, pretreatment standards, and “standards for sewage sludge use and disposal” under Sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in "approved States", including any approved modifications or revisions.

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" measured during the calendar week divided by the number of "daily discharges" measured during the week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

(a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.

(c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

(d) Final Stabilization means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

(e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

Daily Discharge means the discharge of a pollutant measured during the calendar day or any other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

Discharge Monitoring Report Form (DMR) means the EPA standard national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source", or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation (See "Point Source" definition).

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include an addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Regional Administrator on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States", the waters of the "contiguous zone", or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under Section 304(b) of CWA to adopt or revise "effluent limitations".

EPA means the United States "Environmental Protection Agency".

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample – An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(b) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act (CWA), the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable "daily discharge" concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as "maximum concentration" or "Instantaneous Maximum Concentration" during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean "a value that shall not be exceeded" during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of "Maximum Daily Discharge" and "Average Daily Discharge" concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program".

New Discharger means any building, structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants";

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source"; and

(d) Which has never received a finally effective NPDES permit for discharges at that "site".

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore rig or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR §§125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants", the construction of which commenced:

(a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System".

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

Pass through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved" State.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (Natural Resources Defense Council et al. v. Train, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 CFR Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operation is not the operator of the treatment works or (b) not a "POTW".

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary Industry Category means any industry which is not a "primary industry category".

Section 313 water priority chemical means a chemical or chemical category which:

(1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);

(2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and

(3) satisfies at least one of the following criteria:

(i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
(ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
(iii) are pollutants for which EPA has published acute or chronic water quality criteria.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR §110.10 and §117.21) or Section 102 of CERCLA (see 40 CFR § 302.4).

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

Toxic pollutants means any pollutant listed as toxic under Section 307 (a)(1) or, in the case of "sludge use or disposal practices" any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a "treatment works treating domestic sewage", where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

Waste Pile means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;

(b) All interstate waters, including interstate "wetlands";

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

(1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and

(2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in the ground water to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2,

classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Industrial wastewater is wastewater generated in a commercial or industrial process.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

Municipality means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management agency under section 208 of the CWA, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination or organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to:, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl_2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH_3-N	Ammonia nitrogen as nitrogen
NO_3-N	Nitrate as nitrogen
NO_2-N	Nitrite as nitrogen
NO_3-NO_2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
ug/l	Microgram(s) per liter
WET	"Whole effluent toxicity" is the total effect of an effluent measured directly with a toxicity test.
C-NOEC	"Chronic (Long-term Exposure Test) – No Observed Effect Concentration". The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.
A-NOEC	"Acute (Short-term Exposure Test) – No Observed Effect Concentration" (see C-NOEC definition).
LC_{50}	LC_{50} is the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.
ZID	Zone of Initial Dilution means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports.

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

PARTIALLY REVISED FACT SHEET

PARTIALLY REVISED 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.: **MA0100501**

PUBLIC NOTICE PERIOD: September 25, 2013 – October 24, 2013

NAME AND ADDRESS OF APPLICANT:

South Essex Sewage District (SESD)
P.O. Box 989
Salem, MA 01970

The municipalities of Beverly, Danvers, Marblehead, Middleton, Peabody and Salem are co-permittees for specific activities required by the permit, as set forth in Section II.c of the Partially Revised Draft Fact Sheet and Sections I.C and I.D of the Partial Revised Draft Permit. These activities pertain to the operation and maintenance of the collection systems owned and operated by the co-permittees. The responsible municipal departments are:

City of Beverly
c/o City Engineer
Beverly City Hall
191 Cabot Street
Beverly, MA 01915

Town of Danvers
c/o Town Engineer
Public Works
Engineering Division
1 Burroughs Street
Danvers, MA 01923

Town of Marblehead
c/o Superintendent
Water/Sewer Department
P.O. Box 1108
Marblehead, MA 01945

Town of Middleton
c/o Superintendent of
Public Works
195 North Main Street
Middleton, MA 01949

City of Peabody
c/o Mayor
24 Lowell Street
Peabody, MA 01960

City of Salem
c/o City Engineer
120 Washington Street
4th Floor
Salem, MA 01970

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

South Essex Wastewater Treatment Facility
50 Fort Avenue
Salem, MA 01970

RECEIVING WATER: **Salem Sound (North Coastal Watershed, Segment 93-25)**

CLASSIFICATION: **Class SB**

I. PROPOSED ACTION

a. Decision to Partially Reopen Permit for Public Comment

On March 27, 2008, the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) released a Draft Permit for the South Essex Wastewater Treatment Facility for public review and comment. The public comment period was originally scheduled to close April 25, 2008 but was extended through June 6, 2008 at the request of the permittee. Numerous comments were received, including comments from the South Essex Sewage District (SESD) and its member communities (City of Salem, City of Beverly, Town of Marblehead, City of Peabody and the Town of Danvers). Among the issues raised in the comments were the receiving water quality standards classification and the legal basis for including the member communities as limited co-permittees to the permit for sewer system operation and maintenance requirements.

Since the close of the public comment period, events have occurred that have influenced EPA's determinations regarding the 2008 Draft Permit. Specifically, MassDEP has submitted, and EPA has reviewed, historic documentation on the Massachusetts Water Quality Standards classification of the receiving water at the discharge location. Also, in a May 28, 2010 decision related to the appeal of the Upper Blackstone Water Pollution Abatement District permit, the Environmental Appeals Board (EAB) remanded to EPA conditions related to co-permittees, finding that EPA had failed to adequately articulate in the record of proceeding a rule-of-decision, or interpretation, identifying the statutory and regulatory basis for expanding the scope of NPDES authority beyond the treatment plant owner and operator to separately owned and operated collections systems. EPA Region I has conducted an evaluation of its legal authority and has developed a Regional permitting approach for satellite collection systems that supports the inclusion of the owners of satellite collection systems as co-permittees. The permitting strategy, titled "**EPA *REGION 1 NPDES PERMITTING APPROACH FOR PUBLICLY OWNED TREATMENT WORKS THAT INCLUDE MUNICIPAL SATELLITE SEWAGE COLLECTION SYSTEMS*"** has been included as Attachment 1 to this fact sheet.

Additionally, during the extended period since the 2008 Draft Permit was released for public comment, EPA has updated several standard permit conditions pertaining to collection system operation and maintenance, and discharge monitoring report submission. These updated conditions are also included in the Partially Revised Draft Permit, and are also described in a later section of this fact sheet.

Accordingly, EPA has decided to revise portions of the 2008 Draft Permit and solicit public comment on those revisions. The specific changes are discussed in detail in the following sections of this fact sheet. The fact sheet for the 2008 Draft Permit is also attached (see Attachment 2) so that the basis for the conditions in that version of the Draft Permit may be understood.

b. Scope of Opening

In accordance with 40 C.F.R. § 124.14(c), comments filed on this Partially Revised Draft Permit during the reopened comment period are limited to the "substantial new questions that caused its reopening." Substantial new questions that caused its reopening are the revised surface water quality standards classification based on new information, the permittee and co-permittees responsibilities in Part I.C, Operation and Maintenance of the Sewer System, and the revisions in Part I. F Monitoring and Reporting.

Specific changes to the draft permit are shown in italic in the Partially Revised Draft Permit and are listed below:

Page 1:

1. EPA has updated the language which summarizes the responsibilities of the co-permittees and now reads "…*which include conditions regarding the operation and maintenance of the portion of the collection systems owned and operated by the individual municipalities. The municipalities are also responsible for the requirements found in Part I.G. State Permit Conditions."*

2. The contact person for the City of Peabody has been changed to the Mayor at the request of the Mayor in written comments submitted on the 2008 draft permit.

3. The language explaining the effective date of the permit was changed for clarity and in consistency with other recently issued NPDES permits in Massachusetts and now reads "…*first day of the calendar month immediately following sixty days after signature."*

4. Language summarizing the contents of the Partially Revised Draft Permit has been changed to clarify the contents and include the specific title of each attachment. EPA has included an updated Attachment A (Marine Acute Toxicity Test Procedure and Protocol), which was revised in July 2012.

5. Attachment E has also been added to provide guidance in the development of SESD industrial pretreatment annual report which was a requirement of the 2008 Draft Permit and remains a condition of the Partially Revised Draft Permit.

6. The name of the Acting Director of EPA's Office of Ecosystem Protection has been added and the name of MassDEP's Director of the Surface Water Discharge Program has been added.

Page 2:

1. EPA has revised the fecal coliform limitation to be consistent with the SB-shellfishing criteria. Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units per 100 ml, nor shall they exceed 400 cfu per 100 ml as a daily maximum, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 organisms per 100 ml. Please see section II.a. of this Partially Revised Fact Sheet.

2. EPA has also changed the maximum daily limit for enterococci to 276 colonies forming units. MassDEP views the use of the 90% upper confidence level of 276 cfu/100 ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit. Please see section II.a. of this Partially Revised Fact Sheet.

Footnote 13:

The #17 was added for clarification. (The permittee must use the receiving water as diluent in WET testing unless authorized after following the procedures in Attachment C, *#17*.)

Footnote 14:

Language in Footnote 14 was updated to reference the current Marine Acute Toxicity Test

Procedure and Protocol and the related attachments for approval of the use of alternative dilution water.

Footnote 15:

Language in Footnote 15 was updated to be consistent with the current version of Attachment A - Marine Acute Toxicity Test Procedure and Protocol which was revised in July 2012.

Page 6, Section C:

The Operation and Maintenance language was updated to be consistent with other recently issued NPDES Permits in Massachusetts. Please see Section II.c. of this Partially Revised Fact Sheet for detailed explanation.

Page 10, Section D:

The web address for MassDEP's SSO Reporting Form was updated. Please see section II.e. for more information.

Page 12, Section F:

The Partially Revised permit includes reporting requirements using NetDMR and updated addresses for submitting reports in hard copy form. Please see Section II.e. for more information.

Page 13, Section F:

At the request of the Massachusetts Division of Marine Fisheries (Mass DMF) during the public comment period for the 2008 draft permit, the permittee must notify Mass DMF, within 24 hours, of a permit excursion of fecal coliform or if a plant failure occurs.

II. PERMIT BASIS AND EXPLANATION OF CHANGES

a. Water Quality Standards; Designated Use

The 2008 Draft Permit and Fact Sheet identified the receiving water for the SESD discharge as Salem Sound, Class SA. In its comment letter dated June 6, 2008, SESD stated that the classification was incorrect and that the appropriate classification is SB.

In a letter to EPA dated August 20, 2010, MassDEP addressed this issue. In its letter, MassDEP documented why it believes that the surface water quality classification of the receiving water is SB rather than SA. The body of the letter is presented below.

> This letter is written to clarify MassDEP's position relative to the classification of the water body segment receiving effluent from the South Essex Sewage District (SESD) Outfall – MA0100501. This letter is being written in response to comments letters received on the Draft NPDES permit and accompanying documents proposed to be issued to SESD by the U.S. Environmental Protection Agency and MassDEP (Public Notice and Draft Permit dated May 16, 2008).
>
> The Draft National Pollutant Discharge Elimination System (NPDES) permit fact sheet dated

May 16, 2008 identified the receiving water for the South Essex Sewage District (SESD) Outfall 001 – MA0100501 as Salem Sound, Class SA. SESD commented in their letter dated June 6, 2008 that the receiving water is incorrectly identified as Class SA in the fact sheet. SESD contends that the receiving water where the effluent terminates is Class SB and, thus the permit limits in the Draft NPDES permit for the SESD outfall 001 need to be consistent with Class SB criteria.

In response to this issue MassDEP conducted a detailed review of our state Water Quality Standards and NPDES permit files back to 1967. Based on that review MassDEP agrees with SESD that the correct classification of the waterbody where the SESD outfall serial number 001 terminates is SB. Our historical records indicate that the segment "Salem and Beverly Harbors" were intentionally delineated in the original 1967 Water Quality Standards (WQS) to include the discharge from the South Essex Sewage District and the receiving waterbody was given the classification of SB. Subsequent iterations of the WQS were inconsistent because they did not include the narrative description of these waterbodies nor other receiving waterbodies in the North Coastal Basin. Over time the absence of waterbody descriptions in the WQS has led to varied interpretations of the extent of the receiving waterbodies and their classification. However, it is clear that the segment of the waterbody receiving effluent from SESD has never been redefined by MassDEP since the original 1967 promulgation.

To better identify and understand the source of confusion MassDEP undertook a thorough review of NPDES permits history, Mass Water Quality Standards (WQS), and relevant Massachusetts State House records (e.g. register and library). A brief summary of our findings is outlined below:

1. In the late 1960's and early 1970's, MassDEP's approach to classifying coastal waters in the Water Quality Standards (WQS) was to categorize them as SB where major NPDES point sources entered the receiving water body. This classification was carried out in consultation with the National Shellfish Sanitation Program (NSSP) and Division of Marine Fisheries (DMF) who require that an area (closed safety zone of prohibited) must be established between any sewage treatment plant effluent or other waste discharge of public significance and any growing area placed on the approved, conditionally approved, restricted or conditionally restricted shellfishing classification. Consistent with this approach, MassDEP's Division of Water Pollution Control classified the waterbody receiving SESD's discharge as SB in the early versions of the WQS dating back to 1967. In most cases narrative description delineating the boundaries of waterbody receiving effluent from major point source discharged were included in the water quality standards dating back to 1967. Salem Harbor was described as "*Salem and Beverly Harbors inside a line from Naugus Head in Marblehead to Northwest Point on Bakers Island and Hospital Point in Beverly"*. The area of this waterbody encompassed the SESD effluent discharge location. ***See Attachment 1***[1] *- Location map.* Beverly Harbor was described as "*inside a line from Hospital Point to Juniper Point on Salem Neck"*. It should be noted that with the exception of the January 1, 1978 publication of the WQS, waterbody descriptions were excluded from all subsequent versions of the Massachusetts WQS. ***See Attachment 2*** *– WQS Publications Depicting the Classification of Salem, Beverly and Marblehead Harbors.*

2. In 1976, a document entitled *Classification and Segmentation of Massachusetts River Basins and Coastal Zones* was published by Division of Water Pollution Control,

[1] Figures and Attachments have not been reproduced in this document.

Department of Environmental Quality Engineering. On page 4 the document states "This document presents the reclassification of waters in the Commonwealth as dictated on the May 1974 revisions to the Massachusetts Water Quality Standards." One purpose of the document was to identify water bodies that could be upgraded to Class B or SB as well as expand the inventory of waters. The document provided a narrative description of the Salem Harbor and the Salem and Beverly receiving waters consistent with the 1967, 1971, and 1974 standards and identified the Salem-Beverly segment (with the triangle out to Baker Island) as Class SB in the Map of that document. The document was developed to satisfy the regulatory requirements of the Water Quality Act of 1965 (P.L. 89-234, 79 Stat. 903), the Clean Water Restoration Act of 1966 (P.L. 89-753, 80 Stat. 1246), and the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500, 86 Stat. 816). It was also the Divisions intent to use the segmentation as a baseline for subsequent Water Quality Standard revisions and permitting decisions. There has been no MassDEP update to this document since 1976.

3. In 1978 the Massachusetts CMR were published in "state standard" format by a consultant. Two versions of the 1978 WQS were published: one dated January 1, 1978 and one dated April 7, 1978.

    a. The version of the WQS dated January 1, 1978 included a narrative description of the Salem-Beverly segment (in Table 1) consistent with the 1967, 1971, 1974 WQS and the 1976 Classification document. In Table 1 the segment was identified as Class SB with a 1978 assessed condition of SC. The WQS map, however, identified the segment as SA which we believe was a typographical mistake. Pursuant to the 1978 WQS, the information in the Tables superseded the information in the maps. Part 5 (Basin classification and maps) Section 5.05 of the 1978 WQS stated "In case of inconsistency between the tables and maps, the data contained in the table shall control." The maps also identified Salem Harbor and Marblehead Harbor as SA while the Tables identified them as SB. We found no explanation for this inconsistency between the 1978 WQS tables and the 1978 WQS maps. ***See Attachment 3 –*** *WQS Publications January 1, 1978.*

    The April 7, 1978 hard copy of the WQS contained other inconsistencies similar to those found in the January version. For example. The Salem-Beverly segment was identified as Class SA in the Table but the Map was not clear, however, no narrative description of the segment was provided. Salem Harbor was identified as SA in the map and SB in the Table. Marblehead Harbor was identified as SA in both the table and the map, while Beverly Harbor was identified as SB in the Table and Map. Based on discussions with the Secretary of State's office, MassDEP believes that the second publication of the standards in 1978 (April 7th version) was related to an overall state project to standardize the format of all of the state CMRs in 1978. The project was to simply transcribe the regulatory information into the selected format. Based on the records, the Department did not propose any changes to the standards as part of this process. The Secretary of State's office did some of this work but also subcontracted formatting of some of the text and all the graphics (e.g. maps) to an outside consultant. We believe this is the reason for many of the cited inconsistencies.

    b. Furthermore, an archival search of the Massachusetts State house records

revealed no documented evidence that any substantive changes to segment classification in the North Coastal watershed were made to the 1978 WQS or approved by the Department.

c. The change in the classification for the Salem-Beverly segment from Class SB to SA and the Marblehead Harbor segment change from SA to SB that appeared in the April 7th version of the WQS Tables appear to be a mistake that occurred when the CMR standards were reformatted. The change in classification was not consistent with official actions taken by other Department regulatory and enforcement programs (NPDES permit and 305b reporting) with respect to the waterbody receiving effluent from SESD.

d. The April 7, 1978 version of the document apparently carried forward in the September 21, 1978, WQS filing that was made by the Water Resources Commission to the Office of the Secretary State House, Boston, Massachusetts [Salem Harbor and Beverly Harbor were identified as SB while Salem-Beverly Harbor and Marblehead Harbor were identified in the identified in the filing text as SA]. The April 7, 1978 print document appears to be the source of information contained in this record. However, this record is inconsistent with the 1978 record on file at the Massachusetts statehouse that lists Salem Harbor, Beverly Harbor and Salem-Beverly Harbor as Class SB. As previously mentioned, while there were no descriptions for the segments in the filing or the 1978 standards, it was commonly understood by Department staff that the description for these segments was provided in the 1976 document entitled *Classification and Segmentation of Massachusetts River Basins and Coastal Zones.*

e. The April 7, 1978 WQS remained unchanged with respect to the Salem-Beverly segment until 1990 when the segment was dropped completely from the WQS Tables. In the current version of the Massachusetts WQS Salem Harbor and Beverly Harbor are identified as Class SB, however, no narrative description delineating the boundaries of these receiving water is provided in the current version of the standards.

4. A historical review of MassDEP and EPA regulatory and enforcement programs (NPDES permitting and 305(b) reporting) revealed a consistent track record of treating the waterbody receiving SESD's effluent as class SB up until 1993. During the 1993 permit cycle both the draft permit and the fact sheet identified the receiving stream as SA/SB. The classification of the receiving water was raised by the District on appeal of the 1994 permit. The 1999 resolution of the appeal explicitly stated that the classification of the receiving water for SESD effluent was corrected to SB and the Massachusetts state water quality certification was similarly corrected to SB. EPA issued of the 2001 permit with Class SB effluent limits. Likewise, the assessment group treated the waterbody as Class SB up until the most recent assessment report (WQA 2002). The treatment of the water body receiving effluent from SESD as SA in the North Coastal Water Quality Assessment Report (2002) appears to have been in error as a result of staff not referring back to the 1976 classification report and should not prescribe the NPDES permit process. A correction will be made to the assessment report during the next assessment cycle for the North Coastal watershed.

> In summary, our historical review of NPDES permits history, Massachusetts Water Quality Standards (WQS), 305(b) reporting and relevant Massachusetts State House records (e.g. register and library) indicates a consistent track record in our application of SB criteria to the SESD discharge. To avoid confusion in the future, a Water Quality Standards revision is needed to clarify that the segment receiving effluent from SESD is Class SB. MassDEP intends to make this clarification in the next Standards revision and include the boundary description listed in Table 23 North Coastal drainage area in section 4.06 of the current Massachusetts Water Quality standards. That revision will include both the harbor and the triangular segment that encompasses the SESD outfall consistent with the 1967 WQS. The description for Salem Harbor is "*Salem Harbor inside a line from Naugus Head in Marblehead to the Northwest Point on Bakers Island to Hospital Point in Beverly and Juniper Point in Salem Neck.* This area encompasses the SESD effluent discharge location. The description for Beverly Harbor will be "*inside a line from Hospital Point to Juniper Point on Salem Neck*" also consistent with the 1967 WQS.

EPA has accepted MassDEP's conclusion that the receiving waters for the SESD effluent are classified as SB. Accordingly, EPA has revised the fecal coliform limitation to be consistent with the SB-shellfishing criteria. Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units per 100 ml, nor shall they exceed 400 cfu per 100 ml as a daily maximum, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 cfu per 100 ml.

EPA has also changed the maximum daily limit for enterococci to 276 colonies forming units. MassDEP views the use of the 90% upper confidence level of 276 cfu/100 ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit.

No other adjustments to the permit limits are necessary to conform the effluent limits in the permit to the SB-shellfishing classification.

b. Co-Permittees

The municipalities of Beverly, Danvers, Marblehead[2], Middleton, Peabody and Salem were listed as co-permittees on the 2008 Draft Permit and shall remain co-permittees on the Partially Revised Draft Permit. Each Town owns and operates a separate section of the sewer collection system that transports sewage to SESD's facility for treatment. The co-permittees are only subject to the requirements in Part I.C., Operation and Maintenance of the Sewer System and Part I.D., Unauthorized Discharges.

Comments received on the 2008 Draft Permit included comments from SESD and its satellite sewer communities opposing the inclusion of the satellite sewer communities as limited co-permittees.

On May 28, 2010, the Environmental Appeals Board (EAB) remanded to EPA the co-permitting provisions in a permit issued to the Upper Blackstone Water Pollution Abatement District in Millbury, Massachusetts, a large publicly owned treatment plant. These conditions had been appealed to the EAB by the permittee and four of its satellite communities. In its order, the EAB found that EPA had not adequately articulated in the record of the proceeding a rule-of-decision, or interpretation, identifying the statutory and regulatory basis for expanding the scope of NPDES authority beyond the treatment plant owner and operator to separately owned and operated collection systems that discharge to the treatment plant, and gave EPA the options of providing the appropriate legal and technical basis for supporting the

[2] As discussed in the 2008 fact sheet (see Part VII), the Town of Marblehead currently holds an individual NPDES permit, which EPA plans to terminate upon the effective date of the SESD permit (and the co-permittee requirements.)

co-permitting provision, or withdrawing the provisions. In the interest of quickly placing other contested provisions into effect, EPA withdrew the co-permitting requirements in that permit. See http://www.epa.gov/region1/npdes/permits/2010/finalma0102369DeterminationOnRemand.pdf

However, since that time, EPA Region 1 has developed a more comprehensive factual and legal rationale for its decision to regulate satellite collection systems. Attachment 1 of this fact sheet is a copy of "**EPA *REGION 1 NPDES PERMITTING APPROACH FOR PUBLICLY OWNED TREATMENT WORKS THAT INCLUDE MUNICIPAL SATELLITE SEWAGE COLLECTION SYSTEMS*"**. EPA believes this document establishes its legal authority to include satellite communities as co-permittees, and has therefore retained the SESD satellite communities as co-permittees in the Partially Revised Draft Permit.

c. Operation and Maintenance of the Sewer System

Part I.C, Operation and Maintenance of the Sewer System (Part I.C.) has also been reopened for public comment. The standard language and requirements in Part I. C, have been updated from the requirements in the 2008 Draft Permit. The revised language and requirements reflect the standard requirements for all NPDES permits now being drafted for publicly owned treatment works in Massachusetts.

The revisions in Part I.C. require SESD and the co-permittees to each develop a collection system operation and maintenance plan, and to map its sanitary sewer system. The schedule for completing the collection system operation and maintenance plan has two milestones.

The first milestone is that within six (6) months of the effective date of the permit, the permittee shall submit to EPA and MassDEP a description of the collection system management goals, staffing, information management, and legal authorities; a description of the overall condition of the collection system including a list of recent studies and construction activities; and a schedule for the development and implementation of the full Collection System O & M Plan.

The second milestone is that within twenty-four (24) months from the effective date of the permit, the full Collection System O & M Plan shall be implemented, and a copy submitted to EPA and MassDEP. The final plan is required to include: a preventative maintenance and monitoring program for the collection system; sufficient staffing to properly operate and maintain the sanitary sewer collection system; sufficient funding and the source(s) of funding for implementing the plan; 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 the permit; a description of the permittees and co-permittees programs for preventing infiltration and inflow-related effluent violations and all unauthorized discharges of wastewater, including overflows and bypasses, and an ongoing program to identify and remove sources of inflow and infiltration (I/I). The program is required to also include an inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts; and an educational public outreach program for all aspects of I/I control, particularly private inflow.

The Partially Revised Draft Permit also requires that sanitary sewer mapping be completed within thirty (30) months of the effective date of the permit, and includes specific information to be recorded on the maps.

d. Unauthorized Discharges

The requirements in Part I.D., Unauthorized Discharges allows discharges from the facilities that are in accordance to the terms and conditions of the Draft Permit. The only discharge authorized from this

facility is the treatment plant outfall, as listed in Part I.A.1. All other discharges are prohibited including sanitary sewer overflows (SSOs).

Part I.D also requires that all unauthorized discharges, including sanitary sewer overflows be reported in accordance with general requirements of Part II, Standard Conditions of the Draft Permit. Therefore, the municipalities that own and operate satellite collection systems are subject to this Part. Unauthorized discharge from these collection systems must be reported by the owner.

The Part I.D. requirements in the Partially Revised Draft Permit are the same as in the original draft permit with one notable exception: the web link for the MassDEP Sewer System Overflow (SSO) Reporting Form has changed and may be now found at http://www.mass.gov/eea/agencies/massdep/service/approvals/sanitary-sewer-overflow-bypass-backup-notification.html.

e. Monitoring and Reporting

The Partially Revised Draft Permit includes the new provisions related to Discharge Monitoring Report (DMR) submittals via NetDMR. NetDMR is a national tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to the 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 a Web-based tool that allows NPDES permittees to electronically sign and submit their discharge monitoring reports (DMRs) to EPA's Integrated Compliance Information System (ICIS-NPDES) via the Environmental Information Exchange Network.

NetDMR will reduce the burden on EPA, states, and the regulated community; improve data quality; and expand the ability of both states and EPA in targeting their limited resources to meet environmental goals. An essential component of NetDMR when fully implemented will be the exchange of data with ICIS-NPDES allowing permittees to complete a DMR that is specific to their permit limits and outfalls.

The facility has already begun submitting its DMRs using NetDMR. The Partially Revised Draft Permit acknowledges this and removes the requirement to submit hard copies of DMRs and other required reports to EPA.

III. STATE CERTIFICATION REQUIREMENTS

Staff of MassDEP have reviewed the Partially Revised Draft Permit. EPA has requested permit certification by the State pursuant to CWA § 401(a)(1) and 40 CFR § 124.53 and expects that the Draft Permit, as revised, will be certified.

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

All persons, including applicants, who believe the revised conditions of the Partially Revised Draft Permit are 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 Michele Cobban Barden, U.S. EPA, Office of Ecosystem Protection**,** Municipal Permits Section, 5 Post Office Square-Suite 100, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing for a public hearing to consider the revised conditions in the Partially Revised 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. Pursuant to 40 CFR 124.17, at the time the final permit decision is issued, EPA will also issue a response to comments, which will include responses to all significant comments submitted on the 2008 Draft Permit and on the Partially Revised Draft Permit.

V. EPA AND MassDEP CONTACTS

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

Michele Cobban Barden
US Environmental Protection Agency
1 Congress Street
Suite 1100 (CMA)
Boston, Massachusetts 02114-2023
Telephone: (617) 918-1539
Fax: (617) 918-0539
Email: barden.michele@epamail.epa.gov

or

Claire Golden
MA Department of Environmental Protection
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205B Lowell Street
Wilmington, MA 01887
Telephone: (978) 978-694-3244
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September 2013

Date

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

ATTACHMENT 1

EPA REGION 1 NPDES PERMITTING APPROACH FOR PUBLICLY OWNED TREATMENT WORKS THAT INCLUDE MUNICIPAL SATELLITE SEWAGE COLLECTION SYSTEMS

This interpretative statement provides an explanation to the public of EPA Region 1's interpretation of the Clean Water Act ("CWA" or "Act") and implementing regulations, and advises the public of relevant policy considerations, regarding the applicability of the National Pollutant Discharge Elimination System ("NPDES") program to publicly owned treatment works ("POTWs") that are composed of municipal satellite sewage collection systems owned by one entity and treatment plants owned by another ("regionally integrated POTWs"). When issuing NPDES permits to these types of sanitary sewer systems, it is EPA Region 1's practice to directly regulate, as necessary, the owners/operators of the municipal satellite collection systems through a co-permitting structure. This interpretative statement is intended to explain, generally, the basis for this practice. In determining whether to include municipal satellite collection systems as co-permittees in any particular circumstances, Region 1's decision will be made by applying the law and regulations to the specific facts of the case before the Region.

EPA has set out a national policy goal for the nation's sanitary sewer systems to adhere to strict design and operational standards:

> "Proper [operation and maintenance] of the nation's sewers is integral to ensuring that wastewater is collected, transported, and treated at POTWs; and to reducing the volume and frequency of …[sanitary sewer overflow] discharges. Municipal owners and operators of sewer systems and wastewater treatment facilities need to manage their assets effectively and implement new controls, where necessary, as this infrastructure continues to age. Innovative responses from all levels of government and consumers are needed to close the gap."[1]

Because ownership/operation of a regionally integrated POTW is sometimes divided among multiple parties, the owner/operator of the treatment plant many times lacks the means to implement comprehensive, system-wide operation and maintenance ("O & M") procedures. Failure to properly implement O & M measures in a POTW can cause, among other things, excessive extraneous flow (*i.e.*, inflow and infiltration) to enter, strain and occasionally overload treatment system capacity. This failure not only impedes EPA's national policy goal concerning preservation of the nation's wastewater infrastructure assets, but also frustrates achievement of the water quality- and technology-based requirements of CWA § 301 to the extent it results in sanitary sewer overflows and degraded treatment plant performance, with adverse impacts on human health and the environment.

In light of these policy objectives and legal requirements, it is Region 1's permitting practice to subject all portions of the POTW to NPDES requirements in order to ensure that the treatment system as a whole is properly operated and maintained and that human health and water quality

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[1] *See Report to Congress: Impacts and Control of CSOs and SSOs* (EPA 833-R-04-001) (2004), at p. 10-2. *See also* "1989 National CSO Control Strategy," 54 Fed. Reg. 37371 (September 8, 1989).

impacts resulting from excessive extraneous flow are minimized. The approach of addressing O&M concerns in a regionally integrated treatment works by adding municipal satellite collection systems as co-permittees is consistent with the definition of "publicly owned treatment works," which by definition includes sewage collection systems. Under this approach, the POTW in its entirety will be subject to NPDES regulation as a point source discharger under the Act. Region 1's general practice will be to impose permitting requirements applicable to the POTW treatment plant along with a more limited set of conditions applicable to the connected municipal satellite collection systems.

The factual and legal basis for the Region's position is set forth in greater detail in *Attachment A.*

Attachment A

ANALYSIS SUPPORTING EPA REGION 1 NPDES PERMITTING APPROACH FOR PUBLICLY OWNED TREATMENT WORKS THAT INCLUDE MUNICIPAL SATELLITE SEWAGE COLLECTION SYSTEMS

Exhibit A	List of POTW permits that include municipal satellite collection systems as co-permittees
Exhibit B	Analysis of extraneous flow trends and SSO reporting for representative systems
Exhibit C	Form of Regional Administrator's waiver of permit application requirements for municipal satellite collection systems

Introduction

On May 28, 2010, the U.S. EPA Environmental Appeals Board ("Board") issued a decision remanding to the Region certain NPDES permit provisions that included and regulated satellite collection systems as co-permittees. *See In re Upper Blackstone Water Pollution Abatement District*, NPDES Appeal Nos. 08-11 to 08-18 & 09-06, 14 E.A.D. __ (*Order Denying Review in Part and Remanding in Part*, EAB, May 28, 2010).[2] While the Board "did not pass judgment" on the Region's position that its NPDES jurisdiction encompassed the entire POTW and not only the treatment plant, it held that "where the Region has abandoned its historical practice of limiting the permit only to the legal entity owning and operating the wastewater treatment plant, the Region had not sufficiently articulated in the record of this proceeding the statutory, regulatory, and factual bases for expanding the scope of NPDES authority beyond the treatment plant owner/operator to separately owned/operated collection systems that do not discharge directly to waters of the United States, but instead that discharge to the treatment plant." *Id., slip op.* at 2, 18. In the event the Region decided to include and regulate municipal satellite collection systems as co-permittees in a future permit, the Board posed several questions for the Region to address in the analysis supporting its decision:

> (1) In the case of a regionally integrated POTW composed of municipal satellite collection systems owned by different entities and a treatment plant owned by another, is the scope of NPDES authority limited to owners/operators of the POTW treatment plant, or does the authority extend to owners/operators of the municipal satellite collection systems that convey wastewater to the POTW treatment plant?
>
> (2) If the latter, how far up the collection system does NPDES jurisdiction reach, *i.e.*, where does the "collection system" end and the "user" begin?

[2] The decision is available on the Board's website via the following link: http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/30b93f139d3788908525706c005185b4/34e841c87f346d94852577360068976f!OpenDocument.

(3) Do municipal satellite collection systems "discharge [ ] a pollutant" within the meaning of the statute and regulations?

(4) Are municipal satellite collection systems "indirect dischargers" and thus excluded from NPDES permitting requirements?

(5) Is the Region's rationale for regulating municipal satellite collection systems as co-permittees consistent with the references to "municipality" in the regulatory definition of POTW, and the definition's statement that "[t]he term also means the municipality…which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works"?

(6) Is the Region's rationale consistent with the permit application and signatory requirements under NPDES regulations?

See *Blackstone, slip op.* at 18, 20, n. 17.

This regional interpretative statement is, in part, a response to the Board's decision. It details the legal and policy bases for regulating publicly owned treatment works ("POTWs") that include municipal satellite collection systems through a co-permittee structure. Region 1's analysis is divided into five sections. First, the Region provides context for the co-permitting approach by briefly describing the health and environmental impacts associated with poorly maintained sanitary sewer systems. Second, the Region outlines its evolving permitting practice regarding regionally integrated POTWs, particularly its attempts to ensure that such entity's municipal satellite collection systems are properly maintained and operated. Third, the Region explains the legal authority to include municipal satellite collection systems as co-permittees when permitting regionally integrated POTWs. In this section, the Region answers the questions posed by the Board in the order presented above. Fourth, the Region sets forth the basis for the specific conditions to which the municipal satellite collection systems will be subject as co-permittees. Finally, the Region discusses other considerations informing its decision to employ a co-permittee structure when permitting regionally integrated POTWs.

I. Background

A sanitary sewer system (SSS) is a wastewater collection system owned by a state or municipality that conveys domestic, industrial and commercial wastewater (and limited amounts of infiltrated groundwater and some storm water runoff) to a POTW.[3] *See* 40 C.F.R. § 35.2005(b)(37) (defining "sanitary sewer"). The purpose of these systems is to transport wastewater uninterrupted from its source to a treatment facility. Developed areas that are served by sanitary sewers often also have a separate storm sewer system (*e.g.*, storm drains) that collects and conveys runoff, street wash waters and drainage and discharges them directly to a receiving

[3] *See generally* Report to Congress: Impacts and Control of CSOs and SSOs (EPA 833-R-04-001) (2004), from which EPA Region 1 has drawn this background material.

water (*i.e.*, without treatment at a POTW). While sanitary sewers are not designed to collect large amounts of runoff from precipitation events or provide widespread drainage, they typically are built with some allowance for higher flows that occur during periods of high groundwater and storm events. They are thus able to handle minor and controllable amounts of extraneous flow (*i.e.*, inflow and infiltration, or I/I) that enter the system. Inflow generally refers to water other than wastewater—typically precipitation like rain or snowmelt—that enters a sewer system through a direct connection to the sewer. Infiltration generally refers to other water that enters a sewer system from the ground, for example through defects in the sewer.

Municipal sanitary sewer collection systems can consist of a widespread network of pipes and associated components (*e.g.*, pump stations). These systems provide wastewater collection service to the community in which they are located. In some situations, the municipality that owns the collector sewers may not provide treatment of wastewater, but only conveys its wastewater to a collection system that is owned and operated by a different municipal entity (such as a regional sewer district). This is known as a satellite community. A "satellite" community is a sewage collection system owner/operator that does not have ownership of the treatment facility and the wastewater outfall but rather the responsibility to collect and convey the community's wastewater to a POTW treatment plant for treatment. *See* 75 Fed. Reg. 30395, 30400 (June 1, 2010).

Municipal sanitary sewer collection systems play a critical role in protecting human health and the environment. Proper operation and maintenance of sanitary sewer collection systems is integral to ensuring that wastewater is collected, transported, and treated at POTW treatment plants. Through effective operation and maintenance, collection system operators can maintain the capacity of the collection system; reduce the occurrence of temporary problem situations such as blockages; protect the structural integrity and capacity of the system; anticipate potential problems and take preventive measures; and indirectly improve treatment plant performance by minimizing I/I-related hydraulic overloading.

Despite their critical role in the nation's infrastructure, many collection systems exhibit poor performance and are subjected to flows that exceed system capacity. Untreated or partially treated overflows from a sanitary sewer system are termed "sanitary sewer overflows" (SSOs). SSOs include releases from sanitary sewers that reach waters of the United States as well as those that back up into buildings and flow out of manholes into city streets.

There are many underlying reasons for the poor performance of collection systems. Much of the nation's sanitary sewer infrastructure is old, and aging infrastructure has deteriorated with time. Communities also sometimes fail to provide capacity to accommodate increased sewage delivery and treatment demand from increasing populations. Furthermore, institutional arrangements relating to the operation of sewers can pose barriers to coordinated action, because many municipal sanitary sewer collection systems are not entirely owned or operated by a single municipal entity.

The performance and efficiency of municipal sanitary sewer collection systems influence the performance of sewage treatment plants. When the structural integrity of a municipal sanitary sewer collection system deteriorates, large quantities of infiltration (including rainfall-induced

infiltration) and inflow can enter the collection system, causing it to overflow. These extraneous flows are among the most serious and widespread operational challenges confronting treatment works.[4]

Infiltration can be long-term seepage of water into a sewer system from the water table. In some systems, however, the flow characteristics of infiltration can resemble those of inflow, *i.e.*, there is a rapid increase in flow during and immediately after a rainfall event, due, for example, to rapidly rising groundwater. This phenomenon is sometimes referred to as rainfall-induced infiltration.

Sanitary sewer systems can also overflow during periods of normal dry weather flows. Many sewer system failures are attributable to natural aging processes or poor operation and maintenance. Examples include years of wear and tear on system equipment such as pumps, lift stations, check valves, and other moveable parts that can lead to mechanical or electrical failure; freeze/thaw cycles, groundwater flow, and subsurface seismic activity that can result in pipe movement, warping, brittleness, misalignment, and breakage; and deterioration of pipes and joints due to root intrusion or other blockages.

Inflow and infiltration impacts are often regional in nature. Satellite collection systems in the communities farthest from the POTW treatment plant can cause sanitary sewer overflows ("SSOs") in communities between them and the treatment plant by using up capacity in the interceptors. This can cause SSOs in the interceptors themselves or in the municipal sanitary sewers that lead to them. The implication of this is that corrective solutions often must also be regional in scope to be effective.

The health and environmental risks attributed to SSOs vary depending on a number of factors including location and season (potential for public exposure), frequency, volume, the amount and type of pollutants present in the discharge, and the uses, conditions, and characteristics of the receiving waters. The most immediate health risks associated with SSOs to waters and other areas with a potential for human contact are associated with exposure to bacteria, viruses, and other pathogens.

Human health impacts occur when people become ill due to contact with water or ingestion of water or shellfish that have been contaminated by SSO discharges. In addition, sanitary sewer systems can back up into buildings, including private residences. These discharges provide a direct pathway for human contact with untreated wastewater. Exposure to land-based SSOs typically occurs through the skin via direct contact. The resulting diseases are often similar to those associated with exposure through drinking water and swimming (*e.g.*, gastroenteritis), but may also include illness caused by inhaling microbial pathogens. In addition to pathogens, raw sewage may contain metals, synthetic chemicals, nutrients, pesticides, and oils, which also can be detrimental to the health of humans and wildlife.

[4] In a 1989 Water Pollution Control Federation survey, 1,003 POTWs identified facility performance problems. Infiltration and inflow was the most frequently cited problem, with 85 percent of the facilities reporting I/I as a problem. I/I was cited as a major problem by 41 percent of the facilities (32 percent as a periodic problem).

II. Region 1 Past Practice of Permitting POTWs that Include Municipal Satellite Collection Systems

Region 1's practice in permitting regionally integrated POTWs has developed in tandem with its increasing focus on addressing I/I in sewer collection systems, in response to the concerns outlined above. Up to the early 1990s, POTW permits issued by Region 1 generally did not include specific requirements for collection systems. When I/I and the related issue of SSOs became a focus of concern both nationally and within the region in the mid-1990s, Region 1 began adding general requirements to POTW permits that required the permittees to "eliminate excessive infiltration and inflow" and provide an annual "summary report" of activities to reduce I/I. As the Region gathered more information and gained more experience in assessing these reports and activities, it began to include more detailed requirements and reporting provisions in these permits.

MassDEP also engaged in a parallel effort to address I/I, culminating in 2001 with the issuance of MassDEP Policy No. BRP01-1, "Interim Infiltration and Inflow Policy." Among other provisions, this policy established a set of standard NPDES permit conditions for POTWs that included development of an I/I control plan (including funding sources, identification and prioritization of problem areas, and public education programs) and detailed annual reporting requirements (including mapping, reporting of expenditures and I/I flow calculations). Since September 2001, these requirements have been the basis for the standard operation and maintenance conditions related to I/I.

Regional treatment plants presented special issues as I/I requirements became more specific, as it is generally the member communities, rather than the regional sewer district, that own the collection systems that are the primary source of I/I. Before the focus on I/I, POTW permits did not contain specific requirements related to the collection system component of POTWs. Therefore, when issuing NPDES permits to authorize discharges from regionally integrated treatment POTWs, Region 1 had generally only included the legal entity owning and/or operating the regionally centralized wastewater treatment plant as the permittee. As the permit conditions were focused on the treatment plant and its effluent discharge, a permit issued only to the owner or operator of the treatment plant was sufficient to ensure that permit conditions could be fully implemented and that EPA had authority to enforce the permit requirements.

In implementing the I/I conditions, Region 1 initially sought to maintain the same structure, placing the responsibility on the regional sewer district to require I/I activities by the contributing systems and to collect the necessary information from those systems for submittal to EPA. MassDEP's 2001 Interim I/I Policy reflected this approach, containing a condition for regional systems:

> ((FOR REGIONAL FACILITIES ONLY)) The permittee shall require, through appropriate agreements, that all member communities develop and implement infiltration and inflow control plans sufficient to ensure that high flows do not cause or contribute to a violation of the permittee's effluent limitations, or cause overflows from the permittee's collection system.

As existing NPDES permittees, the POTW treatment plants were an obvious locus of regulation. The Region assumed the plants would be in a position to leverage preexisting legal and/or contractual relationships with the satellite collection systems they serve to perform a coordinating function, and that utilizing this existing structure would be more efficient than establishing a new system of direct reporting to EPA by the collection system owners. The Region also believed that the owner/operator of the POTW treatment plant would have an incentive to reduce flow from contributing satellite systems because doing so would improve treatment plant performance and reduce operation costs. While relying on this cooperative approach, however, Region 1 also asserted that it had the authority to require that POTW collection systems be included as NPDES permittees and that it would do so if it proved necessary. Indeed, in 2001 Region 1 acceded to Massachusetts Water Resources Authority's ("MWRA") request to include as co-permittees the contributing systems to the MWRA Clinton wastewater treatment plant ("WWTP") based on evidence provided by MWRA that its relationship with those communities would not permit it to run an effective I/I reduction program for these collection systems. Region 1 also put municipal satellite collection systems on notice that they would be directly regulated through legally enforceable permit requirements if I/I reductions were not pursued or achieved.

In time, the Region realized that its failure to assert direct jurisdiction over municipal satellite dischargers was becoming untenable in the face of mounting evidence that cooperative (or in some cases non-existent) efforts on the part of the POTW treatment plant and associated satellites were failing to comprehensively address the problem of extraneous flow entering the POTW. The ability and/or willingness of regional sewer districts to attain meaningful I/I efforts in their member communities varied widely. The indirect structure of the requirements also tended to make it difficult for EPA to enforce the implementation of meaningful I/I reduction programs.

It became evident to Region 1 that a POTW's ability to comply with CWA requirements depended on successful operation and maintenance of not only the treatment plant but also the collection system. For example, the absence of effective I/I reduction and operation/maintenance programs was impeding the Region's ability to prevent or mitigate the human health and water quality impacts associated with SSOs. Additionally, these excess flows stressed POTW treatment plants from a hydraulic capacity and performance standpoint, adversely impacting effluent quality. *See Exhibit B* (Analysis of extraneous flow trends and SSO reporting for representative systems). Addressing these issues in regional systems was essential, as these include most of the largest systems in terms of flow, population served and area covered.

The Region's practice of imposing NPDES permit conditions on the municipal collection systems in addition to the treatment plant owner/operator represents a necessary and logical progression in its continuing effort to effectively address the serious problem of I/I in sewer collection systems.[5] In light of its past permitting experience and the need to effectively address

[5] Although the Region has in the past issued NPDES permits only to the legal entities owning and operating the wastewater treatment plant (*i.e.*, only a portion of the "treatment works"), the Region's reframing of permits to include municipal satellite collection systems does not represent a break or reversal from its historical legal position. Region 1 has never taken the legal position that the satellite collection systems are beyond the reach of the CWA and the NPDES permitting program. Rather, the Region as a matter of discretion had merely never determined it

the problem of extraneous flow on a system-wide basis, Region 1 decided that it was necessary to refashion permits issued to regionally integrated POTWs to include all owners/operators of the treatment works (*i.e.*, the regional centralized POTW treatment plant and the municipal satellite collection systems).[6] Specifically, Region 1 determined that the satellite systems should be subject as co-permittees to a limited set of O&M-related conditions on permits issued for discharges from regionally integrated treatment works. These conditions pertain only to the portions of the POTW collection system that the satellites own. This ensures maintenance and pollution control programs are implemented with respect to all portions of the POTW. Accordingly, since 2005, Region 1 has generally included municipal satellite collection systems as co-permittees for limited purposes while it required the owner/operator of the treatment plant, as the primary permittee, to comply with the full array of NPDES requirements, including secondary treatment and water-quality based effluent limitations. The Region has identified 25 permits issued by the Region to POTWs in New Hampshire and Massachusetts that include municipal satellite collection systems as co-permittees. *See Exhibit A*. The 25 permits include a total of 55 satellite collection systems as co-permittees.

III. Legal Authority

The Region's prior and now superseded practice of limiting the permit only to the legal entity owning and/or operating the wastewater treatment plant had never been announced as a regional policy or interpretation. Similarly, the Region's practice of imposing NPDES permit conditions on the municipal collection systems in addition to the treatment plant owner/operator has also never been expressly announced as a uniform, region-wide policy or interpretation. Upon consideration of the Board's decision, described above, Region 1 has decided to supply a clearer, more detailed explanation regarding its use of a co-permittee structure when issuing NPDES permits to regionally integrated POTWs. In this section, the Region addresses the questions posed by the Board in the *Upper Blackstone* decision referenced above.

(1) In the case of a regionally integrated POTW composed of municipal satellite collection systems owned by different entities and a treatment plant owned by another, is the scope of

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necessary to exercise its statutory authority to directly reach these facilities in order to carry out its NPDES permitting obligations under the Act.

Although the Region adopted a co-permittee structure to deal I/I problems in the municipal satellite collection systems, that decision does nothing to foreclose a permitting authority from opting for alternative permitting approaches that are consistent with applicable law. Each permitting authority has the discretion to determine which permitting approach best achieves the requirements of the Act based on the facts and circumstances before it. Upon determining that direct regulation of a satellite collection system via an NPDES permit is warranted, a permitting authority has the discretion to make the owner or operator of the collection system a co-permittee, or to cover it through an individual or general permit. Nothing in EPA regulations precludes the issuance of a separate permit to an entity that is part of the larger system being regulated. As in the pretreatment program, there are many ways to ensure that upstream collection systems are adequately contributing to the successful implementation of a POTW's permit requirements.

[6] EPA has "considerable flexibility in framing the permit to achieve a desired reduction in pollutant discharges." *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369, 1380 (D.C.Cir.1977). ("[T]his ambitious statute is not hospitable to the concept that the appropriate response to a difficult pollution problem is not to try at all.").

NPDES authority limited to owners/operators of the POTW treatment plant, or does the authority extend to owners/operators of the municipal satellite collection systems that convey wastewater to the POTW treatment plant?

The scope of NPDES authority extends beyond the owners/operators of the POTW treatment plant to include the owners/operators of the municipal satellite collection systems conveying wastewater to the treatment plant for the reasons discussed below.

The CWA prohibits the "discharge of any pollutant by any person" from any point source to waters of the United States, except, *inter alia*, in compliance with an NPDES permit issued by EPA or an authorized state pursuant to Section 402 of the CWA. CWA § 301, 402(a)(1); 40 C.F.R. § 122.1(b).

"Publicly owned treatment works" are facilities that, when they discharge, are subject to the NPDES program. Statutorily, POTWs as a class must meet performance-based effluent limitations based on available wastewater treatment technology. *See* CWA § 402(a)(1) ("[t]he Administrator may…issue a permit for the discharge of any pollutant….upon condition that such discharge will meet (A) all applicable requirements under [section 301]…"); § 301(b)(1)(B) ("In order to carry out the objective of this chapter there shall be achieved…for publicly owned treatment works in existence on July 1, 1977...effluent limitations based upon secondary treatment[.]"); *see also* 40 C.F.R. pt 133. In addition to secondary treatment requirements, POTWs are also subject to water quality-based effluent limits if necessary to achieve applicable state water quality standards. *See* CWA § 301(b)(1)(C). *See also* 40 C.F.R. § 122.44(a)(1) ("…each NPDES permit shall include…[t]echnology-based effluent limitations based on: effluent limitations and standards published under section 301 of the Act") and (d)(1) (same for water quality standards and state requirements). NPDES regulations similarly identify the "POTW" as the entity subject to regulation. *See* 40 C.F.R. § 122.21(a) (requiring "new and existing POTWs" to submit information required in 122.21(j)," which in turn requires "all POTWs," among others, to provide permit application information).

The CWA and its implementing regulations broadly define "POTW" to include not only wastewater treatment plants but also the sewer systems and associated equipment that collect wastewater and convey it to the treatment plants. When a municipal satellite collection system conveys wastewater to the POTW treatment plant, the scope of NPDES authority extends to both the owner/operators of the treatment facility and the municipal satellite collection system, because the POTW is discharging pollutants.

Under section 212 of the Act,

> "(2)(A) The term 'treatment works' means any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 1281 of this title, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, *sewage collection systems* [emphasis added], pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as

> standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land used for the storage of treated wastewater in land treatment systems prior to land application) or is used for ultimate disposal of residues resulting from such treatment.
>
> (B) In addition to the definition contained in subparagraph (A) of this paragraph, 'treatment works' means any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and *sanitary sewer systems* [emphasis added]. Any application for construction grants which includes wholly or in part such methods or systems shall, in accordance with guidelines published by the Administrator pursuant to subparagraph (C) of this paragraph, contain adequate data and analysis demonstrating such proposal to be, over the life of such works, the most cost efficient alternative to comply with sections 1311 or 1312 of this title, or the requirements of section 1281 of this title."

EPA has defined POTW as follows:

> "The term *Publicly Owned Treatment Works* or *POTW* [emphasis in original]…includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works."

See 40 C.F.R. §§ 403.3(q) and 122.2.

Thus, under the CWA and its implementing regulations, wastewater treatment plants and the sewer systems and associated equipment that collect wastewater and convey it to the treatment plants fall within the broad definition of "POTW."

The statutory and regulatory definitions plainly encompass both the POTW treatment plant and municipal satellite collection systems conveying wastewater to the POTW treatment plant even if the treatment plant and the satellite collection system have different owners. Municipal satellite collection systems indisputably fall within the definition of a POTW. First, they are "sewage collection systems" under section 212(A) and "sanitary sewer systems" under section 212(B). Second, they convey wastewater to a POTW treatment plant for treatment under 40 C.F.R. § 403.3(q)). The preamble to the rule establishing the regulatory definition of POTW supports the reading that the treatment plant comprises only one portion of the POTW. *See* 44 Fed. Reg. 62260, 62261 (Oct. 29, 1979).[7] Consistent with Region 1's interpretation, courts have similarly

[7] "A new provision…defining the term 'POTW Treatment Plant' has been added to avoid an ambiguity that now exists whenever a reference is made to a POTW (publicly owned treatment works). …[T]he existing regulation defines a POTW to include both the treatment plant and the sewer pipes and other conveyances leading to it. As a result, it is unclear whether a particular reference is to the pipes, the treatment plant, or both. The term "POTW

taken a broad reading of the terms treatment works and POTW.[8] Finally, EPA has long recognized that a POTW can be composed of different parts, and that sometimes direct control is required under a permit for all parts of the POTW system, not just the POTW treatment plant segment. *See Multijurisdictional Pretreatment Programs Guidance Manual,* Office off Water (4203) EPA 833-B-94-005 (June 1994) at 19. ("If the contributing jurisdiction owns or operates the collection system within its boundaries, then it is a co-owner or operator of the POTW. As such, it can be included on the POTW's NPDES permit and be required to develop a pretreatment program. Contributing jurisdictions should be made co-permittees where circumstances or experience indicate that it is necessary to ensure adequate pretreatment program implementation."). The Region's interpretation articulated here is consistent with the precepts of the pretreatment program, which pertains to the same regulated entity, i.e., the POTW.[9]

Thus, under the statutory and regulatory definitions, a satellite collection system owned by one municipality that transports municipal sewage to another portion of the POTW owned by another municipality can be classified as part of a single integrated POTW system discharging to waters of the U.S.

(2) If the latter, how far up the collection system does NPDES jurisdiction reach, i.e., where does the "collection system" end and the "user" begin?

NPDES jurisdiction extends beyond the treatment plant to the outer boundary of the municipally-owned sewage collection systems, that is, to the outer bound of those sewers whose purpose is to transport wastewater for others to a POTW treatment plant for treatment, as explained below.

As discussed in response to Question 1 above, the term "treatment works" is defined to include "sewage collection systems." CWA § 212. In order to identify the extent of the sewage collection system for purposes of co-permittee regulation—*i.e.*, to identify the boundary between the portions of the collection system that are subject to NPDES requirements and those that are not—Region 1 is relying on EPA's regulatory interpretation of the term "sewage collection system." In relevant part, EPA regulations define "sewage collection system" at 40 C.F.R. § 35.905 as:

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treatment plant" will be used to designate that portion of the municipal system which is actually designed to provide treatment to the wastes received by the municipal system."

[8] *See, e.g., United States v. Borowski, 977 F.2d 27, 30 n.5* (1st Cir. 1992) ("We read this language [POTW definition] to refer to such sewers, pipes and other conveyances that are publicly owned. Here, for example, the City of Burlington's sewer is included in the definition because it conveys waste water to the Massachusetts Water Resource Authority's treatment works."); *Shanty Town Assoc. v. Envtl. Prot. Agency, 843 F.2d 782, 785* (4th Cir. 1988) ("As defined in the statute, a 'treatment work' need not be a building or facility, but can be any device, system, or other method for treating, recycling, reclaiming, preventing, or reducing liquid municipal sewage and industrial waste, including storm water runoff.") (citation omitted); *Comm. for Consideration Jones Fall Sewage System v. Train,* 375 F. Supp. 1148, 1150-51 (D. Md. 1974) (holding that NPDES wastewater discharge permit coverage for a wastewater treatment plant also encompasses the associated sanitary sewer system and pump stations under § 1292 definition of "treatment work").

[9] The fact that EPA has endorsed a co-permittee approach in addressing pretreatment issues in situations where the downstream treatment plant was unable to adequately regulate industrial users to the collection system in another jurisdiction reinforces the approach taken here.

> "..... each, and all, of the common lateral sewers, within a publicly owned treatment system, which are primarily installed to receive waste waters directly from facilities which convey waste water from individual structures or from private property and which include service connection "Y" fittings designed for connection with those facilities. The facilities which convey waste water from individual structures, from private property to the public lateral sewer, or its equivalent, are specifically excluded from the definition…."

Put otherwise, a municipal satellite collection system is subject to NPDES jurisdiction under the Region's approach insofar as it transports wastewater for others to a POTW treatment plant for treatment. This test (i.e., common sewer installed to receive and carry waste water from others) allows Region 1 to draw a principled, predictable and readily ascertainable boundary between the POTW's collection system and the users. This test would exclude, for example, single user branch drainpipes that collect and transport wastewater from plumbing fixtures in a commercial building or public school to the common lateral sewer, just as service connections from private residential structures to lateral sewers are excluded. This type of infrastructure would not be considered part of the collection system, because it is not designed to receive and carry wastewaters from other users. Rather, it is designed to transport its users' wastewater to such a common collection system at a point further down the sanitary sewer system.

EPA's reliance on the definition of "sewage collection system" from the construction grants regulations for interpretative guidance is reasonable because these regulations at 40 C.F.R. Part 35, subpart E pertain to grants specifically for POTWs, the entity that is the subject of this NPDES policy. Additionally, the term "sewage collection systems" expressly appears in the definition of treatment works under section 212 of the Act as noted above.

(3) Do municipal satellite collection systems "discharge [] a pollutant" within the meaning of the statute and regulations?

Yes, the collection system "discharges a pollutant" because it adds pollutants to waters of the U.S. from a point source. This position is consistent with the definition of "discharge of a pollutant" at 40 C.F.R. § 122. [10] The fact that a collection system may be located in the upper reaches of the POTW and not necessarily near the ultimate discharge point at the treatment plant, or that its contribution may be commingled with other wastewater flows prior to the discharge point, is not material to the question of whether it "discharges" a pollutant and consequently may be subject to conditions of an NPDES permit issued for discharges from the POTW.[11]
40 C.F.R. § 122.2 defines "discharge of a pollutant" as follows:

[10] This position differs from that taken by the Region in the *Upper Blackstone* litigation. There, the Region stated that the treatment plant was the discharging entity for regulatory purposes. The Region has clarified this view upon further consideration of the statute, EPA's own regulations and case law and determined that a municipal satellite collection system in a POTW is a discharging entity for regulatory purposes.

[11] As explained more fully below, non-domestic contributors of pollutants to the collection system and treatment plant do not require NPDES permits because they are regulated through the pretreatment program under Section 307 of the CWA and are specifically excluded from needing an NPDES permit. 40 C.F.R. § 122.3(c).

"Discharge of a pollutant means:

(a) Any addition of any 'pollutant'' or combination of pollutants to 'waters of the United States'' from any 'point source,' or
(b) Any addition of any pollutant or combination of pollutants to the waters of the 'contiguous zone' or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any 'indirect discharger.'"

POTW treatment plants as well as the municipal satellite collection systems that comprise portions of the larger POTW and that transport flow to the POTW treatment plant clearly add pollutants or combinations of pollutants to waters of the U.S. and to waters of the "contiguous zone" and are thus captured under sections (a) and (b) of this definition.[12]

(4) Are municipal satellite collection systems "indirect dischargers" and thus excluded from NPDES permitting requirements?

No, municipal satellite collection systems that convey wastewater from domestic sources to another portion of the POTW for treatment are not "indirect dischargers" to the POTW.

Section 307(b) of the Act requires EPA to establish regulatory pretreatment requirements to prevent the "introduction of pollutants into treatment works" that interfere, pass through or are otherwise incompatible with such works. Section 307 is implemented through the General Pretreatment Regulations for Existing and New Sources of Pollution (40 C.F.R. Part 403) and categorical pretreatment standards (40 C.F.R. Parts 405-471). Section 403.3(i) defines "indirect discharger" as "any non-domestic" source that introduces pollutants into a POTW and is regulated under pretreatment standards pursuant to CWA § 307(b)-(d). The source of an indirect discharge is termed an "industrial user." *Id*. at § 403.3(j). Under regulations governing the

[12] Some municipal satellite collection systems have argued that the addition of pollutants to waters of the United States from pipes, sewers or other conveyances that go to a *treatment plant* are not a "discharge of a pollutant" under 40 C.F.R. § 122.2. This is erroneous. Only one category of such discharges is excluded: indirect discharges. For the reasons explained below in section 4, the satellite system discharges at issue here are not indirect discharges. It is correct that the discharge of wastewater that does not go to the treatment works is included as a discharge under the definition. However, interpreting the *inclusion* of such discharges under the definition as categorically *excluding* the conveyance of other discharges that do go to the treatment works is not a reasonable reading of the regulation. This argument is also flawed in that it incorrectly equates "treatment works," the term used in the definition above, with "treatment plant." To interpret "treatment works" as it appears in the regulatory definition of "discharge of a pollutant" as consisting of only the POTW treatment plant would be inconsistent with the definition of "treatment works" at 40 C.F.R. § 403.3(q), which expressly includes the collection system. *See also* § 403.3(r) (defining "POTW Treatment Plant" as "*that portion* [emphasis added] of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.")

NPDES permitting program, the term "indirect discharger" is defined as "a non-domestic discharger introducing 'pollutants' to a 'publicly owned treatment works.'" 40 C.F.R. § 122.2. Indirect dischargers are excluded from NPDES permit requirements at 40 C.F.R. § 122.3(c), which provides, "The following discharges do not require an NPDES permit: . . . The introduction of sewage, industrial wastes or other pollutants into publicly owned treatment works by indirect dischargers."

Municipal satellite collection satellite systems are not indirect dischargers as that term is defined under part 122 or 403 regulations. Unlike indirect dischargers, municipal satellite collection systems are not a non-domestic discharger "introducing pollutants" to POTWs as defined in 40 C.F.R. § 122.2. Instead, they themselves fall within the definition of POTW, whose components consist of the municipal satellite collection system owned and operated by one POTW and a treatment system owned and operated by another POTW. Additionally, they are not a non-domestic *source* regulated under section 307(b) that introduces pollutants into a POTW within the meaning of § 403.3(i). Rather, they are part of the POTW and collect and convey municipal sewage from industrial, commercial and domestic users of the POTW.

The Region's determination that municipal satellite collection systems are not indirect dischargers is, additionally, consistent with the regulatory history of the term indirect discharger. The 1979 revision of the part 122 regulations defined "indirect discharger" as "a non-municipal, non-domestic discharger introducing pollutants to a publicly owned treatment works, which introduction does not constitute a 'discharge of pollutants'…" *See* National Pollutant Discharge Elimination System, 44 Fed. Reg. 32854, 32901 (June 7, 1979). The term "non-municipal" was removed in the Consolidated Permit Regulations, 45 Fed. Reg. 33290, 33421 (May 19, 1980) (defining "indirect discharger" as "a nondomestic discharger…"). Although the change was not explained in detail, the substantive intent behind this provision remained the same. EPA characterized the revision as "minor wording changes." 45 Fed. Reg. at 33346 (Table VII: "Relationship of June 7[, 1979] Part 122 to Today's Regulations"). The central point again is that under any past or present regulatory incarnation, municipal satellite collection systems, as POTWs, are not within the definition of "indirect discharger," which is limited to non-domestic sources subject to section 307(b) that introduce pollutants to POTWs.

(5) How is the Region's rationale consistent with the references to "municipality" in the regulatory definition of POTW found at 40 C.F.R. § 403.3(q), and the definition's statement that "[t]he term also means the municipality….which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works?"

There is no inconsistency between the Region's view that municipally-owned satellite collection systems fall within the definition of POTW, and the references to municipality in 40 C.F.R. § 403.3(q), including the final sentence of the regulatory definition of POTW in the pretreatment regulations.

The Region's co-permitting rationale is consistent with the first part of the pretreatment program's regulatory definition of POTW, because the Region is only asserting NPDES jurisdiction over satellite collection systems that are owned by a "State or municipality (as defined by section 502(4) of the Act)." The term "municipality" as defined in CWA § 502(4)

"means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes…" Thus, in order to qualify under this definition, a wastewater collection system need only be "owned by a State or municipality." There is no requirement that the constituent components of a regionally integrated POTW, *i.e.*, the collection system and regional centralized POTW treatment plant, be owned by the same State or municipal entity.

Furthermore, there is no inconsistency between the Region's view that a satellite collection system is part of a POTW, and the final sentence of the regulatory definition of POTW in the pretreatment regulations. As noted above, the sentence provides that "POTW" may "also" mean a municipality which has jurisdiction over indirect discharges to and discharges from the treatment works. This is not a limitation because of the use of the word "also" (contrast this with the "only if" language in the preceding sentence of the regulatory definition).

(6) How does the Region's rationale comport with the permit application and signatory requirements under NPDES regulations?

"Any person who discharges or proposes to discharge pollutants"… must comply with permit application requirements set forth in 40 C.F.R. § 122.21 ("Application for a Permit"), including the duty to apply in subsection 122.21(a). It is the operator's duty to obtain a permit. *See* 40 C.F.R. § 122.21(b). An operator of a sewage collection system in a regionally integrated treatment works is operating a portion of the POTW and thus can be asked to submit a separate permit application pursuant to § 122.21(a) (requiring applicants for "new and existing POTWs" to submit information required in 122.21(j)," which in turn requires "all POTWs," among others, to provide permit application information). In the Region's experience, however, sufficient information about the collection system can be obtained from the treatment plant operator's permit application. The NPDES permit application for POTWs solicits information concerning portions of the POTW beyond the treatment plant itself, including the collection system used by the treatment works. *See* 40 C.F.R. § 122.21(j)(1). Where this information is not sufficient for writing permit conditions that apply to a separately owned municipal satellite system, EPA can request that the satellite system to submit an application with the information required in 122.21(j), or alternatively use its authority under CWA section 308 to solicit the necessary information. Because Region 1 believes that it will typically receive information sufficient for NPDES permitting purposes from the POTW treatment plant operator's application, the Region will formalize its historical practice by issuing written waivers to exempt municipal satellite collection systems from permit application and signatory requirements in accordance with 40 C.F.R. § 122.21(j).[13] To the extent the Region requires additional information, it intends to use its information collection authority under CWA § 308.

IV. Basis for the Specific Conditions to which the Municipal Satellite Collection Systems are Subject as Co-permittees

[13] EPA may waive applications for municipal satellite collection systems, when requiring such applications may result in duplicative or immaterial information. The Regional Administrator ("RA") may waive any requirement of this paragraph if he or she has access to substantially identical information. 40 C.F.R. § 122.21(j). *See generally*, 64 Fed. Reg. 42440 (August 4, 1999). The RA may also waive any application requirement that is not of material concern for a specific permit. *Id.*

Section 402(a) of the CWA is the legal authority for extending NPDES conditions to all portions of the municipally-owned treatment works to ensure proper operation and maintenance and to reduce the quantity of extraneous flow into the POTW. This section of the Act authorizes EPA to issue a permit for the "discharge of pollutants" and to prescribe permit conditions as necessary to carry out the provisions of the CWA, including Section 301 of the Act. Among other things, Section 301 requires POTWs to meet performance-based requirements based on secondary treatment technology, as well as any more stringent requirements of State law or regulation, including water quality standards. *See* CWA § 301(b)(1)(B),(C).

The Region imposes requirements on co-permittees when it determines that they are necessary to assure continued achievement of effluent limits based on secondary treatment requirements and state water quality standards in accordance with sections 301 and 402 of the Act, and to prevent unauthorized discharges of sewage from downstream collection systems. With respect to achieving effluent limits, the inclusion of the satellite systems as co-permittees may be necessary when high levels of I/I dilute the strength of influent wastewater and increase the hydraulic load on treatment plants, which can reduce treatment efficiency (*e.g.*, result in violations of technology-based percent removal limitations for BOD and TSS due to less concentrated influent, or violation of other technology-based or water quality-based effluent limitations due to reduction in treatment efficiency). Excess flows from an upstream collection system can also lead to bypassing a portion of the treatment process, or in extreme situations make biological treatment facilities inoperable (*e.g.*, wash out the biological organisms that treat the waste).

By preventing excess flows, the co-permittee requirements will also reduce water quality standards violations that result from SSOs by lessening their frequency and extent. *See Exhibit B* (Analysis of extraneous flow trends and SSO reporting for representative systems). SSOs that reach waters of the U.S. are discharges in violation of section 301(a) of the CWA to the extent not authorized by an NPDES permit.

Imposing standard permit conditions on the satellite communities may be necessary to give full effect to some of the standard permit conditions applicable to all NPDES permits at 40 C.F.R. § 122.41 . To illustrate, NPDES permitting regulations require standard conditions that "apply to all NPDES permits," pursuant to 40 C.F.R. § 122.41, including a duty to mitigate and to properly 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." *Id.* at § 122.41(d), (e). If the owner or operator of a downstream POTW treatment plant is unable, due to legal constraints for example, or unwilling to ensure that upstream collection systems are implementing requirements concerning the collection system, such as I/I requirements, making the upstream POTW collection system subject to its own permit requirements may be the only or best available option to give full effect to these permit obligations.

V. Conclusion

For all the reasons above, Region 1 has determined that it is reasonable to, as necessary, directly regulate municipal satellite collection systems as co-permittees when issuing NPDES permits for discharges from regionally integrated treatment works.

Exhibit A

Name	Issue Date
Massachusetts Water Resources Authority – Clinton (NPDES Permit No. MA0100404)	September 27, 2000
City of Brockton (NPDES Permit No. MA0101010)	May 11, 2005
City of Marlborough (NPDES Permit No. MA0100480)	May 26, 2005
Westborough Wastewater Treatment Plant (NPDES Permit No. MA0100412)	May 20, 2005
Lowell Regional Wastewater Utilities (NPDES Permit No. MA0100633)	September 1, 2005
Town of Webster Sewer Department (NPDES Permit No. MA0100439)	March 24, 2006
Town of South Hadley, Board of Selectmen (NPDES Permit No. MA0100455)	June 12, 2006
City of Leominster (NPDES Permit No. MA0100617)	September 28, 2006
Hoosac Water Quality District (NPDES Permit No. MA0100510)	September 28, 2006
Board of Public Works, North Attleborough (NPDES Permit No. MA0101036)	January 4, 2007
Town of Sunapee (NPDES Permit No. 0100544)	February 21, 2007
Lynn Water and Sewer Commission (NPDES Permit No. MA0100552)	March 3, 2007
City of Concord (NPDES Permit No. NH0100331)	June 29, 2007
City of Keene (NPDES Permit No. NH0100790)	August 24, 2007
Town of Hampton (NPDES No. NH0100625)	August 28, 2007
Town of Merrimack, NH (NPDES No. NH0100161)	September 25, 2007
City of Haverhill (NPDES Permit No. MA0101621)	December 5, 2007
Greater Lawrence Sanitary District (NPDES Permit No. MA0100447)	August 11, 2005
City of Pittsfield, Department of Public Works (NPDES No. MA0101681)	August 22, 2008

City of Manchester (NPDES No. NH0100447)	September 25, 2008
City of New Bedford (NPDES Permit No. MA0100781)	September 28, 2008
Winnipesaukee River Basin Program Wastewater Treatment Plant (NPDES Permit No. NH0100960)	June 19, 2009
City of Westfield (NPDES Permit No. MA0101800)	September 30, 2009
Hull Permanent Sewer Commission (NPDES Permit No. MA0101231)	September 1, 2009
Gardner Department of Public Works (NPDES Permit No. MA0100994)	September 30, 2009

Exhibit B

Analysis of extraneous flow trends and SSO reporting for representative systems

I. Representative POTWS

The **South Essex Sewer District (SESD)** is a regional POTW with a treatment plant in Salem, Massachusetts. The SESD serves a total population of 174,931 in six communities: Beverly, Danvers, Marblehead, Middleton, Peabody and Salem. The **Charles River Pollution Control District (CRPCD)** is a regional POTW with a treatment plant in Medway, Massachusetts. The CRPCD serves a total population of approximately 28,000 in four communities: Bellingham, Franklin, Medway and Millis. The CRPCD has been operating since 2001 under a permit that places requirements on the treatment plant to implement I/I reduction programs with the satellite collection systems, while SESD's existing permit does not include specific I/I requirements related to the satellite collection systems, in contrast to Region 1's current practice of including the satellite collection systems as co-permittees.

II. Comparison of flows to standards for nonexcessive infiltration and I/I

Flow data from the facilities' discharge monitoring reports (DMRs) are shown in comparison to the EPA standard for nonexcessive infiltration/inflow (I/I) of 275 gpcd wet weather flow and the EPA standard for nonexcessive infiltration of 120 gallons per capita per day (gpcd) dry weather flow; the standards are multiplied by population served for comparison with total flow from the facility. See *I/I Analysis and Project Certification*, EPA Ecol. Pub. 97-03 (1985); 40 CFR 35.2005(b)(28) and (29).

Figures 1 and 2 show the daily maximum flows (the highest flow recorded in a particular month) for the CRPCD and SESD, respectively, along with monthly precipitation data from nearby weather stations. Both facilities experience wet weather flows far exceeding the standard for nonexcessive I/I, particularly in wet months, indicating that these facilities are receiving high levels of inflow and wet weather infiltration.

Figure 1. CRPCD Daily Maximum Flow Compared to Nonexcessive I/I Standard

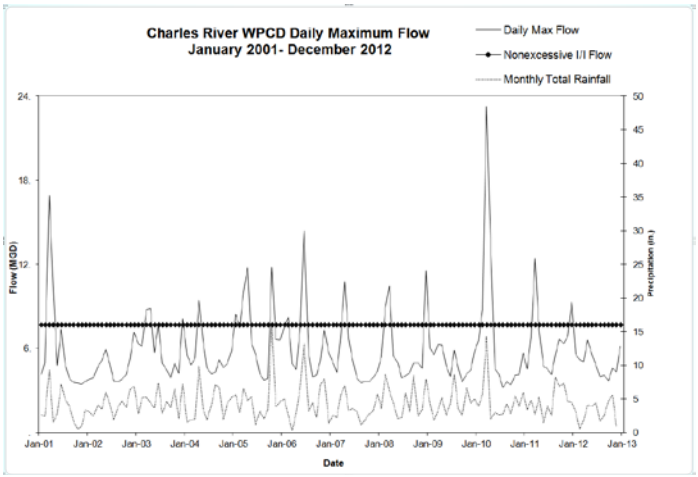
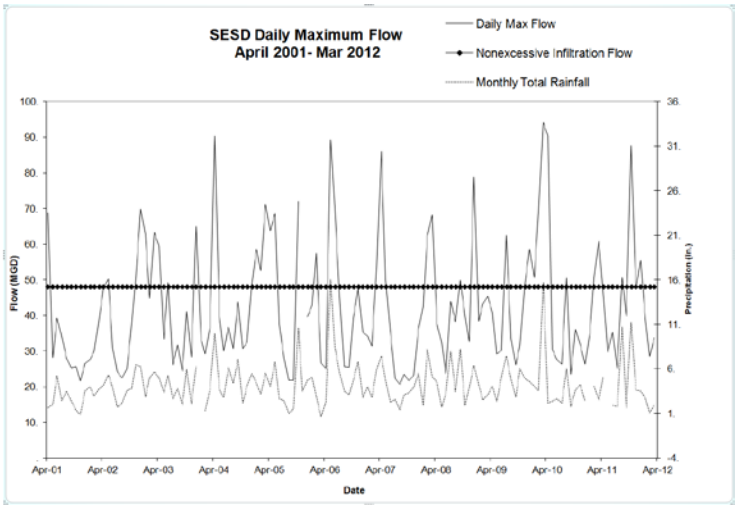


Figure 2. SESD Daily Maximum Flow Compared to Nonexcessive I/I Standard



Figures 3 and 4 shows the average flows for the CRPCD and SESD, which exceed the nonexcessive infiltration standard for all but the driest months. This indicates that these systems experience high levels of groundwater infiltration into the system even during dry weather.

Figure 3. CRPCD 12 Month Average Flow Compared to Nonexcessive Infiltration Standard

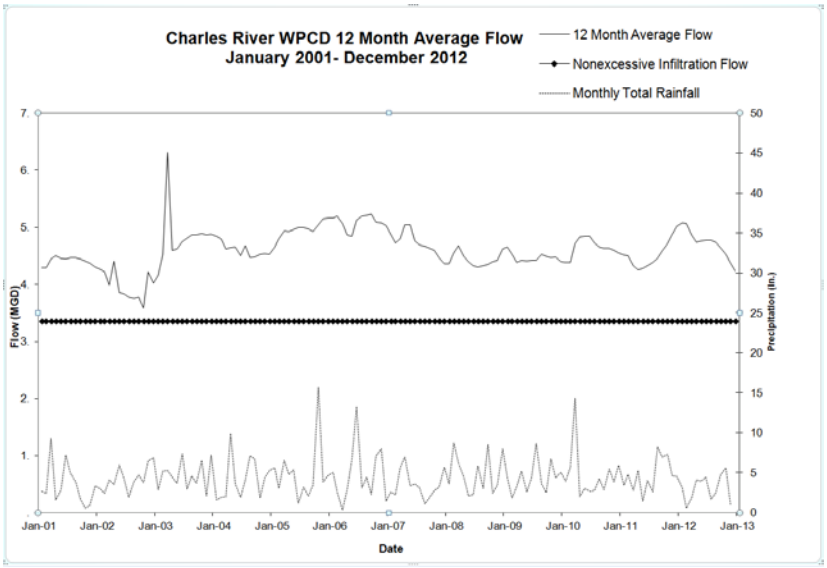
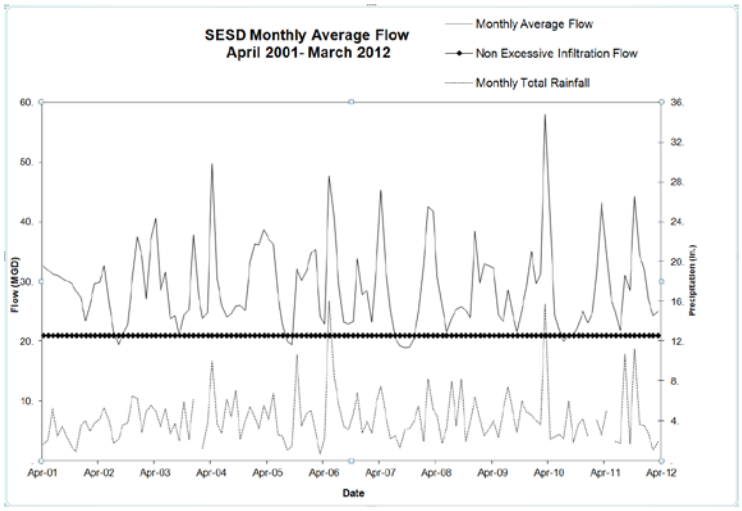


Figure 4. SESD Monthly Average Flow Compared to Nonexcessive Infiltration Standard

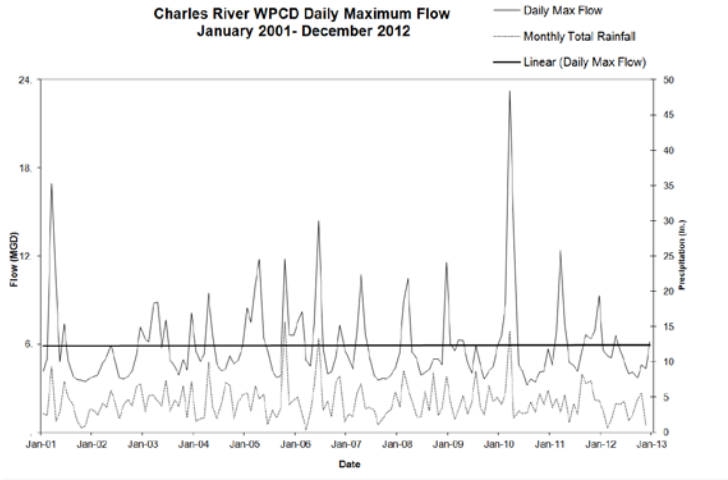


II. Flow Trends

Successful I/I reduction programs should result in decreases in wet weather flows to the treatment plant over the long term. Figures 5 and 6 show the trend in maximum daily flows since 2001. The maximum daily flow reflects the highest wet weather flow for each month. Charts are shown for both the reported maximum daily flow and for a one year rolling average of the maximum daily flow (provided to reduce the impact of seasonality on the regression results). The linear regressions indicates a weak trend over this time period of increasing maximum daily flow; while most of the variability from year to year is due to changes in precipitation, the trends are generally inconsistent with reduction in maximum daily flow over this time period. This indicates that I/I has not been reduced in either system.

Figure 5. CRPCD Daily Maximum Flow Trends

a. Reported Daily Maximum Flows



b. One Year Rolling Average of Daily Maximum Flows

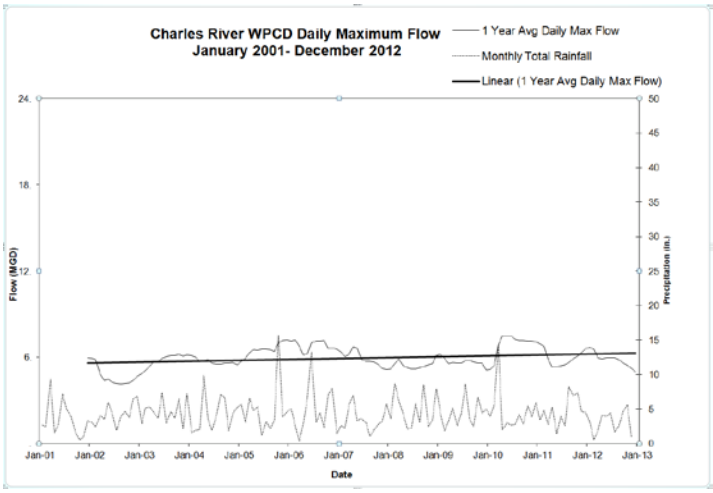
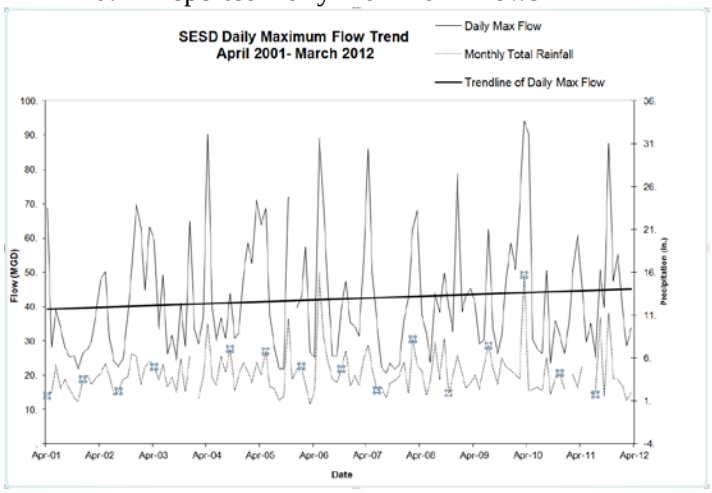
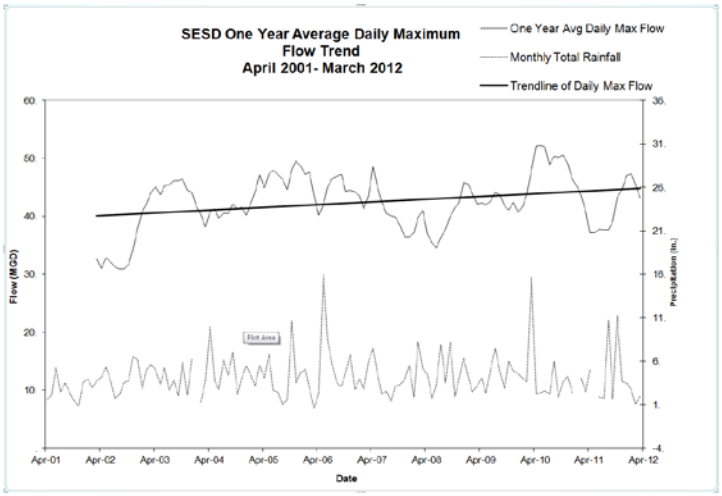


Figure 6. SESD Daily Maximum Flow Trend

a. Reported Daily Maximum Flows



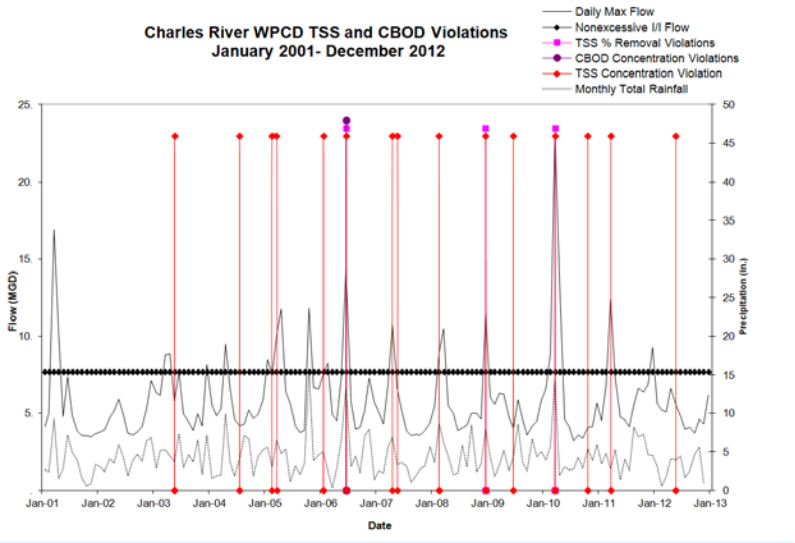
b. One Year Rolling Average of Daily Maximum Flows



III. Violations Associated with Wet Weather Flows

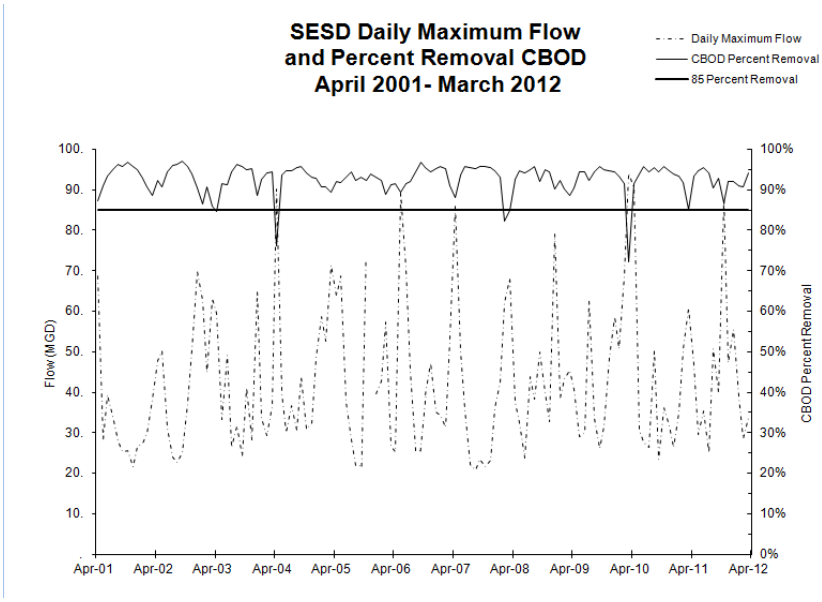
The CRPCD has experienced permit violations that appear to be related to I/I, based on their occurrence during wet weather months when excessive I/I standards are exceeded. Figure 7 shows violations of CRPCD's effluent limits for CBOD (concentration) and TSS (concentration and percent removal). Thirteen of the nineteen violations occurred during months when daily maximum flows exceeded the EPA standard.

Figure 7. CRPCD CBOD and TSS Effluent Limit Violations



In addition, SESD has been unable to achieve the secondary treatment requirement of 85% CBOD removal, also related to I/I. Figure 8 shows SESD's results for removal of CBOD, in percentage, as compared to maximum daily flow. SESD had three months where CBOD removal fell below 85%, all during months with high maximum daily flows. While SESD's current permit requires 85% removal in dry weather, so that these excursions did not constitute permit violations, SESD's proposed draft permit does not limit this requirement to dry weather. Relief from the 85% removal requirement is allowed only when the treatment plant receives flows from CSOs or if it receives less concentrated influent wastewater from separate sewers that is not the result of excessive I/I (including not exceeding the 275 gpcpd nonexcessive I/I standard). 40 CFR § 133.103(a) and (d).

Figure 8. SESD CBOD Percent Removal



IV. SSO Reporting

In addition, both of these regional POTWs have experienced SSOs within the municipal satellite collection systems. In the SESD system, Beverly, Danvers, Marblehead and Peabody have reported SSOs between 2006 and 2008, based on data provided by MassDEP. In the CRPCD system, Bellingham reported SSOs in its system between 2006 and 2009.

Exhibit C

Form of Regional Administrator's or Authorized Delegate's Waiver of Permit Application Requirements for Municipal Satellite Collection Systems

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

Re: Waiver of Permit Application and Signatory Requirements for [Municipal Satellite Sewage Collection System]

Dear _____:

Under NPDES regulations, all POTWs must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise directed. Where the Region has "access to substantially identical information," the Regional Administrator [or Authorized Delegate] may waive permit application requirements for new and existing POTWs. *Id.* Pursuant to my authority under this regulation, I am waiving NPDES permit application and signatory requirements applicable to the above-named municipal satellite collection systems.

Although EPA has the authority to require municipal satellite collection systems to submit individual permit applications, in this case I find that requiring a single permit application executed by the regional POTW treatment plant owner/operator will deliver "substantially identical information," and will be more efficient, than requiring separate applications from each municipal satellite collection system owner/operator. Municipal satellite collection system owners/operators are expected to consult and coordinate with the regional POTW treatment plant operators to ensure that any information provided to EPA about their respective entities is accurate and complete. In the event that EPA requires additional information, it may use its information collection authority under CWA § 308. 33 U.S.C. § 1318.

This notice reflects my determination based on the specific facts and circumstances in this case. It is not intended to bind the agency in future determinations where a separate permit for municipal satellites would not be duplicative or immaterial.

If you have any questions or would like to discuss this decision, please contact [EPA Contact] at [Contact Info].

Sincerely,

Regional Administrator

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

FACT SHEET

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

NPDES PERMIT NO: **MA0100501**

NAME AND ADDRESS OF APPLICANT:

South Essex Sewerage District
P.O. Box 989
50 Fort Avenue
Salem, MA 01970

The municipalities of Beverly, Danvers, Marblehead, Middleton, Peabody, and Salem, are co-permittees for specific activities required by the permit. See Sections VI (SESD and all co-permittees) and VII (Marblehead only) of this fact sheet and Sections I.C., I.D.,I.F. and I.G of the draft permit. The responsible parties are:

City of Beverly
c/o City Engineer
Beverly City Hall
191 Cabot Street
Beverly, MA 01915

Town of Danvers
c/o Town Engineer
Public Works Engineering Division
1 Burroughs Street
Danvers, MA 01923

Town of Marblehead
c/o Superintendent
Water/Sewer Department
P.O. Box 1108
Marblehead, MA 01945

Town of Middleton
c/o Superintendent of
Public Works
195 North Main Street
Middleton, MA 01949

City of Peabody
c/o Director of Public Services
50 Farm Avenue
Peabody, MA 01960

City of Salem
c/o City Engineer
120 Washington Street
4th Floor
Salem, MA 01970

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

South Essex Sewerage District
50 Fort Avenue
Salem, MA 01970

RECEIVING WATERS: **Salem Sound (North Coastal Watershed, Segment MA 93-25**)

CLASSIFICATION: **Class SA**

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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 became effective on October 10, 2001; 30 days after EPA withdrew four contested permit conditions. It expired on October 10, 2005, four years from the effective date. This draft permit, after it becomes effective, will expire five (5) years from the effective date.

II. TYPE OF FACILITY AND DISCHARGE LOCATION

The facility is a secondary wastewater treatment plant with an average daily design flow of 29.71 million gallon per day (mgd)[1]. The facility discharges via a multiport diffuser approximately 1.4 miles offshore into Salem Sound (See Figure 1). According to the application, the collection system is 100% separate sanitary sewer. The South Essex Sewer District is a regional collection system which serves five municipalities with a total population of 174,931.

The facility's discharge outfalls are listed below:

Outfall	Description of Discharge	Receiving Water
001	Treated Effluent	Salem Sound

III. DESCRIPTION OF DISCHARGE

Quantitative descriptions of the discharge in terms of significant effluent parameters, based on discharge monitoring reports (DMRs) submitted for September 2005 through December 2007, and the April 2005 application, are shown in Tables 1 and 2 of this fact sheet, respectively.

IV. LIMITATIONS AND CONDITIONS

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

V. PERMIT BASIS AND EXPLANATION OF EFFLUENT LIMITATION DERIVATION

A. PROCESS DESCRIPTION

The South Essex Sewerage District Wastewater Treatment Facility (SESD) was originally built as a primary treatment facility in 1978. The facility was upgraded in 1998 to provide secondary treatment. The upgraded facility has an average daily design flow of 29.71 mgd with year-round chlorination and dechlorination and discharges to the Salem Sound (Figure 1)**.**

The District is a regional collection system which serves six municipalities each responsible for their own infrastructure. Additionally, the treatment facility receives flows from several county and state facilities (Essex County Industrial Farm (new jail), Essex County Agricultural and Technical Institute and the Commonwealth of Massachusetts Department of Public Health (Danvers State Hospital)). In addition, there are 26 significant industrial users, 18 of which are subject to categorical limitations. The facility also accepts septage from all of the district communities.

The following is a brief description of the treatment process (See Figure 2); raw wastewater enters the aerated grit chambers and then flows into the primary settling tanks, where floating and settleable solids are removed. The primary effluent is then distributed to the oxygen reactors, and then flows to the stacked secondary clarifiers. The secondary effluent is chlorinated, then dechlorinated, and the final effluent is then pumped and discharged via the multiport diffuser into Salem Sound.

[1] Camp Dresser & McKee, Inc., 1992, Final Environmental Impact Report and Final Facilities Plan, p. 6-138.

Sludge is thickened and dewatered on-site and then trucked off-site for disposal by an outside contractor.

B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Overview of Federal and State Regulations

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

Pursuant to 40 C.F.R. § 122.44 (d), permittees must achieve water quality standards established pursuant to 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

Effluent from the SESD WWTF is discharged to Salem Sound; segment MA93-25, which is part of Massachusetts Bay and classified as a Class SA water[2] (See Figure 3). Class SA waters are designated by the Commonwealth of Massachusetts as "excellent habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. In certain waters, excellent habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting without depuration (Approved and Conditionally Approved Shellfish Areas). These waters shall have excellent aesthetic value (314 CMR 4.05(4)(a))."

Section 303(d) of the Federal Clean Water Act (CWA) requires states to identify those waterbodies 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). Salem Sound is listed on the Massachusetts 2006 Integrated List of Waters (303d) as impaired and requiring the development of a TMDL[2]. The listed impairment for this segment is pathogens. According to MassDEP, the primary cause of the impairment is wet weather discharges from separate storm sewers but MassDEP also suspects marina/boating pumpout releases and on-vessel discharges[3].

[2] Massachusetts Department of Environmental Protection, Division of Watershed Management, August 2007, Massachusetts Year 2006 Integrated List of Waters, Final Listing of the Condition of Massachusetts' Waters Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, p. 121.

[3] Massachusetts Department of Environmental Protection, Division of Watershed Management, March 2007, North

Available Dilution
When appropriate, water quality based limits are established with the use of a dilution factor. The previous permit used dilution factors (chronic 32:1 and acute 26:1) which were estimated in the SESD Draft Environmental Impact Report (SESD DEIR)[4] using the ULINE model.

Initial dilution processes occur on the order of minutes, and therefore, initial dilution calculations are often performed using hourly flow rates. The flow rates analyzed in the SESD DEIR were determined from measured flows (January 1988-December 1989) which were then projected as future flows using a correction factor of 1.05 (1988-1989 annual average flow (26.6 mgd)/future annual average flow (27.9 mgd)). It is noted, however, that the final design was 29.7 not 27.9, which is a 6.4% increase over the modeled design flow.

A second modeling effort was conducted in 2001 by Applied Science Associates, Inc, under a contract with Massachusetts Coastal Zone Management. The dilutions were calculated using the CORMIX 2 model, which is specific to submerged multiport diffusers, and using the same flows modeled in 1991, however, the results were more conservative. The chronic dilution was 24:1 and the acute dilution was 16:1.

Given that the final design flow (29.7 mgd) is slightly greater than that modeled (27.9 mgd) in 1991, EPA has adopted the more conservative dilution factors into this permit. It is also noted that the CORMIX 2 model is specific to modeling submerged multiport diffusers and therefore, the results are thought to be more representative.

Flow - The draft permit includes a flow limit to protect the dilution factor and to assure that flows do not exceed design and compromise treatment quality. The flow limit is based on the average daily design flow of the treatment plant, which is 29.71 mgd. Flow is to be measured continuously. The permittee shall report the annual average monthly flow using the annual rolling average method (See Permit Footnote 1). The monthly average and maximum daily flow shall also be reported.

OUTFALL 001 - CONVENTIONAL POLLUTANTS

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) - The draft permit proposes the same $CBOD_5$ concentration limits that are in the current permit, which are based on the secondary treatment requirements set forth at 40 CFR 133.102 (a)(1), (2), (4) and 40 CFR 122.45 (f). The secondary treatment limitations are a monthly average $CBOD_5$ concentration of 25 mg/l and a weekly average concentration of 40 mg/l. The draft permit requires the permittee to report the maximum daily $CBOD_5$ value each month, but does not establish an effluent limit. The monitoring frequency continues to be once per day.

A review of DMR data submitted over the last 28 months shows that there have not been any permit violations for $CBOD_5$. Based on the DMR data, the average values for $CBOD_5$ monthly average, weekly average and maximum daily were 10.61 mg/l (range 6.0-16.0 mg/l; n=28), 13.36 mg/l (6.0-25.0 mg/l; n=28) and 20.04 (8.0-60.0 mg/l; n=28), respectively. These values are below the permit limits of 25 mg/l average monthly and 40 mg/l average weekly.

Shore Coastal Watersheds, 2002 Water Quality Assessment Report, p. 118

[4] Camp, Dresser & McKee, Inc., September 1991, SESD Draft Environmental Impact Report, Phase II Facilities Plan for Wastewater Treatment and Disposal, p. 6-84

Pursuant to 40 CFR §122.45(f) the permit also includes mass limits for $CBOD_5$. The average monthly and average weekly allowable mass-based (load) limitations for $CBOD_5$ are based on the concentration limits described above and the POTW's average daily design flow of 29.71 MGD and the appropriate constituent concentration for the respective time period being limited.

$CBOD_5$ Mass Loading Calculations:

Calculations of maximum allowable loads for average monthly, average weekly and maximum daily $CBOD_5$ are based on the following equation:

L = C x DF x 8.34 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 = Annual average design flow of facility in MGD.
8.34 = Factor to convert effluent concentration in mg/l and design flow in MGD to lbs/day.

(Concentration limit) [25] X 8.34 (Constant) X 29.71 (Design flow) = 6,194 lb/day
(Concentration limit) [40] X 8.34 (Constant) X 29.71 (Design flow) = 9,911 lb/day

Total Suspended Solids (TSS) - The draft permit proposes the same TSS limitations as in the existing permit. The average monthly and average weekly limits are based on the secondary treatment requirements set forth at 40 CFR 133.102 (b)(1), (2) and 40 CFR 122.45 (f) and are a monthly average TSS concentration of 30 mg/l, and a weekly average concentration of 45 mg/l. The draft permit requires the permittee to report the maximum TSS value each month, but does not establish a maximum daily effluent limit. The monitoring frequency continues to be once per day.

A review of DMR data submitted over the last 28 months shows that there have not been any permit violations for TSS. Based on the DMR data, the average values for TSS monthly average, weekly average and maximum daily were 13.79 mg/l (range 6.0-23.0 mg/l; n=28), 17.50 mg/l (7.0-29.0 mg/l; n=28) and 30.79 (9.0-81.0 mg/l; n=28), respectively. These values are below the permit limits of 30 mg/l average monthly and 45 mg/l average weekly.

Pursuant to 40 CFR §122.45(f) the permit also includes mass limits for TSS. The average monthly and average weekly allowable mass-based (load) limitations for TSS are based on the concentration limits described above and the POTW's average daily design flow of 29.71 MGD and the appropriate constituent concentration for the respective time period being limited.

TSS Mass Loading Calculations:

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

L = C x DF x 8.34 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.

(Concentration limit) [30] X 8.34 (Constant) X 29.71 (design flow) = 7,433 lb/day
(Concentration limit) [45] X 8.34 (Constant) X 29.71 (design flow) = 11,150 lb/day

Eighty-Five Percent (85%) $CBOD_5$ and TSS Removal Requirement - The provisions of 40 CFR §§133.102(a)(3), (4) and (b)(3) requires that the 30 day average percent removal for $CBOD_5$ and TSS be not less than 85%. The previous permit required that the 85% removal requirement only be met in dry weather.

For separate sanitary sewers, adjustments of the percent removal requirements can only be made if it is demonstrated that the limits can not be met due to less concentrated influent, and that the less concentrated influent is not the result of excessive I/I. Because such a demonstration has not been made the 85% removal limit in the draft permit applies at all times.

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). The pH of the effluent shall not be less than 6.5 or greater than 8.5 standard units at any time.

A review of DMR data submitted over the last 28 months shows that there have not been any permit violations for pH. Based on the DMR data, the pH values have ranged from 6.5 to 7.5 standard units.

Oil and Grease – The current permit includes an effluent limit of 15 mg/l for oil and grease. This value meets the narrative "free from oil and grease and petrochemicals" in the SA criteria. Since the current permit became effective on October 10, 2001, the maximum daily value for oil and grease has not exceeded 9 mg/l and has an average maximum daily value of 7.83 mg/l (n=70). EPA has determined that there is no reasonable potential and has removed the requirement from the permit.

Fecal Coliform Bacteria - The existing permit includes effluent limitations for fecal coliform bacteria which are in accordance with the Massachusetts Surface Water Quality Standards (SWQS) at 314 CMR 4.05 (4)(b) for Class SB waters. However, the discharge is to Salem Sound which is part of Massachusetts Bay and listed as a Class SA water body[5] (See Figure 1 and 3).

In Class SA waters designated for shellfishing, fecal coliform bacteria shall not exceed a geometric mean of 14 organisms per 100 ml, nor shall more than 10% of the samples exceed 28 organisms per 100 ml. Colony forming units (cfu) or most probable number (MPN) units are determined by the method of analysis used for bacteria analysis. Both units are acceptable.

Between September 2005 and December 2007, there were no violations of the existing fecal coliform bacteria effluent limitations of average monthly of 200 cfu/100 ml and a maximum daily of 400 cfu/100 ml. Based on Discharge Monitoring Reports (DMRs) submitted by the permittee, the average values for fecal coliform bacteria were a monthly average of 16 cfu/100 ml and an average maximum daily of 101 cfu/100 ml.

[5] Massachusetts Department of Environmental Protection, Division of Watershed Management, March 2007, North Shore Coastal Watersheds, 2002 Water Quality Assessment Report, p. 116

Enterococci – The Commonwealth of Massachusetts has adopted revisions to the Massachusetts SWQS which also use the indicator bacteria, enterococci, for recreational waters. The standard for Class SA bathing beach waters is that no single enterococci sample taken during the bathing season shall exceed 104 colonies per 100 ml, and the geometric mean of the five most recent samples taken within the same bathing season shall not exceed a geometric mean of 35 colonies per 100 ml.

Since this is a new requirement, the draft permit allows the permittee to monitor enterococci once per day for the first year of the permit without an effluent limit. After one year, the effluent limitations apply as follows: the discharge shall not exceed 104 colonies per 100 ml and the geometric mean of the five most recent samples taken within the bathing season shall not exceed a geometric mean of 35 colonies per 100 ml.

The permittee must sample for enterococci, concurrently with samples for fecal coliform bacteria and total residual chlorine.

OUTFALL 001 - NON-CONVENTIONAL POLLUTANTS

Total Residual Chlorine - Chlorine is a toxic chemical. Chlorine compounds produced by the chlorination of wastewater can be extremely toxic to aquatic life. DMRs show chlorine residual levels below the minimum detection level for the past 28 months. The draft permit includes Total Residual Chlorine (TRC) limitations based on state water quality standards [Title 314 CMR 4.05(5)(e)].

The acute and chronic water quality criteria for chlorine defined in the 2002 EPA National Recommended Water Quality Criteria for saltwater are 13 ug/l and 7.5 ug/l, respectively. Given the dilution factors of 16 and 24, respectively, the total residual chlorine limits have been calculated as 0.208 mg/l maximum daily and 0.18 mg/l average monthly. The sampling frequency has been reduced to twice (2) per day. Samples must be collected concurrently with the samples for Fecal Coliform Bacteria and Enterococci.

A review of DMR data submitted over the last 28 months shows that there have been two (2) permit violations for TRC. A maximum daily value of 0.6 mg/l was reported in May 2007 and 0.48 mg/l was reported in January 2007.

Total Residual Chlorine Limitations:
(acute criteria * dilution factor) = Acute (Maximum Daily)
(13 ug/l x 16)= 208 ug/l = 0.208 mg/l

(chronic criteria * dilution factor) = Chronic (Monthly Average)
(7.5 ug/l x 24) = 180 ug/l = 0.180 mg/l

Nitrogen – The current permit requires the permittee to monitor for ammonia nitrogen, total kjeldahl nitrogen and total nitrate. These requirements were established due to concerns of potential extensive nutrients in the effluent which could cause effects to marine life. Given that essential fish habitat has been designated in the vicinity of the discharge, EPA has maintained these monitoring requirements in the draft permit.

Metals - Certain metals like copper, lead, nickel, silver and zinc can be toxic to aquatic life. EPA has evaluated the reasonable potential for the discharge of these metals to cause or contribute to violations of water quality standards. Based on this evaluation, EPA has determined that there is no reasonable potential and no need to limit or monitor these metals.

The calculation of reasonable potential for copper, lead, nickel, silver and zinc was done by calculating the allowable acute and chronic discharge concentration for each metal and comparing those values to the concentrations measured in the discharge (See Table 2). If the actual discharge concentration exceeds the allowable discharge concentration, there is reasonable potential and the permit must contain an effluent limit for that pollutant. The effluent metals concentrations were taken from the permittee's 2005 application.

Allowable discharge concentrations were calculated using the following equation:

C = WQC * DF

Where C = allowable effluent concentration
WQC = water quality criteria for the metal, expressed as total recoverable metal
DF = dilution factor

As discussed earlier, the dilution factors calculated in 2001 by Massachusetts CZM's contractor are a chronic dilution of 24.1:1 and an acute dilution of 16:1.

The water quality criteria were obtained from National Recommended Water Quality Criteria 2002. Since the discharge is to a marine water, the criteria for salt water were used. Most metals have two criteria, one for acute exposure and the other for chronic exposure. As of the 2002 criteria, only an acute criteria has been established for silver. Acute criteria are generally used to calculate maximum daily limits and chronic criteria are used to calculate monthly average limits.

In all cases, the calculated allowable effluent concentration was far greater than the reported effluent concentration; therefore, reasonable potential does not exist.

OUTFALL 001 - WHOLE EFFLUENT TOXICITY (WET)

Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Massachusetts Surface Water Quality Standards include the following narrative statement 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.

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 and industrial sources, the state narrative water quality criterion, 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 limitation (LC50 =100%) and requires testing and report of the chronic endpoint. (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", September, 1991.)

The current permit requires the permittee to conduct quarterly (4/year) acute toxicity tests. EPA Region 1 policy requires marine discharges with an initial dilution between 20:1 and 10:1 to conduct quarterly acute toxicity tests on two species *Mysidopsis bahia* (Mysid shrimp) *and Menidia beryllina* (Inland silverside) and quarterly chronic toxicity testing on one species *Arbacia* (sea urchin).

Previous acute toxicity testing using Mysid shrimp and Inland silverside found Inland silverside to be the more sensitive species. Since the current permit was issued there have been five (5) violations of the LC50≥100% for Inland silverside and two (2) violations of the LC50≥100% for Mysid shrimp. The violations for Mysid shrimp occurred in 2004 and were coincident with violations for Inland silverside. The draft permit proposes to reduce the number of test species for acute toxicity testing to *Menidia beryllina*, only.

The draft permit also includes a new chronic toxicity testing requirement, consistent with Region 1 policy for permittees with initial dilutions between 20:1 and 10:1. This requirement is a direct result of the revised initial dilution.

Pursuant to MassDEP and EPA Region I policy, chronic toxicity testing is required four times per year, The permittee is required to report the chronic endpoint.

According to the WET reports, the permittee has switched to the use of an alternative dilution water. EPA has no record of a request or approval for the use of alternative dilution water. The current permit requires the permittee to submit a written request and supporting documentation for use of an alternative dilution water (See Attachment A of the current permit). The permittee was not to substitute an alternative dilution water until after receiving written approval from EPA.

Furthermore, the permittee has not provided a site water control data as required. The draft permit requires the permittee to return to the use of the site (receiving) water as a diluent. If future WET results document that the receiving water is toxic or unreliable, the permittee must follow the protocol in **Attachment C of the permit** for switching to an alternative dilution water.

If alternative dilution water is warranted, a site water control sample must be run in addition to an alternative dilution water control sample. Chemical data of the receiving water and dilution water samples must be included in the WET report. EPA will reject WET test reports that do not follow Permit requirements, applicable protocols , and meet all minimum criteria for acceptability and variability of test results, and will require tests be repeated until valid results are obtained. Results, valid or otherwise, must be submitted by the date specified in Part I of the Permit, even if the test must be repeated.

The tests must be performed in accordance with the test procedures and protocols specified in **Permit Attachment A, B, and C**. The tests will be conducted four times a year, during the second week of the following months, February, April, June and August.

The permit shall be modified or alternatively revoked and reissued , 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 pursuant to 40 CFR 122.62(a)(2).

VI. INFLOW/INFILTRATION REQUIREMENTS

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

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

The draft permit includes requirements for the permittee and the co-permittees to control infiltration and inflow (I/I) into the collection system it owns and operates. The permittee and co-permittees shall each develop an I/I removal program commensurate with the severity of the I/I in their portion of the collection system. In sections of the collection system that have minimal I/I, the control program will logically be scaled down. It greatly increases the potential for sanitary sewer overflows (SSO) in separate systems.

The permit standard conditions for 'Proper Operation and Maintenance' are found at 40 CFR §122.41(e). These conditions require proper operation and maintenance of permitted wastewater systems and related facilities to achieve permit conditions. Similarly, the co-permittees have a 'duty to mitigate' as stated in 40 CFR §122.41 (d). This requires the co-permittees to take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment. EPA and MassDEP maintain that an I/I removal program is an integral component of ensuring permit compliance under both of these provisions.

VII. SANITARY SEWER OVERFLOWS

The Town of Marblehead is a permittee under NPDES permit MA0100374. The permit addresses the use of an emergency overflow from the Sargent Road Pumping Station. On April 11, 2005, EPA sent a letter to the Town of Marblehead informing the Town of EPA's intention to terminate the permit as the permit does not authorize the discharge but only establishes the conditions under which the EPA has authority to enforce in the event of bypass. The Town of Marblehead responded and requested that the individual permit be reissued.

However, given that the Town of Marblehead is named as a co-permittee in the draft permit and the point source addressed in MA0100374 is a part of the collection system conveying flow to the South Essex Sewerage District, EPA believes that coverage under this permit should replace coverage under Permit No. MA0100374. Accordingly, EPA will revoke coverage under NPDES Permit MA0100374 upon the effective date of this permit.

VIII. SLUDGE INFORMATION AND REQUIREMENTS

The draft permit requires that the permittee comply with all existing federal and state laws that apply to sewage sludge use and disposal practices and with the Clean Water Act Section 405(d) technical standards (see 40 CFR Section 503). Sludge from the SESD WWTF is currently sent to an off-site facility for disposal; because the final disposal or use of the permittees sludge is done by others, the permittee is not subject to the requirements of 40 CFR Section 503. However, if the ultimate sludge disposal method changes, the permittee is responsible for complying with the applicable state and federal requirements.

IX. PRETREATMENT

The facility accepts industrial wastewater from 26 Significant Industrial Users (SIU), 18 of which are categorical SIUs.

The permittee is required to administer a pretreatment program based on the authority granted under 40 CFR §122.44(j), 40 CFR Part 403 and Section 307 of the Act. The permittee's pretreatment program received EPA approval on September 28, 1990 and, as a result, appropriate pretreatment program requirements were incorporated into the previous permit, which were consistent with that approval and federal pretreatment regulations in effect when the permit was issued.

Upon reissuance of this NPDES permit, the permittee is required to review its pretreatment program and modify it as necessary to ensure that it is consistent with current Federal Regulations. Those activities that the permittee must address include, but are not limited to, the following: (1) develop and enforce EPA approved specific effluent limits (technically-based local limits); (2) revise the local sewer-use ordinance or regulation, as appropriate, to be consistent with Federal Regulations; (3) develop an enforcement response plan; (4) implement a slug control evaluation program; (5) track significant noncompliance for industrial users; and (6) establish a definition of and track significant industrial users.

These requirements are necessary to ensure continued compliance with the POTW's NPDES permit and its sludge use or disposal practices.

Lastly, the permittee must continue to submit an annual report describing the permittee's pretreatment program activities for the twelve (12) month period ending 60 days before the due date in accordance with 403.12(i). The annual report shall be submitted **no later than March 1 of each year**.

The Permit requires the permittee to submit to EPA, within 60 days of the permit's effective date, all required modifications of the Streamlining Rule in order to be consistent with the provisions of the newly promulgated rule. To the extent the permittee's legal authority is not consistent with the required changes, they must be revised and submitted to EPA for review.

X. ANTI-BACKSLIDING

Anti-backsliding, as described in Section 402 (o) of the Clean Water Act and 40 CFR §122.44(l)(1), requires reissued permits to contain limitations as stringent or more stringent than those of the previous permit unless the circumstances allow application of one of the defined exceptions.

XI. ANTIDEGRADATION

The Massachusetts Antidegradation Policy is found at Title 314 CMR 4.04. All existing uses of the Salem Sound must be protected. This draft permit is being reissued with allowable discharge limits that are as stringent or more stringent than the current permit with the same parameter coverage. The effluent limit for oil and grease has been removed from the permit since recent data indicates there is no reasonable potential for oil and grease to cause an exceedance of the Water Quality Standards. There is no change in outfall location. The public is invited to participate in the anti-degradation finding through the permit public notice procedure.

XII. ESSENTIAL FISH HABITAT

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

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

Although EFH has been designated for this general location, EPA has concluded that this activity is not likely to affect EFH or its associated species for the following reasons:

- This is a reissuance of an existing permit with the same or stricter effluent limits;
- Limits specifically protective of aquatic organisms have been established for chlorine based on EPA water quality criteria;
- Acute and chronic toxicity testing is required four (4) times per year;
- The permit prohibits any violation of state water quality standards.

Accordingly, EPA has determined that a formal consultation with NMFS is not required. NMFS will be notified and EFH will be reinitiated if adverse impacts to EFH are detected as a result of this permit action or if new information becomes available that changes the basis for these conclusions.

Summary of Essential Fish Habitat (EFH) Designation

10' x 10' Square Coordinates:

Boundary	North	East	South	West
Coordinate	42° 40.0' N	70° 50.0' W	42° 30.0' N	71° 00.0' W

Square Description (i.e. habitat, landmarks, coastline markers): Waters within the square within the Atlantic Ocean within Massachusetts Bay south of Marblehead, MA., Salem, MA., Danvers, MA., Beverly, MA., and Beverly Farms, MA. Features also affected include: Salem Harbor, Bass River, North River, Waters River, Crane River, Danvers River, Bass River, Salem Neck, Peaches Pt., Naugus Head, Pickering Pt., Derby Wharf, northern Marblehead Harbor, northwest Marblehead Neck, Woodbury Pt., Cove Village, Hospital Pt., and Curtis Pt., and western Salem Sound.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod *(Gadus morhua)*	X	X	X	X
haddock *(Melanogrammus aeglefinus)*	X	X		
pollock *(Pollachius virens)*	X	X	X	X
whiting *(Merluccius bilinearis)*	X	X	X	X
red hake *(Urophycis chuss)*	X	X	X	X
white hake *(Urophycis tenuis)*	X	X	X	X
redfish *(Sebastes fasciatus)*	n/a	X	X	X
winter flounder *(Pleuronectes americanus)*	X	X	X	X
yellowtail flounder *(Pleuronectes ferruginea)*	X	X	X	X
windowpane flounder *(Scopthalmus aquosus)*	X	X	X	X
American plaice *(Hippoglossoides platessoides)*	X	X	X	X
ocean pout *(Macrozoarces americanus)*	X	X	X	X
Atlantic halibut *(Hippoglossus hippoglossus)*	X	X	X	X
Atlantic sea scallop *(Placopecten magellanicus)*	X	X	X	X
Atlantic sea herring *(Clupea harengus)*		X	X	X
bluefish *(Pomatomus saltatrix)*			X	X

long finned squid *(Loligo pealei)*	n/a	n/a	X	X
short finned squid *(Illex illecebrosus)*	n/a	n/a	X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralicthys dentatus)*				X
scup *(Stenotomus chrysops)*	n/a	n/a	X	X
black sea bass *(Centropristus striata)*	n/a			X
surf clam *(Spisula solidissima)*	n/a	n/a	X	X
bluefin tuna *(Thunnus thynnus)*			X	X

XIII. MONITORING AND REPORTING

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

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

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 Commissioner.

XV. GENERAL CONDITIONS

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

XVI. STATE CERTIFICATION REQUIREMENTS

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

XVII. PUBLIC COMMENT PERIOD AND PROCEDURES FOR FINAL DECISION

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

Following the close of the comment period and after a public hearing, if such a hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

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:

Michele Cobban Barden
Office of Ecosystem Protection
U.S. Environmental Protection Agency
One Congress Street, Suite-1100 (CPE)
Boston, MA 02114-2023
Telephone: (617) 918-1539
Barden.Michele@epa.gov

September 23, 2013
Date

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

RESPONSE TO PUBLIC COMMENTS
REISSUANCE OF NPDES PERMIT NO. MA0100501
SOUTH ESSEX WASTEWATER TREATMENT FACILITY
SALEM, MA 01970

From March 27, 2008 to April 25, 2008, Region 1 of the United States Environmental Protection Agency ("EPA" or " the Region") and the Massachusetts Department of Environmental 1Protection ("MassDEP") (together, the "Agencies") solicited public comments on a draft National Pollutant Discharge Elimination System ("NPDES") permit, developed pursuant to an application from the South Essex Sewerage District ("District" or "Permittee"). EPA and MassDEP received a request from the permittee for additional time to review the draft permit and submit comments. In response, the Agencies jointly extended the public comment period to close on May 16, 2008. EPA and MassDEP received additional requests to extend the public comment period from the co-permittees of the Municipalities of Beverly, Marblehead, Peabody and Salem. EPA and MassDEP further extended the comment period to June 6, 2008, which provided the permittee, co-permittees and the public seventy-one (71) days in total to review and submit comments.

The District owns, operates and maintains, among other things, interceptor sewer lines, pumping stations, a treatment plant in Salem, Massachusetts ("SESD POTW Treatment Plant") and the ocean outfall pipe from the treatment plant. The SESD POTW Treatment Plant receives flows from the satellite sewage collection systems of five municipalities—the Cities of Salem, Beverly and Peabody and the Towns of Danvers, and Marblehead, (collectively, the "Municipalities")—as well as from a few parcels in Middleton and several current and former county and state facilities (together with the SESD POTW Treatment Plant, the "SESD POTW"). Each of the cities and towns within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. The SESD POTW discharges via a multiport diffuser into Salem Sound.

In 2013, the Region and MassDEP decided to partially reopen the Draft Permit for public comment on the following requirements; a change to the fecal coliform limits; updated language defining the responsibilities of the co-permittees for sewer system operation and maintenance and unauthorized discharges; recently updated standard permit conditions; and recently revised requirements for submitting monitoring and reporting data. The public comment period for the partial reopening ran from September 25, 2013 to October 24, 2013. EPA received a request from the permittee for additional time to review the Partially Revised Draft Permit and submit comments. The extended public comment period ran from October 29, 2013 to November 27, 2013.

After considering the comments received, EPA has decided to issue the Final Permit authorizing the discharge. This document responds to comments on the 2008 Draft Permit and the 2013 Partially Revised Draft Permit and describes changes between the draft and final versions of the permit. EPA has reproduced all comments on the Draft Permit and the Partially Revised Draft Permit verbatim, and addresses the two sets of comments sequentially (i.e. comments on the

2008 Draft permit are presented first, followed by those on the 2013 Partially revised Draft permit).
The table of contents below lists each party's comments on the 2008 Draft Permit and the 2013 Partially Revised Draft Permit and the page on which its comments begin. Each comment is followed by EPA's response.

Comments on the 2008 Draft Permit

A) Harold G. Newhall, Executive Director, South Essex Sewerage District 8
B) David H. Knowlton, PE, City Engineer, City of Salem 41
C) Kimberly L. Driscoll, Mayor, City of Salem 43
D) William F. Scanlon, Jr., City of Beverly 46
E) Jackie Belf-Becker, Chair, Board of Selectman, Town of Marblehead 52
F) David Stoff 60
G) Michael J. Bonfanti, Mayor, City of Peabody 65
H) Wayne P. Marquis, Town Manager, Town of Danvers 71
I) Paul J. Diodati, Director, Division of Marine Fisheries, Comm. of Massachusetts 75

Comments on the 2013 Partially Revised Draft Permit

J) Alan F. Taubert, Jr., P.E. Executive Director, South Essex Sewage District 76
K) Karla H. Sangrey, P.E., Engineer Director/Treasurer, Upper Blackstone Water Pollution Abatement District 86
L) Karis L. North, Office of Danvers Town Counsel 108
M) Robert Langley, P.E., Director, City of Peabody, Department of Public Services 115
N) Jackie Belf-Becker, Chair, Board of Selectman and F. Carlton Siegel, P.E., Chair, Water and Sewer Commission, Town of Marblehead 115
O) Michael P. Collins, P.E., Commissioner of Public Services and Engineering, City of Beverly 119

A copy of the final permit and this response to comments document will be posted on the EPA Region 1's website (http://www.epa.gov/region1/npdes/permits_listing_ma.html) or available from the permit writer, whose contact information is as follows:

Michele Cobban Barden
United States Environmental Protection Agency
5 Post Office Square - Suite 100
Mail Code: OEP0601
Boston, Massachusetts, 02109-3912
Telephone (617) 918-1539
Email: barden.michele@epa.gov

Changes made from 2008 Draft Permit to 2013 Partially Revised Draft Permit:

Page 1:

1. EPA has updated the language that summarizes the responsibilities of the co-permittees and now reads "…*which include conditions regarding the operation and maintenance of the portion of the collection systems owned and operated by the individual municipalities. The municipalities are also responsible for the requirements found in Part I.G. State Permit Conditions."*

2. The contact person for the City of Peabody has been changed to the Mayor at the request of the Mayor in written comments submitted on the 2008 draft permit.

3. The language explaining the effective date of the permit was changed for clarity and in consistency with other recently issued NPDES permits in Massachusetts and now reads "…*first day of the calendar month immediately following sixty days after signature."*

4. Language summarizing the contents of the Partially Revised Draft Permit has been changed to clarify the contents and includes the specific title of each attachment. EPA has included an updated Attachment A (Marine Acute Toxicity Test Procedure and Protocol), which was revised in July 2012.

5. Attachment E has also been added to provide guidance in the development of SESD industrial pretreatment annual report which was a requirement of the 2008 Draft Permit and remains a condition of the Partially Revised Draft Permit.

6. The name of the Director of EPA's Office of Ecosystem Protection has been added.

Page 2:

1. EPA has revised the fecal coliform limitation to be consistent with the SB-shellfishing criteria. Fecal coliform discharges shall not exceed a monthly geometric mean of 88 organisms per 100 ml, nor shall they exceed 400 colony forming units per 100 ml as a daily maximum, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 organisms per 100 ml. Please see section II.a. of this Partially Revised Fact Sheet.

2. EPA has also changed the maximum daily limit for enterococci to 276 colony forming units. MassDEP views the use of the 90% upper confidence level of 276 cfu/100 ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit. Please see section II.a. of this Partially Revised Fact Sheet.

Footnote 13:

The #17 was added for clarification. (The permittee must use the receiving water as diluent in WET testing unless authorized after following the procedures in Attachment C, #*17*.)

Footnote 14:

Language in Footnote 14 was updated to reference the current Marine Acute Toxicity Test Procedure and Protocol and the related attachments for approval of the use of alternative dilution water.

Footnote 15:

Language in Footnote 15 was updated to be consistent with the current version of Attachment A - Marine Acute Toxicity Test Procedure and Protocol, which was revised in July 2012.

Page 6, Section C:

The Operation and Maintenance language was updated to be consistent with other recently issued NPDES Permits in Massachusetts. Please see Section II.c. of the Partially Revised Fact Sheet for a detailed explanation (September 2013).

Page 10, Section D:

The web address for MassDEP's SSO Reporting Form was updated. Please see section II.e. for more information.

Page 12, Section F:

The Partially Revised permit includes reporting requirements using NetDMR and updated addresses for submitting reports in hard copy form. Please see Section II.e. for more information.

Page 13, Section F:

At the request of the Massachusetts Division of Marine Fisheries (Mass DMF) during the public comment period for the 2008 draft permit, the permittee must notify Mass DMF, within 24 hours, of a permit excursion of fecal coliform or if a plant failure occurs.

Changes made from 2013 Partially Revised Draft Permit to Final Permit:

Page 1:

1. EPA has removed the Town of Middleton as a co-permittee as the Town does not own or operate any portion of the satellite collection system. Any wastewater contributions from parcels located in the Town of Middleton are from private sources that contribute directly to infrastructure owned by the SESD or the Town of Danvers.

2. EPA has updated the reference for Attachment B from "Marine Chronic Toxicity Test Procedure and Protocol, September 1996, 11 pages" to "Marine Chronic Toxicity Test Procedure and Protocol, November 2013, 12 pages" to reference the current procedure and protocol.

3. EPA has removed Attachment C "(NPDES Whole Effluent Toxicity Testing, Monitoring and Reporting, March 2007, 8 pages)" from the final permit as the information is now available in Section IV. Dilution Water of the revised Attachment B "Marine Chronic Toxicity Test Procedure and Protocol, November 2013, 12 pages."

4. EPA has re-labelled Attachment D "(Reassessment of Technically Based Industrial Discharge Limits, 9 pages)" as Attachment C "(Reassessment of Technically Based Industrial Discharge Limits, 9 pages)" to reflect the removal of the Attachment discussed in item 3.

5. EPA has re-labelled Attachment E "(NPDES Permit Requirement for Industrial Pretreatment Annual Report, 2 pages)" to Attachment D "(NPDES Permit Requirement for Industrial Pretreatment Annual Report, 2 pages)" to reflect the removal of the Attachment discussed in items 3 and 4.

6. EPA has removed MassDEP as a joint issuer of the permit. NPDES permits are issued by EPA or by a state agency subject to EPA review in those jurisdictions in which EPA has authorized a state agency to administer the NPDES program. *See* CWA § 402(a)-(d). The Commonwealth of Massachusetts has not obtained such authorization, and as a result, the Region issued the Permit to the District and co-permittees. Although the Region administers the NPDES program in Massachusetts, the Commonwealth maintains separate, independent permitting authority over surface water discharges pursuant to the Massachusetts Clean Waters Act. *See* Mass. Gen. Laws Ann. Ch. 21 § 43. While the federal and state permits have separate legal foundations, the Region and the Massachusetts Department of Environmental Protection ("MassDEP") often coordinate their respective permitting efforts and simultaneously issue the two permits using a single document. In this case, MassDEP certified the EPA-issued permit but has decided not to reissue the state permit at this time.

Page 2:

EPA has removed the maximum daily fecal coliform bacteria limit of 400 CFU/100 ml as it is no longer required under the current Massachusetts Surface Water Quality Standards (MA SWQS) for Class SB waters. It has been replaced with a reporting requirement.

Page 3:

EPA updated the language in paragraph 2 of footnote 6 to reflect the change in the MA SWQS for fecal coliform bacteria. It now reads:

> "Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units (cfu) per 100 ml, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 cfu per 100 ml. The permittee shall report the percent of samples exceeding 260 cfu per 100 ml on its discharge monitoring report and submit the sample results with the discharge monitoring report."

EPA updated the language in footnote 7 to the current standard language and to correct a typo in the 2013 Draft Permit. It now reads:

> "Total residual chlorine monitoring is required whenever chlorine is added to the treatment process (i.e. TRC sampling is not required if chlorine is not added for disinfection or other purpose). The limitations are in effect year-round.
>
> The minimum level (ML) for total residual chlorine is defined as 20 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 ug/l, the compliance level will be the ML. Sampling results less than the detection limit shall be reported as "≤ [detection limit]" on the Discharge Monitoring Report."

Page 4:

Footnote 10 has been updated to remove any reference to the second week of the month. This limitation has been removed to allow permittees more flexibility in scheduling WET Testing at the request of MassDEP.

> "The permittee shall conduct chronic and acute toxicity tests four (4) times per year using Arbacia and Menidia beryllina, respectively. Toxicity test samples shall be collected during same week each time in the months of February, April, June and August. The test results shall be submitted by the last day of the month following the completion of the test. The results are due by **March 31, May 31, July 31 and September 30**, respectively. The tests must be performed in accordance with test procedures and protocols specified in Attachments A and B of this permit."

Test Month Same week of each month (i.e, 1st, 2nd, etc.)	Submit Results By:	Test Species	Acute Limit LC_{50}	Chronic
February April June August	March 31st May 31st July 31st September 30th	Arbacia Menidia beryllina See Attachments A & B	100%	Report NOEC

Page 5:

EPA has revised Part I.A.2.b., eliminating the language "not more than 0.2 standard units outside of the natural background" which pertains to ambient waters. The revised language is as follows:

"The pH of the effluent shall not be less than 6.5 nor greater than 8.5. There shall be no change from natural background conditions that would impair any use assigned to this Class."

Page 11:

EPA has updated Section E. Sludge to reflect the current standard language. It places no additional responsibilities on the permittee than the previous language.

Page 12:

EPA has updated Section F. Monitoring and Reporting as the permittee is currently using NetDMR and to reflect the current standard language and mailing addresses.

Page 15:

EPA has updated Section G to reflect that MassDEP is not jointly issuing this permit but has issued a water quality certification.

RESPONSE TO COMMENTS ON THE 2008 DRAFT PERMIT

A) Comments submitted by Harold G. Newhall, Executive Director, South Essex Sewerage District, dated June 6, 2008.

Comment A.1: The Draft Permit and Fact Sheet indicate that the receiving waters are classified as Class SA. The Fact Sheet apparently relies on information contained in MassDEP's North Shore Coastal Watersheds 2002 Water Quality Assessment Report. This is inconsistent with the classification designation of the current permit dated October 10, 2001 (the "2001 Permit"), which MassDEP certified and which states that the receiving waters are Class SB.

The SA classification is also inconsistent with the Water Quality Standards of the Commonwealth codified at 314 CMR 4.00. These regulations govern the classification of the receiving waters, not the above assessment report which was prepared for other purposes. The area of the District discharge was classified in 1967 as Class SB, in the region bounded as follows:

"Salem and Beverly Harbors inside a line from Naugus Head in Marblehead to the Northwest Point on Bakers Island to Hospital Point in Beverly"

This SB classification is consistent with water quality certification in prior permits.

The classification of the receiving waters was raised by the District on appeal of the 1994 permit. The 1999 resolution of the appeal explicitly stated that the designation of the receiving water was being corrected to SB and the state water quality certification was similarly corrected to SB. (See Exhibit 1, Letter from Glen Haas dated September 3, 1999). Subsequently, EPA issued the 2001 Permit with the SB designation and the state issued the water quality certification using the SB designation. On November 5, 2002, EPA and MassDEP issued a proposed classification of the receiving waters.

The above history shows an explicit agreement that the receiving waters are properly classified as SB. The recent changes to the regulations at 314 CMR 4.00 have not identified any change to this explicit agreement.

Response A.1: The 2008 Draft Permit and Fact Sheet identified the receiving water for the SESD discharge as Salem Sound, Class SA. In its comment letter dated June 6, 2008, SESD stated that the classification was incorrect and that the appropriate classification is SB.

In a letter to EPA dated August 20, 2010, MassDEP addressed this issue. In its letter, MassDEP documented why it believes that the surface water quality classification of the receiving water is SB rather than SA. The body of the letter is presented below.

> This letter is written to clarify MassDEP's position relative to the classification of the water body segment receiving effluent from the South Essex Sewage District (SESD) Outfall – MA0100501. This letter is being written in response to comments letters

received on the Draft NPDES permit and accompanying documents proposed to be issued to SESD by the U.S. Environmental Protection Agency and MassDEP (Public Notice and Draft Permit dated May 16, 2008).

The Draft National Pollutant Discharge Elimination System (NPDES) permit fact sheet dated May 16, 2008 identified the receiving water for the South Essex Sewage District (SESD) Outfall 001 – MA0100501 as Salem Sound, Class SA. SESD commented in their letter dated June 6, 2008 that the receiving water is incorrectly identified as Class SA in the fact sheet. SESD contends that the receiving water where the effluent terminates is Class SB and, thus the permit limits in the Draft NPDES permit for the SESD outfall 001 need to be consistent with Class SB criteria.

In response to this issue MassDEP conducted a detailed review of our state Water Quality Standards and NPDES permit files back to 1967. Based on that review MassDEP agrees with SESD that the correct classification of the waterbody where the SESD outfall serial number 001 terminates is SB. Our historical records indicate that the segment "Salem and Beverly Harbors" were intentionally delineated in the original 1967 Water Quality Standards (WQS) to include the discharge from the South Essex Sewage District and the receiving waterbody was given the classification of SB. Subsequent iterations of the WQS were inconsistent because they did not include the narrative description of these waterbodies nor other receiving waterbodies in the North Coastal Basin. Over time the absence of waterbody descriptions in the WQS has led to varied interpretations of the extent of the receiving waterbodies and their classification. However, it is clear that the segment of the waterbody receiving effluent from SESD has never been redefined by MassDEP since the original 1967 promulgation.

To better identify and understand the source of confusion MassDEP undertook a thorough review of NPDES permits history, Mass Water Quality Standards (WQS), and relevant Massachusetts State House records (e.g. register and library). A brief summary of our findings is outlined below:

1. In the late 1960's and early 1970's, MassDEP's approach to classifying coastal waters in the Water Quality Standards (WQS) was to categorize them as SB where major NPDES point sources entered the receiving water body. This classification was carried out in consultation with the National Shellfish Sanitation Program (NSSP) and Division of Marine Fisheries (DMF) who require that an area (closed safety zone of prohibited) must be established between any sewage treatment plant effluent or other waste discharge of public significance and any growing area placed on the approved, conditionally approved, restricted or conditionally restricted shellfishing classification. Consistent with this approach, MassDEP's Division of Water Pollution Control classified the waterbody receiving SESD's discharge as SB in the early versions of the WQS dating back to 1967. In most cases narrative description delineating the boundaries of waterbody receiving effluent from major point source discharged were included in the water quality standards dating back to 1967. Salem Harbor

was described as "*Salem and Beverly Harbors inside a line from Naugus Head in Marblehead to Northwest Point on Bakers Island and Hospital Point in Beverly".* The area of this waterbody encompassed the SESD effluent discharge location. ***See Attachment 1***[1] *- Location map.* Beverly Harbor was described as "*inside a line from Hospital Point to Juniper Point on Salem Neck".* It should be noted that with the exception of the January 1, 1978 publication of the WQS, waterbody descriptions were excluded from all subsequent versions of the Massachusetts WQS. ***See Attachment 2*** *– WQS Publications Depicting the Classification of Salem, Beverly and Marblehead Harbors.*

2. In 1976, a document entitled *Classification and Segmentation of Massachusetts River Basins and Coastal Zones* was published by Division of Water Pollution Control, Department of Environmental Quality Engineering. On page 4 the document states "This document presents the reclassification of waters in the Commonwealth as dictated on the May 1974 revisions to the Massachusetts Water Quality Standards." One purpose of the document was to identify water bodies that could be upgraded to Class B or SB as well as expand the inventory of waters. The document provided a narrative description of the Salem Harbor and the Salem and Beverly receiving waters consistent with the 1967, 1971, and 1974 standards and identified the Salem-Beverly segment (with the triangle out to Baker Island) as Class SB in the Map of that document. The document was developed to satisfy the regulatory requirements of the Water Quality Act of 1965 (P.L. 89-234, 79 Stat. 903), the Clean Water Restoration Act of 1966 (P.L. 89-753, 80 Stat. 1246), and the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500, 86 Stat. 816). It was also the Divisions intent to use the segmentation as a baseline for subsequent Water Quality Standard revisions and permitting decisions. There has been no MassDEP update to this document since 1976.

3. In 1978 the Massachusetts CMR were published in "state standard" format by a consultant. Two versions of the 1978 WQS were published: one dated January 1, 1978 and one dated April 7, 1978.

    a. The version of the WQS dated January 1, 1978 included a narrative description of the Salem-Beverly segment (in Table 1) consistent with the 1967, 1971, 1974 WQS and the 1976 Classification document. In Table 1 the segment was identified as Class SB with a 1978 assessed condition of SC. The WQS map, however, identified the segment as SA which we believe was a typographical mistake. Pursuant to the 1978 WQS, the information in the Tables superseded the information in the maps. Part 5 (Basin classification and maps) Section 5.05 of the 1978 WQS stated "In case of inconsistency between the tables and maps, the data contained in the table shall control." The maps also identified Salem Harbor and

[1] Figures and Attachments have not been reproduced in this document.

Marblehead Harbor as SA while the Tables identified them as SB. We found no explanation for this inconsistency between the 1978 WQS tables and the 1978 WQS maps. ***See Attachment 3 –*** *WQS Publications January 1, 1978.*

The April 7, 1978 hard copy of the WQS contained other inconsistencies similar to those found in the January version. For example. The Salem-Beverly segment was identified as Class SA in the Table but the Map was not clear, however, no narrative description of the segment was provided. Salem Harbor was identified as SA in the map and SB in the Table. Marblehead Harbor was identified as SA in both the table and the map, while Beverly Harbor was identified as SB in the Table and Map. Based on discussions with the Secretary of State's office, MassDEP believes that the second publication of the standards in 1978 (April 7th version) was related to an overall state project to standardize the format of all of the state CMRs in 1978. The project was to simply transcribe the regulatory information into the selected format. Based on the records, the Department did not propose any changes to the standards as part of this process. The Secretary of State's office did some of this work but also subcontracted formatting of some of the text and all the graphics (e.g. maps) to an outside consultant. We believe this is the reason for many of the cited inconsistencies.

b. Furthermore, an archival search of the Massachusetts State house records revealed no documented evidence that any substantive changes to segment classification in the North Coastal watershed were made to the 1978 WQS or approved by the Department.

c. The change in the classification for the Salem-Beverly segment from Class SB to SA and the Marblehead Harbor segment change from SA to SB that appeared in the April 7th version of the WQS Tables appear to be a mistake that occurred when the CMR standards were reformatted. The change in classification was not consistent with official actions taken by other Department regulatory and enforcement programs (NPDES permit and 305b reporting) with respect to the waterbody receiving effluent from SESD.

d. The April 7, 1978 version of the document apparently carried forward in the September 21, 1978, WQS filing that was made by the Water Resources Commission to the Office of the Secretary State House, Boston, Massachusetts [Salem Harbor and Beverly Harbor were identified as SB while Salem-Beverly Harbor and Marblehead Harbor were identified in the identified in the filing text as SA]. The April 7, 1978 print document appears to be the source of information contained in this record. However, this record is inconsistent with the 1978 record on file at

the Massachusetts statehouse that lists Salem Harbor, Beverly Harbor and Salem-Beverly Harbor as Class SB. As previously mentioned, while there were no descriptions for the segments in the filing or the 1978 standards, it was commonly understood by Department staff that the description for these segments was provided in the 1976 document entitled *Classification and Segmentation of Massachusetts River Basins and Coastal Zones.*

e. The April 7, 1978 WQS remained unchanged with respect to the Salem-Beverly segment until 1990 when the segment was dropped completely from the WQS Tables. In the current version of the Massachusetts WQS Salem Harbor and Beverly Harbor are identified as Class SB, however, no narrative description delineating the boundaries of these receiving water is provided in the current version of the standards.

4. A historical review of MassDEP and EPA regulatory and enforcement programs (NPDES permitting and 305(b) reporting) revealed a consistent track record of treating the waterbody receiving SESD's effluent as class SB up until 1993. During the 1993 permit cycle both the draft permit and the fact sheet identified the receiving stream as SA/SB. The classification of the receiving water was raised by the District on appeal of the 1994 permit. The 1999 resolution of the appeal explicitly stated that the classification of the receiving water for SESD effluent was corrected to SB and the Massachusetts state water quality certification was similarly corrected to SB. EPA issued of the 2001 permit with Class SB effluent limits. Likewise, the assessment group treated the waterbody as Class SB up until the most recent assessment report (WQA 2002). The treatment of the water body receiving effluent from SESD as SA in the North Coastal Water Quality Assessment Report (2002) appears to have been in error as a result of staff not referring back to the 1976 classification report and should not prescribe the NPDES permit process. A correction will be made to the assessment report during the next assessment cycle for the North Coastal watershed.

In summary, our historical review of NPDES permits history, Massachusetts Water Quality Standards (WQS), 305(b) reporting and relevant Massachusetts State House records (e.g. register and library) indicates a consistent track record in our application of SB criteria to the SESD discharge. To avoid confusion in the future, a Water Quality Standards revision is needed to clarify that the segment receiving effluent from SESD is Class SB. MassDEP intends to make this clarification in the next Standards revision and include the boundary description listed in Table 23 North Coastal drainage area in section 4.06 of the current Massachusetts Water Quality Standards. That revision will include both the harbor and the triangular segment that encompasses the SESD outfall consistent with the 1967 WQS. The description for Salem Harbor is "*Salem Harbor inside a line from Naugus Head in Marblehead to the Northwest Point on Bakers Island to Hospital Point in Beverly and Juniper Point in Salem Neck.* This area encompasses the SESD effluent discharge location. The description for Beverly Harbor will be "*inside a line*

from Hospital Point to Juniper Point on Salem Neck" also consistent with the 1967 WQS.

EPA has accepted MassDEP's interpretation that the receiving waters for the SESD effluent are classified as SB. Accordingly, EPA has revised the fecal coliform limitation to be consistent with the SB-shellfishing criteria. Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units per 100 ml, nor shall they exceed 400 cfu per 100 ml as a daily maximum, and no more than 10 percent of the fecal coliform samples in any calendar month shall exceed 260 cfu per 100 ml.

EPA has also changed the maximum daily limit for enterococci to 276 colony forming units. MassDEP views the use of the 90% upper confidence level of 276 cfu/100 ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit.

No other adjustments to the permit limits are necessary to conform the effluent limits in the permit to the SB-shellfishing classification.

EPA notes that as of this date MassDEP has yet to submit a revision to EPA to clarify this classification in its surface water quality standards.

Comment A.2: The Draft Permit contains revised permit limitations for Total Residual Chlorine based in part on modifications to the available dilution. The Fact Sheet describes the recomputed available dilution as follows:

> "The dilutions were calculated using the CORMIX 2 model, which is specific to submerged multiport diffusers, and using the same flows modeled in 1991, however, the results were more conservative. The chronic dilution was 24:1 and the acute dilution was 16:1. Given that the final design flow (29.7 mgd) is slightly greater than that modeled (27.9 mgd) in 1991, EPA has adopted the more conservative dilution factors into this permit. It is also noted that the CORMIX2 model is specific to modeling submerged multiport diffusers and therefore, the results are thought to be more representative."

The Fact Sheet is in error when it says the flows modeled in earlier permit and in the studies conducted were the 27.9 mgd design flows. The flow volumes used in the 2001 Applied Science Associates, Inc. report referred to in the Fact Sheet (the "ASA Report") that resulted in the 24:1 and 15:1 dilutions were 2.0 and 4.2 cubic meters per second (cms), respectively. In English units, these represent flow rates of 45.6 mgd, and 95.8 mgd, respectively, far in excess of design flow rates. It is thus inappropriate to suggest that differences in design flows compel the use of more conservative dilutions. In contrast, the modeled dilution at 29.71 mgd (1.31 cms) produced dilutions of between 21:1 and 34:1, as are reported in table 5-1 of the ASA Report.

The Fact Sheet's analysis is also in error because the ASA report presents the centerline dilutions of the modeled plume, rather than the flux-average dilution. As a result, the ASA Report reflects the dilution at a small point within the spreading plume, artificially underestimating the effect of the diffuser. According to the CORMIX user's manual, the flux average dilutions are between

1.7 and 1.3 times the centerline dilutions, depending on whether CORMIX1 or CORMIX2 was used. The District's engineering consultants were able to recreate the ASA Report results only with CORMIX1. Even if the lower factor of 1.3 is applied to the dilutions, the results exceed the 32:1 and 26:1 used in earlier permits.

For these reasons, the dilutions as used in the 2001 Permit should be retained for use in this permit.

Response A.2: EPA re-evaluated the available dilution analysis described in the Fact Sheet in response to the above comments. The commenter is correct that the ASA report did not model the same flows as the 1991 Draft Environmental Impact Report (DEIR) and that it reported centerline dilutions not flux-average dilutions. However, EPA does not agree with the commenter that these factors compel it to retain the 2001 dilutions.

The 2001 permit included both acute and chronic dilution factors based on modeling results in the 1991 DEIR. The modeling in the DEIR evaluated flows, ranging from 13.5 mgd to 76 mgd, which was the anticipated range of flows[2]. The acute dilution was calculated using a flow of 76 mgd and the chronic dilution was calculated using a flow of 46 mgd[3]. These values were determined in the DEIR through the development of a cumulative frequency distribution. The process is described in the 1991 DEIR. It is noted, however, that EPA was unable to identify the same values from the curve.

The permittee provided EPA with a table of design flows from the 1992 Final Environmental Impact Report (FEIR)[4]. Design flows were provided for the existing facilities for 1992, 1997, and 2017. A value of 29.71 mgd is the design flow provided by the permittee in its 2005 permit application and is also listed as the average daily flow for 2017. The corresponding maximum daily flow for 2017 is listed as 73.81 mgd.

As described in the Fact Sheet, EPA evaluated the results of two modeling efforts. The first was the ULINE modeling included in the 1991 DEIR. The second was modeling done, using the CORMIX2 model, for the Massachusetts' Coastal Zone Management sponsored, 2001 Applied Science Associates Inc. report entitled, "Fate and Transport Modeling of Contaminants in Salem Sound," ("ASA Report").

There are differences in the conditions modeled in the two studies, so it is difficult to directly compare them. For example, the discharge flow rates used in the CORMIX2 modeling were not that same as those used in the ULINE modeling. The CORMIX2 modeling calculated dilution at

[2] Camp Dresser & McKee, 1991, Draft Environmental Impact Report, Phase II: Facilities Plan for Wastewater Treatment and Disposal, Volume V/Appendix D, Effluent Outfall, p. 6-65.

[3] Camp Dresser & McKee, 1991, Draft Environmental Impact Report, Phase II: Facilities Plan for Wastewater Treatment and Disposal, Volume V/Appendix D, Effluent Outfall, p. 6-84.

[4] Camp, Dresser & McKee, 1992, Final Environmental Impact Report and Final Facilities Plan, p 6-138.

a flow rate of 29.9 mgd (slightly greater than the average day design flow of 29.7 mgd) and also calculated dilution at discharge flows of 45.6 mgd (actual flow during period of maximum TRC concentration) and 95.8 mgd (actual maximum flow rate occurring during July 1998)[5].

In addition to differences in modeled flow, there were differences in model inputs, which are summarized in Table 1 below.

Table 1: Model inputs

	Draft EIR (ULINE)	**ASA Report (CORMIX2)**
Discharge Flow		
mgd	26	29.9
mgd	46	45.6
mgd	76	95.8
Diffuser Characteristics		
Diffuser length	200 m	198 m
Number of ports	40	66
Port spacing	5 m	3.05 m
Diffuser depth	8 m (mean low water)	11.1 m (high slack water) 9.8 m (maximum ebb) 8.5 m (low slack water) 9.8 m (maximum flood)
Effluent Characteristics		
Effluent density	0.997 kg/m^3 (assumed)	1000 kg/ m^3
Effluent flow rate	0.59 m^3/s (13.5 mgd) 1.23 m^3/s (28 mgd) 2.02 m^3/s (46 mgd) 3.33 m^3/s (76 mgd)	1.31 m^3/s (29.9 mgd) 2.0 m^3/s (45.6 mgd) 4.0 m^3/s (95.8 mgd)
Ambient Characteristics		
Ambient Current Velocity	1. m/s (10^{th} percentile) 0.046 m/s (50^{th} percentile) 0.103 m/s (90^{th} percentile)	0.01 m/s (high slack water) 0.05 m/s (maximum ebb) 0.01 m/s (low slack water) 0.05 m/s (maximum flood)
Ambient Density	Variety of Density Profiles	1030 kg/ m^3

As can be seen in Table 1, the diffuser configuration evaluated in the DEIR is not the same as the diffuser that was ultimately constructed. The diffuser, as constructed, is a 1.37 meter diameter manifold which is 198 m long with 66 ports that are oriented vertically every 3 m.[6] The ULINE

[5] Applied Science Associates, 2001, Fate and Transport Modeling of Contaminants in Salem Sound, p. 18.

[6] Applied Science Associates, 2001, Fate and Transport Modeling of Contaminants in Salem Sound, p. 13.

model assumes that a diffuser behaves as a single elongated discharge; therefore, any combination of a number of ports and port spacing resulting in the desired diffuser length can be used.[7] In other words, the differences in the modeled diffuser characteristics are not significant given the treatment of the characteristics in the models.

EPA's Technical Support Document for Water Quality-based Toxics Control (TSD)[8] recommends critical design periods to be used when evaluating mixing zones. According to the TSD, discharges to coastal bays and ocean waters should be evaluated during periods of maximum thermal or density stratification and the results should be compared to periods of minimal stratification.[9] The TSD additionally recommends evaluating periods when it is likely that water quality standards will be exceeded.[10] The TSD also recommends "the 10th percentile value from the cumulative frequency of each parameter should be used to define the period of minimum dilution."[11]

Massachusetts Bay, of which Salem Sound is an embayment, exhibits an annual cycle of stratification that is driven by temperature and salinity differences.[12] During the winter months (November-March), the bay is well-mixed. In response to spring run-off (April-May), the surface salinity drops and reaches a minimum between May and June. Surface water temperature peaks in August; while bottom waters reach a maximum temperature between September and November. The critical period of maximum stratification typically occurs during the summer months.

The DEIR evaluated the discharge at one tidal stage, mean low water. The ASA report looked at four tidal stages: high slack water, maximum ebb, low slack water and maximum flood. The evaluation of dilution at different tidal stages is consistent with the recommendations of the TSD[13], in that the minimum dilution and the maximum areal extent of the plume can be determined.

The ASA Report evaluated several ambient current velocities, and both the DEIR and ASA Report used a minimum value of 0.01 m/s. In the DEIR, this value represented the 10th

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[7] Camp Dresser & McKee, 1991, Draft Environmental Impact Report, Phase II: Facilities Plan for Wastewater Treatment and Disposal, Volume V/Appendix D, Effluent Outfall, p. 6-64.

[8] EPA, 1991, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001.

[9] EPA, 1991, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, p. 74.

[10] EPA, 1991, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, p. 74.

[11] EPA, 1991, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, p. 74.

[12] MassDEP, 1991, Dissolved Oxygen, Temperature, and Density Profiles in Salem Sound and Massachusetts Bay 1990, 42 p.

[13] EPA, 1991, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, p. 74

percentile value as recommended in the TSD. The same velocity was used in the ASA Report to represent the low water slack condition which is considered a critical condition by the TSD.

Massachusetts Standards at 314 CMR 4.03(3) require:

> "In coastal and marine waters and for lakes and ponds, the Department will establish extreme hydrologic conditions at which aquatic life criteria must be applied on a case-by-case basis. In all cases, existing uses shall be protected, and the selection shall not interfere with the attainment of designated uses."

MassDEP concurred with EPA that low, slack water is the logical hydrologic condition for which to set limits, particularly those related to toxicity.[14]

As discussed previously, the most recent NPDES Permit application submitted by the permittee and the 1992 FEIR list the average daily design flow for the facility as 29.71 mgd. The average daily design flow represents the long-term average flow the facility is designed to treat and has been traditionally used in Region 1 to calculate the chronic dilution factor in NPDES permits. According to the FEIR, the maximum daily design flow rate is 73.81 mgd. Region 1 has typically used this value to calculate the acute initial dilution as it represents an acute condition. Neither the DEIR nor the ASA study modeled these two effluent flow rates.

Given that neither the ULINE model prepared for the DEIR, nor the CORMIX model run for the ASA report evaluated dilution at flows of 29.7 or 73.81 mgd, EPA ran the CORMIX2 model at these flow rates using the diffuser, effluent and ambient characteristics defined in the ASA Report. EPA ran its model at four tidal stages (high slack water, maximum ebb, low slack water and maximum flood) The low slack water analysis produced the lowest dilution, with centerline dilutions of 24.2 at the long term average design flow of 29.7 mgd and 14.3 at maximum daily design flow of 73.81 mgd.

Table 2 is a summary of the modeling results from the DEIR, ASA and EPA evaluations.

[14] Paul Hogan, MassDEP to Michele Barden, EPA, Region 1 (Personal communication, July 13, 2009).

Table 2: Modeling Results

Effluent Flow Rate	Tidal Stage (water depth)	Ambient Current Velocity	Initial Dilution	Flux-average (1.3 x centerline value)
DEIR				
28 mgd	Mean Low Water (8m)	0.01 m/s (10th percentile)	38.87 (flux-average)	n/a
46 mgd	Mean Low Water (8m)	0.01 m/s (10th percentile)	31.80 (flux-average)	n/a
76 mgd	Mean Low Water (8m)	0.01 m/s (10th percentile)	26.14 (flux-average)	n/a
ASA Report				
29.9 mgd	Low Slack (8.5 m)	0.01 m/s	20.8 (centerline dilution)	27.04
45.6 mgd	Maximum Ebb (9.8 m)	0.05 m/s	23.9 (centerline dilution)	31.07
95.8 mgd	Maximum Ebb (9.8 m)	0.05 m/s	16.5 (centerline dilution)	21.45
EPA CORMIX2				
29.7 mgd	Low Slack (8.5 m)	0.01 m/s	24.2	31.5
73.8 mgd	Low Slack (8.5 m)	0.01 m/s	14.3	18.6

As noted by the permittee, the CORMIX2 model provides centerline dilutions and not flux averaged values. EPA has converted the centerline dilutions to flux average dilutions by multiplying the centerline values by 1.3, which is an appropriate correction ratio for CORMIX2 results.[15]

The results show that the CORMIX2 model produces more conservative initial dilutions than ULINE for similar effluent flow rates and similar input conditions (compare EPA and DEIR

[15] Jirka, Gerhard H., Doneker, Robert. L., and Hinton, Steven W., 1996, User's Manual for CORMIX: A Hydrodynamic Mixing Zone Model and Decision Support System for Pollutant Discharges into Surface Waters, Office of Science and Technology, US EPA, Washington, DC, p. 55.

predictions for flow rates of 29.7 mgd (EPA) and 28 mgd (DEIR) and at 73.8 mgd (EPA) and 76 mgd (DEIR)).

As stated previously, EPA believes that effluent flow rates of 29.71 mgd and 73.8 mgd are appropriate for determining chronic and acute dilution, respectively. It has been further shown that low tide, slack water conditions are the most critical conditions for mixing, so EPA believes that dilution predictions based on the EPA model runs are the most appropriate for establishing water quality-based effluent limits. Accordingly, in the final permit EPA has used the CORMIX-predicted dilution of 18.6 and to establish water quality-based limitations based on acute water quality criteria and a dilution factor of 31.5 to establish water quality-based limitation based on chronic criteria.

Comment A.3: The Draft permit contains, for the first time, mass-based limits on TSS and CBOD. The Fact Sheet describes mass limits as being required "(p)ursuant to 40 C.F.R. §122.45(f)". However, the cited section says

> "(f) Mass limitations. (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass **except:…**
> **(ii) When applicable standards and limitations are expressed in other units of measurement;"**(emphasis supplied)

For most categories of discharge, the units of measure for allowable discharges are mass based, expressed as kilogram per kilogram of raw material processed, or kilogram per kilogram of input load. In the case of POTW's, however, the units of measure for the secondary treatment standards and limitations applicable to the District for BOD and TSS are expressed in concentration, as mg/l. This is expressly acknowledged on pages 5 and 6 of the Fact Sheet for BOD and TSS respectively. Consistency with 40 C.F.R. 122.45 (f) requires that the limits be on the basis of concentration, and not mass. Thus the mass limitations should be deleted from the permit.

Response A.3: Contrary to the commenter's interpretation, 40 C.F.R. § 122.45 (f) does not require the EPA to choose either concentration or mass-based limits. In fact, section 122.45(f)(2) states, "Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations."

EPA has retained both the concentration and mass-based limits in the final permit. Concentration limitations and mass limitations have distinct and separate regulatory and environmental functions. Concentration limitations alone do not provide a ceiling on the total amount of a pollutant that can be discharge from a facility, and mass limits alone would not require a discharger to continually produce a high quality effluent, given that mass limitations based on a maximum allowable concentration and the design flow of the facility could be met at much higher concentrations during low flow periods. In light of the receiving water classification here, and the fact that it is heavily used for recreation and that it supports

economically and ecologically significant aquatic life uses, EPA believes that it is reasonable to keep both mass and concentration-based limits in place to reasonably minimize the overall pollutant loading to the receiving waters.[16]

Concentration limits are imposed on POTWs pursuant to 40 C.F.R. §§ 133.102(a)(1) and (b)(1), which provide that the 30-day average concentrations for BOD and TSS for a POTW shall not exceed 30 mg/l, unless the plant qualifies for an exception to that requirement under 40 C.F.R. §§ 133.103 or 133.105.

NPDES regulations do not provide guidance to the Regions on how to establish appropriate mass limits for a POTW, except for the general direction that "in the case of POTWs, permit effluent limitations, standards, or prohibitions shall be based on design flow." 40 C.F.R. § 122.45(b)(1). Mass limits are generally keyed to concentration limits since a major purpose for imposing mass limits is to prevent a regulated facility from diluting its effluent to meet the concentration limits in its permit.

The Permit Writers' Manual[17] also states that it may be appropriate to express limits in more than one unit. An example of this circumstance would be to encourage the proper operation of the treatment plant at all times. It is noted "the 30-day and 7-day average requirements for BOD_5 [$CBOD_5$, in this case] and TSS, including percent removal, are expressed in terms of concentration."[18] The Permit Writers' Manual states that "[i]n general, regulations at §122.45(b)(1) require using the design flow rate of the POTW to calculate limitations." [19] The Manual also provides an example of the calculation of mass-based limits for a POTW.[20]

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[16] The impacts of BOD and TSS on applicable uses here can be significant. BOD_5 is widely used as a measure of the amount of oxygen-demanding organic matter in water or wastewater. The organic matter in sewage is a mix of human excreta, kitchen waste, industrial waste, and other substances discharged into sewer systems. When significant amounts of BOD_5 are discharged to a waterbody, the dissolved oxygen can be depleted. This occurs principally through the decay of organic matter and the uptake of oxygen by bacteria. The depletion of dissolved oxygen in waterbodies can be harmful or fatal to aquatic life. Low levels of dissolved oxygen are responsible for many of the fish kills reported and tracked by resource agencies.

TSS is a measure of the small particles of solid pollutants that float on the surface of, or are suspended in, water or wastewater. TSS in wastewater includes a wide variety of material, such as decaying plant and animal matter, industrial wastes, and silt. High concentrations of TSS can cause problems for stream health and aquatic life. TSS can clog fish gills, reduce growth rates, decrease resistance to disease, and impair reproduction and larval development. The deposition of solids can damage habitat by filling spaces between rocks that provide shelter to aquatic organisms.

[17] USEPA, 2010, "U.S. EPA NPDES Permit Writers' Manual", EPA-833-K-10-001, p. 5-32

[18] USEPA, 2010, "U.S. EPA NPDES Permit Writers' Manual", EPA-833-K-10-001, p. 5-8

[19] USEPA, 2010, "U.S. EPA NPDES Permit Writers' Manual", EPA-833-K-10-001, p. 5-8

[20] USEPA, 2010, "U.S. EPA NPDES Permit Writers' Manual", EPA-833-K-10-001, p. 5-8, Exhibit 5-7.

Comment A.4: The Draft Permit contains a limit on average monthly flow (29.71 mgd) which was not in the prior permit. The Fact Sheet indicates that "the draft permit includes a flow limit to protect the dilution factor and to assure that flows do not exceed design and compromise treatment quality. The flow limit is based on the average daily design flow of the treatment plant which is 29.71 mgd." These reasons are inappropriate and insufficient to support the need for a flow limit for the following reasons.

As is discussed above, the dilution factors adopted in this permit and in prior permits are not based on the average daily design flow of the treatment facility, 29.71 mgd (1.3 cubic meters per second), but were based on extreme flow values ranging from 45.6 to 95 mgd. It is thus inappropriate and illogical to impose a limit on average flow to "protect the dilutions" that are derived from flows several times greater.

Moreover, the operating history of the treatment plant on record at EPA and M[ass]DEP clearly shows that the facility is capable of meeting secondary treatment levels at flows far in excess of the 29.71 mgd average daily design flow. For example, the maximum monthly flow rate (i.e., average flow for a given month) since commissioning of the District secondary facilities was 49.7 mgd in April 2004. Plant effluent that month was well within permit limits. This occurs because the design of the treatment plant is not simply based on annual average flows, but many different flows in combination with the expected influent loads to the plant. Based on the historical record, there is no reasonable basis for arguing that operating above the annual average design flow will result in compromised effluent quality, and thus no basis for limiting the flow of this plant to the annual average.

The only limit proposed in the Draft Permit that reflects application of a dilution factor is the water quality based limit for Total Residual Chlorine (TRC). We disagree that it is necessary to limit the flow to ensure compliance with TRC for the following reasons.

a. Chlorine is added as part of disinfection treatment process; it is not a parameter found in the plant influent. Therefore, limiting the flow that can reach the District's plant from the service area will not ensure compliance with any potential TRC limit. The District has a system for adding disinfection and dechlorination chemicals to the treated wastewater. Chlorine in the effluent is below the maximum day permit limit. The system functions effectively.

b. EPA selected dilutions (16:1 and 24:1) at 46 mgd and 96 mgd as the basis for establishing the TRC permit limits, and yet elected to propose a flow limit at the annual average design flow (29.71 mgd). No statistical argument can be made that controlling the plant flow on an annual average basis will ensure that water quality permit limits, established on a different flow basis, will be met. Finally, as is discussed in more detail below, the District's effluent has long met the proposed limit for residual chlorine. Therefore, there is no reasonable basis for inclusion of the proposed residual chlorine limit in the permit. With the residual chlorine limit deleted, there would be no basis for including a flow limit in the permit.

The flow limit contained in the Draft Permit should be deleted, and the present requirement to monitor and report flows should be retained as indicated by the regulations at 40 C.F.R. 122.44 (i)(1)(ii): volume should be monitored, not limited.

Response A4: The final permit includes an effluent flow limit of 29.71 mgd.[21] The limit is expressed as an annual average, to be reported as a rolling average. The value is calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flow of the previous eleven (11) months. The Draft permit's approach to determining an effluent flow limit reasonably accounts for seasonal variations in the facility's effluent flow.

A. Rationale for Design Capacity Effluent Flow Limit

The final permit includes a condition limiting the flow of effluent discharged based on the design capacity of the facility. EPA Region 1 and MassDEP have included such conditions in POTW permits throughout Massachusetts. Moreover, States and other EPA Regions have issued permits with similar conditions in other parts of the country. EPA has determined that inclusion of an effluent flow limit condition in the SESD permit is authorized by CWA § 402(a)(2), which provides that "[t]he Administrator shall prescribe conditions for such permits to assure compliance with the requirements of" CWA § 402(a)(1) – including, by reference, CWA §301 - "and such other requirements as [she] deems appropriate." As discussed below, the SESD effluent flow limit is an "operation and maintenance" requirement that assures compliance with the technology- and water quality-based effluent limitations required by CWA § 301 and is "appropriate" pursuant to CWA § 402(a)(2).

40 C.F.R. §§ 122.41(d) and (e) require the permittee to (1) "take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment," and (2) "at all times properly 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 Region has determined that the design capacity-based effluent flow limit is authorized by section 402(a)(2) and appropriate in order to assure that SESD operates its facility to comply with its permit's technology- and water quality-based effluent limitations.

The permittee points to the treatment plant's operating history to show that the facility achieves its technology-based numeric secondary treatment effluent limitations for $CBOD_5$ and TSS at effluent flows greater than its 29.71 MGD design flow, specifically during April 2004, when the monthly average effluent flow was 49.7 MGD. However, the secondary treatment regulations and the final permit also require that the 30-day average percent removal for $CBOD_5$ and TSS not be less than 85%. A review of DMR data shows that the influent strength for $CBOD_5$ and TSS decreases as effluent flows increase (See Figures 1 & 2) and, contrary to the suggestion in the comment, it is not clear, from this data, that the facility will meet the new 85% $CBOD_5$ and

[21] The use of the word "flow" under the column heading "effluent characteristic" in Part I.A.1 of the Draft and Final Permits is to wastewater effluent flow discharged from the facility.

TSS removal requirements at all times without controlling effluent flow (See Figures 3 & 4). For example, reviewing the reported monthly average concentration values from DMRs for the current permit term (November 1, 2001 through February 29, 2016), the facility achieves a 30-day average percent removal of 85% for $CBOD_5$ and TSS most of the time. However, the 14 instances (6 times for $CBOD_5$ and 8 times for TSS) where SESD did not achieve the 85% removal for $CBOD_5$ and TSS correlate with monthly flows that exceed the design flow. For example, in April 2004, which was noted by the permittee as an example of the facility performing within permit limits, the $CBOD_5$ and TSS percent removals were 76% and 75%, respectively.

Figure 1: SESD influent $CBOD_5$ concentrations significantly lower at higher effluent flows

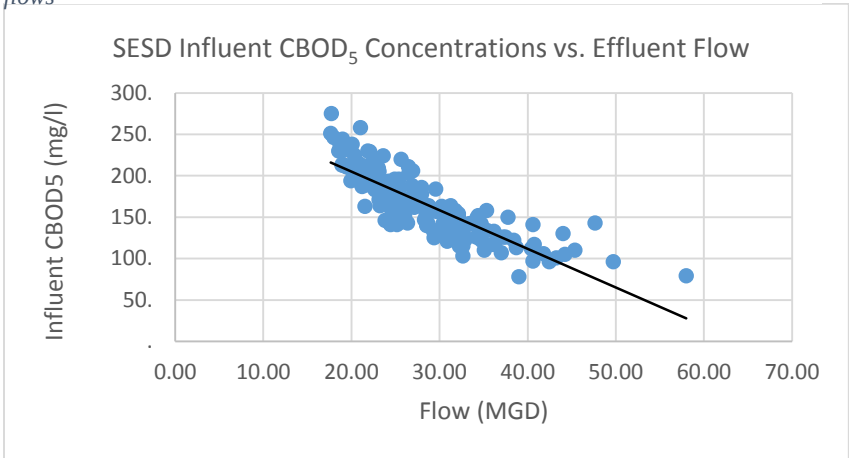


Figure 2: SESD influent TSS concentration significantly lower at high effluent flows

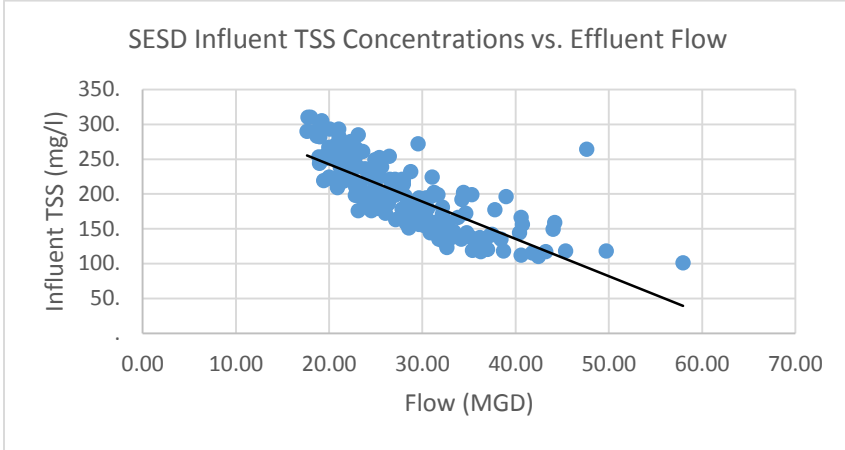


Figure 3: SESD CBOD5 % removal rates decrease at higher effluent flows

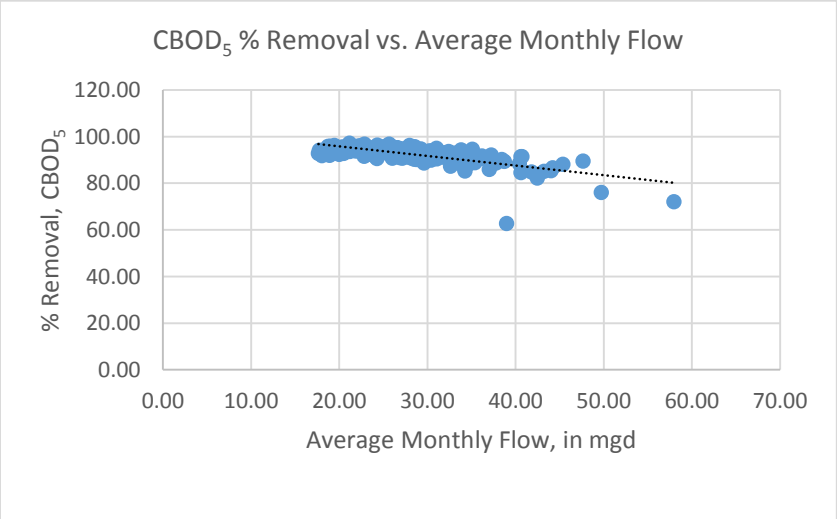
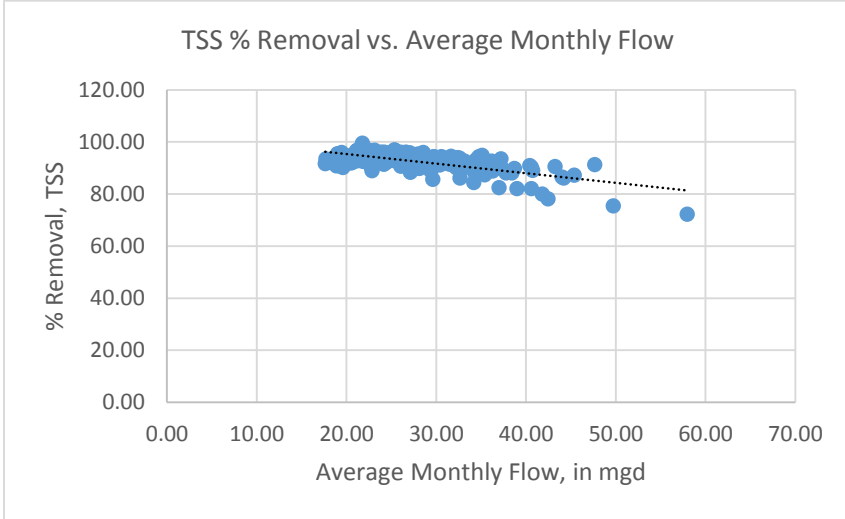


Figure 4: SESD TSS % removal rates decrease at high effluent flows



EPA has also included the effluent flow limit in the permit to minimize or prevent infiltration and inflow (I/I) that may result in unauthorized discharges and compromise proper operation and maintenance of the facility. Improper operation and maintenance may result in non-compliance with permit effluent limitations. Infiltration is groundwater that enters the collection system though physical defects such as cracked pipes or deteriorated joints. Inflow is extraneous flow added to the collection system that enters the collection system through point sources such as roof leaders, yard and area drains, sump pumps, manhole covers, tide gates, and cross connections from storm water systems. Significant I/I in a collection system may displace sanitary flow, reducing the capacity available for treatment and the operating efficiency of the treatment works and to properly operate and maintain the treatment works.

In addition, the extraneous flow due to significant I/I greatly increases the potential for sanitary sewer overflows (SSO) in separate systems. Consequently, the effluent flow limit is a permit condition that relates to the permittee's duty to mitigate (*i.e.*, minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment) and to properly operate and maintain the treatment works. *See* 40 C.F.R. §§ 122.41(d) and (e).

A review of SESD's DMRs over the current permit term shows that the facility's monthly average flows exhibit significant seasonal variation. The magnitude of the variation in monthly average effluent flows indicates that significant amounts of extraneous flows are entering the collection system as acknowledged by the permittee in its next comment.

According to the 2005 permit application, the permittee estimated that an average of 10.29 mgd of I/I flowed into the treatment works. At the time of the application, the District had already achieved its goal of removing 0.21 mgd of peak I/I from its interceptor system. It was also reported in the application, that the satellite communities had a goal of removing 17.53 mgd of peak I/I from their collection systems by 2017 and had already removed 13.04 mgd peak I/I and were ahead of schedule.

In addition to the permit application and the comments, EPA has also examined a spreadsheet listing of reports of SSOs reported to the Northeast Regional Office of MassDEP since 2006 (see Attachment A). As shown in this listing, SSOs have occurred in the municipalities of Beverly, Danvers, Marblehead, Peabody and Salem, a further indication of significant extraneous flows entering the collection system. EPA has determined that, despite collection system remediation efforts and the municipalities' post-2006 SSO history, inclusion of a condition limiting effluent flow is both authorized and appropriate to assure that the facility is able to operate in a manner that will at all times meet its CWA requirements.

Section 301(b)(1)(C) of the Act requires EPA to *ensure* that the permit will meet applicable water quality standards. Section 301 of the CWA requires achievement of "any more stringent limitation, including those necessary to meet water quality standards… established pursuant to any State law or regulations…." *See also* 40 C.F.R. § 122.4(d) (prohibiting issuance of a permit "when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States"); 40 C.F.R. § 122.44(d)(1) (providing that a permit must

contain effluent limits as necessary to protect state water quality standards). The permit condition limiting effluent discharge flow is also an authorized and appropriate condition under these provisions. EPA's determination not to include other specific water quality based limitations on SESD's effluent discharge is based on its conclusion that there is no reasonable potential for the SESD discharge to cause or contribute to an excursion in excess of State water quality standards. EPA's conclusion is based on the use of specific dilution factors in determining reasonable potential and for calculating effluent limitations. The flow limit serves to ensure that the facility operates consistently with the assumptions underlying EPA's conclusions. As discussed in detail in the Response to Comment A.2, the dilution factors that are used to assess reasonable potential and/or to establish water quality-based effluent limits are typically calculated using anticipated long-term and maximum daily effluent discharge volumes. Effluent discharge flows exceeding these values will undermine both the assumptions behind these calculations and the basis for the Region's determinations of reasonable potential and establishment of effluent limitations. Should facility operations allow this to occur, the permit as written may, as a practical matter, be rendered less stringent than necessary to ensure compliance with applicable water quality standards. EPA has determined that an effluent discharge flow limit is authorized and appropriate to ensure against this eventuality, and to ensure the facility is operated in such a manner that its discharge will be at all times in compliance with water quality standards as mandated by the CWA and its implementing regulations.

As detailed in the response to Comment A.2, the chronic dilution factor in the final permit has been calculated using the average daily design flow of 29.7 mgd, and the acute dilution factor was calculated using a maximum daily design flow of 73.8 mgd. EPA has used these dilution factors to assess the reasonable potential for other pollutants (including, but not limited to, TRC) to cause an exceedance of the water quality standards, and to calculate the TRC limit. As such, it is critical that the facility not be operated in a manner that results in effluent discharge rates that exceed the rates on which EPA's reasonable potential assessments and the effluent limitations are based if EPA is to ensure that the permit contains limits as stringent as necessary to meet applicable water quality standards.

B. Total Residual Chlorine Issues

The permittee argues that there is no basis for an effluent flow limit in the permit because (1) the only dilution-based water quality limit in the permit is for TRC, and there is no reasonable potential for this pollutant to cause or contribute to a violation of water quality standards, (2) that TRC is not present in the influent but is rather added by the facility as a disinfectant, (3) that the facility has historically complied with its TRC limit, and (4) that the average daily flow of 29.71 MGD was not used to calculate the dilution factor on which the TRC limit is based.

1. The commenter wrongly assumes that EPA's inclusion of the effluent flow limit in the permit was a function of the TRC limit alone. That is incorrect. EPA's decision to include a permit condition that established a maximum permissible effluent flow was based, in part, on ensuring that operation of the facility is consistent with the underlying assumptions that supports the Agency's decisions concerning the need for limits based on a reasonable potential analysis for a

variety of pollutants, as well as for calculating limits for any pollutant for which reasonable potential is found to exist.

2. The distinction between pollutants that are present in the influent versus those introduced by the permittee as part of its treatment process is not pertinent when determining the reasonable potential for the *discharge* of those pollutants to cause or contribute to exceedances of water quality standards or in calculating water quality-based limits. In this case, EPA determined that the amount of chlorine in the discharge resulted in a reasonable potential to cause or contribute to a violation of the applicable water quality standard.

3. The need for a limit pursuant to 40 C.F.R. § 122.44(d) based on a reasonable potential to cause or contribute to a violation of WQS is analytically distinct from compliance with permit requirements. EPA fails to see how the TRC compliance record supports the permittee's contention that the effluent flow limit is not necessary. EPA concurs that the facility has generally complied with the maximum daily limit in the previous permit, however, it is also noted that there have been seven (7) violations of the maximum daily limit. Chlorine is extremely toxic to aquatic life, and its discharge has the potential to cause acute toxicity. The treatment facility has a chlorination-dechlorination process; however, the removal of chlorine is not complete and the amount present in the discharge is wholly contingent on the proper operation and maintenance of chlorination-dechlorination system, and therefore, presents a reasonable potential. In light of this finding and the reasonable potential analysis described above, EPA determined it was necessary and appropriate to include a TRC limitation in the permit.

4. As described earlier in this response, the dilution factor used to calculate the chronic (monthly average) TRC limit in the final permit is now based on the 29.71 MGD design flow, and the reasonable potential analyses for chronic water quality-based limits for other pollutants was also done using this dilution factor.

Total Residual Chlorine Limitations:

(acute criteria * dilution factor) = Acute (Maximum Daily)
(13 ug/l x 18.6)= 242 ug/l = 0.24 mg/l

(chronic criteria * dilution factor) = Chronic (Monthly Average)
(7.5 ug/l x 31.5) = 236 ug/l = 0.24 mg/l

Comment A.5: The 2001 Permit applies the 85% removal requirement for BOD and TSS only during dry weather. See Part 1.A.e, page 4 of 11 of the 2001 Permit. This language was included in the previous permits because the District's influent is less concentrated due to excessive I/I. These determinations were made as part of the facilities planning, design and construction process for the existing facility. The District Phase II Facilities Plan for Wastewater Treatment and Disposal is incorporated herein by reference in its entirety. The fact sheet is therefore incorrect when it says that there has been no showing that the less concentrated influent

is not the result of excessive I/I. For this reason, the clause "during dry weather" should be retained in the permit.

Response A.5: The Secondary Treatment requirements at 40 C.F.R. § 133.102 require that the 30-day average removal percentage be not less than 85% for TSS and BOD (or $CBOD_5$, in this case) unless special considerations apply. In the case of separate sewer systems, there is no basis in the regulations for EPA to shorten the period during which this treatment standard applies. According to the plain text of the regulation, the standard is intended to apply at all times. While applying the 85 percent removal requirement only "during dry weather" may be appropriate for combined sewer systems pursuant to 40 C.F.R. 133.103(a), the SESD system is a separate sewer collection system, with no CSOs according to the information provided to EPA by SESD in its permit application. The previous permit was in error when it allowed the requirement to be applied only during dry weather.[22] The language may be a relic of an earlier permit when the SESD collection system still included combined sewers and combined sewer overflows (CSOs). Accordingly, the 85% removal requirement has been retained in the final permit and applies at all times.

Comment A.6: The Draft Permit, at page 6, Part I.A.2.6., imposes a requirement that the effluent pH be not more than 0.2 standard units outside the natural background range, and that, "there shall be no change from natural background conditions that would impair any designated uses assigned to this class." These requirements were not in prior permits.

Because the District's discharge is to marine waters, it is inappropriate to require the effluent to be not more than 0.2 standard units outside the natural background range. The fact sheet indicates that the District's effluent ranges from 6.5 to 7.5 standard units. Indeed, most rivers in the Northeast are naturally acidic, with pH's usually below 7.0. On the other hand, the pH of most marine systems ranges from 7.9 to as much as 8.2, but are highly buffered, and pH equilibrates to naturally higher ranges upon mixing. Data collected in Salem Sound and reported

[22] Federal regulations at 40 C.F.R. § 133.103(d) do allow for a lower percent removal requirement or a mass load requirement; however, this is only available if the permittee shows that (1) the treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits but its percent removal requirements cannot be met due to less concentrated influent wastewater, (2) to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards, and (3) the less concentrated influent wastewater is not the result of excessive I/I (emphasis added). The determination of whether the less concentrated wastewater is the result of excessive I/I uses the definition of excessive I/I in 40 C.F.R. § 35.2005(b)(16) plus the additional criterion that inflow is nonexcessive if the total flow to the POTW (i.e., wastewater plus inflow plus infiltration) is less than 275 gallons per capita per day. SESD has not made the necessary demonstration for relief under 40 C.F.R. § 133.103(d). To the contrary, the District in its comments concedes that its influent is less concentrated due to excessive I/I.

in the District's facilities plan indicates that the range of pH in the receiving water is from 7.8 to 8.5 (See page 3 of Exhibit 2 hereto, report entitled "Secondary Sewage Effluent pH Predictions at SESD Outfall Sites, Salem, Massachusetts April 26, 1991" which is Attachment 5 of Appendix D to Volume V, Effluent Outfall of the SESD Draft Environmental Impact Report). The District's effluent (and all local rivers) would thus fail to meet the 0.2 range requirement of the permit.

As is shown in Table 5.1 on page 5 of Exhibit 2, the District's effluent produces a change in the ambient pH of less than 0.1 standard units. For this reason, the District requests that part 1.A.2.b be rewritten to read:

"The pH of the effluent shall not be less than 6.5 nor greater than 8.5. There shall be no change from natural background conditions that would impair any use assigned to this class."

The District believes that the requirement for maintaining effluent pH within 0.2 standards units of the natural range is not justified because the calculations submitted show there is no reasonable potential for the discharge to cause an excursion from water quality standards. If this is no reasonable potential, there is no basis for including the limit in the Permit.

Response A.6: The pH limitations in the draft permit, including the requirement that the discharge pH not be more that 0.2 standard units outside the natural background range, are based on the Massachusetts Standards for Class SB waters and are the ambient standard. EPA has removed this language in the final permit as the effluent limitation of 6.5 through 8.5 standard units will achieve the ambient standard. The pH effluent limitations in the final permit require that the pH of the discharge "shall be in the range of 6.5 through 8.5 standard units."

Comment A.7: The Draft Permit includes an average monthly limit for total residual chlorine (TRC) of 0.180 mg/l and a maximum daily value of 0.208 mg/l. These values reflect the incorrect dilutions derived for the Draft Permit, as indicated above in Comment B (A.2 in this document). These should be corrected to reflect the dilutions used in the present 2001 Permit. The resulting limit should, therefore, be a maximum daily limit for total residual chlorine (TRC) of 0.338 mg/l. Since the maximum daily limit is more restrictive, there is no basis for a monthly average limit and it should be deleted. See issue No. 2 in the District's appeal to the Environmental Appeals Board, March 21, 2001, which appeal is incorporated herein by reference.

Response A.7: EPA has recalculated the effluent limits for Total Residual Chlorine (TRC) using the revised dilution values in the Response A.2.

Total Residual Chlorine Limitations:
(acute criteria * acute dilution factor) = acute (maximum daily)
(13 ug/l * 18.6)=241.2 ug/l = 0.24 mg/l

(chronic criteria * chronic dilution factor) = chronic (monthly average)

(7.5 ug/l * 31.5) = 236 ug/l = 0.24 mg/l

Using the revised dilutions, the average monthly limit and the maximum daily limit are the same. Given that the acute and chronic limits are the same, EPA has only included the maximum daily limit in the final permit. In other words, the monthly average limit is not required since it will be automatically complied with as long as the maximum daily limit is met.

Although not relevant to the current permit issuance, EPA did review "Issue No. 2" of the District's appeal of the 2001 permit regarding the use of the 4 day average flow from the Facilities Plan to calculate the monthly average limit. EPA withdrew that limit from the 2001 permit on September 10, 2001. In the 2009 reissuance, EPA has used revised dilution factors to calculate the effluent limitations for total residual chlorine and, furthermore, has provided a rationale for why use of these new values more fully reflects receiving water conditions as compared to the approaches proffered by the District. Therefore, issue No. 2 of the District's 2001 appeal is not pertinent.[23] Please see the Response to Comment A.2.

Comment A.8: Comment A.1 above shows that the receiving waters are Class SB, rather than the Class SA used by the EPA in the development of the Draft Permit. To be consistent with this classification, the limits on pathogens should be revised to reflect Class SB receiving water quality. Thus, the limits on fecal coliform should be changed to 200/100 ml geometric mean and 400/100 ml as a maximum value.

In addition, the District observes that the pathogen problems appear to be attributable to sources other than the District, such as recreational boating, storm water runoff, etc. See Fact Sheet, page 4 and 5. Moreover, the District's effluent undergoes significant dispersion and dilution in Salem Sound. According to figure 5-10 in the ASA Report, effluent contaminant concentrations in the far field quickly reach 0.001 to 0.0005 of that in effluent. For this reason, we suggest that compliance with the pathogen standard be calculated at the edge of the zone of initial dilution, or at the edge of any mandatory closure zone that the Division of Marine Fisheries may establish.

[23] It is appropriate to hold permitting authorities accountable for a full and meaningful response to concerns fairly raised in public comments, but such authorities are not expected to be prescient in their understanding of vague or imprecise comments. *In re Sutter Power Plant*, 8 E.A.D. 680, 694 (EAB 1999). While EPA endeavors to fully respond to all significant comments on draft permits, even those that are not models of clarity, SESD's blanket incorporation by reference of an appeal made with respect to a prior permit will likely engender disputes and confusion over how to apply the referenced materials to the matter currently before EPA. This would frustrate the very purpose of the public comment period, which is to provide predictability and finality to the permitting process. *See, e.g., In re Spokane Reg'l Waste-to-Energy*, 2 E.A.D. 809, 816 (Adm'r 1989) ("Just as 'the opportunity to comment is meaningless unless the agency responds to significant points raised by the public,' so too is the agency's opportunity to respond to those comments meaningless unless the interested party clearly states its position," quoting *Northside Sanitary Landfill, Inc. v. Thomas*, 849 F.2d 1516, 1520 (D.C. Cir. 1988) (internal citations omitted). Indeed, SESD's generic incorporation by reference would force the Region into the undesirable position of construing materials that pre-dated issuance of the Draft Permit as "comment" on the subsequent draft. In this regard, it is well settled that under EPA's permitting regulations permit issuers need not "guess the meaning behind imprecise comments," *In re Westborough*, 10 E.A.D. 297, 304 (EAB 2002), and are "under no obligation to speculate about possible concerns that were not articulated in the comments." *In re New England Plating Co.*, 9 E.A.D. 726, 735 (EAB 2001).

We understand that similar approaches are being used in other Massachusetts coastal discharges, including Scituate.

Response A.8: As explained in the Response A.1, the surface water quality classification for the receiving waters is Class SB, and the waters are also designated for shellfishing.

EPA has revised the fecal coliform limitations to be consistent with the SB-shellfishing criteria. Fecal coliform discharges shall not exceed a monthly geometric mean of 88 colony forming units per 100 ml, nor shall more than 10 percent of the samples exceed an MPN of 260 per 100 ml. Please see section II.a. of this Partially Revised Fact Sheet.

EPA has also changed the maximum daily limit for enterococci to 276 colony forming units. MassDEP views the use of the 90% upper confidence level of 276 cfu/100 ml as appropriate for setting the maximum daily limit for *Enterococci* in the draft permit. Please see section II.a. of this Partially Revised Fact Sheet.

As defined in the *Technical Support Document for Water Quality-based Toxics Control* (USEPA, 1991), the "TSD", a mixing zone is "an area where an effluent discharge undergoes initial dilution and is extended to cover the secondary mixing in the ambient waterbody. A mixing zone is an allocated impact zone where water quality criteria can be exceeded as long as acutely toxic conditions are prevented". The TSD recommends that allowable mixing zone characteristics should be established to ensure that:

- Mixing zones do not impair the integrity of the waterbody as a whole.
- There is no lethality to organisms passing through the mixing zone.
- There are no significant health risks, considering likely pathways of exposure.

Effluent limitations established based on a mixing zones will increase the mass loading of the pollutant to the water body and decrease treatment requirements compared to limitations not based on mixing zones. Because of these and other factors, mixing zones must be applied carefully, so as not to impede progress toward the Clean Water Act goals of maintaining and improving water quality. *See* Water Quality Standards Handbook: Second Edition at 5-2; *Technical Support Document for Water Quality-based Toxics Control* (USEPA, 1991a) at 69-72.

A further rationale for exercising caution when allowing mixing zones for bacteria in marine waters such as Salem Sound is that people recreating in or downstream from a zone of initial dilution may be exposed to greater risk of the acute endpoint of gastrointestinal illness from contact recreation as well as to greater risks from shellfishing. In this case, the receiving water is designated for both contact recreation use and shellfishing use, so that consumers of shellfish with elevated bacteria would also be subject to increased risk of illness.

The permittee suggests that compliance with bacterial criteria be determined at the edge of the zone of initial dilution or at the edge of any mandatory mixing zone that the MA Division of Marine Fisheries may establish. EPA first notes that bacteria limits in NPDES permits issued in Massachusetts have historically been established equal to the water quality criteria, with no

allowance for dilution. Contrary to the commenter's understanding, the NPDES permit issued to Scituate, Massachusetts for its POTW does not allow a mixing zone for attaining water quality criteria for bacteria. Particularly in light of the existing and designated recreational and aquatic life uses in the receiving waters, and the human health concerns associated with excursions of bacterial criteria, EPA believes it is appropriate to follow this reasonably conservative approach.

Massachusetts Surface Water Quality Standards at 314 CMR 4.03(2), Mixing Zones, allow the recognition of a limited area or volume of a waterbody as a mixing zone, and that waters within the mixing zone may fail to meet specific water quality criteria. However, among the conditions that must be met before a mixing zone may be established is that the mixing zone may not "interfere with the existing or designated uses of surface waters." Because bacterial counts in excess of the applicable water quality criteria would interfere with attainment of primary and secondary contact and shellfishing criteria within the mixing zone, EPA and MassDEP have historically not allowed mixing zones for bacteria and have instead incorporated the water quality criteria as end-of-pipe limits.

This practice is further supported by MassDEP's "Implementation Policy for Mixing Zones." Part III(a) of this policy states that "The most important site-specific factors governing the application of mixing zones are the actual and projected water uses in a segment. Certain uses may be deemed critical in that no excursions from criteria are desirable. These include areas that are highly sensitive or extensively used. In order to provide a reasonable margin of safety for these uses, no mixing zone can be permitted." The critical uses identified in part III a) include shellfish harvest areas (Class SA and SB) and public bathing beaches and other heavily used recreational waters. The specific language in Part III a) regarding mixing zones in shellfish harvest areas is "Shellfish Harvest Waters - Mixing zones in shellfish harvest waters (Class SA and Class SB) shall not be authorized unless it is affirmatively demonstrated that the mixing zone does not encompass important shellfish harvest areas and will not adversely diminish the established population of shellfish in the segment."

In light of the foregoing, EPA has determined that a margin of safety is reasonable in this case and no mixing zone for attaining the bacteria criteria should be allowed.

Regarding the suggestion that the bacteria criteria should be applied at the edge of a closure zone established by the MA Division of Marine Fisheries (DMF), this is clearly not allowed under MA Standards, which do not establish any link between its water quality criteria for protecting waters designated for shellfishing and administrative closure zones established by DMF. Simply put, water quality in Salem Sound must support its designated use of shellfishing even if DMF determines that the use should not be exercised within portions of that waterbody. *See* January 12, 2007 Letter from EPA to MassDEP re: Review and Action on Water Quality Standards, September 19, 2007, at 4.

Comment A.9: Draft Permit provisions that purport to make the district and certain municipalities within the District's geographic area co-permittees are improper and should be deleted.

The Draft Permit at page 1 lists the Cities of Salem, Beverly and Peabody and the Towns of Danvers, Marblehead, and Middleton (collectively, the "Cities and Towns") as co-permittees along with the District as to Draft permit Part I.C., Operation and Maintenance, Part I.D., Unauthorized Discharges from the Sewer System, Part I.F., Monitoring and Reporting and Part I.G. State Permit Conditions. The District objects to the inclusion of these municipalities as co-permittees with the District for the reasons that follow.

1. The term co-permittees is not defined in the Federal Clean Water Act, the state Clean Water Act or their regulations. The prefix "co-" means "jointly or together with," as in "co-owner" or "co-defendant" (Black's Law Dictionary, Seventh Edition, West Group, 1999). Thus, the Draft Permit would make the District jointly responsible for the performance of permit conditions by each of the Cities and Towns, and would make each of the Cities and Towns jointly responsible for performance of permit conditions by the District. Such an arrangement is not in accordance with state law. The District made EPA and DEP aware of the District's legal relationship with the municipalities within its geographic area in a previous permit proceeding in 2000.

The District was created by and operates pursuant to Chapter 339 of the Massachusetts Acts of 1925, as amended and supplemented ("Chapter 339") which is incorporated herein by reference. Chapter 339 created the District as a separate legal entity to provide sewerage treatment services for the geographic area comprised of the Cities of Salem, Beverly and Peabody, and the Towns of Danvers and Marblehead, and certain parcels of land in the Town of Middleton. Within this geographic area there are also certain state and county institutions served by the District. Under Chapter 339, the District owns, operates and maintains, among other things interceptor sewer lines, pumping stations, the treatment plant and the ocean outfall pipe from the treatment plant. Each of cities and towns within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system. Under 339 and other provisions of state law, the District does not have the authority to compel the Cities and Towns to carry out the various obligations that would be assigned to them by the Draft Permit. Neither does the District have the authority to carry out itself the obligations assigned to the Cities and Towns by the Draft Permit.

Similarly, the Cities and Towns have no authority under Chapter 339 or otherwise to compel the District to act and have no authority to operate or maintain the District system or to act with respect to the obligations assigned to the District by the Draft Permit.

EPA and DEP cannot confer the above authority on the District and the Cities and Towns by writing it into the permit.

2. The Cities and Towns do not, in any case, qualify as permittees for the Draft Permit under federal or state law.

a. None of the Cities or Towns made an application for the draft permit.

b. None of the Cities or Towns is an owner or operator of the District's sewerage system, including its treatment plant or discharge pipe.
c. Each of the Cities or Towns sends wastewater to the District treatment plant, not directly to waters of the United States or the Commonwealth.
d. To the extent that EPA and DEP may be relying for authority to regulate the Cities or Towns as co-permittees on a proposed Sanitary Sewer Overflow (SSO) Rule which is not final, that reliance is misplaced. Attempting to impose such requirements through policy and the permitting process violates rulemaking procedural requirements and the due process rights of the District, the Cities and Towns and ratepayers. Attempting to include the Cities and Towns as co-permittees based on the proposed SSO rule and potential discharges from SSOs to waters of the United States violates principles of subject matter jurisdiction outlined in Waterkeeper alliance et al. v. EPA, 59 ERC 2089 (2nd Cir. 2005) and Montgomery Environmental Coalition v. Costle, 646 F.2d 568 (D.C. Cir. 1980).

3. The operation and maintenance of wastewater collections systems owned by the Cities and Towns are already regulated by DEP under 314 CMR 12.00. The Cities and Towns are indirect dischargers under this regulation.

4. The Fact Sheet at page 11, VII. Sanitary Sewer Overflows, is in error when it says that the point source addressed in the Marblehead NPDES Permit No. MA0100374 (Sargent Road Pumping Station) "is part of the collection system conveying flow to the South Essex Sewerage District." The Sargent Road Pumping Station and its discharge are owned by the Town of Marblehead and are not part of the District owned collection system. As discussed above, the District has no authority over the Town of Marblehead owned sewerage system and the Town of Marblehead owned sewerage system and the Town of Marblehead is not properly named as a permittee in the Draft Permit.

5. The list of entities that deliver wastewater to the District is incomplete and arbitrary. The state and former county institutions are not included.

6. The provisions in the Draft Permit that purport to make the Cities and Towns co-permittees and the provisions at Part I.C., I.D., I.F., and I.G. are impermissibly vague, arbitrary, capricious, without proper basis in fact and law, and an abuse of discretion.

Response A.9: On February 4, 2015, the Environmental Appeals Board (EAB) upheld a Region 1 NPDES permit issued to a POTW treatment plant. *In re: Charles River Pollution Control District*, NPDES Appeal No. 14-01, February 4, 2015. The permit had included municipal satellite sewer collection systems conveying wastewater to the plant as co-permittees and subjected them to operating and maintenance requirements despite their opposition to inclusion on the permit.

The Towns of Bellingham, Franklin, Medway and Millis, and the Upper Blackstone Water Pollution Abatement District are the owners of satellite collection systems that convey wastewater to a wastewater treatment plant owned by the Charles River Pollution Control District. The Towns appealed the permit. They argued principally that the municipal collection

systems (1) did not discharge pollutants to U.S. waters under the Act given their distance from the ultimate outfall point, as well as the existence of an intervening point source providing treatment (that is, the POTW treatment plant) and, (2) they did not, in any event, apply to be covered under the NPDES permitting program.

The Board disagreed and found that the Region has authority under the CWA and EPA's regulations to include the Towns as co-permittees on the permit, and the administrative record supports the Region's decision to include the Towns as co-permittees. In rejecting the Petitioners' claims, the Board upheld each of the Region's legal arguments and factual justifications on a range of interesting and important CWA issues. It found that the Region reasonably construed the NPDES regulatory definition of "publicly owned treatment works" to include the Towns' municipal satellite sewer collection systems. Because the Towns' sewer collection systems are components of the treatment plant that discharges into waters of the United States, the Towns are subject to NPDES regulation. Additionally, it held that under NPDES regulations pertaining to a discharger's "duty to apply," where there are multiple dischargers responsible for the same discharge, then an application from one of the dischargers constitutes an application from all.

The decision confirms EPA's authority under the Clean Water Act to require independently owned systems discharging to a centralized POTW to obtain an NPDES permit, and adequately encompasses the objections raised by commenters on the permit's co-permittee provisions. The decision, along with EPA's Response to Petition and Response to Comments, is incorporated herein as it pertains to the legal authority to include portions of the collection systems as co-permittees.[24]

In letters dated July 31, 2015 and August 5, 2015, EPA waived the application and signatory requirements of the Municipalities of Beverly, Danvers, Marblehead, Peabody and Salem as co-permittees under the NPDES discharge permit issued to the SESD. In those letters, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the operators of the municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

[24] These documents are located at http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Filings%20By%20Appeal%20Number/C158D222DA78251E85257D63004CC1EA/$File/Region%201%20Response%20to%20CRPCD%20Petition%20(092614).pdf and http://yosemite.epa.gov/oa/eab_web_docket.nsf/Filings%20By%20Appeal%20Number/F89699D1A0710BCF85257DE200717A93/$File/Denying%20Review....pdf.

EPA has presented its rationale for including municipalities that own/operate outlying portions of the treatment works in more detail in the Partially Revised Permit and Fact Sheet, as well as in response to comments on the Partially Revised Draft Permit, which are presented later in this document.

As described in the Fact Sheet (Section II.c. Operation and Maintenance of the Sewer System), each co-permittee is responsible for their portion of the collection system for activities required in Part I.C. Operation and Maintenance of the Sewer System, Part I.D. Unauthorized Discharges, and Part I.G. State Permit Conditions in the permit. Specifically, Part I.C of the permit places responsibility for the operation and maintenance of each Municipalities' section of the collection system on the Municipality that owns and operates it. Each Municipality is expected to maintain their portion of the collection system to prevent overflows. If an overflow does occur, the permit establishes that it is the respective Municipalities' responsibility to address it. Part I.D of the Draft Permit requires each co-permittee to notify EPA of any discharge of wastewater from a point source (including sanitary sewer overflows (SSOs)) from any portion of the wastewater collection system it owns/operates that are not authorized by the permit in accordance with Part II Section D.1.e.1 (Standard Conditions – 24-hour reporting).[25]

Nowhere in the final permit is the District made responsible for the operation or maintenance of the co-permittees' sewer systems or vice versa. In other words, EPA does not, however, invest the prefix "co" with the same meaning as the commenter, and does not agree that this is a necessary interpretation of the term. EPA simply employs the term to refer to the Municipalities that have been included under the permit in addition to the operator of the treatment plant and that have been required to meet a certain subset of permit conditions, notably those pertaining to proper operation and maintenance and pollution mitigation with respect to portions of the collection system over which they exercise ownership. The prefix "co-" is intended to be read in its limiting sense—i.e., having a lesser share in duty or responsibility, as in "co-pilot," or "for the limited purpose of"—and not in a manner that would create reciprocal or co-extensive obligations. To obviate any further concern on this point, EPA here clarifies and confirms that the co-permitting structure is not intended to and does not create joint and several liability among the District and its member communities, but instead delineates narrowly drawn obligations on

[25] As this information will also be available for review by the District upon request, co-permitting municipalities that own/operate portions of the collection systems will provide the District with greater information regarding satellite collection systems than it might otherwise have. This information will assist the District in assessing impacts that the collections systems are having on the portion of the POTW the District operates, including interceptor sewers and the POTW Treatment Plant.

each community with respect to the portion of the treatment works under its operation. EPA has added clarifying language to this effect to the permit.[26] [27]

This analysis is fully consistent with, and indeed is reinforced by, the Districts own description of the South Essex Sewerage District. According to the District, SESD was created by and operated pursuant to Chapter 339 of the Massachusetts Acts of 1925, as amended and supplemented ("Chapter 339"). Chapter 339 created the District as a separate legal entity to provide sewerage treatment services for the geographic area comprised of the above referenced municipalities. Under Chapter 339, the District owns, operates and maintains among other things interceptor sewer lines, pumping stations, the treatment plant and the ocean outfall pipe from the treatment plant. Each of the Municipalities within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Put another way, the SESD POTW is comprised of a publicly owned treatment plant located in Salem and devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature that extend through six different municipalities: the Cities of Salem, Beverly and Peabody, the Towns of Danvers and Marblehead, and certain parcels of land in the Town of Middleton.

Based on SESD's own estimates, wastewater from the municipalities represented 97% of the flow to the POTW for calendar year 2007.[28] SESD itself states that the District's influent is "less concentrated due to excessive I/I." A review of overflows reported to MassDEP since 2006 confirmed that sanitary sewer overflows (SSOs) have occurred in the following SESD member communities: Beverly (10), Danvers (8), Marblehead (35), Peabody (12), Salem (4) and SESD (3).[29]

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[26] The term "co-permittee" is found within regulations for storm water discharges. It is employed at 40 C.F.R. § 122.26 (b)(1) as "…a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is the operator." Although this provision is not directly applicable to a continuously discharging POTW, EPA's use of the term co-permittee in the permit is consistent with this definition because each of the co-permittees is only responsible for the portion of the treatment works which it owns and/or operates. It is also used in the context of privately owned treatment works, where it anticipates a flexible approach to be adapted to the circumstances of each permit, providing EPA with analogous discretion to either separately permit, co-permit, or not permit users of a privately owned treatment works as necessary to ensure compliance with CWA requirements. 40 C.F.R. § 122.44(m) ("For a privately owned treatment works, any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this part. Alternatively, the Director may issue separate permits to the treatment works and to its users, or may require a separate permit application from any user.")

[27] The permit is clear that the requirements of these parts of the permit are imposed on SESD and each of the co-permittees as separate entities and only for the portion of the treatment works which they own and/or operate. As such, separate reports must be submitted by SESD and each of the co-permittees. Compliance with these permit requirements shall be evaluated for each entity, separately. Page 1 of the permit specifically identifies the municipalities of Beverly, Danvers, Marblehead, Peabody and Salem as co-permittees for Parts I.C. (Operation and Maintenance), I.D. (Unauthorized Discharges), I.E. (Monitoring and Reporting) and I.G. (State Permit Conditions).

[28] SESD, 2008, "South Essex Sewerage District, Estimated Sewage Flows for CY 2007 by Party."

[29] Indeed, one member of the District itself bluntly acknowledges that, "The SESD system cannot handle all of the flow during major storm events as described in Exhibit A [of its comments]."

The City itself aptly frames the operational challenge (and regulatory dilemma) posed by multi-operator POTWs:

> "Under Chapter 339, the District owns, operates, and maintains, among other things interceptor sewer lines, pumping stations, the treatment plant and the ocean outfall pipe from the treatment plant. Each of the cities and towns within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system. Under 339 and other provisions of state law, the District does not have the authority to compel the Cities and Towns to carry out the various obligations that would be assigned to them by the Draft Permit. Neither does the District have the authority to carry out itself the obligation assigned to the Cities and Town by the Draft Permit.
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> Similarly, the Municipalities have no authority under Chapter 339 or otherwise to compel the District to act and have no authority to operate or maintain the District system or to act with respect to the obligations assigned to the District by the Draft Permit.

Yet, in EPA's view, the District has drawn the wrong conclusion from these jurisdictional realities. Based on the potential for jurisdictional conflict or confusion among the various operators of the treatment works, the District proposes to treat a substantial portion of the POTW as outside the regulatory definition of POTW. As a matter of fact and as a matter of law, this alternative is untenable, and is by no means necessary. To the contrary, EPA submits that the factors identified by the commenter counsel in favor of the approach taken here, which is to impose operation and maintenance duties, as well as other obligations, on several communities with respect to portions of the collection system under their operation and control because such communities are best positioned to address the problem. In exercising its authority to include all these entities in a single permit, albeit subject to differing duties, after determining such an approach to be necessary to ensure proper operation and compliance of the entire treatment works, not a portion of it, EPA does not diminish the complex institutional challenges that underlie management of municipal collection systems. For this reason, EPA has sought to carefully tailor each co-permittee's obligations under the permit to their respective portion of the collection system.

EPA believes that the co-permitting of the municipalities which own and/or operate portions of the collection system provides the District with the knowledge that the satellite collection systems which convey flows to the SESD interceptor lines and ultimately the treatment plant are required to be properly operated and maintained.[30]

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[30] It is worth noting that Chapter 339 states, in relevant part:

> Said board shall have control of the sewers, pumping stations and their appurtenances, as herein outlined, described or referred to, except as herein otherwise provided, and of their operation, and shall maintain them at all times in the best practicable operating condition. It shall prevent so far as

SESD stated in its comments that the fact sheet "is in error when it says that the point source addressed in the Marblehead NPDES Permit No.MA0100374, (Sargent Road Pumping Station) is part of the collection system conveying flow to the South Essex Sewerage District." It is not clear what portion of the quoted language SESD believes to be in error. It is beyond dispute that the Marblehead wastewater collection system transports wastewater to the SESD treatment works and that the Sargent Road Pumping Station is part of that collection system[31,32]. The fact sheet did not state or imply that the District owned or operated any part of the Marblehead collection system, and EPA does not dispute the District's statement that it does not own the Marblehead collection system. Neither of these facts would be necessary for EPA to include Marblehead as a limited co-permittee under the SESD NPDES permit. The only error EPA can identify in the quoted language is that the overflow piping that transports excess untreated wastewater from the Sargent Road Pumping Station to waters of the United States is indeed not part of the collection system transporting wastewater to SESD, but this is not material to EPA's addition of Marblehead as a limited co-permittee.

(5) SESD argues that the list of entities is incomplete and arbitrary as it does not include the state and county facilities. The list of "municipalities and areas" reported in the permit application (A.4.) included the six towns on the draft permit and did not include the state and county facilities. EPA stated in the Fact Sheet that flows are received from several state and county facilities. Based on information provided by SESD (See Attachment 5 - Estimated Sewage Flows for Calendar Year 2007 By Party) the state and county facilities contribute minimal flows and do not operate collection systems. Wastewater from the municipalities represented 97% of the flows to the POTW for calendar year 2007. Since that time, EPA has found that the Town of Middleton does not own/operate a satellite collection system so EPA has removed them as a co-permittee in the final permit. If we receive new information showing that the Town of Middleton should be a co-permittee, such as evidence of significant levels of I/I, EPA will consider

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> practicable the discharge into the sewers of substances which may cause obstruction therein or may impede the flow of sewage. It shall have the right to enter any premises from which any sewer or drain is connected with any part of the sewage system under its control, or with any tributary sewerage system, to determine the condition of said sewer or drain and the character of sewage, drainage or other wastes flowing therefrom, and whether such sewage, drainage or other waste is a source of obstruction to the sewers or works under its control, and said board if it deems it necessary or advisable for the proper and reasonable operation of the works may make regulations as to the character of any sewage, drainage or other wastes discharged into any sewage under its control or any sewer tributary thereto, and may also make regulations governing the rate of discharge of any such sewage, drainage or other waste…

Thus, Chapter 339 confers broad rights of entry and regulatory power upon the District, which is arguably at odds with the commenter's assertion that the District does not have the authority to compel its members to carry out the various obligations that would be assigned to them by the Draft Permit, nor the authority to carry out itself the obligations assigned to its members by the Draft Permit.

[31] Betsy Davis, USEPA, Memo to file, February 11, 1999, NPDES Permit File MA0100374.

[32] F. Carlton Siegel, Marblehead Water and Sewer Commission, to Linda Murphy, USEPA, May 16, 2005, NPDES Permit File MA0100374.

reopening and modifying the permit. The currently operating State/County facilities either discharge directly to the Danvers' collection system which then discharges to the SESD system (Essex Agricultural and Technical High School, Essex County Correctional Facility) or directly to the SESD collection system (Hogan Regional Center). The former Danvers State Hospital property was sold to a private entity and converted to an apartment community and as a private entity would not meet the definition of a co-permittee.

(6) The District stated that the provisions in the permit which make the municipalities co-permittees and the provisions of Part I.C, I.D, I.F and I.G are "impermissibly vague, arbitrary, capricious, without proper basis in fact and law, and an abuse of discretion." For the reasons stated in the foregoing responses, in the Partially Revised Permit and Fact Sheet and in response to comments on the Partially Revised Draft Permit, which are presented later in this document, and as explained below, EPA disagrees. The permit is not vague. It clearly identifies the responsibilities of the permittee and limited co-permittees, respectively. The permit conditions are also lawful and reasonable. Based on the provisions in statute and regulation, EPA has authority to require proper operation and maintenance of collection systems in order to achieve compliance with the NPDES permit. Since SESD does not own or operate some of the collection system that conveys flow to the treatment works, it is appropriate, if not necessary, to apply these conditions to the owners/operators of those systems as co-permittees. The requirements set forth in Parts C and D give more specific direction to the satellite systems as to what is expected related to operation and maintenance, duty to mitigate and reporting.

Part I.C. of the Permit sets forth requirements related to the operation and maintenance of the sewer system. Part I.C also sets forth particular requirements regarding operation and maintenance of satellite collections systems in the respective municipal POTWs, including:

- Provision to adequate staff to carry out the operation, maintenance, repair and testing functions required to ensure compliance with the terms and conditions of the permit;

- Maintenance of an ongoing preventative maintenance program to prevent overflow and bypasses caused by malfunctions or failure of the sewer system infrastructure, including an inspection;

- Development and implementation of a plan to control infiltration and inflow (I/I) to the separate sewer system including annual reporting of activities taken to minimize I/I; and

- Provision of an alternate power source to operate the treatment works.

Part I.D. of the Permit provides that the permit only authorizes a discharge through one specific outfall, serial number 001. Part D. also states that discharges through sanitary sewer overflows are not authorized and requires that SESD and co-permittees report to EPA any such overflows.

Part F provides SESD and the co-permittees the mailing addresses for submitting the required monitoring and reports.

Part G has been edited in the final permit to reflect that MassDEP is not jointly issuing this permit.

B) Comments submitted by David H. Knowlton, PE; City Engineer, City of Salem, dated June 6, 2008.

Comment B.1: EPA has no authority to name the City of Salem as co-permittee in the District's NPDES permit.

Response B.1: EPA disagrees. See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document.

Comment B.2: The City of Salem has no responsibilities regarding the operation of the SESD treatment works.

Response B.2: The City's comment appears to be based on an unduly limited interpretation of the term "treatment works." Consistent with the Clean Water Act and implementing regulations, EPA construes the term "publicly owned treatment works" or "treatment works" to include the State or municipally-owned collection system and appurtenances leading to the wastewater treatment facility, while the City apparently interprets the term to only encompass the wastewater treatment facility itself. Please see Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for a more detailed explanation of EPA's position.

EPA has determined that the City of Salem does own and operate a portion of the treatment works and that it is necessary and appropriate to assign it specific responsibilities with respect to such portions.[33] The City of Salem is a limited co-permittee and has been assigned responsibilities only for the portion of the treatment works (i.e. satellite collection system) owned and operated by it. The draft permit did not assign any responsibilities to the City of Salem for the operation of the SESD POTW Treatment Plant. Page 1 of the final permit identifies the municipalities of Beverly, Danvers, Marblehead, Peabody and Salem as co-permittees for Parts I.C. (Operation and Maintenance), I.D. (Unauthorized Discharges) and I.G. (State Permit Conditions). These requirements are imposed on SESD and each of the co-permittees as separate entities for the portion of the treatment works that they own and operate. Similar language has been added to page 1 of the final permit. As such, separate reports must be submitted by SESD and each of the co-permittees. Compliance with the permit requirements shall be determined for SESD and each of the co-permittees as individual entities.

The NPDES application submitted by SESD, dated April 7, 2005, lists the City of Salem as a municipality that is served by the SESD POTW Treatment Plant. According to the application,

[33] EPA also notes that Salem along with other member communities in the District, while not participating in the day-to-day operations of SESD, share a governing role relative to that entity. For example, the Salem Director of Public Works sits on the SESD board.

the City of Salem has a separate collection system under municipal ownership. This finding is further supported by comments submitted by SESD, which state that the "the District owns, operates and maintains, among other things interceptor sewer lines, pumping stations, the treatment plant, and the ocean outfall from the treatment plant. Each city and town within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines."

Comment B.3: The City of Salem, on its own volition, is committed to programs of I/I control and proper operation and maintenance of its collection system; and does not need to be "permitted" by EPA, through the SESD permit, to do so.

Response B.3: EPA acknowledges the City of Salem has programs to control I/I and to properly operate and maintain its collection system, and that it has the authority and means to undertake voluntary efforts in this regard. EPA expects the new NPDES requirements will complement and enhance the City's and other co-permittees' existing programs; will ensure that communities without programs or without adequate programs rectify these shortcomings; will improve water quality; will assure activities are being implemented subject to clear, enforceable requirements; and, ultimately, will improve treatment plant efficiency and water quality in the receiving waters.

As previously stated, EPA regulations at 40 C.F.R. § 122.41(e) require that wastewater treatment systems and related facilities must be properly operated and maintained to achieve compliance with permit conditions. Furthermore, it is a standard condition that permittees take all reasonable steps to minimize or prevent any discharge in violation of the permit (40 C.F.R. § 122.41(d)). Based on these provisions, EPA has authority and a responsibility to require appropriate operation and maintenance of the collection system.

Additionally, in its comments, SESD states that the District's influent is "less concentrated due to excessive I/I." As such, EPA believes that is it crucial that the owners/operators of the satellite collection systems fulfill the I/I requirements in the final permit in order, among other things, to continue to assure achievement of Secondary Treatment Standards.

Comment B.4: There is no discussion of moving forward with cost effective or value effective efforts to meet the I/I and O & M goals, which are considered good standard industry practice, and to which the City of Salem is committed to moving forward.

Response B.4: The goals of the collection system O&M requirements in the permit are the prevention of sanitary sewer overflows from the community's collection system and prevention of flow-related violations at SESD's treatment works. Cost effectiveness should clearly be considered in selecting projects to accomplish these goals. EPA encourages the City to consult the EPA document, Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems, which can be found on EPA's website at http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf,

which addresses the commenter's concerns. The publication is intended to provide guidance to EPA and state inspectors as well as the regulated community (i.e. owners and/or operators of domestic sewer systems) about criteria by which to evaluate a collection system's management, operation, and maintenance (CMOM) program activities. EPA believes that this flexible approach is reasonable, because it will allow the co-permittee to adapt based on local conditions and because the co-permittee is better positioned to determine how to deploy resources to address I/I problems efficiently based on their knowledge of collection systems.

Comment B.5: The remaining requirements of the City of Salem in the draft permit are vague and in some cases do not apply at all to the City.

Response B5: It is unclear why the commenter believes the remaining requirements are vague and why it feels such requirements do not apply to the City. As such EPA is unable to provide a meaningful or detailed response to address the commenter's concern. EPA notes, however that the permit clearly and specifically assigns responsibilities to the permittee, SESD, and each of the co-permittees. The first page of the permit states that SESD is authorized to discharge from the facility located at 50 Fort Avenue to Salem Sound "in accordance with effluent limitations, monitoring requirements and other conditions set forth herein." The next section lists the municipalities as co-permittees for Parts I.C, Operation and Maintenance; I.D, Unauthorized Discharges from the Sewer System; and I.G, State Permit Conditions. The final permit includes additional language specifying that each municipality is only responsible for the portion of the collection system owned and operated by the municipality. These provisions are clear enough to provide each party with sufficient notice of required conduct under the permit.

C) Comments submitted by Kimberly L. Driscoll, Mayor, City of Salem, dated June 5, 2008.

Comment C.1: The City of Salem should not be named as a co-permittee to the National Pollutant Discharge Elimination System (NPDES) permit which the Commonwealth of Massachusetts and the United States Environmental Protection Agency intends to issue to the South Essex Sewerage District. Title 40, Section 122.1 of the Code of Federal Regulations provides that "the NPDES program requires permits for the discharge of 'pollutants' from any 'point source' into 'waters of the United States.'" In fact, Section 122.1 further states that "the permit program…applies to owners or operators of any treatment works treating domestic sewerage…." Section 122.2 of Title 40, supra, defines owner or operator as "the owner or operator of any 'facility or activity' subject to the regulation under the NPDES program." The City of Salem is neither the owner nor operator of the South Essex Wastewater Treatment Facility, but rather is only one of six municipalities whose sewerage is treated at such facility. Thus, under Federal Regulation, the member communities must be removed from the permitting process in question.

Also, under Massachusetts law, the City of Salem should not be named as a co-permittee to the NPDES permit. Under Massachusetts General Laws Chapter 21, section 43(2) "no person shall

discharge pollutants into waters of the commonwealth nor construct, install, modify, operate or maintain an outlet for such a discharge or any treatment works, without a currently valid permit" issued by the director of Water Pollution Control, a division of the Department of Environmental Protection. Here, the South Essex Sewerage District is required to be named as the sole permittee under the NPDES permit as they control and operate the treatment facility which in turn discharges the effluent into Salem Sound. In contrast, the City of Salem and other member communities do not control the effluent discharged into Salem Sound, and as a result, are not proper parties to the NPDES permit.

As the City of Salem is not a proper party to the NPDES permit, the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection should amend the draft NPDES permit to exclude the City, and the other member communities as co-permittees.

Response C.1: EPA's decision to co-permit the City of Salem and other entities who own and operate portions of the treatment works is consistent with the CWA and federal regulations implementing the Act, including the regulatory provisions cited by the commenter. Please see the Response A.9, Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for a more detailed explanation of EPA's position. As explained in those responses, the mere fact that the District owns and operates the POTW Treatment Plant and outfall pipe does not insulate the owners and operators of other rest of the POTW from appropriate coverage under an NPDES permit to ensure that the POTW discharge meets the applicable requirements of the Act and regulations. According to SESD's NPDES application, the City of Salem owns and operates the collection system in the City of Salem, which conveys flows to the SESD WWTF for treatment and discharge. As such, the City of Salem is the proper limited co-permittee for the requirements in Parts I.C, I.D, and I.G of the final permit, which are designed to ensure the entire treatment works are properly maintained and operated; to mitigate the environmental impacts that result from improper maintenance or operation of such works; to ensure achievement of secondary treatment standards; and to ensure compliance with water quality standards.

40 C.F.R. § 122 and 124, "implement the National Pollutant Discharge Elimination System (NPDES) Program under sections 318, 402, and 405 of the Clean Water Act (CWA)." Section 122.1(b) addresses the "Scope of the NPDES permit requirement" and defines the NPDES permitting requirement for point sources, stating,

> "The NPDES program requires permits for the discharge of "pollutants" from any "point source" into "waters of the United States." The terms "pollutant," "point source" and "waters of the United States" are defined at § 122.2."

After defining the scope of NPDES permitting to apply to any point source discharging a pollutant into waters of the United States, section 122.1(b)(2) quoted in the comment, goes on to describe additional facilities (treatment works) that do not discharge but, because they produce

sewage sludge, must meet sludge-related requirements as part of the NPDES permitting process. Section 122.1(b)(2) provides,

> "The NPDES permit program established under this part *also* applies to owners or operators of any treatment works treating domestic sewage, whether or not the treatment works is otherwise required to obtain an NPDES permit, unless all requirements implementing section 405(d) of the CWA applicable to the treatment works treating domestic sewage are included in a permit issued under the appropriate provisions of subtitle C of the Solid Waste Disposal Act, Part C of the Safe Drinking Water Act, the Marine Protection, Research, and Sanctuaries Act of 1972, or the Clean Air Act, or under State permit programs approved by the Administrator as adequate to assure compliance with section 405 of the CWA."

Because section 122.1(b)(2) provides that NPDES permitting "also applies to owners or operators of any treatment works treating domestic sewage, whether or not the treatment works is otherwise required to obtain an NPDES permit," the provision is not exclusionary, but includes additional sources that are not otherwise covered. In other words, contrary to the commenter's interpretation, section 122.1(b)(2) does not narrow coverage of the NPDES permitting program under section 122.1(b)(1) to the owner and operator of the treatment facility itself. Section 122.1(b)(2) simply states that the NPDES permitting requirement applies to two types of sources—point sources and treatment works—and implements NPDES permitting for certain sources of sewage sludge subject to special sludge disposal requirements under the CWA, which is not directly pertinent to the question of whether an owner and operator of a portion of a POTW's collection system may be named as a limited co-permittee.

EPA's action in this case is consistent with Massachusetts General Laws Chapter 21, § 43(2). Nothing in that provision suggests that EPA is limited to permitting the operator of the treatment facility itself, but instead by its plain language implicates "any person" that discharge pollutants into waters of the Commonwealth. The SESD Treatment Works is a multi-operator POTW. Here, the portions of the sewage collection system owned and operated by the City of Salem comprise the publicly owned treatment works that is discharging into jurisdictional waters.

See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for further discussion.

The City of Salem has been maintained as a co-permittee in the final permit.

Comment C.2: The draft NPDES permit also imposes particular duties and responsibilities on the City of Salem and other member communities with respect to the operation and maintenance of the sewer system. The South Essex Sewerage District has always maintained and operated the sewerage disposal treatment facility in Salem and has strictly followed Federal and State regulations with regard to the discharge of effluent into waters of the United States and Commonwealth.

The City of Salem Budget for Fiscal Year 2009, which begins on July 1, 2008 has not accounted for funds to hire the personnel, who possess the knowledge, skill and expertise necessary "to carry out the operation, maintenance, repair and testing functions to ensure compliance with the terms and conditions" of the draft NPDES permit. Assuming the City did have adequate funds to hire personnel to oversee the terms and conditions of the draft permit, this would create a significant interference with the operations of the South Essex Sewerage District, which for years have effectively and competently operated the Salem treatment facility without creating an adverse effect to human health or the environment.

Response C.2: As stated in the Response C.1, EPA has determined that owners and/or operators of the collection system portion of the POTW must comply with the operation and maintenance requirements in the permit for the portion of the collection system it owns and/or operates to ensure that compliance with the permit and the goals of the Clean Water Act are achieved. The City's previous comments regarding its "commitment to programs of I/I control and proper operation and maintenance of its collection system" on a voluntary basis suggests that it should be capable of ensuring compliance with the permit for the portion of the collection system that it owns and operates. Also, the City has not identified any reason for interference with operation of the SESD treatment facility itself, as the permit requires the proper operation and maintenance of the satellite collection system owned and operated by the City of Salem. Furthermore, proper operation and maintenance of the satellite sewer system will reduce the quantities of I/I being conveyed to the treatment works and enable the treatment works to continue to achieve the 85% removal requirement for Secondary Treatment and reduce the frequency and occurrence of SSOs.

Based on the terms of the draft permit, the City has been on notice of the potential for obligations as a co-permittee under an NPDES permit, which the Region hopes has facilitated fiscal planning. EPA notes that the requirements under Part I.C. of the Permit phase in over a period of time. Further, the Region notes that permits are not made effective until at least 60 days following issuance, which should provide an additional period to prepare to comply with the permit.

D) Comments submitted by William F. Scanlon, Jr., Mayor, City of Beverly, dated June 4, 2008.

Comment D.1: The draft permit is facially improper and fatally defective and must be amended by striking any reference to the City of Beverly as a "co-permittee". This is so because inclusion of the City of Beverly in the draft permit is unsupported in fact or law, and constitutes an improper attempt by the permitting authority to expand the regulatory scope of the Massachusetts Clean Waters Act (c.21, secs 43-45) and to the Federal Clean Water Act.

The permittee/applicant in this matter is the South Essex Sewerage District ("SESD"). SESD is a duly constituted, fully viable legal entity created by the Massachusetts Legislature, pursuant to chapter 339 of the Acts of 1925. SESD is an entity which operates and maintains wastewater treatment facilities which discharge effluent from the SESD facility at 50 Fort Avenue, Salem,

MA. That effluent is discharged into Salem Sound (North Coastal Watershed Segment MA 93-25).

Response D.1: According to the District's NPDES application, the City of Beverly owns and operates the collection system in the City of Beverly that conveys flows to the SESD POTW Treatment Plant for treatment and discharge. As the District states in Comment A.9 "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." As such, the City of Beverly is the proper permittee for the requirements in Parts I.C, I.D, and I.G of the final permit.

See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for further discussion.

The City of Beverly has been maintained as a co-permittee in the final permit.

Comment D.2: Neither the Federal regulatory scheme, nor its cognate State provisions allow either DEP or EPA to regulate input to public or private sewers, but rather those statutory provisions aim to regulate discharges into subject waterways. Were it otherwise, any person who has ever opened a water tap, taken a shower or flushed a toilet virtually anywhere in the United States would be subject to the regulation of DEP and EPA, since virtually all such contributions will sooner or later find their way into a waterway or coastal water. This could not have been the intent of the United States Congress nor of the Massachusetts Legislature when they enacted the subject legislation.

Response D.2: The Clean Water Act and EPA regulations, which are operative with respect to issuance of the federal permit, define "treatment works" to include "sewage collection systems." CWA § 212. This encompasses the infrastructure owned by a State or municipality which collects sewage from users for conveyance to a POTW Treatment Plant. Nothing in the definition of POTW would lead one to conclude that individual domestic discharges to the collection system must be regulated. In relevant part, EPA regulations define "sewage collection system" at 40 C.F.R. § 35.905 as:

> ".... each, and all, of the common lateral sewers, within a publicly owned treatment system, which are primarily installed to receive waste waters directly from facilities which convey waste water from individual structures or from private property and which include service connection "Y" fittings designed for connection with those facilities. The facilities which convey waste water from individual structures, from private property to the public lateral sewer, or its equivalent, are specifically excluded from the definition…."

Put otherwise, a municipal satellite collection system is subject to NPDES jurisdiction under the

Region's approach insofar as it transports wastewater for others to a POTW treatment plant for treatment. This test (i.e., common sewer installed to receive and carry waste water from others) draws a principled, predictable and readily ascertainable boundary between the POTW's collection system and the users. This test would exclude, for example, single user branch drainpipes that collect and transport wastewater from plumbing fixtures in a commercial building or public school to the common lateral sewer, just as service connections from private residential structures to lateral sewers are excluded. See Partially Revised Fact Sheet, Attachment 1 at 10-11.

According to the NPDES application submitted by SESD, the City of Beverly owns a portion of the sanitary sewer system which conveys flows to the SESD POTW. As such, the City of Beverly is an appropriate limited co-permittee for the limited purposes set forth in the permit relative to their portion of the POTW. Please see Response A.9 for further detail.

Comment D.3: A co-permittee is defined as "a permittee to an NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator." 33 C.F.R. § 1362(b). In this case, the City of Beverly does not serve as an "operator." Hence, it should not even be listed as a co-permittee.

Response D.3: The term "co-permittee," for example, is found within NPDES regulations for storm water discharges. It is employed at 40 C.F.R. § 122.26 (b)(1) as "…a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is the operator." EPA's use of the term co-permittee in the permit is consistent with this definition because each of the co-permittees is only responsible for the portion of the treatment works which it owns and/or operates (see page 1 of the final permit).[34]

EPA respectfully disagrees with the commenter's assertion that it is not an operator of its portion of the SESD POTW. As the District states in Comment A.9, "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." This description is consistent with the SESD enabling legislation.

The responsibilities in the permit that are attributable to the City of Beverly and the other co-permittees pertain only to portions of the collection system which it owns and/or operates. The collection system is part of the treatment works, and the City of Beverly is the owner/operator of a portion of the collection system. As such, the City of Beverly is an appropriate limited co-permittee for the purposes set forth in the permit relative to their portion of the SESD POTW.

[34] The term co-permittee is not among the defined terms in the Clean Water Act. EPA has been unable to locate, and thus establish the relevance of, the specific citation referenced by the commenter.

Comment D.4: Finally, with what appears to have been almost superhuman prescience, the Massachusetts Legislature made it clear beyond any reasonable dispute that it is SESD which is responsible for its activities, and not the constituent members of the SESD. In the second paragraph of section 10 of the Act which created SESD, the Legislature decreed:

"..Said district is hereby made responsible for any work done and actions taken under the provisions of this act and shall alone be liable for the consequences thereof, and it shall indemnify and save harmless the several cities and towns within which such work is done or actions taken, and also the commonwealth and said county, against all damages which may be recovered against them or any of them on account of any such work or actions and shall reimburse them or such of them as are obliged by law to pay the same, for any and all sums paid as damages or otherwise account of such works or actions, including any expenses which any such city or town shall incur by reason of any defect or want of repair in any park road, street, way, land or location caused by the construction of any said sewers or other works or by maintaining or repairing the same, but excluding sums paid to the district on account of the cost of construction and of maintenance and operation of said sewers and other works; provided, that in the case of claims for damages for injuries to person, property arising from or on account of any such claim and an opportunity to defend the same."

Thus, the Legislature manifested in the clearest possible terms that it is the SESD which is solely responsible for its actions and "the consequences thereof" and not individual members. The attempted inclusion of the City of Beverly (and other municipalities) as a co-permittee also falls far short of minimal requirements of due process, both substantive and procedural.

Response D.4: EPA's authority to co-permit certain communities that own and operate portions of the SESD POTW is not dependent on the indemnification provisions of state law, i.e., Chapter 339. See the response to Comments A.9 and D.1 for further explanation.

EPA is not in a position to definitively interpret the indemnification provisions of Chapter 339, but note that it does not appear to be inconsistent with the action being taken by EPA. If the indemnification provision operates as the commenter suggests, then conceivably the co-permittees could seek recourse from SESD for any damages and "expenses which any…city or town shall incur by reason of any defect or want of repair in any park road, street, way, land or location caused by the construction of any said sewers or other works or by maintaining or repairing the same."

The City of Beverly has been maintained as a co-permittee in the final permit.

Comment D.5: From a procedural point of view, Beverly has not filed any application with USEPA or Mass. DEP for a discharge permit. Nor has Beverly participated in any way in the proceedings before the permitting agencies. It is unconscionable to attempt to impose substantial requirements as a co-permittee upon an entity which is not and has not been a participant in the permitting process.

Response D.5: The NPDES application filed by the permittee, SESD, lists the City of Beverly as owner of a sanitary sewage collection system and served by the SESD POTW Treatment Plant. EPA permit application requirements are designed to facilitate the permitting process and to aid the permitting authority by ensuring submittal of relevant information. In this case, SESD submitted the permit application, including requisite information about satellite systems. As detailed above, EPA is authorized to regulate the entire POTW (including the treatment plant and collection systems). Please see Partially Revised Fact Sheet Attachment 1 at 14 regarding the function of the permit applications in the permitting process.

The City has been notified of EPA's action in this case in accordance with federal regulations. Under the regulations at 40 C.F.R. part 124, EPA is required to publish a public notice of the preparation of a draft NPDES permit and allow at least 30 days for public comment. A public notice was published in the Salem News. EPA also sent copies of the public notice, the fact sheet and the draft permit to the applicant, SESD, and each of the co-permittees, including the City of Beverly, by certified mail.

EPA tried to further involve the co-permittees in the permitting process by contacting each co-permittee based on contact information provided by SESD. On March 11, 2008, EPA contacted City of Beverly Engineering Department, based on contact information provided by the SESD. EPA spoke with the Assistant Engineer for the City of Beverly as the City Engineer was on sick leave. EPA confirmed the name and address of the contact and informed the City that it would be named a co-permittee on the SESD NPDES permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the City of Beverly as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the City of Beverly and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16

E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

The City has participated in the permitting process in the manner provided for by federal regulations indicating that it was, in fact, provided sufficient notice of EPA's contemplated action in this case. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17. The commenter may also appeal the permit to the U.S. Environmental Appeals Board in accordance with 40 C.F.R. § 124.19 and to the First Circuit Court of Appeals in accordance with CWA § 509.

Comment D.6: In its last renewal, the permitting authorities suggested that if SESD did not properly control contributions to the treatment system by member communities, they could be added as co-permittees. However, assuming for the purpose of discussion that the permitting authorities had the authority to impose this obligation on SESD, there has been no evidentiary showing that SESD has failed to meet its obligation under Comment 8 to the prior permit.

Response D.6: In the Response to Comments for the 2001 Permit Reissuance, EPA stated in response to Comment 8 that, "If the District and its member communities cannot cooperatively develop methods to comply with the requirements, the District should report this to EPA and DEP. Based on this information, we may modify the permit to include the member communities as co-permittees for the purpose of complying with these requirements." However, the Infiltration/Inflow requirements were withdrawn in their entirety by EPA on September 10, 2001 based on an appeal by SESD and, therefore, no obligations for I/I were placed on SESD. In its 2001 Notice of Appeal and Petition for Review, SESD stated that EPA should have issued permits to each community if its intention was to regulate community activities. EPA believes the co-permitting approach taken in this permit is consistent with this recommendation and is a reasonable course of action for the reasons stated elsewhere in this response to comments.

Briefly, EPA has chosen to provide a more comprehensive approach to permitting wastewater treatment facilities by co-permitting the satellite collection systems to ensure the proper operation and compliance of the entire treatment works, and not just a portion of it. In comments submitted by SESD, the District states that excessive I/I causes the District's influent to be less concentrated and therefore, making it more difficult to achieve the 85% removal requirement for $CBOD_5$ and TSS at all times. Discharge Monitoring Reports (DMRs) show that there is a significant increase in flows to the wastewater treatment facility during wet weather. Given that SESD does not own and operate the entire collection system, the District is unable to assure the quantity and source (i.e., I/I) of the flows to the SESD POTW Treatment Plant. As such, the naming of co-permittees is reasonable to assure that the entire collection system is properly operated and maintained, and SESD's ability to comply with the Permit (to the detriment of both SESD and the receiving waters) is not compromised by the actions of others. Each of these reasons informed EPA's decision to add the member communities as limited co-permittees.

The City of Beverly remains a co-permittee in the final permit.

E) Comments submitted by Jackie Belf-Becker, Chair, Board of Selectman, Town of Marblehead, dated May 28, 2008.

Comment E.1: Please note that the Town [of Marblehead] is neither the applicant nor the Operator, as are defined in the regulations, for the Draft Permit and therefore objects overall to its inclusion as a "Co-Permittee" in the Draft Permit.

Response E.1: According to the District's NPDES application, the Town of Marblehead owns and operates the collection system in the Town of Marblehead which conveys flows to the SESD POTW Treatment Plant for treatment and discharge. As the District states in Comment A.9 "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." As such, the Town of Marblehead is the proper permittee for the requirements in Parts I.C, I.D, and I.G of the final permit.

See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for further discussion.

The Town of Marblehead has been maintained as a co-permittee in the final permit.

Comment E.2: The Town did not file for the NPDES application for the SESD. The Town has not participated in any of the proceedings to date with the permitting agencies. It is beyond the reaches of the permit granting authority to attempt to pull in the Town and impose liabilities and legal requirements as a "co-permittee" when it has not been a participant in the process and has never received notice of same. If one were to extrapolate what appears to be the reasoning of the permitting authority, then both the Commonwealth and the County should be co-permittees along with the Town of Middleton. The permitting authority in fact acknowledges that there are other entities which provide effluent to the SESD. In the Fact Sheet at Section V.A. Process description states that in addition to the six connected municipalities, the treatment plant receives flow from "several county and state facilities." If the six cities and towns are to be listed as Co-Permittees, the Commonwealth of Massachusetts and Essex County should be similarly included. Clearly, the determination not to include these entities was arbitrary, capricious and an abuse of discretion. The inclusion of some entities and not others has no basis in fact or in the law.

Response E.2: As previously stated, the Town of Marblehead was listed in the NPDES application submitted by the SESD as one of the six municipalities owning a sanitary sewage collection system which convey flows to the SESD wastewater treatment facility.

As explained above, EPA has broad discretion in determining what information is needed for permit development as well as the manner in which such information will be collected.

The Town has been notified of EPA's action in this case in accordance with federal regulations. Under the regulations at 40 C.F.R. Part 124, EPA is required to publish a public notice of the preparation of a draft NPDES permit and allow at least 30 days for public comment. A public notice was published in the Salem News. EPA also sent copies of the public notice, the fact sheet and the draft permit to SESD, and each of the co-permittees, including the Town of Marblehead, by certified mail.

EPA tried to further involve the co-permittees during the permitting process by contacting each co-permittee based on contact information provided by SESD. On March 11, 2008, EPA contacted the Superintendent of the Water and Sewer Commission for the Town of Marblehead, based on the information provided by SESD. The Superintendent was identified by SESD as the representative for the Town of Marblehead. EPA informed the Superintendent of its intention to name the Town of Marblehead as a co-permittee in the SESD permit. EPA explained the permitting process including the public notice process and comment period and confirmed a mailing address to send the draft permit. EPA also notified the Superintendent, who is the contact on NPDES MA0100374 that EPA intended to terminate the existing NPDES permit for the Sargent Road Pump Station and to apply the SSO requirements in the SESD permit to the Sargent Road Pump Station. Finally, EPA confirmed the name and address of the contact and informed the Town that it would be named a co-permittee on the SESD NPDES permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

The Town has participated in the permitting process in the manner provided for by federal regulations indicating that is was, in fact, provided sufficient notice of EPA's contemplated action in this case. EPA received written comments from the Town. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17. The commenter may also appeal the permit to the U.S. Environmental Appeals Board in accordance with 40 C.F.R. § 124.19 and to the First Circuit Court of Appeals in accordance with CWA § 509.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the Town of Marblehead as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material

concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the Town of Marblehead and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

Co-permitting of the municipalities identified in the permit will address the source of the vast majority of extraneous flow. Based on SESD estimates, wastewater from the municipalities represented 97% of the flows to the POTW for calendar year 2007.[35] Additionally, it is EPA's understanding that the Commonwealth/County facilities do not own or operate intercepting sewers, outfall sewers or sewage collection systems as these facilities discharge directly into the Danvers' collection system or SESD. Therefore, these entities do not operate a collection system component of the POTW and are not subject to co-permitting requirements.

Comment E.3: The Draft Permit places planning, reporting and mitigation responsibilities upon the Town scheduled for the current and/or upcoming fiscal year. Likewise, the Draft Permit preamble states that the Co-Permittees will be specifically responsible for conditions included in Part F. Monitoring and Reporting. This section specifies the monthly reporting of effluent water quality. The process involved with the monthly review and approval of the results by the individual Co-Permittees is cumbersome and restrictive. As stated previously, the Town does not have the technical understanding or oversight of the SESD treatment facility to authorize and underwrite the submission of these reports.

Response E.3: EPA agrees and has removed Part F as a requirement. The mailing addresses for the Infiltration/Inflow Plan and Annual Summary Reports are now included in Part I.C.

Comment E.4: The text related to the responsibilities of the Co-Permittees contained within the preamble of the Draft Permit is ambiguous. It is not specific in stating that the Town is not responsible for conditions related to the operation of the treatment facility or the quality and monitoring requirements of the discharge. It also does not specifically exclude the Town from responsibility for the proper management, control and reporting requirements of the remaining Co-Permittees. As a Co-Permittee, the Town could be found responsible for the failure of one of the remaining Co-Permittees or the SESD. Additionally, while employees of the Town have a general understanding of treatment facilities, the Town does not have sufficient knowledge of the SESD plant's equipment, processes or controls to fully understand the permit requirements or to ensure compliance. The Town would therefore be responsible for the actions of others outside the Town's control, scope and authority and which inclusion of any such requirements, no matter how vaguely stated, as previously noted is an abuse of discretion by the permitting authority.

[35] SESD, 2008, "South Essex Sewerage District, Estimated Sewage Flows for CY 2007 by Party."

Response E.4: As discussed in the above response, the draft permit is clear and specific as to the responsibilities of the permittee, SESD, and each of the limited co-permittees. Please see the response to Comment E.3. The Town is not responsible for the proper management, control and reporting requirements of the remaining co-permittees or SESD. It is not responsible for the conditions relating to the operation of the SESD POTW Treatment Plant or the quality and monitoring of the discharge from such plant.

The requirements of Part I.C apply only to the portion of the facility of which the limited co-permittee is the owner and/or operator. In the case of the Town of Marblehead, these requirements only apply to the collection system owned and/or operated by the Town of Marblehead, including the Sargent Road Pump Station. Each co-permittee is required to develop and implement an Infiltration and Inflow Control Plan for the portion of collection system it owns and/or operates. Compliance with these requirements is evaluated for each limited co-permittee as an individual. There are no joint obligations or liabilities created by this permit.

Comment E.5: Successful operation of the treatment facility requires the plant influent be maintained within reasonable water quality standards for treatability. This requires regulatory control over connected services through sewer use regulations. The Town does not have the legal capacity to regulate the other municipalities connected to the treatment facility or the residential, commercial and industrial users within those communities.

Response E.5: EPA fully agrees with the notion that successful operation of the treatment facility requires the plant influent be maintained within reasonable water quality standards for treatability, which is one of the motivations behind the decision to implement a co-permittee structure in this permit. MassDEP and federal regulations do require that discharges to collection systems be regulated. For example, 314 CMR 12.03 (5) requires that any person operating a system of sewers shall adopt, keep current and enforce a set of rules and regulations for sewer use to provide for the protection of these works, the wastewater treatment plant and the receiving waters. 314 CMR 12.03(6) further requires that any person operating a system of sewers shall prohibit the discharge of wastes into such sewers that will violate the provision of 314 CMR 12.08. 314 CMR 12.08, titled Prohibitions and Standards for Discharge to POTWs includes general and specific requirements for discharges to collection systems. In summary, pursuant to MassDEP regulations, all entities that operate sewer systems must have rules and regulations that control discharges to its sewer system.

Similarly, federal regulations at 40 C.F.R. part 403, General Pretreatment Regulations for Existing and New Sources of Pollution, contain requirements to achieve the goals of: preventing the introduction of pollutants into POTWs from non-domestic sources which will interfere with the operation of a POTW; preventing the introduction of pollutants into POTWs which will pass through the treatment works or otherwise be incompatible with such works and; improving opportunities to recycle and reclaim municipal and industrial wastewater and sludge. Pursuant to 40 C.F.R. § 403.8 the District was required to develop an Industrial Pretreatment Program. Requirements for industrial pretreatment are included in Section B of the Permit – Industrial

Users and Pretreatment Program. This section of the permit applies only to SESD and not the Town of Marblehead. Please see page 1 of the Permit for the assigned responsibilities.

Federal regulations require that POTWs regulate the discharges from non-domestic sources. Because the design flow of the POTW exceeded the criteria in section 403.8 (5 mgd), an industrial pretreatment program was required. In this instance, the District obtained the appropriate legal authority to regulate non-domestic sources in each of the member communities, and so it is the entity required to implement the pretreatment requirement in part B of the permit. Nothing in state or federal regulations or the permit requires any of the municipalities to regulate discharges in any other City or Town.

Comment E.6: Permit condition C.4.d requires the monthly calculation of Infiltration and Inflow volume for the Town's wastewater collection system. This value is subject to the influence and interference from many other parameters including variations in water use, metering inconsistencies and subjective evaluations. The permit text should specify the approach for calculating this value. The lack of specific standards within the Draft Permit, like this condition C.4.d. make the draft permit impossible to comply with and impossible to properly enforce.

Response E.6: The permit requires the "calculation of the annual average I/I and the maximum I/I for the report year." There is no requirement to report the monthly I/I flow. EPA recognizes that the calculation of I/I is subject to numerous variables and that every collection system is different. As such, EPA does not set a standard method for calculation. A flow data analysis requires engineering judgment. EPA recommends that the Town consult the MassDEP document, "Guidelines for Performing Inflow/Infiltration Analyses and Sewer System Evaluation Survey", Revised January 1993, which can be found at http://www.mass.gov/eea/docs/dep/water/laws/i-thru-z/iiguidln.pdf . Section IV, Subsection 5 of this guidance document provides specific direction on estimating sanitary flow, infiltration and inflow. So long as the Town sets forth its assumptions regarding how estimates of I/I levels were derived in its submissions, this will be sufficient for EPA's purposes.

Comment E.7: The EPA attempts to revoke the Town NPDES permit #MA0100374 are arbitrary and capricious and violate due process requirements.

The Town reiterates its position that it is not an applicant for this Draft Permit. To the contrary the Town has sought renewal of a separate NPDES permit No. MA0100374. The permitting authority recognizes the Town's status as a Permittee in Section VII of the Fact Sheet. The permitting authority is aware and acknowledges that the Town only uses the by-pass for which they hold a NPDES permit in the case of major storm events. The factors leading up to the initiation of a by-pass event were fully explained in a letter to Mr. Eric Worrall of the Department of Environmental Protection on January 8, 2007 (attached as Exhibit A).

The EPA does not have legal authority to revoke/terminate the Town NPDES permit by issuing the Draft Permit to SESD. The EPA acknowledges that a letter was sent to the Town on April 11, 2005 informing them that EPA was going to terminate the NPDES permit. (See April 14, 2005 letter of EPA attached as Exhibit B). In accordance with the regulations and the letter of the EPA, the Town notified EPA and requested that the individual permit be reissued. (See letter of May 16, 2005 from the Town attached as Exhibit C.) Until the Draft Permit was issued, three (3) years later, the Town received no further notice concerning termination of its permit. The "notice" in the Draft Permit which states, "However, given that the Town is named as a co-permittee in the draft permit and the point source is addressed in MA0100374 is part of the collection system conveying flow to the South Essex Sewerage District, EPA believes that coverage under this permit should replace coverage under Permit No. MA0100374. Accordingly EPA will revoke coverage under NPDES Permit MA 0100374 upon the effective date of this permit. This attempt to revoke the Town permit is arbitrary, capricious and an abuse of discretion and flies in the face of the regulations as cited by the EPA in its April 11, 2005 letter and as are currently required. (See 40 C.F.R. 122.64(b) and 40 C.F.R. 124.5 et seq.) The EPA has no legal authority to revoke the Town permit merely by issuing a Draft Permit for the SESD. The Town was not an applicant and is not the operator of the SESD and the mere fact that the permitting authority recites that "EPA believes" that the SESD Draft Permit should replace the Town permit, does not give it the authority to do so. The actions of the EPA have violated the due process rights of the Town. The actions of the EPA have no basis in law or in fact as set forth above.

Response E.7: EPA is *not* purporting to deny the Town's individual permit through issuance of the draft SESD permit. EPA will be proposing to terminate the Town's individual NPDES permit for an SSO by denying the permit renewal application but has not yet done so. When it determines it is appropriate to proceed with that proposal, EPA will issue a notice of intent to deny the permit application following the requirements of Parts 122 and 124, including 40 C.F.R. §§ 122.64 and 124.5. The Town will have an opportunity to comment on and challenge that decision if it so chooses. Until that decision becomes final, the Town will still be authorized to operate in accordance with its existing permit. Note, however, that EPA has also retained Marblehead as a co-permittee to the SESD permit, and as part of the POTW, the Town will have to comply with the co-permittee provisions that are applicable to it. EPA believes that the preventing SSOs is a more effective approach from the standpoint of protecting water quality and carry out the objectives of the Act than authorizing the SSO discharge, which has led EPA to frame the permit according to a co-permittee structure. To the extent that there are differing requirements between the co-permittee requirements and the Town's individual permit, the Town will need to comply with all provisions, including the more stringent of the two until any permit termination is effectuated.[36] Prior to processing any decision on the notice of intent, EPA at this

[36] For the convenience of the commenter, EPA has briefly summarized its position regarding the permit authorizing SSO discharges from the Sargent Road Pumping Station below. This will position will be described in more detail in the Notice of Intent to Deny the Permit Application.

The Town of Marblehead was issued NPDES Permit No. MA0100374 on September 27, 1994. The permit expired on September 27, 1999, but was administratively continued based on the reapplication submitted by the Town. Part I.A.1. of the permit specifically does not authorize the discharge of wastewater from the Sargent Road Pumping Station

point expects to wait until the Final Permit becomes effective and any challenges to it resolved. Approaching these proceedings in sequence makes sense from an administrative efficiency and resource standpoint, and will also ensure that a framework for controlling harmful SSO events remains in place at all times.

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on an intermittent or continuous basis, but Part I.A.2. then authorizes emergency, upset or bypass discharges if in accordance with the requirements of Part II of the permit and 40 C.F.R. § 122.41, and requires that the discharge flow rate, total residual chlorine concentration and fecal coliform bacteria count be monitored and reported. Part I.A.3. of the permit includes a narrative limit requiring that any discharge shall not cause a violation of State Water Quality Standards.

According to EPA records and the Town's letter dated January 8, 2007 (but in response to November 20, 2007 letter) to Eric Worrall of MassDEP, the Town is not in compliance with its NPDES permit. The permit has clear requirements about when a discharge from the Sargent Road Pump Station is authorized and makes special note that those conditions require specific report requirements. EPA, however, has no record of the Town of Marblehead ever reporting a bypass of the Sargent Road Pump Station to EPA or submitting Discharge Monitoring Reports (DMRs) as required by the permit to EPA or MassDEP. Furthermore, the Town's letter to Eric Worrall indicates that systems in place at the Sargent Road Pump Station would not be capable of monitoring the discharge as required by the permit.

The NPDES permit also includes specific State Permit Conditions which require that the discharge be screened and chlorinated. However, as stated in the Town's letter to MassDEP, chlorination has been discontinued in response to reports from local lobster fisherman about the staining of lobster shells in the vicinity of the discharge.

EPA has concluded that this authorization to discharge SSOs without the imposition of required effluent limitations was inappropriate. The CWA makes it unlawful for any person to discharge any pollutant from a point source into the waters of the United States, except in compliance with a permit issued by EPA or an authorized state under the NPDES program. 33 U.S.C. §§ 1311(a), 1342, 1362. Once issued, compliance with a NPDES permit constitutes compliance with the CWA. 33 U.S.C. § 1342(k). Section 402 of the Act, 33 U.S.C. § 1342, provides that these permits must meet all applicable requirements under the Act. Central among these requirements is that each permit must require discharges to meet applicable technology-based requirements and water quality-based effluent limitations. For instance, section 301 of the Act requires that all discharges achieve effluent limitations based on prescribed treatment technology, as well as meet any other more stringent effluent limitations necessary to meet applicable state water quality standards. 33 U.S.C. § 1311(b)(1)(C); *see also* 40 C.F.R. 122.44(a), (d). Thus, a NPDES permit may not authorize a discharge from a sanitary sewer except in compliance with applicable technology-based effluent limitations and any more stringent effluent limitations necessary to comply with water quality standards.

As a practical matter, untreated SSOs ordinarily cannot meet applicable technology-based requirements (and, in many cases, applicable water quality-based effluent limitations). Thus, NPDES permits often simply prohibit SSOs. In that there is no basis for issuing a permit authorizing discharges from the Sargent Road Pumping Station without imposing stringent effluent limits on such discharges, which the Town is unable to meet; it would make little sense to issue such a permit, as it would require the construction of a treatment system to address relatively infrequent and irregular discharges. EPA believes that it is more appropriate to address a contributing source of these SSOs through an emphasis on flow reduction and/or an increase collection system capacity. EPA does therefore believe that it is not advisable to re-issue the permit authorizing discharges from this facility.

According to the Town's letter to MassDEP, it seems that there are two issues causing the need for emergency bypasses at the Sargent Road Pump Station. First, the SESD Pump Station at Beach Street in Marblehead does not have sufficient capacity to handle the flows from the Town of Marblehead. On the other hand, the Town of Marblehead has a documented inflow problem and a likely infiltration problem. EPA believes this capacity problem illustrates the need for SESD and the member communities to work together to address this issue.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the Town of Marblehead as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the Town of Marblehead and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

Please see the Response A.9 above regarding the permit application issue and Marblehead's claim that it is not an operator of the POTW.

Comment E.8. Additionally, from an implementation position the Draft Permit simply requires the reduction and elimination of excessive infiltration and inflow with each municipality's system. By contrast the Town's existing NPDES permit allows an overflow through a specific outfall location with established guidelines and conditions. The elimination of the Town's ability to release excessive wastewater flows under a separate NPDES permit will prevent the Water and Sewer Department from responding to emergency situations in a controlled manner. Under the current permit, the Town can release excessive flows to a point well off shore within the established treatment and monitoring requirements. Without the use of the outfall permit, the Town will be forced to take a no response action. This will, during extreme weather events, result in the release of wastewater within the confines of the collection system. This form of release will result in a greater risk to public health and property damage. The released wastewater will also have a greater impact on coastal and inland environmental resources compared to an offshore release. While the Town continues in its effort to remove excessive wastewater inflow and infiltration, the Sargent Road outfall remains a critical part of its emergency response during extreme weather events. It is impossible both physically and financially to attain the standard which the permitting authority is attempting to attain. The SESD system cannot handle all of the flow during major storm events as described in Exhibit A. The Town will suffer great financial and personal loss and place the public health and environment in danger should they not be permitted to continue to use the by-pass. (See Exhibit A) This attempt to revoke the Town's NPDES permit is arbitrary and capricious and an abuse of discretion and will have far greater detrimental impact on public health and the environment than allowing the by-pass to occur, to say the least of which the condition is impossible to implement.

Response E.8: As discussed in the response to Comment E.7, a permit authorizing discharges from separate sanitary sewer systems must include effluent limitations based upon secondary treatment requirements and any more stringent limitation necessary to meet water quality

standards. The Clean Water Act does not provide any mechanism for excusing such discharges. EPA also notes that it is well-settled law that cost or technological feasibility are not appropriate considerations when deriving water quality-based effluent limitations.

EPA disagrees with the Town's conclusion that termination of the individual permit will remove the Town's ability to utilize the existing outfall under emergency conditions. While any untreated discharge from the pump station will be a violation of both state and federal law, the Town must mitigate any such discharges. Utilizing the existing outfall during such conditions, rather than allowing sewers to overflow in the streets would be appropriate mitigation.

EPA also disputes whether it is physically or financially impossible to eliminate all overflows from the pumping station. With appropriate control of flows to the collection system, appropriately sized transport facilities (piping and pumping stations), and reliable emergency power systems, it should not be infeasible to eliminate pump station overflows. EPA is not aware of any other pumping station in the SESD service area that routinely overflows.

F) Comments submitted by David Stoff, dated May 15, 2008

Comment F.1: Given that SESD discharges to a waterbody that is heavily used for swimming, lobstering and shellfishing, the stringent limitations on pathogens in the SESD permit is a reasonable requirement. Similarly, the monitoring requirement of 2 samples per day is necessary to verify permit compliance.

Response F.1: The imposition of the limitations on pathogens is due the application of the applicable water quality criterion for this receiving water. EPA acknowledges the comment and agrees that the receiving waters are an important public resource. Chase, Brad, 2002, "The Marine Resources of Salem Sound, 1997", Massachusetts Division of Marine Fisheries, Technical Report TR-6, 143 pp. and notes that the requirements have been maintained in the final permit.

Comment F.2: The SESD plant has received an "Operations and Maintenance Wastewater Excellence Award" from EPA for its performance. It is well run. That being said, it must be noted that discharges from the plant have violated applicable water quality standards for bacteria on several occasions.

Based on EPA's Enforcement & Compliance History Online ("ECHO") in August, September, October and November of 2005 for example, bacteria criteria for class SB waters were violated, with the August 2005 monitoring report showing a concentration of nearly 1000 cfu/100 ml in the sample. The plant's discharge violated the applicable water quality standard in July and November of 2006. In September 2007, a violation is reported in ECHO data, but no sample data is provided. The October 2007 monthly sample violated the state water quality standard.

The effluent limitations and monitoring requirements in Part I of the permit are adequate to protect the existing uses of Salem Sound in most cases. In exceptional circumstance where the SESD plant violates permit requirements more should be done to protect the public. 40 C.F.R. 122.41(d) (i.e. the duty to mitigate) requires the permittee to take all reasonable steps to minimize the effects of discharges that adversely affect human health. One reasonable step to protect public health would be increased efforts to inform the public of violations.

The permit should contain an explicit public notice requirement. This could take the form of electronic posting of sample results on a website, or notice to local public health officials. Inclusion of a public notice condition in the final permit would allow the impacted public to make informed choices about swimming/fishing/shellfishing when plant discharges violate state water quality standards.

Response F.2: According to DMRs, there were violations of the daily maximum fecal coliform limit in August and October of 2005. However, contrary to the comments, there were no violations of fecal coliform bacteria limitations in September 2005 (21 cfu/ 100 ml average monthly; 242 cfu/100 ml maximum daily), November 2005 (21 cfu/100 ml; 272 cfu/100 ml), July 2006 (27 cfu/100 ml; 310 cfu/100 ml), November 2006 (37 cfu/100 ml; 392 cfu/100 ml) or October 2007 (17 cfu/100 ml; 283 cfu/100 ml).

The Massachusetts Department of Environmental Health, Bureau of Environmental Quality has been funded by EPA to develop a bathing beach inventory and to communicate the results of beach monitoring to the general public. EPA believes this existing program is an effective means of communicating water quality conditions with regard to contact recreation to address the concern raised by the commenter. Within the general vicinity of the outfall, there are 33 beaches which are regularly monitored and the results reported on DPH's Bureau of Environmental Quality website. These locations represent the most probable locations for contact recreation to occur.

Also, the final permit includes a requirement for the permittee to report any violations of the fecal coliform bacteria limits, which is the shellfishing standard, or a plant failure within 24 hours to the Massachusetts Division of Marine Fisheries.

Comment F.3: The permit must include appropriate effluent limitations for Sanitary Sewer Overflows (SSOs) and the Fact Sheet should discuss the required level of treatment.

The municipalities of Beverly, Danvers, Marblehead, Middleton, Peabody and Salem are co-permittees for NPDES permitting purposes because the SESD plant "includes sewers, pipes and other conveyances" used to bring wastewater to the plant. See, 40 C.F.R. 122.2 (NPDES Permitting Regulations); 40 C.F.R. 403.3 (General pretreatment regulations for existing and new sources of pollution).

Section 301(b)(B) of the Clean Water Act requires that discharges from publicly owned treatment works receive secondary treatment. Clearly discharges from SESD's ocean outfall

receive this level of treatment. What is unclear is the applicable effluent limitation for other wet weather discharges from the interconnected sewer systems operated by the co-permittees.

The Draft Permit includes requirements for the permittees to control infiltration and inflow ("I/I"). The Fact Sheet explains the legal basis of these requirements as the "duty to mitigate" stated in 40 C.F.R. sec. 122.41(d) and standard conditions for "Proper Operation and Maintenance" found at 40 C.F.R. sec. 122.41(e). These requirements are applicable to Beverly, Danvers, Marblehead, Middleton, Peabody and Salem. The I/I plan requirement at Part I(C)(3) of the Draft Permit essentially allow "self-scoping" of the I/I reduction plan by the co-permittees, and I find this troubling.

The discharge of any pollutant is prohibited by the Clean Water Act unless it is in compliance with effluent limitations, and other conditions, stated in a NPDES permit. The Draft Permit recognizes that Sanitary Sewer Overflows (SSOs) are unauthorized point source discharges (Part I.(B)), but fails to state how SSOs will be controlled and eliminated.

It is arguable that sections 301(b)(1)(A) and 301(b)(1)(C) of the Clean Water Act provide the appropriate technology standard to control SSOs because CWA specifies a treatment requirement for point sources. If this is the case, the permit ought to specify a technology standard for SSO removal and define and distinguish that standard from a standard for I/I removal derived from efficient wastewater treatment plant operation.

For example, the Best Practicable Waste Treatment Technology ("BPWTT") standard defined at 40 C.F.R. 35.2005 is relevant to operation of the community sewer systems connected with SESD pursuant to the grant provisions of Title II of the Clean Water Act. The elimination of "excessive" I/I is discussed in the supporting regulations; however, these regulations are based on maximizing the use of federal funds, not point source elimination. Pursuant to BPWTT some SSO could remain.

In the analogous case of combined sewer overflows, courts concluded that CSOs, another ancillary wet weather discharge, were point sources and therefore not an element of the "treatment works" as that term is defined in Title II. Because of this, the technology standard for elimination of point sources were applicable to CSOs; hence CSO discharges must be treated to meet water quality standards. See, Montgomery Environmental Coalition v. Costle, 646 F.2d 568, 590 (C.A.D.C., 1980).

That somewhat abstract discussion has a practical application in this permit. The Fact Sheet notes that the Town of Marblehead is a co-permittee of the SESD plant. The Town operates the Sargent Road Pump Station, which discharges wastewater on an emergency basis, pursuant to an individual NPDES permit (MA0100374). This permit will be discontinued when the SESD permit is finalized.

The Sargent Road NPDES Permit states that emergency discharges from the pump station "shall be screened and chlorinated" MA0100374, Part I(C). Because the individual facility permit does specify a level of treatment EPA must define an equivalent treatment level for the discharge in

the draft permit. The omission of a specific treatment would violate section 402(o) of the Clean Water Act and 40 C.F.R. § 122.44(l). (i.e. anti-backsliding).

EPA's Enforcement & Compliance History Online ("ECHO") database characterizes the discharge from Sargent Road as a combined sewer overflow (CSO). While this is probably an error in the ECHO database, it should be noted that CSOs must receive the level of treatment described by EPA's 1994 CSO Control Policy. This includes minimum technology-based controls (i.e. the Nine Minimum Controls) and a Long-Term CSO Control Plan [sic] the meet the water quality based requirements of the Clean Water Act. There is no documentation in the Fact Sheet indicating that the Town of Marblehead operates a combined sewer system, the regulatory prerequisite for authorizing a CSO discharge.

The emergency discharge of wastewater from the Sargent Road Pump Station is what it is: a convenience to avoid extensive and expensive changes in the Marblehead sewer system. The discharge, at least in the Draft Permit, receives no treatment, and some treatment is required by the Clean Water Act. The Sargent Road Pump Station is an identified point source and must comply with Clean Water Act's treatment requirements for point sources. (See, CWA sec. 301(b)(1)(c); CWA sec. 402(a)).

The permit could include conditions that phase in technology-based controls by including a compliance schedule for eliminating "emergency" discharges at the earliest practicable time (See, 40 C.F.R. 122.47; 314 CMR 4.03(1)(b)), or the implementation of appropriate treatment technology (CWA sec 301(b)); or a Long-Term CSO Control Plan and documentation of NMC compliance (CWA sec, 402(q)). Until the permit specifies how this discharge will be treated it is incomplete.

Response F.3: The final permit does not authorize any Sanitary Sewer Overflows (SSOs). Therefore, numeric limitations are not required. As stated in the Response E.7, if discharges from separate sanitary sewer systems were authorized they would be subject to secondary treatment requirements and any more stringent limitations necessary to meet water quality standards.

The permit has specifically named each of the municipalities that own and/or operate the satellite collection systems conveying flow to the SESD treatment facility as co-permittees. Including the satellite collections system operators as co-permittees allows the EPA to formally require the proper operation and maintenance of the entire publicly owned treatment works, including the collection systems. As part of the publicly owned treatment works any discharges that may occur would be subject to the secondary treatment requirements.

The permit requires the permittees to develop and implement a Collection System Operation and Maintenance Plan. Although the requirement allows the permittees to self-scope the plan, minimum requirements for the Plan are set forth in the permit. Furthermore, if discharges are reported, as required by the permit, additional work would be required. EPA believes this flexible, iterative structure is appropriate given the complex nature of the problem and the range of potential responses it may trigger.

As stated previously, the permit does not authorize SSOs. Accordingly, any SSO is an unauthorized discharge and subject to enforcement action. The permit requires reporting of all SSOs and requires that collection systems be properly operated and maintained. EPA, therefore, does not share the commenter's concern that the permit somehow fails to control and eliminate SSOs. Backsliding concerns are not applicable here because EPA is proposing that the authorization to discharge be eliminated altogether.

The definition of BPWTT does not lead one to the conclusion that SSOs could or should remain. As it pertains to I/I, the definition merely states that I/I to treatment plants should not be excessive. It does not authorize the discharge of excessive I/I through SSOs.

CSOs are analogous to SSOs in that they are collection systems overflows caused by wet weather. Pursuant to *Montgomery Environmental Coalition*, CSOs are not subject to secondary treatment technology-based standards. If authorized in an NPDES permit, SSOs would be subject to secondary treatment standards, as well as any more stringent water quality-based requirements that are found to be necessary.

As stated in the response to Comment E.8, the Town of Marblehead is a co-permittee on the SESD permit which formally imposes a requirement to properly operate and maintain its portion of the collection system. No discharge from the Sargent Road Pump Station is authorized by this permit.

Comment F.4: On a more practical level, the permit should deal with the expense of I/I removal in a more direct and transparent way. Scarce municipal resources should be preserved for priority I/I projects. To preserve municipal resources the permit should require the adoption, or modification, of sewer use ordinances to require a time of transfer inspection of private sewer lines. This would properly shift the burden of removing roof drains and sump pumps to property owners, The New England Interstate Water Pollution Control Commission manual Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems provides an example of a time of transfer ordinance.

Response F.4: The permit clearly outlines the minimum requirements for a Collection System Operation and Maintenance Plan, including steps for prioritizing I/I removal. EPA also recommends that communities consult publications such as the NEIWPCC Manual and EPA's CMOM guidance when developing their I/I control plan. EPA believes that the municipalities are best positioned from an informational, administrative and logistical standpoint to decide how to best deploy municipal resources to address the I/I problem. For this reason, EPA has determined that the precise mode of implementation, including decisions on changes to sewer use ordinances, should be made by the individual communities.

G) Comments submitted by Michael J. Bonfanti, Mayor, City of Peabody, dated May 13, 2008

Comment G.1: The City should not be a co-permittee, and its name should be stricken from the permit. Inclusion of the City in the permit is an improper expansion of the regulatory scope of the Massachusetts Clean Water[s] Act, G.L.c.21, §§43-45, and the Federal Clean Water Act. The proper permittee is the South Essex Sewer District (SESD), an entity created by the Massachusetts Legislature by Chapter 339 of the acts of 1925. SESD operates a wastewater treatment facility which discharges effluent into Salem Sound designated as North Coastal Watershed Segment MA 93-25.

Response G1: According to the District's NPDES application, the City of Peabody owns and operates the collection system in the City of Peabody which conveys flows to the SESD POTW Treatment Plant for treatment and discharge. As the District states in Comment A.9 "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." As such, the City of Peabody is the proper permittee for the requirements in Parts I.C, I.D, and I.G of the final permit.

EPA's authority to co-permit certain communities that own and operate portions of the SESD POTW is not dependent on the indemnification provisions of state law, i.e. Chapter 339.

EPA is not in a position to definitively interpret the indemnification provisions of Chapter 339, but note that it does not appear to be inconsistent with the action being taken by EPA. If the indemnification provision operates as the commenter suggests, then conceivably the co-permittees could seek recourse from SESD for any damages and "expenses which any… city or town shall incur by reason of any defect or want of repair in any park road, street, way, land or location caused by the construction of any said sewers or other works or by maintaining or repairing the same."

See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for further discussion.

The City of Peabody remains a co-permittee in the final permit.

Comment G.2: Peabody has not filed any application with the EPA or Massachusetts DEP for a discharge permit. Moreover, it has not participated in any way in the proceedings before the permitting agency.

Response G.2: The NPDES application filed by the permittee, SESD, lists the City of Peabody as owner of a sanitary sewage collection system and served by the SESD POTW Treatment Plant. EPA permit application requirements are designed to facilitate the permitting process and

to aid the permitting authority by ensuring submittal of relevant information. In this case, SESD submitted the permit application, including requisite information about satellite systems. As previously stated, EPA is authorized to regulate the entire POTW (including the treatment plant and collection systems). Please see responses to similar comments above for a fuller discussion of this issue.

Under the regulations at 40 C.F.R. part 124, EPA is required to publicly notice the preparation of a draft NPDES permit and allow for at least 30 days for public comment. A public notice was initially published in the Salem News on March 27, 2008. EPA published subsequent notices extending the public comment period in the Salem News on April 22, 2008 and May 16, 2008. The comment period closed on June 6, 2008, a period of 72 days. EPA also sent copies of all three public notices, the fact sheet and the draft permit to the applicant, SESD, and each of the co-permittees, including the City of Peabody, by certified mail.

EPA tried to further involve the co-permittees during in the permitting process by contacting each co-permittee based on contact information provided by SESD. On March 11, 2008, EPA contacted the Director of Public Services for the City of Peabody, based on the information provided by the SESD. The Director of Public Services was identified by SESD as the representative for the City of Peabody. EPA informed the Director of its intention to name the City of Peabody as a co-permittee in the SESD permit. EPA explained the permitting process including the public notice process and comment period and confirmed a mailing address to send the draft permit. Finally, EPA confirmed the name and address of the contact and informed the City that it would be named a co-permittee on the SESD NPDES permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the City of Peabody as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the City of Peabody and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16

E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

The City has participated in the permitting process in the manner provided for by federal regulations indicating that it was, in fact, provided sufficient notice of EPA's contemplated action in this case. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17.

Comment G.3: The draft permit also seeks to impose requirements on Peabody which are beyond its legal capacity and authority. SESD is regulated by Board and Staff over which Peabody has no control, and, therefore, Peabody cannot control SESD operations or maintenance.

Response G.3: The City of Peabody is assigned responsibilities only for the portion of the treatment works (i.e., satellite collection system) owned and operated by the City of Peabody. The final permit does not assign any responsibilities to the City of Peabody for the operation of the SESD POTW Treatment Plant.

The NPDES application submitted by SESD, dated April 7, 2005, lists the City of Peabody as one of the six municipalities that is served by the SESD POTW Treatment Plant. According to the application, the City of Peabody has a separate collection system under municipal ownership.

This is further supported by comments submitted by SESD, which state that "the District owns, operates and maintains, among other things interceptor sewer lines, pumping stations, the treatment plant, and the ocean outfall from the treatment plant. Each city and town within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines."

Page 1 of the final permit identifies the municipalities of Beverly, Danvers, Marblehead, Peabody and Salem as co-permittees for Parts I.C. (Operation and Maintenance), I.D. (Unauthorized Discharges) and I.G. (State Permit Conditions). These requirements are imposed on SESD and each of the co-permittees as separate entities for the portion of the treatment works that they own and operate. Similar language has been added to page 1 of the final permit. As such, separate reports must be submitted by SESD and each of the co-permittees. Compliance with the permit requirements shall be determined for SESD and each of the co-permittees as individual entities.

Comment G.4: The inclusion of Peabody as a co-permittee is arbitrary and capricious. There is no evidence demonstrating how inflow and infiltration affects the quantity and quality of the SESD discharges into Salem Sound. In its last renewal, the permitting authorities cautioned that if SESD did not control the contributions of member communities then those communities would be added as co-permittees. There is no evidence suggesting that SESD has failed to meet its obligations under comment 8 of the prior permit.

Response G.4: As previously stated, the Region has chosen to provide a more comprehensive approach to permitting wastewater treatment facilities by co-permitting the satellite collection systems to ensure the proper operation and compliance of the entire treatment works, and not just a portion of it. Given that the SESD does not own and operate the entire collection system, the District has stated that it believes it does not have authority to require proper operation and maintenance of the municipalities' collection systems and is unable to assure the quantity and source (i.e., I/I) of the flows to the SESD POTW Treatment Plant. As such, the naming of co-permittees is necessary to assure that the entire collection system is properly operated and maintained, and SESD's ability to comply with the permit is not compromised by the actions of others.

In comments submitted by SESD, the District states that excessive I/I causes the District's influent to be less concentrated therefore, making it more difficult to achieve the 85% removal requirement for $CBOD_5$ and TSS at all times**.** Discharge Monitoring Reports (DMRs) show that there is a significant increase in flows to the wastewater treatment facility during wet weather, which among other problems, can lead to SSOs, impairing water quality. Based on SESD estimates wastewater from the municipalities represented 97% of the flows to the POTW for calendar year 2007[37]. The WWTF's difficulty in achieving secondary treatment requirements is a clear example why co-permitting is necessary for SESD and its member communities.

The City of Peabody remains a co-permittee in the final permit.

Comment G.5: The permit names Richard Carnevale as the contact person for the City of Peabody when in fact the contact person should be the Mayor of the City of Peabody, Michael Bonfanti.

Response G.5: EPA has made the correction.

Comment G.6: A majority of the permit does not apply to the City of Peabody.

Response G.6: EPA concurs with this observation. As stated on Page 1 of the Permit, the City of Peabody is responsible for Part I.C, Operation and Maintenance, Part I.D., Unauthorized Discharges from the Sewer System and Part I.G. State Permit Conditions for those portions of the collection system that it owns and operates.

Comment G.7: Section C.1. Maintenance Staff:
The phrase "adequate staff" is vague and over broad, and leaves the municipality to guess at what type of preventative maintenance program is adequate to avoid violation of the permit.

[37] SESD, 2008, "South Essex Sewerage District, Estimated Sewage Flows for CY 2007 by Party."

Response G.7: Clean Water Act § 402(a)(1) and implementing regulations in 40 C.F.R. Part 122 generally authorize EPA to impose conditions in an NPDES permit so long as there is a reasonable connection between the condition and the achievement of effluent limitations or fulfillment of the purposes of the Act. This authority would include reasonable conditions necessary to assure compliance with pollution discharge limits required by an NPDES permit. For example, EPA has authority to impose a permit condition that requires proper operator qualifications given the reasonable relationship between the condition and the plant's attainment of effluent limitations. *See* Decision of the General Counsel No. 19 (June 27, 1975). Similarly, federal regulations require each NPDES permittee to "at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee" to comply with permit limits (40 C.F.R. § 122.41(e)) (Conditions applicable to all permits; Proper operation and maintenance).

Implicit in the duty to properly operate and maintain a treatment facility is the existence of personnel to perform such functions. The adequate staffing condition follows rationally from this existing regulation and is an appropriate exercise of EPA's authority under section 402(a)(1). The Region recognizes that the requisite number of staff will vary from facility to facility and refers the permittee and co-permittees to the Massachusetts regulations at 314 CMR 12.04(4). The permit clearly prescribes conduct on the part of the Permittee and a standard for evaluating the successful completion of the conduct. The condition is sufficiently clear to apprise persons of ordinary intelligence of required conduct, does not encourage arbitrary or discriminatory enforcement by the Agency and therefore is not vague.

Comment G.8: Section C.3. Infiltration/Inflow Control Program
The permittee and co-permittees are required to develop an Infiltration/Inflow plan, but the permit provides no specifics concerning that plan, nor does the draft permit address cost-effectiveness, specific procedures and protocols, nor identify or provide any source of state or federal funding to implement said plan.

Response G.8: Section C.3. of the Permit outlines the minimum requirements for a Collection System Operation and Maintenance Plan and provides guidance for prioritizing sources. The plan must be adequate to prevent overflows from the collection system owned and operated by the permittee or co-permittee and also adequate to prevent flow-related violations at the SESD POTW Treatment Plant. EPA recommends that the permittees also consult the MassDEP guidance document, Guidelines for Performing Infiltration/Inflow Analyses and Sewer System Evaluation Survey, January 1993, which can be found at http://www.mass.gov/dep/water/laws/iiguidln.pdf; the New England Interstate Water Pollution Control Commission publication, Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems, December 2003, which can be found at http://www.mass.gov/dep/water/laws/omrguide.pdf and the EPA document, Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems, which can be found at http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf. EPA believes that this flexible approach, which is less prescriptive than the commenter would prefer, is reasonable,

because it will allow the co-permittee to adapt based on local conditions and because the co-permittee is better positioned to determine how to deploy resources to address I/I problems efficiently based on their knowledge of collection systems.

Comment G.9: Section C.4. Reporting:
The format and content required of the report fails to take into account the cost of the program to the municipality vis a vis the environmental benefit.

Response G.9: The I/I requirements to eliminate high-flow related permit violations and SSOs are based on the Clean Water Act and not cost benefit analysis. The permit, however, gives the permittee and co-permittees the flexibility to find the most cost effective way to meet the requirements. EPA believes that the report will provide it with a record of what has been tried, a benchmark for the I/I control efforts and their success, and a basis for improving I/I control requirements in future permitting cycle with the goal of reducing or eliminating SSOs and the volume of flow that is sent to the treatment plant. Section C.6. sets forth the minimum requirements for an annual summary report. The report requirements are consistent with the elements of the I/I control plan.

Comment G.10: Section C.5. Alternate Power Source
This section has no applicability to the City of Peabody since it has no sewerage treatment facility.

Response G.10: The alternate power source requirement applies only to the extent that a community owns and or operates pump stations as part of their own collection system. EPA does not have information about the specifics of the collection systems. If the City does employ such a pump station, then the condition would be applicable.

Comment G.11: Section VI Fact Sheet No. MA0100501
INFLOW/INFILTRATION REQUIREMENTS

The first two paragraphs of this section lack specificity, and are nothing more than general statements.

The third paragraph contains general guidance, but nothing specific to the Southern Essex Sewer District's Community Collection System.

40 C.F.R. § 122.41(e) applies to wastewater treatment plants and contains no language applicable to a sewer collection system.

Response G.11: The regulations at 40 C.F.R. § 122.41(e) state "The permittee shall at all times properly 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 this permit." Based on the above definitions and the term "related appurtenances" at 40 C.F.R. 122.41(e), the regulation clearly intends the proper operation and maintenance of the sewer collection system. Please see Response A.9 for discussion of treatment works definition.

The aforementioned paragraphs in the Fact Sheet are included to provide background as to why the control of infiltration and inflow is important.

H) Comments submitted by Wayne P. Marquis, Town Manager, Town of Danvers, dated May 7, 2008.

Comment H.1: The draft permit is facially improper and fatally defective and must be amended by striking any reference to the Town of Danvers (and, I believe, to other municipal members of the South Essex Sewerage District as well) as a "co-permittee". This is so because inclusion of the Town of Danvers in the fashion apparently intended by the draft permit is unsupported in fact or law, and constitutes an improper attempt by the permitting authority to expand the regulatory scope of the Massachusetts Clean Water[s] Act (C.21, SECS. 43-45) and of the Federal Clean Water Act.

Response H.1: According to the District's NPDES application, the Town of Danvers owns and operates the collection system in the Town of Danvers which conveys flows to the SESD POTW Treatment Plant for treatment and discharge. As the District states in Comment A.9 "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." As such, the Town of Danvers is the proper permittee for the requirements in Parts I.C, I.D, and I.G of the final permit.

See Response A.9; Partially Revised Fact Sheet at 8-11 and Attachment 1; and Responses in Section K of this document for further discussion.

The Town of Danvers is maintained as a co-permittee in the final permit.

Comment H.2: Neither the Federal regulatory scheme, nor its cognate State provisions allow either DEP or EPA to regulate input to public or private sewers, but rather those statutory provisions aim to regulate discharges into subject waterways. Were it otherwise, any person or whoever ran a tap, took a shower or flushed a toilet virtually anywhere in the United States would be subject to the regulation of DEP and EPA, since virtually all such contributions will sooner or later find their way into a waterway or coastal water. The absurdity of such a result need hardly to be commented upon, and certainly could not be exaggerated.

Response H.2: Please see Response D.2.

Comment H.3: From a procedural point of view, Danvers has not filed any application with USEPA or Mass. DEP for a discharge permit. Neither has Danvers participated in any way in the proceedings before the permitting agencies. It is unconscionable to attempt to impose substantial requirements as a co-permittee upon an entity which is not and has not been a participant in the permitting process.

Response H.3: The NPDES application filed by the permittee, SESD, lists the Town of Danvers as owner of a sanitary sewage collection system and served by the SESD Wastewater Treatment Facility. EPA permit application requirements are designed to facilitate the permitting process and to aid the permitting authority by ensuring submittal of relevant information. In this case, SESD submitted the permit application, including requisite information about satellite systems. As previously stated, EPA is authorized to regulate the entire POTW (including the treatment plant and collection systems). Please see Response D.5 for a fuller discussion of this issue.

Under the regulations at 40 C.F.R. part 124, EPA is required to publicly notice the preparation of a draft NPDES permit and allow for at least 30 days for public comment. A public notice was published in the Salem News. EPA also sent copies of the public notice, the fact sheet and the draft permit to the applicant, SESD, and each of the co-permittees, including the Town of Danvers by certified mail.

Furthermore, EPA tried to further involve the co-permittees in the permitting process by contacting each co-permittee based on contact information provided by SESD. On March 11, 2008, EPA contacted the Town Engineer for the Town of Danvers. EPA informed the Town Engineer of its intention to name the Town of Danvers as a co-permittee in the SESD permit. EPA explained the permitting process including the public notice process and comment period and confirmed a mailing address to send the draft permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the Town of Danvers as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application

and signatory requirements applicable to the Town of Danvers and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

The Town has participated in the permitting process in the manner provided by federal regulations indicating that it was, in fact, provided sufficient notice of EPA's contemplated action in this case. The Town has participated in the public comment period as provided for at 40 C.F.R. § 124.11. EPA received written comments from the Town dated May 7, 2008. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17. The commenter may also appeal the permit to the U.S. Environmental Appeals Board in accordance with 40 C.F.R. § 124.19 and to the First Circuit Court of Appeals in accordance with CWA § 509.

Comment H.4: Moreover to the extent that a co-permittee would be bound by all the conditions of the permit, the Draft Permit seeks to impose requirements beyond the legal capacity and authority of Danvers. All SESD facilities are under the control of the SESD Board and staff, Danvers has no authority whatsoever to control SESD operations or maintenance.

Response H.4: The Town of Danvers is assigned responsibilities only for the portion of the treatment works (i.e., satellite collection system) owned and operated by the Town of Danvers. The draft permit did not assign any responsibilities to the Town of Danvers for the operation of the SESD POTW Treatment Plant.

The NPDES application submitted by SESD, dated April 7, 2005, lists the Town of Danvers as a municipality which is served by the SESD POTW Treatment Plant. According to the application, the Town of Danvers has a separate collection system under municipal ownership.

This is further supported by comments submitted by SESD, "the District owns, operates and maintains, among other things interceptor sewer lines, pumping stations, the treatment plant, and the ocean outfall from the treatment plant. Each city and town within the geographic area of the District (except for the Town of Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines."

Page 1 of the final permit identifies the municipalities of Beverly, Danvers, Marblehead, Peabody and Salem as co-permittees for Parts I.C. (Operation and Maintenance), I.D. (Unauthorized Discharges) I.E. (Monitoring and Reporting) and I.G. (State Permit Conditions). These requirements are imposed on SESD and each of the co-permittees as separate entities for the portion of the treatment works that they own and operate. Similar language has been added to page 1 of the final permit. As such, separate reports must be submitted by SESD and each of the co-permittees. Compliance with the permit requirements shall be determined for SESD and each of the co-permittees as individual entities.

Comment H.5: From the standpoint of substantive due process the co-permittee status is entirely arbitrary and capricious, and is unsupported by any evidence in the record. There has been no showing of the extent to which (if at all) inflow and infiltration affects the quality or quantity of discharges to SESD.

Response H.5: Please see Response G.4.

Comment H.6: In its last renewal, the permitting authorities suggested that if SESD did not properly control contributions to the treatment system by member communities, they could be added as co-permittees. Even assuming that threat was proper (a highly questionable proposition) there has been no evidentiary showing that SESD has failed to meet its obligation under comment 8 to the prior permit.

Response H.6: In the Response to Comments for the 2001 Permit Reissuance, EPA stated in response to Comment 8 that, "If the District and its member communities cannot cooperatively develop methods to comply with the requirements, the District should report this to EPA and DEP. Based on this information, we may modify the permit to include the member communities as co-permittees for the purpose of complying with these requirements." However, the I/I requirements were withdrawn in their entirety by EPA on September 10, 2001 based on an appeal by SESD and, therefore, no obligations for I/I were placed on SESD. In its 2001 Notice of Appeal and Petition for Review, SESD states that EPA should have issued permits to each community if its intention was to regulate community activities. EPA believes the co-permitting approach taken in this permit is consistent with this recommendation.

As previously stated, EPA has chosen to provide a more comprehensive approach to permitting wastewater treatment facilities by co-permitting the satellite collection systems to ensure the proper operation and compliance of the entire treatment works, and not just a portion of it. Discharge Monitoring Reports (DMRs) show that there is a significant increase in flows to the wastewater treatment facility during wet weather, which can lead to SSOs. Given that the SESD does not own and operate the entire collection system, the District is unable to assure the quantity and source (i.e., I/I) of the flows to the SESD POTW Treatment Plant. As such, the naming of co-permittees is reasonable and necessary to assure that the entire collection system is properly operated and maintained and SESD's ability to comply with the permit is not compromised by the actions of others. See Response D.6 for additional discussion.

The Town of Danvers has been maintained as a co-permittee in the final permit.

I. Comments submitted by Paul J. Diodati, Director, Division of Marine Fisheries, Commonwealth of Massachusetts dated April 23, 2008.

Comment I.1: The Division of Marine Fisheries (*MarineFisheries*) has reviewed the draft NPDES permit (MA0100501) that allows South Essex Sewerage District to discharge treated wastewater into the receiving waters of Salem Sound. MarineFisheries requests to be notified under permit section "Part I.F. Monitoring and Reporting" on page eleven of thirteen within twenty four hours when a permit excursion for fecal coliform or plant failure occurs. A twenty four hour notification of a permit excursion for fecal coliform bacteria or plant failure should be sent to the Division of Marine Fisheries, Shellfish Management Program, 30 Emerson Avenue, Gloucester, MA 01930, via telephone (97)282-0308 extension 160 or via email at Shellfish.Newburyport@state.ma.us.

Response I.1: EPA has added the MarineFisheries reporting requirement to the final permit. The timely, coordinated reporting of events with adverse water quality impacts to both state and federal agencies will enhance the shared goal under the MarineFisheries Regulations and the Clean Water Act of maintaining an excellent habitat for fish, other aquatic life and wildlife and for recreation.

RESPONSE TO COMMENTS ON THE 2013 PARTIALLY REVISED DRAFT PERMIT

J) Comments submitted by Alan F. Taubert, P.E., Executive Director, South Essex Sewerage District, dated November 26, 2013.

Comment J.1: A. Regarding Changes Resulting From the Reclassification of the Receiving Water

The 2013 Draft Permit identifies the classification of the receiving water as SB, consistent with determinations made by M[ass]DEP. SESD agrees with this change. As a result, the re-issued permit contained revised limits for fecal coliform and enterococci, intended to reflect the water quality standards for these organisms applicable to class SB water.

The 2013 Draft Permit includes limits of fecal coliform of 88 cfu/100 ml as a monthly average; not more than 10% of all values in a month in excess of 280 cfu/100 ml; and 400 cfu/100 ml as a maximum daily value. SESD believes that the revised fecal coliform and enterococci limits should be modified, as follows:

1. First, SESD believes that the 400 cfu/100 ml is inappropriate because that limitation is not included in the Massachusetts Water Quality Standards for Class SB Waters. The Water Quality Standards say, at 314 CMR 4.05(4)(b)4.a,

   Bacteria
   a. Waters designated for shellfishing shall not exceed a fecal coliform median or geometric mean MPN of 88 organisms per 100 ml, not shall more that 10% of the samples exceed an MPN of 260 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 (more stringent regulations may apply, see 314 CMR 4.06(1)(d)(5)).

   Accordingly, the District requests that the 400 cfu/100 ml fecal coliform limit be eliminated from the permit.

2. Secondly, the District believes that the coliform limits should be dropped in their entirety. Under the Massachusetts Water Quality Standards, the coliform limits only apply to certain classes of SB waters, as follows:

   b. Class SB. These waters are designated as habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions and for primary and secondary contact recreation. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. *Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting with depuration (Restricted and Conditionally Restricted Shellfish Areas).* See 314 CMR 4.05(4)(b), emphasis supplied.

Under this definition, the Shellfishing designation applies only to Restricted and Conditionally Restricted Shellfish area. For any other interpretation of the statement, the parenthetical statement is unnecessary.

The waters to which SESD discharges are neither Restricted, nor Conditionally Restricted under the Massachusetts Shellfish Sanitation program, but rather are Prohibited. See Exhibits 1 and 2 attached maps of shellfish growing areas N16 and N19, respectively, adjacent to the SESD discharge from the Massachusetts Division of Marine Fisheries.

Accordingly, the fecal coliform limits of the Water Quality Standards do not apply, because the waters are neither Restricted, nor Conditionally Restricted, as stipulated in the Water Quality Standards.

Response J.1: To clarify, the 2013 Partially Revised Permit included limits for fecal coliform bacteria of 88 cfu/100 ml as a monthly average (as a geometric mean); not more than 10% of all values in a month in excess of 260 cfu/100 ml (not 280cfu/100 ml as cited by the commenter); and a maximum daily limit of 400 cfu/100 ml (See Footnote 6 of the Permit).

1. The permittee is correct that the 400 cfu/100 ml is not included in the current Massachusetts Surface Water Quality Standards for SB waters designated for shellfishing and therefore EPA has removed the maximum daily limit of 400 CFU/100 ml.

2. The term, designated uses, is defined at 40 CFR 131.3 as "those uses specified in water quality standards for each water body or segment whether or not they are being attained." Designated uses establish "goals" for a water body and those "goals" are protected by narrative or numeric criteria.

   The receiving waters are designated in Table 23 of the Massachusetts Surface Water Quality Standards as designated as Class SB - shellfishing. The MA SWQS for Class SB waters (314 CMR 4.05(4)(b)4) designated for shellfishing include the following criteria for bacteria:

   > Waters designated for shellfishing shall not exceed a fecal coliform median or geometric mean MPN of 88 organisms per 100 ml, nor shall more than 10% of the samples exceed an MPN of 260 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 Nation Shellfish Sanitation Program in the latest revision of the *Guide For The Control of Molluscan Shellfish* (more stringent regulations may apply, *see* 314 CMR 4.06(1)(d)(5));

   The Clean Water Act requires that designated uses be protected regardless of whether the use is currently attained.

As discussed above in Response A.8, the MA SWQS do not establish any link between its water quality criteria and the administrative (management) closure zones established by *MarineFisheries.* The water quality in Salem Sound must support its designated use of shellfishing even if *MarineFisheries* determines that for management purposes the use should not be exercised within portions of that waterbody.

The fecal coliform bacteria requirements of limits for fecal coliform bacteria of 88 cfu/100 ml as a monthly average (as a geometric mean); not more than 10% of all values in a month in excess of 260 cfu/100 ml are included in the final permit.

Comment J.2: B. Regarding the Imposition of the Co-Permittee Requirements

1. According to the Fact Sheet at page 9, the EPA has developed a "comprehensive factual and legal rationale for its decision to regulate satellites collections systems." That factual analysis is presented in Exhibit B to Attachment 1 of the Fact Sheet, which includes some analysis of the flows in the SESD system.

   First, we object to the inclusion of the Charles River Pollution Control District in this analysis, since it has nothing to do with the SESD system.

   The analysis of the SESD system is flawed because it improperly characterizes infiltration and inflow (I/I) in the SESD system as excessive, makes conclusions from data that are wholly unsupportable, fails to conduct any analysis of data that it admits are critical, and improperly suggests that SESD violates its NPDES permit with respect to the 85% removal requirement. Based on its analysis, the EPA infers that there have been no I/I control efforts undertaken in the District. This is then used erroneously as a basis for including the SESD communities as co-permittees. It is disappointing that the EPA has never attempted to contact SESD to determine if there have been any ongoing efforts, or to discuss these issues generally.

   a. The analysis of the SESD system is flawed because it improperly characterizes I/I in the SESD system as excessive.

      EPA cites two EPA documents to define an average flow of 120 gallons per capita per day as a measure of excessive infiltration, and a peak flow of 275 gallons per capita per day as a measure of excessive inflow. The documents are "I/I Analyses and Project Certification," EPA Ecol. Pub. 97-03 (1985), and 40 CFR 35.2005(b) (28) and (29). According to EPA's analysis, flows in the SESD system are above those referenced values, and are therefore "excessive." This is an incorrect application of the definitions contained in the references. As used in the references, flows below the stated values were deemed "nonexcessive," but flows greater than those values were not, by definition, excessive, but rather required further study.

The referenced documents were used in the construction grant programs to determine if I/I in the grantee's systems was (or was not) excessive. EPA's grant applicants had to show non-excessive I/I before a grant could be awarded to them. The determination of non-excessive I/I was made through a comparison of the costs of removal of I/I as compared to the cost of treatment of the I/I. I/I that could not be cost effectively removed was non-excessive by definition. I/I that could be removed cost effectively was excessive.

During the administration of the program, EPA realized that many communities could be forced into expensive I/I study programs when in fact simple analysis of plant flow could eliminate many of these studies. This, the flow values cited by EPA were established as floors, below which is was clear that I/I was non-excessive, and expensive studies would not be required,

This is further illustrated by the following excerpts from the EPA document referenced above "I/I Analysis and Project Certification," EPA Ecol. Pub. 97-03 (1985).

Determination of Non-Excessive Infiltration

Based on Needs Survey data from 270 Standard Metropolitan Statistical Area Cities, the national average dry weather flow is 120 gallons per capita per day (gpcd). This includes domestic wastewater flow, infiltration, and nominal industrial and commercial flows. This average dry weather flow should be used as an indicator to determine the limit of non-excessive infiltration. If the average daily flow per capita (excluding major industrial and commercial flows greater than 50,000 gpd each) is less than 120 gpcd (i.e., a 7-14 day average measured during periods of seasonal high groundwater), the amount of infiltration is considered non-excessive.

The 120 gpcd flow rate guideline has been incorporated into the EPA's final Construction Grant Regulations. These regulations provide that no further infiltration analysis work is required if the 120 gpcd guideline is not exceeded. If the average daily dry weather flow (DWF) exceeds 120 gpcd, the grantee may request special approval from the EPA Regional Administrator to proceed with project design without further infiltration studies. To receive such approval, the grantee must demonstrate that the increased flows due to infiltration can be cost-effectively treated, and that sufficient funding is available to pay for the local share of project construction and operating costs. (Page1)

And

Determination of Non-Excessive Inflow

A statistical analysis of data from Sewer System Evaluation Survey (SSES) studies representing more than 45 different sewer systems (i.e., separate sanitary sewer

> system) indicated a strong correlation between inflow rate and service area population. Based on these data, the average wet weather flow (WWF) after removal of excessive inflow (i.e., that which can be cost-effectively removed) is 275 gpcd. This flow rate should be used as an indicator of non-excessive inflow. (Page 3)

This can also be seen from a complete reading of 40 CFR 35.2005(b) also cited by EPA, as is shown below.

> (28) Non-excessive infiltration. The quantity of flow which is less than 120 gallons per capita day (domestic base flow and infiltration) or the quantity of infiltration which cannot be economically and effectively eliminated from a sewer system as determined in a cost-effectiveness analysis. (See§§ 35.2005 (b)(16) and 35.2120.)
>
> (29) Nonexcessive inflow. The maximum total flow rate during storm events which does not result in chronic operational problems related to hydraulic overloading of the treatment works or which does not result in a total flow of more than 275 gallons per capita per day (domestic base flow plus infiltration plus inflow). Chronic operational problems may include surcharging, backups, bypasses. And overflows. (See §§ 35.2005(b)(16) and 35.2120).

Thus, the values cited by EPA are determinative of nonexcessive I/I, but they were never intended to define excessive I/I, as has been done in the Fact Sheet.

In the case of SESD the flow per capita values are above the "no clear problem" floor, but it was determined that the District's facilities were not experiencing excessive I/I using the cost effective definitions in EPA's regulations and guidance, and the treatment plant was designed to accommodate this higher level of flows. Part of the proposed secondary included efforts in the member communities to reduce I/I that was existing in the communities at that time to levels that were within the capacity of the proposed treatment plant. In conjunction with the design and construction of the secondary treatment plant the member communities participated in a program of I/I control studies and repairs. The program began at the time of the construction of the treatment plant in 1995 and has continued in the years thereafter. The program included community projects administrated by SESD and projects undertaken by the communities themselves. Many were under the state SRF Loan Program. In total, SESD and member communities have undertaken 40 different I/I control projects, with a total cost of almost $30 million to keep the level of I/I within the design capacity of the treatment plant. These projects have reduced peak I/I in the system by an estimated 15.80 mgd. The projects and their associated I/I reductions are presented in attached Exhibit 3.

The SESD treatment plant's operational history confirms that the design and operation have been successful in achieving its permit limits. Over the past five years, the plant has never violated either its monthly average or maximum daily limits for BOD, TSS, pH, or Oil and Grease. This confirms the merit of the design approach – eliminating I/I sources where appropriate and constructing the plant to treat the remaining flow.

b. EPA makes conclusions from the data that are wholly unsupportable.

EPA conducts an analysis of the maximum daily flow in the SESD plant and declares that there is a trend of increasing daily flow over time. EPA then erroneously interprets this to mean that I/I has not been reduced in the collection systems.

While it indicates that "most of the variability from year to year is due to changes in precipitation," EPA never attempts to characterize the potential impact of precipitation on treatment plant flows.

In order to rectify this problem, we have reconstructed treatment plant flows and precipitation records back to 1995, approximately when construction of the secondary plant began. This is a useful starting point because member communities undertook I/I control in their systems as part of the secondary facilities program. The results are presented in the attached Exhibit 4.

Exhibit 4 shows that flows in the SESD system have been trending down over the period 1995-2013, while precipitation has tended upwards. This downward trend in maximum flow reflects the approximately $30 Million in I/I control invested by the member communities, and is contrary to what EPA has concluded. Indeed, if EPA's supposition that there has been no control were correct, then the maximum flows would be expected to increase over time. This has not happened.

Response J.2: EPA's document "Analysis Supporting EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works That Include Municipal Satellite Sewage Systems" was developed by Region 1 to explain the Region's factual and legal basis for the co-permitting of municipal satellite sewage collection systems. DMR data submitted by the regional treatment facilities: SESD and Charles River Pollution Control District were used solely as examples for the analysis found in Exhibit B of this document.

EPA disagrees with the characterization of EPA's analysis. EPA agrees that the thresholds referred to in the Fact Sheet Attachment are for "nonexcessive" inflow and infiltration and that a simple exceedance of the threshold does not demonstrate "excessive" flow. However, as noted in EPA's analysis these systems experience levels of inflow and infiltration on a system-wide basis that are "far-exceeding" the relevant thresholds, and therefore are properly considered indicative that "these facilities are receiving high levels of inflow and wet weather infiltration". While a thorough analysis of the extent of excessive I/I and the locations within the various systems where excessive I/I occurs would of course require extensive analysis, as the Comment notes this is an expensive process. EPA disagrees with the comment's suggestion that anything short of such detailed analysis is insufficient to justify the reasonable operation and maintenance requirements in the Draft Permit. In any case, the site specific information provided by the District does not contradict EPA's analysis, in fact all but one of the member communities have apparently determined that

there is excessive inflow and infiltration in their systems, based on the I/I projects noted in Appendix 1.

EPA disagrees that its conclusions from the data presented are unsupportable. Despite the suggestion of the comment, EPA did not conclude that there have been increases in flow, despite the small positive trend of the regression line. Rather, recognizing the low significant (r-squared) of the regression EPA simply concluded that the data indicated that "I/I has not been reduced in either system."

EPA does agree that basic trend analysis is simplistic in the context of maximum flows where any time dependence is likely to be far outweighed by precipitation variation. However, the solution suggested in the comment – stopping the regression in a dry year (2009) – is not valid to this issue. Instead, an appropriate approach to investigate long term trends where there is substantial short term variation is to use an averaging approach – charting longer term rolling averages of the relevant variable. Figures A and B below show the trends of one year rolling averages of the monthly maximum flow for CRPCD and SESD, extended through 2012 so as to eliminate any residual impact from the high 2010 flows. As in EPA's original analysis, the linear regressions indicates a weak trend over this time period of increasing maximum daily flow, while most of the variability from year to year is due to changes in precipitation, the trends are generally inconsistent with reduction in the maximum daily flows over this time period. This indicates that I/I has not been reduced in either system.

Figure A. CRPCD Daily Maximum Flow Trends - One Year Rolling Average of Daily Maximum Flows

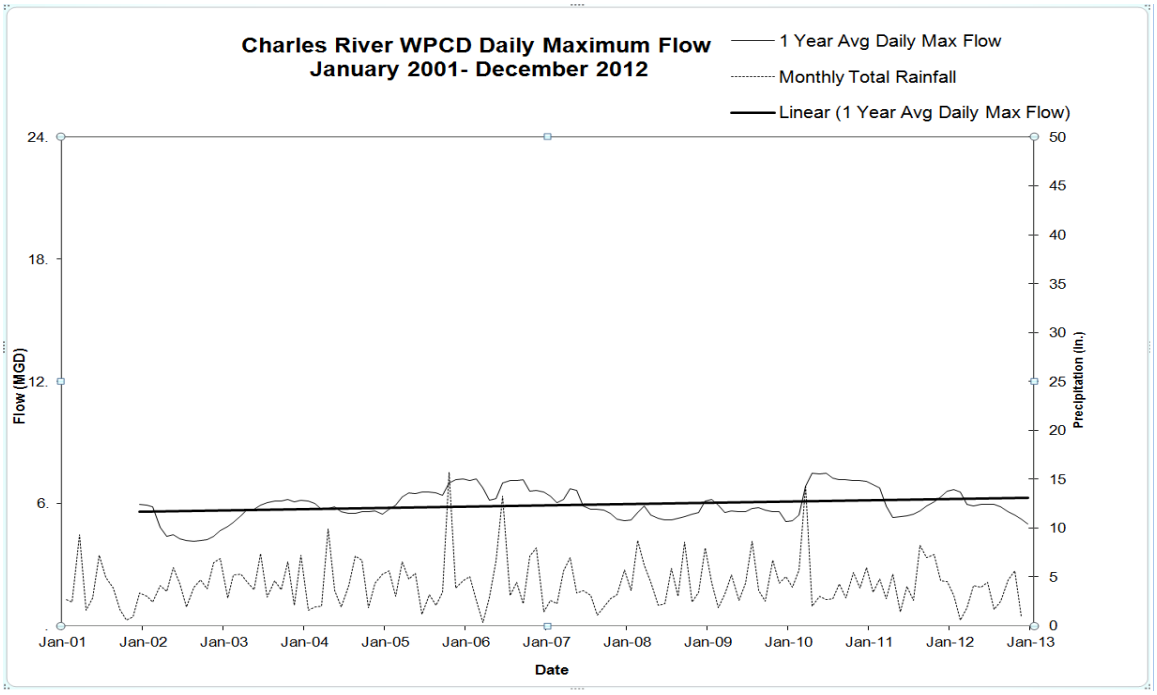
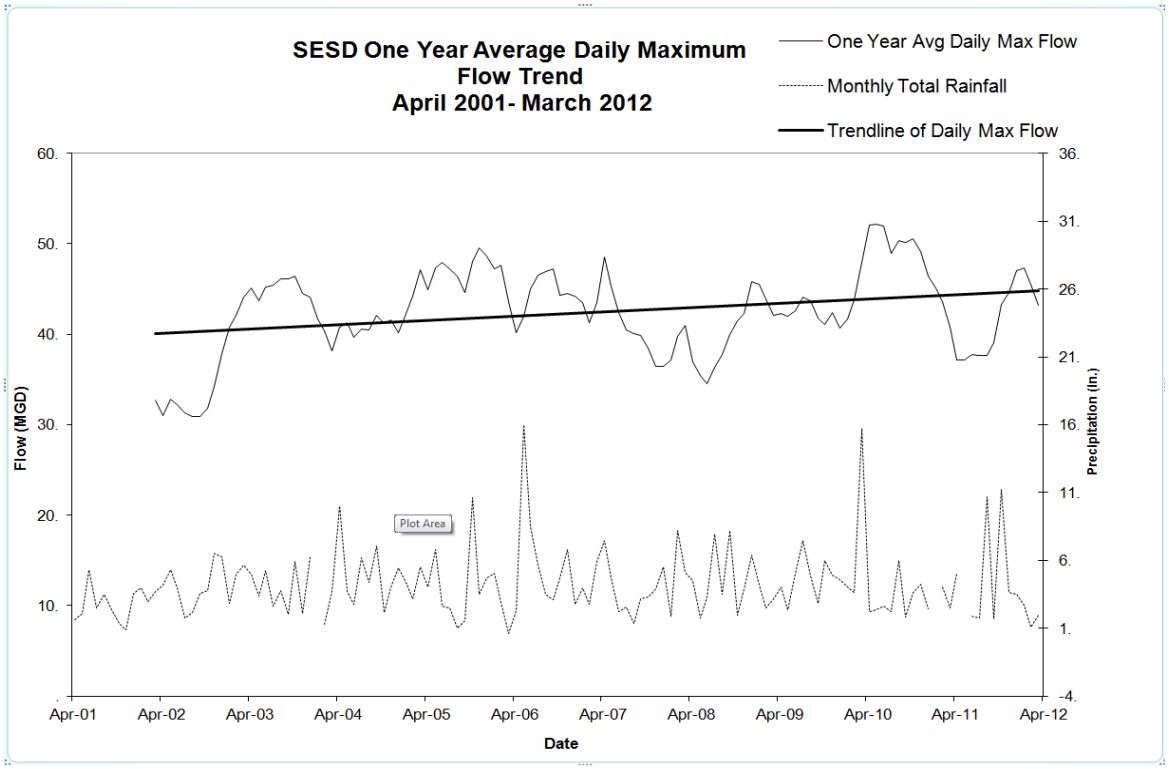


Figure B. SESD Daily Maximum Flow Trends - One Year Rolling Average of Daily Maximum Flows



Comment J.3: SESD continues to object to the proposed addition, as co-permittees, of the cities and towns within the geographical area comprising the District and all references thereto in the 2013 Draft Permit, the 2013 Fact Sheet and related documents. SESD continues to maintain that all provisions related to co-permittees should be stricken.

SESD adopts and incorporates by reference herein the comments submitted by the Upper Blackstone Water Pollution Abatement District dated November 2013 concerning the 2013 Draft Permit.

Response J.3: According to the District's own NPDES application, the municipalities of Beverly, Danvers, Marblehead, Middleton, Salem and Peabody have collection systems that convey flow to the SESD POTW Treatment Plant.

EPA refers the commenter to Response A.9 and to Section K in this document which provides greater detail of EPA's reasons for including the municipalities in the Final Permit as co-permittees.

Comment J.4: EPA has Conducted a Flawed Analysis of the 85% Removal Requirement.

EPA asserts that it will impose an 85% removal requirement in this permit because it now believes that SESD's situation does not qualify for a waiver of the 85% removal requirement. This is inconsistent with earlier EPA decisions on this same point.

According to EPA, SESD does not now qualify because it has determined that the SESD's influent suffers from excessive I/I, and therefore cannot qualify for the waiver from the 85% requirement. As was pointed out above, EPA has misinterpreted the definition of excessive infiltration and inflow, and on that basis SESD should continue to be granted a waiver from the 85% removal requirement. Additionally, as discussed above, although SESD receives high flows as a result of precipitation, the treatment facility was designed to handle these high flows, and SESD has never violated its NPDES permit for BOD, TSS, Oil and Grease, or pH because of high flows.

Response J.4: This issue was not subject to the partial reopening of the public comment period. Please see the Response to Comment A.5.

EPA agrees that the failure to meet the secondary treatment standard of 85% removal by SESD was not a permit violation, due to the limitation of the requirement to dry weather in the current permit. However, EPA continues to believe that the failure of the SESD facility to meet the technology based minimum standard of 85% removal from secondary treatment is indicative of the high impact of I/I on the treatment performance at SESD that warrants permit conditions aimed at reducing I/I. EPA notes that while the comment implies that the use of dry weather flow for the 85% removal standard is consistent with EPA's regulations, the exception to the 85% removal requirements in 40 CFR 133.103 is aimed at combined sewer systems. Limitation of the 85% removal requirement to dry weather in a separate system such as SESD is not contemplated by the regulations, and does not reflect EPA's approval of high I/I level that prevent attainment of secondary treatment standards.

Comment J.5: Concerning Part I.C., Operation and Maintenance of the Sewer System, of the 2013 Draft Permit.

1. Collection System Plan

   The 2013 Draft Permit contains a schedule for various elements of a collection system plan, as follows:

   - Collection System Plan within 6 months
   - Full Collection System Plan within 24 months
   - Sanitary Sewer mapping within 30 months

The 2013 Draft Permit requires that SESD submit a full Collection System O&M Plan within 24 months of the permit execution. This plan also requires the permittee to identify overflows and backups as well as the plan for addressing the overflows and backups and for preventing infiltration and inflow related violations. The permit also requires the submission of "sanitary sewer mapping" within 30 months of execution. The schedule for submission of the full Collection System O&M Plan within 24 months is not consistent with the mapping within 30 months. The industry standard and M[ass]DEP's "Guidelines for performing Infiltration/Inflow Analysis and Sewer System Evaluation Survey (Revised January 1993)" is to develop a system map prior to any I/I analysis. The guidelines state "*The purpose of the inventory of existing conditions is to gather information on the sewerage system as to better understand the specifics of that system and thereby develop the flow gauging program. The inventory is the first major work task in an I/I Analysis, and should be performed prior to any significant field investigations."* The schedule for completing this work should be revised to:

Collection System O&M Plan Development 12-months
Collection System Mapping 18-months
Collection System O&M Plan Full-30 months.

Response J.5: The permittee shall develop the initial O&M Plan within 6 months of the effective date of the permit and the full O&M Plan using the best available information within 24 months of the effective date of the permit. The O&M Plan shall be regularly updated including when the collection system mapping is completed. The schedule in the final permit remains the same.

Comment J.6: Jurisdictional Issues Associated with Various Requirements

C.5.b(6) This paragraph requires the permittee to have 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 program for all aspects of I/I control, particularly private inflow."*

Since SESD owns and operates only major interceptors, there is no need for it to have a private inflow program. This requirement should be deleted as to SESD.

Response J.6: The Operation and Maintenance requirements, Part C of the draft permit, have been developed as general requirements for all POTW permits in Massachusetts. If the permittee can certify that the portion of the collection system owned by the permittee is not subject to inflow from illegal sump pumps and roof downspouts then, the program is complete. The language remains in the final permit.

Comment J.7: The District reserves all rights including, but not limited to, the right to supplement its comments and to provide further information in support of the issues raised herein, the right to respond to issues raised by others, and all rights of appeal. The District would

also welcome the opportunity to meet with EPA and MDEP in an attempt to resolve the issues raised in this letter.

Response J.7: EPA acknowledges the comment.

K) Comments submitted by Karla H. Sangrey, P.E., Engineer Director/Treasurer, Upper Blackstone Water Pollution Abatement District, dated November 25, 2013.

Opening Comment: The Upper Blackstone Water Pollution Abatement District (the "District") hereby comments on the co-permittee provisions of the draft National Pollution [sic] Discharge Elimination System ("NPDES") Permit No. MA0100501 issued on September 24, 2013 to the South Essex Sewerage District, for discharges from the South Essex Wastewater Treatment Facility ("SESD"). The draft permit names the Cities of Beverly, Peabody, and Salem and the Towns of Danvers, Marblehead and Middleton (the "Municipalities" or "Cities/Towns") as co-permittees "for Part I.C. Operation and Maintenance and Part I.D Unauthorized Discharges from the Sewer System, which include conditions regarding the operation and maintenance of the portion of the collection systems owned and operated by the individual municipalities. The municipalities are also responsible for the requirements in Part I.G. State Permit Conditions."

The District was a party to, and challenged similar co-permittee provision in its NPDES permit, in the matter of *Upper Blackstone Water Pollution Abatement District*, NPDES Appeal Nos. 08-11 to 08-18 & 09-04, 14 E.A.D._(*Order denying review in part and remanding in part and remanding in part*, EAB, May 28, 2010 ("*Upper Blackstone* EAB Remand Order") in which the U.S. EPA Environmental Appeals Board ("EAB") remanded to Region 1 permit provisions that sought to regulate sewer lines owned, operated and maintained by separate municipalities as "co-permittees." In the *Upper Blackstone* EAB Remand Order, the EAB found that "[t]he Region has not sufficiently articulated in the record of this proceeding a rule-of-decision, or interpretation, identifying the statutory and regulatory basis for expanding the scope of NPDES authority beyond the treatment plant owner and operator to separately owned and operated collections systems that discharge to the treatment plant." Remand Order at 18.

Comment K.1: In the draft permit issued to SESD, the Region again fails to identify a legal basis for its position that it has authority to regulate the Municipalities as co-permittees. While the draft SESD permit fact sheet and document entitled *Analysis Supporting EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works that include Municipal Satellite Sewage Collection Systems* ("Region 1's Analysis") seeks to respond to questions raised by the EAB in the Remand Order concerning EPA's legal authority to regulate separately owned municipal collection systems, the Region simply sets forth a series of old and new arguments to justify the regulatory position it previously staked out: that satellite systems can be included in the POTW permit. At footnote 26 of Region 1's Analysis, the Region acknowledges that it's "position differs from that taken by the Region in the *Upper Blackstone* litigation. There, the Region stated that the treatment plant was the discharging entity for regulatory purposes." Now,

according to the Region, it "has clarified [its] view" and "determined that a municipal satellite collection system in a POTW is a discharging entity for regulatory purposes."

The Region makes this change with no basis to justify it. In the *Upper Blackstone* matter, and before the EAB, the satellite collection systems were not "discharging," but the Region could nonetheless regulate them. In the face of EAB's rejection of this argument, and in light of the Region's "clarified view," the Region now says satellite collection systems are "dischargers."

The Region's explanation for its change in position is insufficient and contrary to law. "[A]n agency changing its course must supply a reasoned analysis." Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 57 (1983). In Region 1's Analysis, it says only that it has "clarified [its] view." The Region, however, must "explain the evidence which is available" supporting that change and "must offer a 'rationale connection between the facts found and the choice made.'" Id. 52. The Region does not, and cannot, identify new evidence or facts. The discharge point, at Outfall 001, has not changed. The owners or operators of the POTW and satellite collection systems have not changed.

In sum, the fact sheet and the Region 1's Analysis fail to demonstrate that EPA has legal authority under the Clean Water Act ("CWA") or any NPDES regulation or sound factual basis to include the Municipalities as "co-permittees" to a NPDES permit. For the reasons set forth in this letter, EPA should strike the co-permittee provisions from the draft SESD permit.

Response K.1: The Analysis provided is in response to the remand order of the EAB. *See* Upper Blackstone 18-20. This fact is a sufficient basis for the Region's clarification of the legal basis for its permitting practice. Furthermore, any changes in the Region's position are only changes to the legal basis for its action, not a change to the action itself. *Motor Vehicle Manufacturers Association* deals with multiple changes to agency regulations instead of merely clarifications of the legal basis for action; therefore, the case is inapplicable here. 463 U.S. at 37-38.

It is not clear why the commenter considers the EAB's rejection of one of the Region's previous arguments as an "insufficient" basis for EPA to reconsider and clarify the legal basis for its policy. In light of the EAB's remand, the Region reexamined its policy and performed a thorough and reasoned analysis of the legal and policy basis for its determination that co-permitting is an appropriate and necessary approach to the issues raised by satellite collection systems. That Analysis has been documented in the 16-page explanation with supporting exhibits that was included at Attachment 1 to the Fact Sheet.

EPA agrees that the facts have remained the same, and that indeed that is why its determination that satellite collection systems should be regulated as co-permittees has also remained the same. EPA has simply proffered an alternative legal theory in light of the EAB remand. This is not an agency "changing its course" as suggested in the comment, but a revised legal analysis. That legal analysis demonstrates that EPA has legal authority to include the Municipalities as "co-permittees." There is no change in substantive law or policy. Since it started imposing specific collection system requirements, EPA has consistently expressed its view that satellite collection systems were in the scope of NPDES jurisdiction and that permit coverage could be required.

Comment K.2: In Section III, Legal Authority, of its Analysis, EPA seeks to justify the imposition of co-permittee requirements upon the Municipalities based upon the definition of "publicly owned treatment works" or "POTW." Citing to the broad definition of "POTW" which includes the term "sewage collection systems," EPA contends that a POTW includes not only the treatment works, owned and operated by SESD, but also the miles of sewers, pipes, equipment, and other systems owned, operated and maintained by the Municipalities. Based on the definition of POTW at 40 CFR 122.2, EPA concludes,

> …a satellite collection system owned by one municipality that transports municipal sewage to another portion of the POTW owned by another municipality can be classified as part of a single POTW system discharging to waters of the U.S.

Analysis, p.10.

> Under this approach, the POTW in its entirety will be subject to NPDES regulation as a point source discharger under the Act.

Attachment 1, p.1

Missing from EPA's Analysis is any acknowledgement of or reference to the operative terms of the CWA that trigger NPDES permitting: "discharge of any pollutant by any person" from a point source. CWA § 301(a). It is the act of discharging a pollutant from a point source that gives rise to NPDES permitting. The ownership of a collection system, as part of a greater POTW, does not require a NPDES permit under the CWA. The Municipalities' collection systems have no point source. The Municipalities do not own, operate or control any point source. Instead, the Municipalities send wastewater to a separately owned treatment plant for treatment and discharge at a point source. SESD, not any City or Town is a person who discharges from a point source. Consequently, the reach of EPA's authority to regulate "dischargers" is limited to SESD.

Response K.2: UBWPAD's objection relies on an overly narrow interpretation of "point source" that would restrict Region 1's permitting authority only to Outfall 001. However, a point source is "*any* discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit..." 40 C.F.R § 122.2. "The definition of a point source is to be broadly interpreted." *See Dague v. City of Burlington*, 935 F.2d 1343, 1354 (2d. Cir. 1991) (*rev'd on other grounds, see City of Burlington v. Dague*, 505 U.S. 557 (1992)). The pipes and other conveyances comprising the satellite collection systems operated by the municipalities fall within this broad definition of point source,[38] and the satellite collection systems that comprise a portion of the POTW discharge pollutants into the waters of the United States.[39] Under EPA's regulations, a POTW "means a treatment works as defined by section 212 of the Act, which is

[38] *See* 40 C.F.R. § 403.3(q) ("POTW . . . includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant[.]").
[39] *United States v. City of Monominee*, 727 F. Supp. 1110, 1114 (W.D. Mich. 1989) ("The CWA recognizes two classes of direct dischargers: publicly owned treatment works (POTW), and point sources other than POTW's").

owned by a State or municipality (as defined by section 502(4) of the Act)." 40 C.F.R. § 403.3(q).

The Municipalities may be subjected to NPDES permitting requirements because they operate portions of the POTW that discharge to U.S. waters. Section 212(2)(A) of the Act defines treatment works to mean, *inter alia*, "intercepting sewers, outfall sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances." POTW also "includes *any* devices and systems used in the *storage*, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant." 40 C.F.R. § 403.3(q) (emphasis added). Courts have upheld this broad interpretation of POTW:

> Section 1292 . . . gives a broad definition to the term 'treatment works' to include various appurtenances to a municipal sewage treatment plant . . . the EPA has defined the term 'publicly-owned treatment works' consistently with the statute. Specifically, the term 'means a treatment works as defined by section 212 of the Act, which is owned by a state or municipality. . . .' That definition goes on to provide that the term 'includes sewers, pipes and other conveyances only if they convey waste water to a POTW treatment plant,' . . . . Here, for example, the City of Burlington's sewer is included in the definition because it conveys waste water to the Massachusetts Water Resource Authority's treatment works.

United States v. Borowski, 977 F.2d 27, 30 n.5 (Oct. 7, 1992). The fact that the pollutants discharged pass through further portions of the POTW operated by others is immaterial to the status of the satellite collection facilities as point sources. *See Id.* at 1354-55; *infra* Response K.3; Analysis at 11. Dischargers do not need to own, operate or control the actual discharge point (outfall) to be subject to Clean Water Act jurisdiction. EPA has authority to require permits even when the discharge goes through a conveyance owned or operated by another discharger. *See, e.g.*, 40 C.F.R. § 122.44(m) (contributors to privately owned treatment works) and 122.26(a)(4)–(6)(stormwater associated with industrial activity that is discharged through a municipal or non-municipal separate storm sewers). Therefore, the Municipalities may be regulated as co-permittees because the satellite collection facilities constitute point sources that discharge pollutants under the CWA.[40]

Comment K.3: The CWA at Section 301(a) provides that "except in compliance [with a NPDES Permit] the discharge of any pollutant by any person shall be unlawful." The term "discharge of a pollutant" means "any addition of any pollutant to navigable waters from any point source."

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[40] This has been EPA's consistent position, applied in contexts other than co-permitting, *see, e.g.*, *EPA 2008 Construction General Permit*, and is essential to the effectiveness of the Clean Water Act. If dischargers were able to sidestep the requirements of the CWA by virtue of, for instance, transferring ownership of the outfall to another entity, the CWA would be rendered ineffective. Indeed under the argument presented in the comment, it does not matter whether the co-permitted town's sewage even receives treatment – they would be outside CWA jurisdiction so long as they do not own the last section of pipe where the raw sewage entered the water body.

CWA § 502(12). The CWA authorizes EPA to "issue a permit for the discharge of any pollutant." CWA § 402(a)(1). Thus, under the CWA it is only those persons who discharge a pollutant from any point source to navigable waters who are subject to NPDES permitting requirements. CWA § 502(14) (defining point source as "any discernable, confined and discreet conveyance . . . from which pollutants are . . . discharged").

EPA incorrectly states that the "NPDES regulations . . . identify the 'POTW' as the entity subject to regulation," citing to 40 CFR § 122.21(a). Analysis, p. 8. The "entity" subject to regulation is the "person who discharges or proposes to discharge." 40 CFR §122.21)(a)(1). Such persons are required to make application for a permit and "[a]pplicants for new or existing POTWs must submit information required" by 40 CFR §122.21(j), using Form 2A. 40 CFR §122.21(a)(2)(B).

EPA says "[w]hen a municipal satellite collection system conveys wastewater to the POTW treatment plant, the scope of NPDES authority extends to both the owner/operators of the treatment facility and the municipal satellite collection system, because the POTW is discharging pollutants." Analysis, p. 8 According to the permit, at Part I.A.1, "the permittee [i.e. SESD] is authorized to discharge from outfall serial number 001treated effluent to Salem Sound," and at D, "[t]he permittee and co-permittees are authorized to discharge…only from the outfall(s) listed in Part I.A.1. of this permit" The Municipalities do not own or operate outfall 001.

The Municipalities are not persons who discharge from a point source. The Municipalities do not "discharge a pollutant" as the term is defined under CWA. No doubt, the Municipalities "discharge" – as that term is commonly used – wastewater via conveyance systems to a point source. The CWA, however, is specific; persons who discharge pollutants from a point source need a NPDES permit to do so. The Municipalities have no "direct discharge." See 40 CFR 122.2 (defining "direct discharge" to mean "discharge of a pollutant").

At footnote 12 of the Analysis, EPA states that some municipal satellite collection systems have erroneously "argued that the addition of pollutants to waters of the United States from pipes, sewer or other conveyances that go to a treatment plant are not a "discharge of a pollutant" under 40 CFR 122.2 (persons who "discharge[] through pipes, sewers, or other conveyances owned by a …municipality which do not lead to a treatment works" are persons who "discharge a pollutant" under 40 CFR 122.2 (emphasis supplied)). In support of this position, EPA says that there is "[o]nly one category of such discharges…excluded: indirect discharges" and that "the satellite system discharges at issue here are not indirect discharges" While it is true that the definition of "discharge of a pollutant" at 40 CFR 122.2 excludes pollutants from "indirect discharges," that does not mean that only "indirect dischargers" fall outside the scope of "discharge of a pollutant" or that an interpretation of the definition of "discharge of a pollutant" which excludes wastewater from separately owned collection systems to a treatment plant is not reasonable in light of the definition of other terms, described above, that require permitting point sources. The use of the term "treatment works" as it appears in the regulatory definition of "discharge of a pollutant" does not preclude this interpretation.

EPA seeks to conflate the term "discharge" used in "discharge of a pollutant" with the "transfer of flow" or "conveyance" from a municipal conveyance system to the POTW treatment plant or

works that has a point source "from which pollutants are discharged." The word "discharge" is a defined term: "When used without qualification [it] means the 'discharge of a pollutant.'" 40 CFR 122.2. There is no "discharge from a municipal conveyance system. And in this case there is but discharge point from a POTW. See draft permit Part I. A. I. and B. It is that point source "from which pollutants are discharged" that triggers NPDES permitting and only those persons who own or operate that point source are subject to such permitting. That point source is not owned by the Municipalities. In short, the jurisdictional reach under the CWA does not include persons, such as the Municipalities that own, operate and maintain sewer lines that provide a conveyance for waste waters for treatment and discharge by another person from its point source.

Response K.3: The Municipalities are "persons" who "discharge" within the meaning of the Act and implementing regulations because they own or operate portions of the POTW and add pollutants to the waters of the United States. As discussed *supra* at Response K.2, the satellite collection systems constitute portions of a point source (the POTW) that discharges to U.S. waters; this interpretation is consistent with the definitions of "point source," "treatment works," "POTW" and "discharge" in the CWA and its regulations.[41] UBWPAD argues that they merely "provide a conveyance for waste waters for treatment and discharge by another person from its point source." According to the UBWPAD, only the POTW Treatment Plant, and not other portions of the integrated treatment works, discharges pollutants from a point source. However, this claim relies on an overly narrow definition of point source that would exclude large portions of the POTW without any principled basis, as well as an overly restrictive definition of discharge. The Municipalities' collection and "conveyance" via connecting pipes and sewers of "waste waters" from one portion of the treatment works (the collection system) to another (the POTW Treatment Plant) before its ultimate discharge into Salem Sound is an addition of a pollutant or combination of pollutants to water of the US from a point source. *See* 40 C.F.R. § 122.2 (defining "Discharge" and "Discharge of a pollutant"); *Id.* at 403.3(r) (defining the POTW treatment plant as a subset of the POTW). *See supra* at Response #K.2.

Under the Act, a party does not cease to discharge pollutants merely because the pollutants pass through a third-party conveyance before reaching the waters of the United States. *See, e.g.*, *Dague* 935 F.2d at 1355 (holding that leachate from a landfill constituted a discharge from a pollutant even though it passed through railroad culvert owned by a third party to reach the waters of the United States); *Puerto Rico Campers' Association v. Puerto Rico Aqueduct and Sewer Authority*, 219 F. Supp. 2d 201, 217 (D. Puerto Rico 2002) (holding that conveyance of pollutants from one waste water treatment plant to another constituted a "discharge" under the CWA); *United States v. Velsicol Chemical Corp.*, 483 F. Supp. 945, 947 (D.C. Tenn. 1976) (holding that discharges into a municipal sewer system are covered under the CWA because "[d]efendant knows or should have known that the city sewers lead directly into the Mississippi River and this is sufficient to satisfy the requirements of discharging into 'water of the United States,'"). *See generally Pepperell Assocs. v. United States EPA*, 246 F.3d 15 (1st Cir. 2001) (factory owner fined for oil that spilled from a boiler gasket, into an industrial drain, through a conduit, and eventually into a creek). EPA thus rejects the UBWPAD's attempt to impose an

[41] The cities and towns plainly fall within the definition of "municipality," as public bodies with jurisdiction over disposal of sewage and other wastes, and as such also fall within the express definition of "person," under 40 C.F.R. § 122.2.

arbitrary limitation on the reach of the Act and NPDES permitting, *i.e.* that the permitted entity must own the actual outfall pipe. The municipal satellite collection systems are themselves operators of point sources that discharge pollutants to U.S. waters, even if their contribution to the combination of pollutants in the final discharge from the outfall at the POTW treatment plant operated by the District cannot be easily distinguished.

Region 1 retains the option to treat a POTW comprised of a treatment plant and municipal satellite collection systems as a single, integrated discharger and imposes protective permit conditions on the several operators of satellite collection facilities, as appropriate to assure compliance with the Act, including but not limited through the prevention or minimization of SSOs, as explained more fully in the Analysis. The Region's decision to condition the permit for the discharge in this manner falls within its authority under the Act and implementing regulations. *See* CWA §§ 402(a)(2) ("The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate."); 301(b)(1)(C) (requiring "any more stringent limitation, including those necessary to meet water quality standards …or required to implement any applicable water quality standard established pursuant to this Act"); 40 C.F.R. §§ 122.4(a) (no permit may be issued, "When the conditions of the permit do not provide for compliance with the applicable requirements of the CWA, or regulations promulgated under CWA"); 122.43 ("In addition to conditions required in all permits (122.41 and 122.42), the Director shall establish conditions, as required on a case by case basis, to provide for and assure compliance with all applicable requirements of the CWA and regulations."); 122.44(d)(5) (requiring inclusion of "any more stringent limitations…in accordance with section 301(b)(1)(C) of the Act.")[42]

UBWPAD's comment appears to imply that the Municipalities should be treated as indirect dischargers. However, an indirect discharge is "the introduction of pollutants into a POTW from any *non-domestic* source" that is regulated by EPA's pretreatment regulations. 40 C.F.R. § 403.3(i). Non-domestic discharges are regulated separately because "Congress recognized that the pollutants which some indirect dischargers release into POTWs could interfere with the operation of the POTWs." *Environmental Protection Agency v. City of Green Forest*, 921 F.2d 1394, 1398 (8th Cir. 1990). Because of this, indirect dischargers are subject to separate pretreatment standards in order to avoid interfering with the operation of POTWs. *See Natural Resources Defense Council, Inc. v. Environmental Protection Agency*, 790 F.2d 289, 293 (Apr. 30, 1986). Unlike indirect dischargers, municipal satellite collection systems are not a non-domestic discharge "introducing pollutants" to POTWs as defined in 40 C.F.R. § 122.2. Instead, they themselves fall within the definition of "POTW", whose components consist of the municipal satellite collection system owned and operated by one entity and a treatment system owned and operated by another entity.

[42] This approach is analogous to EPA practice with respect to stormwater permits where multiple entities are treated as co-permittees when operating different portions of a storm sewer system. *See* National Pollutant Discharge Elimination system Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47,990, 48,044 (Nov. 16, 1990).

Comment K.4: The Region's rationale for seeking to impose co-permittee requirements upon the Municipalities is not consistent with the references to "municipality" in the definition of POTW found at 40 CFR § 403.3 (q), and the definition's statement that "[t]he term also means the municipality…which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works." The final sentence of the regulatory definition of POTW in the pretreatment regulations at 40 CFR § 403.3(q), refers to municipalities that have "jurisdiction over…the discharges from such a treatment works." The term "municipality" as defined in CWA § 502(4) "means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes…" (emphasis supplied). The Municipalities have jurisdiction over only their collection systems. They have no jurisdiction over the treatment plant or point source of discharge. Thus, the Region's view that a satellite collection system is part of a POTW is inconsistent with the final sentence of the regulatory definition of POTW in the pretreatment regulations. That sentence provides the "POTW" may "also" mean a municipality has no bearing on this limitation.

Response K.4: Here UBWPAD relies on an overly restrictive interpretation of POTW. As stated *supra* at Response K.2, these collection systems are point sources and constitute a portion of the POTW. Therefore, the Municipalities meet the CWA's definition of municipality because they have jurisdiction over a portion of the system for disposal of sewage.[43] *See also* Analysis at 12-13.[44]

The Region, in addition, does not interpret the word "also" to be a statement of limitation or exclusion.[45] It is immaterial to the question at hand that the Municipalities have no jurisdiction

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[43] "Disposal of sewage" is not limited to final discharge from of the Treatment Plant outfall. "Disposal" is defined as the "the act or process of disposing" and an "orderly placement or distribution." *Webster's Ninth New Collegiate Dictionary* (1983). The Towns' collection system, or "the common lateral sewers, within a publicly owned treatment system, which are primarily installed to receive waste waters directly from facilities which convey waste water from individual structures or from private property," *see* 40 C.F.R. § 35.905, clearly fall within this definition. They are part of method, process or system designed to receive sewage ("orderly placement") and convey it ("distribution") to the Treatment Plant.

[44] The Region's co-permitting rationale is consistent with the first part of the pretreatment program's regulatory definition of POTW, because the Region is only asserting NPDES jurisdiction over satellite collection systems that are owned by a "State or municipality (as defined by section 502(4) of the Act)." Again, the term "municipality" as defined in CWA § 502(4) "means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes…" Thus, in order to qualify under this definition, a wastewater collection system need only be "owned by a State or municipality." There is no requirement that the constituent components of a regionally integrated POTW, *i.e.*, the collection system and regional centralized POTW treatment plant, be owned by the same State or municipal entity. EPA does not believe that the commenter intends to argue that the co-permittee Towns are not "municipalities" within the meaning of CWA § 502(4). To the extent that is the commenter's argument, it is not reasonable to suggest that Towns with sewer commissions and sewer departments running sewage collection systems under local sewer bylaws somehow do not have "jurisdiction over disposal of sewage" simply because they do not own the outfall. This is consistent with EPA's interpretation of the term "municipality" in other CWA contexts; for example, "grants for the construction of treatment works" under CWA § 201(g)(1) were available only to a "State, municipality, or intermunicipal or interstate agency."

[45] This sentence ensures that the municipality that owns the outfall, or has jurisdiction over the indirect discharges, shall be considered within the definition of POTW even if it is not responsible for the "devices and systems . . . or .

over the POTW treatment plant if they fall within other portions of the definition of POTW; as one example, the POTW "includes sewers, pipes and other conveyances . . . if they convey wastewater to a POTW Treatment Plant." 40 C.F.R. § 403.3(q). As another, the municipalities agree that they operate their own collection systems, which expressly fall within the definition of "treatment works," s*ee* CWA § 212(2)(A), and are moreover encompassed by CWA § 212(2)(B) ("any other method or system for preventing, abating reducing, storing….separating, or disposing of municipal waste").

Comment K.5: The absence of EPA authority to make the Municipalities co-permittees is borne out by the permitting process and EPA's regulations at 40 CFR § 122.21, Subpart B, Permit Application Requirements. 40 CFR § 122.21(a), entitled "Duty to Apply," provides that "[a]ny person who discharges or proposes to discharge pollutants … must submit a complete application…in accordance with this section [122.21] and part 124 of this chapter." 40 CFR § 122.21(a)(i). (emphasis supplied). Consistent with the CWA, EPA regulations require persons "who discharge pollutants" have an NPDES Permit. See CWA § 301(a)("except in compliance with this section and [other sections] of this title, the discharge of any pollutant by any person shall be unlawful"), and CWA § 402(a)(authorizing EPA to issue a permit "for the discharge of any pollutant"). Throughout, the permit application regulations at 40 CFR § 122.21 contemplate that it is the "person" who discharges pollutants who must obtain a NPDES Permit. Nowhere is 40 CFR §122.21 is there any reference to "co-permittee" or any suggestion that separately owned and operated conveyance systems are subject to NPDES permitting. Consistent with CWA, it is the person who discharges a pollutant from a point source who is subject to NPDES permitting requirements.

While 40 CFR § 122.21(a)(1) requires an application only from those persons who discharge from a point source, the regulations anticipate circumstances when a facility may be owned or operated by separate entities. The permit application regulations provide that "[w]hen a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit." 40 CFR § 122.21(b). Thus, it is operator of the "point source" that must have the permit. "Owner or operator" means "the owner or operator of any "facility or activity" subject to regulation under the NPDES program." 40 CFR § 122.2. "Facility or activity" means "any NPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program." 40 CFR § 122.2 (emphasis supplied).

Nothing in 40 CFR § 122.21 requires or suggests that "satellite collection systems" need to make application for a NPDES permit. While the regulations contemplate that "[m]ore than one application form may be required from a facility," multiple applications are only required where there may be multiple point sources, not multiple owned parts of a POTW. See 40 CFR § 122.21(a)(2)(i) ("More than one application may be required from a facility depending on the

. . sewers, pipes and other conveyances" referenced in the rest of the definition. This is the clear meaning of the word "also" (contrast this with the "only if" language in the preceding sentence of the regulatory definition), and the comment's argument that the use of the word also "has no bearing" is unpersuasive.

number and types of discharges or outfalls found there.") Again, the regulations require persons who discharge from point sources to have an NPDES permit.

Response K.5: The Municipalities are owners and operators of the collection systems, which as portions of the POTW are facilities or activities subject to regulation under the NPDES program within the meaning of 40 CFR § 122.2. As municipalities (*i.e.*, public bodies with jurisdiction over disposal of sewage and other wastes), they are also "persons" within the meaning of that regulation. The Region's decision to impose NPDES conditions on these point source dischargers relies on statutory authorities underlying the NPDES permitting program—Section 301(b)(1)(C), 402(a)(1)-(2) and implementing NPDES regulations, *e.g.*, §§ 122.4, .44 and .43—and is in keeping with overall objectives of the Act to restore and maintain the integrity of the Nation's waters, including through the prevention and minimization of SSOs. EPA does not view the lack of any explicit reference to "co-permittees" or similar label in 40 C.F.R. § 122.21, or to "satellite collection systems," to preclude it from framing an NPDES permit based on these authorities to encompass owners and operators of portions of the POTW that are "up system" of the ultimate outfall point but that nevertheless are point sources that add pollutants to U.S. waters.[46] It is sufficient that the Act and implementing regulations make reference to discharges of pollutants from point sources to U.S. waters, terms that encompass discharges from the POTW's collection systems. Accordingly, the permit application requirements are not dispositive of the question of whether the Region is legally authorized to impose NPDES permit requirements on portions of the treatment works beyond the POTW treatment plant.

Federal regulations implementing the NPDES program require that any person who discharges pollutants must submit a complete permit application to the NPDES permitting Director. Specifically, 40 C.F.R. § 122.21(a) applies to the Municipalities because they are a point source dischargers discharging pollutants through portions of the POTW operated by them. *See supra* at Response K.2, Response K.3. The Municipalities claim "multiple applications are only required where there may be multiple point sources. However, regulations only state that "[m]ore than one application form may be required from a facility depending on the number and types of discharges or outfalls found there;" there is nothing to indicate that EPA is barred from issuing a permit that covers each of the several operators of an regionally integrated POTW, where the combined discharge flows through a single outfall. *See* 40 C.F.R. § 122.21(a)(2)(i).

EPA regulations do not specifically address how NPDES permit coverage is to be obtained by satellite collection system components of POTWs. As explained in the Analysis, ordinarily the treatment plant operator applies for the POTW's NPDES permit, and discharges from the POTW, including those from the collection systems operated by others, are covered by the permit issued to the treatment plant. Satellite collection system operators have generally not submitted separate permit applications for coverage under the POTW permit, because the treatment plant operator generally submits the information necessary for the permit writer to

[46] The fact that standard forms do not precisely address the specific circumstances of one type of potential permittee is not indicative of the scope of CWA requirements, particularly where EPA has indicated its intent not to require separate permit applications from satellite collection systems. EPA notes that specifically tailored applications are not provided for other small subsets of facilities that do not have treatment plants, for example, the CSO discharges from the Cities of Cambridge, Somerville and Worcester.

write terms and conditions in the permit applicable to all components of the POTW on the basis of the treatment plant's application. Whether or not to require additional information from a satellite collection system by way of an application is separate and apart from whether the collection system should be named as a co-permittee on the POTW permit. Both are case-by-case decisions, one based on the information available to the permit writer; the second based on whether the permit writer determines that specifying co-permittees on the POTW permit is necessary for all terms and conditions of the permit to be implemented. Here, with respect to information, the Region determined that there was no need for any information from the satellite systems because it anticipated receiving substantially identical information from the District as it would from the Municipalities. *See* Partially Revised Fact Sheet Attachment 1 at 14. As a separate matter, the Region determined that naming the Municipalities as co-permittees was necessary for implementation of the POTW permit.[47]

Similarly, 40 C.F.R. § 122.21(b) has no bearing on whether satellite collection systems are subject to NPDES permitting requirements. That provision specifically addresses "a facility or activity [that] is owned by one person but is operated by another person." *Id.* Here, the District does not own *or* operate the satellite collection systems. Instead, like the satellite communities, the District operates a component of the POTW. Contrary to the commenter's assertion, as operators of components of the POTW, the satellite collection systems—as well as the District—are "a facility or activity" subject to NPDES permitting requirements.

This approach is similar to the approach applicable to contributors to privately owned treatment works. *See* 40 C.F.R. §122.3 and §122.44(m). As with outlying jurisdictions contributing to a POTW, the NPDES regulations do not describe the process by which the contributors to the privately owned treatment works must apply for a permit or how to issue a permit to the treatment works if contributors do not apply.[48] Nothing in EPA regulations bars EPA from issuing a permit or requiring application information from more than one owner or operator of a point source. For example, in the case of the general permit that covers discharges of stormwater from certain construction sites, EPA requires both the owner and the operator of the site to be covered by the permit. While this situation is not expressly addressed in the regulation, EPA determined that both the operator and owner needed permit coverage to control discharges from construction sites where different entities have control over different aspects of the operations necessary to comply with the NPDES permit.

The Municipalities have had the opportunity to express their views during the public comment process on whether they should be co-permittees on this permit. EPA has not changed its conclusion that permit coverage is necessary in order to implement the NPDES permit

[47] This comment as a whole reflects a flawed understanding of the Act. The commenter uses the permit application requirements as the basis for deeming satellite collection systems point source dischargers. The satellite collection systems are subject to permit application requirements because they are point source dischargers, not vice versa.

[48] But the regulations are clear that, as a point source that is discharging through a treatment system that they do not own or operate, the contributor's discharge may be addressed either in a permit issued to the Privately Owned Treatment System or in a permit issued to the contributor.

requirements related to the collection system and ultimately to achieve the effluent limitations applicable to the integrated POTW system. *See* response to comment A.9.

Comment K.6: Nowhere in Application Form 2A is there any reference to a "co-permittee" or suggestion that a person may make an application, with a treatment works applicant, as co-permittee. See http://www.epa.gov/npdes/pubs/final2a.pdf. At page 1 of 21 of Form 2A, applicants "must complete questions A.1. through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9. through A.12." Part A.1 through A.8 of Form 2A asks for information about the facility and applicant. And asks "is the applicant the owner or operator (or both) of the treatment works?" (A.1., A.2.). Form 2A asks for collection system information; specifically, "information on municipalities and areas served by the facility…type of collection system (combined vs. separate) and its ownership (municipal, private, etc.)."(A.4.). Form 2A asks for information about the "collection system(s) used by the treatment plant."(A.7.). If the NPDES regulations contemplated permitting of collection systems, one would expect to see in each of these parts of the NPDES Application Form 2A some reference to the owners or operators of collection systems as "co-permittees." There is none. Form 2A also requires information on discharges. At Part A.8.a., Form 2A asks "Does the treatment works discharge effluent to waters of the U.S. ____Yes ____No." Form 2A obviously contemplates "discharges" from a "treatment works" not a collection system. Finally, at Part A.1.8.a.(i)-(v), Form 2A seeks information on the "types of discharge points the treatment works uses." No "collection system" or "satellite collection system" is listed here. This should be no surprise; collection systems and satellite collection systems do not have "discharge points" under the NPDES regulations.

Response K.6: UBWPAD's comment here erroneously presumes that Form 2A defines the scope of EPA's authority to require an operator of a point source to submit information and determines all situations for which a permit is necessary. UBWPAD's comments K.7 and K.8 further elaborate on this same theme. Form 2A is intended for gathering the requisite information, on a routine basis, in order to effectively issue NPDES permits; it is not designed to determine the scope of the NPDES program or to limit the information EPA is authorized to collect. *See* NPDES Application Requirements for POTWs and other TWTDSs [Other Treatment Works Treating Domestic Sewage], 64 Fed. Reg 42,434, 42,434 (Aug. 4, 1999) ("EPA is revising these regulations to ensure that permitting authorities obtain the information necessary to issue permits which protect the environment in the most efficient manner,"). As noted in response to the previous comment, requiring a satellite collection system to be a co-permittee is not the routine or usual situation. Therefore, UBWPAD's reliance on Form 2A to define the scope of Region 1's authority in implementing the NPDES program is misplaced.

UBWPAD claims Form 2A "obviously contemplates 'discharges' from a 'treatment [plant],' not a POTW." This is unpersuasive. Form 2A requires information on the collection system beyond the POTW treatment plant. *See* Form 2A at A.4, A.7. This implies that a permitting interest more extensive than merely the POTW treatment plant. Furthermore, the regulations creating Form 2A state that it is applicable to POTWs instead of using the more restrictive term "POTW treatment plant." NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at

42,434; *see also* 40 C.F.R. 403.3(r) ("[t]he term POTW Treatment Plant means the portion of the POTW which is designed to provide treatment,").[49]

UBWPAD next claims that the failure of Form 2A to discuss the potential status of satellite collection systems as co-permittees implies that the NPDES program is not intended to cover satellite collection systems as co-permittees. Again, Form 2A is not intended to define the scope of the NPDES permitting program, or to deal with all possible permitting variations or configurations that may be necessitated by site-specific information or circumstances relative to a discharge in order to address compliance with the Act. Here, the Region has determined that it is important to frame the permit to include requirements on the POTW's collection systems in order to address, *inter alia*, SSOs resulting in part from poorly maintained and operated collection systems and in so doing to assure compliance with the requirements of Section 301 of the Act and applicable water quality standards.

UBWPAD finally claims that Form 2A's inquiries into the discharge points of a POTW treatment plant imply that it is not intended to cover operators of satellite collection facilities as co-permittees. Such an inference is misplaced. Form 2A requires information regarding many portions of the POTW including both the treatment plant and the satellite collection facilities.

Comment K.7: In its Analysis, EPA would "waive" the Municipalities' permit applications and all requirements of 40 CFR § 122.21. In its effort to justify including the Municipalities as co-permittee, EPA both misapplies and takes 40 CFR § 122.21(j) entirely out of context. First, waivers can only be granted to those persons who have submitted applications. Nothing in the fact sheet suggests that the Town applied for any NPDES permit. § 122.21(j) provides that:

> Permit applicant must submit all information available at the time of permit application…The Director may waive any requirement of this paragraph if he or she has access to substantially identical information. (emphasis supplied).

40 CFR § 122.21(j) does not support the EPA's proposed waiver of any application by the Municipalities; it allows only for the waiver of certain information in a permit application submitted by the applicant.

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[49] *See also* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42,443:

> "The permit writer needs to know what areas are served and the actual population served in order to calculate the potential domestic sewage loading to the treatment plant. The information on the community served by the NPDES permittee is also useful for providing notice and public comment for permit reissuance and for public education. One commenter requested clarification of the term "population served." By this term, EPA means the number of users of the system. EPA has expanded this requirement from the proposal in order to obtain a more complete picture of the area served by the POTW. The additional information on the satellite systems will be used by the permit writer to identify areas where there is a potential for unpermitted discharges in the collection system prior to the treatment plant. The identified areas may necessitate further investigation."

Response K.7: The Region has not waived the application requirement relative to the POTW in its entirety (a facility or activity, or "point source" that is subject to regulation under the NPDES program") under 40 C.F.R. § 122.21, from which the combined effluent from the treatment works is discharged, only as to the operators of the satellite collection systems. The Region still required and received an application for the POTW discharge by the District. Receiving a single application from the operator of a portion of the discharging POTW is a reasonable way to structure the permit application process, particularly in the case of a regionally integrated treatment works where there is a centralized administrative entity responsible for operating the POTW Treatment Plant and coordinating wastewater flows from the multiple satellite collection system operators. The Region has determined that "requiring a single permit application executed by the regional POTW treatment plant owner/operator will deliver 'substantially identical information'" to any application submitted by the Municipalities. Exhibit C at 26**.** Therefore, Region 1 decided to "waiv[e] NPDES permit application and signatory requirements applicable to the . . . municipal satellite collection systems." *Id.* These requirements—including signatory requirements—are present at 40 C.F.R. § 122.21(j); therefore, the Region may waive any or all of these requirements as to the municipal satellites. *See* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440. The purpose of the waiver provision is to "allow the Director to waive *any requirement in paragraph (j)* if the Director has access to substantially identical information." NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440 (emphasis added). This broad waiver authority is intended to reduce the inefficiency of redundant information submissions by regulated entities. *Id* at 42,435. UBWPAD's interpretation of the waiver process would undermine this goal by requiring that the Region receive either an incomplete or redundant application before stating that the application is unnecessary. See response to comment K.8.

Comment K.8: Second, EPA cannot unilaterally waive requirements of an application without a request to do so; the person must seek a waiver and that waiver must be approved by EPA. 40 CFR § 122.21(e) requires a complete application before EPA may issue a permit "([EPA] shall not issue a permit before receiving a complete application for a permit"), and a "waiver application" must be made, and approved, or not acted upon by EPA.

> A permit application shall not be considered complete if a permitting authority has waived application requirements under paragraphs (j) or (q) of this section and EPA has disapproved the waiver application. If a waiver request has been submitted to EPA more than 210 days prior to permit expiration and EPA has not disapproved the waiver application 181 days prior to permit expiration, the permit application lacking the information subject to the waiver application shall be considered complete.

Nothing in the fact sheet suggests that the Municipalities have made application for a waiver from application requirements. 40 CFR § 122.21(j) says only that the "Director may waive any requirement of this paragraph if he or she has access to substantially identical information." This provision, in context, is obviously designed to allow waiver of some of the detailed and often duplicate information required under Section 122.21 and in EPA's permit application forms. As

noted above, Form 2A consists of 21 pages and requires detailed information about the "treatment works." See Form 2A at http://www.epa.gov/npdes/pubs/final2a.pdf. Nothing in Section 122.21(j) suggests EPA may waive the requirement at 40 CFR § 122.21(a)(1) mandating an application from those persons who discharge from a point source. Likewise, nothing in Section 122.21(j) suggests EPA may waive the requirement for application signatures and certifications and authorization required by 40 CFR § 122.22, none of which the Municipalities have provided. EPA seeks to ignore its own regulations and issue a permit to the Municipalities who have not applied for an NPDES permit.

Response K.8: "The goal of the application requirements is to provide the permit writer with the information necessary to develop appropriate NPDES permits consistent with requirements of the CWA." *See* NPDES Application Requirements for POTWs and other TWTDSs, 64 Fed. Reg. at 42440. In this case, a timely re-application for an NPDES permit for the discharge from the POTW has been received, signed and certified by the operator of the POTW Treatment Plant. As the recipient of contributing discharges from outlying portions of the POTW for final, combined discharge into the receiving water as well as the primary coordinator of the member communities, the District is uniquely positioned to provide information regarding the wider treatment works. EPA has the necessary information relative to the POTW's collection system and system-wide I/I from the District's application, DMR data and MassDEP's database of reported SSOs.

UBWPAD claims that Region 1 may only waive permit application requirements after receiving a waiver application from the permit applicant. EPA disagrees, as 40 C.F.R. § 122.22(j) states, "The director may waive *any requirement of this paragraph* if he or she has access to substantially identical information." The phrase "any requirement of this paragraph" includes the requirement to submit a waiver application in the first place. The UBWPAD further argues that the waiver provisions of section 122.21(j) are "obviously designed to allow waiver of some of the information required" but may not be used to waive the signatory and certification requirements. However, the signatory requirement is intended to certify that the information provided is—to the best of the signatory's knowledge—complete and accurate. 40 C.F.R. § 122.22(d). Such a certification and signature have been received from the operator POTW Treatment Plant. The information receiving certification adequately characterizes data and operations relative the wider treatment works, and EPA has deemed this sufficient to process the permit, and the permit application complete. In the case of permitting municipal satellite collection systems where the Region is not requesting any information from a contributing discharger, the Region has determined that certification and signature of the POTW Treatment Plant operator is sufficient. The signatory and certification requirement serves no purpose if the preceding information has been waived.

As a general matter, EPA does not foresee the need to require individual permit applications from each municipal satellite collection system operator, and anticipates that information in the POTW Treatment Plant operator's permit application and other information in the administrative record will be sufficient to establish permit terms for the entire treatment works. As EPA moves forward with its practice of co-permitting, as appropriate, municipal satellite collection facilities, it will indicate whether it requires additional material from those entities operating the outlying

portions of the treatment works to render the permit application "complete" under 40 C.F.R. § 124.3(c) after receiving and reviewing the re-application for the permit from the primary permittee, typically the operator of the POTW Treatment Plant.

Comment K.9: EPA would further seek to cause the Municipalities to "consult and coordinate with the regional POTW treatment plant operators to ensure that any information provided to EPA about their respective entities is accurate and complete." Exhibit C to Analysis EPA would then use its authority, under CWA § 308, to compel information from the Municipalities, should EPA deem information provided by the permit applicant incomplete. CWA § 308, however, applies "the owner or operator of any point source." CWA § 308(a) (A). Information may be obtained only from such owner or operator of the "point source," the "effluent source" or "the owner or operator of such source." CWA § 308(a)(B)(i) and (ii). Again, because the Municipalities do not own or operate any point source, CWA § 308 would not apply to the Municipalities. Under EPA's Analysis, it would read out of the regulations the entire Section 122.21. EPA's cobbled approach and legal analysis toward finding authority where there is none is not supported by its own regulations.

Response K.9: The Municipalities are operators of a point source because the POTW itself is a point source, and the Municipalities operate a portion of that point source. *See supra* Response K.2; Response K.3. Therefore, the Region may use its § 308 authority to request information.

Comment K.10: Nothing in EPA's permit writers' manual evidences any authority to permit satellite collection systems as part of a greater POTW. Indeed, EPA's permit writers' manual make[s] no reference to permitting of satellite collection systems or to the owner of such systems being subject to a NPDES permit as a co-permittee. See EPA NPDES Permit Writers' Manual, September 2010 http://www.epa.gov/npdes/pubs/pwm_2010.pdf. Instead, the Permit Writer's Manual supports the analysis provided above. It says: "Under the national program, NPDES permits are issued only to direct dischargers." Permit Writers' Manual Section 1.3.4 (emphasis supplied). As noted above, a "direct discharge" means the "discharge of a pollutant" and "discharge of a pollutant" means "any addition of any pollutant to navigable waters from any point source." CWA § 502(12). 40 CFR 122.2.

Section 4.1 of the Permit Writers' Manual addresses "Who Applies for an NPDES Permit?" No mention is made in this section to satellite collection systems or to the owners of such systems. Instead, the Permit Writers' Manual states:

> The NPDES regulations at Title 40 of the *Code of Federal Regulations* (CFR) 122.21(a) require that any person, except persons covered by general permits under § 122.28, who discharges pollutants or proposes to discharge pollutants to waters of the United States must apply for a permit. Further § 122.21(e) prohibits the permitting authority from issuing an individual permit until and unless a prospective discharger provided a complete application. This regulation is broadly inclusive and ties back to the Clean Water Act (CWA) section 301(a) provision that, except as in compliance with the act, "…the

> discharge of any pollutant by any person shall be unlawful." In most instances, the permit applicant will be the owner (e.g. corporate officer) of the facility. However, the regulations at § 122.21(b) require that when a facility or activity is owned by one person but operated by another person, it is the operator's duty to obtain a permit. The regulations also require the application to be signed and certified by a high-ranking official of the business or activity. The signatory and certification requirements are at § 122.22. Permits (and applications) are required for most discharges or proposed discharges to waters of the United States; however, NPDES permits are not required for some activities as specified under the *Exclusions* provision in § 122.3

Section 4.3 of the Permit Writers' Manual addresses what forms must be submitted and at Exhibit 4-3 describes "the type of dischargers required to submit NPDES application forms, identifies the forms that must be submitted, and references the corresponding NPDES regulatory citation." Again, in Section 4.3 there is no mention of satellite collection systems or need for the owners of such systems to have a NPDES permit.

Response K.10: UBWPAD's attempt to read the quoted language from the Manual as some sort of limitation on permit coverage or the extent of EPA's legal authority under Section 301 and 402, is unconvincing. The Permit Writers Manual does not address every permitting scenario. For example, it does not address the procedures by which dischargers into privately owned treatment systems may be designated as needing permits. Nor does it discuss the permitting of industrial discharges into a separately permitted municipal storm system. Moreover, the Permit Writers' Manual (the "Manual") is a guidance and does not contain legally binding standards concerning the issuance of NPDES permits:

> CWA provisions and regulations contain legally binding requirements. This document does not substitute for those provisions or regulations. Recommendations in this guidance are not binding; the permitting authority may consider other approaches consistent with the CWA and EPA regulations. When EPA makes a permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the situation. This guidance incorporates, and does not modify, existing EPA policy and guidance on developing NPDES permits. EPA may change this guidance in the future.

NPDES Permit Writers' Manual, U.S. Environmental Protection Agency at inside cover page (Sept. 2010) (*available at* http://cfpub.epa.gov/npdes/writermanual.cfm). Therefore, the discussion of EPA regulations at response to comments K.2 and K.3 takes precedence over any inferences drawn from the Manual. Furthermore, the Manual's discussion of POTWs makes clear that it intends to cover the entirety of the POTW and not merely the treatment plant:

> The federal regulations at § 403.3 define a POTW as a treatment works . . . that is owned by a state or municipality [as defined in CWA section 502(4)].

> The definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It *also includes sewers, pipes, and other conveyances* only if they convey wastewater to a POTW.

NPDES Permit Writers' Manual at § 2.3.1. The Permit Writers Manual's discussion of the definition of "point source" also demonstrates that the term has a broad reach and includes the POTW:

> Pollutants can enter water via a variety of pathways including agricultural, domestic and industrial sources. For regulatory purposes, these sources generally are categorized as either point sources or nonpoint sources. The term point source is defined in CWA section 502(14) and § 122.2 to include *any* discernible, confined, and discrete conveyance from which pollutants are or may be discharged. *Point source discharges include discharges from publicly owned treatment works (POTWs)*, industrial process wastewater discharges, runoff conveyed through a storm sewer system, and discharges from concentrated animal feeding operations (CAFOs), among others (see Exhibit 1-2). Return flows from irrigated agriculture and agricultural stormwater runoff specifically are excluded from the definition of a point source.

NPDES Permit Writers' Manual at § 1.3.4 (emphasis added). The preceding passages demonstrate that, to the extent that inferences may be drawn from the Permit Writer's Manual, any inferences support the Region's approach.

Comment K.11: EPA's position that the collection system is part of the POTW does not advance its argument that "satellite collection systems" should be deemed "co-permittees" in NPDES permits. If the collection systems is part of the POTW, it should not matter who owns what part or portions as it is the "person" who owns or operates that portion of the POTW that "discharges a pollutant" from a point source who is required to have a permit for that discharge. EPA acknowledges that the Municipalities do not own or operate the entire POTW. While EPA seeks "to refashion permits issued to regionally integrated POTWs to include all owners/operators of the treatment works (*i.e.* the regional centralized POTW treatment plant and the municipal satellite collection systems)," permit conditions "pertain only to the portions of the POTW collection system that the satellites own." Analysis, p. 7. See Permit page 1 of 13. Because the Municipalities do not own or operate the point source – Outfall 001 – they are not a person who may be subject to a NPDES permit.

Response K.11: UBWPAD here relies on an overly restrictive definition of point source. The point source in question here is not merely Outfall 001, it is the entire POTW. *See supra* Response K.2, Response K.3.

Comment K.12: The fact sheet and Analysis does not explain why operation and maintenance of the Municipalities' sewer systems is not being adequately regulated by under State regulations at 310 CMR 12.00. 312 CMR 12.02 defines "Sewer Systems" to mean "pipelines or conduits, pumping stations, force mains, and all other structures, devices, appurtenances, and facilities used for collecting and conveying wastes to a site or works for treatment or disposal." The purpose of 314 CMR 12.00 is to insure "proper operation and maintenance of … sewer systems within the Commonwealth," and sets forth numerous requirements for the proper operation and maintenance of such systems. See 314 CMR 12.03(4), (10) and (11); 12.04(4); 12.05(5), (6) and (12); and 12.07(7).

Response K.12: EPA is aware that MassDEP recently promulgated regulations related to operation and maintenance of sewer systems. These regulations came into effect in April 2014; they obviously were not considered in the development of the *EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works that Include Municipal Satellite Sewage Collection Systems* (Attachment 1 to the Partially Revised Fact Sheet) which was developed in 2012, and was not addressed in the Partially Revised Fact Sheet for this permit, which was released for public comment in September 2013.

EPA's notes that the Analysis underlying its approach does not depend on the sufficiency or insufficiency of State regulations. State regulations, while welcome, are not subject to EPA enforcement and are not a substitute for permit requirements. Further, the specific regulations promulgated by MassDEP are not commensurate in scope with the operation and maintenance requirements in the Final Permit. The MassDEP regulations do not require mapping of the sewer system, as required under the permit. In addition, the permit requires a complete O&M Plan that includes I/I control, contains specific elements and is submitted to EPA; the MassDEP regulations require only an I/I control plan that does not contain other O&M requirements included in the permit, and require that it be submitted only "upon request".

Thus, while EPA welcomes MassDEP's steps to address I/I in sewer systems, particularly its focus on quantitative I/I evaluation in 314 CMR 12.04(2)(c), EPA does not view these regulations as comparable or sufficient to obviate the need for permit conditions addressing satellite collection systems as co-permittees.

Comment K.13: In its Determination of Remand issued to the District on July 7, 2010, the Region indicated it would "coordinate broadly within EPA in developing a response" to the *Upper Blackstone* EAB Remand Order. Nothing in Region 1's Analysis indicates this was done. Because EPA's authority to permit satellite collection systems impacts not only the Region, but is of national significance, and because the issues raised by the EAB concerning EPA's legal authority to regulate co-permittees were limited to those raised by the District, the Region's effort to permit satellite collection systems as co-permittees or otherwise through separate permits should be presented to the public for review and comment on a national level.

In June 2010, EPA did seek through "listening sessions" information from the public concerning permitting of satellite collection systems. See Fed. Reg 30395 (June 1, 2010)("EPA is

considering whether to propose modifying the [NPDES] regulations as they apply to municipal sanitary sewer collection systems"). In contemplating a potential regulatory change, EPA asked specifically for input on the question: *Should EPA propose to require permit coverage for municipal satellite collections systems?* Because EPA was "considering clarification of the framework for regulating municipal satellite collection systems under the NPDES program," and doing so via a regulatory change, the Region should not include at this time, and based on unsupported legal authority outlined above, the Town as co-permittee in this permit. Until such time as EPA addresses this issue of a national level and gives the public the opportunity review and comment on the legal Analysis set forth by the Region, it should not include co-permittee provisions in this permit.

Response K.13: The Analysis does not signify a binding change in EPA national policy and does not require comment on the national level. First, the Analysis merely interprets existing legal authority; it neither changes nor purports to change EPA's power with respect to NPDES permitting. *See* Analysis at 1 ("This interpretative statement provides an explanation to the public of *EPA Region 1's* interpretation of the Clean Water Act," (emphasis added)). Second, the Analysis does not establish binding changes to EPA's permitting practice in the future. The Analysis explicitly provides that "Region 1's decision will be made by applying the law and regulations to the specific facts" and not by automatically regulating operators of satellite collection systems through the co-permittee system. *Id.* Third, the Analysis is distinguishable from EPA's previous inquiries into permitting satellite collection facilities. In 2010, EPA inquired into whether it should "propose to *require* permit coverage for municipal satellite collection systems." National Pollutant Discharge Elimination System (NPDES) Permit Requirements for Municipal Sanitary Sewer Collection Systems, Municipal Satellite Collection Systems, Sanitary Sewer Overflows, and Peak Wet Weather Discharges From Publicly Owned Treatment Works Treatment Plants Serving Separate Sanitary Sewer Collection Systems, 75 Fed. Reg. 30, 395, 30,401 (June 1, 2010). The Analysis, however, makes no binding changes to national NPDES regulations. Finally, even if Region 1's analysis of its legal authority is of national significance, UBWPAD cite no authority for the proposition that this significance alone should subject Region 1's analysis to national commentary if such commentary is not required by the Administrative Procedure Act. *See infra* response to comment K.14 for discussion of the APA.

The Region coordinated within EPA, including with EPA Headquarters, in developing a response to the remand. EPA did not at any time state that it would defer this issue to a national rulemaking. New England states are unusual nationwide for the strong level of local control exercised by relatively numerous cities and towns (351 in Massachusetts), leading at times to extensive collection systems controlled by local authorities but discharging via a regional treatment plant such as the District. EPA Region 1 also has extensive experience in permitting of these facilities as the direct permitting authority in two states. In this context, this issue is both distinctive and a high priority for the Region, apart from any national rulemaking.

Comment K.14: EPA's attempt to change the legal requirements applicable to satellite collection systems is a legislative rule that EPA is issuing without formal notice and comment

rulemaking in violation of the Administrative Procedures Act ("APA"). In trying to distinguish between legislative rules and policy statements, courts have found that "if a document expresses a change in substantive law or policy the agency intends to make binding, or administers with binding effect, the agency may not rely upon statutory exemption for policy statements, but must observe the APA's legislative rulemaking procedures." *Gen. Elec. Co. v. E.P.A., 290 F.3d 377, 383-84 (D.C. Cir. 2002). See also Appalachian Power Co. v EPA, 208 F.3d 1015 (D.C. Cir. 2000)*(finding that an EPA guidance document that imposed new monitoring requirements relating to the operation of permit programs under the Clean Air Act was a legislative rule because it was treated as binding), *Nat'l Mining Ass'n v. Jackson*, 816 F. Supp. 2d 37, 42-49 (D.D.C. 2011)(finding a violation of the Administrative Procedures Act where EPA sought to impose a new process for obtaining section 404 permits without notice and comment rulemaking), *New Hope Power Co v. U.S. Army Corps of Eng'rs,* 746 F. Supp. 2d. 1272, 1283-84 (S.D. Fla. 2010)(striking Corps guidance purporting to amend the prior converted croplands exclusion because it amounted to new legislative rules that created a binding norm and the Corps failed to comply with the APA). *Iowa League of Cities v. EPA*, 711 F.3d 844 (8th Cir. 2013), *petition for rehearing denied* (July 10, 2013)(vacating new rule banning bacteria mixing zones in waters designated for primary recreation and new rule on blending peak wet weather flows because new rules had the effect of legislative rule that violated the APA's procedural requirements by not using notice and comment procedures and because rules were promulgated "without observance of procedure required by law.")

In the case of the draft SESD permit, there is no question that EPA intends its new position regarding satellite systems to have a binding effect. Moreover, it is telling that in 2001, EPA began a rulemaking process that purported to give the agency direct authority over satellite systems, in the context of a proposed pertaining to Municipal Sanitary Sewer Collection Systems, Municipal Satellite Collection Systems, and Sanitary Sewer Overflows (proposal signed Jan. 4, 2001)(formerly available at https://cfpub.epa.gov/npdes/regresult.cfm?program_id=4&view=all&type=3, but now withdrawn from EPA's website). EPA later withdrew the proposed rule.

Response K.14: UBWPAD claims that the Region's Analysis is a legislative rule that ought to be subject to notice and comment under the Administrative Procedure Act ("APA"). Under the APA, there are no procedural requirements when an agency promulgates "interpretative rules, general statements of policy, or rules of agency organization, procedure, or practice." 5 U.S.C. § 553(b). The Analysis here is an interpretative statement utilized by the Region in the context of NPDES permit proceedings. The decision of whether to include co-permittees in any given NPDES permit is adjudicated on a case-by-case basis in light of the facts and circumstances surrounding the discharge and receiving waters. Therefore, it is not subject to the "notice and comment" requirements of the APA. *See* Approach at 1.

The D.C. Circuit has identified four factors that that may render an ostensibly interpretive rule legislative: "(1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the agency has explicitly invoked its general legislative authority, or (4) whether the rule

effectively amends a prior legislative rule." *Syncor International Corp. v. Shalala*, 127 F.3d 90, 96 n. 8 (D.C. Cir. 1997) (citing *American Mining Congress v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993)). However, "[t]he critical distinction between legislative and interpretative rules is that, whereas interpretative rules 'simply state what the administrative agency thinks the statute means, and only 'remind' affected parties of existing duties,' a legislative rule 'imposes new rights or duties.'" *Iowa League of Cities v. Environmental Protection Agency*, 711 F.3d 844, 873 (8th Cir. Mar. 25, 2013).

Determining whether a document is binding depends on the specific language used and tends to be a highly fact-specific inquiry. *See Iowa League of Cities*, 711 F.3d at 863-64; *South Dakota v. Ubbelohde*, 330 F.3d 1014, 1028 (8th Cir. 2003). In *Iowa League of Cities*, the Eighth Circuit found that a letter to Senator Grassley constituted a binding rule because it purported to state "the EPA's position" and spoke in mandatory terms that certain actions "should not be permitted." 711 F.3d at 864. Similarly, in *South Dakota v. Ubbelohde*, the Eighth Circuit found that the Corps' manual for implementing the Flood Control Act was binding because it "speaks of what 'is' done or 'will' be done." 330 F.3d at 1028. However, in *Catawba County v. Environmental Protection Agency*, the D.C. Circuit found that an EPA memorandum was non-binding because it left the Agency free to exercise discretion; the memorandum spoke of the Agency's "current views," but left those views open to revision. 571 F.3d 20, 33-34 (D.C. Cir. 2009).

Based on its language, the Analysis constitutes an interpretative statement and not a legislative rule. The Analysis describes the process of listing municipalities as "EPA Region 1's practice" and not as an immutable, binding rule for all permitting authorities. Analysis at 1. This statement is similar to the memo at issue in *Catawba County* because it describes only the Region's current practices and views of the law; it is not a change to the Agency's underlying regulatory/statutory structure. *See* 571 F.3d at 33-34. Furthermore, the Analysis does not signify a change in the Region's regulatory practices, it merely "details the legal and policy bases" for prior practices. Analysis at 2; *see also* Exhibit A (showing 25 permits since September 25, 2000 where the municipality operating a satellite collection facility was made a co-permittee on an NPDES permit).

While the key factor in whether a rule is interpretative or legislative is whether the rule is binding, the four *Syncor* factors are still informative on this question. *See Syncor*, 127 F.3d at 96l. Factor one asks whether the absence of a rule would take away the legal basis for agency action. Here, the absence of the analysis would not affect Region 1's authority to regulate municipal operators of satellite collection systems because the rule merely interprets existing statutes and regulations. *See e.g.*, Analysis at 7 ("Region 1 has decided to supply a clearer, more detailed explanation regarding its use of a co-permittee structure when issuing NPDES permits,"). Furthermore, the Analysis explicates the legal basis for a permitting practice that Region 1 has generally employed since 2005. Analysis at 7. Factor two, whether the rule has been published in the CFR, does not apply to the Analysis. Factor three, whether Region 1 has invoked its legislative rulemaking authority, also does not apply here. Finally, factor four, whether the rule amends a prior legislative rule, does not apply because the Agency has never fully promulgated any rules on permitting practices for separately owned satellite collection facilities. Furthermore, response to comment K.13 provides further discussion of proposed rules

on satellite collection facilities by the Agency. In sum, the practice of including municipal satellite collection system owners/operators as co-permittees on the NPDES permit issued to the POTW Treatment Plant is simply one way that a permit can be framed to assure compliance with the Act. The Analysis merely outlines the legal and technical bases for this approach, which the Region undertakes at its discretion on a case-by-case basis, and does not mandate either Region 1 (or other Regions) to follow it.

L) Comments submitted by Karis L. North, Office of Danvers Town Counsel, dated November 25, 2013.

Opening Comment: The Town of Danvers ("Danvers") hereby submits its comments on the co-permittee provisions of the draft NPDES permit for the South Essex Sewerage District ("SESD") No. MA0100501 ("SESD NPDES permit"). Danvers has been named in the SESD NPDES permit as a co-permittee for Part I.C., Operation and Maintenance, and Part I.D., Unauthorized Discharges from the Sewer System, "which include the conditions regarding the operation and maintenance of the portion of the collection systems owned and operated by the individual municipalities." The SESD NPDES permit also states that the municipalities are responsible for the requirements of Part I.G. State Permit Conditions.

Danvers understands that the co-permittee provision, and EPA's determination to consider municipal sewer collection systems as part of the regulated collection system, subject to the permit conditions, was the subject to litigation in the matter of the Upper Blackstone Water Pollution Abatement District Appeal Nos. 08-11 to 08-18 and 09-04, 14 A.D._ (Order denying review in part and remanding in part, EAB, May 28, 2010)("EAB Remand Order"), in which the EAB remanded co-permittee provisions similar to the ones sought to be imposed in this permit, to Region 1. After the remand, EPA was required to articulate the legal and factual bases for its authority to regulate the municipalities as co-permittees.

After reviewing the SESD NPDES Permit, EPA's Attachment 1, and the May 28, 2010 EAB decision in the Upper Blackstone litigation, Danvers believes that EPA continues to fail to adequately articulate legal and factual bases for expanding the scope of the SE[S]D NPDES permit requirements to municipalities.

Comment L.1: The SESD is a duly constituted, fully, viable legal entity created by the Massachusetts Legislature, pursuant to Chapter 339 of the Acts of 1925. SESD is an entity which operates and maintains water treatment facility which discharge effluent from the SESD facility at 50 Fort Avenue, Salem, MA. That effluent is discharged into Salem Sounds (MA 93-25). As the EPA Fact Sheet from the 2008 Draft Permit states: The District is a regional collection system which serves six municipalities *each responsible for their own infrastructure.* Additionally, the treatment facility receives flows from several county and state Facilities (Essex County Industrial Farm (new jail), Essex County Agricultural and Technical Institute and the Commonwealth of Massachusetts Department of Public Health (Danvers State Hospital)). Also within the system, there are 26 significant industrial users, 18 of which are subject to categorical limitations.

In establishing the SESD, the Massachusetts Legislature made it clear beyond any reasonable doubt that it is SESD which is responsible for its activities and not the constituent members of the SESD. In the second paragraph of section 10 of the Act which created SESD, the Legislature decreed:

> *"…Said district is hereby made responsible for any and all work done and actions taken under the provisions of this act and shall alone be liable for the consequences thereof, and it shall indemnify and save harmless the several cities and towns within which such work is done or actions taken, and also the commonwealth and said county, against all damages which may be recovered against them or any of them on account of any such work or actions and shall reimburse them or such of them as are obliged by law to pay the same, for any and all sums paid as damages or otherwise on account of such works or actions, including any expenses which any such city or town shall incur by reason of any defect or want of repair in any park road, street, way, land or location caused by the construction of any said sewers or other works or by maintaining or repairing the same, but excluding sums paid to the district on account of the cost of construction and of maintenance and operation of said sewers and other works; provided, that in the case of claims for damages for injuries to person or property arising from or on account of any such claim and an opportunity to defend the same."*

Thus, the Legislature manifested in the clearest possibly terms that it is the SESD which is responsible for its actions and "*the consequences thereof*" and not individual members. Imposing the requirements of the SESD NPDES permit on Danvers and the other co-permittees cannot be sustained under Massachusetts law.

Response L.1: According to the District's NPDES application, the Town of Danvers owns and operates the collection system in the Town of Danvers which conveys flows to the SESD POTW Treatment Plant for treatment and discharge. As the District states in Comment A.9 "each of the cities and towns within the geographic area of the District (except for Middleton) owns, operates and maintains its own collection system that diverts wastewater to the District interceptor sewer lines. Each city and town within the District is a sovereign municipality, responsible for its own fiscal affairs including the operation and maintenance of its wastewater collection system." As such, the Town of Danvers is the proper permittee for the requirements in Parts I.C, I.D, and I.G of the final permit.

EPA's authority to co-permit certain communities that own and operate portions of the SESD POTW is not dependent on the indemnification provisions of state law, i.e. Chapter 339.

EPA is not in a position to definitively interpret the indemnification provisions of Chapter 339, but note that it does not appear to be inconsistent with the action being taken by EPA. If the indemnification provision operates as the commenter suggests, then conceivably the co-permittees could seek recourse from SESD for any damages and "expenses which any… city or town shall incur by reason of any defect or want of repair in any park road, street, way, land or

location caused by the construction of any said sewers or other works or by maintaining or repairing the same."

See the Responses to Comments A.9, D.1, D.4, and G.1 for a more detailed discussion of this issue.

Comment L.2: Danvers has Made and Continues to Make Significant Efforts to Maintain and Upgrade it Local Collection System, and Resolve I/I issues.

EPA asserts alleged "poor performance" of the municipal collection systems, including old/aging infrastructure, and insufficient capacity, as a reason to include Danvers and the other municipalities as co-permittees. EPA also appears to assert that the municipalities are slow to closely work with the SESD to resolve infiltration and inflow ("I/I") issues. EPA's assertion paint with any [sic] overly broad brush, and are factually flawed, particularly where it has not been shown that the Danvers local collection system in any way contributes to any I/I issues, or any lack of performance by the actual permittee, SESD.

Danvers has always made maintenance and improvements to the local collection system a town priority, including reducing I/I. In the 1990s, Danvers' I/I program reduced flows to such an extent that the SESD SSO located on River Street in Danvers was eliminated.

In 1997, Danvers instituted a 15-year capital improvement program for its wastewater facilities, and through FY14 spent almost $11 million on these types of improvements, some of which have even been funded cooperatively with the SESD and the DEP. Specific improvements include manhole rehabilitation, pipeline rehabilitation, pipe capacity upgrades, service to unsewered areas (thus increasing revenue for other system improvements), and sump pump removal programs. See Exhibit B, summary of warrant article expenditures.

In 2012, Danvers developed a new 20-year Capital Improvements Plan. The 20-year plan is specifically designed to reduce infiltration by 35%. Danvers takes great pride in its collection system, and in being pro-active in maintaining that system. Danvers has never been subject to any type of enforcement action related to the collection system, and keeping that status is a priority of the Danvers Town Engineer.

The new 20-year plan allows Danvers to aggressively attack I/I issues, but also allows the town to balance the need and desire to reduce I/I with it concurrent obligations to maintain the system as a whole and keep it updated and functioning for all the connected users. The timing and priorities of the three phases, and the amount expected to be expended are as follows:

- Phase 1, years 1-7. CCTV and manhole inspections, flow monitoring, comprehensive rehabilitation (cured-in-place pipe lining, lining every manhole with cementious or epoxy liner, and installing service later connection liners at each service connection to the mainline pipe). Danvers is also installing permanent flow monitoring at three locations within the Town, two permanent rain gauges, and two permanent groundwater gauges, to

track system-wide removals. Expenditures during Phase 1 are estimated at over $7.5 million.

- Phase 2, years 8-11. Danvers will undertake additional inspections, comprehensive rehabilitation and pump station upgrades. The Phase 2 work is expected to cost almost $6 million.
- Phase 3, years 12-20. Danvers intends to implement further upgrades, comprehensive rehabilitation, and pump station upgrades. The Phase 3 work is expected to cost approximately $17.5 million.

The cost estimates for these phases are based on actual expenditures in 2012 dollars, and include a 2.5% cost balloon for inflation. See Exhibit C, Cost Development (CDM Smith).

Work for each year will be authorized via warrant articles at Town Meeting, which are typically funded through retained earnings, sewer rates and bonding. The annual amounts projected for each year of the 20-year plan is consistent with the annual amounts already expended by Danvers in each year of the 1997 capital plan, which were almost all funded through retained earnings.

All of the above information demonstrates that EPA's factual assertions in Attachment 1 do not apply to the town of Danvers. EPA's attempt to stretch its permit authority to include Danvers as a co-permittee is unwarranted by the facts, and may ultimately be more hurtful than helpful to Danvers and its local collection system.

Requiring Danvers to comply with the Operations and Maintenance requirements in Part C of the SESD NPDES permit imposes unnecessary and superfluous staffing and maintenance requirements. The Part C requirements also duplicate ongoing collection system mapping work in Danvers.

The Part C requirements may divert Danvers resources from implementing the 2012 Capital Improvements Plan, and impose a further and unnecessary financial burden on the town. The co-permittee provisions also ignores the realities of municipal finances and budgeting, by imposing conditions, staffing requirements, and specific operation and maintenance activities without providing any means of financing those conditions and requirements.

All of the conditions and requirements of the co-permittee provisions remove control and flexibility from Danvers to operate and maintain its local collection system in the way it sees most fit – a way that remains in compliance with state and federal laws. There should not be any dispute that Danvers knows best how to make it perform at the highest levels, in order to best serve its residents, and in concert with its obligations as a member of the SESD.

Response L.2: EPA acknowledges the Town of Danvers has programs to control I/I and to properly operate and maintain its collection system, and that it has the authority and means to undertake voluntary efforts in this regard. EPA expects the new NPDES requirements will complement and enhance the Town's and other co-permittees' existing programs; will ensure that communities without programs or without adequate programs rectify these shortcomings; will improve water quality; will assure activities are being implemented subject to clear,

enforceable requirements; and, ultimately, will improve treatment plant efficiency and water quality in the receiving waters.

As previously stated, EPA regulations at 40 C.F.R. § 122.41(e) require that wastewater treatment systems and related facilities must be properly operated and maintained to achieve compliance with permit conditions. Furthermore, it is a standard condition that permittees take all reasonable steps to minimize or prevent any discharge in violation of the permit (40 C.F.R. § 122.41(d)). Based on these provisions, EPA has authority and a responsibility to require appropriate operation and maintenance of the collection system.

Additionally, in its comments, SESD states that the District's influent is "less concentrated due to excessive I/I." As such, EPA believes that is it crucial that the owners/operators of the satellite collection systems fulfill the I/I requirements in the final permit in order, among other things, to continue to assure achievement of Secondary Treatment Standards.

Comment L.3: Danvers has Never Sought or Signed the SESD NPDES Permit Applications, or a Waiver of Such Application.

The attempted inclusion of Danvers and the other municipalities as co-permittees also falls far short of the minimal requirements of both substantive and procedural due process. It is distressing and beyond Orwellian that EPA would issue a document purporting to waive "permit application requirements for new and existing POTWs" as well as "NPDES permit applications and signatory requirements applicable to the above-named municipal satellite collection systems" and then use that EPA-created waiver as part of the rationale for imposing permit requirements for a permit that Danvers never sought. See Exhibit C to EPA's Attachment 1.

From a procedural point of view, Danvers has not filed or signed any application with EPA or DEP for a discharge permit, under 40 CFR § 122.21. Danvers cannot seek an NPDES permit, because it neither owns nor operates a point source that discharges into the waters of the U.S. The permit application requirement is specifically imposed on the owner or operator of the point source. 40 CFR § 122.21(a), (b); 40 CFR § 122.22. Neither has Danvers participated in any way in the proceedings before the permitting agencies. It is unconscionable to attempt to impose substantial requirements as a co-permittee upon an entity which is not and has not been a participant in the permitting process, and has never sought a permit or signed a permit application.

Moreover to the extent that a co-permittee would be bound by all conditions of the permit, the Draft Permit seeks to impose requirements beyond the legal capacity and authority of Danvers. All SESD facilities are under control of the SESD Board and staff, Danvers has no authority whatsoever to control SESD operations and maintenance.

Finally, EPA cannot unilaterally waive permit application without any request to do so. Creating a waiver of something that was never sought in the first place does not result in the imposition of a permit requirement, just because the application was "waived."

From the standpoint of substantive due process the co-permittee status is entirely arbitrary and capricious, and is unsupported by any evidence in the record. There has been no showing of the extent to which (if at all) I/I affects the quality or quantity of discharges by SESD, and no showing that the I/I is due to the conditions of the local collection system in Danvers.

Response L.3: The NPDES application filed by the permittee, SESD, lists the Town of Danvers as owner of a sanitary sewage collection system and served by the SESD POTW Treatment Plant. EPA permit application requirements are designed to facilitate the permitting process and to aid the permitting authority by ensuring submittal of relevant information. In this case, SESD submitted the permit application, including requisite information about satellite systems. As previously stated, EPA is authorized to regulate the entire POTW (including the treatment plant and collection systems).

Under the regulations at 40 C.F.R. part 124, EPA is required to publicly notice the preparation of a draft NPDES permit and allow for at least 30 days for public comment. A public notice was initially published in the Salem News on March 27, 2008. EPA published subsequent notices extending the public comment period in the Salem News on April 22, 2008 and May 16, 2008. The comment period closed on June 6, 2008, a period of 72 days. EPA also sent copies of all three public notices, the fact sheet and the draft permit to the applicant, SESD, and each of the co-permittees, including the Town of Danvers, by certified mail.

EPA tried to further involve the co-permittees during in the permitting process by contacting each co-permittee based on contact information provided by SESD. EPA contacted the Town Engineer for the Town of Danvers, based on the information provided by the SESD. The Town Engineer was identified by SESD as the representative for the Town of Danvers. EPA informed the Town Engineer of its intention to name the Town of Danvers as a co-permittee in the SESD permit. EPA explained the permitting process including the public notice process and comment period and confirmed a mailing address to send the draft permit. Finally, EPA confirmed the name and address of the contact and informed the Town that it would be named a co-permittee on the SESD NPDES permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the Town of Danvers as a co-permittee under the NPDES discharge permit issued to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1

EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the Town of Danvers and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

The Town has participated in the permitting process in the manner provided for by federal regulations indicating that it was, in fact, provided sufficient notice of EPA's contemplated action in this case. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17.

Comment L.4: Danvers Neither Owns nor Operates a Point Source under the CWA.

The Clean Water Act ("CWA") regulates the discharge of pollutants through a point source, into the waters of the United States. The CWA requires that discharges of pollutants into the waters of the United States be done only in compliance with law, through an NPDES permit. 33 U.S. § 1311(a). The NPDES program requires permits for the discharge of pollutants from any point source, into waters of the United States. 40 CFR §122.1. No unpermitted discharges are permitted.

Operation and ownership of a municipal collection system does not, and has never, required am NPDES permit, and there is no point source discharge from the Danvers collection system into water of the United States. Danvers does not own, operate, or control any point sources. Danvers has never been cited for discharging into the waters of the United States via its collection system, without an NPDES permit. Danvers has not had a permitted point source as part of its collection system since 1995[50]. The only permitted point source within the SESD NPDES permit is the "South Essex Wastewater Treatment Facility," ("SEWTF") which is wholly owned and operated by the SESD, and solely legally responsible for its actions and activities.

What Danvers does is collect and send waste water to a separately owned POTW, the SEWTF, for treatment and discharge at a point source – and that point source is the appropriate regulatory point for an NPDES permit. The action of collecting and sending waste water to the SEWTF is discharge via a point source. Danvers has no "direct discharge," defined as "discharge of a pollutant," *from a point source*, as required by the CWA. In the absence of such discharge from a point source, EPA has no regulatory authority to impose NPDES permit conditions on Danvers, or the other municipalities.

[50] Danvers did have seven permitted SSO locations in the late 1980s and early 1990s. All seven were eliminated during a major construction improvement project in the early 1990s, which also replaced the Liberty Street pumping station.

EPA is conflating the term "discharge of a pollutant" with the term "conveyance" as from a collection system. They are not one in the same. There is no "discharge" from a local collection system, which simply conveys waste water to the SEWTF, but does not discharge anything into the waters of the United States. In order to be regulated under the CWA, the point sources must be the releasing agent, into the waters of the United States. This is simply not the case in the instance of Danvers and the other municipalities.

Response L.4: Please see the response to Comment K.3.

M) Comments submitted by Robert Langley, P.E., Director, City of Peabody, Department of Public Services, dated November 26, 2013

Comment M.1: The City of Peabody hereby comments on the Co-Permittee provisions of the draft National Pollution Discharge Elimination System ("NPDES") Permit No. MA 0100501 issued on September 25, 2013 to South Essex Sewerage District (SESD) for the discharge from the South Essex Wastewater Treatment Facility. Peabody's position is that it should not be named as a Co-Permittee of SESD's NPDES permit. The City's view has been since 2008 and currently remains that its sewer collection system is one that conveys sewerage to the SESD Treatment Plant and is no considered a point discharge and therefore should not be permitted as such. The City has cooperatively worked with the SESD to identify and reduce inflow and infiltration. For the above reasons, the Co-permittee provisions of the draft SESD permit should be stricken.

Response: M.1: Please see the response to Comments G.1 and K.3.

N) Comments submitted by Jackie Belf-Becker, Chair, Board of Selectman and F. Carlton Siegel, P.E., Chair, Water and Sewer Commission, Town of Marblehead, dated November 26, 2013

Comment N.1: Town Status as Co-Permittee is Not Legally Justifiable

a. Regional Permitting Approach

The Town acknowledges EPA Region 1's effort in articulating the standards and authority by which the owner/operators of satellite collection systems contributing to the South Essex Sewer District ("SESD") may be included as co-permittees on NPDES Permit No. MA0100501. However, the Town maintains that the Regional permitting approach remains legally unjustifiable and hereby objects to the inclusion of the Town as co-permittee.

Under the Clean Water Act ("CWA") § 301(a), the discharge of any pollutant by any person shall be unlawful, except in compliance with a NPDES permit. "Discharge of a pollutant" means "any addition of any pollutant to navigable water from any point source" and operates to trigger the requirement of a NPDES permit. CWA §503(12). Point source is defined as "any discernable, confined, and discreet conveyance from which pollutants are discharged." CWA §

502(14). The Town's collection system has no point source – wastewater is sent to the separately owned SESD treatment plant for the discharge at the point source owned and operated by the SESD. At no time does the Town's collection system add pollutants to navigable waters from a point source and therefore operations of the Town's collection system do not trigger NPDES permitting.

Response N.1: Please see the responses to Comments E1, K.1. and K.2.

Comment N.2: The EPA's regulations at 40 CFR § 122.21, subpart B, Permit Application Requirements are consistent with the CWA that "[a]ny person who discharges or proposes to discharge pollutants…must submit a complete application …" Nowhere is 40 CFR § 122.21 is there any reference to "co-permitting" or any suggestion that separately owned and operated conveyance systems are subject to NPDES permitting. Consistent with the CWA, it is the person who discharges a pollutant from a point source who is subject to NPDES permitting requirements.

The Town has made no application under the EPA regulations because there is no duty under 40 CFR § 122.21 (a)(1) to do so. None of the participating communities have made applications for NPDES permits or "co-permits". Neither the permit application itself nor the EPA regulations make reference to co-permittees. The only reference to where multiple applications may be required is in the context of a facility which utilizes multiple discharge points or outfalls. 40 CFR 122.21(a)(2)(i). The EPA is attempting to unilaterally waive the entire application process for the Town which is well outside the scope of their authority. 40 CFR § 122.12(j) provides that in certain limited situations, the Director may waive certain application submission requirements if the Director already has access to the information. There is no suggestion anywhere in the EPA regulations that the Director may waive the requirement mandating an application from a person discharging from a point source.

Response N.2: Please see the responses to Comments E.2 and K.5.

Comment N.3: EPA makes the argument that "[c]ontributing jurisdictions should be made co-permittees where circumstances or experience indicate that it is necessary to ensure adequate pretreatment program implementation" (*Analysis Supporting EPA Region 1 NPDES Permitting Approach For Publicly Owned Treatment Works That Include Municipal Satellite Collection Systems, as Page 10*). EPA makes the general argument that the co-permittee approach will operate to bring overall improvements to the SESD yet gives no evidence that any of the participating municipalities are in fact derelict in their individual duties. There are no articulated environmental goals to be advanced and no evidence has been given that imposing co-permittee status on municipalities is even necessary. EPA provides no evidence that the participating municipalities are failing to appropriately address infiltration and inflow or sanitary sewer overflows. Nor does the EPA allude that the SESD is failing to meet the requirements of their NPDES permit to such a degree that the only remedy is to regulate the municipalities as co-

permittees. Simply put, neither circumstances nor experience indicate that it is necessary for the Town to be made a co-permittee and inclusion as such is inappropriate and unwarranted.

Response N.3: Marblehead's own comments clearly stress the need for the co-permitting requirements: "...the fact remains that due to the system failures and inadequacies of other contributing municipalities, the SESD simply cannot withstand the additional flow during major storm events. When these aging neighboring systems fail, the SESD is overburdened which effectively shuts the Town out of the SESD during major storm events."[See Comment N.4] Since 2007, the Town of Marblehead has reported thirty-five (35) SSOs to MassDEP. Most of these SSOs were cause by large rainfall events, however, no other community in the District reported similar system-wide impacts. These SSOs are significant and several exceed a million gallons.

Please see Response A.9; the Partially Revised Fact Sheet at 8-11 and Attachment 1 and responses in Section K of this document for further discussion.

Comment N.4: b. Termination of NPDES Permit No. MA0100374

As previously articulated in the Town's Public Comment of 2008, the Town objects to the termination of its individual NPDES permit. The Town believes that the co-permittee structure neglects to provide protection to the Town from the potential failures of the participating municipalities to the extent that Region 1 intends the partially revised draft permit to operate to terminate the Town's individual NPDES permit. The Town maintains that the ability to release excessive wastewater flows during extreme weather events under the separate permit is essential not only in preventing harm to the public health and property damage, but also to the overall success of the SESD.

Since 2008, the Town has spent over $2.1 million on system upgrades and a $4.9 million [project] drain project commenced this year. Significant improvements have been made to the Town's collection systems yet, despite these improvements, the fact remains that due to the system failures and inadequacies of other contributing municipalities, the SESD simply cannot withstand the additional flow during major storm events. When these aging neighboring systems fail, the SESD is overburdened which effectively shuts the Town out of the SESD during major storm events. This is precisely the purpose for which the Town needs to continue to be able to discharge under a separate permit. Presently, because the Town is able to discharge under its own NPDES permit through the Sargent Road outfall pipe 3000 feet off shore, it is possible to avoid a system overflow in the event that contributions from other municipalities overburden the SESD. If the Town is disallowed to utilize this outfall pipe, it would be unable to divert the excess water from the system causing untreated effluent to flow into one of the most fertile lobster breeding grounds on the east coast. An overflow in this manner would also result in the increased chance for human contact based on the proximity of local beaches to the overflow areas. Without the permit, the Town will be forced to allow the discharge of pollutants outside the conditions of a NPDES permit which is clearly at odds with the purpose of the CWA and the terms of the Draft Permit.

Response N.4: Please see the responses to Comments E.7 and E.8.

Comment N.5: c. Permit No. MA0100374 is Integral to the Town's Overflow Emergency Response Plan Under Co-Permittee Approach

The co-permittee rubric fails to account for the impact that any one of the municipalities' system failures have on the Town if the separate permit is terminated. To account for this oversight, and without waiving any of the foregoing objections to the co-permittee approach, the Town proposes that permit MA0100374 remain in effect and become part of the Town's Overflow Emergency Response Plan under the Partially Revised Draft Permit. Under this Plan, the Town would continue to utilize the Sargent Road outfall pipe for overflows and unanticipated bypasses or upsets that may exceed any effluent limitations in the Partially Revised Draft Permit. Under this Plan, any overflows or bypasses would be released to a point offshore within the established treatment and monitoring requirements of the separate permit.

The Town believes that, unless and until all participating municipalities' can demonstrate zero percent I/I in their collection systems, any co-permittee approach the standards and conditions of which that does not take into consideration the indirect impact of other municipalities' I/I on the Town's contribution to the system during emergency situations is an abuse of discretion by EPA Region 1.

Response N.5: Please see the responses to Comments E.7. and E.8.

Comment N.6: 2. Collection System Operation and Maintenance
a. Standard Permit Conditions

The Town finds the deadlines for implementation to be unreasonable and unduly burdensome. The Partially Revised Draft permit places planning, reporting, and mitigation responsibilities on the Town for the current and upcoming next two fiscal years. The operating budgets for the current and upcoming years have already been established an approved without funding set aside to support compliance with these permit conditions. Again, the Town did not apply for the permit, and cannot be reasonably expected to have foreseen this additional financial responsibility.

Response N.6: Based on the terms of the draft permit, the Town has been on notice of the potential for obligations as a co-permittee under an NPDES permit, which the Region hopes has facilitated fiscal planning. Further, the Region notes that permits are not made effective until at least 60 days following issuance, which should provide for an additional period to prepare to comply with the permit.

Comment N.7: For the reasons set forth above, the Town requests first and foremost that Region 1 remove the Town of Marblehead as co-permittee. The Town also requests that the Draft Permit be revised to provide more workable and reasonable deadlines for the development and implementation of the Collection System Operation and Maintenance Plan. Further, because the co-permittee structure fails to account for the impact that any one of the municipalities' system failures will have on the Town if the Town's separate NPDES permit is terminated, the Town's separate NPDES permit should be renewed and remain unaffected by the SESD permit.

Response N.7: Please see the responses to Comments K.3 and N.6.

O) Comments submitted by Michael P. Collins, P.E., Beverly Commissioner of Public Services and Engineering, dated November 27, 2013

Opening Comments: The City of Beverly (Beverly) hereby submits comments on the above referenced draft NPDES permit issued to the South Essex Sewerage District (SESD). Beverly has been named as a "co-permittee" in the SESD permit and as such would be subject to several new requirements as listed in the draft permit.

Comment O.1: The City of Beverly continues to object to our inclusion in the permit, by EPA definition of who must hold an NPDES permit, we are not required to hold a permit. The EPA has attempted to clarify its failed justification for including Beverly as a co-permittee but we believe the EPA has again failed to show sufficient legal justification for doing so. Please refer to comments from the Town of Danvers dated 11-25-2013 and from SESD for additional explanation as we concur and echo the position of those entities.

In the justification for inclusion on the permit there are several overly broad and vague statements claiming "poor performance" and "excessive inflow and infiltration." Statements are made as to our lack of maintenance of our collection system including lack of action resulting in a reduction of inflow and infiltration (I&I).

In the early 1990's the City of Beverly commenced a significant program of study followed by construction projects aimed as upgrading our collection system and reducing I&I. Since that time roughly $10 million has been invested in our local collection system through a series of construction contracts the include pipe and manhole rehabilitation, sport repairs, pump station upgrades and system expansions. To the last point, we have extended our collection system to serve hundreds of customers that were previously connected to aging and substandard septic systems. Even with increased industry and residential construction and a significantly expanded collection system we have seen a decrease in average daily flow to SESD of over 10% over this period. This reduction is proof of the effectiveness of our ongoing program of I&I reduction.

If one was to reach back only a few more years in time you would find four, permitted sewer overflows located in Beverly. All four have long since been abandoned and are not needed anymore. Clearly the city has been actively working to improve our system and has invested millions of dollars with proven results.

Reference is made to sanitary overflows (SSO's) that the city has reported to the Mass DEP. The EPA states in it fact sheets regarding sanitary sewer overflows almost every sewer system has SSO's. Our system is no exception. It is important to note, however, that nearly every single overflow we have had was directly attributable to a rain event so large as to be declared a federal disaster.

While it is certainly our goal to never have an overflow, even the EPA acknowledges that not every overflow is preventable. During these particular rain events, massive portions of the city were at times totally flooded. This would of course include hundreds of sewer manholes that are not meant to be total submerged. Along with investments in sewer infrastructure, the city has invested several tens of millions of dollars in out stormwater collection system to alleviate flooding. While not a direct investment in our sewer system it does have a direct impact on our sewers in these large storms.

Our commitment to maintenance is proven in that we virtually never have an overflow that can be attributed to lack of maintenance. Further we are committed to reducing I&I beyond the significant amounts we have already documented. To that end we have been conducting pilot programs to study I&I rehab methods in great detail to determines what is actually required to achieve significant (not necessarily cost effective) reductions in overall I&I. Our plan is to take these lessons and apply them to appropriate segments of the collection system.

Response O.1: EPA refers the commenter to the responses to Comment A.9 and the responses to comments from the Town of Danvers (See Section L), the South Essex Sewage District (See Section J) and the UBWPAD (See Section K).

EPA acknowledges the City of Beverly has programs to control I/I and to properly operate and maintain its collection system and that it has the authority and means to undertake voluntary efforts in that regard. EPA expects the new NPDES requirements will complement and enhance the City's and other co-permittees' existing programs; will ensure that communities without programs or without adequate programs rectify these shortcomings; will improve water quality; will assure activities are being implemented subject to clear, enforceable requirements; and ultimately, will improve treatment plant efficiency and water quality in the receiving waters.

As previously stated EPA regulations at 40 C.F.R. § 122.41(e) require that wastewater treatment systems and related facilities must be properly operated and maintained to achieve compliance with permit conditions. Furthermore, it is a standard condition that permittees take all reasonable steps to minimize or prevent any discharge in violation of the permit (40 C.F.R. § 122.41(d)). Based on these provisions, EPA has authority and a responsibility to require appropriate operation and maintenance of the collection system.

Additionally, in its comments, SESD states that the District's influent is "less concentrated due to excessive I/I." As such, EPA believes that it is crucial that the owners/operators of the satellite collection systems fulfill the I/I requirements in the final permit in order, among other things, to continue to assure achievement of Secondary Treatment Standards.

The City of Beverly has been maintained as a co-permittee in the final permit.

Comment O.2: It is our opinion that the EPA has failed to justify including Beverly in a permit that we have no control over. We are not required to obtain a NPDES permit according to the application procedure. We have not applied for a permit and have not signed any documents agreeing to include Beverly in any permit

Response O.2: The NPDES application filed by the permittee, SESD, lists the City of Beverly as owner of a sanitary sewage collection system and served by the SESD POTW Treatment Plant. EPA permit application requirements are designed to facilitate the permitting process and to aid the permitting authority by ensuring submittal of relevant information. In this case, SESD submitted the permit application, including requisite information about satellite systems. As previously stated, EPA is authorized to regulate the entire POTW (including the treatment plant and collection systems).

Under the regulations at 40 C.F.R. part 124, EPA is required to publicly notice the preparation of a draft NPDES permit and allow for at least 30 days for public comment. A public notice was initially published in the Salem News on March 27, 2008. EPA published subsequent notices extending the public comment period in the Salem News on April 22, 2008 and May 16, 2008. The comment period closed on June 6, 2008, a period of 72 days. EPA also sent copies of all three public notices, the fact sheet and the draft permit to the applicant, SESD, and each of the co-permittees, including the City of Beverly, by certified mail.

EPA tried to further involve the co-permittees during in the permitting process by contacting each co-permittee based on contact information provided by SESD. EPA contacted the Director of Engineering for the City of Beverly, based on the information provided by the SESD. The Director was identified by SESD as the representative for the City of Beverly. EPA informed the Director of its intention to name the City of Beverly as a co-permittee in the SESD permit. EPA explained the permitting process including the public notice process and comment period and confirmed a mailing address to send the draft permit. Finally, EPA confirmed the name and address of the contact and informed the City that it would be named a co-permittee on the SESD NPDES permit.

At the request of the SESD Board of Directors, EPA staff attended a Board Meeting on May 14, 2008 at SESD offices in Salem, MA. The meeting was attended by SESD Board Members and staff. According to information provided to EPA by SESD, as of February 27, 2008, the SESD Board consisted of Walter A. DeFilippi, P.E., Chairman; Frank J. Killilea, Jr., Director of Engineering, Beverly; Richard P. Rodger, P.E., Representative, Town of Danvers; Dana E. Snow, Representative, Town of Marblehead; Richard M. Carnevale, P.E., Director of Public Services, Peabody; and David H. Knowlton, P.E., City Engineer, Salem.

In addition, in a letter dated July 31, 2015, EPA waived the application and signatory requirements of the City of Beverly as a co-permittee under the NPDES discharge permit issued

to the SESD. In that letter, EPA noted that under NPDES regulations, all Publicly Owned Treatment Works (POTWs) must submit permit application information set forth in 40 C.F.R. § 122.21(j) unless otherwise indicated. In this case, EPA further explained that where Region 1 EPA has "access to substantially identical information," or such information is "not of material concern for a specific permit," the Regional Administrator may waive permit application requirements for existing POTWs. This was the basis for waiving the NPDES permit application and signatory requirements applicable to the City of Beverly and the operators of other municipal satellite collection systems. The Region has also adopted the rationales regarding permit applications and application waivers set forth in *In re Charles River Pollution Control Dist.*, NPDES Appeal 14-01, slip op. at 23-28, 2015 EPA App. LEXIS 3 (EAB Feb. 4, 2015), 16 E.A.D. at __ (summarizing the legal principles governing permit application and waiver requirements in the co-permittee context).

The City has participated in the permitting process in the manner provided for by federal regulations indicating that it was, in fact, provided sufficient notice of EPA's contemplated action in this case. EPA has considered and responded to these comments in this document in accordance with 40 C.F.R. § 124.17.

EPA refers the commenter to the responses from UBWPAD in this document (Section K) which provides greater detail of EPA's reasons for including municipalities in the Final Permit as co-permittees.

Comment O.3: Statements made in the draft permit regarding the current practice of the city of Beverly and the condition of the collection system in Beverly are inaccurate and not fully informed. We have demonstrated reduction in overall flow from our collection system as a result of our maintenance practices and track record of minimal overflows caused by record storms.

Response O.3: EPA's document "Analysis Supporting EPA Region 1 NPDES Permitting Approach for Publicly Owned Treatment Works That Include Municipal Satellite Sewage Systems" was developed by Region 1 to explain the Region's factual and legal basis for the co-permitting of municipal satellite sewage collection systems. DMR data submitted by the regional treatment facilities: SESD and Charles River Pollution Control District were used solely as examples for the analysis found in Exhibit B of the document.

There are no specific statements or analysis of the Beverly collection system in Exhibit B of Attachment 1 of the Partially Revised Fact Sheet with the exception of the listing of SSOs reported by the City of Beverly to MassDEP.

Comment O.4: The city of Beverly asks that you refer to the comments of Danvers, Upper Blackstone and SESD regarding the legal basis for including satellite systems as co-permittees. We feel those comments describe our legal position adequately and as such endorse them as though they were our own.

Response O.4: EPA refers the commenter to the responses to comments from the Town of Danvers (See Section L), the UBWPAD (See Section K) and the South Essex Sewage District (See Section J).

Comment O.5: We object to the inclusion of Beverly and the other member communities being named as co-permittees and request that any reference to the provision be stricken from the SESD NPDES permit.

Response O.5: Please see the Response to Comment A.9 and the responses in Section K of this document for further discussion.

Attachment A - South Essex Sewerage District
and Satellite Communities SSO Reporting to MassDEP

Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Marblehead Water and Sewer Commission. - Private Sewer Service	07/07/15	Marblehead	Approx 500 gal	Crushed private sewer service	Private sewer service uncovered outside grease trap. New line run from grease trap to sewer main approximately 40 ft away. Second service line also picked up outside of grease trap and tied into new sewer service. Filter sock added at inlet of drain pipe
City of Beverly	12/10/14	Beverly	<250,000 gallons		Assisted homeowners with internal repairs to their plumbing
City of Beverly	12/10/14	Beverly	<250,000 gallons		Assisted homeowners with internal repairs to their plumbing
City of Beverly	12/10/14	Beverly	<250,000 gallons		Assisted homeowners with internal repairs to their plumbing
Marblehead Water and Sewer Commission	12/09/14	Marblehead	230,000 gals.		Station monitored until reintroduced
Marblehead Water and Sewer Commission	12/09/14	Marblehead	133,000 gals		Station monitored until reintroduced to station
City of Peabody Public Services	12/09/14	Peabody	10,000 gallons (around)		

Attachment A - South Essex Sewerage District
and Satellite Communities SSO Reporting to MassDEP

Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Marblehead Water and Sewer Commission	12/08/14	Marblehead	Less than 200 gallons		Tech dispatched (5:43) as soon as notified by 24 hour service line. Upon manhole review, immediate action was taken by manually running pump station from 6 pm to 9:30pm on 12/8/14. Engineer notified of scada issue and arrived at pump station approx 8:30.
City of Peabody Public Services Department	12/04/14	Peabody	Less than 10,000 gallons		Flushed and vaced 550 ft of sewer main.
City of Peabody Public Services Department	12/03/14	Peabody	Less than 40 gallons		City DPW crew flushed 175 ft. Of sewer main on 12/3/14, grease blockage was cleared. Had contractor flush and vac 730 ft. Of sewer main and cleaned out and vaced our sewer pumping station wet well.
City of Salem	02/19/13	Salem	< 10,000 gal	Verizon pole installation damaged lateral sewer line. Overflow into basement.	Verizon making repairs to damaged latera
City of Peabody	01/11/13	Peabody	< 10,000 gal	Break in 8 inch force main. SSO to wetland near Rte. 114.	Repaired sewer line
City of Peabody	11/12/12	Peabody	< 10,000 gal	Possible grease problem in area.	Cleared blockage
City of Peabody	08/28/12	Peabody	< 10,000 gal	To Waters River.	Cleared blockage in sewer line
Simpson Housing Apartments Pump Station	01/30/12	Peabody	Approx. 200 gallons		Cleared blockage

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
City of Beverly	10/04/11	Beverly	Approx. 100,000 gallons		Disinfection treatment
Water and Sewer Commission	10/04/11	Marblehead	> 10,000 gal & < 100,000 gal	Insufficient capacity. Pump station at capacity. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	Volume not listed on report	Insufficient capacity. Manhole overflow. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	> 1 MILLION GALLONS (mg)	Insufficient capacity. High groundwater.	Disinfection treatment
Water and Sewer Commission	10/04/11	Marblehead	Not listed on report	Insufficient capacity. Overflow at manhole. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	See Sargent Rd. Pump Station report	Insufficient capacity. Overflows at two manholes. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	> 100,000 gal & < MG	Insufficient capacity. Pump Station at capacity. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	> 10,000 gal & < 100,000 gal	Insufficient capacity. Pump Station at Capacity. Old outfall activated	No action
Water and Sewer Commission	10/04/11	Marblehead	> 1 MILLION GALLONS (mg)	Insufficient capacity. Pump Station at capacity. Old outfall line activated	Disinfection treatment
Department of Public Works	10/04/11	Peabody	< 10,000 gal	5 inches rain in 24 hrs.	No action

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
South Essex Sewer District (SESD)	03/07/11	Danvers	Approx. 10 gallons per minute	Duration of SSO: 3/7, 2:00PM - 3/8,10:00PM. Three manholes overflowing. Snow melt	Attempted to seal or weight down covers
SESD	05/19/10	Salem	< 10,000 gal		Repair in progress
South Essex Sewerage District	03/30/10	Danvers	Unknown volume	Treatment plant hydraulically overloaded. 5.86 inches of rain. 3/30 through 4/2	No action
SESD	03/30/10	Danvers	Reported unknown volume	Plant flow at 94 MG, one of the highest. 5.86 inches of rainfall. 3/30 through 4/1	No action
Marblehead Water & Sewer Commission	03/30/10	Marblehead	Amount not on report	High groundwater. Insufficient capacity. 5.63 inches of rain	No action
Marblehead Water & Sewer Commission	03/30/10	Marblehead	> 1 MILLION GALLONS (mg)	High groundwater. 5.63 inches of rain.	Disinfection treatment
Marblehead Water & Sewer Commission	03/30/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. 5.63 inches of rain	Disinfection treatment
Marblehead Water & Sewer Commission	03/30/10	Marblehead	> 100,000 gal & < MG	High groundwater. Insufficient capacity. 5.63 inches of rain	Capacity restored after rain subsided
Marblehead Water & Sewer Commission	03/30/10	Marblehead	<10,000 gal	High groundwater. Insufficient capacity. 5.63 inches of rain	No action

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Marblehead Water & Sewer Commission	03/30/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. 5.63 inches of rain	Capacity restored after rain subsided
Department of Public Services	03/30/10	Peabody	> 10,000 gal & < 100,000 gal	Into street & North River.	No action
SESD	03/30/10	Peabody	Reported unknown volume	Treatment plant hydraulically overloaded. 5.86 inches of rain. 3/30 through 4/1	No action
Salem Engineering Department	03/30/10	Salem	Not reported, unknown volume	SESD Trunk line full causing SSO. Rain storm. Duration 3/30/10 - 4/1/10 8:30 AM	No action
Salem Engineering Dept.	03/30/10	Salem	Not reported, unknown volume	SESD trunkline full. Rain storm. Duration 3/30/10 through 4/1/10 8:30 AM	No action
Salem Engineering Department	03/30/10	Salem	Not reported, unknown volume	SESD Trunk line full causing SSO. Rain storm. Duration 3/30/10 - 4/1/10	No action
SESD Treatment Facility	03/15/10	Danvers	Duration 3/15 to 3/16	Hydraulic overload at treatment facility. . To Porter River	No action
SESD	03/15/10	Danvers	Reported unknown volume	SSO. . 3/14-3:00PM through 3/17-6:00PM	No action
Water & Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. 3/13 - 3/16 rain storm	Disinfection treatment
Water and Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insuffiicent capacity. 3/13 - 3/16/10 rain storm	Disinfection treatment

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Marblehead Water & Sewer Commission	03/15/10	Marblehead	> 100,000 gal & < MG	High groundwater. Insufficient capacity.	Flows subsided, stopped 3/16/10 11:00 AM
Marblehead Water & Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity.	Flows subsided, stopped 3/16/10 9:30 AM
Marblehead Water & Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity.	Flows subsided, stopped 3/16/10 8:45 AM
Water & Sewer Commission	03/15/10	Marblehead	> 100,000 gal & < MG	High groundwater. Insufficient capacity. 3/13 - 3/16 rain storm	Disinfection treatment
Water & Sewer Commission	03/15/10	Marblehead	> 100,000 gal & < 1 MG	High groundwater. Insufficient capacity. SSO stopped 3/16/10, 11:00 AM	No action
Water & Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. SSO Stopped 3/16/10 9:30 AM	No action
Water & Sewer Commission	03/15/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. SSO stopped 3/16/10 8:45 AM	No action
Department of Public Services	03/14/10	Beverly	> 100,000 gal & < MG	Rainstorm of 8 plus inches. High groundwater. Duration of SSO: 3/14 - 3/16	No action
Department of Public Services	03/14/10	Beverly	> 100,000 gal & < MG	Rainstorm of 8 plus inches. High groundwater. Duration of SSO: 3/14 - 3/16	No action

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Department of Public Services	03/14/10	Beverly	> 100,000 gal & < MG	Rainstorm of 8 plus inches. High groundwater. Duration of SSO: 3/14 - 3/16	No action
Department of Public Services	03/14/10	Beverly	> 100,000 gal & < MG	Rainstorm of 8 plus inches. High groundwater. Duration of SSO: 3/14 - 3/16	No action
Department of Public Services	03/14/10	Beverly	> 100,000 gal & < MG	Rainstorm of 8 plus inches. High groundwater. Duration of SSO: 3/14 - 3/16	No action
SESD	03/14/10	Danvers	Reported unknown volume	SSO. 3/14-11:35AM through 3/18-3:30AM	No action
SESD Treatment Facility	03/14/10	Danvers	Duration 3/14 to 3/18	Hydraulic overload at treatment facility. To Crane River	No action
Water and Sewer Commission	03/14/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. 3/13 - 3/16 rain storm	Disinfection treatment
Water and Sewer Department	03/14/10	Marblehead	> 1 MILLION GALLONS (mg)	3.5 inches of rain in 30 hours. Insufficient capacity - pump station. High ground water	Disinfection treatment
Marblehead Sewer Department	03/14/10	Marblehead	> 100,000 gal & < MG	3.5 inches of rain in 30 hours. Insufficient capacity at pump station. High groundwater	Work on pumps and electrical upgrades
Marblehead Water & Sewer Commission	03/14/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity.	Flows subsided, stopped 3/16/10 11:00 AM

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
Water and Sewer Commission	03/14/10	Marblehead	> 1 MILLION GALLONS (mg)	High groundwater. Insufficient capacity. 3/13 - 3/16 rain storm	Disinfection treatment
Marblehead Water & Sewer Commission	03/14/10	Marblehead	> 1 million gallons	High groundwater. Insufficient capacity.	Flows subsided, stopped 3/16/10 10:00 AM
Water & Sewer Commission	03/14/10	Marblehead	> 1 million gallons (MG)	High groundwater. Insufficient capacity. SSO stopped 3/16/10, 10:00 AM	No action
Water & Sewer Commission	03/14/10	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Insufficient capacity. SSO stopped 3/16/10, 11:00 AM	No action
SESD	03/14/10	Peabody	Reported unknown volume	3/14-3:00PM through 3/17/10-6:00PM	No action
SESD Treatment Facility	03/14/10	Peabody	Duration 3/14 to 3/17	Hydraulic overload at treatment facility. Onto ground leading to North River Canal	No action
Department of Public Services	03/12/10	Peabody	100 gal. Approx.	Into street and possible catch basin.	Repaired sewer/cleared blockage
Public Services	10/04/09	Beverly	Small amount		Unclogged pump
DEPARTMENT OF PUBLIC SERVICES	12/12/08	Beverly	> 10,000 gal & < 100,000 gal	High groundwater. Into stormwater drain adjacent to ocean	Disinfection treatment
Water & Sewer Commission	12/12/08	Marblehead	> 100,000 gal & < MG	High groundwater. Pumps could not keep up, insufficient capacity	No action

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Facility	SSO Discharge Date	SSO Discharge Town	SSO Discharge Volume	SSO Cause/Comment	Corrective Action Taken
WATER & SEWER COMMISSION	12/12/08	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Pumps could not keep up, insufficient capacity	No action
Water & Sewer Commission	12/12/08	Marblehead	> 10,000 gal & < 100,000 gal	High groundwater. Pumps could not keep up, insufficient capacity	No action
Apartment complex pump station	05/30/08	Peabody	< 10,000 gal	Fire at apartment complex. Power to emerg.gen. Shut off also	Pumper trucks utilized
City of Beverly Public Services	05/19/08	Beverly	< 10,000 gal	Faulty fuel control valve caused generator failure.	Repairs made power restored
Town of Danvers	11/16/07	Danvers	< 10,000 gal		Repaired sewer/cleared blockage
City of Beverly	04/16/07	Beverly	< 10,000 gal		Disinfection treatment
Brooksby Village	06/21/06	Peabody	1000 gallons estimated	Breach of temporary force main bypass.	Repaired sewer
Marblehead Water & Sewer	06/07/06	Marblehead	Estimate: 100,000 gal.	Returned to normal flow at 10:00 AM, 6/8/06.	Screening
SESD	05/13/06	Salem	> 1 MILLION GALLONS (mg)	Heavy rain, 4 day rain event. High flows	Throttled main sluice gate at Marblehead