CITY OF PORTSMOUTH

Legal Department
Municipal Complex
1 Junkins Avenue
Portsmouth, New Hampshire 03801
smwoodland@portsmouthnh.gov
(603) 610-7240

Suzanne M. Woodland
Deputy City Manager / Regulatory Counsel

April 8, 2026
VIA EMAIL

Solanch Pastrana-Del Valle
Department of Enforcement and Compliance Assurance Division
US EPA New England Region 1
Mail Code: 04-4
5 Post Office Square
Boston, MA 02109-3912

Joseph Theis, Director
Water Enforcement Division
Office of Enforcement and Compliance Assurance
US EPA (2243A)
1200 Pennsylvania Ave, NW
Washington, D.C. 20460

Re: Consent Decree 09-cv-283-PB
Request to Substitute Ceres Street Sewer Lining Project
for Inflow and Infiltration Reduction Contract 2
City of Portsmouth, New Hampshire

Dear Ms. Pastrana-Del Valle and Mr. Theis,

The City respectfully requests that it be permitted to substitute a different inflow and infiltration (I&I) reduction project for the originally envisioned and scoped Contract 2 (Contract 2) under Consent Decree 09-cv-283-PB dated August 12, 2009 and as amended by Consent Decree Modification filed July 2, 2012 and approved by the Court on February 15, 2013 and as amended by Consent Decree Second Modification, Section III, item paragraph 6, filed on April 1, 2016 and approved by the Court on September 28, 2016.

The City has identified an I&I project that would deliver more environmental and operational benefits than the originally planned Contract 2 which is due to be completed by October 31, 2028. The City would like to prioritize this newly identified Ceres Street Sewer Lining Project which could likely to be completed by the end of this year and certainly by the existing October 31, 2028 deadline for Contract 2 as the Ceres Street Sewer Lining Project does not require the same level of design and permitting work.

See the attached Memorandum from City Engineer Erich Fiedler and Industrial Pretreatment Coordinator William Bernan explaining the Ceres Street Sewer Lining Project and expected

benefits to the wastewater collection and treatment system. See also the most recent monthly compliance report which I attach for convenient reference demonstrating the City's ongoing commitment to project work.

The City would be happy to provide any additional information or documentation that you may require to evaluate this request to substitute the Ceres Street Sewer Lining Project for the current Contract 2 project. The City still intends to perform Contract 2, but given budget constraints, staffing and the potential for other priority work in the wastewater treatment and collection system the preference would be to substitute the Ceres Street project for CD compliance purposes. The City is about to issue a notice to proceed to initiate an approximately $24 million upgrade to our Pease Wastewater Treatment Facility. We are also in the initial planning process for a major upgrade for our critical Mechanic Street Pump Station.

I reached out to Attorney Tom Irwin of the Conservation Law Foundation to let him know this request was coming and that I would be more than willing to respond to questions or concerns. I expect once he reviews the attached Memorandum, he can timely weigh in as to whether he has any objection or concern. We will reach out to the State representatives shortly.

As required by the Consent Decree:
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Please contact me if you have any questions or require additional information.

Sincerely,

/s/ Suzanne Woodland

Suzanne Woodland
Regulatory Counsel

Attachments
cc:
Tracy L. Wood, NHDES Wastewater Engineering Bureau Administrator
Chris Aslin, Esq., Department of Justice, Environmental Protection Bureau
Jaegun Lee, Enforcement Counsel, U.S. EPA New England – Region 1
David Gordon, Esq., U.S. Department of Justice
Tom Irwin, Esq., Conservation Law Foundation
Karen Conard, City Manager, City of Portsmouth
Peter Rice, Director of Public Works
Erich Fiedler, City Engineer

City of Portsmouth

Department of Public Works

MEMORANDUM

TO: Suzanne Woodland, Regulatory Counsel

FROM: Erich Fiedler, City Engineer
William Bernan, Industrial Pretreatment Coordinator

DATE: April 8, 2026

SUBJECT: Ceres Street Sewer Lining: Seawater exclusion project

Introduction:

The City of Portsmouth is implementing wastewater and collection system improvements required under Consent Decree 09-cv-283-PB (CD as amended and modified). To comply with the CD, the City contracted Woodard & Curran to conduct a Sewer System Evaluation Study (SSES) and develop an Inflow and Infiltration (I&I) removal plan. The first SSES scope (Contract 1) is underway and is intended to reduce or eliminate up to 174,460 gallons per day (GPD) of I&I. The City planned to proceed next with the second SSES scope (Contract 2), which has the potential to eliminate an additional 31,400 GPD; however, an investigation identified a higher-priority project, the Ceres Street Sewer Lining Seawater Exclusion Project which could be completed before October 31, 2028 (the current deadline for Contract 2). The Ceres Street project would address a seawater I&I zone that we seek to remediate ahead of Contract 2 because it is a larger I&I source (conservatively estimated at 120,000 GPD) and because chloride in seawater damages the wastewater treatment system. DPW intends to implement the remaining SSES projects, including the original scope for Contract 2; however, the schedule will depend on funding and other priorities, including identification of additional I&I-reduction opportunities.

Narrative:

Inflow and infiltration into the sanitary sewer collection system is a persistent challenge. I&I can overwhelm pump stations and treatment plants, cause overflows, and require costly upgrades to pump and treat otherwise clean water. I&I includes “inflow” (direct connections such as sump pumps and drains) and “infiltration” (groundwater entering through pipe defects). In coastal communities such as Portsmouth, infiltration may include seawater intrusion. Seawater’s chloride content causes severe corrosion, including pitting and cracking of metal surfaces.

DPW has observed chloride-related damage at the Deer Street and Mechanic Street pump stations and at the Peirce Island Wastewater Treatment Facility (WWTF). To identify potential chloride sources in the

wastewater collection system, the Department of Public Works (DPW) collected samples from 11 of the City's 24 pump stations, selected based on tidal influence. Samples were collected at low and high tide and sent to a certified lab for chloride analysis (4500-Cl-E: Chloride by Automated Ferricyanide Method).

The Marsh Lane pump station had the highest chloride concentration; however, because it serves a very small wastewater volume, it is not a significant contributor to chloride-related damage at this time. DPW plans to address this infiltration at a later date.

The Deer Street pump station showed significant chloride readings at high tide. This indicates defects in upstream sewer mains and manholes that allow saltwater to infiltrate the collection system twice daily during high-tide events. The Deer Street pump station sends an average of 1.85 million gallons per day (MGD) to the Mechanic Street pump station and then to the WWTF. It is the largest contributor of elevated chloride to the Peirce Island WWTF and is the first location DPW seeks to remediate.

To estimate the average seawater volume received at the Deer Street pump station, DPW compared routine flow data (MGD) in five-minute intervals from January 1st, 2024, to October 25th, 2025 with NOAA tide data in the same five-minute intervals for the same period. DPW sorted the data by tide elevation (feet above mean sea level) and calculated average flow (MGD) for the top and bottom 50% of tide elevations, producing averages for mid/outgoing/low tides versus mid/incoming/high tides.

Absent seawater infiltration, average flow would not fluctuate with the tide. Instead, the Deer Street pump station shows an approximately 13% increase in average flow during the upper half of the tide cycle.

5 Minute interval Tide and Deer Street P.S. Flows from 1/1/2024 - 10/25/2025.

AVG MGD: Deer Street P.S. Total =	**1.85**	MGD
AVG MGD: Bottom 50% of Tides (Low - Mid) =	**1.73**	MGD
AVG MGD Top 50% of Tides (Mid - High) =	**1.97**	MGD

Difference in Flow Rate between Bottom-Top half of total Tide Cycle is: **12.97%**

If even half of each day (0.925 MG per 1/2 day) is 12.97% seawater, we are receiving 0.12 MGD.

0.12 MGD = 120,000 Gallons per day of seawater*.

(*Conservative estimate. Applying 12.97% seawater ratio to Total average daily flow yields a likely 240,000 GPD seawater, but we do not claim Ceres Street is the sole source, nor would we claim to able to remove 100%, therefore we present a 50% estimate.)

Visual surveys, including CCTV inspections of lines leading to the Deer Street pump station, identified manholes in the coastal, low-lying Ceres Street area as the primary source of seawater infiltration. Staff

could not quantify infiltration using typical methods due to surcharging and flooding throughout the tide cycle.

Conclusion:

DPW concludes that lining approximately 600 feet of sewer mains and curtain-grouting seven sewer manholes in the Ceres Street corridor should reduce or remove a conservatively estimated 120,000 GPD of seawater infiltrating the collection system, significantly reduce chloride at the WWTF, and prevent further damage.

After completing this initial seawater-exclusion measure, DPW will resample to confirm effectiveness and identify any additional locations requiring remediation. Lining can be completed using trenchless systems such as CIPP (cured-in-place pipe), which creates a new, seamless pipe inside the existing pipe with little to no excavation.

Ceres Street Sewer Lining

South to North	Run (ft)	Sewer ID	Label	Year Installed
SMH5749 to SMH 1586	101	163	8"-AC	1962
SMH 1586 to SMH 1585	164	3527	8"-AC	1962
SMH 1585 to SMH 1584	108	165	8"-AC	1962
SMH 1584 to SMH 6163	52	1067	8"-AC	1962
SMH 6163 to SMH 1583	130	1069	8"-AC	1962
SMH 1583 to SMH 1582	33	938	8"-AC	unk
Total Run:	588			

PUBLIC WORKS DEPARTMENT
CITY OF PORTSMOUTH
680 Peverly Hill Road
Portsmouth N.H. 03801
(603) 427-1530 FAX (603) 427-1539

VIA EMAIL

March 31, 2026

Joseph Theis, Acting Director
Water Enforcement Division
Office of Enforcement and Compliance Assurance
U.S. EPA (2243A)
1200 Pennsylvania Ave, NW
Washington, D.C. 20460

Re: Consent Decree 09-cv-283-PB
Monthly Report on Compliance for February 2026
City of Portsmouth, New Hampshire

Dear Mr. Theis,

In accordance with Consent Decree 09-cv-283-PB, Section V, item paragraph 20, dated August 12, 2009 and as amended by Consent Decree Modification filed July 2, 2012 and approved by the Court on February 15, 2013 and as amended by Consent Decree Second Modification, Section III, item paragraph 6, filed on April 1, 2016 and approved by the Court on September 28, 2016 the City of Portsmouth is submitting this monthly report on compliance.

The City has completed all Consent Decree construction milestones relative to the upgrade of the Peirce Island Wastewater Treatment Facility ("PI WWTF"). A summary of those milestones and completion dates are set forth in the ***Summary of Completed Work*** section. Remaining commitments relative to the PI WWTF are the ongoing obligation to meet the existing NPDES permit and the nitrogen removal obligations set forth Section IV, Paragraph 8 of the Consent Decree. That reporting is set forth in the ***Nitrogen Removal Reporting Summary*** attached.

Outstanding are the City's obligations under its Supplemental Compliance Plan, referenced at paragraph 12.c of the Consent Decree. By letter dated April 18, 2024, EPA approved an updated schedule and project list. The status of that ongoing work is found in the ***Supplemental Compliance Plan Project Status*** section.

Note: Completed Projects from the Supplemental Compliance Plan have been moved to the Summary of Completed Work.

As required by the Consent Decree:
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Please contact me if you have any questions or require additional information.

Sincerely,

Peter Rice
Director of Public Works
(603) 766-1416

cc: Solanch S. Pastrana-Del Valle, U.S. EPA New England – Region 1
Tracy L. Wood, NHDES Wastewater Engineering Bureau Administrator
Christopher Aslin, Esq., Department of Justice, Environmental Protection Bureau Chief
Jaegun Lee, Enforcement Counsel, U.S. EPA New England – Region 1
David Gordon, Esq., U.S. Department of Justice
Tom Irwin, Esq., Conservation Law Foundation
Karen Conard, City Manager, City of Portsmouth
Suzanne Woodland, Regulatory Counsel
Erich Fiedler, City Engineer

SUMMARY OF COMPLETED WORK

09-cv-283-PB SECTION	PI WWTF CONSTRUCTION MILESTONE	DATE COMPLETED
III.5.a.	Execute Contract to Construct Upgrades	August 25, 2016
III.5.b.	Submit Two Additional Milestones for EPA Review and Approval	November 29, 2016
III.5.b.	Additional Milestone 1: Transfer of the existing SCADA system to the new Headworks Building	October 18, 2017
III.5.b.	Additional Milestone 2: Startup and testing of the Secondary Influent Pump Station in the new Solids Building	May 7, 2019
III.5.c.	BAF Substantial Completion	December 31, 2019
III.5.d.	Achieve Compliance with NPDES Permit Limits	April 1, 2020

09-cv-283-PB SECTION	COMPLETED MITIGATION & SEWER SEPARATION PROJECTS	DATE COMPLETED
IV.8.a. Mitigation	Interim Enhanced Primary Treatment	January 9, 2018
IV.8.c. Mitigation	Stormwater Project	November 9, 2020
IV.8.e. Mitigation	Water Quality and Ecosystem Health Projects	April 2021
III.6.a. Sewer Separation Projects	Pleasant Street at the intersection with Court Street	November 2018
	McDonough Phase 3B: McDonough Street from Cornwall Street to Brewster Street and Langdon Street	June 2019
	Maplewood Avenue at Fairview Drive	May 2019
	Islington Street Phase 1: Columbia Street to Route 1 Bypass Overpass	October 2021
	Sagamore Ave Extension Project	August 2023
	Union Street Project	October 2023
Supplemental Compliance Plan	Islington Street Phase 2	December 2025
	Willard Avenue Sewer Separation	December 2025

NOTE:
Detailed information on completed milestones, mitigation projects and commitments can be found in previous reports.

Reports are published on the City's website: www.cityofportsmouth.com/publicworks/wastewater/resources

NITROGEN REMOVAL REPORTING SUMMARY

For a five-year period, commencing June 1, 2020, achieve a seasonal average total nitrogen (TN) effluent concentration from May 1st through October 31st of no greater than 8 mg/L and a monthly average total nitrogen effluent concentration no greater than 8 mg/L from June 1st through October 31st for the Peirce Island Wastewater Treatment Facility with the upgrade.

The average concentration of effluent total nitrogen in the month of February 2026 was 4.4 mg/L TN. The report submitted with the City's Discharge Monitoring Report (DMR) for NPDES Permit NH0100234 is attached.

	Average TN Concentration (mg/L)	***Seasonal Average TN Concentration (mg/L) May – October****
May 2020	9.5	5.4
June 2020	6.6	
July 2020	4.9	
August 2020	6.1	
September 2020	4.0	
October 2020	3.2	
November 2020	2.6	
December 2020	3.0	
January 2021	3.0	
February 2021	4.2	
March 2021	4.0	
April 2021	3.0	
May 2021	5.2	4.0
June 2021	3.8	
July 2021	3.4	
August 2021	3.7	
September 2021	3.3	
October 2021	5.1	
November 2021	3.8	4.9
December 2021	4.6	
January 2022	6.5	
February 2022	5.6	
March 2022	4.0	
April 2022	5.2	
May 2022	5.0	4.6
June 2022	4.6	
July 2022	5.7	
August 2022	4.7	
September 2022	4.3	
October 2022	4.4	
November 2022	3.3	3.9
December 2022	3.4	
January 2023	3.8	
February 2023	4.3	
March 2023	4.6	
April 2023	3.7	
May 2023	3.8	
June 2023	3.6	
July 2023	3.9	

August 2023	3.7	3.9
September 2023	3.8	
October 2023	4.6	
November 2023	4.1	5.5
December 2023	4.6	
January 2024	5.5	
February 2024	5.4	
March 2024	5.8	
April 2024	7.8	
May 2024	5.2	5.3
June 2024	5.1	
July 2024	6.4	
August 2024	4.5	
September 2024	6.8	
October 2024	3.5	
November 2024	4.4	4.5
December 2024	4.7	
January 2025	4.7	
February 2025	4.2	
March 2025	5.1	
April 2025	4.1	
May 2025	5.3	5.3
June 2025	4.4	
July 2025	5.4	
August 2025	5.2	
September 2025	5.8	
October 2025	5.7	
November 2025	6.5	
December 2025	6.07	
January 2026	4.8	
February	4.4	

**Seasonal average concentration was calculated using the individual TN data points for the time period of the season.*

SUPPLEMENTAL COMPLIANCE PLAN PROJCT STATUS

This document identifies the sewer separation projects and infiltration and inflow projects approved by the EPA in a letter to the City dated April 14, 2024. Reporting is required pursuant to Paragraph 6.a. of the Consent Decree Second Modification.

INFLOW AND INFLITRATION REDUCTION CONTRACT 1	Required completion date:
	October 31, 2026
Current Status (phase of work)	Anticipated Construction Completion Date:
Contract Award	2026
Comments:	
In January, the City opened contractor bids and initiated reference checks on the apparent low bidder. In February, the City awarded the construction contract to National Water Main Cleaning Company.	

FLEET STREET PHASE 1	Required completion date:
	December 31, 2026
Current Status (phase of work)	Anticipated Construction Completion Date:
FINAL DESIGN	December 31, 2026
Comments:	
Design and permitting are in progress. The City submitted NHDES wetland permit application for outfall work and marsh restoration. In February, the City continued to engage CSX and Granite State Minerals in discussions to finalize required licenses and easements.	

INFLOW AND INFILTRATION REDUCTION CONTRACT 2	Required completion date:
	October 31, 2028
Current Status (phase of work)	Anticipated Construction Completion Date:
PRELIMINARY DESIGN	TBD
Comments:	
Contract 2 Sewer Rehabilitation is at approximately 30% design. The design is based on an SSES study completed by Woodard & Curran and updated by Underwood Engineers in 2020. In February, the City requested an updated plan and proposal for final design through bidding.	

FLEET STREET PHASE 2	Required completion date:
	December 31, 2028
Current Status (phase of work)	Anticipated Construction Completion Date:
Phase 2A – Construction Phase 2B - Design	Phase 2A - Winter 2026 Phase 2B – 2028
Comments:	
The City awarded the Fleet Street Phase 2A construction contract to N. Granese & Sons. The City executed a Construction Administration contract with Underwood Engineers to oversee construction during the project. In February, N. Granese & Sons continued utility construction on schedule.	

LONG TERM CONTROL PLAN UPDATE	Required completion date:
	October 31, 2030
Current Status (phase of work)	Anticipated Completion Date:
Not started	October 31, 2030
Comments:	
The Long-Term Control Plan (LTCP) Update was extended to 2030. The City intends to begin updates to the LTCP as projects listed in the consent decree are completed and monitored for effectiveness. Prior to LTCP deadlines, the City has applied for State Revolving Funds to perform updates to the Wastewater System Model.	

Peirce Island Effluent Nitrogen
February, 2026

Date	EFF Flow MGD	EFF Ammonia as N mg/l	EFF Nitrate/Nitrate mg/l	EFF TKN mg/l	Total Nitrogen mg/l
2/1/2026	2.86				
2/2/2026	3.13	0.13	3.60	1.80	5.40
2/3/2026	2.77				
2/4/2026	3.02	0.07	2.40	1.80	4.20
2/5/2026	2.58				
2/6/2026	2.89				
2/7/2026	2.61				
2/8/2026	2.55				
2/9/2026	2.41	0.11	2.20	2.40	4.60
2/10/202	2.65				
2/11/202	2.68	0.08	2.28	2.10	4.40
2/12/202	2.58				
2/13/202	2.50				
2/14/202	2.52				
2/15/202	2.53				
2/16/202	2.66	0.12	2.10	2.00	4.10
2/17/202	2.71				
2/18/202	2.75	0.12	2.50	2.10	4.60
2/19/202	2.68				
2/20/202	2.78				
2/21/202	2.77				
2/22/202	2.57				
2/23/202	2.76	0.07	1.90	2.00	3.90
2/24/202	2.75				
2/25/202	2.65	0.05	2.00	2.20	4.20
2/26/202	2.64				
2/27/202	2.66				
2/28/202	2.89				

Minimum	2.41	0.1	1.9	1.8	3.9
Maximun	3.13	0.1	3.6	2.4	5.4
Average	2.70	0.1	2.4	2.1	4.4

Christopher Kelley