



PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH

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Portsmouth N.H. 03801

(603) 427-1530 FAX (603) 427-1539

VIA EMAIL

January 29, 2021

Mark Pollins
Director of Water Enforcement
USEPA
OECA
1200 Pennsylvania Ave NW
Washington, DC 20460

Re: Consent Decree 09-cv-283-PB
Monthly Report on Compliance for December 2020
City of Portsmouth, New Hampshire

Dear Mr. Pollins:

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* attached. 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 remaining outstanding mitigation project described under the Consent Decree Second Modification, Section IV, is summarized on the next page.

SAGAMORE AVENUE SEWER EXTENSION PROJECT

<i>Current Status:</i>	<i>Anticipated Completion Date:</i>
FINAL DESIGN	TO BE UPDATED
<i>Comments:</i>	
<p>At the September 23, 2020 City Council meeting, the Portsmouth City Council adopted an approach that calls for the final design, permitting and bidding of the full project limits with 91 connections. A proposed new schedule for construction and completion is being developed. Total funding authorized to date is \$4.4 million.</p> <p>In December, work has moved forward with permitting and field investigations for the project. The first phase of borings is complete and a limited second phase of boring work is anticipated in early 2021. Wetland delineation along the project limits has been completed and permit applications are being developed with that information. Work has also moved forward with the project design. Final design documents are being developed for construction bidding.</p>	

Completed mitigation projects are shown on the *Summary of Completed Work* previously referenced. The *Summary of Water Quality and Ecosystem Health Projects* is attached.

The status of ongoing sewer separation projects that are part of the City's Supplemental Compliance Plan are described in the separate document entitled *Sewer Separation Projects Ongoing*.

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 at (603) 766-1416 if you have any questions or require additional information.

Sincerely,



Peter H. Rice, P.E.
Director of Public Works

cc: 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
Nancy Colbert Puff, Deputy City Manager
Suzanne Woodland, 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
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

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

Scroll down the page to the CONSENT DECREE REPORTS TO EPA section

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 December 2020 was 3.0 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	

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

SUMMARY OF WATER QUALITY AND ECOSYSTEM HEALTH PROJECTS

This document summarizes payments made for the City's obligations under the Consent Decree Second Modified Paragraph 8.e. This item requires a contribution of \$500,000 over a period of five years to support water quality and ecosystem health efforts related to the Great Bay Estuary. The City of Portsmouth has continued to coordinate with members of Great Bay 2020 and CLF regarding funding commitments for 2020-2021.

Projects	Vendor/Agent	Status	Payment Date	Payment Total
Great Bay Monitoring Collaborative	UNH	Paid	08/17/2016	5,000.00
Sagamore Creek water quality monitoring project	FB Environmental Assoc.	Paid	06/30/2018	47,798.00
Sagamore Creek VRAP water quality samples	CLF / VRAP / NH Public Health Labs	Paid	02/13/2018	261.00
Teachers on the Estuary (TOTE)	Great Bay Stewards	Paid	09/15/2017	7,000.00
Public outreach/education work	The Nature Conservancy (TNC)	Paid	09/15/2017	14,000.00
Oyster Shell Recycling	CCA NH	Paid	10/20/2017	4,000.00
Great Bay Estuary Monitoring Support	UNH Sponsored Programs Admin	Paid	09/15/2017	6,000.00
Oyster Larval Study: larval supply natural spat recruitment	UNH	Paid	05/24/2018	8,000.00
2018 Sagamore Creek water quality monitoring project (includes laboratory fees)	FB Environmental Assoc.	Paid	05/31/2019	64,164.67
Data Sonde purchase for Piscataqua Region Monitoring Collaborative	UNH	Paid	06/27/2018	20,000.00
Teachers on the Estuary (TOTE)	Great Bay Stewards	Paid	07/26/2018	7,500.00
Connect The Coast	The Nature Conservancy (TNC)	Paid	08/23/2018	11,000.00
Great Bay Estuary clean-up events facilitated by Waterkeeper	Great Bay Stewards	Paid	08/30/2018	4,500.00
Soak Up the Rain initiative (DES, Waterkeeper, Great Bay Stewards)	Great Bay Stewards	Paid	08/30/2018	6,000.00
SeagrassNet	UNH PREP (Piscataqua Region Estuaries Partnership)	Paid	01/07/2019	30,000.00
2019 Sagamore Creek water quality monitoring project (includes laboratory fees)	FB Environmental Assoc.	Executed 05/07/2019	Intermittent Invoicing	64,590.00
Teachers on the Estuary (TOTE)	Great Bay Stewards	Paid	04/24/2019	7,500.00
Comprehensive Coastal Conservation Plan	The Nature Conservancy (TNC)	Paid	10/22/2019	10,000.00
Citizen Science Seaweed Monitoring	UNH PREP (Piscataqua Region Estuaries Partnership)	Paid	05/14/2019	7,500.00
Middle/High School Estuary Intensive	Great Bay Stewards	Paid	05/02/2019	4,000.00
Oyster Restoration Program	The Nature Conservancy (TNC)	Paid	04/02/2020	10,000.00
SeagrassNet 2020	UNH PREP (Piscataqua Region Estuaries Partnership)	Paid	04/02/2020	20,000.00
Comprehensive Coastal Conservation Plan Update	The Nature Conservancy (TNC)	Paid	08/13/2020	\$25,000.00
Seaweed Monitoring 2020	UNH PREP (Piscataqua Region Estuaries Partnership)	Paid	8/20/2020	\$10,000.00
2020 Sagamore Creek water quality monitoring project (includes laboratory fees)	FB Environmental Assoc.	Executed 07/21/2020	Intermittent Invoicing	\$22,000.00
Designing Two Tidal Crossing Replacements at Chapman's Landing	The Nature Conservancy (TNC)	Pending		\$20,000.00
Aerial Imagery for Tier 1 Eelgrass Monitoring	PREP (Piscataqua Region Estuaries Partnership)	Pending		\$30,000.00
Pilot Scale Eelgrass Restoration in the Great Bay Estuary	PREP (Piscataqua Region Estuaries Partnership)	Pending		\$34,186.33
TOTAL				\$500,000.00

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

<i>Project Name:</i>	<i>Current Status: (phase of work)</i>	<i>Anticipated Construction Completion Date:</i>
FLEET ST	PRELIMINARY DESIGN	TBD
<i>Comments:</i>		
Preliminary design is underway and a topographic survey is complete. Public meetings were held on September 9, 2020 and November 10, 2020. Building basement and roof utility inspections began the week of November 30 th and are continuing through December.		

ISLINGTON STREET PHASE 1: COLUMBIA ST TO ROUTE 1 BYPASS OVERPASS

<i>Project Name:</i>	<i>Current Status: (phase of work)</i>	<i>Anticipated Construction Completion Date:</i>
ISLINGTON ST PH 1	CONSTRUCTION	2021
<i>Comments:</i>		
Sewer, water and drain reconstruction on Phase 1A along Islington Street, from Route 1 Bypass to Albany Street, is complete. Remaining paving and sidewalk construction between Bartlett Street and Albany Street will be completed in spring of 2021. Phase 1B from Albany Street to Dover Street and Columbia Avenue will be executed as part of a Change Order with the contractor in early 2021.		

UNION STREET: MIDDLE ST TO STATE ST & SECTIONS OF COFFINS COURT & AUSTIN ST

<i>Project Name:</i>	<i>Current Status: (phase of work)</i>	<i>Anticipated Construction Completion Date:</i>
UNION ST	ENGINEERING RFP ADVERTISED	TBD
<i>Comments:</i>		
Design Phase Engineering Services RFP was advertised in November. Proposals were received in December and a pre-bid meeting is tentatively scheduled for early 2021. The project design scope has expanded to include sewer separation in the Willard Avenue area.		

SEWER REHABILITATION PROJECT

<i>Project Name:</i>	<i>Current Status: (phase of work)</i>	<i>Anticipated Construction Completion Date:</i>
CONTRACT NO. 1	FINAL DESIGN	TBD
<i>Comments:</i>		
The final design plans are being finalized by the consultant and permitting is underway. Bidding of the project is being put on hold due to budget cutbacks related to COVID-19. The work is still programmed to be completed by October 2023.		

**Peirce Island Effluent Nitrogen
December 2020**

Date	Effluent Flow MGD	Effluent Ammonia as N mg/l	Effluent Nitrite/Nitrate- N mg/l	Effluent TKN mg/l	Total Nitrogen mg/l
12/1/2020	8.48				
12/2/2020	5.39	0.15	0.84	0.80	1.64
12/3/2020	4.81	0.02	1.60	1.00	2.60
12/4/2020	4.92				
12/5/2020	8.03				
12/6/2020	10.12				
12/7/2020	6.81	0.05	1.10	2.70	3.20
12/8/2020	6.27				
12/9/2020	5.41	0.10	2.50	1.10	3.60
12/10/2020	4.79	0.41	1.50	2.50	3.90
12/11/2020	4.92				
12/12/2020	5.23				
12/13/2020	5.81				
12/14/2020	5.11	0.16	0.77	1.60	2.43
12/15/2020	4.88				
12/16/2020	4.45	0.14	2.00	1.50	3.50
12/17/2020	4.38	0.18	1.40	1.50	2.90
12/18/2020	4.04				
12/19/2020	4.05				
12/20/2020	3.70				
12/21/2020	3.50	0.25	1.60	1.30	2.90
12/22/2020	3.69				
12/23/2020	3.41	0.15	1.60	2.00	3.60
12/24/2020	3.54				
12/25/2020	9.62				
12/26/2020	8.12				
12/27/2020	6.23				
12/28/2020	5.56	0.11	2.10	0.76	2.86
12/29/2020	4.93	0.05	1.50	1.20	2.70
12/30/2020	4.72				
12/31/2020	4.36				
Minimum	3.41	0.0	0.8	0.8	1.6
Maximum	10.12	0.4	2.5	2.7	3.9
Average	5.46	0.1	1.5	1.5	3.0