



PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH

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July 28, 2017

Mark Pollins
Director of Water Enforcement
U.S. Environmental Protection Agency
Room #3142
USEPA Ariel Rios Building (AR)
1200 Pennsylvania Avenue N.W.
Washington, D.C. 20004

Re: Consent Decree 09-cv-283-PB
Monthly Report on Compliance for June 2017
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. In addition, attached is a summary of the City's commitments to date as required in Paragraph 8.e. of the Consent Decree Second Modification.

The Consent Decree Second Modification requires the filing of monthly reports as follows:

Within 30 days after the end of each month, the City shall submit a written report to EPA, the State, and CLF for the preceding month that shall include a description or reporting of the following: i) status of required construction, including major work items completed in the preceding month; ii) projected work items to be undertaken in the next month; iii) project percent complete based on payments to Contractor for work completed; iv) project percent complete based on time elapsed; v) status of all required permit applications; vi) status of Consent Decree milestones including identifying any problems encountered or anticipated, together with the proposed or implemented solutions; and vii) the monthly average discharge concentrations of total nitrogen for the preceding month, as required in Paragraph 8.b.ii of the Second Modification.

The Consent Decree, First Modification and Second Modification along with such Monthly Reports on Compliance shall be posted on the City's internet site, and maintained accessible to the public online until termination of the Consent Decree. In addition to the submission of Reports on Compliance, the Parties will participate in quarterly meetings or conference calls, if scheduled by EPA, to review the City's compliance with the terms of the Consent Decree.

i. Status of required construction including major work items completed in the preceding month

Work completed by the Contractor in the month of June 2017 is as follows:

- Excavation and installation of the Mechanic Street force main temporary piping
- Four Tree Island parking lot demolition and reconstruction
- Grass overflow area parking drainage installation
- Installation of brick facade at the Headworks Building
- Installation of concrete perimeter walkway and water pressure testing of Gravity Thickener No. 2
- Installation of binder course pavement on Peirce Island Road from the pool to the snow dump area

ii. Projected work items to be undertaken in the next month

Ongoing work by the Contractor through the month of July 2017 includes the following:

- Continue ledge removal for the Biological Aerated Filter (BAF) Building
- Placing formwork, reinforcing steel, and concrete for the BAF structure base slab and lower walls and columns
- Continue wiring and testing of Sanitary Pump Station No. 2
- Installation of Gravity Thickener No. 1 Scum Pump Station structure
- Headworks construction includes:
 - construct exterior stairs
 - continue interior painting
 - installation of roofing, doors, windows, screens, washpresses, stop logs, slide gates, odor control ductwork and interior MEP (mechanical, electrical and plumbing)
 - installation of 42 inch raw wastewater piping
- Continue to export excavated materials and demolition materials off-site
- Installation of storm water quality structure & drainage bypass structure
- Placing formwork, reinforcing, and concrete for Electrical Building foundation and Generator foundation
- Installation of underground ductbanks
- Installation of miscellaneous site piping (drains, plant drains, city water)
- Deliver temporary trailers and install utilities for City personnel (laboratory, office, etc.)

Projected work to be completed by the Contractor in the month of July 2017 includes the following:

- Complete installation of Sanitary Pump Station No. 2 and place it into service
- Installation of temporary connection of Sanitary Pump Station No. 2 discharge to the aerated grit chambers
- Complete roofing on the Headworks Building
- Demolish existing 30 inch raw wastewater piping
- Installation of Gravity Thickener No. 1 Scum Pump Station structure

iii. Project percent complete based on payments to Contractor for work completed

The following table provides a summary of the Contractor’s requests for payment and the resulting percent complete:

Original Contract Value	\$ 72,785,545.00
Change Order 1 – January 2017	\$ 367,290.42
Change Order 2 – May 2017	\$ 546,722.46
Contract Value	\$ 73,699,557.88

Payment Application No.	Work Conducted Through	Amount	Cumulative Amount	Percent Complete
1	09/30/2016	\$1,393,500.00	\$ 1,393,500.00	1.89%
2	10/31/2016	\$2,855,100.00	\$ 4,248,600.00	5.76%
3	11/30/2016	\$1,717,330.09	\$ 5,965,930.09	8.09%
4	12/31/2016	\$1,374,011.19	\$ 7,339,941.28	9.96%*
5	01/31/2017	\$1,434,502.03	\$ 8,864,437.63	12.03%
6	02/28/2017	\$1,136,436.97	\$10,191,515.67	13.83%
7	03/31/2017	\$2,697,828.60	\$12,958,668.29	17.58%
8	04/30/2017	\$2,431,878.69	\$15,407,877.99	20.91%
9	05/31/2017	\$1,876,920.03	\$17,284,798.02	23.45%**
10	06/30/2017	\$2,345,659.10	\$19,630,457.12	26.64%

*Percentage Complete changed from 10.08% (from December 2016 Report) to 10.03% due to Change Order #1 in January 2017.

**Percentage Complete for all months changed due to Change Order #2 in May 2017. Percent Complete Column updated based on new Contract Value \$73,699,557.88.

iv. Project percent complete based on time elapsed

The contract time to the EPA required milestone for the BAF treatment system completion is 1186 calendar days. The total value of the contract (item iii) is based on the City’s contractual milestone for project substantial completion is 1368 calendar days.

The project is 25.5% complete based on the BAF treatment system completion as of June 30, 2017 and 22.1% complete based on project substantial completion.

v. Status of all required permit applications

Application for the Installation of an Aboveground Storage Tank was submitted to NHDES on April 14, 2017. The tank is associated with a new standby generator at 200 Peirce Island Road, Portsmouth, NH. The application is still under review by NHDES as of June 30, 2017.

vi. Status of Consent Decree milestones including identifying any problems encountered or anticipated, together with the proposed or implemented solutions

The construction contract with Methuen Construction Company, Inc. was executed on August 25, 2016. A summary of all milestones required by the Consent Decree Second Modification is provided below.

Milestone	Date	Status
Execute Contract to Construct Upgrades	July 1, 2016 September 1, 2016*	Complete
Submit Two Additional Milestones for EPA Review and Approval	December 1, 2016	Complete
Additional Milestone 1: Transfer of the existing SCADA system to the new Headworks Building	November 21, 2017	On Schedule
Additional Milestone 2: Startup and testing of the Secondary Influent Pump Station in the new Solids Building	May 9, 2019	On Schedule
BAF Substantial Completion	December 1, 2019	On Schedule
Achieve Compliance with NPDES Permit Limits	April 1, 2020	On Schedule

*At the request of the City of Portsmouth, all parties agreed that the Contract Execution Date could be revised to September 1, 2016 to allow more time for bidding and to accommodate the Portsmouth City Council’s review of bargaining alternatives prior to contract execution. The Contractor’s schedule for completion was reduced to accommodate the modified contract execution delay.

vii. The monthly average discharge concentrations of total nitrogen for the preceding month, as required in Paragraph 8.b.ii of the Second Modification.

The average concentration of effluent total nitrogen in the month of June 2017 was 30.0 mg/L TN. See attached report, which was submitted with the City’s June 2017 Discharge Monitoring Report (DMR) for NPDES Permit NH0100234.

These Monthly Construction Reports are being posted on the City’s wastewater website at <http://www.portsmouthwastewater.com/resources.html>.

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.

Very truly yours,



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

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- cc: Chief, Environmental Enforcement Section
- ec: Joy Hilton, USEPA Region 1
Tracy L. Wood, P.E., NHDES Wastewater Engineering Bureau
Allen Brooks, Esq., Department of Justice, Chief Environmental Protection Bureau
Tonia Bandrowicz, Senior Enforcement Counsel, U.S. EPA
David Gordon, Esq., U.S. Department of Justice
Tom Irwin, Esq. Conservation Law Foundation
John P. Bohenko, City Manager, City of Portsmouth
Suzanne Woodland, Deputy City Attorney
Nancy Colbert-Puff, Deputy City Manager
Brian Goetz, Deputy Director of Public Works
Terry Desmarais, City Engineer
Donald Song, Wastewater Project Manager

Peirce Island Effluent Nitrogen

June 2017

Date	1003 Inf Flow	99959 Effluent Ammonia as N	99960 Effluent Nitrite/Nitrate-N	99961 Effluent TKN	99962 Total Nitrogen
	MGD	mg/l	mg/l	mg/l	mg/l
6/1/2017	4.599				
6/2/2017	4.249				
6/3/2017	4.016				
6/4/2017	3.783				
6/5/2017	3.988				
6/6/2017	5.439	10	<1.0	19	20
6/7/2017	5.045	13	<1.0	19	20
6/8/2017	4.464				
6/9/2017	4.335				
6/10/2017	3.970				
6/11/2017	3.751				
6/12/2017	3.536				
6/13/2017	3.491	17	<1.0	24	25
6/14/2017	3.348	19	<1.0	27	28
6/15/2017	3.264				
6/16/2017	4.312				
6/17/2017	5.807				
6/18/2017	4.035				
6/19/2017	3.896				
6/20/2017	3.838	14	<1.0	22	23
6/21/2017	3.591	3	<1.0	52	53
6/22/2017	3.467				
6/23/2017	3.496				
6/24/2017	3.554				
6/25/2017	3.323				
6/26/2017	3.308				
6/27/2017	3.606				
6/28/2017	3.353	18	<1.0	35	36
6/29/2017	3.086	15	<1.0	33	34
6/30/2017	4.630				
Minimum	3.086	3	<1.0	19	20
Maximum	5.807	19	<1.0	52	53
Average	3.953	14	<1.0	29	30

City of Portsmouth, NH
Consent Decree 09-cv-283-PB

Paragraph 8.e. Compliance Summary: Water Quality and Ecosystem Health Projects

This document summarizes the investments in environmental projects the City will be making in the upcoming year in order to fulfill the City's obligations under the Consent Decree, Second Modified, in *United States et. al. v. City of Portsmouth*, No. 09-cv-283-PB (Consent Decree). Paragraph 8.e. of the Consent Decree provides that as mitigation for the delayed implementation of secondary treatment at the Peirce Island Wastewater Treatment Facility, the City will provide \$500,000 over a period of five years to support water quality and ecosystem health efforts related to the Great Bay Estuary. Such funding is to be provided in five annual installments of \$100,000.

The following Water Quality and Ecosystem Health projects will be funded to satisfy, in part, the City's first year commitment:

1. Sagamore Creek water quality monitoring project - The City will be retaining FB Environmental to develop and begin implementation of a multi-year water quality monitoring program in Sagamore Creek. Representatives of both the New Hampshire Department of Environmental Services and the Conservation Law Foundation were involved in reviewing the scope of work. This Sagamore Creek water quality monitoring program will not only provide much needed updated water quality information, but also provide a baseline to measure change as the City undertakes sewer system improvements and stormwater projects in the Sagamore Creek Watershed over the next three to six years.

Year 1 funding commitment: \$50,000

Fiscal agent: The City will hold the funds until expended for satisfactory work. Proof of payment will be provided to the Consent Decree parties.

2. Teachers on the Estuary - The City will provide funding to support the Teachers on the Estuary (TOTE) program administered by the Great Bay National Estuarine Research Reserve, which uses the Great Bay Estuary as a field-based classroom, with the goal of empowering teachers to incorporate estuary and watershed topics into their educational curricula. Some Portsmouth teachers have benefitted from this program in years past.

Cost: \$7,000

Fiscal agent: Great Bay National Estuarine Research Reserve

3. Public Education - The City will provide funding to support public education related to the value of the Estuary, the challenges it faces, and ways individuals can engage to protect its water quality and ecosystem health, including through events that engage people in cleaning up debris and learning about environmentally safe landscaping practices, and through on-the-water education of local citizens and public officials.

Cost: \$14,000

Fiscal agent: The Nature Conservancy

4. Oyster Shell Recycling - The City will provide funding to support a local program that collects oyster shells, for use as substrate for building new reefs for oyster restoration in the Great Bay Estuary, from seacoast area restaurants.

Cost: \$4,000

Fiscal agent: Coastal Conservation Association, NH Chapter

5. Great Bay Estuary Monitoring Support - The City will provide funding to support water quality monitoring efforts by the Piscataqua Region Estuary Partnership to continue efforts aimed at monitoring water quality and ecosystem health.

Cost: \$11,000

Fiscal agent: Piscataqua Region Estuary Partnership

6. Remaining funds - Expenditures for projects 1-5 above total \$86,000. Expenditure of the remaining funds have yet to be determined.