



PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH
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VIA EMAIL

August 31, 2022

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 July 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,

A handwritten signature in blue ink, appearing to read "Peter H. Rice", with a long horizontal flourish extending to the right.

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

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 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 July 2022 was 5.7 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 | 4.0 |
| 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 | 4.0 |
| December 2021 | 4.6 | |
| January 2022 | 6.5 | |
| February 2022 | 5.6 | |
| March 2022 | 4.0 | |
| April 2022 | 5.2 | |
| May 2022 | 5.0 | 4.0 |
| June 2022 | 4.6 | |
| July 2022 | 5.7 | |

**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. No change in July. The City anticipates requesting an extension of time to complete given the expansion of the project to provide additional separation and water quality improvements. | |

UNION STREET:

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

| Current Status (phase of work) | Anticipated Construction Completion Date: |
|--|---|
| PRELIMINARY DESIGN | Fall 2023 |
| <i>Comments:</i> | |
| Design work is underway. Amendment signed with engineering firm to conduct building/house basement surveys to gain further information to 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 Fall of 2022. Additional building/house investigation for design done in July. The City anticipates requesting an extension of time to complete given the expansion of the project to provide additional separation and water quality improvements. | |

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. | |

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. City Council in August authorized additional funding of \$1.2 million to incentivize private connections once the sewer mains in the public ways are complete. | |

**Peirce Island Effluent Nitrogen
July 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 |
|-----------|----------------------|----------------------------------|------------------------------------|----------------------|------------------------|
| 7/1/2022 | 2.65 | | | | |
| 7/2/2022 | 2.58 | | | | |
| 7/3/2022 | 2.57 | | | | |
| 7/4/2022 | 2.44 | | | | |
| 7/5/2022 | 2.28 | 0.19 | 3.90 | 2.00 | 5.90 |
| 7/6/2022 | 2.33 | | | | |
| 7/7/2022 | 3.51 | 0.14 | 0.64 | 2.00 | 2.64 |
| 7/8/2022 | 3.61 | | | | |
| 7/9/2022 | 2.51 | | | | |
| 7/10/2022 | 2.34 | | | | |
| 7/11/2022 | 2.44 | | | | |
| 7/12/2022 | 2.53 | 0.18 | 3.65 | 2.60 | 6.25 |
| 7/13/2022 | 3.24 | | | | |
| 7/14/2022 | 3.26 | 0.25 | 2.00 | 2.90 | 4.90 |
| 7/15/2022 | 3.17 | | | | |
| 7/16/2022 | 2.79 | | | | |
| 7/17/2022 | 2.72 | | | | |
| 7/18/2022 | 2.60 | | | | |
| 7/19/2022 | 2.59 | 0.28 | 2.70 | 3.80 | 6.50 |
| 7/20/2022 | 3.03 | | | | |
| 7/21/2022 | 3.05 | 0.17 | 1.30 | 3.20 | 4.50 |
| 7/22/2022 | 3.25 | | | | |
| 7/23/2022 | 2.71 | | | | |
| 7/24/2022 | 2.52 | | | | |
| 7/25/2022 | 4.04 | | | | |
| 7/26/2022 | 4.17 | 1.60 | 5.20 | 4.50 | 9.70 |
| 7/27/2022 | 2.83 | | | | |
| 7/28/2022 | 2.93 | 0.19 | 2.30 | 3.00 | 5.30 |
| 7/29/2022 | 3.05 | | | | |
| 7/30/2022 | 2.71 | | | | |
| 7/31/2022 | 2.52 | | | | |
| Minimum | 2.28 | 0.1 | 0.6 | 2.0 | 2.6 |
| Maximum | 4.17 | 1.6 | 5.2 | 4.5 | 9.7 |
| Average | 2.87 | 0.4 | 2.7 | 3.0 | 5.7 |