



# PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH  
680 Peverly Hill Road  
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***VIA EMAIL***

January 31, 2023

Joseph G. 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 December 2022  
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.

The one remaining mitigation project described under the Consent Decree Second Modification, Section IV, is summarized under the *Mitigation Project Ongoing* section. Completed mitigation projects are shown on the *Summary of Completed Work* previously referenced.

The status of ongoing sewer separation projects that are part of the City's Supplemental Compliance Plan are summarized under the *Sewer Separation Projects Ongoing* section.

**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 H. Rice, P.E.  
Director of Public Works  
(603) 766-1416

ec: Solanch S. Pastrana-Del Valle, U.S. EPA New England – Region 1  
Tracy L. Wood, NHDES Wastewater Engineering Bureau Administrator  
Allen Brooks, Esq., Department of Justice, Environmental Protection Bureau Chief  
Tonia Bandrowicz, Senior 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, Deputy City Manager and Deputy City Attorney  
Brian Goetz, Deputy Director of Public Works  
Terry Desmarais, 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

**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](http://www.cityofportsmouth.com/publicworks/wastewater/resources)

Section Title - CONSENT DECREE REPORTS TO EPA

## ***NITROGEN REMOVAL REPORTING SUMMARY***

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

The average concentration of effluent total nitrogen in the month of December 2022 3.4 was mg/L TN. The report submitted with the City’s Discharge Monitoring Report (DMR) for NPDES Permit NH0100234 is attached.

<i>Month Year</i>	<i>Average TN Concentration (mg/L)</i>	<i>Seasonal Average TN Concentration (mg/L) May – October*</i>
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	
December 2022	3.4	

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

## ***SEWER SEPARATION PROJECTS ONGOING***

This document identifies the sewer separation projects and infiltration and inflow project (Contract #1) approved by the EPA in a letter to the City dated January 24, 2018. EPA, with NHDES concurrence, approved the updated CSO Supplemental Compliance Plan and implementation schedule as contained in the plan. The City shall: complete the six sewer separation projects and the Contract No. 1 wastewater collection system rehabilitation project by no later than October 2023; complete the LTCP update by no later than October 2025; and provide project status on all seven projects as part of the monthly reports on compliance it will be submitting pursuant to Paragraph 6.a. of the Consent Decree Second Modification.

### **FLEET STREET:**

#### **COURT ST TO HANOVER ST & PORTIONS OF ADJACENT STREETS**

Current Status (phase of work)	Anticipated Construction Completion Date:
PRELIMINARY DESIGN	TBD
<i>Comments:</i>	
The City executed an amendment with the consulting firm to advance the design drawings to the 75% level and expand the limits of the sewer separation project and to include a new drainage outfall for Fleet Street separated drainage. The drainage outfall addition significantly expands the complexity and scope of this project. The City is evaluating the project schedule and a possible phasing plan. The City anticipates additional separations and water quality improvements on this project and may request an extension of time to complete. The City met with land owners to discuss necessary easements. In January, the City will be meeting with the Parking and Traffic Safety Committee to discuss post construction impacts to traffic and parking.	

### **UNION STREET:**

#### **MIDDLE ST TO STATE ST & SECTIONS OF COFFINS COURT & AUSTIN ST**

Current Status (phase of work)	Anticipated Construction Completion Date:
FINAL DESIGN	Fall 2023
<i>Comments:</i>	
Design work for this project is underway. The City and Engineering firm executed an amendment to their contract to conduct building/house basement surveys to gain further information that would aid in design of the sewer. The project design scope has expanded to include sewer separation in the Willard Avenue area. Public meetings were held in February and June. Preliminary design is near completion. Final design is anticipated to be complete in the Winter of 2022. The City anticipates requesting an extension of time to complete given the expansion of the project to provide additional separation and water quality improvements. CMA submitted plan sets to the City and DES for comments in November. The City met with the Trees and Greenery Committee to discuss the impacts of construction on City owned trees in the right of way. The Committee determined what trees will be removed, protected, and replaced during and after construction.	

### **SEWER REHABILITATION PROJECT: CONTRACT NO. 1**

Current Status (phase of work)	Anticipated Construction Completion Date:
FINAL DESIGN	TBD
<i>Comments:</i>	

The final design plans are being finalized by the consultant and permitting is underway. Site walk for environmental permitting was done on May 20, 2022. Wetland flagging for permitting done in July. Woodard & Curran received comments from NHDES on the 60% design plan set submittal. There was no change in December.

**SAGAMORE AVENUE SEWER EXTENSION PROJECT**

Current Status (phase of work)	Anticipated Construction Completion Date:
CONSTRUCTION	DECEMBER 2022- NORTH SIDE FALL 2023 – SOUTH SIDE
<i>Comments:</i>	
Contract documents (Notice of Award and Notice to Proceed) were executed in March 2022 for the north side of the project, construction began on May 16, 2022. Construction on the sewer main is continuing. In August, the City Council authorized additional funding of \$1.2 million to incentivize private connections once the sewer mains in the public ways are complete. Construction of the sewer main on the north side of Sagamore Creek continues and is on schedule. In December, there was substantial completion of the base bid and the sewer main North of Sagamore Creek was installed.	

**Peirce Island Effluent Nitrogen  
December 2022**

Date	Effluent Flow MGD	Effluent Ammonia as N mg/l	Effluent Nitrite/Nitrate-N mg/l	Effluent TKN mg/l	Total Nitrogen mg/l
12/1/2022	4.85	0.15	3.17	1.40	4.57
12/2/2022	4.07				
12/3/2022	4.43				
12/4/2022	3.94				
12/5/2022	3.79				
12/6/2022	3.89	0.04	1.50	1.30	2.80
12/7/2022	6.97				
12/8/2022	5.60	0.09	2.50	1.40	3.90
12/9/2022	4.84				
12/10/2022	4.52				
12/11/2022	4.03				
12/12/2022	4.12				
12/13/2022	3.65	0.10	1.60	1.40	3.00
12/14/2022	3.73				
12/15/2022	3.74	0.09	1.60	1.60	3.20
12/16/2022	7.78				
12/17/2022	10.66				
12/18/2022	7.40				
12/19/2022	6.45				
12/20/2022	5.51	0.07	2.30	1.10	3.40
12/21/2022	5.07				
12/22/2022	4.81	0.07	1.70	1.20	2.90
12/23/2022	10.52				
12/24/2022	7.37				
12/25/2022	5.99				
12/26/2022	5.12				
12/27/2022	5.21	0.20	2.60	0.98	3.58
12/28/2022	4.78				
12/29/2022	4.78	0.38	2.00	1.30	3.30
12/30/2022	4.03				
12/31/2022	4.03				
Minimum	3.65	0.0	1.5	1.0	2.8
Maximum	10.66	0.4	3.2	1.6	4.6
Average	5.39	0.1	2.1	1.3	3.4