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"),

City of Portsmouth, New Hampshire

is authorized to discharge from the facility located at

Peirce Island Wastewater Treatment Facility
Peirce Island
Portsmouth, NH 03801

and from three Combined Sewer Overflows (CSOs) discharging from Outfalls 10A & 10B (Parrot Avenue), and Outfall 013 (Deer Street) to receiving water(s) named

Piscataqua River and South Mill Pond (to the Piscataqua River)
Salmon Falls Watershed

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

The Town of New Castle, NH is a Co-permittee for Part B, Unauthorized Discharges; Part C, Operation and Maintenance, which include conditions regarding the operation and maintenance of the collection systems owned and operated by the Town; and Part D, Alternate Power Source. The permit number assigned to the Town of New Castle for purposes of reporting (as specified in Part I.J.9 below) in accordance with the requirements in Parts I.B, I.C, and I.D of this permit is **NHC010234**.

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the terms and conditions of Parts I.B, I.C and I.D of this permit. The Permittee and Co-permittee are severally liable under Parts I.B, I.C and I.D for their own activities and required reporting with respect to the portions of the collection system that they own or operate. They are not liable for violations of Parts I.B, I.C and I.D committed by others relative to the portions of the collection system owned and operated by others. Nor are they responsible for any reporting that is required of other Permittees under Parts I.B, I.C and I.D. The responsible department for the Co-Permittee is:

Town of New Castle
Department of Public Works
301 Wentworth Road
New Castle, NH 03854

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

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

This permit supersedes the permit issued on April 10, 2007.

This permit consists of **Part I** including the cover page(s), **Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, July 2012, 10 pages), **Attachment B** (CSO Outfalls), **Attachment C** (Pretreatment Program Development and Approval Standard Requirements), **Attachment D** (Industrial Pretreatment Program Annual Report), **Attachment E** (PFAS Analyte List), and **Part II (**NPDES Part II Standard Conditions, April 2018).

Signed this day of

KENNETH MORAFF
Digitally signed by KENNETH MORAFF
Date: 2023.09.26 17:12:03 -04'00'

Ken Moraff, Director
Water Division
Environmental Protection Agency
Region 1
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated effluent through Outfall Serial Number 001 to the Piscataqua River. The discharge shall be limited and monitored as specified below; the receiving water and the influent shall be monitored as specified below.

Effluent Characteristic	Effluent Limitation			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Rolling Average Effluent Flow[5]	6.13 MGD[5]	---	---	Continuous	Recorder
Effluent Flow[5]	Report MGD	---	Report MGD	Continuous	Recorder
BOD_5	30 mg/L 1,534 lb/day	45 mg/L 2,301 lb/day	Report mg/L Report lb/day	2/Week	Composite
BOD_5 Removal[6]	≥ 85 %	---	---	1/Month	Calculation
TSS	30 mg/L 1,534 lb/day	45 mg/L 2,301 lb/day	Report mg/L Report lb/day	2/Week	Composite
TSS Removal[6]	≥ 85 %	---	---	1/Month	Calculation
pH Range[7]	6.5 - 8.0 S.U.			1/Day	Grab
Total Residual Chlorine[8,9]	0.31 mg/L	---	0.54 mg/L	Continuous	Recorder
Enterococci [8,9]	35/100 mL	---	104/100 mL	1/Day	Grab
Fecal Coliform[8,9]	14/100 mL	---	Report #/100 mL	1/Day	Grab
Fecal Coliform[8,9,10] (% of samples > 28/100 mL)	---	---	≤ 10 %	1/Day	Grab
Total Arsenic[11]	0.36 lb/day	---	---	2/Month	Composite
Inorganic Arsenic[11]	---	---	Report µg/L	2/Year	Composite
Total Cyanide	2.45 lb/day	---	---	2/Month	Composite
PFAS Analytes[12]	---	---	Report ng/L	1/Quarter	Grab

Effluent Characteristic	Effluent Limitation			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Whole Effluent Toxicity (WET) Testing[13,14]					
LC_{50}	---	---	≥ 100 %	1/Quarter	Composite
Salinity	---	---	Report ppt	1/Quarter	Composite
Ammonia Nitrogen	---	---	Report mg/L	1/Quarter	Composite
Total Cadmium	---	---	Report mg/L	1/Quarter	Composite
Total Copper	---	---	Report mg/L	1/Quarter	Composite
Total Nickel	---	---	Report mg/L	1/Quarter	Composite
Total Lead	---	---	Report mg/L	1/Quarter	Composite
Total Zinc	---	---	Report mg/L	1/Quarter	Composite
Total Organic Carbon	---	---	Report mg/L	1/Quarter	Composite

Ambient Characteristic[15]	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
Salinity	---	---	Report ppt	1/Quarter	Grab
Ammonia Nitrogen	---	---	Report mg/L	1/Quarter	Grab
Total Cadmium	---	---	Report mg/L	1/Quarter	Grab
Total Copper	---	---	Report mg/L	1/Quarter	Grab
Total Nickel	---	---	Report mg/L	1/Quarter	Grab
Total Lead	---	---	Report mg/L	1/Quarter	Grab
Total Zinc	---	---	Report mg/L	1/Quarter	Grab
Total Organic Carbon	---	---	Report mg/L	1/Quarter	Grab
pH[16]	---	---	Report S.U.	1/Quarter	Grab
Temperature[16]	---	---	Report °C	1/Quarter	Grab
Total Arsenic[11]	---	---	Report µg/L	2/Year	Grab
Inorganic Arsenic[11]	---	---	Report µg/L	2/Year	Grab

Influent Characteristic	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
BOD_5	Report mg/L	---	---	2/Month	Composite
TSS	Report mg/L	---	---	2/Month	Composite
PFAS Analytes[12]	---	---	Report ng/L	1/Quarter	Grab

Sludge Characteristic	Reporting Requirements			Monitoring Requirements[1,2,3]	
	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type[4]
PFAS Analytes[17]	---	---	Report ng/g	1/Quarter	Grab[18]

See pages 7 through 10 for footnotes

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

2. During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge storm water and wastewaters into the South Mill Pond (to the Piscataqua River) from CSO serial numbers 10A and 10B and to the Piscataqua River from CSO serial number 013. These discharges are authorized only during wet weather. Such discharges shall be monitored by the permittee as specified below. Samples specified below shall be taken at a location that provides a representative analysis of the effluent. Additionally, monitoring results based on Parts I.H.5 below shall be reported in the monthly Discharge Monitoring Report (DMR) for Outfalls 10A, 10B, and 013.

Effluent Characteristic[19]	**Discharge Limitation**	**Monitoring Requirement**	
	Wet Weather Event Maximum	**Measurement Frequency**	**Sample Type**
Fecal Coliform	Report #/100 ml	1/Year	Grab
Enterococci	Report #/100 ml	1/Year	Grab

See pages 7 through 10 for footnotes

Footnotes:

1. All samples shall be collected in a manner to yield representative data. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented as an electronic attachment to the applicable discharge monitoring report. The Permittee shall report the results to the Environmental Protection Agency Region 1 (EPA) and the State of any additional testing above that required herein, if testing is in accordance with 40 CFR Part 136.

2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L). For reporting an average based on a mix of values detected and not detected, assign a value of "0" to all non-detects for that reporting period and report the average of all the results.

4. A "grab" sample is an individual sample collected in a period of less than 15 minutes.

   A "composite" sample is a composite of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.

5. The limit is a rolling annual average, reported in million gallons per day (MGD), which 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. Also report monthly average and maximum daily flow in MGD. When bypass occurs, the blended effluent shall be subject to the end-of-pipe effluent limitations in Part I.A.1.a above and all bypasses shall be reported by the Permittee to EPA and NHDES pursuant to Part I.J.6 below.

6. The minimum monthly average of 85 percent removal of both BOD_5 and TSS applies only during dry weather. Dry weather is defined as any calendar day on which there is less than 0.1 inches of rainfall and no snow melt. The percent removal shall be calculated using the average monthly influent and effluent concentrations for samples collected during dry weather days. The Permittee shall attach to its discharge monitoring reports the daily precipitation from the nearest National Weather Service gage, or a gage accepted by the permitting authority.

7. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). See Parts I.I.1 and I.K.5 below for information regarding modification of the pH range.

8. The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control. Monitoring for total residual chlorine (TRC) is only required for discharges which have been previously chlorinated or which contain residual chlorine.

   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 and in accordance with Part I.K.12 and any more frequent reporting requirements in Part II Standard Conditions. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.

9. The monthly average limits for *Enterococci* and Fecal Coliform are expressed as geometric means. *Enterococci* and Fecal Coliform monitoring shall be conducted concurrently with TRC monitoring.

10. The Average Monthly values for Fecal Coliform shall be determined by calculating the geometric mean using daily sample results. As a Daily Maximum, not more than 10 percent of collected samples (over a monthly period) shall exceed a Most Probable Number (MPN) of 28 per 100 mL. Each month, the percentage of collected samples that exceeds an MPN of 28 per 100 mL shall be reported as the Daily Maximum value. Furthermore, all Fecal Coliform data collected must be submitted with the monthly Discharge Monitoring Reports (DMRs). This limit will go into effect one year after the effective of the permit. During the first year, the limit shall be not more than 10 percent of the samples shall exceed a Most Probable Number (MPN) of 43 per 100 mL. See Part I.K.12 below for additional Fecal Coliform State 401 Certification Conditions.

11. Total arsenic and inorganic arsenic monitoring of the effluent and ambient shall be conducted twice per year on the same day as the Whole Effluent Toxicity testing in the calendar quarters ending June 30th and September 30th. Total arsenic shall be measured using EPA Method 200.8. Inorganic arsenic shall be measured using EPA Method 1632.

12. Report in nanograms per liter (ng/L). Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633. Report in NetDMR the results of all PFAS analytes required to be tested in Method 1633, as shown in Attachment E. This reporting requirement takes effect the first full calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for wastewater is available.

13. The Permittee shall conduct acute toxicity tests (LC50) in accordance with test procedures and protocols specified in Attachment A of this permit. LC50 and C-NOEC are defined in Part II.E. of this permit. The Permittee shall test the Inland silverside, *Menidia beryllina*, and the Mysid shrimp, *Americamysis bahia*. Toxicity test samples shall be collected and tests completed during the same weeks each time of calendar quarters ending March 31st, June 30th, September 30th, and December 31st. The complete report for each toxicity test shall be submitted as an attachment to the DMR submittal which includes the results for that toxicity test.

14. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in **Attachment A,** Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in **Attachment A**, Section IV., DILUTION WATER. Minimum levels (MLs) and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.

15. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately outside of the permitted discharge's zone of influence at a reasonably accessible location, as specified in **Attachment A.** MLs and test methods are specified in **Attachment A,** Part VI. CHEMICAL ANALYSIS.

16. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.

17. Report in nanograms per gram (ng/g). Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633. Report in NetDMR the results of all PFAS analytes required to be tested in Method 1633, as shown in Attachment E. This reporting requirement for the listed PFAS parameters takes effect the first full calendar quarter following 6 months after EPA notifies the Permittee that an EPA multi-lab validated method for sludge is available.

18. Sludge sampling shall be as representative as possible based on guidance found at https://www.epa.gov/sites/production/files/2018-11/documents/potw-sludge-sampling-guidance-document.pdf.

19. The Permittee shall sample CSOs Outfalls 10A, 10B, and 013 at least once per calendar year. All attempts must be made to begin sampling during the first half hour after the outfall starts discharging. If this is not possible, a sample shall be collected as soon as possible after the discharge commences. The "event maximum" values for Fecal coliform and *Enterococci* shall be reported on the appropriate DMR for the month sampled. Report the appropriate No Data Indicator (NODI) code on the DMR for all other months.

Part I.A., continued.

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

4. The discharge shall be free from substances in kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities.

5. Tainting substances shall not be present in the discharge in concentrations that individually or in combination are detectable by taste and odor tests performed on the edible portions of aquatic organisms.

6. The discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.

7. The discharge shall not result in benthic deposits that have a detrimental impact on the benthic community. The discharge shall not result in oil and grease, color, slicks, odors, or surface floating solids that would impair any existing or designated uses in the receiving water.

8. The discharge shall not result in an exceedance of the naturally occurring turbidity in the receiving water by more than 10 NTUs.

9. The Permittee must provide adequate notice to EPA-Region 1 and the State of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Part 301 or Part 306 of the Clean Water Act if it were directly discharging those pollutants or in a primary industry category (see 40 CFR Part 122 Appendix A as amended) discharging process water; and

   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

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

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

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

9. In accordance with 40 CFR § 122.44(j)(1) the Permittee must identify, in terms of character and volume, any Significant Industrial Users (SIUs) discharging into the POTW subject to Pretreatment Standards under section 307(b) of CWA and 40 CFR Part 403. SIUs information shall be updated at a minimum of once per year or at that frequency necessary to ensure that all SIUs are properly permitted and/or controlled. The records shall be maintained and updated as necessary.

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

B. UNAUTHORIZED DISCHARGES

1. This permit authorizes discharges only from Outfall 001 listed in Part I.A.1 as well as CSO Outfalls 10A, 10B, and 013, in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs), are not authorized by this permit. The Permittee must provide verbal notification to EPA within 24 hours of becoming aware of any unauthorized discharge and a report within 5 days, in accordance with Part II.D.1.e.(1) (24-hour reporting). See Part I.J below for reporting requirements.

2. The Permittee must provide notification to the public within 24 hours of becoming aware of any unauthorized discharge, except SSOs that do not impact a surface water or the public, on a publicly available website, and it shall remain on the website for a minimum of 12 months. Such notification shall include the location (including latitude and longitude) and description of the discharge; estimated volume; 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.

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance (O&M) of the sewer system shall be in compliance with the Standard Conditions of Part II and the following terms and conditions. The Permittee and Co-permittee shall complete the following activities for the collection system which it owns:

1. Maintenance Staff

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

2. Preventive Maintenance Program

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

3. Infiltration/Inflow

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

4. Collection System Mapping

The Permittee and Co-permittee shall continue to maintain a map of the sewer collection system it owns. 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. To the extent feasible, the pipe diameter, date of installation, type of material, distance between manholes, interconnections with collection systems owned by other entities, and the direction of flow shall be provided. If certain information is determined to be infeasible to obtain, a justification must be included along with the map. If EPA or NHDES disagrees with the assessment, EPA may require the map to be updated accordingly.

5. Collection System O&M Plan

The Permittee and Co-permittee shall develop and implement a Collection System O&M Plan.

a. Within six (6) months of the effective date of the permit, the Permittee and Co-permittee shall submit to EPA and the State:

(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. For the City of Portsmouth, the full Collection System O&M Plan shall be completed, implemented and submitted to EPA and the State within twenty-four (24) months from the effective date of this permit. For the Co-Permittee, the Town of New Castle, the Plan is due thirty-six (36) 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;

(7) An educational public outreach program for all aspects of I/I control, particularly private inflow; and

(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-permittee shall submit a summary report of activities related to the implementation of its Collection System O&M Plan during the previous calendar year. The report shall be submitted to EPA and the State annually by March 31. The first annual report is due the first March 31 following submittal of the collection system O&M Plan required by Part I.C.5.b. of this permit. 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. 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; and

f. If the monthly average flow exceeded 80 percent of the facility's 6.13 MGD design flow (4.9 MGD) for three consecutive months in the previous calendar year, or there have been capacity related overflows, the report shall include:

(1) Plans for further potential flow increases describing how the Permittee will maintain compliance with the flow limit and all other effluent limitations and conditions; and

(2) A calculation of the maximum daily, weekly, and monthly infiltration and the maximum daily, weekly, and monthly inflow for the reporting year.

D. ALTERNATE POWER SOURCE

In order to maintain compliance with the terms and conditions of this permit, the Permittee and Co-permittee shall provide an alternative power source(s) sufficient to operate the portion of the publicly owned treatment works it owns and operates, as defined in Part II.E.1 of this permit.

E. PRETREATMENT PROGRAM DEVELOPMENT

Within eighteen (18) months of the effective date of the permit, the Permittee shall submit a completed pretreatment program to the Director for approval. The proposed pretreatment program must satisfy the requirements of 40 CFR § 403.8 and the permittee's request for approval must conform to the requirements of 40 CFR § 403.9. Additionally, the submittal should be consistent with **Attachment C** (Pretreatment Program Development and Approval Standard Requirements).

1. A pretreatment program submitted for approval shall contain the following:

a. Development of 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 eighteen (18) months of the effective date of this permit, the permittee shall prepare and submit a written technical Local Limit report to the EPA. As part of this report, 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. The Permittee shall carry out the Local Limits report in accordance with EPA's Local Limit Development Guidance (July 2004).

b. An evaluation by the City Solicitor, or a public official acting in a comparable capacity, of the legal authority of the permittee to apply and enforce the requirements of Sections 307(b), 307(c) and 402(b)(8) of the CWA. In accordance with 40 CFR Section 403.8(f)(1), this evaluation shall specifically address the permittee's authority to:

(1) Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants to the POTW by industrial users;

(2) Require compliance with applicable pretreatment standards and requirements by industrial users;

(3) Control, through permit, contract, order, or similar means, the contribution to the POTW by each industrial user to ensure compliance with applicable pretreatment standards and requirements;

(4) Require (A) the development of a compliance schedule by each industrial user for the installation of facilities required to meet applicable pretreatment standards and requirements and (B) the submission of all notices and self-monitoring reports from industrial users as are necessary to assess and assure compliance by industrial users with pretreatment standards and requirements, including but not limited to the reports required in 40 CFR Section 403.12;

(5) Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by industrial users, compliance or noncompliance with applicable pretreatment standards and requirements by industrial users. Representatives of the POTW shall be authorized to enter any premises of any industrial user in which an effluent source or treatment system is located or in which records are required to be kept under 40 CFR Section 403.12(o) to assure compliance with pretreatment standards. Such authority shall be at least as extensive as the authority provided under Section 308 of the CWA; and

(6) Obtain remedies including injunctive relief (such as discharge termination) and assessment of penalties for non-compliances with any pretreatment standard or requirement or for violation of any of the program requirements set forth in subparagraphs (1) through (5) above.

c. Where the City Solicitor or comparable public official finds that the permittee does not have the authority outlined above, the permittee shall identify what additional authority is needed and submit a plan and schedule for obtaining it by the program submittal date;

2. The pretreatment program submitted for approval shall contain the following:

a. An evaluation of staffing needs and funding to implement its pretreatment program. An estimate of personnel needed to 1) establish and track schedules of compliance, 2) receive and analyze monitoring reports, 3) conduct independent sampling and analysis as necessary, 4) investigate instances of non-compliance, 5) take enforcement actions, and 6) comply with the public participation requirement of 40 CFR Section 403.8(f)(2)(viii), shall be included. The discussion of funding shall include a description of the sources of funding and an estimate of the program costs;

b. A discussion of its pretreatment strategy for all of the industries identified. The permittee shall identify the manner in which it will implement the program requirements set forth in 40 CFR Section 403.8, including the means by which pretreatment standards will be applied to individual users (e.g., by Order, Permit, Ordinance, Contract, etc.). This discussion shall include an enforcement response plan to assure industry compliance with local pretreatment requirements, federal prohibited discharge standards, federal categorical pretreatment standards, and the industrial reporting requirements of 40 CFR Sections 403.12(b)-(h);

c. The design of a monitoring program which will implement the requirements of 40 CFR Sections 403.8 and 403.12, and in particular those requirements referenced in 40 CFR Sections 403.8(f)(1)(iv-v), 403.8(f)(2)(iv-vii), and 403.12(h-j)(l)-(n);

d. A list of additional monitoring equipment required by the POTW to implement the pretreatment program and, a description of municipal facilities to be constructed, if any, for monitoring or analysis of industrial wastes; and

e. Specific POTW effluent limitations (local limits) for pollutants introduced into the

POTW by industrial users which may pass through the POTW of interfere with the operation of performance of the works as required by 40 CFR Section 403.5(c) and 403.8(f)(4).

3. The Permittee's complete pretreatment program is subject to revisions by EPA during the term of this permit and prior to renewing this permit under Section 301(h) of the CWA.

F. INDUSTRIAL USERS AND PRETREATMENT PROGRAM

1. Upon approval by EPA, the permittee shall implement the approved Industrial Pretreatment Program (IPP) 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 Part 403. At a minimum, the Permittee must perform the following duties to properly implement the 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.

2. The Permittee shall provide EPA and the State 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 40 CFR § 403.12(i). The annual report shall be consistent with the format described in **Attachment D** (Industrial Pretreatment Program Annual Report) of this permit and shall be submitted no later than **March 1** of each year.

3. 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).

4. 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.

5. 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 Region1's approval under 40 CFR § 403.18. This submission is separate and distinct from any local limits analysis submission described in Part I.E.1.

6. Beginning the first full calendar quarter following 6 months after EPA has notified the Permittee that a multi-lab validated method for wastewater is available, the Permittee shall commence annual sampling of the following types of industrial discharges into the POTW:

   - Commercial Car Washes
   - Platers/Metal Finishers
   - Paper and Packaging Manufacturers
   - Tanneries and Leather/Fabric/Carpet Treaters
   - Manufacturers of Parts with Polytetrafluoroethylene (PTFE) or teflon type coatings (*e.g.*, bearings)
   - Landfill Leachate
   - Centralized Waste Treaters
   - Known or Suspected PFAS Contaminated Sites
   - Fire Fighting Training Facilities
   - Airports
   - Any Other Known or Expected Sources of PFAS

Sampling shall be for the PFAS analytes listed in Attachment E as specified below:

Industrial User Effluent Characteristic	**Maximum Daily**	**Monitoring Requirements**	
		Frequency	**Sample Type**
PFAS Analytes	Report ng/L	1/Year	Grab

The industrial discharges sampled, and the sampling results shall be summarized and included in the annual report (see Part I.F.2).

G. SLUDGE CONDITIONS

1. The Permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices, including EPA regulations promulgated at 40 CFR § 503, which prescribe "Standards for the Use or Disposal of Sewage Sludge" pursuant to § 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 include the following elements:

   a. General requirements

   b. Pollutant limitations

   c. Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)

   d. Management practices

   e. Record keeping

   f. Monitoring

   g. Reporting

Which of the 40 CFR 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.

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, as follows:

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 § 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 electronically using EPA's Electronic Reporting tool ("NeT") (see "Reporting Requirements" section below).

9. Compliance with the requirements of this permit or 40 CFR Part 503 shall not eliminate or modify the need to comply with applicable requirements under RSA 485-A and Env-Wq 800, New Hampshire Sludge Management Rules.

H. COMBINED SEWER OVERFLOWS

Effluent Limitations

1. During wet weather (including snowmelt), the Permittee is authorized to discharge storm water and wastewaters from CSOs outfalls 10A, 10B, and 013 listed in Attachment B.

2. The effluent discharged from the CSO is subject to the following limitations:

   a. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available ("BPT"), Best Conventional Pollutant Control Technology ("BCT") to control and abate conventional pollutants and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. The EPA has made a Best Professional Judgment ("BPJ") determination that BPT, BCT, and BAT for combined sewer overflow ("CSO") control includes the implementation of Nine Minimum Controls ("NMC") specified below. These Nine Minimum Controls and the Nine Minimum Controls Minimum Implementation Levels which are detailed further in Part I.H.3. are requirements of this permit.

      (1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows;

      (2) Maximum use of the collection system for storage;

(3) Review and modification of the pretreatment program to assure CSO impacts are minimized;
(4) Maximization of flow to the POTW for treatment;

(5) Prohibition of dry weather overflows from CSOs;

(6) Control of solid and floatable materials in CSOs;

(7) Pollution prevention programs that focus on contaminant reduction activities;

(8) Public notification to ensure that the public receives adequate notification of CSO occurrences and impacts;

(9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

b. The discharges shall not cause or contribute to violations of federal or state Water Quality Standards.

3. Nine Minimum Controls Minimum Implementation Levels

a. The Permittee must implement the nine minimum controls in accordance with the documentation provided to EPA and NHDES or as subsequently modified to enhance the effectiveness of the controls. This implementation must include the controls identified in Part I.H.3.b-g of this permit plus other controls the Permittee can reasonably undertake as set forth in the documentation.

b. Each CSO structure/regulator, pumping station and/or tidegate shall be routinely inspected, at a minimum of once per month, to ensure that they are in good working condition and adjusted to minimize combined sewer discharges (NMC # 1, 2 and 4). The following inspection results shall be recorded: the date and time of inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the Permittee shall record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The Permittee shall maintain all records of inspections for at least three years.

c. **Annually, no later than March 31st,** the Permittee shall submit a certification to NHDES and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained. NHDES and EPA have the right to inspect any CSO related structure or outfall at any time without prior notification to the Permittee. Discharges to the combined system of septage, holding tank wastes, or other material which may cause a visible oil sheen or containing floatable material are prohibited during wet weather when CSO discharges may be active (NMC # 3, 6, and 7).

d. Dry weather overflows ("DWOs") are prohibited (NMC # 5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and NHDES orally within 24 hours of the time the Permittee becomes aware of the circumstances and a report shall also be provided within 5 days of the time the Permittee becomes aware of

the circumstances using "NeT-Sewer Overflow" as described in Part I.J.6 below. See also Paragraph D.1.e. of Part II of this permit.

e. The Permittee shall quantify and record all discharges from combined sewer outfalls (NMC # 9). Quantification shall be through direct measurement. The following information must be recorded for each combined sewer outfall for each discharge event, as set forth in Part I.H.4.:

- Duration (hours) of discharge;
- Volume (gallons) of discharge;
- National Weather Service precipitation data from the nearest gage where precipitation is available at daily (24-hour) intervals and the nearest gage where precipitation is available at one-hour intervals. Cumulative precipitation per discharge event shall be calculated.

The Permittee shall retain records of CSO discharges for a period of at least 3 years from the date of the sample, measurement, report or application.

f. The Permittee shall install and maintain identification signs for all combined sewer outfall structures (NMC # 8). The signs must be located at or near the combined sewer outfall structures and easily readable by the public from the land and water. These signs shall be a minimum of 12 x 18 inches in size, with white lettering against a green background, and shall contain the following information:

CITY OF PORTSMOUTH
WET WEATHER
SEWAGE DISCHARGE
OUTFALL 10A

The Permittee shall place signs in English and include a universal wet weather sewage discharge symbol.

Where there are easements over property not owned by the Permittee that must be obtained to meet this requirement, the Permittee shall identify the appropriate landowners and obtain the necessary easements, to the extent practicable.

g. Public Notification Plan

(1) Within 180 days of the effective date of the permit, the Permittee shall submit to EPA and NHDES a Public Notification Plan describing the measures that will be taken to meet NMC #8 in Part I.H.2 of this permit. The public notification plan shall include the means for disseminating information to the public, including communicating the initial, supplemental, and annual notifications required in Part I.H.3.g.(2), (3), and (4) of this permit, as well as procedures for communicating with public health departments, including downstream communities, whose waters may be affected by discharges from the Permittee's CSOs.

(2) Initial notification of a probable CSO activation shall be provided to the public as soon as practicable, but no later than, two (2) hours after becoming aware by monitoring, modeling or other means that a probable CSO discharge has occurred. In addition to posting this notification to a website, this information may also be communicated using other electronic means. The initial notification shall include the following information:

- Date and time of probable CSO discharge
- CSO number and location

(3) Supplemental notification shall be provided to the public as soon as practicable, but no later than, twenty-four (24) hours after becoming aware of the termination of any CSO discharge(s). In addition to posting this notification to a website, this information may also be communicated using other electronic means. The supplemental notification shall include the following information:

- CSO number and location
- Confirmation of CSO discharge
- Date, start time and stop time of the CSO discharge

(4) Annual notification - **Annually, by March 31st**, the Permittee shall post the annual report for the previous calendar year described in Part I.H.4 below on a publicly available website, and it shall remain on the website for a minimum of 24 months.

(5) The Public Notification Plan shall be implemented no later than 12 months following the effective date of the Permit.

4. Nine Minimum Controls Reporting Requirement

Annually, no later than March 31st, the Permittee shall submit a report summarizing activities during the previous calendar year relating to compliance with the nine minimum controls. The annual report shall include information on the locations of CSOs, a summary of CSO outfall monitoring data required by Part I.H.5 of this permit, status and progress of CSO abatement work, the impacts of CSOs on water quality of the receiving water.

5. Combined Sewer Overflow Outfall Monitoring

For CSO Outfalls 10A, 10B, and 013, the Permittee must monitor the following:

Parameters	**Reporting Requirements**	**Monitoring Requirements**	
	Total Monthly	**Measurement Frequency**	**Sample Type**
Total Flow	Report Gallons	Daily, when discharging	Continuous
Total Flow Duration (Duration of flow through CSO)	Report Hours	Daily, when discharging	Continuous
Number of CSO Discharge Events	Report Monthly Count	Daily, when discharging	Count

a. For Total Flow, measure the total flow discharged from each CSO outfall during the month. For Total Flow Duration, report the total duration (hours) of discharges for each CSO outfall during the month. For Number of CSO Discharge Events, a single discharge event spanning more than one calendar day shall be reported as one discharge event.

b. For those months when a CSO discharge does not occur, the Permittee must indicate "no discharge" for the outfall for which data was not collected.

c. This information shall be submitted with each monthly DMR and submitted with the annual report required by Part I.H.4. of this permit.

I. SPECIAL CONDITIONS

1. Provision to Modify pH Range

The pH range may be modified if the Permittee satisfies conditions set forth in Part I.K.5 below. Upon notification of an approval by NHDES, EPA will review and, if acceptable, will submit written notice to the Permittee of the permit change. The modified pH range will not be in effect until the Permittee receives written notice from EPA.

J. REPORTING REQUIREMENTS

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 the State electronically using NetDMR no later than the 15th day of the month. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

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. This includes the NHDES Monthly Operating Reports (MORs). See Part I.J.7 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 report due date specified in this permit.

3. Submittal of Industrial User and Pretreatment Related Reports

a. Prior to 21 December 2025, all reports and information required of the Permittee in the Industrial Users and Pretreatment Program section of this permit shall be submitted to the Pretreatment Coordinator in EPA Region 1 Water Division (WD). Starting on 21 December 2025, these submittals must be done electronically as NetDMR attachments and/or using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at https://cdx.epa.gov/. These requests, reports and notices include:

(1) Annual Pretreatment Reports,

(2) Pretreatment Reports Reassessment of Technically Based Industrial Discharge Limits Form,

(3) Revisions to Industrial Discharge Limits,

(4) Report describing Pretreatment Program activities, and

(5) Proposed changes to a Pretreatment Program

b. This information shall be submitted to EPA WD as a hard copy at the following address:

U.S. Environmental Protection Agency
Water Division
Regional Pretreatment Coordinator
5 Post Office Square - Suite 100 (06-03)
Boston, MA 02109-3912

4. Submittal of Biosolids/Sewage Sludge Reports

By February 19 of each year, the Permittee must electronically report their annual Biosolids/Sewage Sludge Report for the previous calendar year using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which is accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

5. Submittal of Requests and Reports to EPA Water Division (WD)

   a. The following requests, reports, and information described in this permit shall be submitted to the NPDES Applications Coordinator in EPA Water Division (WD):

      (1) Transfer of permit notice;

      (2) Request for changes in sampling location;

      (3) Request for reduction in testing frequency;

      (4) Report on unacceptable dilution water / request for alternative dilution water for WET testing.

   b. These reports, information, and requests shall be submitted to EPA WD electronically at R1NPDESReporting@epa.gov.

6. Submittal of Sewer Overflow and Bypass Reports and Notifications

The Permittee shall submit required reports and notifications under Part II.B.4.c, for bypasses, and Part II.D.1.e, for sanitary sewer overflows (SSOs) electronically using EPA's NPDES eReporting Tool ('NeT') – Sewer Overflow and Bypass Reporting ("NeT-Sewer Overflows") , which will be accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

7. State Reporting

Unless otherwise specified in this permit or by the State, 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.J.3 and I.J.5 shall also be submitted to the New Hampshire Department of Environmental Services, Water Division (NHDES–WD) electronically to the Permittee's assigned NPDES inspector at NHDES-WD or as a hardcopy to the following addresses:

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

8. Verbal Reports and Verbal Notifications

   a. 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 the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part II.B.4.c.(2), Part II.B.5.c.(3), and Part II.D.1.e).

b. Verbal reports and verbal notifications shall be made to:

EPA ECAD at 617-918-1510
and
NHDES Assigned NPDES Inspector at 603-271-1493

9. Submittal of Co-Permittee Reports to EPA Enforcement and Compliance Assurance Division (ECAD) in Hard Copy Form and Electronic Courtesy Copies via Email

a. The following reports shall be signed and dated originals, submitted as hard copy, with a cover letter describing the submission:

(1) Collection System Operation and Maintenance Plan (from Co-permittee); and

(2) Report on annual activities related to O&M Plan (from Co-permittee).

b. This information shall be submitted to EPA ECAD at the following address:

U.S. Environmental Protection Agency
Enforcement and Compliance Assurance Division
Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912

c. In addition, the Co-permittee shall send to EPA ECAD electronic courtesy copies of hard copy reports via email to: R1NPDESReporting@epa.gov.

K. STATE 401 CERTIFICATION CONDITIONS

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

2. This NPDES discharge permit is issued by EPA under federal law. Upon final issuance by EPA, the New Hampshire Department of Environmental Services-Water Division (NHDES-WD) may adopt this permit, including all terms and conditions, as a state permit pursuant to RSA 485-A:13.

3. EPA shall have the right to enforce the terms and conditions of this permit pursuant to federal law and NHDES-WD shall have the right to enforce the permit pursuant to state law, if the permit is adopted. Any modification, suspension, or revocation of this permit shall be effective only with respect to the agency taking such action and shall not affect the validity or status of the permit as issued by the other agency.

4. Pursuant to New Hampshire Statute RSA 485-A13,I(c), any person responsible for a bypass or upset at a wastewater facility shall give immediate notice of a bypass or upset to all public or privately owned water systems drawing water from the same receiving water and located within 20 miles downstream of the point of discharge regardless of whether or not it is on the same receiving water or on another surface water to which the receiving water is tributary. Wastewater facility is defined at RSA 485-A:2XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge. The Permittee shall maintain a list of persons, and their telephone numbers, who are to be notified immediately by telephone. In addition, written notification, which shall be postmarked within 3 days of the bypass or upset, shall be sent to such persons.

5. The pH range of 6.5 to 8.0 Standard Units (S.U.) must be achieved in the final effluent unless the Permittee can demonstrate to NHDES-WD: 1) that the range should be widened due to naturally occurring conditions in the receiving water; or 2) that the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge. The scope of any demonstration project must receive prior approval from NHDES-WD. In no case shall the above procedure result in pH limits outside the range of 6.0 to 9.0 S.U., which is the federal effluent limitation guideline regulation for pH for secondary treatment and is found in 40 CFR § 133.102(c).

6. Pursuant to New Hampshire Code of Administrative Rules, Env-Wq 703.07(a):

   Any person proposing to construct or modify any of the following shall submit an application for a sewer connection permit to the department:

   a. Any extension of a collector or interceptor, whether public or private, regardless of flow;

   b. Any wastewater connection or other discharge in excess of 5,000 gpd;

   c. Any wastewater connection or other discharge to a WWTP operating in excess of 80 percent design flow capacity or design loading capacity based on actual average flow or loading for 3 consecutive months;

   d. Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity;

   e. Any sewage pumping station greater than 50 gpm or serving more than one building; or

   f. Any proposed sewer that serves more than one building or that requires a manhole at the connection.

7. Until an industrial pretreatment program is approved by EPA, for each new or increased discharge of industrial waste to the POTW, the Permittee shall submit, in accordance with Env-Wq 305.10(a) an "Industrial Wastewater Discharge Request."

8. Until an industrial pretreatment program is approved by EPA and pursuant to Env-Wq 305.15(d) and 305.16(f), the Permittee shall not allocate or accept for treatment more than 90 percent of the headworks loading limits of the facility.

9. Pursuant to Env-Wq 305.21, at a frequency no less than every five years, the Permittee shall submit to NHDES:

   a. A copy of its current sewer use ordinance if it has been revised without department approval subsequent to any previous submittal to the department or a certification that no changes have been made.

   b. A current list of all significant indirect dischargers to the POTW. At a minimum, the list shall include for each significant indirect discharger, its name and address, the name and daytime telephone number of a contact person, products manufactured, industrial processes used, existing pretreatment processes, and discharge permit status.

   c. A list of all permitted indirect dischargers; and

   d. A certification that the municipality is strictly enforcing its sewer use ordinance and all discharge permits it has issued.

10. When the effluent discharged for a period of three (3) consecutive months exceeds 80 percent of the 6.13 MGD design flow (4.9 MGD) or design loading capacity, the Permittee shall submit to the permitting authorities a projection of flows and loadings up to the time when the design capacity of the WWTF will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the Permittee may be required to submit plans for facility improvements.

11. Outfall Maintenance and Inspection

   a. The outfall pipe shall be maintained as necessary to ensure proper operation and unobstructed flow. Maintenance may include dredging in the vicinity of the outfall, clean out of solids in the outfall pipe, and repair or replacement of the pipe.

   b. Any necessary maintenance dredging must be performed only after receiving all necessary permits from the NHDES Wetlands Bureau and other appropriate agencies.

   c. To determine if maintenance is required, the Permittee shall have a licensed diver or licensed marine contractor inspect the operation of the outfall once per permit term.

   d. A copy of a report summarizing the results of the inspection shall be submitted to EPA and NHDES-WD within 60 days of the inspection. A schedule for cleaning, repairs, or other necessary maintenance shall be included in the report if the inspection indicates that it is necessary. Necessary cleaning, repairs, or other maintenance should be documented after the action is completed.

12. NHDES Shellfish Notification Procedures

The Permittee shall immediately notify the NHDES Shellfish Program of possible high bacteria/virus loading events from the facility or its sewage collection infrastructure. Immediate notification shall be as defined by the NHDES Shellfish Program in order to meet the timeliness requirements for closure of Conditionally Approved shellfish harvest areas. The NHDES Shellfish Program may require additional information to assist in the determination of a closure event, and the Permittee shall provide all requested information. Such events include:

a. Any lapse or interruption of normal operation of the POTW disinfection or treatment system, or other event that results in discharge of sewage from the POTW or sewage collection infrastructure (pump stations, sewer lines, manholes, etc.) including all wet and dry weather discharges from permitted CSO outfalls (010A, 010B, and 013), as well as all secondary treatment bypass/blending events;

b. Total daily flows in excess of the POTW's average daily design flow of 6.13 MGD; and

c. Daily post-disinfection effluent sample result of 43 fecal coliform/100 mL or greater. Notification shall also be made for instances where NPDES-required bacteria sampling is not completed, or where the results of such sampling are invalid.

Notification shall be made using the program's cell phone number. If Shellfish Program staff are not available to answer the phone, leave a message describing the issue or situation and provide your contact information, including phone number. Then, call the Shellfish Program’s pager and enter a call back number. Upon initial notification of a possible high bacteria/virus loading event, Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis.

NHDES - Shellfish Program
Cell Phone: 603-568-6741
Pager: 603-771-9826

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:

https://www.epa.gov/cwa-methods/whole-effluent-toxicity-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 with supporting documentation must be sent electronically to the NPDES Applications Coordinator in EPA Water Division (WD) at the following email address:

R1NPDESReporting@epa.gov

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 EPA Region 1 website at: www.epa.gov/aboutepa/epa-region-1-new-england (click on NPDES, EPA Permit Attachments, Self-Implementing Alternate Dilution Water Guidance) for 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: www.epa.gov/compliance/discharge-monitoring-reports-avoiding-common-mistakes

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

CSO OUTFALLS UNDER THE JURISDICTION OF THE CITY OF PORTSMOUTH

DISCHARGE SERIAL NO.	LOCATION	COMPOSITION OF DISCHARGE	RECEIVING WATER
10A	Parrot Avenue – 43 deg. 04.80 minutes (latitude), 70 deg. 45.53 minutes (longitude)	Untreated Sanitary/Storm Water	South Mill Pond to Piscataqua River
10B	Parrot Avenue - 43 deg. 04.80 minutes (latitude), 70 deg. 45.53 minutes (longitude)	Untreated Sanitary/Storm Water	South Mill Pond to Piscataqua River
013	Deer Street - 43 deg. 04.39 minutes (latitude), 70 deg. 45.47 minutes (longitude)	Untreated Sanitary/Storm Water	Piscataqua River

Attachment C

Pretreatment Program Development and Approval Standard Requirements

Within eighteen (18) months of the effective date of the permit, the permittee shall submit to EPA an approved Industrial Pretreatment Program consistent with the requirements of 40 CFR 403.8(f). The Industrial Pretreatment Program submission shall consist of the following chapters:

Chapter 1 - Organization and Multi-jurisdiction Implementation

This chapter would describe the overall program structure as well as contain descriptions of the treatment plants, collection systems, and the service area including political boundaries.

Chapter 2 - Legal Authority

This chapter would contain a sewer use ordinance and all multi-jurisdictional agreements consistent with requirements of 40 CFR 403.8(f)(1). The sewer use ordinance shall be submitted as a final draft ready for adoption and implementation pending EPA approval.

Chapter 3 - Local Limits

This chapter would contain the technical basis for the local limits. It will include the analyses necessary to determine the maximum headworks loadings for the wastewater treatment plant and the maximum pollutant levels protective of the collection system, as well as the method of allocating allowable loadings to the users, a schedule of public hearings and outreach, and the ordinance adoption procedures. Local limitations can be numerical concentrations, mass loading limits or best management practices, but must be carried out in accordance with EPA's Local Limit Development Guidance (July 2004).

Chapter 4 - Identification of Non-domestic Users

This chapter would contain the procedures used on-going updates to the Industrial Pretreatment Program. This chapter would also include the current inventory of industrial users, by non-domestic sewer connection, and of any zero-discharging categorical industrial users (if applicable) who comply with their Federal standards by not discharging process wastewaters.

The inventory must indicate the following for each industrial user and zero-discharging categorical industrial user:

1. Whether it qualifies as a significant industrial user;

2. The average and peak flow rates;
3. The SIC code;
4. The pretreatment-in-place, and;
5. The local permit status.

Chapter 5 - Permits and Fact Sheets

This chapter would describe the permitting procedures and include a fact sheet and final draft permit for each significant industrial user to be issued upon approval of the local limits and revised ordinance by EPA. The fact sheets must indicate the following for each significant industrial user:

1. The industry name, address, owner or plant manager;
2. The permit expiration date (not to exceed five years in duration);
3. A description of the facility including the products made or services provided, building names, the process in each building, and when current operations began;
4. The identification of each sewer connection;
5. A description of the contributing waste streams that comprise each identified non-domestic discharge into the sewers;
6. The pretreatment-in-place for each identified non-domestic discharge to the sewers;
7. The classification by Federal point source category and the reasons justifying this classification;
8. The applicable Federal categorical pretreatment standards (adjusted if necessary to account for dilution), supporting production data (if necessary), and the compliance sampling point(s) where the standards apply;
9. The pollutants of concern and the compliance sampling point(s) where the local limits apply;
10. A site map indicating the locations of all compliance sampling point(s), sewer connections, and sewer laterals;
11. The sampling frequency by regulated pollutant for each compliance sampling point, and the supporting statistical rationale, to ensure that the sampling is representative of the wastewater discharge variability over the reporting period;
12. The sampling protocol by regulated pollutant for each compliance sampling point to ensure that the samples collected to determine compliance with Federal standards are representative of the sampling day's discharge.

Chapter 6 - Compliance Monitoring

This chapter would describe the industrial user self-monitoring program and the POTWs oversight monitoring program. The compliance monitoring program must ensure that all sampling is representative over the reporting period and that each sample collected to determine compliance with Federal standards is representative of the sampling day's discharge. The compliance monitoring

program must also set analytical detection limits that are sufficiently below Federal standards and local limits to allow the determination of non-compliance.

Chapter 7 - Enforcement

This chapter would establish the enforcement response plan to be used to address, at a minimum, each of the following types of violations:

1. Isolated and chronic violations of permit effluent limits;
2. Violations of permit effluent limits that result in any adverse impacts upon the treatment works such as pass-through, interference, sludge contamination, sewer line degradation, explosive or inflammability risks, or worker health and safety risks;
3. Failure to self-monitor or report;
4. The bypassing of pretreatment necessary to comply with permit effluent limits;
5. Dilution as a substitute for treatment necessary to comply with Federal categorical pretreatment standards;
6. The bypassing of compliance sampling or the tampering with sampling equipment;
7. Willful or negligent violations.

Chapter 8 - Resources

This chapter would cover the budget, staffing and equipment needs of the pretreatment program.

Chapter 9 - Public Participation and Confidentiality

This chapter would describe the administrative procedures required under 40 CFR 403.8(f)(1)(vii) and 403.8(f)(2)(viii).

Attachment D
Industrial Pretreatment Program Annual Report

The Permittee shall provide the Approval Authority with an annual report that briefly describes the POTW's program activities, including activities of all participating agencies, if more than one jurisdiction is involved in the local program. The report required by this section shall be submitted no later than one year after approval of the POTW's Pretreatment Program, and at least annually thereafter, and must include, at a minimum, the applicable required data in Appendix A to 40 CFR Part 127. The report required by this section must also include a summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority and any other relevant information requested by the Approval Authority. As of December 21, 2025 all annual reports submitted in compliance with this section must be submitted electronically by the POTW Pretreatment Program to the Approval Authority or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR Part 3 (including, in all cases, Subpart D to part 3), 40 CFR § 122.22, and 40 CFR Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, the Approval Authority may also require POTW Pretreatment Programs to electronically submit annual reports under this section if specified by a particular permit or if required to do so by State law.

The Permittee shall submit to Approval Authority and the State permitting authority a report that contains the following information requested by EPA:

1. An updated list of the POTW's Industrial Users by category as set forth in 40 CFR § 403.8(f)(2)(i), to include:
    a. Names and addresses, or a list of deletions and additions keyed to a previously submitted list. The POTW shall provide a brief explanation of each deletion. This list shall identify which Industrial Users are subject to categorical Pretreatment Standards and specify which Standards are applicable to each Industrial User. The list shall indicate which Industrial Users are subject to local standards that are more stringent than the categorical Pretreatment Standards. The POTW shall also list the Industrial Users that are subject only to local Requirements. The list must also identify Industrial Users subject to categorical Pretreatment Standards that are subject to reduced reporting requirements under paragraph (e)(3), and identify which Industrial Users are Non-Significant Categorical Industrial Users;
    b. Permit status - Whether each SIU has an unexpired control mechanism and an explanation as to why any SIUs are operating without a current, unexpired control mechanism (e.g. permit);
    c. Baseline monitoring reporting requirements for newly promulgated industries;
    d. In addition, a brief description of the industry and general activities.

2. A summary of compliance and enforcement activities during the preceding year, including the number of:
    a. significant industrial users inspected by POTW (include inspection dates for each industrial user),

b. significant industrial users sampled by POTW (include sampling dates for each industrial user),
c. compliance schedules issued (include list of subject users),
d. written notices of violations issued (include list of subject users),
e. administrative orders issued (include list of subject users),
f. criminal or civil suits filed (include list of subject users), and
g. penalties obtained (include list of subject users and penalty amounts).

3. 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.

4. The Permittee shall prepare annually a list of industrial users, which during the preceding twelve (12) months have significantly violated Pretreatment Standards or requirements 40 CFR § 403.8(f)(2)(vii). This list is to be published annually in a newspaper of general circulation in the Permittee's service area.

5. A summary of all monitoring activities performed within the previous twelve (12) months. The following information shall be reported:
   a. Total number of SIUs inspected;
   b. Total number of SIUs sampled; and
   c. For all industrial users that were in Significant Non-Compliance during the previous twelve (12) months, provide the name of the violating industrial user; indicate the nature of the violations, the type and number of actions taken (administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. Indicate if the company returned to compliance and the date compliance was attained. Determination of Significant Non-Compliance shall be performed.

6. A summary of all enforcement actions not covered by the paragraph above conducted in accordance with the approved Enforcement Response Plan.
7. A description of actions being taken to reduce the incidence of significant violations by significant industrial users.
8. A detailed description of all interference and pass-through that occurred during the past year.
9. A thorough description of all investigations into interference and pass-through during the past year.
10. 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.
11. The Permittee shall analyze the treatment facility influent and effluent at least annually for the presence of the toxic pollutants listed in 40 CFR Part 122 Appendix D (NPDES Application Testing Requirements) Table III as follows:

    Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Zinc, Cyanide, and Phenols.

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. All analytical procedures and method detection limits must be specified when reporting the results of such analyses.

12. The Permittee shall analyze the treatment facility sludge (biosolids) prior to disposal, for the presence of toxic pollutants listed above in 40 CFR 122 Appendix D (NPDES Application Testing Requirements) Table III at least once per year. If the Permittee does not dispose of biosolids during the calendar year, the Permittee shall certify to that in the Pretreatment Annual Report and the monitoring requirements in this paragraph shall be suspended for that calendar year.

    The Permittee shall use sample collection and analysis procedures as approved for use under 40 CFR Part 503 or specified in the EPA Region 8 General Permit for biosolids.

13. The summary shall include an evaluation 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 paragraphs above or any similar sampling program described in this Permit.

14. Identification of the specific locations, if any, designated by the Permittee for receipt (discharge) of trucked or hauled waste, if modified.

15. Information as required by the Approval Authority or State permitting authority on the discharge to the POTW from the following activities:
    a. Groundwater clean-up from underground storage tanks;
    b. Trucked or hauled waste; and
    c. Groundwater clean-up from RCRA or Superfund sites.

16. A description of all changes made during the previous calendar year to the Permittee's pretreatment program that were not submitted as substantial or non-substantial modifications to EPA.

17. 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.

18. Results of all PFAS sampling conducted of industrial discharges in accordance with the Pretreatment Program requirements in Part I of the NPDES permit.

19. Any other information that may be deemed necessary by the Approval Authority.

Attachment E: PFAS Analyte List

Target Analyte Name	Abbreviation	CAS Number
Perfluoroalkyl carboxylic acids		
Perfluorobutanoic acid	PFBA	375-22-4
Perfluoropentanoic acid	PFPeA	2706-90-3
Perfluorohexanoic acid	PFHxA	307-24-4
Perfluoroheptanoic acid	PFHpA	375-85-9
Perfluorooctanoic acid	PFOA	335-67-1
Perfluorononanoic acid	PFNA	375-95-1
Perfluorodecanoic acid	PFDA	335-76-2
Perfluoroundecanoic acid	PFUnA	2058-94-8
Perfluorododecanoic acid	PFDoA	307-55-1
Perfluorotridecanoic acid	PFTrDA	72629-94-8
Perfluorotetradecanoic acid	PFTeDA	376-06-7
Perfluoroalkyl sulfonic acids		
Acid Form		
Perfluorobutanesulfonic acid	PFBS	375-73-5
Perfluoropentansulfonic acid	PFPeS	2706-91-4
Perfluorohexanesulfonic acid	PFHxS	355-46-4
Perfluoroheptanesulfonic acid	PFHpS	375-92-8
Perfluorooctanesulfonic acid	PFOS	1763-23-1
Perfluorononanesulfonic acid	PFNS	68259-12-1
Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluorododecanesulfonic acid	PFDoS	79780-39-5
Fluorotelomer sulfonic acids		
1*H*,1*H*, 2*H*, 2*H*-Perfluorohexane sulfonic acid	4:2FTS	757124-72-4
1*H*,1*H*, 2*H*, 2*H*-Perfluorooctane sulfonic acid	6:2FTS	27619-97-2
1*H*,1*H*, 2*H*, 2*H*-Perfluorodecane sulfonic acid	8:2FTS	39108-34-4
Perfluorooctane sulfonamides		
Perfluorooctanesulfonamide	PFOSA	754-91-6
N-methyl perfluorooctanesulfonamide	NMeFOSA	31506-32-8
N-ethyl perfluorooctanesulfonamide	NEtFOSA	4151-50-2
Perfluorooctane sulfonamidoacetic acids		
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6
Perfluorooctane sulfonamide ethanols		
N-methyl perfluorooctanesulfonamidoethanol	NMeFOSE	24448-09-7
N-ethyl perfluorooctanesulfonamidoethanol	NEtFOSE	1691-99-2
Per- and Polyfluoroether carboxylic acids		
Hexafluoropropylene oxide dimer acid	HFPO-DA	13252-13-6
4,8-Dioxa-3*H*-perfluorononanoic acid	ADONA	919005-14-4
Perfluoro-3-methoxypropanoic acid	PFMPA	377-73-1
Perfluoro-4-methoxybutanoic acid	PFMBA	863090-89-5
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	151772-58-6

Target Analyte Name	Abbreviation	CAS Number
Ether sulfonic acids		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS	756426-58-1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS	763051-92-9
Perfluoro(2-ethoxyethane)sulfonic acid	PFEESA	113507-82-7
Fluorotelomer carboxylic acids		
3-Perfluoropropyl propanoic acid	3:3FTCA	356-02-5
2*H*,2*H*,3*H*,3*H*-Perfluorooctanoic acid	5:3FTCA	914637-49-3
3-Perfluoroheptyl propanoic acid	7:3FTCA	812-70-4

NPDES PART II STANDARD CONDITIONS
(April 26, 2018)[1]

TABLE OF CONTENTS

[1] Updated July 17, 2018 to fix typographical errors.

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 or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage 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, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

b. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (83 Fed. Reg. 1190-1194 (January 10, 2018) and the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note. See Pub. L.114-74, Section 701 (Nov. 2, 2015)). These requirements help ensure that EPA penalties keep pace with inflation. Under the above-cited 2015 amendments to inflationary adjustment law, EPA must review its statutory civil penalties each year and adjust them as necessary.

(1) Criminal Penalties

(a) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than 2 years, or both.

(b) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act 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. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

(c) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing

endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

(d) *False Statement.* 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. The Act further 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 non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(2) *Civil Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(3) *Administrative Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty as follows:

(a) *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(b) *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

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 a notification of planned changes or anticipated noncompliance does not stay any permit

condition.

3. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director 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 Director, upon request, copies of records required to be kept by this permit.

4. 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).

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Confidentiality of Information

a. In accordance with 40 C.F.R. 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 C.F.R. 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.

c. Information required by NPDES application forms provided by the Director under 40 C.F.R. § 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.

7. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, 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 Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

8. State Authorities

Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity

covered by the regulations in 40 C.F.R. Parts 122, 123, and 124, whether or not under an approved State program.

9. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

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. 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 which are installed by a Permittee 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 reasonably be 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 provisions of paragraphs (c) and (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. As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(2) *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or required to do so by law.

d. *Prohibition of bypass.*

(1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) 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

(c) The Permittee submitted notices as required under paragraph 4.c of this Section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director 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; and
(3) The Permittee submitted notice of the upset as required in paragraph D.1.e.2.b. (24-hour notice).
(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.

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 of 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 5 years (or longer as required by 40 C.F.R. § 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. This period may be extended by request of the Director 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 must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.

e. The Clean Water Act 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 Director, 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 Clean Water Act, any substances or parameters at any location.

D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. *Planned Changes*. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only 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 C.F.R. § 122.29(b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 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 that are 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 Director 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 Director. The Director 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 Clean Water Act. *See* 40 C.F.R. § 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. As of December 21, 2016 all reports and forms submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by State law.

(2) If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 C.F.R. Subchapters N or O, the results of such 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 report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written report 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all

reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(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 C.F.R. § 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 Director in the permit to be reported within 24 hours. *See* 40 C.F.R. § 122.44(g).

(3) The Director may waive the written report on a case-by-case basis for reports under paragraph D.1.e. of this Section if the oral report has been received within 24 hours.

f. *Compliance Schedules.* Reports of compliance or noncompliance with, or 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph D.1.e. and the applicable required data in Appendix A to 40 C.F.R. Part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under 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 Director, it shall promptly submit such facts or information.

i. *Identification of the initial recipient for NPDES electronic reporting data*. The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to the appropriate initial recipient, as determined by EPA, and as defined in 40 C.F.R. § 127.2(b). EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group (see 40 C.F.R. § 127.2(c) of this Chapter). EPA will update and maintain this listing.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Director shall be signed and certified. *See* 40 C.F.R. §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 non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under paragraph A.6. 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 Director. 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.

E. DEFINITIONS AND ABBREVIATIONS

1. General Definitions

For more definitions related to sludge use and disposal requirements, see EPA Region 1's NPDES Permit Sludge Compliance Guidance document (4 November 1999, modified to add regulatory definitions, April 2018).

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 under the CWA, 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 or 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.

Approved program or *approved State* means a State or interstate program which has been approved or authorized by EPA under Part 123.

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" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that 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.

Bypass see B.4.a.1 above.

C-NOEC or *"Chronic (Long-term Exposure Test) – No Observed Effect Concentration" means* 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.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 C.F.R. § 501.2, required to have an approved pretreatment program under 40 C.F.R. § 403.8 (a) (including any POTW located in a State that has elected to assume local program responsibilities pursuant to 40 C.F.R. § 403.10 (e)) and any treatment works treating domestic sewage, as defined in 40 C.F.R. § 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 its sewage sludge use or disposal practice to affect public health and the environment adversely.

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) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483and Public Law 97-117, 33 U.S.C. 1251 *et seq*.

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily Discharge means the "discharge of a pollutant" measured during a 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.

Direct Discharge means the "discharge of a pollutant."

Director means the Regional Administrator or an authorized representative. In the case of a permit also issued under Massachusetts' authority, it also refers to the Director of the Division of Watershed Management, Department of Environmental Protection, Commonwealth of Massachusetts.

Discharge

(a) When used without qualification, *discharge* means the "discharge of a pollutant."

(b) As used in the definitions for "interference" and "pass through," *discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act.

Discharge Monitoring Report ("DMR") means the EPA uniform 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.

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 Director 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."

Environmental Protection Agency ("EPA") means the United States Environmental Protection

Agency.

Grab Sample means an individual sample collected in a period of less than 15 minutes.

Hazardous substance means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of CWA.

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

Indirect discharger means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

Interference means a discharge (see definition above) 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, 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 that is not a land application unit, surface impoundment, injection well, or waste pile.

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

LC_{50} means 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.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipal solid waste landfill (MSWLF) unit means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 C.F.R. § 257.2. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste and industrial solid waste. Such a landfill may be

publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

Municipality

(a) When used without qualification *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 tribal organization, or a designated and approved management agency under Section 208 of CWA.

(b) As related to sludge use and disposal, *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.

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 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 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 Director 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 Director shall consider the factors specified in 40 C.F.R. §§ 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 (see definition above) 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).

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

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of Parts 122, 123, and 124. "Permit" includes an NPDES "general permit" (40 C.F.R § 122.28). "Permit" does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or "proposed permit."

Person means 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 measured at 25° Centigrade or measured at another temperature and then converted to an equivalent value at 25° Centigrade.

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 C.F.R. § 122.3).

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 C.F.R. Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (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 a treatment works as defined by Section 212 of the Act, which is owned by a State or municipality (as defined by Section 504(4) of the Act). This 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 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.

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

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

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, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 C.F.R. 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 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 C.F.R. § 122.2.

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; finished materials such as metallic products; 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 Section 313 of title III of SARA; 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 C.F.R. §§ 110.10 and 117.21) or Section 102 of CERCLA (*see* 40 C.F.R. § 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 C.F.R. § 122.1(b)(2).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in the regulations which meets the requirements of 40 C.F.R. § 123.31.

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.

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 that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

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

Toxic pollutant 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 waste water 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 waste water 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 Director may designate any person subject to the standards for sewage sludge use and

disposal in 40 C.F.R. 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 C.F.R. Part 503.

Upset see B.5.a. above.

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

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

Waters of the United States or waters of the U.S. 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 the 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 CWA (other than cooling ponds as defined in 40 C.F.R. § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient 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.

*Zone of Initial Dilution (*ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

2. 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 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
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)
µg/L	Microgram(s) per liter
WET	"Whole effluent toxicity"
ZID	Zone of Initial Dilution

RESPONSE TO COMMENTS
NPDES PERMIT NO. NH0100234
PEIRCE ISLAND WASTEWATER TREATMENT FACILITY
PORTSMOUTH, NEW HAMPSHIRE

The U.S. Environmental Protection Agency's New England Region (EPA) is issuing a Final National Pollutant Discharge Elimination System (NPDES) Permit for the Peirce Island Wastewater Treatment Facility (WWTF) located in Portsmouth, New Hampshire. This permit is being issued under the Federal Clean Water Act (CWA), 33 U.S.C., §§ 1251 *et seq*.

In accordance with the provisions of 40 Code of Federal Regulations (CFR) §124.17, this document presents EPA's responses to comments received on the Draft NPDES Permit # NH0100234 ("Draft Permit"). The Response to Comments explains and supports EPA's determinations that form the basis of the Final Permit. From April 22, 2022 through June 7, 2022, EPA solicited public comments on the Draft Permit. Subsequently, from April 27 through May 26, 2023, EPA solicited public comments on a revised Draft Permit which incorporated a limited number of changes to the original Draft Permit.

EPA received comments from the following on the initial 2022 Draft Permit:

- City of Portsmouth, dated June 7, 2022
- Conservation Law Foundation, dated June 7, 2022
- Susan Paige Trace, Portsmouth resident, dated June 6, 2022
- Peter Whelan, Portsmouth resident, dated June 6, 2022
- Thaddeus Jankowski, Portsmouth resident, dated June 7, 2022
- Clare Kittredge, Portsmouth resident, dated June 7, 2022

EPA received comments from the following on the revised 2023 Draft Permit:

- City of Portsmouth, dated May 23, 2023
- Conservation Law Foundation, dated May 26, 2023
- Town of New Castle, dated May 25, 2023

Although EPA's knowledge of the facility has benefited from the various comments and additional information submitted, the information and arguments presented did not raise any substantial new questions concerning the permit that warranted a reopening of the public comment period. EPA does, however, make certain clarifications and changes in response to comments. These are explained in this document and reflected in the Final Permit. Below EPA provides a summary of the changes made in the Final Permit. The analyses underlying these changes are contained in the responses to individual comments that follow.

A copy of the Final Permit and this response to comments document will be posted on the EPA Region 1 web site: https://www.epa.gov/npdes-permits/new-hampshire-npdes-permits.

A copy of the Final Permit may be also obtained by writing or calling George Papadopoulos, USEPA, 5 Post Office Square, Suite 100 (Mail Code: 06-4), Boston, MA 02109-3912; Telephone: (617) 918-1579; Email papadopoulos.george@epa.gov.

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I. Summary of Changes to the Final Permit

1. The maximum daily BOD_5 and TSS limits have been removed and replaced with monitoring requirements. See 2023 Revised Draft Permit and Response 5.

2. Footnote 6 of Part I.A. has been revised to specify that the 85% removal requirement for BOD_5 and TSS only applies during dry weather and to require the Permittee to attach to its discharge monitoring reports the daily precipitation from the nearest applicable weather gage. See Response 6.

3. The mass-based BOD and TSS limits were revised to be based on the facility design flow of 6.13 MGD. See 2023 Revised Draft Permit and Response 7.

4. Footnote 5 of Part I.A. has been revised to add the phrase "end-of-pipe" to clarify where effluent limitations apply. See Responses 3 and 22.

5. The Fecal Coliform limit of no more than 10% of samples exceeding a Most Probable Number (MPN) of 28 per 100 mL will go into effect one year after the effective date of the permit. During the first year, the limit shall be not more than 10% of the samples shall exceed a Most Probable Number (MPN) of 43 per 100 mL. See Response 9.

6. The effluent copper limit of 38 µg/L has been removed in the Final Permit. See Response 12.

7. The CSO notification requirement at Part I.H.3.g.(2) has been revised to include the word probable. See Response 29.

8. Part I.C.4.k has been modified to read as follows: "To the extent feasible, the pipe diameter, date of installation, type of material, distance between manholes, interconnections with collection systems owned by other entities, and the direction of flow shall be provided. If certain information is determined to be infeasible to obtain, a justification must be included along with the map. If EPA or NHDES disagrees with the assessment, EPA may require the map to be updated accordingly". See Response 32.

9. Part I.E and Attachment C of the Final Permit have changed the due date of submittal of the City's pretreatment program to eighteen (18) months after the effective date of the permit. See Response 34.

10. Part I.F.6. has been changed from "Contaminated sites" to "Known or Suspected PFAS Contaminated Sites". See Response 39.

11. The records retention requirement for CSO information required by Part I.H.3.e has been changed from 6 years to 3 years and the definition of what constitutes the 3-year period has been revised. See Response 41.

12. Part I.H.5.a of the Final Permit has been revised to clarify that a single CSO discharge event spanning more than one calendar day shall be reported as one discharge event. See Response 42.

13. Part I.C.5.b of the Final Permit has been modified to extend the deadline to 36 months for the Co-Permittee, the Town of New Castle, to complete, implement, and submit its Collection System Operation and Maintenance (O&M) Plan. See Response 52.

14. Table I.A.1., Effluent Characteristics, Influent Characteristics, and Sludge Characteristics, as well as Part I.F.6, have been modified in the Final Permit to include monitoring for all 40 of the PFAS Analytes required to be tested in Method 1633. The sample type has been changed from "Composite" to "Grab." The list of PFAS analytes has been included as Attachment E of the Final Permit. See Response 56.

15. The ambient monitoring sample type for total arsenic and inorganic arsenic on Page 4 of the Draft Permit was a typographical error mistakenly listed as composite and has been changed to grab in the Final Permit.

II. Responses to Comments on Initial 2022 Draft Permit

Comments are reproduced below as received; they have not been edited.

A. Comments from Karen S. Conard, City Manager, Portsmouth, New Hampshire:

Comment 1

General Comment #1: The City notes that a significant upgrade of the Peirce Island WWTF was recently completed converting it from a chemically enhanced primary treatment facility to a tertiary level treatment facility providing nitrogen removal. With the facility online since January 2020 the average reduction in load has been 87% for TSS (approximately 1,600 lbs/d) and 90% for BOD (approximately 2,000 lbs/d). This massive reduction in load from this 6.13 MGD (previous design 4.8 MGD) facility dramatically changed the load profile discharged to the Piscataqua River. This change has actually created additional assimilative capacity in the river that would not have been captured when the anti-degradation water quality measurements were completed for the letter dated November 14, 2013. This is significant as EPA reviews the City's comments related to BOD and TSS mass loadings and other new permit limits placed on toxics (copper, cyanide, and arsenic). EPA must consider this additional assimilative capacity and water quality improvements by the Peirce Island WWTF for all relevant purposes in the renewed Peirce Island WWTF NPDES permit.

The 2007 permit was based on the 4.8 MGD which preceded the 2012 Consent Decree between the City, EPA and NHDES, Second Modification (CD Mod) which required a 6.13 MGD plant upgrade. The plans were approved by EPA and DES with the 6.13 MGD flow (and based on certain concentrations for design basis – see below comment). The modification in the design flow and the modification in the Consent Decree has been previously brought to the EPA's attention through Consent Decree related communications. It appears these communications were not considered in the permit particularly as it relates to the BOD and TSS mass load limits.

The permit mass limits should be based on the 6.13 MGD treatment facility flow or this permit should be placed on hold so the NHDES can conduct an updated antidegradation study. There are no environmental disadvantages or harm by delaying the issuance of the permit since the City is already treating to compliance of the 2007 permit and conducting projects related to the Long Term Control Plan and infiltration and inflow reduction.

Response 1

The comment asserts that the mass-based limits in the permit should be calculated using the WWTF's current design flow of 6.13 MGD rather than the prior design flow of 4.8 MGD. The permit uses the prior design flow of 4.8 MGD in setting mass-based limits for four pollutants: BOD, TSS, arsenic, and cyanide. The City offered comments specifically questioning the flow limit itself (Comment 2) and the use of the flow of 4.8 MGD in calculating the BOD and TSS limits (Comment 7), but did not question the use of 4.8 MGD related to cyanide (Comment 15) and even seemed to support the use of 4.8 MGD in the comment related to arsenic (Comment 14). Accordingly, EPA refers to those responses in response to this general comment. *See* Responses 2, 7, 14 and 15. EPA notes that it conducted its reasonable potential analysis for metals and ammonia (summarized in Appendix C of the Fact Sheet) using the new design flow of 6.13 MGD, though this analysis did not result in the need for any effluent limits.

Comment 2

Monthly Average Flow Limit – Permit Page 3. The City objects to the imposition of a monthly average flow limit. As explained below, flow is not a pollutant. It is also unnecessary given the

mass and concentration limits imposed (which are based upon maximum design flow into instream drought flow levels).

As the City's DMR flow data demonstrate, peak POTW flows generally correspond to wet weather conditions (when instream conditions are also well above drought conditions due to the wet weather events). With few exceptions (only rare dry weather rainstorm), those two circumstances (maximum POTW flow into drought receiving stream conditions) do not occur together and, accordingly, are not a rational basis for imposing a flow limit. This fact – that POTW flow cannot exceed design flow during drought conditions – undermines almost all of EPA's arguments in the permit Fact Sheet (see section 2.3) about ensuring that flows beyond design flows are not discharged during "worst case conditions". If that is truly EPA's concern, then EPA could simply tailor the effluent flow limit to apply only when instream flow conditions are at or below the "worst case conditions" on which the permit effluent limits are derived. The City would gladly accept such a condition. Peak POTW flows are simply not an issue during worst case design (drought) instream conditions.

EPA's monthly average limit does not actually prevent a higher daily POTW flow during drought conditions. For example, the monthly average limit could allow daily flows at 3, 4, or 5 times the facility's design flow during one day or even over a series of days while the facility could still meet the monthly average flow limitation. Thus, a concern about higher POTW flows during drought/"worst case" conditions is not a rational basis to impose a flow limit. The fact that EPA issues NPDES permits without flow limits (such as for the Blue Plains facility in Washington, DC as well as all POTW Permits in Idaho) further reinforces that flow limits are unnecessary to protect water quality. See the DC Water Blue Plains NPDES Permit, Fact Sheet, and Response-to-Comments document here: https://www.epa.gov/npdes-permits/district-columbia-npdes-permits.

EPA also asserts that its flow limits serve to control inflow and infiltration in the collection system. That is not legally valid for several reasons including (1) Paragraph 3 on Page 12 of the permit speaks specifically to controlling inflow and infiltration to prevent sewer overflows and permit exceedances due to excessive inflow and infiltration; (2) the provision on Page 28 (6.c) which limits flows that can be accepted by POTWs which are operating in excess of 80 percent of their design loading, and (3) page 29, Paragraph 10 which also specifically addresses POTW capacity assurance. See also, Fact Sheet Section 5.4. EPA does not need a flow limit to ensure against POTW and collection system capacity exceedances when these specific provisions are imposed.

Finally, the City questions EPA's legal authority to limit the flow that can be discharged from a POTW. In one of the most significant Clean Water Act decisions in the last thirty years, the U.S. District Court for the Eastern District of Virginia issued an opinion holding that EPA lacks authority under the Clean Water Act to regulate flow in a TMDL. Fairfax County and the Virginia Department of Transportation (VDOT) appealed a TMDL issued by EPA establishing flow limits for Accotink Creek in Northern Virginia. The flow limits were intended to reduce the amount of sediment in the creek. Fairfax and VDOT successfully argued that the Clean Water Act clearly denies EPA the authority to regulate flow, even as a surrogate for a pollutant such as sediment. United States District Court Judge Liam O'Grady conducted an analysis under *Chevron* Step 1, concluding that, under the plain language of the statute, EPA unambiguously does not have authority to establish TMDLs for non-pollutants, such as flow, as surrogates for pollutants. The

court invalidated any interpretation of EPA's regulations that would allow the agency to regulate non-pollutants such as flow. The decision went on to find that, even with the deference that would be accorded to EPA in a *Chevron* Step 2 analysis, EPA's interpretation of the Clean Water Act to allow the regulation of flow would be an impermissible construction of the statute [*Virginia Department of Transportation et al v. United States Environmental Protection Agency et al., case number 1:12-cv-00775*].

The Peirce Island facility serves a combined sewer system. Accordingly, the monthly average flow limit stands in direct conflict with the permit requirement at Part I.H.3 to maximize flow to the POTW. EPA must remove this unnecessary limit or the City may be forced to throttle back CSO flow should it approach the monthly average flow limit in any given month. This is obviously not the right environmental result (more untreated sewage) and is the reason other EPA Regional offices do not impose flow limits, especially on CSO communities. See the EPA NPDES permit/fact sheet for the District of Columbia's Blue Plains facility (incorporated by reference herein) as an example.

Finally, the Fact Sheet (Section 5.1.1) concedes that the City has already exceeded the proposed 6.13 MGD monthly average flow limit ("The DMR data during the review period show that the median average monthly flow ranged from 2.39 MGD to 7.99 MGD with a median flow of 3.953."). The conflict between the unnecessary flow limit and the City's obligation to maximize peak wet weather flows to the plant is a present compliance issue for the City.

EPA could readily address this conflict by simply specifying that the flows for dry weather days only (defined as any day where there is less than 0.1 inch of rainfall and there is no snow melt) be included in the calculation of the monthly average POTW flow. Otherwise, the flow limit sets the City up to fail given the conflicting CSO Nine Minimum Control requirement to maximize flow to the POTW and the unnecessary 6.13 MGD monthly average flow limit.

Response 2

This comment raises several objections to the proposed effluent flow limits in the Draft Permit. First, the comment asserts that maximum design flow and instream drought levels would not occur simultaneously. Second, the comment notes that other permits in Washington, D.C. or Idaho do not include effluent flow limits. Third, the comment asserts that EPA's assertion that its flow limits serve to control inflow and infiltration in the collection system is not legally valid and that an effluent flow limit is not necessary to prevent inflow and infiltration (I/I) or other capacity issues because the permit has other provisions to prevent these. Fourth, the comment references a court case concerning a TMDL in Virginia addressing flow. Fifth, the comment states that a flow limit stands in direct conflict with the permit requirement at Part I.H.3 to maximize flow to the POTW and must be removed in order to avoid forcing the City to throttle back CSO flows to the facility. Finally, the comment notes that the City has already exceeded the proposed 6.13 MGD monthly average flow limit and requests that the calculation of the monthly average flow only include dry weather days. These six aspects of the comment are responded to in order below.

First, EPA notes that a NPDES permit allows a facility to discharge wastewater in accordance with the limitations set forth in the permit. In this case, the Peirce Island

WWTF may discharge effluent flow up to the flow limit as an annual average flow. EPA acknowledges that the effluent flow at this facility is likely to vary throughout the year and is likely to be higher under wet weather conditions due to the I/I present in the collection system. However, the permit allows the facility to discharge up to the flow limit under all instream conditions. Therefore, EPA has chosen this as the "worst case" condition to evaluate the need to establish effluent limitations because this is what the permit allows. Establishing water quality-based effluent limitations that are sufficiently protective to meet in-stream water quality criteria requires EPA to account for both wastewater effluent and receiving water flows under critical conditions, as EPA explained in the Fact Sheet. Conditions imposed by EPA to limit wastewater effluent flows from the facility for the permit term are designed to assure that the facility's pollutant discharges do not result in excursions above in-stream water quality criteria, in accordance with section 301(b)(1)(C) of the Act and implementing regulations. 40 CFR §§ 122.4(d), 122.44(d)(1), 122.44(d)(1)(vii)(A), 122.44(d)(5).

The comment refers to the limit as a "monthly average limit" but EPA notes that it is actually a rolling annual average limit. EPA reported the recent range in monthly average flows in the Fact Sheet[1], but did not state, as the commenter asserts, that the highest monthly average flow reported during the review period would cause a violation of the proposed annual average flow limit since monthly average flow is not the limited parameter. EPA acknowledges that effluent flow volumes can vary in the short-term but EPA must make a reasonable estimate of worst-case effluent flow volume in order to evaluate appropriate limits as discussed above. Again, EPA considers that the design flow of the facility is the appropriate effluent flow value for this analysis.
As stated in the Fact Sheet, using a facility's design flow in the derivation of pollutant effluent limitations, including conditions to limit wastewater effluent flow, is fully consistent with, and anticipated by NPDES permit regulations. 40 CFR § 122.45(b)(1) provides, "permit effluent limitations…shall be calculated based on design flow." POTW permit applications are required to include the design flow of the treatment facility. Id. § 122.21(j)(1)(vi).

Most trenchantly, 40 CFR § 122.4(d) prohibits issuance of an NPDES permit "[w]hen the imposition of conditions cannot *ensure* [emphasis added] compliance with the applicable water quality requirements of all affected States." Section 122.44(d)(1) is similarly broad in scope and obligates the Region to include in NPDES permits "any requirements…necessary to: (1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality." "Congress has vested in the Administrator [of EPA] broad discretion to establish conditions for NPDES permits" in order to achieve the statutory mandates of Section 301 and 402. Arkansas v. Oklahoma, 503 U.S. 91, 105 (1992). Under CWA section 402, EPA may issue NPDES permits "for the discharge of any pollutant, or combination of pollutants" if the permit conditions assure that the discharge complies with certain requirements,

[1] EPA notes an error in the sentence cited in the fact sheet. The corrected sentence should be: "The DMR data during the review period show that the average monthly flows ranged from 2.39 MGD to 7.99 MGD with a median **average monthly** flow of 3.953."

including those of section 301 of the CWA. The Act defines "pollutant" to mean, inter alia, "municipal . . . waste" and "sewage…discharged into water." CWA § 502(6).

EPA has implemented Sections 301(b)(1)(C) and 402 of the Act through numerous regulations, which specify when the Region must include specific permit conditions, water quality-based effluent limitations or other requirements in NPDES permits. The wastewater effluent flow limit is a condition designed to ensure that WQS will be met. More specifically, EPA based both its reasonable potential calculations and its permit effluent limitations for individual pollutants on a presumed maximum wastewater effluent discharge from the facility. EPA's reasonable potential regulations require EPA to consider "where appropriate, the dilution of the effluent in the receiving water," 40 CFR § 122.44(d)(1)(ii), which is a function of both the wastewater effluent flow and receiving water flow. EPA guidance directs that this reasonable potential analysis be based on critical conditions. EPA, accordingly, is authorized to carry out its reasonable potential analysis by presuming that a plant is operating at its design flow (*i.e.*, 6.13 MGD) during critical instream conditions (*i.e.*, 7Q10) when assessing reasonable potential.

To the extent the comment is suggesting that the effluent flow limit itself is not necessary because this effluent flow would not occur during periods of instream drought conditions, EPA disagrees. If there were no annual average flow limit then the facility could presumably increase its annual average flow significantly to the point that even the low variation of the flow is above the original design flow used in the development of the permit limits. Therefore, EPA asserts that the flow limit prevents the flow from exceeding the design flow under worst case ambient conditions and is necessary as a backstop to protect WQS throughout the permit term.

Second, the commenter's reference to other areas of the country that do not have effluent flow limits is not relevant. Even many POTW permits within NH (such as the one for Peirce Island WWTF) did not historically have effluent flow limits, but that does not mean that EPA is precluded from ever establishing them based on an updated permitting approach. Rather, there may be different ways to establish protective permit limits based on the applicable regulations and water quality standards in effect at the time a permit is developed, and EPA has determined, in this case, that an effluent flow limit for the Peirce Island WWTF is necessary to continue to be protective of water quality standards for the reasons described in the Fact Sheet and in this response. Moreover, EPA Region 1 has included limits on the wastewater effluent flow from POTWs, based on the design capacity of the facility, throughout Massachusetts (114 facilities since 1984) and increasingly in New Hampshire (25 facilities since 2005). Moreover, States and other EPA Regions have issued over 3,750 NPDES permits to POTWs with similar limits in other parts of the country.

Third, regarding I/I and other capacity issues EPA acknowledges that the permit includes the three provisions referenced in the comment related to these issues.

Part I.C.3 of the permit says, “The Permittee a 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.” This provision works in conjunction with the effluent flow limit given that this provision, by itself, cannot ensure that the effluent flow does not exceed 100% design flow capacity during the permit term. Rather, this provision is designed to ensure I/I does not cause a violation of the permit limits, including the annual average effluent flow limit, to protect water quality standards.

In Part I.K.6.c of the permit, NHDES requires an application for a sewer connection permit for any new connection to a WWTP operating above 80% design flow capacity. This provision also works in conjunction with the effluent flow limit given that this provision, by itself, cannot ensure that the effluent flow does not exceed 100% design flow capacity during the permit term. For example, existing connections may increase during the permit term which would not be subject to such an application and may result in flows exceeding the design flow capacity. In the case of the Peirce Island WWTF, the facility is already designed with a bypass, so it is likely that excess flows that are accepted at the treatment plant during storm events would likely be bypassed and only receive chlorination.

In Part I.K.10 of the permit, NHDES requires the Permittee to plan for facility improvements as flows exceed 80% of the design flow capacity. The provisions states “the Permittee shall submit to the permitting authorities a projection of flows and loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans. Before the design flow will be reached, or whenever treatment necessary to achieve permit limits cannot be assured, the Permittee may be required to submit plans for facility improvements.” This provision also works in conjunction with the effluent flow limit given that this provision, by itself, cannot ensure that the effluent flow does not exceed 100% design flow capacity during the permit term. Rather, this provision ensures that the facility “plans” for expected flow increases in a manner that will comply with their permit limits. Without the effluent flow limit, a Permittee could merely submit these facility improvement plans in accordance with this provision and then proceed to discharge above the design flow capacity of the facility. Such discharges would potentially cause or contribute to violations of water quality standards given that they exceed the assumptions applied in developing the permit limits. Additionally, such an increase in pollutant loading beyond the design flow would potentially violate antidegradation provisions without the necessary antidegradation review. To avoid this, EPA must include an effluent flow limit in the permit based on the design capacity. If an increase in flow above the current design flow capacity is necessary, the Permittee may request an increase in the effluent flow limit through a permit modification or permit reissuance based on the facility improvement plans and other necessary information to ensure protection of all WQS, including antidegradation provisions, at the higher effluent flow. If approved by EPA and NHDES, the effluent flow limit in the permit may be increased after the design flow capacity of the facility has been increased.

Fourth, the commenter's citation to a TMDL appealed by Virginia DOT is not relevant to this proceeding. That case concerned EPA's approval of TMDLs under Section 303 of the Act, not the development of reasonable effluent limitations under separate and distinct authority governing the NPDES permitting process—Sections 301, 402 and implementing regulations.

Fifth, the commenter notes that the monthly average flow limit stands in direct conflict with the permit requirement at Part I.H.3 to maximize flow to the POTW. Further, the commenter states that EPA must remove this unnecessary limit or the City may be forced to throttle back CSO flow should it approach the monthly average flow limit in any given month. Finally (sixth), the commenter notes that the City has already exceeded the proposed 6.13 MGD monthly average flow limit and requests that the calculation of the monthly average flow only include dry weather days. As pointed out above, these assertions reflect an incorrect understanding of the flow limit. The flow limit is not a monthly average limit as suggested in the comment but is a 12-month rolling average limit. There were no cases where the 12-month rolling average of 6.13 MGD was exceeded. In fact, the highest 12-month rolling average flow during the review period was 4.76 MGD[2] which is well below the permit limit. Therefore, higher monthly average flows (even well above 6.13 MGD) may occur seasonally due to storm events and/or elevated levels of I/I and would not be expected to result in an exceedance of the 12-month rolling average limit, nor would they deter the maximization of flows to the WWTF during wet weather. As noted in the Fact Sheet, the imposition of a 12-month rolling average flow limit accounts for the monthly variation in flows, including periods of wet weather. Additionally, although the permit requires maximization of flow to the WWTF, this does not require that the City do so in disregard of all other permit terms. Indeed, EPA guidance for the Nine Minimum Controls ("NMCs") for CSOs states that the fourth minimum control, maximizing flow to the POTW, "requires particular attention to regulatory considerations as well as treatment and capacity considerations. Although many POTWs have the physical capacity to accept increased flows during wet weather events, the regulatory and technical issues must be addressed, however, in order to ensure that flow maximization provides a net environmental benefit."[3]

EPA also notes that it recently addressed nearly identical arguments challenging an effluent flow limit in an appeal of the City of Lowell's wastewater treatment facility. In that case, the Environmental Appeals Board upheld the Region's inclusion of an effluent flow limit and rejected many of the same arguments that the City asserts in its comment. *See In re: City of Lowell*, 18 E.A.D. 115, 154-160 (E.A.B. 2020).

Therefore, EPA confirms that the effluent flow limit is necessary and appropriate, and this comment does not result in any change to the Final Permit.

[2] Calculated as a rolling 12-month average of the average monthly flow data presented in Appendix A of the Fact Sheet from January 2017 through November 2021.

[3] U.S. EPA, Office of Water, 1995, "Combined Sewer Overflows: Guidance for Nine Minimum Controls," EPA-832-B-95-003, p. 5-2.

Comment 3

The Permit Should Expressly Memorialize the City's High Flow Management Practice. While the Fact Sheet (Section 3.1.1) acknowledges the City's peak flow blending approach, the permit is silent. This is our Phase II CSO Permit under the CSO Policy (Section IV.B.2) and CWA Section 402(q) and, accordingly, it must at least acknowledge and authorize the City's high flow management program.

The City recently finished installing the blending line as part of the EPA and DES approved facility upgrade (also required by the CD Mod), which allows the City to maximize flows treated at the plant by routing some peak wet weather-related flows (that have received preliminary and enhanced primary treatment) around the secondary treatment system (BAF) before recombining with secondary effluent for further treatment through disinfection and discharge. That blending line has been a key component of the City's approved Long Term CSO Control Plan. While blending is not a bypass (see **Attachment A**) the City asks that EPA include the following provision in our permit (as it has included similar language for other New Hampshire communities, such as Manchester (**NPDES Permit No. NH0100447)**):

> During normal operating conditions, influent flows up to 9 MGD will receive full treatment while flows in excess of 9 MGD may be routed around secondary treatment before being recombined with secondary effluent for disinfection and discharge. When blending occurs, the blended effluent shall be subject to the effluent limitations in Part I.A.1.a above.

Response 3

This comment requests that EPA authorize "blended" effluent for flows in excess of 9 MGD. EPA acknowledges that the facility is designed to allow for short-term bypassing of the biological aerated filter (BAF) system as described in the Fact Sheet. This bypassed flow receives primary treatment and chlorination once it is blended with flows that have received secondary treatment. Footnote 5 in Part I.A.1. of the Draft Permit acknowledged that bypass of secondary treatment could occur, as stated below:

> "When bypass occurs, the blended effluent shall be subject to the effluent limitations in Part I.A.1.a above and all bypasses shall be reported by the Permittee to EPA and NHDES pursuant to Part I.J.6 below."

This language has been modified in the Final Permit to add additional clarity that the applicable effluent limitations are end-of-pipe limits, and the revised text is as follows:

> "When bypass occurs, the blended effluent shall be subject to the end-of-pipe effluent limitations in Part I.A.1.a above and all bypasses shall be reported by the Permittee to EPA and NHDES pursuant to Part I.J.6 below."

Permit conditions related to bypasses of secondary treatment are further set forth in Part II.B.4. of the Final Permit. Specifically, in compliance with section 402(q) of the CWA, Part II.B.4 of the Final Permit incorporates verbatim the relevant regulatory language of

40 CFR § 122.41(m). Under this regulatory provision, "bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

> (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
>
> (B) 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 preventive maintenance; and
>
> (C) The permittee submitted notices as required under paragraph (m)(3) of this section."[4]

However, the regulatory provision further provides that EPA "may approve an anticipated bypass, after considering adverse effects, if [EPA] determines that it will meet the [above] three conditions."[5] Following the approach set forth in Section 7 of the 1994 CSO Control Policy, entitled "Maximizing Treatment at the Existing POTW Treatment Plant," 18688 Fed. Reg. at 18693, EPA may include a CSO-related bypass provision in the permit if there are no feasible alternatives to bypassing under specific conditions. Section 7 of the CSO Control Policy provides that:

> "For approval of a CSO-related bypass, the long-term CSO control plan, at a minimum, should provide justification for the cut-off point at which the flow will be diverted from the secondary treatment portion of the treatment plant, and provide a benefit-cost analysis demonstrating the conveyance of wet weather flow to the POTW for primary treatment is more beneficial than other CSO abatement alternatives such as storage and pump back for secondary treatment, sewer separation, or satellite treatment."
>
> …"[T]he feasible alternatives requirement of the [bypass] regulation can be met if the record shows that the secondary treatment system is properly operated and maintained, that the system has been designed to meet secondary limits for flows greater than the peak dry weather flow, plus an appropriate quantity of wet weather flow, and that it is either technically or financially infeasible to provide secondary treatment at the existing facilities for greater amounts of wet weather flow. The feasible alternative analysis should include, for example, consideration of enhanced primary treatment (e.g., chemical addition) and non-biological secondary treatment. Other bases supporting a finding of no feasible alternative may also be available on a case-by-case basis."

Id. at 18693-94. EPA's Combined Sewer Overflows Guidance for Permit Writers further

[4] 40 CFR § 122.21(m)(4).
[5] *Id*.

articulates that the permittee should "provide adequate justification for the CSO-related bypass and clearly define the wet weather flow conditions and flow rate at which secondary treatment is exceeded." EPA Combined Sewer Overflows Guidance for Permit Writers (Sept. 1995) 4-36. *See also In re: Springfield Water and Sewer Commission*, 18 E.A.D. 430, 443 (E.A.B. May 27, 2021).

In this permit proceeding, the Permittee has not provided adequate justification for the requested provision for bypass of secondary treatment in this permit.[6] For example, the Permittee has not provided a cost-benefit analysis comparing secondary treatment bypass to other CSO-abatement alternatives. EPA requires further information or analysis to support inclusion of CSO-related bypass conditions in the Permit for specific flows.

Consequently, the permit does not approve the bypass of secondary treatment due the absence of adequate justification pursuant to the CSO Control Policy. The Permittee is welcome to submit such documentation for EPA consideration. EPA is ready to work with the Permittee to provide any additional clarification necessary on the type of information it would need to submit to support its request for bypass approval in the permit. Should the Permittee provide adequate information for approval of the CSO-related bypass during this current permit term, EPA will consider modifying the permit to do so.

Importantly, EPA's decision not to include the requested CSO-related bypass provision in the permit does not mean that all bypasses from the facility going forward may not be approved or that the Permittee "may be forced to discontinue bypassing under high-flow conditions," as asserted in the comment. Rather, it means "it is the responsibility of the Permittee to document, on a case-by-case basis, compliance with 40 CFR § 122.41(m) in order to bypass flows legally," 59 Fed. Reg. at 18693 , which is the default, regulatory bypass approach that has been in place in past permits and other Region 1-issued permits for CSO-WWTFs. *See In re: Springfield*, 18 E.A.D. at 482; *In re: City of Lowell*, 2020 WL 3629979 at 58-59.

Comment 4

The Permit Should Expressly Incorporate the City's Approved CSO LTCP.

This Phase II CSO Permit must also memorialize the City's approved CSO Long Term Control Plan and the City's implementation/compliance schedule therein. CSO Policy, Section IV.B.2.b requires that the permit include, among other provisions, "b. Narrative requirements which insure that the selected CSO controls are implemented, operated and maintained as described in the long-term CSO control plan." Section IV.B.2.d requires a schedule to conduct post-construction water quality assessments. The City incorporates all of the Section IV.B.2 Phase II permit requirements herein. The City also incorporates Section IV.B.3 which requires the City Phase II permit to specify "the schedule and milestones for implementation of the long-term CSO control plan."

[6] The burden to provide such justification is on the Permittee. *See In re: Springfield*, 18 E.A.D. at 481 ("Thus, the onus to demonstrate that a CSO-related bypass provision is warranted in a permit lies with the permittee"); *In re: City of Lowell*, 2020 WL 3629979 (E.A.B. June 29, 2020) at 58-59, n.36 (noting that "CSO Policy emphasize[s] that the permittee bears the burden of showing that there is no feasible alternative to bypass of treatment").

While some of the City's CSO LTCP requirements and schedule are noted in the Fact Sheet on pages 34-35, the LTCP and compliance schedule should be memorialized in the body of the permit (page 23) to comply with the Phase II CSO Policy permitting requirements. The City recommends a meeting between the NHDES and the EPA to discuss the status of the LTCP projects because the project have changed in scope and complexity as summarized in the City's monthly Consent Decree reports located at https://www.cityofportsmouth.com/publicworks/wastewater/resources#CD.

Response 4

The CSO Policy sets out a phased approach to CSO permitting. The immediate requirement for CSO permits are: (1) immediately implement the BAT/BCT, which includes at a minimum the NMCs; (2) submit a report documenting such implementation; (3) comply with applicable WQS, no later than the date allowed under the State's WQS, "expressed in the form of a narrative limitation;" and (4) develop and submit a LTCP.[7] Once a permittee has developed a LTCP and selected controls necessary to achieve WQS, the CSO Policy articulates the following, among other elements, for inclusion in CSO permits: (1) requirements to implement the NMCs and (2) water quality-based effluent limits under 40 CFR § 122.44(d)(1) and 122.44(k), requiring, at a minimum, numeric performance standards for the selected CSO controls.[8]

The City misreads the CSO Policy to require inclusion of the LTCP in the NPDES permit. Analogous to the flexibility provided to the permitting authority for selecting the appropriate document in which to enshrine the *submission* requirement for the LTCP, the CSO Policy directs the permitting authority to determine the "appropriate enforceable mechanism," NPDES permit or otherwise, in which to include requirements for *implementation* of the LTCP. CSO Policy at 18695.[9]

For CSO permits in Region 1, EPA has and continues to require implementation of the NMCs. Development of LTCPs, on the other hand, has been and continues to be addressed as part of enforcement actions taken by Region 1's Enforcement and Compliance Assurance Division. This approach is consistent with the CSO Control Policy, which states that "Once the permittee has completed development of the long-term CSC control plan and the selection of the controls necessary to meet CWA requirements has been coordinated with the permitting and WQS authorities, the permitting authority should include, in an appropriate enforceable mechanism, requirements for implementation of the Long-term CSO control plan as soon as practicable". USEPA 1994 CSO Control Policy, Part IV.B.2.

EPA or the relevant state has worked with virtually every CSO community in New England to develop CSO abatement schedules to be memorialized in administrative or judicial enforcement mechanisms. As necessary, such schedules are adjusted to reflect new information and evolving financial conditions.

[7] 59 Fed. Reg. at 18696.
[8] *Id*.
[9] National CSO Control Policy, 59 Fed. Reg. 18696 (1994).

As noted by the permittee, the selected controls and projects identified in the City's LTCP have changed in "scope and complexity". Requests to discuss such changes should be directed to the Region 1's Enforcement and Compliance Assurance Division.

Comment 5

Daily Maximum Limits for BOD and TSS. The City objects to the daily maximum limits for BOD and TSS. The daily maximum limits for BOD and TSS are legally inconsistent with EPA's regulations, which (1) specify monthly/weekly technology-based BOD/TSS limits (secondary treatment) and (2) require monthly and weekly average limits, unless impracticable [*40 CFR § 122.45(d)(2)*]. The development of average monthly and weekly permit limits for BOD and TSS are clearly not impracticable, because EPA has, in fact, imposed them in the permit as well. The City also notes that the vast majority of POTW permits in the country have monthly/weekly only limits for BOD and TSS – including facilities such as the District of Columbia's Blue Plains treatment plant (permit issued by EPA Headquarters/Region III, incorporated herein by reference).

The City is aware that EPA has removed such daily maximum BOD and TSS limits from other POTW permits in the region, including in Massachusetts. There is nothing in EPA's regulation which authorizes best professional judgement based daily maximum effluent limits for the Peirce Island facility.

As with the flow limits addressed above, the daily maximum BOD/TSS limits are also counter-productive environmentally because they are a de facto limit on how much peak wet weather flow the City can take through the Peirce Island treatment facility. It makes no sense to restrict flows into the treatment facility (which flows would then receive treatment - including disinfection) as opposed to discharging those same volumes as untreated combined sewage from the City's permitted CSO outfalls.

The City also notes that even if daily maximum limits were authorized, the expression of the daily maximum TSS limit appears to be incorrect. The City assumes EPA is working from the construct of taking the monthly average (30 mg/L) and multiplying it by 1.5 to get the weekly average (45 mg/L) found in the secondary treatment regulation and then multiplying the monthly average value times "2" to get the daily maximum value of "60". However, the permit includes a highly unusual value of "50" for TSS. EPA does not explain how it calculated the "50" value and the legal basis for its imposition.

EPA's Fact Sheet asserts that the "50" daily max limits for BOD/TSS have been retained due to anti-backsliding requirements. The City disagrees that anti-backsliding applies because there are several exceptions, including permit writer error, that are available to allow removal of this limit, which violates federal regulations which specify monthly/weekly limits including technical/legal mistakes when issuing the permit.[10]

[10] Clean Water Act Section 402(O)**(2) EXCEPTIONS.** A permit with respect to which paragraph (1) applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if -
(A) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

Further if EPA is unwilling to remove or adjust the daily maximum limits for the WWTF, the effluent limits during wet weather will be nearly impossible to meet. The permitted BOD5 and TSS maximum daily concentration is 39.2 mg/L at the design flow of 6.13 mgd. In situations where a portion of the flow is diverted around secondary treatment, during extreme wet periods it may be challenging to meet this requirement.

Response 5

EPA notes that the daily maximum BOD and TSS limits were removed as part of the 2023 Revised Draft Permit. See the 2023 Fact Sheet Supplement for the rationale. Comments received on the 2023 Revised Draft Permit are also presented in Part III of this Response to Comments document below.

Comment 6

Percent Removal Requirements for BOD and TSS. Because the Peirce Island facility serves a combined portion of the City's collection system, applying percent removal requirements in both dry and wet weather is inappropriate. *40 CFR § 133.103(a)* allows for an exception of the 85% removal rate for facilities with a combined collection system. The City requests that a footnote to the effluent limitations and monitoring requirements table on Page 3 that would limit monitoring for 85 percent removal of BOD and TSS to only during dry weather periods. The City understands that EPA Region I has taken this approach for other CSO communities. The Manchester, NH permit, NH0100447, Fact Sheet page 9 of 52 (incorporated by reference) refers to this section of 40 CFR and defines dry weather as "…any calendar day on which there is less than 0.1 inch of rainfall and no snow melt." The City requests the same exception and definition for dry weather to be used for calculating percent removal for BOD and TSS.

Response 6

Regarding the percent removal requirement, EPA notes that the 85 percent removal requirements for BOD_5 and TSS are included in the Draft Permit as technology-based limits for secondary treatment pursuant to 40 CFR § 133.102. However, a special consideration may be made for treatment works with combined sewer systems based on 40 CFR § 133.103(a), which allows for flexibility with respect to percentage removal levels on a case-by-case basis. EPA has determined upon review of the record that an attainable percentage removal level cannot be defined under wet weather conditions. To avoid creating any disincentive to minimize CSO discharges, EPA agrees with the commenter and has added a footnote in Part I.A.1 of the Final Permit to clarify that the 85 percent removal requirement applies only during dry weather (meaning any calendar day during which there is less than 0.1 inches of rainfall and no snow melt). The footnote indicates the following, which is consistent with the requirement in the Manchester, NH permit (NH0100447) as referenced in the comment:

(B) (i) information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or

(ii) the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B) of this section;

> The minimum monthly average of 85 percent removal of both BOD_5 and TSS applies only during dry weather. Dry weather is defined as any calendar day on which there is less than 0.1 inches of rainfall and no snow melt. The percent removal shall be calculated using the average monthly influent and effluent concentrations for samples collected during dry weather days. The Permittee shall attach to its discharge monitoring reports the daily precipitation from the nearest National Weather Service gage, or a gage accepted by the permitting authority.

Comment 7

Mass load limits for BOD and TSS Must be Based Upon 6.13 MGD. EPA asserts that the BOD/TSS mass limits must be the same as those for the 4.8 MGD facility because those mass limits went into effect April 1, 2020:

> "However, since the limits that were based on the design flow of 4.8 MGD went into effect on April 1, 2020, these limits will be carried forward in the Draft Permit due to anti-backsliding requirements." Fact Sheet at 5.1.2.2 and 5.1.3.2.

The City disagrees that anti-backsliding applies to mass loading limits for an expanded facility. See General Comment #1. However, even if anti-backsliding were to apply, there are exceptions to the anti-backsliding rule that will allow the mass limit to be based upon the 6.13 MGD flow. Among other applicable exceptions is the fact that "There have been material and substantial alternations or additions to the permitted facility that justify the relaxation." This exception clearly applies here (and to every other facility expansion nationwide). See Footnote 1 above. Because anti-backsliding is not applicable (or there is an exception) and NHDES' antidegradation review determined that the reissued permit's mass-based TSS and BOD limits could be based on the revised facility design flow of 6.13 MGD, that is how they should be calculated. The City notes here that the NHDES antidegradation analysis did not take into account the materially better performance of the upgraded Peirce Island facility.

Basing the mass limits for a 6.13 MGD facility on the load for a 4.8 MGD plant makes no sense in terms of allowing (never mind requiring) that this facility maximize flows. Other EPA Regions will actually set BOD/TSS mass limits on a peak (rather than long-term average – here 6.13 MGD) flow to allow the facility to accommodate peak wet weather flows. Imposing a <u>daily maximum</u> mass load for BOD/TSS based upon the 4.8 MGD flow will severely restrict the City's ability to comply with the Nine Minimum Controls requirement to maximize flow to the facility. These limits are at regulatory cross purposes. At a minimum these mass loading limits must be based upon the 6.13 MGD flow (if not a higher peak flow). Effluent mass limits should be based on the effluent flow of 6.13 MGD. This would change the effluent average day, average weekly and maximum daily (see comment above) from 1,201 lb/d, 1,801 lb/d, and 2,002 (lb/d), respectively, to 1,500 lb/d, 2,300 lb/d and 2,600 lb/d, respectively (properly rounded to two significant figures).

The anti-degradation review conducted by NHDES in 2013 was based on the WWTF design flow of 6.13 MGD, and standard secondary effluent concentrations of TSS and BOD_5. The anti-degradation review letter noted that the increase in flow and the application of standard

secondary effluent concentrations would result in a decrease in the mass load discharged by the upgraded WWTF when compared to the pre-upgrade WWTF. It noted that further anti-degradation analysis was not required because the upgraded WWTF, even at the increased flow of 6.13 MGD, would still reduce the mass load of BOD_5 and TSS. Ultimately, NHDES' anti-degradation review letter noted that as long as EPA issued the new permit with the BOD_5 and TSS loads of 1,534 lbs/day, no further anti-degradation analysis is required.

Based on NHDES' antidegradation review letter, and with the approval of EPA and NHDES, the City of Portsmouth designed and constructed an upgrade to the Peirce Island WWTF using standard secondary effluent concentrations as the basis of design. Refer to the table below showing a segment of the BAF manufacturer's proposal that was included in the Contract Documents for the project, clearly showing that the WWTF upgrade's design basis was an average monthly effluent concentrations for BOD and TSS of less than or equal to 30 mg/L.

Table 3: BIOSTYR Effluent Achieved – 30 Day Average

Parameter	Units	Value
$CBOD_5$	mg/L	≤ 30
TSS	mg/L	≤ 30
TN[1]	mg/L	≤ 3 (future limit)

[1] The maximum allowable amount of refractory organic nitrogen present in the BIOSTYR influent is < 1.0 mg/L.

As construction of the BAF was concluding, the City wrote a letter to EPA dated February 11, 2020 amending their prior NPDES permit application. The letter clearly references a design flow of 6.13 MGD and effluent mass loads corresponding to standard secondary effluent concentrations at that flow rate. The EPA did not register objections to either NHDES' anti-degradation analysis in 2013, the numerous documents submitted during the City's design and construction of the WWTF upgrade, or the City's 2020 limit.

The City requests that EPA change the draft NPDES permit so that the effluent mass loads for BOD_5 and TSS are 1,500 lb/d, 2,300 lb/d, and 2,600 lb/d (See previous comment also regarding requesting the removal of daily maximum limits).

Finally, the City is surprised at EPAs assertion that mass limits have to be based on 4.8 MGD given the City's understanding that as part of the Consent Decree implementation that the expanded facilities mass limits would be based on the 6.13 MGD flow. See General Comment #1.

Response 7

EPA notes that the mass-based BOD and TSS limits were revised to be based on 6.13 MGD as part of the 2023 Revised Draft Permit. See the 2023 Fact Sheet Supplement for

the rationale. Comments received on the 2023 Revised Draft Permit are also presented in Part III of this Response to Comments document below.

Comment 8

Bacteria Frequency of Monitoring. The City asks that the frequency of monitoring for both enterococci and fecal coliform be reduced. During the winter season (October 1 through April 30), the City believes the frequency should be once per week and 2 or 3 times during the summer season (May 1 through September 30).

Response 8

This year-round, daily sampling frequency is consistent with the *EPA/DES Effluent Monitoring Guidance*, revised July 19, 1999. Given that the City did not provide any rationale for this requested reduction, the comment does not result in any change to the Final Permit.

Comment 9

Compliance Schedule for Fecal Coliform Daily Maximum. The draft permit reduces the stringency of the City's fecal coliform limit from no more than 10 percent can exceed 43MPN/100mL to 28MPN/100mL. The City asks for a two year compliance schedule so the City can evaluate how to meet this more stringent limit. The Fact Sheet at Section 5.1.6 notes that the City has exceeded the 43 MPN during the prior permit term so a short, two-year compliance schedule before this limit is reduced is warranted. The City believes this is the most stringent bacteria limit for any facility in the country. As noted below, on top of this more stringent limit, the draft permit imposes a new Enterococci limit. The City needs a reasonable period of time to determine how to meet the more stringent fecal limit and the new enterococci limit while complying with our residual chlorine limit.

Response 9

EPA notes that a compliance schedule in a permit must comply with 40 CFR § 122.47(a) and (a)(1) which indicates that a permitting authority must make a reasonable determination that a schedule of compliance is "appropriate" and that the schedule proposed requires compliance "as soon as possible."

Although the commenter states that the Fact Sheet indicated the Fecal Coliform limit of not more than 10% of samples exceeding 43 per 100 mL has been exceeded, EPA disagrees and notes that the Fact Sheet indicated that it had not been exceeded during the 5-year review period ending November 30, 2021. During the review period, the highest percentage of monthly samples that exceeded 43 per 100 mL was 6.7 as shown in Appendix A of the Fact Sheet. Given that the DMR results only indicate the percent of samples that exceeded a MPN of 43 per 100 mL (rather than the actual MPN value for each sample), it is not clear from the DMR data what percent of samples exceeded a MPN of 28 per 100 mL. Given that historic compliance with the new limit it is not clear, EPA has determined that a one (1) year compliance schedule to allow the Permittee to come into compliance with the revised limit is warranted. During this first year, the limit shall be maintained as not more than 10% of the samples shall exceed a MPN of 43 per 100 mL.

The City commented that the revised fecal coliform limit is the most stringent "bacteria" limit for any facility in the country. EPA has not compared this fecal coliform limit with other limits (for fecal coliform or other indicator bacteria) throughout the country but notes that the NH WQS require this fecal coliform limit to protect shellfishing uses and EPA is establishing the same limits based on these WQS in other coastal NPDES permits in New Hampshire (*e.g.*, Exeter, Pease). In addition, some NPDES permits in Massachusetts have more stringent fecal coliform limits based on relevant MA WQS. For example, the Plymouth WWTF permit (MA0100587) has monthly average and daily maximum fecal coliform limits of 14 and 28 cfu/100 mL and the Mass Maritime Academy permit (MA0024368) has fecal coliform limits of 14 cfu/100mL and 43 cfu/100 mL. Additionally, two discharges to SA waters in MA (Cohasset and USCG Boston Light) under the Small WWTF General Permit (MAG580000) have fecal coliform limits of 14 and 28 colonies/100 ml. For each of these MA permits, the monthly average limits are expressed as geometric means and the daily maximum limits apply directly as daily maximum values rather than allowing up to 10% of the samples to exceed that value in any given month.

Comment 10

Enterococci compliance schedule. The City requests a three-year compliance schedule for the newly proposed enterococci limits. The City is particularly concerned about the daily maximum limit, which the Fact Sheet (Section 5.1.6) notes has been exceeded (max value of 1966 compared to the 104 daily max requirement). The City is concerned about its ability to meet the 104 daily maximum compounded by the need to simultaneously meet the very strict fecal coliform limit, both while still meeting the City's chlorine residual requirement. The City believes the daily maximum limit for enterococci may be more difficult than the fecal coliform limit (which allows greater flexibility – some samples can exceed the 28 /100mLs requirement) for the facility to meet. The City will not know until the City performs some comparative sampling and then implements any optimization steps to confirm compliance with both bacterial indicators while also staying below the chlorine residual requirement.

The City notes that the imposition of the 104/100mL Enterococci limit as a never-to-be-exceeded single sample maximum makes the 35/100mL geometric mean much more stringent. The City will have to achieve a geometric mean well below 35/100mL in order to achieve the never-to-exceed 104/100mL daily maximum limit. This was expressly not intended by EPA when it developed this criterion:

> The 1986 criteria contained four different SSM values corresponding to the 75th, 82nd, 90th, and 95th percentiles of the expected water quality sampling distribution at the GM criteria value. EPA recommended using different SSM values on the basis of the use intensity of the recreational water. However, treating the SSM as a never to be exceeded value for such an evaluation would impart a level of protection much more stringent than intended by the 1986 criteria GM value. For example, a marine beach that is in compliance with the 1986 GM criteria for enterococci (GM = 35 cfu per 100 mL) would be expected to have 25% of the sample values above 104 cfu per 100 mL (the 75th percentile of the expected water quality sample distribution) because of expected

variability in individual water quality measurements. Expecting that beach to never exceed 104 cfu per 100 mL would require an actual GM much lower, associated with a lower illness rate, than the recommended GM criterion value. https://www.epa.gov/sites/default/files/2015-10/documents/rwqc2012.pdf

Moreover, as explained above (incorporated by reference herein) regarding the City's objection to the daily maximum BOD/TSS effluent limits, federal regulations require that POTW permit limits be established as monthly/weekly limits unless impracticable. EPA makes no attempt whatsoever to explain why it is impractical to establish monthly/weekly rather than monthly/daily bacteria limits. EPA also fails to explain why a daily maximum bacteria limits is necessary in this permit. It is arbitrary and capricious for EPA to impose a limit in one permit that it does not impose in another without explaining its rationale for treating dischargers differently. This is especially the case when EPA's approach (never-to-exceed daily maximum limit) is directly contrary to its own explanation as to how the enterococci standard is supposed to be implemented.

Finally, the daily maximum fecal limits is imposed at the end-of-pipe. The City gets 41 dilutions so these are extremely conservative bacteria requirements even if just the geometric mean monthly average requirement were imposed. Adding never-to-exceed daily maximum requirements at or below the instream standard is excessive. At a minimum, the City should be allowed to exceed the daily maximum 104/100mL at least up to 10 percent of the time (while still meeting the 35/100mL monthly average geometric mean).

Response 10

First, the commenter requests a three-year compliance schedule for the newly proposed *Enterococci* limits. Second, the commenter questions EPA's interpretation of the *Enterococci* limit. Third, the commenter claims that EPA makes no attempt to explain why it is impractical to establish monthly/weekly rather than monthly/daily bacteria limits, citing EPA regulations that require that POTW permit limits be established as monthly/weekly limits unless impracticable. Fourth, the commenter requests consideration of dilution in setting end-of-pipe fecal coliform limits. Finally, the commenter suggests that it should be allowed to exceed the daily maximum 104/100mL at least up to 10 percent of the time (while still meeting the 35/100mL monthly average geometric mean).

First, regarding the new *Enterococci* limits, EPA notes that while the Consent Decree requirement was "report only", the reported levels *of Enterococci* over the 5-year review were less than the proposed the monthly average and daily maximum limits on all but one occasion. At the same time, the Permittee consistently met its TRC limits. Although the comment references an extreme discharge of 1,966/100mL, EPA notes that this was the only one excursion of 104/100mL over the 5-year review period. It therefore appears that the City has already effectively optimized its chlorination system to meet these proposed limits and a compliance schedule for *Enterococci* is not warranted under 40 CFR § 122.47(a) and (a)(1).

Second, the commenter questions EPA's interpretation of the *Enterococci* limit. EPA publishes criteria recommendations that are derived using a wide range of statistical

approaches and the States often adopt these standards expressed as specific, numeric limits. In turn, EPA must implement these WQS as written. In this case, the specific water quality standard for *Enterococci* adopted by New Hampshire (reproduced in this response below) must be implemented as written. EPA does not have the discretion to revert back to national guidance in lieu of applying the State's water quality standard.

Third, the Permittee commented that federal regulations require that POTW permit limits be established as monthly/weekly limits unless impracticable and that EPA makes no attempt whatsoever to explain why it is impractical to establish monthly/weekly rather than monthly/daily bacteria limits. EPA notes that the language included in New Hampshire's WQS make it impracticable to apply only monthly and weekly limits while ensuring compliance with WQS. More specifically, the WQS at RSA 485-A:8, V. read as follows:

> "Tidal waters utilized for swimming purposes shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 35 enterococci per 100 milliliters, **or 104 enterococci per 100 milliliters in any one sample**, unless naturally occurring."

Although these WQS are not expressed in the form of monthly average and daily maximum, EPA permits are required to express limits as monthly or weekly average and where appropriate, as daily maximum limits. See 40 CFR §122.45(d). For *Enterococci*, since no one sample can exceed 104 per 100 mL, EPA has determined that expressing this as a daily maximum limit will serve the purpose of protecting recreational uses from acute bacteria levels and that it would be impracticable to express this as a weekly average limit. In other words, the maximum daily limit is necessary to assure that the Permit contains effluent limitations that attain and maintain the State's WQS. *See* CWA § 301(b)(1)(C); 40 CFR § 122.44 (d).

Fourth, regarding the commenter's request for consideration of dilution for bacteria limits, EPA notes that the applicable bacteria limits are required to be achieved at the end of pipe, as cited below from the NH WQS at Part Env-Wq 1703.06 - Bacteria:

> (a) Uses and criteria associated with bacteria shall be as set forth in RSA 485-A:8, I, II, and V, as summarized in Appendix E.
> (b) Subject to (c), below, **the bacteria criteria shall be applied at the end of a wastewater treatment facility's discharge pipe**.
> (c) For any combined sewer overflow that discharges into non-tidal surface waters, a bacteria criteria of 1,000 Escherichia coli per 100 milliliters shall apply at the end of the combined sewer overflow's discharge pipe.

Finally, the City suggests that it should be allowed to exceed the daily maximum 104/100 mL at least up to 10 percent of the time. EPA notes that this is not consistent with the NH WQS cited above, which states that the level of 104/100 mL shall not be exceeded in any one sample.

Also see Response 9.

Comment 11

Bacteria Units. The permit calls for enterococci and fecal coliform to be reported in units of coliform forming units per 100 mL or cfu/100mL. These tests are completed using filtered samples. Other allowed testing methods report results in most probably number per 100 mL or MPN/100 mL. The City would like to utilize any allowed sampling method and report in the appropriate unit (cfu/100mL or MPN/100mL). Reporting cfu currently results in a "soft violation" in the DMR system. Note that these units are referenced throughout the permit and should be addressed accordingly.

Response 11

In order for EPA to enter the permit requirements into NetDMR for electronic reporting, the units for each parameter have to be specified. Although the effluent limits table on Page 3 of the Draft Permit did not specify cfu or MPN as the units in which to report bacteria parameters, EPA has chosen to specify units for *Enterococci* and fecal coliform in this permit as MPN rather than cfu, as reflected in footnote 10 on Page 8. EPA notes that MPN is consistent with the units specified in the 2007 Permit as well as the units specified in the 2022 NH statute amendment, referenced in section 5.1.6 of the Fact Sheet. However, EPA notes that the Permittee may use any sampling method approved in 40 CFR Part 136 for these parameters and if the resulting units are expressed in cfu, the Permittee may indicate this in its electronic DMR submission. EPA confirms that this change of units in the NetDMR submission will not result in a permit violation.

Comment 12

Remove the Effluent Limit for Copper. The City disagrees with the basis for the imposition of a copper limit because NHDES' calculations appear to be in error.

The memo, dated August 8, 2016 from AECOM (**Attachment B**), summarizes the methods that NHDES used to support this limit in their anti-degradation letter dated November 14, 2013. In the same memo, AECOM presents additional data copper collected in 2016. The measured maximum effluent copper concentration in 2016 was less than half of that listed in the NHDES study, and the coefficient of variation (COV, the multiplication factor noted in Paragraph 5.1.10.2 of the Fact Sheet) for the 2016 data is lower as well. Based on the data collected in 2016 and applying the updated COV, AECOM concluded that the projected maximum effluent copper concentration is 16 µg/L rather than 32 µg/L. At this projected effluent concentration, the City would not use more than the allowable remaining assimilative capacity in the River and, accordingly, a copper limit is not justified.

Significantly, the City notes that the copper data used in NHDES's evaluation were collected back in 2013 and the AECOM data as collected more recently, in 2016, but all the data was collected before the City's secondary treatment process went online in January 2020. Accordingly, current data should be even better – with higher percent removals – such that the City's effluent levels are even lower today. Thus, antidegradation should no longer be a basis for a copper limit.

Even if antidegradation provided a basis for a copper limit, which it does not, there would be no reasonable potential for the City to exceed such a limit so no limit should be imposed. The City proposes that EPA reevaluate the copper data at each future renewal to verify that there is no exceedance of the 38 ug/L based upon representative copper data that will be provided with the City's application for renewal. If the effluent has reasonable potential to exceed the 38 ug/L threshold in the future then EPA can impose the limit. The City also notes that the 38 ug/L limit is extremely conservative in that it is based upon worst case extreme low flows conditions and maximum POTW discharge – conditions that are mutually exclusive.

Response 12

First, the comment seems to conflate the NHDES antidegradation study with EPA's "reasonable potential" analysis. In subsequent permit reissuances, EPA will perform an analysis to determine whether the discharge has the reasonable potential to cause or contribute to an excursion of WQS. This "reasonable potential" analysis is not intended to verify the prior findings of antidegradation studies.

Second, EPA guidance directs that the reasonable potential analysis be based on critical conditions. EPA, accordingly, is authorized to carry out its reasonable potential analysis by presuming that a plant is operating at its design flow during critical instream conditions (*i.e.*, 7Q10) when assessing reasonable potential. See Response 2.

Third, in light of the effluent copper data conducted by the City in 2016, NHDES has decided to revisit its antidegradation determination from 2013 that recommended an effluent copper limit of 38 µg/l. Using all effluent copper data points available, DES calculated a 99th percentile value of 24 µg/l, which is less than the concentration that would use 20% of the remaining assimilative capacity in the receiving water. As noted in a letter dated October 17, 2022, NHDES would support the removal of the effluent copper limit in the Final Permit.

Therefore, this comment has resulted in the monthly average effluent copper limit of 38 µg/l being removed from the Final Permit. Quarterly ambient and effluent copper monitoring required by the WET testing will ensure adequate data are available to characterize the discharge in the next permit reissuance.

Comment 13

pH Range of 6.5-8 should be changed to 6.0-8.0. The City conducted a pH study with the assistance of Underwood Engineers and the direction of the New Hampshire Department of Environmental Services. The pH study results confirm that the outfall will have no impact on the pH of the receiving water. Accordingly, the lower end of the pH range should be revised to 6.0. Report attached as **Attachment C**.

Response 13

NHDES has reviewed the documents provided by Portsmouth in support of its request for a pH limit modification and disagrees with the conclusion that "No appreciable change in pH occurred when an effluent pH 6.0 volume was mixed in various dilutions with receiving water volume." The resultant pH when the effluent at a pH of 6.0 was mixed

with the receiving water at the facility's permitted dilution of 46.1 was 7.96, which is 26% more acidic than the receiving water pH of 8.07. Per New Hampshire Code of Administrative Rules Env-Wq 1708, DES shall not approve a proposed discharge or activity that would cause a significant change in water quality. With the requested increased design flow, if the facility discharges at a pH of 6.0 S.U., the receiving water will be significantly affected, as demonstrated by the pH study. In particular, given the growing concerns about ocean acidification effects on shellfish and the outfall's location so close to lobster and shellfish habitat, care must be taken relative to instream pH as a stressor. Therefore, NHDES concluded that the pH limit range should not be adjusted and should remain at 6.5-8.0 S.U. Therefore, the pH range in the Final Permit has not been changed.

Comment 14

Arsenic Limit: An arsenic limit has been added that was not in the prior NPDES permit. The Fact Sheet notes that NHDES supports a "monitoring only" requirement for arsenic and reviews the limited data and assumptions on which this requirement is based. EPA notes that they "assume" that this limit represents a "hold the load" effluent limit and that data collected during this permit cycle will be used in future permit cycles to determine if a more stringent permit limit is necessary.

The City agrees with NHDES that the permit should only impose a monitoring requirement for this permit cycle. While reserving our right to challenge a "hold the load limit", the City disagrees that EPA has properly calculated such a limit. The proposed limit was simply calculated using the highest arsenic value from a very limited data set for the facility. Instead of using the highest value from a very limited data set, if EPA wants to truly develop a "hold the load" limit it should apply its decades old reasonable potential calculations to predict the highest arsenic effluent concentration for the existing facility and then calculate a corresponding load at the 2007 permit, 4.8 MGD design flow. That value will be much higher than the 0.36 pounds per day load limit based upon the couple of data points that EPA has. Further, the NHDES has indicated that they are in the process of reconsidering the in-stream water quality criteria for arsenic due to the amount of arsenic that is naturally occurring in the environment.

The City requests a "monitoring only" requirement for arsenic during this permit term, consistent with NHDES' recommendation. The City is willing to collect and submit additional effluent samples for consideration in a subsequent anti-degradation calculation. Alternatively, while reserving our rights to challenge such a limit, EPA should at least apply its standard reasonable potential statistics to predict the highest load from the existing facility (4.8 MGD design) using the data available and then apply that load as the "hold-the-load" effluent mass level going forward.

Response 14

First, as noted on page 26 of the Fact Sheet, NHDES's 2013 antidegradation letter indicated that they support a "monitoring only" requirement but also indicated that Portsmouth should "strive to hold the current load of arsenic" and that "the effluent appears to have reasonable potential to cause or contribute to an exceedance of water quality standards (at both the current flow and proposed flow) and it is likely that EPA

will require a permit limit." Therefore, EPA considers that the limit as described in the Fact Sheet is justified and appropriate.

Second, the commenter seems to consider "reasonable potential statistics" would result in a different "hold the load" limit than the one presented in the comment. While it is not entirely clear what calculations the comment is referring to, EPA will attempt to compare an alternate approach to developing this limit. As described in Appendix C of the Fact Sheet, when EPA has limited data (*i.e.*, less than 10 samples) for a given pollutant, EPA will use the maximum value of those samples (not applying any multiplication factor) in its evaluation of whether the discharge has the reasonable potential to cause or contribute to an excursion of WQS. In this case, the maximum concentration of arsenic was 1.9 ug/L. Using this value to derive a "hold the load" limit at the 4.8 MGD design flow would result in a limit of 0.076 lb/day (0.0019 mg/L x 4.8 MGD x 8.345).

EPA notes that this is significantly more stringent than the "hold the load" limit derived by NHDES using their standard approach of applying a multiplication factor. Given the uncertainty associated with the inorganic fraction of arsenic discussed in the Fact Sheet, EPA considered it appropriate to apply the "hold the load" limit derived in NHDES's 2013 antidegradation letter rather than the much more stringent limit based on EPA's standard statistical approach. Therefore, this comment does not result in any change to the Final Permit.

See also Response 12.

Comment 15

Monthly Average Load Limit for Cyanide - Permit Page 4

The City questions the basis for this limit. The City understands that the upstream (instream) samples for Cyanide were all non-detected (at 0.0015 mg/L) but that NHDES assigned the detection level to each sample. By assigning the detection limit to each sample and because the water quality standard is 0.001 mg/L, any assimilative capacity was eliminated and, hence the justification to impose a Cyanide load limit was arbitrarily created. If all instream samples were non-detected then cyanide is legally not there. Accordingly, EPA and NHDES should have assigned "zero" to those sample results. Assigning a "0" to non-detected data is consistent with Footnote 3 on Page 7 of the permit (assigning "0" to non-detected regulatory data). Legally, that is the only defensible approach. Accordingly, EPA and NHDES must recalculate the reasonable potential analysis using zero for any cyanide results (instream or effluent) which were non-detected. The City believes the outcome of such a corrected approach is that there is no reasonable potential to support a limit.

Response 15

First, the comment seems to conflate the NHDES antidegradation study with EPA's "reasonable potential" analysis. The calculation referenced is from NHDES's 2013 antidegradation study and not from a reasonable potential analysis conducted by EPA. As such, EPA defers to NHDES regarding these assumptions in conducting the antidegradation review and has provided a further response below.

As discussed on page 30 of the Fact Sheet, EPA agrees with the comment that NHDES assigned a value equal to the detection level to each of the four non-detect ambient samples, resulting in no remaining assimilative capacity. EPA notes that NHDES's standard procedure with non-detect samples is to use the detection limit as the level for their calculations. Based on this procedure, there was no assimilative capacity and NHDES determined that a "hold the load" limit for cyanide was required. NHDES estimated a maximum cyanide loading of 2.45 lbs/day using the design flow of 4.8 MGD and a maximum effluent concentration of 0.013 mg/L (based on 4 effluent samples) and applying a multiplication factor of 4.7 (*i.e.*, 0.013 mg/L x 4.7 x 4.8 MGD x 8.345).

The comment suggests that EPA and NHDES should have assigned a value of "0" to these ambient sample results. EPA notes that if NHDES's procedure were to use zero instead of the detection limit for non-detect samples, the full assimilative capacity of the receiving water would have been available. In that case, the maximum discharge of 13 µg/L of cyanide would have resulted in an increase of 0.28 ug/L to the receiving water (dividing 13 ug/L by the dilution factor of 46.1). Importantly, 0.28 ug/L is 28% of the 1 µg/L water quality criterion and, therefore, would have been more than 20% of the remaining assimilative capacity triggering the need for a permit limit based on 0.2 µg/L (20% of the assimilative capacity of 1 µg/L) times the dilution factor of 46.1, or 9.2 µg/L. This limit would be necessary to ensure the discharge does not use more than 20% of the remaining assimilative capacity. Converting this limit to an allowable mass load (even using the higher design low of 6.13 MGD), results in a load limit of approximately 0.47 lb/day, which is much more stringent than the "hold the load" limit of 2.45 lb/day established assuming no remaining assimilative capacity based on NHDES's standard approach.

By comparing these two potential limits, EPA considers that the Permittee would prefer to maintain the proposed limit rather than the resulting limit based on the requested assumption. In any case, EPA defers to NHDES regarding these assumptions as conducted in the 2013 antidegradation review and this comment does not result in any change to the Final Permit.

Also see Response 12.

Comment 16

Proposed Adjustment to the Quarterly Effluent PFAS sampling.
The City is cognizant of the increased need for attention on the PFAS family of chemicals in the environment and their impacts on health and water quality. The City has taken that need into consideration as it has evaluated the package of new testing proposed in the draft permit. That stated, there is value in optimizing the sampling given the level of effort and costs to conduct such work as described below.

The City requests that the quarterly PFAS sampling be revised to require the collection of eight quarters of data only (quarterly for two years). That is enough to characterize effluent levels for the PFAS of interest. Alternatively, the City requests permit language that will allow the City to

request a reduction in monitoring (say to annually) which EPA can approve as a minor modification after the collection of eight quarterly results.

Response 16

EPA recognizes that this new PFAS monitoring requirement entails increased cost. However, EPA maintains that the monitoring frequency should be at least quarterly to ensure that there are adequate data to assess the presence and concentration of PFAS in discharges. These data will enable EPA to obtain comprehensive and representative information on the sources and quantities of PFAS discharges and EPA will use these data in the future to inform its actions. *See* CWA § 308(a).

The comment suggested that EPA incorporate an off ramp to reduce or remove PFAS sampling if initial results are below a certain level. Given that limited PFAS data for WWTFs are available and that this is a new monitoring requirement, EPA does not consider it appropriate to provide any off ramps within this initial permit term. However, EPA will evaluate all available data in the next permit reissuance and may reduce PFAS monitoring in the future based on the results of this sampling and other updated information in comparison to any PFAS water quality criteria that may be in effect at that time.

Finally, this level of monitoring is recommended in EPA's *October 2021 PFAS Strategic Roadmap*[11] and in an EPA memo dated April 28, 2022 called *Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority*[12]. and EPA has been implementing this monitoring consistently in other recent POTW permits in MA and NH based on this roadmap.

Comment 17

Quarterly WET Testing is Unnecessary as is the Associated Effluent and Instream Pollutant Sampling. Given the fact that the City gets 41 dilutions, has only two small significant industrial users, and has had no prior WET failures it makes no sense to require quarterly toxicity testing. The City requests that this requirement be changed to annual testing. At worst, the quarterly testing should be continued for two years and then revert to annual upon the passing of the eight quarterly tests. That will provide eight quarterly tests, three annual tests, and four tests as part of the permit reapplication for a total of 15 WET tests at the next application renewal date in 4.5 years. That is more than enough WET testing for a facility with 41 dilutions.

The City also questions why we have to sample for Cadmium, Copper, Zinc, and the other parameters during our WET testing. First, the City achieves 41 dilutions so WET failures are extremely unlikely. Second, the City has not had any WET failures. Finally in the unlikely event of a WET failure, the City can then perform a standard Toxicity Identify Evaluation (TIE) to pinpoint the pollutant responsible, rather than sampling for these unlikely pollutants. Accordingly, the City asks that the sampling during WET testing for these pollutants be removed from the permit.

[11] https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf
[12]https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf

Response 17

The 2007 Permit established a quarterly WET testing requirement with an LC_{50} limit of $\geq$ 100%. As noted in the Fact Sheet, the 2009 CD established an interim WET testing requirement of once per year with a monitor only requirement for LC_{50}. The WET tests conducted in 2017 and 2018 resulted in LC_{50} values of 33.3% and 55.7%, respectively, with these tests being conducted before the upgrade was completed. These levels indicate that the effluent exhibits toxicity violations of the permit, however because the City was operating under the CD which established an interim limit of 1 test per year with no limit, no additional enforcement actions occurred.

Regarding the comment about testing frequency, EPA notes that quarterly WET testing with 2 species is recommended by EPA policy[13] for WWTFs of this size which have dilution in the range of 20 to 100. Due to the limited WET testing data set since the 2007 Permit was issued and the two prior LC_{50} values exhibiting toxicity, EPA considers that the quarterly testing frequency in accordance with the policy is appropriate to ensure the discharge does not cause or contribute to toxicity in the receiving water. This quarterly WET frequency is especially necessary for large facilities such as the Peirce Island WWTF with significant input from industrial users, due to greater effluent variability and potential for toxicity from a wide variety of sources.

The commenter objects to the chemical-specific monitoring required as part of the WET tests. This monitoring is required in the WET testing protocol and is useful in at least two ways. First, these data may be used to determine the source of any toxic impacts. Second, this data may be used by EPA to characterize the discharge as well as the receiving water with respect to the various pollutants (such as cadmium, copper, zinc, ammonia, etc.) in determining whether the discharge has the reasonable potential to cause or contribute to an excursion of water quality standards. While these monitoring requirements have been included in the WET testing protocols for many years, EPA has recently required these results to be reported in each relevant DMR. This reporting does not represent separate monitoring requirements but merely requires the Permittee to report the results from the WET test into the DMR to facilitate access to the data by EPA and by the public through EPA's Enforcement and Compliance History Online (ECHO) tool[14].

Finally, in lieu of chemical-specific sampling being conducted with the WET testing, the City suggests that it can perform a standard Toxicity Identify Evaluation (TIE) in the event of a WET failure, to pinpoint the pollutant responsible. Given that EPA is requiring quarterly WET testing, EPA does not consider that a TIE requirement is warranted at this time. However, if there are WET violations in the future, EPA may seek a TIE, among other remedies, through enforcement.

Therefore, this comment does not result in a change to the Final Permit.

[13] EPA POTW Toxicity Policy, 1994
[14] Accessible at: echo.epa.gov.

Comment 18

Quarterly Ambient Sampling is Unnecessary. The City also questions why it must collect an instream sample and analyze it for the same pollutants associated with the WET test above. None of this information matters if the City passes the test (which with 41 dilutions is a near certainty). In the unlikely event of a WET test failure, it is even more unlikely that one of these pollutants would be the cause. Accordingly, the City asks that the ambient sampling requirement be removed and, instead, the City be required to perform a standard Toxicity Identify Evaluation upon any WET failure (after confirmation of that failure).

Response 18

See Response 17. This ambient sampling is required by the WET testing protocol and will remain in the Final Permit.

Comment 19

Influent/Biosolids PFAS Sampling. The City requests the same comment for influent and biosolids PFAS sampling as above for effluent sampling, which is incorporated herein. Instead, the City proposes to perform eight quarters of influent testing during the first two years or twice per year testing over the five-year permit term. Alternatively, the City requests permit language that will allow it to request a reduction in monitoring (say to annually) which EPA can approve as a minor modification after the collection of eight quarterly results. Importantly as to biosolids, the City fails to see why any testing is required given that the City landfills its biosolids. The permit should specify that the City will collect four PFAS biosolids samples and provide them to EPA/NHDES at least 30 days before changing to land application of biosolids.

Response 19

See Response 16. Regarding sludge, in EPA's judgment, PFAS monitoring of influent, effluent and sludge is necessary to better understand the fate and transport of PFAS throughout the treatment process. While the City may currently landfill its biosolids (as indicated in the comment), there is no requirement in the permit that this disposal method must be maintained in the future. Therefore, these PFAS data may be used to inform future decisions regarding appropriate sludge disposal practices.

Comment 20

CSO Wet Weather Authorization- Permit Page 6

Section A.2. The CSO authorization should say "…these discharges are only authorized during periods of wet weather and/or snow melt." This is a standard change which EPA has made in other CSO permits throughout the region. This will make the provision consistent with Section H.1 on page 20.

The Table in Part 1.A.2 requires the City sample for Fecal Coliform and Enterococci discharged from the CSO discharges annually. This requirement was not included in the 2007 permit. The basis for this requirement is not clear and the requirement is inconsistently applied across the region. For example, Manchester, NH (2015 permit), Haverhill, MA (2020 permit), and Springfield, MA (2020 permit) do not have requirements to sample CSO discharges for these constituents. Other permittees such as Nashua, NH (2015 permit), Exeter, NH (2012 permit), and Chicopee, MA (2021 permit) are required to sample once per year. It is not clear why this

requirement is being imposed and the City requests it be removed. Sampling for Water Quality conditions will be part of the Long Term Control Plan Update scheduled for October 2023-2025. The Table in Part 1.A.2 requires the City report "Wet Weather Event Maximum" values for Fecal Coliform and Enterococci discharged from the CSO discharges. This description would appear to be a misnomer. If only one grab sample per year is taken, "Wet Weather Event Value" would seem more appropriate and the City requests EPA update this accordingly. Comments above apply also to Footnote 18, Permit Page 9.

Response 20

The Permittee is correct that Part I.A.2 of the Draft Permit should have included the underlined language regarding the authorization to discharge CSOs as follows: "These discharges are authorized only during periods of wet weather and/or snow melt." EPA acknowledges that snow melt could be a sole or contributing factor resulting in CSO discharges. Part I.A.2. of the Final Permit has been corrected to reflect this language. This corresponds with Part I.H.2.a.(5) of the permit which indicates that dry weather overflows from CSOs are prohibited (meaning any calendar day on which there is less than 0.1 inches of rainfall and no snow melt).

Regarding the annual CSO monitoring requirements in Part I.A.2. of the Draft Permit, EPA includes this CSO requirement in NPDES permits on a case-by-case basis in Massachusetts and in tidal surface water discharges in NH. As noted in Response 10, for discharges into non-tidal surface waters, a bacteria criteria of 1,000 *Escherichia coli* per 100 milliliters applies in New Hampshire. There is not a similar requirement in the MA WQS. For the Chicopee permit, EPA notes that the monitoring requirements apply to discharges from the City's CSO treatment facility.

In New Hampshire, EPA has made a best professional judgment (BPJ) determination to include an annual fecal coliform bacteria and E*nterococci* monitoring requirement for CSO outfalls which discharge to tidal waters. This requirement is also consistent with the information collection authority granted under CWA§ 308. The fecal coliform data will assist the NH Shellfish Program relative to conditions that affect shellfish harvest areas and the E*nterococci* data will assist relative to conditions that affect water quality in areas used for recreational uses.

Comment 21

Footnote 1 – Sampling Days and Times- Permit Page 7

The City objects to the requirement in Footnote 1 that effluent samples have to be taken on the same days and same time each month. This restriction is not supported in either the federal or state regulations. Moreover, it is impractical because sampling should occur on different days and different times to ensure that the City is getting representative data. For example, non-domestic users may vary operations. Sampling the same day of the month at the same time might miss characterize their contributions. This language is completely unnecessary and counterproductive. The requirement that samples be representative is all that is necessary (and typical of the vast majority of permits issued nationwide).

Response 21

EPA disagrees that this requirement should be removed from the permit. EPA confirms that a routine sampling plan is necessary to ensure that results yield consistently representative data. The flexibility requested in the comment could be used to catch variations in effluent data but it could also be used to avoid those variations or extreme events. The best way to ensure consistently representative data and avoid bias related to variability within a given day or week is through the development and implementation of a consistent routine sampling program. *See In re: City of Lowell*, 18 E.A.D. at 192-93 (E.A.B. 2020).

EPA also clarifies that the intent of this requirement is not to require that sampling be done at the exact same time every day of the month which could indeed preclude capturing the inherent variability of the effluent as described in the comment. Rather, the intent of this requirement is twofold. Firstly, it is to require the Permittee to set up a sampling program that would yield the most representative data, noting that the most representative sampling program may require setting different sampling times on different days with a given month. Secondly, it is to require the Permittee to adhere to this sampling program each month in order to ensure consistently representative data that can be analyzed for long term trends, etc.

EPA has broad authority under the Act to impose appropriate conditions in an NPDES permit that are rationally related to implementing the objectives of the Act, in this case, to ensure that the data collected to ensure compliance with permit limitations and achievement of water quality standards is representative.

This comment does not result in any change to the Final Permit.

Comment 22

Footnote 5 – Clarify Blending and Bypass as Well as Authority to Blend.

The permit confuses two very important terms: "blending" and "bypass". It also creates ambiguity as to the applicability of the effluent limits in Part I.A.1. Footnote 5, to the Permit General Conditions (at page 5) provides in relevant part:

> "When bypass occurs, the blended effluent shall be subject to the effluent limitations in Part I.A.1.a above and all bypasses shall be reported by the Permittee to EPA and NHDES pursuant to Part I.J.6 below."

Bypass and blending are two separate practices/occurrences. See the EPA diagrams below. The first shows a "bypass" scenario where flow into a treatment plant is diverted with some being discharged through the main plant outfall (typically enumerated "001") and the rest going out a separate plant outfall (typically enumerated "002"). Conversely, blending (second EPA diagram) is where flows enter the plant, some may be routed around certain treatment units but then the flows are recombined and all discharged out of outfall 001.

The Eighth Circuit Court of Appeals earlier this year reinforced its 2013 decision in Iowa League of Cities that EPA lacks statutory authority to regulate blending and further that blending is not a bypass:

• "In 2013, we held that the Environmental Protection Agency's (the "EPA") "blending rule" was substantively defective because it "applies effluent limitations to a facility's internal secondary treatment processes, rather than at the end of the pipe." Iowa League of Cities v. EPA, 711 F.3d 844, 877 (8th Cir. 2013). The rule "clearly exceed[ed] the EPA's statutory authority." Id. In reaching that holding, we did not differentiate between combined and separate sewer systems. Now, the EPA continues to regulate blending as a prohibited bypass in the Eighth Circuit, albeit for combined sewer systems only."

• "The EPA's direct violation of our prior mandate warrants mandamus relief. See Iowa Utilities Bd. v. FCC, 135 F.3d 535, 542 (8th Cir. 1998), cert. … The EPA's sub rosa enforcement of its blending rule and its efforts to resist making its position public appear "calculated so as to evade ordinary appellate review." Iowa Utils. Bd., 135 F.3d at 542."

• "Accordingly, we grant the petitioner's request for mandamus relief with respect to its challenge to the EPA's ongoing regulation of blending within the Eighth Circuit's jurisdiction. Our March 25, 2013, decision applied to regulations of blending in separate as well as combined sewer systems. The EPA is ordered to obey the court's mandate of August 7, 2013 and to cease and desist treating blending as a prohibited bypass within the Eighth Circuit "insofar as the blending rule imposes secondary treatment regulations on flows within facilities." Iowa League of Cities, 711 F.3d at 878."

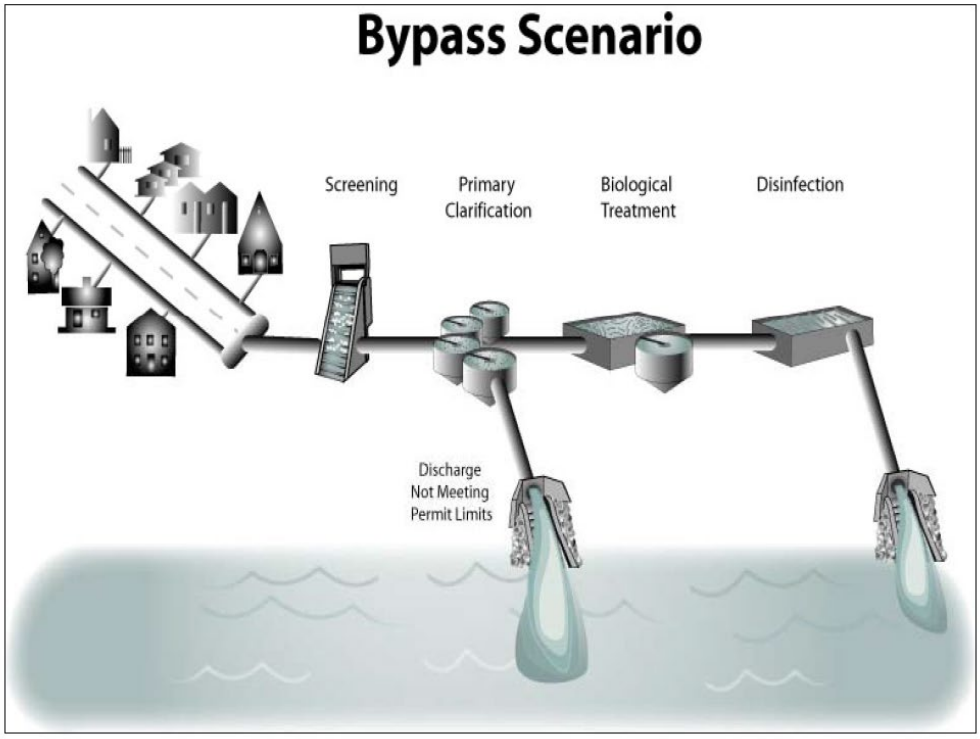
We also note that EPA Region 7 has been including the following language in all Missouri NPDES permits for years:

> "Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions"
>
> See, for example, NPDES permit number MO-0023043; St. Joseph, Water Protection Facility (December 1, 2020), Section D.9, Page 7 of 12.

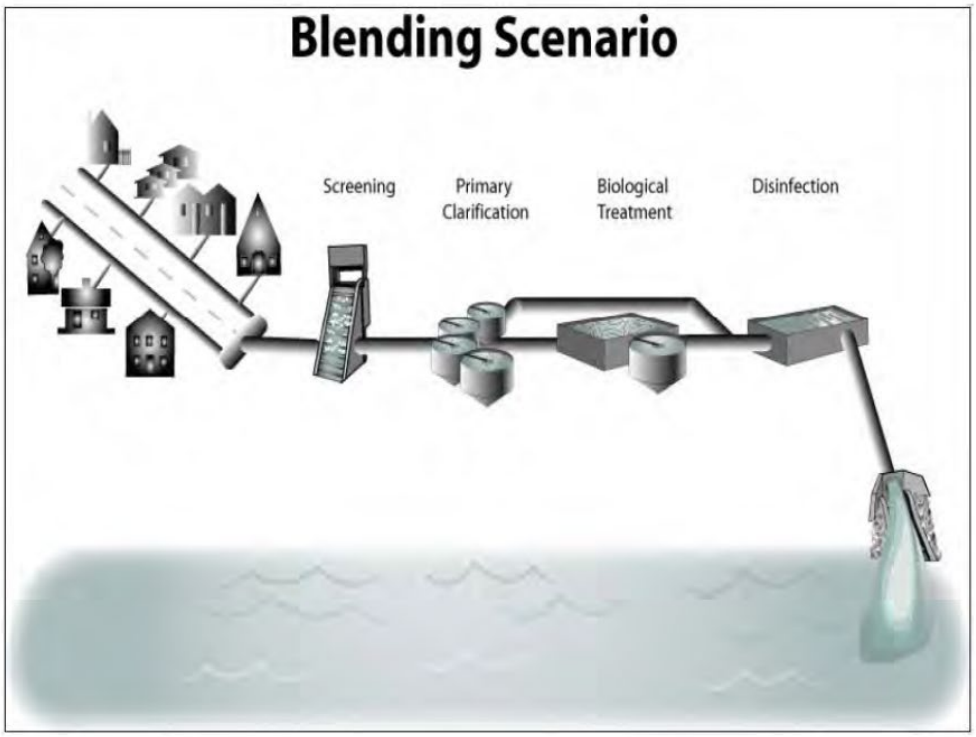
Accordingly, Footnote 5 should be clarified to only apply to bypassed effluent being subject to all effluent limitations because blended effluent already is (as it is discharged out of 001). EPA should further clarify that the City's blending of peak flows within the plant fence line is authorized.

Finally, the CSO Policy's Bypass provision does not apply to blending as per the 8th Circuit Court of Appeals' decision and as further explained in the Declaration of the Wet Weather

Partnership to that proceeding (copy attached[15]). That Declaration also explains why the CSO Policy's Bypass provision does not apply to blending at wastewater plants serving CSO communities.



[15] EPA note: EPA reviewed this attached document, but it is not reproduced in this Response to Comments document.



Source: https://www.epa.gov/sites/default/files/2015-10/documents/sso-listening-session2010.pdf

If EPA will not remove or modify the footnote, the language should be clarified as follows or a provision added as referenced in the comments similar to other NH NPDES permits:

> "When bypass of the secondary treatment process occurs, the blended effluent shall be subject to the effluent limitations in Part I.A.1.a…below. Bypasses shall not occur below influent flows of 9 MGD."

Response 22

See Response 3 for EPA's response to the request to approve a CSO-related bypass of secondary treatment, as described in the CSO Control Policy at 59 FR 18693-94 (April 19, 1994) at flows above 9 MGD.

The comment is incorrect in suggesting that EPA Region 7 drafted the referenced NPDES permits in the state of Missouri, as EPA has delegated authority to Missouri Department of Natural Resources to issue all NPDES permits statewide except those for biosolids processing facilities. Moreover, the language in footnote 5 of the Permit is not inconsistent with the referenced order from the Eighth Circuit Court of Appeals in Iowa League of Cities v. EPA, 2021 WL 6102534 (8th Cir. Dec. 22, 2021). In the referenced order, the Eighth Circuit mandated EPA to "cease and desist treating blending as a prohibited bypass within the Eighth Circuit 'insofar as the blending rule imposes secondary treatment regulations on flows within facilities.'" Id. at *1 (quoting Iowa League of Cities v. EPA, 711 F.3d 844, 878 (8th Cir. 2013)). The Final Permit, including

the language in footnote 5, comports with this order, as it does not impose secondary treatment regulations on flows within the facility, but rather requires end-of-pipe limits. The language of the Final Permit is consistent with and authorized by CWA Section 402(q)(1), 33 U.S.C. § 1342(q)(1), which requires permits for combined sewers to conform with the CSO Control Policy, and Section 308(a) of the CWA, 33 U.S.C. § 1318(a), which provides EPA authority to require reporting, monitoring, and sampling of effluents. Accordingly, EPA retained the language in footnote 5 in the Final Permit, but modified it to add further clarity that the effluent limitations are end-of-pipe limits.

Comment 23

Footnote 7 – Narrative Requirement to Minimize Use of Chlorine- Permit Page 8

The City objects to the narrative requirement that it minimize the use of chlorine while maintaining adequate bacterial control. The City has numeric limits for chlorine. As long as discharges are below those limits, there is no water quality issue at drought conditions, never mind at the more typical higher instream flows. Adding a requirement that the City must minimize the use of chlorine while still having to comply with the most stringent bacteria effluent limits the City is aware of in the country makes no sense and sets the City up to fail. Such a limitation is also impermissibly vague and subjective. For these reasons, the City asks that EPA delete the following sentence from Footnote 7:

> "The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control."

Response 23

EPA disagrees that this narrative requirement should be removed from the permit. EPA includes this narrative requirement in all municipal permits that employ chlorine disinfection. The requirement is intended to allow the Permittee to use as much chlorine as necessary to consistently comply with the bacteria limits but prevents excessive use of chlorine beyond that amount. This is necessary because both bacteria and chlorine are potentially harmful pollutants that impact each other in the treatment process. Bacteria has the potential to impact human health, especially given the recreational and shellfishing uses of the receiving water. Chlorine, on the other hand, is highly toxic to aquatic life. EPA has included permit limits for both pollutants that represent the maximum allowable levels in the discharge but considers that any chlorine use beyond what is necessary to meet the bacteria limits should also be avoided as it has the potential to impact aquatic life before the discharge is fully mixed with the receiving water. Additionally, excess chlorine use has the potential to result in more chlorination byproducts that can cause adverse impacts to human health and aquatic life. Notably, excessive chlorine use would be more costly to the Permittee and the comment does not indicate any reason why using excess chlorine would be appropriate.

EPA disagrees that the permit term is vague. The Permittee must assess how much chlorine use is necessary to adequately control bacteria (*i.e.*, to comply with the bacteria permit limits), and then use no more than that amount.

This comment does not result in any change to the Final Permit.

Comment 24

Footnote 8. Footnote 8 requires Enterococci and Fecal Coliform monitoring be conducted concurrently with Total Residual Chlorine (TRC) monitoring. TRC monitoring is required to be monitored continuously whereas Enterococci and Fecal Coliform monitoring is required once per day. See previous comments regarding frequency. Enterococci and Fecal Coliform testing will therefore always be done concurrently with TRC monitoring, so it is not clear why this requirement is included. Please clarify this requirement.

Response 24

EPA acknowledges that TRC is monitored continuously, so that any time the bacteria sampling is conducted, it will be concurrent with the TRC monitoring that is being conducted. However, this language will remain in the Final Permit in the event that continuous monitoring capability for TRC malfunctions or is otherwise not operable and the Permittee resorts to grab samples for TRC during such time.

Comment 25

Footnote 12 – Specified Weeks for Toxicity Testing. This footnote unnecessarily requires that toxicity testing be performed during the same weeks during each quarter of the year. The City objects to this requirement. Such a requirement is not supported in EPA or the State's requirements. Toxicity testing simply must be representative. The City should be able to perform it at any time in each quarter. It makes no sense that once the City picks a week during any one quarter that it must be the same week forever? This is arbitrary and capricious. POTWs must have the flexibility to adjust sampling. For example, what if the City samples the last week of December but then a new industry comes to town and they shut down for maintenance that week? This requirement should be removed in favor of a requirement that WET testing be representative and collected during four different quarters.

Response 25

In the context of collecting toxicity test samples, "same week" refers to one quarter to the next. For instance, a facility sampling four times per year starting the second week of March would need to sample during the second week of June, September, and December. Allowing the Facility to choose which week during the calendar quarter to sample gives the Facility flexibility concerning staff availability and coordination with laboratories. This will also ensure that samples are spaced evenly throughout the year, avoiding a sample being collected at the end of one calendar quarter and then at the beginning of another calendar quarter.

This comment does not result in any change to the Final Permit.

Comment 26

Footnote 18 – Bacteria Sampling at CSO Outfalls. The City fails to understand what taking an annual bacteria sample at one of our CSO outfalls accomplishes? This is unnecessary sampling that the City requests be removed from the permit.

Response 26

See Response 20.

Comment 27

Part I.A.2 – General Water Quality Standards Compliance-Permit Page 10

On page 8, Section 2 imposes a requirement that:

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

This language is legally incorrect and fundamentally unfair. Legally, this provision deprives the City of its Clean Water Act permit shield in that the City will never know what it can or can't discharge at any given time. The provision deprives the City of its right to fair notice of what it must do to comply. More importantly, there is no opportunity for due process. In this context, due process is the City's (and all stakeholders') right to know what limits EPA/NHDES believe are warranted, an opportunity to comment on the correctness of such limits and the right to appeal such determinations. Moreover, for a public body, the provision deprives the City of a compliance schedule to come into compliance with a new or more stringent requirement.

The City notes that the State of West Virginia (WV) recently removed similar language from its NPDES permits. EPA Region 3 treated that action as a change to WV's NPDES permit program which triggered EPA review and approval. EPA approved the change by letter dated March 27, 2019 (incorporated herein by reference – EPA R3 approval of WV NPDES Program revisions). EPA concluded that such language is not a requirement of the NPDES Permit program.

Finally, the City notes that this issue is currently before the 9th Circuit Court of Appeals (City of San Francisco case (Appeal No. NPDES 20-01)) with a decision expected any day now. The City incorporates by reference the briefs filed by the City of San Francisco in its pending appeal before the 9th Circuit.

For these reasons, the Paragraph 2 language must be removed from the City's permit. It impermissibly undermines the CWA permit shield, deprives the City of fair notice of what the City can discharge and due process (opportunity to comment on, seek compliance schedules, and appeal effluent limits). It is inconsistent with other EPA Regions as demonstrated by the EPA Region 3 March 27, 2019 formal finding that such a permit condition is not required under the CWA.

Response 27

EPA disagrees with the commenter's assertion that the following provision is unlawful, unfair, and undermines the permit shield provision of the CWA: "The discharge shall not cause a violation of water quality standards of the receiving water." Draft Permit, Part I.A.2.

EPA's authority is not as narrowly constrained as the commenter implies. To the opposite, Section 402 of the Act authorizes EPA to issue an NPDES permit with conditions that ensure that the discharge will meet, among other things, the requirements of § 301 of the CWA. That provision includes § 301(b)(1)(c), which requires that a discharge shall achieve "...any more stringent limitation, including those necessary to meet water quality standards...established pursuant to any State law or regulation...."

(emphasis added). Nowhere does the statute specify that EPA may only impose specific numeric effluent limitations to meet state water quality standards. EPA's regulations at 40 CFR § 122.44(d)(1) state that each permit shall include "any requirements in addition to or more stringent than promulgated effluent limitations guidelines.... necessary to achieve water quality standards...." While § 122.44(d) does require "effluent limits" to be established when EPA determines that a particular pollutant has the reasonable potential to cause or contribute to an in-stream excursion above a water quality criterion, the regulations do not require that all "effluent limitations" necessary to meet water quality standards be expressed in terms of specific pollutant by pollutant numeric limitations. They may be narrative in form, including for example, when they are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes or intent of the CWA. *See In re: City of Lowell,* 18 E.A.D. at 175-186. As explained below, this requirement narratively tracks a key, and unambiguous, provision of the NH WQS.

The language included in Part I.A.2 is both lawful and consistent with EPA Region 1's past practice. Exactly the broad narrative language to which the commenter objects is included in all New Hampshire NPDES permits and was included in the City's previous NPDES Permit (Part I.A.2(1) of the 2000 Permit). EPA includes this provision to ensure full implementation of Sections 301(b)(1)(C) and 402 of the Clean Water Act. 33 U.S.C. §§ 1311(b)(1)(C), 1342. *Northwest Envtl. Advocates v. City of Portland*, 56 F.3d 979, 990 (9th Cir. 1995) (concluding that "the statutory language, legislative history, and case law authorize citizens to enforce permit conditions stated in terms of water quality standards"). Moreover, this provision is also consistent with requirements under New Hampshire state law and regulations. The NH Statute at Section 485-A:12 (III) states,

> "No activity, including construction and operation of facilities, that requires certification under section 401 of the CWA and that may result in a discharge, as that term is applied under section 401 of the CWA, to surface waters of the state may commence unless the department certifies that any such discharge complies with the state surface water quality standards applicable to the classification for the receiving surface water body."

EPA's Draft Permit is consistent with, and derived from, this state requirement.

While the commenter may feel that the narrative prohibition is duplicative, EPA sees merit in including a more general, narrative, preventative permit provision that restates the commands of Section 301 and the implementing regulations at 40 CFR §§ 122.4 and .44 to "ensure" compliance with quality standards, and that similarly mirrors the NH Statute at Section 485-A:12 (III). Doing so not only allows EPA to incorporate a legal assurance in the permit that water quality standards will be met, consistent with its obligations under sections 301 and 402 of the Act and NH WQS, but also will allow it to address, as necessary, water quality violations caused or contributed to by the Permittee due to such circumstances as unanticipated changes in or alterations to effluent quality that might otherwise meet permit conditions or the discharge of pollutants not identified

in the City's permit application, for example. Again, this requirement narratively tracks a key provision of the NH WQS, which EPA is not required to translate or express as a series of individual numeric limitations, but that it may instead frame as a narrative prohibition in furtherance of its obligation to include in permits conditions that ensure compliance with water quality standards, as it is incontrovertibly entitled to do under law. The "[Clean Water] Act permits enforcement of broad, narrative criteria." *PUD No. 1 of Jefferson Cty. v. Washington Dep't of Ecology*, 511 U.S. 700, 700 (1994).

The commenter claims that this provision is unfair and violates the due process rights of the permittee and its stakeholders. However, the commenter, in this case the permittee, has been operating under a permit that contains this provision since at least 2000. See *Ohio Valley Envtl. Coal. v. Fola Coal Co., LLC*, 845 F.3d 133, 144 (4th Cir. 2017) (finding that a permittee had fair notice of narrative water quality standards included in its permit due in part to the amount of time the permittee was bound by that language). The language in the permit clearly states what is required of the permittee: that the permittee ensure no violation of New Hampshire water quality standards. This narrative standard is consistent with the CWA and adequately puts the permittee on notice of its obligations. See *Upper Blackstone Water Pollution Abatement Dist. v. E.P.A*., 690 F.3d 9, 33 (1st Cir. 2012) ("EPA regulations [at 40 CFR § 122.41(d)(1)(i)] require permitting authorities to include in NPDES permits conditions which 'control all pollutants or pollutant parameters ... [that] 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, including State narrative criteria for water quality.'").

Moreover, the permittee has been aware of EPA's application of such narrative water quality standards since the last permit reissuance of 2000. New Hampshire's water quality standards are fully available to the public, as codified in the New Hampshire Code of Administrative Rules, Surface Water Quality Standards, Chapter Env-Wq 1700, *et seq*. *See also generally*, N.H. Rev. Stat. Title L, Water Management and Protection, Chapters 485-A, Water Pollution and Waste Disposal. To the extent that the commenter states that the public is precluded from an opportunity to comment on or appeal such water quality standards, this is incorrect. In fact, the notice-and-comment procedures as well as the appeal procedures required pursuant to the CWA and its regulations provide just such opportunity (33 U.S.C. § 1369(b); 40 CFR § 124.19), and in submitting the above concerns during the public comment period, the commenter has availed itself of that procedure.

The commenter generically mentions due process violations but fails to specify whether it refers to substantive or procedural violations and further fails to identify with particularity how EPA's action is inconsistent with the requirements for ensuring either type of due process in this particular setting. See, e.g., *Mathews v. Eldridge*, 424 U.S. 319 (1976) (identifying factors for assessing a procedural due process violation); *Collins v. City of Harker Heights, Tex*., 503 U.S. 115 (1992) (outlining what constitutes a substantive due process claim). EPA is not required to develop arguments on behalf of a commenter.

As for the commenter's reference to the March 27, 2019, letter from EPA Region 3 to the State of West Virginia, this letter is specific to the State of West Virginia and its revisions to its authorized NPDES program. Changes to the authorized NPDES program and state water quality standards in West Virginia have no bearing on the EPA's implementation of the NPDES program in New Hampshire. As stated above, EPA's inclusion of Part I.A.2 is consistent with law and regulations and ensures that the permit is in compliance with New Hampshire's State Certification and water quality standards.

Finally, the commenter's assertion that this provision deprives it of its Clean Water Act permit shield is entirely without merit. Section 402(k) of the Clean Water Act, 33 U.S.C. § 1342(k), establishes the "permit shield" by stating "[c]ompliance with a permit issued pursuant to this section shall be deemed compliance" with section 301 (among other sections) of the CWA. In order to avail itself of the protections of section 402(k), a permittee must first be in compliance with all express terms of the permit. See *Ohio Valley Envtl. Coal. v. Fola Coal Co.*, LLC, 845 F.3d 133, 142 (4th Cir. 2017) ("[A] permit shields its holder from liability as long as the permit holder complies with the express terms of the permit and with the Clean Water Act's disclosure requirements." (internal quotations omitted)). Courts have clearly held that narrative water quality standards are express terms when included in an NPDES permit. Id. at 144; *PUD No. 1 of Jefferson Cty. v. Washington Dep't of Ecology*, 511 U.S. 700, 700 (1994) (The "[Clean Water] Act permits enforcement of broad, narrative criteria."); *Nat. Res. Def. Council v. Metro. Water Reclamation Dist. of Greater Chicago*, 175 F. Supp. 3d 1041, 1053–54 (N.D. Ill. 2016) (The NPDES Permit "incorporates the WQS as substantive terms of the permit, compliance with which is required in order for the permit shield to apply. . . . [T]he permit shield defense can apply only if the three WRPs' effluent does not cause violations of the Illinois WQS."). Thus, when included in a permit, narrative water quality standards are enforceable conditions that must be met for the permittee to invoke the permit shield provision of the CWA. The permittee is not deprived of the protections afforded by section 402(k). Rather, the permittee is required, as is always the case, to comply with all its permit terms prior to invocation of the permit shield. The City's concern the narrative prohibition will deprive it of its ability to comply with a new or more stringent requirement according to a schedule is misplaced, as the permit limit together with schedule comprise the enforceable effluent limitation. So long as the City is complying with the terms of a compliance schedule for a given limit, it will not be subject to an enforcement action for failing to meet a final limit not yet in effect, and it can avail itself of the permit shield.

EPA is aware of the City of San Francisco matter in the 9th Circuit Court of Appeals. Notably, that case is an appeal of Environmental Appeals Board decision upholding a nearly identical permit provision as the one the City objects to here. *See In re: City and County of San Francisco*, 18 E.A.D. 322, 338-350 (E.A.B. 2020). This decision followed on the heels of the E.A.B. affirming Region 1's use of such a permit term. *See In re: City of Lowell,* 18 E.A.D. at 175-186. In a recent ruling in the City of San Francisco case, the judges held that EPA had authority to include narrative prohibitions on discharges that cause or contribute to violations of applicable WQS. Thus, the current state of the law clearly authorizes the Region's use of such a permit provision.

Comment 28

Permit Page 11

Para 10 Incorrectly Addresses Pass-Through and Interference. This paragraph states:

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

This provision should be clarified to specify that the Permittee shall prohibit the discharge of pollutants that would cause pass through or interference. As currently written, the language could be misinterpreted as requiring the POTW to prevent pass-through/interference (which is impossible). Here is our suggested correction:

> "The permittee shall prohibit the discharge into the collection system ~~Pollutants introduced into the POTW~~ by a non-domestic source (user), of any pollutant that will ~~shall not~~ pass through the POTW or interfere with the operation or performance of the works."

Response 28

EPA disagrees with the commenter's interpretation of the provision that the Permittee is not responsible for preventing pass through or interference. Rather, EPA regulations at 40 CFR § 403.8 require pretreatment programs to prevent pass through and/or interference.

In like manner, EPA must write NPDES permits to "ensure" compliance with the Clean Water Act and State water quality standards. That does not mean EPA must ensure that there will never be a permit violation, but simply that the terms of the permit itself (if complied with) will ensure compliance with such regulations and that EPA is responsible to enforce against any violations. Similarly, the terms of the permit, contract, or order used by the Permittee to control the contribution to the POTW by each non-domestic source must ensure that such pollutants not pass through the POTW or interfere with the operation or performance of the works.

Comment 29

Requirement to Post SSOs to Website in 24 Hours. The City has been using a public notification approach for CSOs for the past four years. The program uses alarm signal(s) from the instruments inside the CSO control structures distributed by cellular network to a computer server of a third party provider. The server distributes an email to the City indicating the start of a CSO event. The email is automatically re-distributed to an email distribution list of interested parties, residents and stakeholders. Separately City staff manually issue a tweet via Twitter and all parties who follow the handle @PortsmouthCSOs receive notification that an event has begun. The City does not currently notify the end of the event. Data for each CSO event during the month is validated at the end of the month in preparation for Discharge Monitoring Report submission. The data is put on the City's website at https://www.cityofportsmouth.com/publicworks/wastewater/combined-sewer-overflows-cso.

While the technology has evolved there are efficiencies that still need improvement for the systems to be reliable. Occasionally there are erroneous alarms due to technological glitches or inadvertent alarms set off during routine maintenance of the instruments. In addition, the instruments are subject to regular failure and fouling due to the environmental conditions in which they reside. There is latency in the electronic transmission of the alarms/data that delays

the notification receipt for CSO event start and end times. Lastly due to tidal conditions there is a need to evaluate multiple instruments in a single CSO control structure to accurately determine volumes. It is not efficient to validate (confirm official data values) at the conclusion of each event. The City requests that this time period be doubled to 4 hours and that any data provided in the 24-hour follow-up to the event be allowed to be preliminary data subject to final validation and adjustment at the time DMRs are due.

Response 29

Although the heading of the comment cites the 24-hour notification requirement for the discharge of SSOs, there is no discussion in the body of the comment regarding suggested changes to this notification requirement. EPA notes that SSOs are not authorized discharges under this NPDES permit, and notification requirements in Part I.B.1. of the Final Permit remain unchanged from the Draft Permit.

Regarding the CSO notification requirements (which the commenter was likely referencing despite the reference to SSOs in the heading), EPA understands the technical issues involved in confirming that a CSO discharge has occurred but also must balance the need to notify the public of a potential untreated discharge in a timely manner. Therefore, the 2-hour initial notification requirement has been retained in the Final Permit, although the language at Part I.H.3.g.(2) has been modified to clarify that the notification shall be made "(2) hours after becoming aware by monitoring, modeling or other means that a *probable* CSO discharge has occurred". EPA notes that this timing is consistent other recently-issued permits in coastal New Hampshire, such as the Exeter WWTF permit issued in August 2022.

EPA agrees that CSO discharge estimates may change between the time the initial and subsequent notifications are provided. EPA also agrees that data should be validated by the time of submissions through the DMR. Any corrections made to the data included in the initial 2-hour notification or the supplemental 24-hour notification should also be addressed by providing updated information on the website and/or through other electronic communications as soon as possible.

Comment 30

Section C.2 – Preventive Maintenance Requirements. Section C.2 requires the permittee to do the following (emphasis added):

> 2. Preventive Maintenance Program
> The Permittee and Co-permittee shall maintain an ongoing preventive maintenance program to **prevent** overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all **potential** and actual unauthorized discharges. Plans and programs to meet this requirement shall be described in the Collection System O&M Plan required pursuant to Section C.5. below.

Preventing overflows/bypasses caused by infrastructure failures and/or malfunctions is impossible. The City can work to "minimize" such failures or "minimize to the maximum extent practicable" but the City can't guarantee against such failures. Sewer pipes well within their

useful lives will rupture without any warning. Overflows which reach surface waters are violations of the Clean Water Act. The City is concerned that this language (the City must prevent all such overflows) creates a duplicative violation (one for the overflow and one for violating this permit condition that the City must prevent such overflows). Accordingly, the City asks that EPA simply require proper operation and maintenance of the POTW as the industry standard requirement.

The City also objects to the requirement that our inspection program be designed "to identify all potential and actual unauthorized indirect discharges." This requirement should be restated, because no inspection program will identify all *potential* or even actual unauthorized discharges. For example, local residents may report unauthorized discharges to Portsmouth's collection system. The premise that Portsmouth staff should be responsible for identifying all potential and actual unauthorized indirect discharges is impracticable. The requirement should be modified to require an inspection program designed:

"To the extent practicable, to identify actual or potential collection system releases."

Response 30

EPA disagrees that preventing overflows/bypasses caused by infrastructure failures and/or malfunctions is impossible. The term "preventative maintenance" is a common term and implies that maintenance activities should not merely be reactive to system failures after they occur but should be proactive to predict where the most likely failures and/or malfunctions may occur and maintain those areas expeditiously before they occur. Such a maintenance program would effectively prevent many overflows/bypasses from occuring.

The permit language clarifies that "proper operation and maintenance" of the POTW includes "an ongoing preventive maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure" and "an inspection program designed to identify all potential and actual unauthorized discharges." Including this clarification in the permit does not change the legal framework for permit violations. Violations of permit conditions requiring proper operation and maintenance could occur with or without other permit violations (such as an "unauthorized discharge" or overflow that reaches a surface water). Clarifying what proper operation and maintenance includes does not change that.

Part II (Standard Conditions) of the permit defines an upset as "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". EPA understands that it is not practicable to anticipate every possible cause of a release, but the intention of the preventive maintenance language is to prevent equipment failure due to poor maintenance of that equipment.

Comment 31

<u>Controlling Inflow and Infiltration.</u> This provision requires the City to control inflow/infiltration to **prevent** high flow-related overflows and/or permit non-compliance. The City is concerned, again, that this language creates double liability for the City in the event of capacity-related sewer overflows (regardless of storm size) or effluent exceedances at the treatment plant during high flow periods.

The City suggests that the requirement be modified to require an I/I program to minimize, to the extent practicable, high-flow-related overflows (which, except as otherwise provided herein, are not authorized by this permit). Alternatively, this section should be clarified to only apply to sanitary sewers (consistent with Paragraph 5.5 of the Fact Sheet).

Response 31

Similar to Response 30, this is a standard condition that the Region has routinely included in permits for WWTFs. EPA similarly views this provision, in part, as implementing the regulation at 40 CFR § 122.41(e), which requires the proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. EPA does not view this permit provision as subjecting the Permittee to "double liability" in the event of a capacity-related SSO or WWTF effluent violation. Rather, as explained in the Fact Sheet at 32, the provision requires the Permittee to "develop an I/I removal program commensurate with the severity of I/I in the collection system. This program may be scaled down in sections of the collection system that have minimal I/I."

The commenter is correct that the Fact Sheet states that "the combined systems are not subject to I/I requirements". This language acknowledges that combined systems are required to address I/I through the implementation on the Nine Minimum Controls, as a component of a Long Term CSO Control Plan (LTCP) or as required by a Consent Decree.

I/I was addressed in the City's Consent Decree, which required the implementation of EPA's Nine Minimum Controls. As part of this implementation, it was recommended that the City eliminate inflow and infiltration when possible as part of their regular collection system repair and replacement procedures. The City prepared a study to identify locations that contribute I/I to the City's collection sewer collection system and a systematic plan to address significant structural deficiencies and remove major infiltration and inflow (I/I) sources from the system.[16]

Therefore, Part C.3 of the Final Permit has been revised to clarify that the I/I requirements specified in the permit apply to the separate sanitary system of Portsmouth as well as the Town of New Castle's collection system, none of which is combined. As already noted, the ongoing I/I requirements for the combined portion of Portsmouth's collection system are still required by the NMC implementation as specified in the Consent Decree. Part I.H.4 of the Final Permit continues to require that the City provide

[16] City of Portsmouth's Sewer System Evaluation Survey Infiltration Study, Woodard & Curran – July 2020

an annual report by March 31st summarizing activities during the previous calendar year relating to compliance with the nine minimum controls.

Comment 32

Collection System Mapping Requirement. The City objects to the requirement in Section 4.k that the City include on the collection system map the following:

> k. The pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow.

This level of detailed information will require years of further work to develop and include in the maps. Some of this information may not be attainable. Accordingly, the City suggests the following revision:

> k. To the extent known and/or discoverable over time during the normal course of utility operations: The pipe diameter, date of installation, type of material, distance between manholes, and the direction of flow.

Response 32

Regarding the pipe diameter, date of installation, type of material and other metrics referred to by the Permittee, EPA agrees that some information may be infeasible to obtain. Therefore, this subpoint of the Final Permit [Part I.C.4.(k)] has been updated to include the words "to the extent feasible." However, additional language has been added such that if certain information is determined to be infeasible to obtain, a justification must be included along with the map. If EPA or NHDES disagrees with the assessment, EPA may require the map to be updated accordingly. EPA reserves the right to return to the original permit language in the next permit cycle if it determines that the Permittee's justifications were inappropriate and/or inadequate.

Comment 33

Analysis following capacity-related overflows. Section C.f requires the following:

> f. If the monthly average flow exceeded 80 percent of the facility's 6.13 MGD design flow (4.9 MGD) for three consecutive months in the previous calendar year, or there have been capacity related overflows, the report shall include:
>
> (1) Plans for further potential flow increases describing how the Permittee will maintain compliance with the flow limit and all other effluent limitations and conditions; and
>
> (2) A calculation of the maximum daily, weekly, and monthly infiltration and the maximum daily, weekly, and monthly inflow for the reporting year.

The City objects to the requirement to perform these evaluations following any capacity-related overflow. The City (like every POTW) will have capacity-related overflows every year. Moreover, having to calculate the daily, weekly, and monthly infiltration and inflow for the reporting year seems like an amazing engineering feat that the City does not believe is technically feasible (at least for the combined collection system). The City requests that condition f.2 be removed from the permit.

Response 33

EPA does not agree that the requirements of Part I.C.6.f. are unreasonable or infeasible.

This requirement is triggered if the facility experiences monthly average flows exceeding 80 percent of the facility's 6.13 MGD design flow (4.9 MGD) for three consecutive months (in the previous calendar year), or there have been capacity related overflows. In such case, providing both a plan for maintaining compliance with effluent limitations and conditions should future flow increases occur as well as the maximum daily, weekly and monthly I/I in the annual operation and maintenance summary report will assure that a comprehensive assessment can be made with respect to the capacity and operation of the collection system and the POTW and that a comprehensive scheme is in place for addressing issues which can adversely affect treatment plant operations and lead to adverse impacts on water quality. The infiltration and inflow values may be based on estimates, and any of this information that has been previously collected for other reporting purposes may be used in satisfying this requirement.

Comment 34

Paragraph E. Pretreatment Program Development. The City requests eighteen (18) months to implement the pretreatment program requirements associated with this permit. Although the City has made initial efforts to move toward the implementation of a formal program in anticipation of this requirement, the City is experiencing difficulties retaining and hiring personnel in the wastewater field, a situation faced by many municipalities. The additional time will also allow for a full budget cycle to plan for the additional costs associated with the program along with the time to implement the updates to local ordinances needed to enforce the new program.

Response 34

EPA acknowledges the issue with retaining and hiring personnel in the wastewater field. In consideration of this matter, EPA has extended the deadline for submittal of the pretreatment program to eighteen (18) months from the effective date of the permit.

Comment 35

Section E.1.b(3) incorrectly requires that the City ensure industrial user compliance. The City cannot "ensure" that industrial dischargers will comply with all requirements any more than the police can ensure there will be no crime or the fire department can't ensure there won't be any house fires. The City can require compliance and that is what this permit provision should do, as follows:

(3) Control, through permit, contract, order, or similar means, the contribution to the POTW by each industrial user to ~~ensure~~ require compliance with applicable pretreatment standards and requirements;

Response 35

The permit language noted in the comment is taken directly from the Pretreatment Regulations at 40 CFR Section 403.8(f)(1)(iii) which cannot be revised as part of this permit action.

EPA disagrees with the commenter's interpretation of the provision. For example, EPA must write NPDES permits to "ensure" compliance with the Clean Water Act and State water quality standards. That does not mean EPA must ensure that there will never be a permit violation, but simply that the terms of the permit itself (if complied with) will ensure compliance with such regulations and that EPA is responsible to enforce against any violations. In like manner, the terms of the permit, contract, or order used by the Permittee to control the contribution to the POTW by each industrial user (if complied with) must ensure compliance with applicable pretreatment standards and requirements and the Permittee is required to enforce against any violations.

Comment 36

Permit Page 16 - Same as above – please make the following change to subparagraph b(5): (5) Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by industrial users, compliance or noncompliance with applicable pretreatment standards and requirements by industrial users. Representatives of the POTW shall be authorized to enter any premises of any industrial user in which an effluent source or treatment system is located or in which records are required to be kept under 40 CFR Section 403.12(o) to ~~assure~~ evaluate compliance with pretreatment standards. Such authority shall be at least as extensive as the authority provided under Section 308 of the CWA.

Response 36

The permit language noted in the comment is taken directly from the Pretreatment Regulations at 40 CFR Section 403.8(f)(1)(v) which cannot be revised as part of this permit action.

Similar to Response 35, EPA considers the term "to assure compliance" to mean the Permittee must perform whatever inspections, surveillance and monitoring procedures are necessary to determine that the industrial user is in compliance with pretreatment standards and must enforce against any violations. This language does not mean that the actual inspections, surveillance and monitoring procedures will result in such compliance.

Comment 37

Permit Page 17 - Subparagraph E(3) should be clarified. The City believes that the following permit provision should be clarified in terms of how our pretreatment program "is subject to revisions by EPA". Specifically, EPA should clarify the process by which any changes that EPA may desire will be effected.

3. The Permittee's complete pretreatment program is subject to revisions by EPA during the term of this permit and prior to renewing this permit under Section 301(h) of the CWA.

Response 37

Revisions to the IPP do not typically require a modification to the permit. For example, a permit modification is not required when the Permittee is notified of EPA's approval of local limits, or when updating local limits or sewer use ordinances which are done by letter or enforcement order (if needed). In other words, EPA would not modify the IPP via the NPDES permit. For more information about pretreatment requirements and the

process by which EPA reviews, approves and revises, if necessary, pretreatment programs, see https://www.epa.gov/npdes/national-pretreatment-program or contact the EPA Region 1 pretreatment coordinators at https://www.epa.gov/npdes/contact-us-national-pretreatment-program.

Comment 38

Subparagraph F.4 should be clarified. Subparagraph F.4 should be clarified as follows given that the City can require SIU compliance but the City cannot assure that compliance. If an SIU violates their permit, EPA could argue the City has violated our requirement to "assure" the SIUs don't violate their permits. Again, the City can prohibit things but the City can't guarantee no non-compliance by its non-domestic users.

> The Permittee must ~~assure~~ require 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.

Response 38

See Responses 35 and 36. Similarly, EPA considers the term "assure" to mean the Permittee's responsibility to require that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW and to enforce against any violations.

This comment, as well as Comments 35 and 36, seem to suggest a misunderstanding that the Permittee does not have the authority to guarantee compliance of industrial users with applicable pretreatment standards. EPA disagrees and notes that when the Permittee did not have an Industrial Pretreatment Program (IPP) it was EPA's responsibility to directly oversee the industrial users contributing wastewater within the system. However, once the IPP under this permit becomes effective it will then become the responsibility of the Permittee to directly oversee these industrial users and to assess and assure that they are in compliance with all pretreatment standards. Therefore, the Permittee must bear all responsibility to assess and assure compliance by requiring compliance and by properly addressing any non-compliance. Additionally, 40 CFR 403.8 and 12 specifically state that "The Control Authority shall require that frequency of monitoring necessary to assess and assure compliance by Industrial Users with applicable Pretreatment Standards and Requirements."

Comment 39

Permit Page 18 - The City objects to the vague and overly broad PFAS sampling requirements. Section F.6 on page 18 would require annual sampling of the "following types" of indirect dischargers for PFAS chemicals. The City fails to see why such sampling is necessary given the other sampling that will take place under this permit and the current evolving regulations regarding PFAS. The City is already performing influent and effluent sampling to characterize the City's WWTF discharge. Why is EPA requiring, at this time – before the City gets POTW results – this sampling of non-domestic users?

Also, the requirement is impermissibly vague with its statement for example to sample every very [*sic*] other "known or suspected source". As has been well documented, PFAS compounds are ubiquitous in the environment and without more specificity this requirement is overly broad. Also, how does one sample a Centralized Waste Treater once per year and get a representative sample? How does the City sample "contaminated sites"? This requirement should be removed from the permit. If EPA insists on keeping this requirement, over the City's objection, the City requests the amount of sampling be reduced dramatically. In addition, the term in the table "Maximum Daily" is not consistent with a single annual grab sample form [*sic*] these industrial dischargers and should be changed to "Value" or "Concentration".

Response 39

EPA has broad authority under the CWA and NPDES regulations to prescribe the collection of data and reporting requirements in NPDES Permits. See, e.g., CWA § 308. As discussed in the Fact Sheet at pages 28-30, the purpose of this monitoring and reporting requirement is "to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits on a facility-specific basis." These permitting decisions may include whether there is reasonable potential to cause or contribute to a violation of the State water quality standards in the next permit reissuance, and if there is, to inform the development of numeric effluent limits or pollutant minimization practices, or some combination thereof.

With regards to industrial users (IUs), EPA notes that testing likely sources of PFAS is an important step to inform future decisions regarding source reduction from IUs.

Regarding "Contaminated Sites," EPA agrees that this language is somewhat vague and clarifies that this refers to "Known or Suspected PFAS Contaminated Sites" and has updated the Final Permit accordingly. If such a site contributes flow to the POTW then a representative sample of that flow must be obtained and sampled annually.

Regarding "Any Other Known or Expected Sources of PFAS," the Permittee should require such monitoring for any other IUs that they have reason to believe may be a source of PFAS to the POTW. Further guidance is available on "Any Known or Expected Sources of PFAS" in the *Technical Resources for Addressing Environmental Release of Per- and Polyfluoroalkyl Substances (PFAS)*[17], specifically in Section 2, as well as in *EPA's Multi-Industry Per- and Polyfluoroalkyl Substances (PFAS) Study – 2021 Preliminary Report*[18]. Permittees may use this list to identify, at their discretion, which IUs are potential sources of PFAS. Given the availability of this guidance, Part I.F.6. of the Final Permit remains unchanged from the Draft Permit.

Regarding a Centralized Waste Treater, EPA acknowledges the inherent variability of the waste streams throughout the year and agrees that a single annual sample may not be representative of the entire year. The requirement to obtain a representative sample from

[17] https://pfas-1.itrcweb.org/
[18] EPA-821-R-21-004

such a facility simply requires that the sample be taken on a typical day and must be representative of the co-mingled effluent waste stream on that day.

Regarding the commenter's request for a reduction in sampling requirements, EPA does not consider such reductions appropriate at this time in order to obtain enough data points to fully characterize the potential sources of PFAS throughout the collection system given that there may be potential sources that have inherent variability. However, EPA will evaluate all available data in the next permit reissuance and may reduce PFAS monitoring based on all available information at that time.

Finally, EPA asserts that "Maximum Daily" is appropriate given that the annual sampling will occur on a single day and the result will represent the maximum value on that day.

Therefore, this comment results in a single change to the Final Permit replacing the term "Contaminated Sites" in Part I.F.6 with "Known or Suspected PFAS Contaminated Sites."

See Response 56 for further discussion of the PFAS monitoring requirements.

Comment 40

Permit Page 21 - <u>Section I.H.2.b, which requires CSO water quality standard compliance must be deleted/revised</u>. Section 2b ("b. The discharges shall not cause or contribute to violations of federal or state Water Quality Standards.") must be deleted from the permit for the reasons stated above regarding Part I.A.2 (page 10 of the permit) relating to the identical requirement for the plant outfall.

In addition to those reasons, the City is not yet required to achieve water quality standards for its CSO discharges. Only following its full implementation of its approved CSO LTCP and following post-construction monitoring and any further compliance schedule must it achieve compliance with water quality standards. EPA should remove this provision or, at a minimum, note that it does not apply for the CSO discharges until <u>after</u> full implementation of its CSO LTCP in accordance with the approved schedule therein. See Section IV.B.3 of the CSO Policy (CWA Section 402(q)). EPA should not require compliance of water quality standards by CSO discharges before the approved LTCP is fully implemented.

Response 40

As discussed in the Fact Sheet, the implementing regulation at 40 CFR § 122.44(d)(1)(i) states that, "Limitations must control all pollutants or pollutant parameters which may be discharged at a level which will cause, have reasonable potential to cause or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." In addition, inclusion of the narrative condition at issue is consistent with EPA's CSO Policy, which is incorporated by reference into CWA Section 402(q). National CSO Control Policy, 59 Fed. Reg. 18688, 18696 (1994) (requiring NPDES permits to include narrative limitation mandating compliance with applicable WQS no later than the date allowed under the State's WQS).

The CSO Policy sets out a phased approach to CSO permitting. The immediate requirement for CSO permits are: (1) immediately implement the BAT/BCT, which includes at a minimum the NMCs; (2) submit a report documenting such implementation; (3) comply with applicable WQS, no later than the date allows under the State's WQS, "expressed in the form of a narrative limitation;" and (4) develop and submit a LTCP[19]. Once a permittee has developed a LTCP and selected controls necessary to achieve WQS, the CSO Policy articulates the following, among other elements, for inclusion in CSO permits: (1) requirements to implement the NMCs and (2) water quality-based effluent limits under 40 CFR § 122.44(d)(1) and 122.44(k), requiring, at a minimum, numeric performance standards for the selected CSO controls.[20]

For CSO permits in Region 1, EPA has and continues to require implementation of the NMCs to achieve compliance with State WQS in NPDES permits. Development of LTCPs, on the other hand, has been and continues to be addressed as part of enforcement actions taken by Region 1's Enforcement and Compliance Assurance Division. EPA or the relevant state has worked with virtually every CSO community in New England to develop CSO abatement schedules to be memorialized in administrative or judicial enforcement mechanisms. As necessary, such schedules are adjusted to reflect new information and evolving financial conditions.

Both the NPDES Permit Writer's Manual and the Combined Sewer Overflows: Guidance for Permit Writers ("CSO Guidance") underscore the importance of ensuring that CSO discharges achieve state water quality standards including those that are narrative. NPDES Permit Writer's Manual, EPA at 9-16 to 9-17 (Sept. 2010); Combined Sewer Overflows: Guidance for Permit Writers, EPA Office of Water, at 3-36 to 3-37, 4-27 (Sept. 1995). The CSO Guidance specifically states that "in addition to performance standards designed to meet WQS, the permit writer should include narrative permit language providing for the attainment of applicable WQS." Combined Sewer Overflows: Guidance for Permit Writers, EPA Office of Water, at 4-27 (Sept. 1995). These guidance documents are consistent with the CWA and its implementing regulations.

For the reasons stated above, Part I.H.2.b of the Draft Permit, which requires compliance with State WQS, is both lawful and appropriate, and will remain in the Final Permit. Also see Response 27 above which discusses a recent court case upholding EPA's use of narrative water quality standards language, including those relative to meeting WQS with respect to CSOs.

Comment 41

Permit Page 22

Revise record retention period to three years instead of six. Federal regulations specify a three-year document retention period (except for biosolids – which is five years). Section 22.e must be revised to specify three years instead of six. This is in accordance with EPA's regulation

[19] Id. at 3-6. 3 59 Fed. Reg. at 18696.
[20] Id.

and the general record retention requirement in the GENERAL CONDITIONS attachment (Page 7 of 21, C.1.b) which specifies three years except for biosolids.

Response 41

First, EPA notes that Part II.C.1.b indicates, "Except for records of 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 5 years (or longer as required by 40 CFR § 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. This period may be extended by request of the Director at any time."

Based on this Part II provision, EPA agrees that a 3-year records retention period regarding compliance with minimum control #9 at Part I.H.3.e (the quantification and recording of all discharges from combined sewer outfalls) is appropriate. Additionally, the definition of what constitutes the 3-year record period has been revised to reflect the language in the Standard Conditions (Part II) of the Permit. Part II.C.1.b specifies that "…the Permittee shall retain records of all monitoring information…for a period of at least 3 years from the date of the sample, measurement, report or application." The Final Permit has been updated accordingly. However, EPA recommends that the City retain information pertaining to DMRs for at least 5 years, since information in lab reports or other documents sometimes needs to be verified during permit reissuance, which involves reviewing data from at least the most recent 5 years of reporting.

Comment 42

Permit Page 24 - Part I.H.5. This requires CSO discharges to be reported daily. Reporting the tally by day will result in an event occurring over more than one day being counted as more than one event. The City recommends that reporting be changed to a "by event" frequency to prevent an over-counting of CSO activations.

Response 42

Part I.H.5. of the Draft Permit requires the reporting of the total flow duration of CSO discharge events in terms of hours, as opposed to days as asserted in the comment. The daily flow and duration measurements are to be used in calculating these values. Additionally, the reporting of this information is to be done with each monthly DMR and the annual report, not daily. Language has been added to Part I.H.5.a of the Final Permit to clarify that a single discharge event spanning more than one calendar day shall be reported as one discharge event. Otherwise, this requirement remains unchanged in the Final Permit.

Comment 43

Permit Page 30 - Section I.J.12 NHDES Shellfish Harvesting Procedures. It is unreasonable for the NHDES Shellfish Program to expect the City to make multiple notifications (via phone, pager, etc.) of a possible high bacteria loading or high flow event. Incidents leading to a possible

high loading and high flow event will mandate that the facility's staff be conducting critical operational duties. The notification should be made to the cell phone number provided, and it should be up to the Shellfish Program to arrange proper access to said number for its own staff.

Response 43

Section I.K.12 (rather than I.J.12) of the permit requires that:

> "Notification shall be made using the program's cell phone number. If Shellfish Program staff are not available to answer the phone, leave a message describing the issue or situation and provide your contact information, including phone number. Then, call the Shellfish Program's pager and enter a call back number. Upon initial notification of a possible high bacteria/virus loading event, Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis."

To clarify the language in Section I.K.12, all notifications will not require the Permittee to call both the Shellfish Program's phone number and pager. Notification using the Shellfish Program's pager is required only if Shellfish Program staff do not answer the phone. Due to the nature of their work, Shellfish Program staff may be working in areas that do not have cell phone coverage. If the staff are in an area without cell phone coverage at the time that the Permittee calls, they may not receive a record of the call or even the voicemail. The Shellfish Program staff carrying the pager will always physically be within the pager service area, so they will always receive a page that is sent. Then they will be able to listen to the voicemail, or if it did not record, they will know to return the Permittee's call, thus allowing them to respond to the notification in a timely manner.

Therefore, this comment does not result in any change to the Final Permit.

Comment 44

General Conditions Page 5
The City objects to EPA's Bypass definition – condition 4. For the reasons noted above in our discussion of Permit Page 7, Footnote 5, the City also objects to EPA's definition of "Bypass" in the General Conditions (see below). Like EPA Region 7, EPA Region 1 should clarify in our NPDES permit that blending is not a bypass.

Response 44

The General Conditions document cites the regulatory definition of the term "bypass" verbatim from 40 CFR Part 122.41(m) and this will not be changed. Also see Responses 3 and 22.

Comment 45

FACT SHEET COMMENTS

General Comment #3: The Fact Sheet does not note that the Town of New Castle is a co-permittee. The City requests this be added to the Fact Sheet.

Fact Sheet Page 12

Paragraph 3.1. It should be noted that the City serves Rye, NH from one privately owned mobile home park and a low pressure sewer system along Sagamore Ave from Odiorne Point Road to Foyes Corner roundabout.

Paragraph 3.1.1. This paragraph explicitly notes the use of ferric chloride and sodium hydroxide. These are specific chemicals but should be more broadly referred to with more generic descriptors, such as "flocculant" and "supplemental alkalinity".

Fact Sheet Page 17

Paragraph 4.3. The WWTF discharge pipe is located approximately 300 linear feet from the NH bank of the Piscataqua River, not 90 feet.

Fact Sheet Page 18

Footnote 13. This footnote references NPDES Permit No. NH0090000. It should reference NPDES Permit No. NH0100234.

Paragraphs 5.1.2 and 5.1.3 (in entirety). Refer to earlier comments related to the BOD and TSS mass limits. In summary, the City does not agree with EPA's reasoning and requests the changes identified above.

Fact Sheet Page 21

Paragraph 5.1.5. The City notes previously that the range should be widened to a low pH of 6.0. The required study was completed by the City and is attached.

Paragraph 5.1.10.2. notes the reasoning behind the new copper limit. The City asks that this be updated consistent with the City's discussion above regarding the proposed arsenic limit. The City requests a "monitoring only" requirement for arsenic to match NHDES' 2013 recommendation.

Fact Sheet Page 32

Paragraph 5.5. Paragraph 2 indicates "…(combined systems are not subject to I/I requirements)…". This should be written in at Permit Page 12, paragraph I.C.3 for Infiltration/Inflow in order to clarify between the Town of New Castle (co-permittee) separate sewer system and the City of Portsmouth's separated and combined collection systems.

Response 45

The corrections and clarifications noted in the comment above are included here for the record. The Fact Sheet supports the Draft Permit and cannot be changed at this time.

The Draft Permit listed the Town of New Castle as a Co-permittee, but neglected to do so in the Fact Sheet, although it was acknowledged that the WWTF serves a portion of New Castle's population.

Regarding Paragraphs 5.1.2 and 5.1.3, EPA disagrees with the commenter as explained in Response 1.

Regarding Paragraph 5.1.5, see Response 13.

Regarding Paragraph 5.1.10.2, see Response 14.

Regarding the comment on I/I requirements, see Response 31.

B. Comments from Normand Houle, Chairman, New Castle Water and Sewer Commission:

Comment 46

At the very outset of our reply to the draft permit, we believe it worthwhile to provide some background/context. We are a small town, population ~950, with ~400 sewer accounts and two commercial enterprises, the Wentworth By The Sea hotel and the U.S. Coast Guard Station, Portsmouth Harbor. All other customers of the sewer utility are residential. The town is effectively "built out." There is virtually no developable land and new construction is typically, "tear down and replace."

Our total annual effluent (2021) is approximately 25,182,000 gallons per year, an average of 68,992 per day with only two days when we exceeded 180,000 gallons per day (June 2021 - April 2022), the average day flow rate allowed by the city of Portsmouth. All our effluent is pumped to the City of Portsmouth's Peirce Island Waste Water Treatment Facility (WWTF). Our sewer system is exclusively a collection one comprised of approximately 22,000 linear feet of gravity main, 12,000 linear feet of force main, three sewer pump stations and 131 manholes. We have no treatment facilities.

Much of our infrastructure dates back to 1975 and, for many years, it suffered from inattention. However, pursuant to a wide ranging sewer study conducted by Underwood Engineers of Concord and Portsmouth, NH in 2015/2016, we have made improvements:

1. Bypass plumbing at all three pump stations (~2017) to provide alternate temporary pumping in the event of a catastrophic station failure.
2. New sewer pumps at all three stations and accompanying SCADA system and controls (~2018).
3. "Re-anchoring" of the force main which is suspended under the Sawtelle Memorial Bridge (43°04'18.4"N 70°43'53.3"W).

We are poised to make further improvements near term:

1. We have applied for, and at Town Meeting (May 10,2022) our citizens approved, a $341,900 NH Clean Water State Revolving Fund (CWSRF) loan, with an offsetting

American Rescue Plan (ARPA) grant of $100,650 to replace our aging (25+ years old) emergency diesel generators and ancillary electrical components. Pending approval by the NH Governor and Executive Council, we hope to begin engineering design first quarter FY2023, with completion second quarter FY2024.

2. Our "pre-application" for a loan/grant to the NH CWSRF to conduct an inflow/infiltration study was accepted by NHDES on May 26, 2022. It takes almost a year to get approval, which means this work would not likely begin before July 2023.
3. Our "pre-application" for a $30,000 grant from the NH CWSRF to establish an asset management plan for our sewer infrastructure was accepted by NHDES on May 19, 2022. As in the project cited immediately above, if this project gets approved, this work would not likely begin before July 2023.

Given our dependence on the city of Portsmouth for sewage treatment at substantially high cost, It is difficult to budget for improvements. Our sewer rate per unit (748 gals.) is currently $14.89 and Portsmouth is forecasting a 6% increase for FY24. We are at the outset of negotiating a more favorable wholesale rate, but it should be recognized that the high rates we have endured for the last 10-12 years have had a very adverse impact on our ability to generate funds to improve our infrastructure.

Response 46

EPA acknowledges these comments and appreciates the summary of work that has been conducted and that continues to be planned to address the operation and maintenance of the collection system.

Comment 47

With respect to **Part I.B. UNAUTHORIZED DISCHARGES**:

As noted in the Public Notice of April 14, 2022, "The Town of New Castle owns and operates a sanitary sewage collection system that discharges to the PIWWTF…" We do not directly discharge to any of the outfalls listed. We have no "other point sources," nor any "sanitary sewer overflows." The only sensitive areas of concern would be bodies of water adjacent to the three sewer pump stations and the force main which delivers effluent to the PIWWTF, suspended under the Sawtelle Memorial Bridge (43°04'18.4"N 70°43'53.3"W). We acknowledge the reporting requirements of paragraph I.B. in the event of any unauthorized discharge from these locations in accordance with instructions prescribed in paragraph I.J.

Response 47

EPA acknowledges the comment.

Comment 48

With respect to **Part I.C. OPERATIONS AND MAINTENANCE OF THE SEWER SYSTEM**:

Maintenance Staff: Our full time public works staff consists of two persons, a Superintendent of Public Works and a Deputy. While there is a small cadre which augments these two to manage the towns' "Great Island Common" (a seaside park) during the summer months, these

two persons are responsible for all public works functions: water, sewer, roads (including snow plowing), and building maintenance and repair. It is important to understand that sewer operations are not their only responsibility. While sewer operations are a top priority, the requirements levied by the permit are assessed as burdensome and cannot be entirely fulfilled by this small staff. Either staff will have to be increased or outside contractor support, at considerable cost, will have to be considered to meet these requirements.

Response 48

EPA appreciates the comment and understands that Town's resources are limited. Nevertheless, EPA is obligated to impose appropriate conditions in an NPDES permit to implement the objectives of the Clean Water Act, including requirements for the proper operation and maintenance of the collection system, such as adequate staffing levels.

EPA recognizes that municipalities must balance meeting these requirements with administrative, staffing and logistical constraints. As such, in Part I.C. of the Draft Permit affords the permittee flexibility in that the permit does not require a particular number of staff, rather "adequate" staff to carry out the operation, maintenance, repair, and testing functions of this permit. Therefore, permittees and co-permittees are responsible for determining, based on their specific circumstances, what an "adequate" staffing level is, and how that level will be achieved and maintained, for the collection system that they own and operate.

Comment 49

Preventative Maintenance Program: The importance of preventive maintenance, one "designed to identify all potential and actual unauthorized discharges," is acknowledged. Again, in light of our small staff, either additional personnel or outside support will be required.

Response 49

EPA acknowledges the comment. The intent of the preventive maintenance program is to devise an inspection program to identify potential and actual unauthorized discharges.

See Responses 30 and 48.

Comment 50

Infiltration/Inflow: While the 2015/2016 sewer study did address I/I, it was not highlighted as egregious. Nevertheless, as indicated in the introduction above, we are applying for a loan/grant to study the issue in detail.

Response 50

EPA acknowledges the comment and the Town's efforts in securing funding for this study. Also see Response 31.

Comment 51

Collection System Mapping: The Town does not have a detailed map of the sewer collection system, which is precisely why we are applying for a grant to establish an asset management plan for the sewer infrastructure, which would include mapping. As mentioned earlier, we have

submitted a "pre-application" to NHDES and our application has been accepted. We are hoping for an award in the fourth quarter FY23. Development of the plan could not begin before July 2023 and wrap up one year later. The "shall be kept up-to-date" challenge will be exacerbated by our small public works staff size. It is one thing to have an asset management plan in place; it is another to exercise it and keep it up-to-date. We acknowledge the requirements of subparagraphs a. through k. EXCEPT a. b. c. d. and f. which we view as not applicable. The requirements of this subparagraph will inform the definition/development of our asset management plan.

Response 51

Based on the Town's comments on the revised Draft Permit, EPA understands that the Town has received a $30,000 grant project to develop an asset management plan for sewer infrastructure to include collection system mapping and that it plans to begin that work sometime in the first quarter of FY24. Given the timing of issuing this Final Permit, the Town appears to be taking appropriate measures to meet the mapping requirement.

EPA understands that some of the requirements of Part I.C.4 regarding collection system mapping (such as parts b, c, d and f) likely do not apply to the Town. However, EPA considers that subparagraph a. of this Part, which refers to "sanitary sewer lines and related manholes" does apply to the Town.

Comment 52

Collection System O&M Plan

a. We should be able to meet the requirements of this subparagraph.
b. It is unlikely that we would be able to provide "the full Collection System O&M Plan "within 24 months from the effective date" of the permit. We neither have the personnel on staff to fulfill this requirement nor the financial resources to outsource its development. At minimum, we request an extension of 12 months, to 36 months, to meet this requirement. Further, we request exemption from item 5.b.(8) "Overflow Emergency Response Plan" in that there would be no bypasses or upsets as defined in Part II STANDARD CONDITIONS.

Response 52

Given that this is a new requirement for the Town, which has demonstrated that it has limited personnel and financial resources, EPA has determined that providing an additional year is reasonable. Therefore, the Town would have 36 months to meet this requirement.

The Permittee requested to be exempt from Part C.5.b.8 of the Permit. EPA notes that sanitary sewer overflows, one of which occurred in January of 2023 (as noted in the Town's comments submitted on the 2023 Revised Draft Permit) have occurred and therefore have the potential to recur. Although such overflows are not considered upsets or bypasses, they are considered overflows as specified in Part I.C.5.b.8 and their potential recurrence requires consideration in the development of an Overflow Emergency Response Plan. Having said that, EPA clarifies that the Town's Plan does not need to consider treatment facility upsets or bypasses if they are not relevant to the Town.

Comment 53

Annual Reporting Requirement: Given that "the first annual report is due the first March 31 following submittal of the Collection System O&M Plan…," if we have been unsuccessful in achieving an asset management plan for the sewer infrastructure, it will be virtually impossible to provide any map called for in subparagraphs b. and d. A most realistic date for having a plan in place is June 2024, so we request an exemption to the map requirement until second quarter (Dec. 2024) of FY25. Further, we view subparagraph f. as not applicable to our system which is strictly a collection, not treatment, system.

Response 53

Based on the timing of issuance of the Final Permit, the due dates for the Collection System O&M Plan and the first Annual Report will be beyond the dates requested in this comment. Also see Response 52.

Regarding subparagraph f. of this Part, EPA acknowledges that this requirement applies to the City of Portsmouth. However, to the extent that the City determines that there are capacity related overflows in the system, the Town would be expected to cooperate with the City of Portsmouth regarding any inquiries into infiltration or inflow associated with the Town's collection system that may be contributing to system overflows.

Comment 54

With respect to **PART I.D. ALTERNATIVE POWER SOURCE:**

We have backup emergency diesel generators at all three pump stations and expect to replace them and ancillary electrical components by October 2024.

Response 54

EPA acknowledges that the Town is complying with this permit requirement.

C. Comments from Melissa Paly of Conservation Law Foundation:

General Comment

CLF is a non-profit environmental advocacy organization working to protect natural resources and build healthy communities in New Hampshire and across New England. Through our Great Bay-Piscataqua Waterkeeper program and regulatory advocacy, CLF has focused considerable resources to protect and restore New Hampshire's and southern Maine's Great Bay estuary, which has been designated an estuary of national significance. Our work has included active engagement in the public comment process for several WWTF NPDES permits in the estuary, including the Peirce Island WWTF, WWTFs in Exeter, Newmarket, and Dover, and the recently issued Total Nitrogen General Permit.

The City of Portsmouth is to be commended for the major investment it made in significantly upgrading the Peirce Island WWTF in recent years. As a result of that investment, the Peirce

Island WWTF – previously operating with only enhanced primary treatment – has substantially reduced pollutant loads into the Piscataqua River and Great Bay estuary, including total nitrogen, total suspended solids, and BOD. The next iteration of the facility's NPDES permit provides an important opportunity to leverage those investments and benefit the health of the Great Bay estuary.

Comment 55

The Draft Permit's Effluent Limitation for Total Suspended Solids Fails to Ensure Compliance with State Water Quality Standards

As the Fact Sheet for the draft permit acknowledges, "[t]he Piscataqua River, segment NHEST600031001-02-02, is listed in the final State of New Hampshire 2020/2022 List of Threatened or Impaired Water that require a TMDL as a Category 5 'Waters Requiring a TMDL.' The pollutants requiring a TMDL are estuarine bioassessments, polychlorinated biphenyls, and dioxin (including 2,3,7,8-TCDD)." 2022 Fact Sheet at 15. With specific regard to its aquatic life integrity designated use, the receiving water body is suffering "Severe Impairment." 2022 Fact Sheet at 16. This impairment designation is part of, and consistent with, a trend throughout the estuary involving the significant loss of eelgrass – the estuary's cornerstone habitat – in terms of both cover and biomass.

To address impairments in the estuary associated with aquatic life uses and the loss of eelgrass, EPA has appropriately focused its efforts primarily on nitrogen. However, there exist other factors – in addition to and in combination with nitrogen – that are contributing to existing impairments. One of those factors is the presence of suspended solids,[21] which have significantly increased at locations within the estuary, as documented at monitoring stations in the Upper Piscataqua River and at Adam's Point. *See* PREP, *Environmental Data Report, Dec. 2017* (excerpt provided herewith) at 16, 18.

The draft permit includes technology based effluent limitations ("TBELs") for both Total Suspended Solids (TSS) and Biological Oxygen Demand ("BOD"), adopting the identical TBELs (both in terms of concentration and load) that were part of the Peirce Island WWTF permit issued in 2007 for a design flow of 4.8 million gallons per day ("MGD"). Given that the 2022 draft permit pertains to a design flow of 6.13 MGD, it is unclear how the identical effluent limits at a higher volume will ensure compliance with state water quality standards.

As EPA acknowledges in the Fact Sheet for the draft permit, water quality-based effluent limitations are "necessary when less stringent TBELs would interfere with the attainment or maintenance of water quality criteria in the receiving water." 2022 Fact Sheet at 5 (citing CWA § 301(b)(1)(C) and 40 CFR §§ 122.44(d)(1), 122.44(d)(5)). As EPA further states: "If the permitting authority determines that the discharge of a pollutant will cause, has the reasonable potential to cause, or contribute to an excursion above WQSs, the permit must contain WQBELs

[21] *See* PREP, *Environmental Data Report, Dec. 2017* (excerpt provided herewith). *See also* Steward, J.S. and W.C. Green. 2007. Setting load limits for nutrients and suspended solids based upon seagrass depth-limit targets. Estuaries and Coasts 30:657-670 (provided herewith).

for that pollutant." *Id.* at 8 (citing 40 CFR § 122.44(d)(1)(i)). *See also* 40 CFR § 122.4 ("No permit may be issued: . . . (d) When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states.").[22]

Suspended solids have been identified as a significant factor undermining the health of the Great Bay estuary. The Piscataqua Region Estuaries Partnership ("PREP"), part of EPA's National Estuaries Program, specifically identified total suspended solids as a "pressure indicator" for the Great Bay estuary in its 2018 *State of Our Estuaries* report. *See* PREP, *State of Our Estuaries (2018),* provided herewith, at 15. PREP's report identifies TSS as a "cautionary" trend for the estuary and explains that "[i]ncreasing suspended sediments reduce water clarity and impact primary producers such as eelgrass, seaweeds, and phytoplankton." *Id.* Importantly, PREP, with the support of its Management Committee, has adopted the goal of "NO INCREASING TRENDS FOR TOTAL SUSPENDED SOLIDS." *Id.*

As discussed above, the Upper Piscataqua River and Adam's Point monitoring stations have demonstrated significant increases in suspended solids.[23] Such increases contribute to the loss and degraded health of the estuary's eelgrass habitat and associated impairments under the Clean Water Act. To ensure that the Peirce Island WWTF does not cause or contribute to water quality standards violations, EPA, in finalizing the permit, should replace its proposed TBELs for TSS with water quality-based effluent limitations. In doing so – and to be consistent with PREP's goal of "NO INCREASING TRENDS FOR TOTAL SUSPENDED SOLIDS" and ensure the permit does not cause or contribute to water quality standards violations, EPA should develop TSS WQBELs that require a reduction in the discharge of TSS, to ensure that historic TSS loads from the Peirce Island WWTF do not increase,[24] and that the facility's discharges will not cause or contribute to the violation of water quality standards.

Response 55

First, EPA notes that the mass-based monthly average and weekly average BOD_5 and TSS limits have been revised to be based on the upgraded facility design flow of 6.13

[22] EPA's apparent approach in the draft permit of proposing effluent limits "that ensure that the increased discharge results in *no more than an insignificant degradation of water quality* in the Piscataqua River and the downstream waters," 2022 Fact Sheet at 15, is contrary to this standard and should not be relied up on to finalize the permit's effluent limitations and other conditions.

[23] Discharges from the Peirce Island WWTF have been demonstrated to reach far into the estuary. See *Hydrographic Study of Peirce Island Wastewater Treatment Plant Effluent in the Piscataqua River of Portsmouth, New Hampshire: Report of Findings from the December 10 – 14, 2012 Study Period* and *New Hampshire Department of Environmental Services and NH Fish and Game Announce Changes to Shellfish Harvest Rules in Little Bay and the Bellamy River from October 2018 through March 2019*, provided herewith.

[24] In light of the Peirce Island WWTF's significant expansion in capacity from an average monthly flow of 4.8 MGD to a design flow of 6.13 MGD, the draft permit's TBELs for TSS would likely result in an increase in TSS as compared to past, actual TSS loads. For example, as the Fact Sheet states, the median TSS removal percentage at the Peirce Island WWTF has been 95.9%. By simply carrying forward the TSS TBELs established in the 2007 permit, including the "≥ 85%" average monthly limitation for TSS, the permit could allow significantly more TSS being discharged as compared to past, actual loads.

MGD as part of the 2023 Revised Draft Permit. See the 2023 Fact Sheet Supplement for the rationale. Comments received on the 2023 Revised Draft Permit are also presented in Part III of this Response to Comments document below.

Second, EPA agrees with the comment that "there exist other factors – in addition to and in combination with nitrogen – that are contributing to existing impairments" within the Great Bay watershed. Further, EPA agrees that TSS is one such factor that has the potential to impact eelgrass recovery due to reduced water clarity. Finally, EPA agrees that this supports the goal of "NO INCREASING TRENDS FOR TOTAL SUSPENDED SOLIDS" as noted in PREP's 2018 *State of Our Estuaries* report. Also see Response 1.

EPA notes that PREP's analysis considered the overall TSS load from all sources throughout the watershed, including both WWTFs and stormwater sources. Therefore, any approach to regulate TSS to prevent an "increasing trend" must likewise consider all sources. EPA expects that the efforts under the Great Bay Total Nitrogen General Permit (GBTN GP) permitting strategy will result in an overall decrease in TSS and other constituents found in stormwater. Specifically, the Response to Comments at 105 for the GBTN GP says the following:

> "Another question raised in the comments was whether EPA can describe other advantages of managing nonpoint source pollution in addition to nitrogen removal. Specifically, some commenters requested examples of measures that may have additional benefits such as aesthetics, total suspended solids (TSS) removal, erosion control, etc. Further, some commenters questioned whether implementing BMPs that are designed to maximize nitrogen reduction would result in less potential for TSS or chromophoric dissolved organic matter (CDOM) reduction. There are many reasons a municipality may choose to implement BMPs throughout their jurisdiction, these reasons include stormwater system resiliency, flood mitigation, reduction of heat island effects, aesthetics, public safety and permitted pollutant reductions. The specific reason a municipality may choose one BMP over another, say tree planting over rain gardens, is a municipal decision based on local priorities. The pollution removal estimation tools provided by EPA Region 1 on https://www.epa.gov/npdes-permits/stormwater-tools-new-england#swbmp include information on nitrogen, phosphorus, TSS, metals and bacteria reduction based on the implementation of a variety of BMPs. This allows municipalities to use the best available information to define the pollution reduction realized by implementing different stormwater BMPs. Different BMP designs will optimize the reduction of one pollutant over another, but the agencies disagree that by prioritizing the removal of nitrogen in stormwater BMPs you would increase TSS or CDOM. Many BMPs rely on infiltration as a mechanism for pollution reduction, this will decrease the total volume of untreated stormwater reaching Great Bay and will reduce the overall loading of all constituents found in stormwater."

> Therefore, EPA asserts that efforts by the municipalities under the GBTN GP (including Portsmouth) will result in significant decrease in TSS from stormwater

sources. As described further in the 2023 Fact Sheet Supplement, EPA considers this decrease along with the mass-based monthly average and weekly average TSS limits based on the upgraded facility design flow of 6.13 MGD are expected to prevent any increasing trends for TSS and will achieve WQS.

Comment 56

The Final Permit Should Require Testing of More PFAS Chemicals

CLF shares EPA's concern about the problem of PFAS pollution and strongly supports monitoring for the presence of PFAS in WWTF influent, effluent, and sludge. However, in light of the thousands of PFAS that now exist, the draft permit's requirement for only four PFAS (PFOS and PFOA, PFHxS, and PFNA) to be tested in the Peirce Island WWTF's influent, effluent, and sludge is inadequate.

EPA's Draft Method 1633 enables testing for 40 PFAS compounds. On its website, EPA describes Draft Method 1633 as follows:

> EPA's Office of Water, in partnership with the Department of Defense's (DoD) Strategic Environmental Research and Development Program, has published draft Method 1633, a single-laboratory validated method to test for 40 PFAS compounds in wastewater, surface water, groundwater, soil, biosolids, sediment, landfill leachate, and fish tissue. This draft method can be used in various applications, **including National Pollutant Discharge Elimination System (NPDES) permits**. The method will support NPDES implementation by providing a consistent PFAS method that has been tested in a wide variety of wastewaters and contains all the required quality control procedures for the CWA. While the method is not nationally required for CWA compliance monitoring until EPA has promulgated it through rulemaking, **it is recommended now for use in individual permits.**
>
> Historically, EPA published draft methods on this Clean Water Act Methods website after completing the single-laboratory validation report. However, due to many public and stakeholder requests, this method was made available while DoD and EPA prepared the single-laboratory validation study report. The report is now available below.
>
> Multiple EPA programs have reviewed this draft method. DoD has begun a multi-laboratory validation study of the procedure, which is expected to be completed in 2022. DoD's multi-laboratory validation is proceeding in collaboration with the Office of Water, the Office of Land and Emergency Management, and the Office of Research and Development.
>
> The Office of Water will use the results of the multi-laboratory validation study to finalize the method and add formal performance criteria. The method validation process may eliminate some of the parameters listed in this draft method.

In the meantime, the Office of Water encourages laboratories, regulatory authorities, and other interested parties to review **and use** the draft method, with the understanding that it is subject to revision.

See https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas (emphases added).

CLF urges EPA, in finalizing the permit, to require testing for PFAS in the Pierce Island WWTF's effluent, influent, and sludge using EPA's Draft Method 1633, including testing for the broader suite of PFAS compounds facilitated by that Method.

Response 56

EPA acknowledges that the Method 1633 is currently "draft" but expects the multi-lab validated method to be published before the end of 2023.[25] As PFAS contamination is an urgent public health and environmental issue, EPA agrees with the comment that the Final Permit should require all 40 PFAS analytes measured by this method to be monitored and reported each quarter for influent, effluent and sludge. Reporting of all 40 PFAS analytes is necessary to address the emerging understanding and remaining uncertainties regarding sources and types of analytes of PFAS in wastewater and their impacts. While NHDES has currently adopted MCLs for only 4 of these analytes as described in the Fact Sheet at 28-29, it is possible that MCLs, water quality criteria and/or effluent limitation guidelines could be adopted for many of the other 36 analytes measured by Method 1633 during the life of the permit. Therefore, EPA considers it prudent to require reporting for all 40 analytes that are measured using Method 1633 to ensure EPA has sufficient data to address each of these PFAS analytes in the future. This level of monitoring is recommended in EPA's *October 2021 PFAS Strategic Roadmap*[26] and in an EPA memo dated April 28, 2022 called *Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority*[27].

Table I.A.1., Effluent Characteristics, Influent Characteristics, and Sludge Characteristics, as well as Part I.F.6, have been modified in the Final Permit to now include monitoring for all 40 of the PFAS Analytes required to be tested in Method 1633. This analysis is to be conducted using Draft Method 1633 until there is an analytical method approved in 40 CFR Part 136. A list of the PFAS analytes that are required to be tested is provided in Attachment E to the Final Permit. EPA notes that the addition of these analytes does not entail a significant cost increase to the Permittee given that the analytical method 1633 would measure these compounds in any case (*i.e.*, even if only 4 were required for reporting) and the permit simply requires that all 40 results be reported individually into NetDMR each quarter.

[25] See status of Method 1633 at: https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas
[26] https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf
[27]https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf

Finally, regarding sample type, EPA notes that a 4th Draft of Method 1633 was published in July 2023.[28] This 4th Draft indicates the following in Section 6.1.3 regarding the appropriate sample type:

> Compositing equipment – Because some PFAS are known surfactants, EPA strongly discourages composite sampling for compliance monitoring (see Section 8.2), but if composite sampling is approved for given project, the equipment described below may be used. Also see Section 8.2.1 for an alternative approach to composite sampling.
>
> If approved and used for a project, automatic or manual compositing system must incorporate properly cleaned containers. An integrating flow meter must be used to collect proportional composite samples. Only HDPE tubing must be used. If the sampler uses a peristaltic pump, a minimum length of compressible silicone rubber tubing may be used in the pump only. Before use, each lot of tubing must be thoroughly rinsed with methanol, followed by repeated rinsing with reagent water to minimize sample contamination. The final reagent water rinse should be collected and analyzed for PFAS to confirm that the tubing is suitable for use.

As shown, the 4th Draft of Method 1633 recommends avoiding composite sampling to prevent sample contamination from the composite sampling equipment. Therefore, EPA is changing the sample type from "composite" to "grab" sampling to be consistent with the recommendations in the method.

Comment 57

Enhanced Public Notification and Information About CSO Events are Needed

According to its Monthly Consent Decree Reports,[29] the City of Portsmouth is complying with the Long Term Control Plan developed in 2005 and the updated CSO Supplemental Compliance Plan approved by EPA in 2018 which requires completion of the City's three remaining sewer separation projects by October 2023. Fact Sheet at 35. Despite this progress, South Mill Pond has "a severe impairment for *Enterococcus*. South Mill Pond, segment NHEST600031001-09, is listed in the final State of New Hampshire 2020/2022 List of Threatened or Impaired Water that require a TMDL as a Category 5 *"Waters Requiring a TMDL."* Fact Sheet at 15. The City reported in 2021 a total of 1.94 million gallons of combined sewer overflow,[30] nearly half of which flowed into South Mill Pond, likely contributing to the severe bacterial impairment. The draft permit prohibits dry weather discharges and exceedance of water quality standards during wet weather. We underscore the importance of continued progress toward full sewer separation to eliminate wet weather discharge of untreated wastewater into South Mill Pond and the Piscataqua River. Additionally, we support the draft permit's new requirements for enhanced

[28] Available at: https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas

[29] https://www.cityofportsmouth.com/publicworks/wastewater/resources#CD

[30] https://www.cityofportsmouth.com/publicworks/wastewater/combined-sewer-overflows-cso

public notification and encourage the City to increase signage around South Mill Pond to better inform residents of the risks to people and pets from contact with water following CSO events.

Response 57

As required by the Consent Decree cited in the Fact Sheet, the City is responsible for implementing the "Nine Minimum Controls (NMCs)" associated with its CSOs. One of these NMCs requires the City to implement a public notification program, a component of which includes the installation and maintenance of identification signs for CSO outfall structures as described in Part I.H.3.f of the Final Permit.

Despite the additional sewer separation work that remains to be conducted, the three CSO outfalls will remain. Full separation of the drainage areas contributing flows to these CSO outfalls is not a condition of this Permit. However, the activation frequency and discharge volumes from these CSO outfalls are expected to decrease further as a result of these separation projects.

The 2009 Consent Decree (CD) requires the City to develop a Post Construction Monitoring Plan which will be approved by EPA. This plan will help determine whether the Long Term Control Plan (LTCP) measures meet all the design criteria and performance criteria in the LTCP, whether the CSO Facility (overflow control devices and portion of the collection system downstream of such devices) and the WWTF with respect to the treatment of combined sewage, comply with the technology-based and water quality-based requirements of the CWA, the CSO Policy, and all applicable federal and state regulations and permits, and that there are no CSO discharges. Once implemented, if the results of this Plan indicate areas of non-compliance, the City would need to propose actions to achieve compliance with such areas of non-compliance.

EPA agrees with the commenter's concern regarding the need for public notification of CSO discharge events and has included requirements in the draft and Final Permits which represent several enhancements over the requirements in the 2007 permit to ensure that the public receives adequate and timely notification of CSO occurrences and impacts. Specifically, notification of CSO discharges shall be provided electronically to any interested party, and a posting made on the permittee's website, of a probable CSO activation within two (2) hours of the initiation of any CSO discharge(s). Subsequently, within 24 hours of the termination of any CSO discharges(s), the permittee shall provide follow-up information on their website and in a follow-up electronic communication to any interested party.

Regarding the commenter's suggestion to increase signage around South Mill Pond, the Final Permit continues the requirement in the City's 2007 permit to install and maintain identification signs for CSO outfall structures (see Part I.H.3.f of the Final Permit). EPA supports the placement of additional signage and the dissemination of information relative to CSO discharges and their potential impacts in addition to the minimum requirements set forth in the Final Permit.

The City of Portsmouth has installed CSO signage at all 3 CSO outfall locations as shown here: https://www.cityofportsmouth.com/publicworks/wastewater/combined-

sewer-overflows-cso. EPA encourages signage and/or dissemination of information pertaining to CSO discharges and their potential impacts.

D. Comments from Portsmouth Residents (Susan Paige Trace, Peter Whelan, Clare Kittredge and Thaddeus Jankowski):

EPA received several comments from citizens regarding requests for a public hearing, the capacity and performance of the upgraded Peirce Island WWTF, concerns related to ongoing discharges from CSO outfalls, dry weather discharges, how CSO discharges may offset any environmental benefit from the Great Bay Total Nitrogen General Permit (GBTN GP), public notification of CSOs, annual CSO testing frequency, co-occurrence of CSO discharges and bypasses/blending at the WWTF.

These comments, as well as EPA's responses to these comments, are provided below.

Comment 58

Comments from Susan Paige Trace

I would like to take this time to make comment about the Pierce Island Waste Water Treatment Facility Draft Permit NH01000234. As an intervener in the Clean Water Act Citizens Lawsuit involving the Consent Decree Second Modification (United States of America, et al v. City of Portsmouth, New Hampshire Case No. 09-cv-283-PB), I have continued to follow the City of Portsmouth's treatment – to include numerous Combined Sewer Overflows – of their sewage.

While I understand Judge Barbadoro's decision regarding the Consent Decree Second Modification, the City of Portsmouth still appears to be in trouble with the amount of raw sewage that gets dumped into it's estuary, South Mill Pond, located in the middle of historic downtown Portsmouth. The tidal Estuary in turn flows into the Piscataqua River. As the EPA must know, 2,250,000 gallons of raw sewage were dumped with storm water last year alone through CSO events in Portsmouth. Please let me put that into perspective. A tractor-trailer rig that delivers gas to a gas station generally holds 9000 gallons. So please picture 250 tractor-trailer rigs filled with raw sewage in line snaking through Portsmouth - each one taking its turn to dump that sewage into South Mill Pond. The CSO events in Portsmouth dumping either through the Deer Street CSO outflow pipe (directly into the river) or the CSO outflows 10A and 10B into South Mill Pond are legendary. The smell is equally legendary! And 10A and 10B outflows are less than a block from a middle school. We've had dry weather CSO events multiple times this year and what has the EPA done about this? Simple acknowledgement of the events when Portsmouth notifies the EPA of these Dry Weather events is enough?

The fact that so much raw sewage is being dumped without the benefit of treatment at the Peirce Island Treatment Plant speaks volumes about capacity of the new plant and potential problems with its process. Is the new Wastewater Treatment Facility undersized after EPA/NHDES approval? So much taxpayer money was spent on it.

I went to the EPA's multi-municipality event held at Pease for a discussion of a Great Bay general nitrogen permit before the pandemic in 2019. The concern was how would Maine WWTF's be involved when the permitting involved New Hampshire municipalities.
My concern now is that as long as the EPA allows the blatant CSO events in Portsmouth then the EPA is inadvertently providing an improper environment that in turn, makes the nitrogen numbers work for a permit issuance. And the new rumor is the possibility of another EPA/NHDES approved outflow pipe into North Mill Pond. Isn't it more important to clean up an estuary?

I would ask you sir, to please insist that the EPA of Boston (Region I) hold a public hearing in Portsmouth for the residents to weigh in and make public comment about what's happening up here. Dry weather CSO Events are not legal under the Clean Water Act. And the Wet weather CSO events are happening in town at the same time that the Peirce Island WWTF is performing legally sanctioned Bypass and Blend. Will the final permit allow for that to continue?

It appears the new plant is undersized to handle the amount of recent growth in Portsmouth and its technology is incompatible for the treatment of FOG (Fats, Oil, & Grease). Please do not authorize the final permit until you've held a public hearing for the benefit of the residents under the Clean Water Act. Portsmouth's environment and the Piscatiqua River need the protection the EPA can provide. Portsmouth's future depends on your understanding.

Comments from Peter Whelan

I currently operate a charter fishing business for the past 15 years and have witnessed the degradation of habitat in the Piscataqua River and Great Bay due to the largely untreated sewerage and lack of nitrogen control in the estuary and the river. As you are aware the saltwater estuarine environment is very sensitive to nitrogen and untreated discharges into the estuary. This ecosystem is under a great deal of pressure and needs very tight regulation. It is the largest saltwater Estuary north of the Chesapeake and is a prime spawning and nursery habitat for the Gulf of Maine. I have several concerns concerning the new permit for the Pierce Island Facility.

The brand-new Pierce Island plant is continuing to have wet weather events utilizing outfalls 10A and 10B and the Deer Steet outfall. A new 121 million dollar state of the art plant should not be having such events. Portsmouth has been undergoing a building boom which maybe stressing this plant already. There was an independent report generated by a third-party engineer by the plaintiffs in the Clean Water lawsuit which challenges the operation and sizing of this now completed new plant, with its' BAF system. There were major concerns as to the volume and treatment it could handle with the BAF system based on past volumes especially during storm events.

There have been dry weather discharge events from 10A and 10B CSOs dumping directly in the South Mill Pond. This is very concerning as it is illegal and a violation of the current permit. It calls into question the capacity and operation of the current plant. Clearly steps must be taken to eliminate and stop ALL dry weather events. This new permit does not adequately address these concerns.

The EPA is currently participating in a General Great Bay Nitrogen Permit with all the municipalities' surrounding Great Bay, clearly Portsmouth's continued wet weather events and dry weather discharges are not helping to improve the overall health of Great Bay and its growing Oyster farming aquaculture businesses. The Piscataqua River is an impaired waterway, the lower estuary is under extreme pressure from this plant including the loss of eelgrass and the degradation of the habitat from years of Primary treated effluent being discharged into the lower river.

The current sampling protocol at the outfalls of once per year is clearly unacceptable. The South Mill Pond is in the center of Portsmouth and is alongside the major recreational areas and Parks in the city. The signage is lacking along the South Mill Pond. The CSO notifications of wet and dry weather events is clearly lacking public notification. Given the health hazard these discharges represent from a pathogen and virus standpoint a more transparent and robust system must be used. At a minimum Monthly sampling of the outfall areas and all CSO Event sampling should be mandatory. The South Mill Pond discharges directly into the lower Piscataqua River which itself is an impaired waterway.

There should not be ANY untreated discharges to the Estuary, a new state of the art plant should be able handle a variety of these wet weather events.

I am requesting that the Boston office of the EPA hold a Public Hearing in Portsmouth so the general Public can discuss and comment on this new permit and address the major issues which continue after 30 plus years.

Comments from Clare Kittredge

I worry that our new 120 million dollar Pierce Island treatment plant does not adequately protect the waters of the Piscataqua River, Great Bay or Portsmouth's South Mill Pond-- because excess largely untreated sewage is periodically allowed to pour into the river and South Mill Pond.

The new Pierce Island plant continues to experience wet weather events using outfalls 10A and 10B and the Deer Street outfall releasing untreated sewage into our waterways during and after big storm events. This is wrong. Our new state of the art plant should not be experiencing these problems, and they may be aggravated by Portsmouth's building explosion.

Living as I do near the South Mill Pond, I am particularly concerned about CSOs dumping directly in the South Mill Pond. Not only is this illegal and a violation of the current permit, suggesting that the capacity of the current plant is inadequate.

The South Mill Pond often smells after big storms. Despite its location near major recreational areas and Portsmouth city parks, no signs warn innocent passers-by of potential health hazards from pathogens and viruses in the sewage being poured into this pond. And I worry that its water is being inadequately tested-- once a year is definitely not enough!

Comments from Thaddeus Jankowski

It is appalling to me that over 1.7 million gallons of untreated CSO water flows through the South Mill Pond annually! There is no signage to warn the public! Regularly our many unwary pets and kids of tourists frolic in the water. This is in violation of the Clean Water Act! Please hold a public hearing in Portsmouth and see for yourself the problem.

I worry that our new 120 million dollar Pierce Island treatment plant does not adequately protect the waters of the Piscataqua River, Great Bay or Portsmouth's South Mill Pond-- because excess largely untreated sewage is periodically allowed to pour into the river and South Mill Pond.

The new Pierce Island plant continues to experience wet weather events using outfalls 10A and 10B and the Deer Street outfall releasing untreated sewage into our waterways during and after big storm events. This is wrong. Our new state of the art plant should not be experiencing these problems, and they may be aggravated by Portsmouth's building explosion.

Living as I do near the South Mill Pond, I am particularly concerned about CSOs dumping directly in the South Mill Pond. Not only is this illegal and a violation of the current permit, suggesting that the capacity of the current plant is inadequate.

The South Mill Pond often smells after big storms. Despite its location near major recreational areas and Portsmouth city parks, no signs warn innocent passers-by of potential health hazards from pathogens and viruses in the sewage being poured into this pond. And I worry that its water is being inadequately tested-- once a year is definitely not enough!

Response 58

Response to Comments on Requests for a Public Hearing

EPA is required to consider any requests for a public hearing that are submitted during the comment period. Generally, EPA agrees to conduct a public hearing when it determines that "a significant degree of public interest", as specified in 40 CFR 124.12(a)(1), has been shown. Although a public hearing was requested by three commenters, EPA did not deem the nature of these requests to constitute "a significant degree of public interest" and decided to not conduct a public hearing. EPA believes that it has adequately addressed all comments received on the Draft Permit in this response document.

Response to Comments on the Capacity and Performance of the Upgraded Peirce Island WWTF

Several commenters expressed concern with the capacity and performance of the upgraded plant. Specifically, commenters point to the recent growth in the Portsmouth area, and question whether such expansion was factored into the design of the upgraded facility. Additionally, commenters cite to ongoing CSO discharges as an indication that the facility may be undersized and or not performing properly.

At the outset of the facility planning and design phase, sewered flow projections which accounted for both planned and future development, were established to ensure that the

facility would be appropriately sized[31]. Although the development and approval of the design for the upgraded facility are outside the scope of this NPDES permit, EPA notes that facilities planning for communities such as Portsmouth, which are served by combined collection systems, typically includes an evaluation of wet weather flows that may result in CSO discharges, as well as peak loads to the facility. Also see Response 3.

EPA shares the concerns expressed in these comments as they relate to the continued occurrence of CSO discharges and continues to work with the City through enforcement to expeditiously mitigate the remaining CSOs so that further reductions in CSO activation frequencies and discharge volumes are realized. CSO abatement is being addressed through the implementation of the City's Long Term Control Plan. Also see Responses 4 and 48.

Lastly, regarding the concern of fats, oil and grease (FOG), EPA agrees with the importance of minimizing these constituents in the wastewater. The City of Portsmouth has prepared outreach materials for residents and businesses regarding the negative impacts on wastewater collection and treatment systems due to FOG as well as measures that can be taken to reduce FOG flows to the WWTF as seen in the following link: https://www.cityofportsmouth.com/publicworks/wastewater/fats-oils-and-grease. EPA encourages residents and businesses to review this material.

General Response to Comments Regarding Ongoing Discharges from CSO Outfalls and the Legality of Such Discharges

As previously discussed, because portions of the collection system have not been separated, discharges from CSO outfalls occur when wet weather events result in the hydraulic capacity of the collection system and/or treatment facility being exceeded.

Under the 2009 Consent Decree (and its subsequent modifications), the City of Portsmouth has invested $55 million in overall CSO abatement activities since 1997, including sewer separation and the elimination of CSO outfalls. In addition, the Pierce Island WWTF has undergone an upgrade that has resulted in the ability to treat additional wastewater flows, thus resulting in improved effluent quality. Due to these efforts, the number of CSO outfalls and overall discharge events and volumes have all decreased over the last several years as shown in the table included here: https://www.cityofportsmouth.com/publicworks/wastewater/combined-sewer-overflows-cso.

The City continues to implement its Long Term CSO Control Plan, which includes selected CSO abatement measures aimed at achieving compliance with the CWA. Future implementation of this plan, including additional sewer separation, is expected to result in further decreases in the frequency and volume of CSO discharge events.

[31] City of Portsmouth, NH Wastewater Master Plan Scope of Work, Weston & Sampson and Brown and Caldwell, May 17, 2007.

As a point of clarification, the discharges that occur from the three remaining CSO outfalls listed in this permit are authorized by the permit and are not illegal so long as in compliance with the terms of the permit. Being point sources, CSO outfalls are subject to sections 301 and 402 of the CWA. CSOs require National Pollutant Discharge Elimination System (NPDES) permits, which may include technology-based and water quality-based requirements of the CWA. For CSO permits in New Hampshire, EPA has and continues to require implementation of the Nine Minimum Controls (i.e., technology-based requirements for CSOs). The concurrent development and implementation of CSO Long Term Control Plans, which includes selected CSO abatement projects aimed at reducing and/or eliminating CSO discharges, has been and continues to be addressed as part of enforcement actions taken by Region 1's Enforcement and Compliance Assurance Division. This approach is consistent with the CWA and the CSO Control Policy. USEPA 1994 CSO Control Policy, Part IV.B.2[32]. Also see Response 4.

Response to Comments on the Occurrence of Dry Weather Discharges

CSO discharges during dry weather or discharges of Sanitary Sewer Overflows (SSOs) are considered unauthorized discharges and notice of any such discharges must be provided to EPA and NHDES. It is not clear if the commenter is referring to dry weather CSO discharges or SSO discharges in the comment. As a point of clarification, CSO discharges may occur after a storm event (i.e., wet weather event) has ended, due to various factors such as the time it takes for the storm-related flow to pass through the collection system as well as storm duration and intensity. Such discharges, which are associated with wet weather events, are authorized by the permit so long as in compliance with the terms of the permit.

Response to Comments on CSO Discharges Negating the Environmental Benefit from the Great Bay Total Nitrogen General Permit (GBTN GP),

Addressing issues such as the nutrient impairment and CSO discharges requires a multi-pronged approach. Such an approach is being implemented through the issuance of the GBTN GP, the reissuance of this Final Permit and the ongoing implementation of the City's Long Term CSO Control Plan.

The Pierce Island WWTF was recently upgraded from a chemically enhanced primary treatment facility to a tertiary level treatment facility. This upgrade, in addition to providing secondary treatment to reduce organic matter and other solids in the discharge, provides nitrogen removal to comply with the recently-issued GBTN GP. The result will be greatly reduced loadings of nitrogen and many other pollutants to Great Bay. In addition, the increased capacity at the upgraded facility allows for the treatment of additional flows during wet weather events, thereby reducing the occurrences and volumes of untreated CSO discharges. Further, the City has conducted significant sewer separation projects and has undertaken other CSO abatement measures that has resulted in the reduction of CSO discharges and the elimination of CSO outfalls. Future sewer separation projects are scheduled to be completed, which are expected to further reduce

[32] National CSO Control Policy, 59 Fed. Reg. 18696 (1994).

the overall occurrences of CSO discharges. The City of Portsmouth submitted its CSO Long Term Control Plan in April of 2005.[33] Beginning on Page 13 of the Fact Sheet, the CSO compliance history is outlined which includes a Consent Decree in 2009 to bring the City into compliance with the CWA, by implementing a Nine Minimum Controls (NMC) Compliance Plan, developing and implementing a Wastewater Master Plan, and completing Combined Sewer Overflow (CSO) Facility Upgrades. There were also three modifications to the original CD to address necessary changes to the City's compliance schedule and actions.

Lastly, the Final Permit includes *Enterococci* and Fecal Coliform limits to protect recreational and shellfishing uses of the receiving water.

These measures are expected to result in water quality improvements in the Great Bay.

Response to Comments Concerning Public Notification of CSO Discharge

EPA's response to comments concerning public notification of CSOs (including signage of CSO discharge outfalls) is provided in Response 48.

Response to Comments Concerning CSO Testing Frequency

EPA's response to comments regarding the once per year monitoring requirement for CSOs is provided in Response 20.

III. Responses to Comments on the 2023 Revised Draft Permit:

From April 27 through May 26, 2023, EPA solicited public comments on a revised Draft Permit which incorporated the following changes to the original Draft Permit:

(1) The daily maximum concentration-based and mass-based limits for BOD_5 and TSS have been removed and replaced with report only requirements; and
(2) The mass-based monthly average and weekly average BOD_5 and TSS limits have been revised and are based on the upgraded facility design flow of 6.13 MGD.

EPA received the comments below on the 2023 Revised Draft Permit.

A. Comments from Karen S. Conard, City Manager, Portsmouth, New Hampshire:

Comment 59

The City would like to thank the Environmental Protection Agency for removing the maximum daily effluent limitations for BOD and TSS from the proposed permit. This change is consistent with EPA's approach to other permits as such limits are inconsistent with federal regulation and unnecessary to protect water quality. We also support basing the BOD/TSS monthly/weekly average mass loading limits on the secondary treatment

[33] https://www.cityofportsmouth.com/publicworks/wastewater/resources

regulation. We agree that these changes are both technically and legally appropriate.

Response 59

EPA acknowledges the comment.

Comment 60

While the City has no objections to the two modified provisions, we continue to have concerns about the other issues which we raised in our comments submitted June 7, 2022 in response to the original draft NPDES permit renewal.

Response 60

All comments submitted by the City on the initial 2022 Draft Permit have been responded to above in Responses 1 through 45.

B. Comments from Tom Irwin and Melissa Paly of Conservation Law Foundation:

Comment 61

In response to the public notice for the revised draft permit, Conservation Law Foundation reiterates and hereby incorporates by reference the comments submitted by CLF on June 7, 2022 relative to the 2022 draft permit for NPDES Permit No. NH 0100234. The City of Portsmouth is to be commended for the major investment it made in significantly upgrading the Peirce Island WWTF in recent years – an investment that has substantially reduced pollutant loads into the Piscataqua River and Great Bay estuary, including total nitrogen, total suspended solids, and BOD5. As previously stated, the next iteration of the facility's NPDES permit provides an important opportunity to leverage those investments and benefit the health of the Great Bay estuary.

Response 61

EPA acknowledges the comment. All comments submitted by CLF on the initial 2022 Draft Permit have been responded to above in Responses 55 through 57.

C. Comments from Normand Houle and William Stewart of the Town of New Castle, NH:

Comment 62

The Town has reviewed the 2023 Revised Draft Permit and has found that the verbiage affecting the Town of New Castle unchanged. Accordingly, except to provide you with updated information about sewer infrastructure initiatives the Town has undertaken, and to report on three sanitary sewer overflows, two in June 2018, and one in January 2023, its response is little changed from last year.

The Town is poised to make further improvements near term:

1. The "Pump Stations Electrical systems Upgrade" project got underway in March 2023. This will replace aging (25+ years old) emergency diesel generators and ancillary

electrical components and, to the extent funding will allow, assess topographical sea level rise concerns.

2. New Castle's "pre-application" for a loan/grant to the NH CWSRF to conduct an inflow/infiltration study did not "make the cut" during the 2022 competition. It is submitting an updated pre-app seeking to repair and remediate 22 manholes, believed to contribute to inflow during severe coastal storms, in the vicinity of the three pump stations.
3. The Town was approved for a $30,000 grant from the NH CWSRF to establish an asset management plan for sewer infrastructure. This work is expected to begin late summer 2023.

As reported last year, it is difficult to budget improvements, given New Castle's dependence on the City of Portsmouth for sewage treatment and its substantially high cost. However, we are in the final stages of negotiations with the City of Portsmouth for a 20-year sewer agreement which may provide some near-term rate relief and an opportunity for the Town to add to its capital reserves.

New Castle acknowledges the reporting requirements of paragraph I.B. in the event of any unauthorized discharge from these locations in accordance with instructions prescribed in paragraph I.J. It did have two minor force main breaks at the Sawtelle Memorial Bridge in June 2018, and a sanitary sewer overflow originating from a sewer manhole on January 20, 2023, which discharged an estimated 50 gallons into two catch basins that discharge into upper Portsmouth Harbor. All were properly reported to NHDES.

Response 62

EPA acknowledges the comment and appreciates the updates. See Responses 46 through 54 which address comments submitted on the initial 2022 Draft Permit, most of which are similar to those that were submitted on the 2023 Revised Draft Permit. Regarding the reporting of sanitary sewer overflows, also see Response 52.