

ANNUAL REPORT FY 2024



Hampton Roads Sanitation District
1434 Air Rail Avenue
Virginia Beach, VA 23455

October 31, 2024

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1. INTRODUCTION AND PURPOSE

On February 23, 2010, HRSD entered into an Amended Consent Decree (“Consent Decree”) with the United States of America and the Commonwealth of Virginia for the purpose of fulfilling the objectives of the Clean Water Act and the Virginia State Water Control Law. This Consent Decree has been amended five times by agreement of all parties in 2011, 2013, 2014, 2017, and 2022. The Fifth Amendment outlines the approved Integrated Plan, which was signed by the Hon. Arenda L. Wright Allen on February 8, 2022. In December 2014, the Special Order by Consent (SOC) with the DEQ and thirteen localities was modified and HRSD is no longer part of that order. HRSD and the Agencies entered into a Sixth Amendment to the Consent Decree on January 19, 2024 that made a number of changes to a range of projects and activities.

The approved Integrated Plan requires HRSD to perform, among other things, the following tasks:

- Implement a flow, pressure, and rainfall monitoring program;
- Coordinate with the Localities to develop a Regional Hydraulic Model;
- Prepare a plan for and conduct a condition assessment program;
- Construct specified interim system improvements;
- Develop and implement a Sanitary Sewer Overflow (SSO) Response Plan;
- Develop a Regional Wet Weather Management Plan in consultation with the Localities;
- Update and implement a Management, Operations and Maintenance (MOM) Program; and
- Prepare and submit a variety of periodic and event-driven reports
- Rehabilitation Action Plan projects
- High Priority Projects
- Aquifer Replenishment Program (ARP) also known as SWIFT
- Microbial Source Tracking

This annual report is submitted pursuant to Section XVII of the Consent Decree. HRSD has prepared this annual report in accordance with the above requirements to apprise the EPA (representing the United States of America) and the DEQ (representing the Commonwealth of Virginia) of steps taken toward meeting the obligations of the Consent Decree. Specifically, this annual report summarizes the work and activities undertaken by HRSD from July 1, 2023, through June 30, 2024, and the resulting benefits to the sanitary sewer system.

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2. ACTIVITIES UNDERTAKEN PREVIOUS FISCAL YEAR

2.1 Flow, Pressure, and Rainfall Monitoring Program

2.1.1 Ongoing System Monitoring

Following completion of the 12-month flow, pressure, and rainfall monitoring period on March 11, 2011, HRSD continues to maintain a wide-scale monitoring network. Regular manual data review has been conducted to verify data reliability. In FY 2024, HRSD has made various changes to its monitoring network. Table 2-1 below lists the significant changes in detail.

| Table 2-1. FY 2024 Flow, Pressure, and Rainfall Monitoring Actions | | | |
|--|-----------------------------------|-------------|---------------|
| Site | Location | Measurement | Added/Removed |
| MMPS-024 | Kingsmill PS | Flow | Added |
| MMPS-020-2 | Center Ave PCV | Pressure | Added |
| MMPS-031 | Robin Hood Rd PS | Flow | Added |
| MMPS-024 | Kingsmill PS | Flow | Added |
| MMPS-345 | HRSD SF – Redgate Ave | Pressure | Added |
| MMPS-021 | HRSD SF – Pinners Point | Pressure | Added |
| | | | |
| Site | Location | Measurement | Removed |
| MMPS-020 | Center Ave Discharge at North Ave | Pressure | Removed |

A portal to allow access for the Localities to the HRSD flow, pressure, and rainfall data from the FPR sites (Telog server data) was developed and implemented in February 2009 and continues to be used and enhanced.

2.2 Condition Assessment Plan

2.2.1 Rehabilitation Action Plan Implementation

The approved Rehabilitation Action Plan contains 67 projects to be completed in three phases. Table 2-2 shows the status of the Plan phases through June 30, 2024. One project in Phase 1 (CE-R3) was cancelled with EPA/DEQ approval and reduces the total to 66 projects. Additionally, VIP-R6 was moved from Phase 1 to Phase 2 on April 7, 2020.

Table 2-2. Rehabilitation Action Plan Phase Status

| Phase | Number of Projects Completed | Total Number of Projects | Estimated Cost of Completed Projects | Estimated Total Cost of All Projects in Phase |
|-------|------------------------------|--------------------------|--------------------------------------|---|
| 0 | 10 | 10 | \$28,178,596 | \$28,178,596 |
| 1 | 19 | 19 | \$76,646,832 | \$76,646,832 |
| 2 | 4 | 36 | \$14,191,673 | \$389,983,425 |

Projects completed this period are included in Appendix A project certifications and are as follows:

- BH-R5, BH015900, Bloxoms Corner Force Main Replacement

2.3 Interim System Improvements

Appendix 5 to the Consent Decree lists thirty-three projects that are required to be completed within 8 years of the Date of Entry of the Consent Decree. The modification to the Consent Decree in FY 2013 has added eighteen (18) new projects for a total of fifty-one (51). Modification No. 3 which was entered by the court in August 2014 added two (2) projects and removed eight (8), leaving a total of forty-five (45) Interim System Improvement projects. HRSD has completed all of these projects.

2.4 Management, Operations, and Maintenance Program

2.4.1 Implementation of MOM Program

HRSD continues to implement its MOM Program. This includes details pertaining to management, operations, and maintenance of HRSD's conveyance system, including quantitative performance measures, implementation of continuous improvement initiatives, and special programs coordinated in the region related to HR FOG. HRSD performed an annual performance assessment of its MOM Plan in accordance with Section 5 of the MOM Program following completion of FY 2024.

2.4.1.1 MOM Program Update

HRSD updated its MOM Program in July 2021 based on policy and procedure changes, as well as organizational changes. This plan is available for review on the www.hrsd.com website. The next major MOM Program update is anticipated in July 2024.

2.4.1.2 HR FOG

The Fats, Oils, and Grease (FOG) Education Committee is a coalition of local government staff members working together with HRSD to protect wastewater infrastructure, reduce sanitary sewer overflows, and improve local water quality. The Committee shares both technical resources and educational strategies to prevent improper disposal of FOG into the sanitary sewer system. The Hampton Roads Planning District Commission (HRPDC) coordinates this regional effort. In FY24 HRSD continued to participate in monthly committee meetings and support localities with their FOG control programs through a signed MOA – which six localities have signed thus far. In FY24 the committee continued the process to modernize the hrfog.com website, with a completion date of September 2024. This platform was initially developed in 2012 and serves as a hub for food service employees and grease haulers to review training documents and complete a certification exam to comply with local FOG ordinances. It also hosts helpful educational resources like signs and brochures and additional guidance documents for local FOG ordinances. Several paid campaigns ran across social media, radio and TV that targeted residential homes with a message to keep FOG and wipes out of the drains.

2.4.1.3 Ongoing Condition Assessment Activities

2.4.1.3.1 Field Activities

See Section 4 of this report for details on the MOM-related Condition Assessment Field Activities.

2.4.1.3.2 Prompt Repairs

HRSD continues to implement a program to identify and address collection system infrastructure deficiencies found during the course of condition assessment field activities that require prompt attention. Defects are evaluated to determine if they:

- Pose an immediate threat to the environment;
- Pose an imminent threat to the health and safety of the public;
- Create operational problems that may result in SSOs; or
- Contribute to substantial infiltration and/or inflow to the system.

If such a defect is identified through the inspection process, it is assessed to determine the appropriate repair necessary. Data received from the condition assessment program is reviewed to make that determination. A list of completed prompt repairs up through FY 2024 is covered in Section 4.4 of this document.

2.4.2 Quantitative Performance Measures

The revised MOM Program includes many performance measures that HRSD uses to evaluate its progress. Paragraph 34 of the Consent Decree established a list of six measures that are subject to stipulated penalties, including: gravity sewer main inspection, air release valve preventative maintenance, gravity sewer cleaning, pumping station annual preventative maintenance, back-up generator annual preventative maintenance, and non-invasive force main inspection near drinking water supply reservoirs. Targets for all these six measures explicit in the Consent Decree were achieved in FY 2024. The details of HRSD's performance are provided in Section 5 of this report.

2.5 Regional Wet Weather Management Plan

HRSD submitted an updated Regional Wet Weather Management Plan (RWWMP) on June 29, 2020. The fifth amendment to the Consent Decree, that incorporated the RWWMP, was approved by the court on February 8, 2022. The RWWMP features an Adaptive Regional Plan (ARP) comprising four phases. Phase 1 includes the \$700 million that HRSD will spend by 2025 on Interim System Improvements, Rehab Action Plan projects, Condition Assessment (including prompt repairs), and planning associated with development of the RWWMP Plan. Phase 2 includes the \$208 million in Round 1 High-Priority Projects, and \$10 million Pathogen Source Tracking Program. Phase 3 consists of an additional \$202 million in Round 2 High-Priority Projects and \$10 million for the continued Pathogen Source Tracking Program. Phase 4 is a performance assessment upon completion of the work in Phases 2 and 3. This analysis will take place between 2040 and 2043 and will culminate in submittal of a Performance Assessment for the review and approval of EPA and DEQ by March 31, 2043. The High-Priority Projects will reduce SSO volume during the 5-year peak flow event by 69%. The fifth amendment includes the schedule for wastewater system improvements that accommodates the Aquifer Replenishment Program (ARP) program. HRSD is planning on investing over \$1.1 billion by 2032 on the ARP program. The RWWMP provides for the ARP to be implemented through 2032. Finally, the RWWMP provides that if HRSD truncates or abandons the ARP prior to 2032 then EPA can require HRSD to accelerate spending on the RWWMP to offset the avoided investment in the ARP program. At this time, it appears that HRSD will spend the full committed amount. That said, HRSD continues to evaluate the most optimal approach to implementing the ARP program given HRSD's financial constraints, evolving regulatory requirements, and the unprecedented inflationary pressures we are experiencing.

2.5.1 RWWMP Progress

Phase I progress is described in Table 2-2.

Phase II progress includes microbial source tracking efforts and the initiation of most Round 1 HPP projects. All Inflow and Infiltration (II)-related projects are under contract and the majority of them are being delivered via a design-build contracting method.

Phase III progress includes the initiation of a Round 2 HPP project.

Phase IV is scheduled to commence in 2040.

- The Aquifer Replenishment Program (ARP) consists of the implementation of up to \$1 billion in HRSD Sustainable Water Initiative For Tomorrow (SWIFT) projects. HRSD has approved multiple contracts including:
 - James River SWIFT Facility and James River Treatment Plant Advanced Nutrient Reduction Improvements, combined design-build contract amount of \$534,500,298 (53.7 percent complete)
 - James River Recharge Wells (On site), construction contract amount \$14,449,400 (completed)
 - James River Recharge Wells (Off site), construction contract amount \$42,998,200 (66.3 percent complete)
 - Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II, design-build contract amount \$309,330,229 (42.6 percent complete)
 - Nansemond SWIFT Facility and Nansemond Recharge Wells (On-Site), combined design-build contract amount \$656,580,000 (1.9 percent complete)

2.6 SSO Emergency Response Plan

On June 27, 2024 HRSD completed the annual update of the approved Sanitary Sewer Overflow (SSO) Response Plan. This plan continues to be implemented by HRSD. A copy of the most recent plan is posted to the www.hrsd.com website.

2.7 Consultation with Localities

There were several group consultation activities in FY 2024 with Localities. The major activities included:

- Semi-Annual meetings of the Capacity Team to share progress on compliance with the Consent Decree (July 25, 2023; October 24, 2023; January 23, 2024)
- HRSD.com continues to be updated to provide documents to the regional Capacity Team; and,
- Copies of the Quarterly Reports, Semi-Annual Report and Annual Report were provided from HRSD to the Localities on the HRSD.com website.
- Routine meetings of the HRPDC Director of Utilities group.

These group consultations are supplemented by continuous interaction with individual localities regarding HRSD programs and projects.

2.8 Public Participation

HRSD conducted an annual information meeting regarding the progress of the Consent Decree on January 23, 2024. In addition, HRSD published a newsletter in February 2024, which is available on the www.hrsd.com website. Information and approved plans continue to be posted to HRSD’s website, which is accessible to the public.

2.9 Post-RWWMP Implementation Monitoring and Performance Assessment

No action has been performed for this item as it is a later requirement of the Consent Decree.

2.10 Reporting

2.10.1 Annual Report

HRSD completed an FY 2023 Annual Report and submitted it to the EPA and DEQ on October 30, 2023. This report covered Consent Decree activities from July 1, 2022, through June 30, 2023.

2.10.2 Semi-Annual Report

HRSD completed a FY 2024 Semi-Annual Report and submitted it to the EPA and DEQ on April 30, 2024. This report covered Consent Decree activities from July 1, 2023, through December 31, 2023.

2.10.3 Quarterly Reports

HRSD completed FY 2024 Quarterly Reports and submitted them to the EPA and DEQ as summarized in Table 2-3 below.

2.11 Summary of Submittals

Table 2-3 summarizes the status of the documentation that HRSD has submitted to the EPA and DEQ under the Consent Decree in FY 2024.

| Consent Decree Submittal | Submittal Date |
|--------------------------|--|
| Annual Report | October 30, 2023 |
| Annual Public Meeting | January 23, 2024 |
| Annual Newsletter | February 2024 |
| Semi-Annual Report | April 30, 2024 |
| Quarterly Reports | November 28, 2023, March 7, 2024, June 10, 2024, August 28, 2024 |

2.12 Stipulated Penalties

HRSD submitted four quarterly SSO reports that identified all SSOs, SSDs, Prohibited bypasses, and unauthorized discharges from the HRSD SS System and the HRSD STPs. These reports documented

outstanding system performance. HRSD paid the associated undisputed stipulated penalties for a handful of events.

A summary of undisputed penalties payments is included in Table 2-4 below.

| Table 2-4. Summary of Undisputed Penalties | | | | |
|---|--|--------------------------------------|--------------------------|-----------------|
| | Undisputed Stipulated Penalties | Payment to Commonwealth of VA | Payment to US EPA | Comments |
| FY 2024 QT 1 | \$7,050 | \$3,525 | \$3,525 | |
| FY 2024 QT 2 | \$10,200 | \$5,100 | \$5,100 | |
| FY 2024 QT 3 | \$31,300 | \$15,650 | \$15,650 | |
| FY 2024 QT 4 | \$9,700 | \$4,850 | \$4,850 | |

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3. COMPLIANCE DEADLINES AND MILESTONES

In FY 2024, HRSD expended considerable resources in both time and money to achieve the compliance goals of the Consent Decree. All deliverables were submitted on or before their due dates, including those with short timeframes for response. Table 3-1 below provides a general summary of the major Consent Decree deadlines and the status of each.

| Table 3-1. Consent Decree Milestones | | |
|--------------------------------------|---|----------|
| Consent Decree Paragraph | Consent Decree Submittal | Status |
| 13 | Quality Assurance Program Plan | Complete |
| 15 | Flow, Pressure, and Rainfall (FPR) Monitoring Plan Implementation | Complete |
| 16 | Interim and Final FPR Monitoring Reports | Complete |
| 22 | Regional Hydraulic Model Plan Implementation | Complete |
| 23 | Regional Hydraulic Model Report | Complete |
| 25 | Condition Assessment Plan Implementation | Complete |
| 26 | Preliminary Condition Assessment Report | Complete |
| 27 | Final Condition Assessment Report (FY 2013) | Complete |
| 27 | Final Condition Assessment Report (FY 2015) | Complete |
| 29 | Interim System Improvements | Complete |
| 33 | Management, Operations, and Maintenance Program | Complete |
| 39 | Preliminary Capacity Assessment Report | Complete |
| 40 | Comparative Analysis | Complete |
| 40 | Alternatives Analysis Report | Complete |
| 40 | Regional Wet Weather Management Plan | Complete |
| 60 | Short Term Wet Weather Operational Plan | Complete |
| 69 | Sanitary Sewer Overflow (SSO) Response Plan | Complete |
| 71 | Annual Updates to SSO Response Plan | Ongoing |
| 77 | Annual Informational Newsletters | Ongoing |
| 78 | Annual Public Meetings | Ongoing |
| 87 | Annual Reports | Ongoing |
| 88 | Semi-Annual Reports | Ongoing |
| 90 | Quarterly Briefings | Complete |
| 90.a | Quarterly Reports | Ongoing |

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4. MOM PROGRAM CONDITION ASSESSMENT ACTIVITIES DURING FY 2024

HRSD has continued with its MOM-related Condition Assessment Field Activities in FY 2024. The following subsections describe the progress made in each aspect.

4.1 Gravity Main

HRSD completed 43,623 LF of gravity sewer inspections of its system in FY 2024. Approximately 109,491 LF of sewer main was cleaned.

4.2 Force Main

HRSD performed condition assessment on 59,493 linear feet of force mains in the interceptor system including 7,067 linear feet within 2500 feet of drinking water reservoirs. HRSD also performed 2,689 linear feet of treatment plant piping. Soil corrosivity studies and mapping continued with a goal of creating a regional corrosion map and including it in the risk model to prioritize assessment of ferrous pipe segments vulnerable to external corrosion. The risk model continues to prioritize condition assessment and replacement projects. 3-year condition assessment work orders were scheduled on all treatment plant and pump station assets.

4.3 Pumping Facilities

Regular inspection and preventive maintenance of pumping facilities was performed by HRSD staff.

4.4 Prompt Repairs

As part of the Condition Assessment Program, HRSD has identified defects in the HRSD sanitary sewer system (primarily gravity sewer pipes and manholes) which have been deemed to be Prompt Repairs through June 30, 2024. These defects have been grouped into repair work orders and are currently in various stages of planning, design, construction or are complete. The following Table 4-1 provides details on all the Prompt Repairs identified through FY 2024.

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|-------------|--|--------------|-------------|---|-------------------|----------|
| 41st Street | 41st Street east of intersection with Jefferson Ave; between MHs NG-112-12175 and NG-112-11783 | Hampton | NG-112 | Pipe lining failure | 1 | Complete |
| Beach Road | West side of Beach Road opposite intersection with Wade Road between MH NG- | Hampton | NG-088 | Pipe connection at manhole needs repair | 1 | Complete |

Table 4-1. Summary of Prompt Repairs

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|------------------|---|----------------|-------------|--|-------------------|----------|
| | 088-0 and NG-088-155. | | | | | |
| Beach Road | West side of Beach Rd. between intersection with Bonneville Dr. and Catalina Drive between MH NG-088-1654 and NG-088-1863 | Hampton | NG-088 | Lateral connection to mainline needs repair | 4 | Complete |
| | Approximately in front of 112 Beach Rd between MH NG-088-0636 and NG-088-0970 | Hampton | NG-088 | Mainline pipe defects | | |
| | Beach Rd. approximately 170 ft. south of Wade Rd. intersection | Hampton | NG-088 | Manhole defects | | |
| | West side of Beach Road opposite intersection with Hall Road. Between MHs NG-088-1260 and NG-088-1316 | Hampton | NG-088 | Mainline punctured by another utility directional drilling | | |
| Various Manholes | North King St. | Hampton | NG-078 | Manhole defects | 3 | Complete |
| | E. Pembroke Ave. at Washington St. | Hampton | NG-084 | Manhole defects | | |
| | Bainbridge Blvd. between Beech St. and Wilton St. | Norfolk | SG-153 | Manhole defects | | |
| Jefferson Ave | Jefferson Ave. between 40th St and 41st St | Newport News | NG-114 | Mainline pipe defects | 2 | Complete |
| | Jefferson Ave between 39th and 40th St | Newport News | NG-114 | Mainline pipe defects | | |
| Newtown Road | Newtown Rd. at Virginia Beach Blvd (ne corner of intersection) | Virginia Beach | SG-112 | Manhole defects and mainline pipe defects | 3 | Complete |
| | Newtown Rd. approx. 415 ft. north of Princess Anne Rd. | Virginia Beach | SG-113 | Manhole defects | | |
| | Newtown Rd. at Elam Ave. | Virginia Beach | SG-113 | Manhole defects | | |
| Mercury Blvd | West Mercury Blvd | Hampton | NG-099 | Mainline pipe defects | 3 | Complete |
| | West Mercury Blvd | Hampton | NG-057 | Mainline pipe defects | | |

Table 4-1. Summary of Prompt Repairs

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|------------------------|---|----------------|-------------------------|------------------------------|-------------------|--|
| | West Mercury Blvd; near Beechwood Rd. | Hampton | NG-057 | Mainline pipe defects | | |
| Various Repairs | North Hope Street | Hampton | NG-160 | Pipe lining failure | 3 | Complete |
| | Old Atlantic Avenue; near intersection with Liberty Street | Chesapeake | SG-148 | Pipe lining failure | | |
| | South of Steamboat Creek PS | Norfolk | SG-102 | Manhole defects | | |
| Witchduck | South Witchduck Road | Virginia Beach | SF-141 | Corroded FM bolts | 1 | Complete |
| Pin Oak Rd | Pin Oak Road; Residential neighborhood | Newport News | NG-175 | Mainline Pipe Defects | 1 | Complete |
| Bainbridge Blvd | Bainbridge Blvd near I-464 | Norfolk | SG-145 | Mainline Pipe Defects | 2 | Complete |
| | Bainbridge Blvd near I-464 just upstream of PS | Norfolk | SG-145 | Mainline Pipe Defects | | |
| Shell Rd - Hampton | Shell Road | Hampton | NG-141 | Mainline Pipe Defects | 2 | Complete |
| | Harris Creek Road | Hampton | NG-086 | Mainline Pipe Defects | | |
| Pearl Street | Pearl Street near Ligon Street near I-464/I-262 Interchange | Norfolk | SG-202 | Mainline Pipe Defects | 2 | Complete |
| | Pearl Street near Ligon Street near I-464/I-262 Interchange | Norfolk | SG-202 | Mainline Pipe Defects | | |
| Deep Creek | Deep Creek force main on suction side of Deep Creek PRS | Chesapeake | SF-143 | FM defects | 1 | Complete |
| Wythe Lagoon | Wythe Lagoon Siphon | Hampton | NG-151 | Siphon defects | 1 | Complete |
| Pump Station Hatches | Ingleside Road Pump Station | Norfolk | PS#148 | Wet Well Hatch | 1 | Complete |
| Pump Station Wet Wells | Rodman Ave Pump Station Wet Well | Portsmouth | PS#145 | Wet Well Defects | 1 | Complete |
| Luxemburg Ave | Influent line to Luxemburg Avenue pump station. | Norfolk | SPS-113 | Defect at manhole connection | 1 | Complete |
| Gowrie and Farragut | Manhole near creek at end of Gowrie Avenue | Norfolk | SG-068 | Manhole defects | 2 | Complete |
| | Manhole near creek at end of Farragut Avenue | Norfolk | SG-068 | Manhole defects | | |
| Shipyards Sewer | Outside of 33 rd street Pump Station | Newport News | 33 rd Street | Mainline pipe defects | 3 | 33 rd Street and 31 st Street repairs have been completed. The |
| | 31 st Street | Newport News | 31 st Street | Mainline pipe defects | | |

Table 4-1. Summary of Prompt Repairs

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|---------------------------------|---|------------------------|-------------------------|-----------------------|-------------------|---------------------------------------|
| | 38 th Street | Newport News | 38 th Street | Mainline pipe defects | | remaining project is in construction. |
| Chesterfield Blvd | Gravity influent to Chesterfield PS | Norfolk | SG-207 | Mainline pipe defects | 2 | Complete |
| | Gravity influent to Chesterfield PS | Norfolk | SG-207 | Mainline pipe defects | | |
| State Street FM | Force main at State St Pump Station | Norfolk | SF-097 | Thin wall | 1 | Complete |
| Berkley Avenue | Manholes on Berkley Avenue | Norfolk | SG-098 | Manhole defects | 2 | Complete |
| | Manholes on Berkley Avenue | Norfolk | SG-098 | Manhole defects | | |
| Newmarket Creek | Orcutt Avenue and Paul street at influent to Newmarket Creek PS | Newport News | NG-127 | Manhole Defects | 2 | Complete |
| | Orcutt Avenue and Paul street at influent to Newmarket Creek PS | Newport News | NG-127 | Pipeline defects | | |
| Laskin Road | Laskin Road Force Main | Virginia Beach | SF-135 | Hit by third party | 1 | Complete |
| Elizabeth River | East side of Elizabeth River Crossing | Chesapeake | SF-143 | Thin wall | 1 | Complete |
| 14 th Street | Manhole at Jefferson Ave and 14 th street | Newport News | NG-130X | Manhole Defect | 1 | Complete |
| Army Base | Baker Street and Hampton Blvd | Norfolk | SF-003 | Pipeline defect | 1 | Complete |
| Mercury and Orcutt Intersection | W Mercury Blvd | Hampton | NG-127 | Manhole Defect | 1 | Complete |
| Claremont Avenue Discharge | Harbor Lane and 14 th Street | Newport News | NG-130 | Pipeline Defect | 1 | Complete |
| Boat Harbor Outlet | Jefferson Avenue and 25 th Street | Newport News | NG-169 | Pipeline Defect | 1 | Complete |
| Hickman Branch | Factory Street | Portsmouth | SG-193 | Pipeline Defect | 1 | Complete |
| Terminal Avenue | Terminal Avenue | Newport News | NG-125 | Pipeline Defect | 1 | Complete |
| Swannanoa and Summerset | Intersection of Swannanoa Drive and Summerset Drive | Portsmouth | SF-206 | Pipeline Defect | 1 | Complete |
| Orcutt Avenue Liner | Orcutt Avenue and 79 th Street | Hampton / Newport News | NG-127 | Pipeline Defect | 1 | Complete |
| Bay Shore Lane | Bay Shore Lane | Hampton | NG-095 | Manhole Defects | 7 | Complete |
| Warwick Blvd | Warwick Blvd | Newport News | NG-130 | Pipeline Defect | 1 | Complete |

Table 4-1. Summary of Prompt Repairs

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|-----------------------------------|--|----------------|------------------------------------|------------------------------------|-------------------|-----------------|
| Warwick and Woodhaven | Warwick Blvd to Thorncliff Drive | Newport News | NF-015 | Pipeline Defect | 1 | Complete |
| Woodland Avenue | Woodland Avenue and Ballentine Blvd | Norfolk | SG-089 | Manhole Defects | 6 | Complete |
| Indian River Road | Indian River Road near Campostella | Norfolk | SF-106 | Pipeline Defect | 1 | Complete |
| Powhatan Ave | Powhatan Ave | Norfolk | SG-044 | Manhole Defect | 1 | Complete |
| Euclid Road | Euclid Road and Southern Blvd | Virginia Beach | SF-197 | Pipeline Defect | 1 | Complete |
| Dovercourt Road | Dovercourt Road | Norfolk | SPS-108 | Manhole Defect | 1 | Complete |
| Beach Road South | Beach Road between Catalina Drive and Westlawn Drive | Hampton | NG-088 | Pipeline Defect | 1 | Complete |
| Hampton Institute | Hampton Institute Pump Station | Hampton | NPS-211 | Pipeline Defect | 1 | In Construction |
| Portsmouth Blvd | Portsmouth Blvd | Newport News | NG-125 | Pipeline Defect | 1 | Complete |
| Boat Harbor Influent | Terminal Avenue Junction Box | Newport News | NG-125 | Pipeline Defect | 1 | Complete |
| Mercury/Big Bethel Manhole | Intersection of Mercury Blvd. and Big Bethel Road | Hampton | NG-057 | Manhole Defect | 1 | Complete |
| Berkley Trunk Sewer Section S | State Street | Norfolk | SG-202 | Pipeline Defect | 1 | Complete |
| Copeland PS Discharge FM | Copeland Pump Station | Newport News | NF-113-2539, NF-113-93255 to vault | Corroded appurtenances on pipeline | 1 | Complete |
| Shingle Creek Siphon | Shingle Creek PS | Suffolk | SG-191-21795 to SG-191-21788 | Pipe Defect | 1 | Complete |
| Western Branch Sewers – State Hwy | APM Terminals Blvd | Portsmouth | SF-038 | Force Main blockage | 1 | Complete |
| Bainbridge Blvd Gravity Sewer | Bainbridge Blvd & Holly Avenue | Chesapeake | SG-149-4932 to SG-149-4897 | Pipe Defect | 1 | Complete |
| Shore Drive FM | Shore Dr. / Indian Hill Rd. | Virginia Beach | SF-019 | Pipeline / Joint Failure | 1 | Complete |
| Great Bridge FM Gate Valve | AT1147-2 Valve Replacement | Chesapeake | SF-178 / AT1147-2 | Inoperable valve | 1 | Complete |
| JRTP Piping | PC#4 to PC Distribution Chamber | Newport News | PCE (PC#4) | Pipeline Failure | 1 | Complete |
| Suffolk FM | Wilroy Rd. / Burnetts Mill Creek Crossing | Suffolk | SF-190 | Pipeline Defect | 1 | Complete |
| WBTP Piping | PC Splitter Box to PC #1 | Williamsburg | PCI (PC#1) | Pipeline Defect | 1 | Complete |

Table 4-1. Summary of Prompt Repairs

| Name | Location | Jurisdiction | Line Number | Summary of defect | Number of Defects | Status |
|---------------------------|--|--------------|-------------|-----------------------|-------------------|----------|
| Great Bridge Boulevard FM | Great Bridge Blvd. / Willow Point Arch | Chesapeake | SF-164 | Pinhole Leak | 1 | Complete |
| JRTP Piping | 111 City Farm Road | Newport News | NPW | Segmental Replacement | 1 | Complete |
| WBTP Piping | 300 Ron Springs Drive | Williamsburg | NPW | Segmental Replacement | 1 | Complete |

ANNUAL REPORT FY 2024

5. MOM PERFORMANCE MEASURES FOR FY 2024

HRSD has implemented its MOM Program activities in conjunction with the requirements of the Consent Decree. Table 5-1 below provides a status update on the specific Performance Measures listed in Paragraph 34 of the Consent Decree. HRSD has substantially outperformed key performance measures such as CCTV inspections, gravity sewer cleaning, and air vent inspections.

Table 5-1. MOM Performance Measures

| Consent Decree Paragraph | Section | Goal | Performance Measure | Target | FY 2024 Actual Performance | Comment | MOM Program Section No. |
|--------------------------|---------------------------------|---|--|---------------------------------------|----------------------------|------------------------------------|-------------------------|
| 34.a. | Gravity System CCTV Inspections | Internal inspection of the Gravity System lines provides useful information to assess the condition of the lines allowing proactive measures to be taken to reduce infiltration and identify conditions that may lead to failure. | Perform internal inspection of HRSD gravity sewers, linear feet inspected per year | 39,600 linear feet inspected per year | 43,623 LF Inspected | Performance exceeded target | 2.9 |
| 34.b. | Force Main PM - Air Venting | Force mains must periodically have air and gases vented to prevent loss of efficiency of pump stations and to prevent corrosion of piping due to hydrogen sulfide gas. | Perform air release valve PM, No. of PMs per year | 1,550 ARVs vented per year | 4,080 ARV PMs | Performance exceeded target | 2.8 |
| 34.c. | Gravity Sewer Cleaning | Obstructions in Gravity Sewer systems are a primary cause of SSOs in these systems, and the systematic cleaning of the system is necessary to remove debris and accumulations of solids from all sources and reduce SSOs. | Perform cleaning of HRSD gravity sewers to remove debris. Linear feet cleaned per year | 26,400 linear feet cleaned per year | 109,491 LF Cleaned | Performance exceeded target | 2.9 |
| 34.d. | Pump Station Annual PMs | Maintain the pump stations to protect the public safety, to protect the environment, | All pump stations are to receive the Annual Inspection as | 90 pump stations | 90 (100%) | Performance met target | 2.7 |

Table 5-1. MOM Performance Measures

| Consent Decree Paragraph | Section | Goal | Performance Measure | Target | FY 2024 Actual Performance | Comment | MOM Program Section No. |
|--------------------------|---|--|--|--------------------------------------|----------------------------|------------------------------------|-------------------------|
| | (Mechanical) | reduce SSOs and to achieve the maximum service life from the pump stations. | described in the Interceptor Systems Preventive Maintenance Manual. | inspected per year | | | |
| 34.d. | Pump Station Annual PMs (Electrical) | Maintain the pump stations electrical equipment to protect the public safety, to protect the environment, reduce SSOs and to achieve the maximum service life from the pump stations. | All pump stations are to receive the Annual Electrical PM as described in the Interceptor Systems Preventive Maintenance Manual. | 86 pump stations inspected per year | 86 (100%) | Performance met target | 2.7 |
| 34.e. | Annual PM for Back-up Generators | Preventive maintenance is performed on the emergency generators to protect the safety of the public, to protect the environment and reduce SSOs when electrical power to the pump motors from the public utility has been disrupted. | Each backup generator is to receive an annual preventive maintenance inspection. | 61 generators to receive PM per year | 119 | Performance exceeded target | 2.7 |
| 34.f. | Non-Invasive FM Inspection Near Drinking Water Reservoirs | Inspect Force Mains Near Reservoirs to Identify Conditions that may lead to Problems Prior to Failure. | Perform non-invasive inspections of FMs to identify air pockets and leaks. No. of linear feet of FM inspected per year. | 2,400 linear feet inspected per year | 7,067 LF Inspected | Performance exceeded target | 2.8 |

Annual Pump Station PM has been divided into two categories as seen in the fourth and fifth lines of the table. The Annual Mechanical PMs are performed by Interceptor Operations and Annual Electrical Pump Station PMs are performed by Facility Support. All stations that were online at the time of inspection received an annual PM.

6. SYSTEM PERFORMANCE DURING FY 2024

6.1 Modifications to HRSD Operating Pressures

HRSD revised its System Operating Pressure Policy with adoption by the HRSD Commission on December 16, 2014. It is based on the concept of a hydraulic grade line as opposed to the flat line of the previous policy. HRSD's interceptor system pressure is dynamic and varies based on the connection point and flow rate. HRSD will provide a range of pressures that a terminal pump station should expect to operate in. This range will be based on the RHM and available pressure meter data.

6.2 STP Performance

The HRSD system experienced construction, record breaking rainfall [ORF_PRECIP.pdf \(weather.gov\)](#), and operations-related events in FY 2024 that led to unusual discharges from the facilities. Table 6-1 provides details on the unusual discharges from July 1, 2023, to June 30, 2024. The majority of these occurrences involved Non-Potable Water (NPW) or fully treated effluent, and many were the result of activities conducted by a third party. HRSD reported these events in previously submitted quarterly reports.

6.3 Conveyance System Performance

For the reporting period of July 1, 2023, through June 30, 2024, HRSD experienced nineteen (19) sanitary sewer overflows (SSOs) from its system. Ten of the nineteen SSOs were capacity-related.

All of these events are detailed in the Sanitary Sewer Overflow Reporting System (SSORS). Details on all the FY 2024 SSOs for HRSD are available in Table 6-2 and in previously submitted quarterly reports.

6.4 Regional System Capacity Related SSOs

As required by Paragraph 88 of the Consent Decree, HRSD must report on wet weather or capacity related SSOs that occur in the Regional SS System. Table B-1 in Appendix B provides the listing of these SSOs along with a summary of cause and action being taken as reported by the applicable Locality in SSORS. HRSD has not independently verified these overflows.

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|-----------|--------------|--|-----------------------------|---|---|--|-------------------------|---------------------|----------|
| 7/19/2023 | Nansemond | Final effluent pumps were not keeping up with effluent flow due to discharge valves being partially closed. These pumps do not have variable frequency drives and the valves are operated locally to prevent the effluent pumps from emptying the channel and shutting the pump off with a 30 minute lock out on the pump. When the operator reached the pumps to manually open the valve further the channel was already overflowing onto the ground. | 10 | The discharge valves were opened further to bring the level back down. These issues associated with final effluent pump station operation will be fixed with the ongoing plant expansion project. | 1500 | 1500 | Final Effluent (FNE) | Ground | |
| 7/31/2023 | James River | A large pile of rock was placed over an eight inch non potable water (NPW) line. A large excavator was then driven onto the pile to load the rock for distribution on the construction site. The weight of the rock and excavator cracked a recently repaired NPW line that was buried below. The broken NPW line resulted in approximately 4,800 gallons of NPW being discharged onto the ground and into the nearby storm drain. | 17 | Plant NPW system was secured until the repair was made. | 4800 | 4800 | Non-Potable Water (NPW) | ground/ storm drain | |
| 8/19/2023 | Nansemond | During a power outage at SWIFT the drain pump station pumps stopped. Once power was restored they failed to turn back on. Once the drain pump station was completely full it started overflowing. Because of the grading, all spilled water went into the grass area on the back of the SWIFT building into a trough. | 0 | After the SWIFT Operator arrived onsite they observed that both drain pumps were not running. Immediately after, the operator went outside and noticed the drain pump station had over filled and spilled. Water was not actively still flowing out of the pump station because the processes were offline due to the power outage. We then were able to recover 500gal of the water captured in the trough using a Godwin pump, pumping the captured water back to the drain pump station. | 2500 | 2000 | Ozonated Effluent Water | ground | |
| 8/28/2023 | Williamsburg | During a high flow rain event the bar-screens were secured while the rag and grit dumpster was being changed. The bar-screens quickly blinded and raw influent overflowed the channel and ran down the steps and down a storm drain into the woods. | 4 | Bar-screens were restarted and the overflow quickly subsided. | 2000 | 2000 | Raw Influent (RWI) | ground, James River | |
| 8/28/2023 | Nansemond | Final Effluent Wet Well Overflowed due to Generator failure during high flow event. The Final Effluent Pump program at Nansemond, which runs primarily during high flow events, calls for Effluent Pumps to run on Generator Power due to lack of supplied power from Dominion. During the rain event on Monday the program started as expected however as flow increased the need for two pumps to run to keep up with flow caused an over current to the online generator. The next available generator came online and subsequently failed also, leaving the plant unable | 14 | All flow was diverted to the Pond until both Generators could be reset and Final Effluent pumps returned to service. Nansemond Plant is currently undergoing construction that will include upgrades to our Final Effluent pumping system that will alleviate this problem in the future. | 18000 | 18000 | Final Effluent (FNE) | ground | |

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|------------|--------------|--|-----------------------------|---|---|--|-------------------------|---|----------|
| | | to pump. During this time the Final Effluent Wet Well underwent a breach of capacity for approximately 13-14 minutes resulting in a loss of ~18,000 gallons of FNE. | | | | | | | |
| 10/10/2023 | Boat Harbor | Secondary clarifier #5 was filled with Non-Potable Water (NPW) to test the rake arm function last week. Over the weekend the tank lost volume and a maintenance operator noticed water on the back road. Upon inspection fluid was noticed to be flowing out of an expansion joint between secondary #4 and secondary #5. A total of 22" of NPW was lost from the tank. | 30 | The maintenance operator dug a pit near the leak, placed rubber material in the pit and a sump pump to capture the water as it continues to leak. The tank is being drained from that location to the plant drain system. Once the leak location has been determined, the Condition Assessment group will assist in hiring a contractor to repair the tank. | 120735 | 120735 | Non-Potable Water (NPW) | ground, drainage creek from storm drain | |
| 11/2/2023 | Nansemond | Contractors dropped a piece of concrete on the discharge line from Centrate tanks, spilling ~600 gallons of centrate onto the ground, none of which was recovered. Contractors were lifting a piece of concrete that buckled under the weight and landed on the discharge piping from the centrate tanks. The pipe was broken before the closest valve in line, so there was no way to secure the spill. The spill was going directly into the rock outside of the excavation for the new Pre-Dewatering building and was unable to be recovered. This resulted in ~600 gallons of centrate being spilled with zero gallons being recovered. | 15 | Plant Staff and contractors removed a broken section of pipe at a flange and replaced it with a flange that had a valve on it to stop the spill. | 600 | 600 | Centrate | Ground | |
| 11/4/2023 | Williamsburg | Our Plant Operator noticed water coming out of the road and ground at an intersection on the southwest end the plant at 9:45am while investigating a sudden drop in NPW system pressure. Standby personnel responded but found the leak to be on the main 10" line so they had to shut down NPW to the plant to stop the leak. The system was shut down and the leak stopped at 12:30pm. It is estimated that 16,500 gallons of NPW soaked into the ground and ran down storm drains 9 and 10 into Grove Creek. | 165 | Bridgeman Civil was called out to excavate and repair the 10" cast iron NPW line. The cracked section of line was replaced and NPW flow to the plant was back on at 9:45pm. | 16500 | 16500 | Non-Potable Water (NPW) | Ground and Grove Creek | |
| 11/7/2023 | Nansemond | Plant staff discovered flow discharging from the SRF Reactor #3 drain that has been cut in preparation for the demo of Reactor #3. The plant drain well was overwhelmed with drain flow from AAA Tank #5, causing the overflow at the SRF. The pipe the flow was discharging was 6" PVC pipe and the building sump pumps could not keep up causing some flow to leave the building. | 15 | Plant Staff contacted LO On-call and were instructed to close down on the drain from AAA Tank #5. The LO reported to NP and evaluated the spill and deemed it non recoverable and sprayed down the interior of the SRF | 650 | 650 | NPW w/Struvite | Ground | |

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|------------|-------------|--|-----------------------------|---|---|--|-------------------------|-----------------------|----------|
| 11/9/2023 | James River | A newly built tank was being filled with non-potable water (NPW) to soak the concrete and test for leaks. It was noticed that the level had dropped more than expected which indicated a potential leak. The contractor excavated down to the influent pipe and found that they had forgotten to put a plug in a 1/2 inch test port. This resulted in ~40,000 gallons of NPW being released into the ground. The contractor does have deep stilling wells with sump pumps to remove ground water from their excavations and those pumps likely conveyed this NPW to a storm water discharge. | 37 | Contractor excavated down to the pipe and installed a plug. | 40000 | 40000 | Non-Potable Water (NPW) | ground to storm drain | |
| 11/14/2023 | Nansemond | While Contractors were drilling piles for the new Primary Clarifier Equalization Tank, part of the Anaerobic, Anoxic, Aerobic (AAA) influent channel separated at an expansion joint and began leaking. This caused a mixed liquor leak on both the north and south side of the influent channel which peaked at ~10 gallons per minute on the north and ~5 gallons per minute on the south. | 1365 | Contractors dug a trench to collect the mixed liquor and pump it back into the AAA channel. Contractors will have to setup bypass pumping to isolate the channel for repair, until this is able to be done, to eliminate / slow the leak, Contractors patched the leaks from the outside with oakum soaked in hydrophobic polyurethane grout. | 2930 | 2930 | Mixed Liquor | Ground | |
| 1/11/2024 | James River | A contractor reported water coming out of the ground near a large excavator, parked next to the sodium bisulfite building. The bisulfite feed and carry water were immediately secured and a temporary feed was started. | 4 | Contractor repaired both lines and the bisulfite system was placed back into service. | 100 | 100 | NPW/Diluted bisulfite | Ground | |
| 1/15/2024 | James River | A contractor cracked a sodium bisulfite feed line next to a large excavation. They immediately notified the operator and the operator switched to the backup feed line. The contractor was asked where the broken line had discharged to and the contractor stated that the lost NPW and dilute sodium bisulfite had accumulated in the excavation, which they then pumped to a storm drain. It was a small crack and we used pump capacity to determine that approximately 100 gallons were lost. | 8 | Contractor replaced the damaged section of pipe. We met with the project manager to discuss measures to prevent additional breaks, isolation protocols, and that nothing should be pumped without direction from plant staff. | 100 | 100 | NPW/Diluted bisulfite | Ground to Storm Drain | |
| 1/22/2024 | James River | A contractor had hooked up a temporary NPW line that was tapped off a NPW yard hydrant. The contractors line froze and cracked just after the isolation valve spraying NPW onto the ground. | 0 | The valve was secured immediately after it was discovered and the contractor is removing their NPW piping as it is no longer needed. | 1500 | 1500 | Non-Potable Water (NPW) | Ground | |

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|-----------|--------------|--|-----------------------------|--|---|--|-------------------------|--|----------|
| 1/23/2024 | James River | While a contractor was excavating, a bisulfite line was uncovered, pulling the pipe out of a repair coupling. The separated line discharged NPW and dilute sodium bisulfite into the excavation. | 5 | Sodium bisulfite line was secured and the backup feed line was placed into service. The repair was made and will be used as the backup line. Plant leadership met with the Project manager and the leadership of the lead contractor to develop a plan to prevent future release. The plan that will be delivered to the sub contractor is as follows: 1. The repaired pipe will be removed and new pipe installed with the supervision of plant staff and the lead contractor. 2. The pipe will be bedded with rock when excavations are backfilled. 3. The pipes will supported at all times in an excavation to relieve stress on the pipe and pipe joints. 4. Plates will be placed over the pipe run to disperse the weight of heavy equipment as it passes over. | 125 | 125 | NPW/Diluted bisulfite | Ground | |
| 1/29/2024 | Nansemond | Expansion joint on Anerobic/anoxic tank #7 began to leak while being filled with non-potable water. | 21 | Began draining tank and leak stopped in under 5 minutes. Leak appears to be up high and began when water level reached that point. | 500 | 500 | Non-Potable Water (NPW) | Stormwater holding pond | |
| 2/13/2024 | James River | A bell fitting on an exposed NPW line, in an excavation next to the Sodium Bisulfite building, broke on the bottom causing NPW to be discharged into the excavation, onto the road and into nearby storm drains. ~18000 gallons were discharged with 5375 gallons recovered. | 3 | NPW pumps were turned off and the contractor repaired the pipe. Pumps were set in low areas to capture pooling water back into process. | 18000 | 12625 | Non-Potable Water (NPW) | Ground, Storm Drain | |
| 2/21/2024 | Nansemond | Non potable water (NPW) line break due to water hammer after a contractor shut a valve on the pvc line. | 39 | An isolation valve was located and closed. The line was repaired on 2/22/2024. | 1755 | 1755 | Non-Potable Water (NPW) | Ground/ Storm Drain to Stormwater Pond | |
| 3/6/2024 | Williamsburg | During a wet weather event, the primary effluent flow diversion pump tripped out while an out of service clarifier was being placed in service to meet flow demands on the plant. When the pump tripped a hydraulic bottleneck was created in the primary effluent system, which caused the tank being placed in service to rapidly fill before the tank effluent gate was open. This resulted in a spill of wastewater through the scum collection piping. The flow saturated the soil and proceeded west along the road to a nearby storm drain that leads to Grove Creek. The | 45 | Operator manually opened the effluent gate to the primary clarifier and the flow stopped spilling. | 4500 | 4500 | Raw Influent (RWI) | Ground and Grove Creek | |

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|-----------|--------------|--|-----------------------------|--|---|--|----------------------------|--------------------------|----------|
| | | Williamsburg TP rain gauge saw a maximum rainfall of 0.10" in 15 minutes (3/6/24 at 12:30 pm), with a total of 0.27" falling in 1 hour. Total rainfall for the rain event for this gauge was 1.63". | | | | | | | |
| 3/7/2024 | Nansemond | Seam leaking on anaerobic/anoxic tank #7. Tank was being filled with non-potable water (NPW) to be put in service. Non potable water was leaking from the seal near the top of the tank at approximately 2 gallons per minute. | 116 | Tank drain opened immediately and tank will need to be repaired from the inside. | 244 | 244 | Non-Potable Water (NPW) | Ground/ Storm Water Pond | |
| 3/25/2024 | Nansemond | Seam leaking on anaerobic/anoxic influent channel. Contractors Sump pump tripped pumps in the sump area causing it to overflow with primary clarifier effluent. | 9 | Breakers reset on sump pumps. Vac trailer used to clean up standing water. | 600 | 100 | Primary Clarifier Effluent | Ground/ Stormwater Pond | |
| 4/1/2024 | Nansemond | NPW hose that was filling aeration tank #1 popped out of the tank and spilled on the ground.. | 2 | Hose was immediately placed back in the tank and tied off to railing. | 500 | 500 | Non-Potable Water (NPW) | Ground/ Stormwater pond | |
| 4/25/2024 | James River | new NPW valve was installed several months ago on a ten-inch NPW line. The soil and gravel pack was being used as the restraint and no other restraints were installed. The line was under pressure and during the excavation the line separated from the valve causing ~42,000 gallons of NPW to be discharged. Pumps were quickly dispatched and ~11,000 gallons were recovered. | 14 | Contractor is replacing the pipe and valve. | 42000 | 31000 | Non-Potable Water (NPW) | Ground to Storm Drain | |
| 4/26/2024 | Williamsburg | Bridgman Civil contractors were excavating the 36" effluent pipe for the #3 Primary clarifier for condition assessment. During the excavation, their excavator struck the top of the pipe and primary effluent began to fill the hole and flowed towards the storm water detention pond on the south east side of the plant. | 436 | Multiple gas powered pumps were placed in the excavation site and the water was pumped to the nearby out of service primary clarifier. The pumps were able to keep up with the flow from the pipe while further excavation and repairs took place. | 278400 | 6000 | Primary Effluent | Ground | |
| 5/14/2024 | James River | A new Non-Potable Water (NPW) line was installed and connected to the existing NPW system. When the valve was opened to charge the new line the older pipe that it was connected to broke. | 5 | The new section of NPW piping will remain secured until the broken pipe can be replaced. | 5000 | 5000 | Non-Potable Water (NPW) | Ground | |
| 5/15/2024 | Nansemond | Discharge hose came off of the fitting and began spraying primary scum on the ground. | 2 | Pump was secured and a new hose ordered . Scum puddled on the ground was pumped into a primary clarifier. | 500 | 200 | Primary Scum | Ground/ stormwater pond | |

Table 6-1. Detailed Listing of HRSD Treatment Plant Unusual Discharges (July 1, 2023 to June 30, 2024)

| Date | Location | Description/Cause | Duration of Event (minutes) | Corrective Action | Estimated Quantity Discharged (gallons) | Estimated Quantity to State Waters (gallons) | Type of Overflow | Receiving Water | Comments |
|-----------|-------------|---|-----------------------------|--|---|--|-------------------------------------|--|----------|
| 5/15/2024 | Boat Harbor | Secondary #1 was placed into service the in the afternoon of 5/14/2024. At 11:30 am a Lead Operator noticed fluid accumulation in the area between secondaries 1 and 2. Upon further inspection a leak was found coming out of the expansion joint between the two secondaries. The leak was thought to either be rain water or secondary effluent from tank #1. After further investigation the leak was verified as secondary effluent. | 180 | Plant staff dug a pit around the leaking expansion joint and set a berm in place to retain any fluid accumulation. Rock was placed in the bottom of the pit and a sump pump put in place to pump the water to a plant drain. Secondary #1 was removed from service and the leak visibly slowed confirming the theory of leak being secondary effluent. The tank will be fully drained and cleaned by plant staff. After cleaning the tank will be inspected by the HRSD coatings and concrete inspection group to find what recommendations for repair may be. | 231 | 231 | Secondary Clarifying Effluent (SCE) | Ground between secondary #1 and #4 | |
| 5/16/2024 | Nansemond | Approximately 300 gallons of sanitary sewer water soaked into the ground when sanitary drain pumps failed, the well level rose, and a fernco fitting came off. | 16 | Pumps were reprimed and well level was brought back down to a normal level and the Fernco fitting was put back on. Additional clamps will be put on the fitting to prevent recurrence of this issue. Sump pumps were used to recover a portion off the water spilled | 2000 | 300 | Sanitary Sewer | Ground/ stormwater Pond | |
| 5/16/2024 | Nansemond | The plant Non-Potable Water (NPW) line in excavation site between primary #3 and north side of primarys 1&2 started leaking and started filling hole with NPW. | 13 | NPW isolation valve for leaking line was closed and line is being repaired by contractors. Sump pumps are being used to recover a portion of the water spilled. | 300 | 100 | Non-Potable Water (NPW) | Ground | |
| 6/7/2024 | Atlantic | A digester had two mixers out of service causing a rapid rise of foam. Digester foam spilled onto the ground. | 330 | The Operator secured feed and began transferring out of the digester to bring the level down. Defoaming agent was added to the digester to bring the foam level down. The spill was contained and cleaned up the with help from a Vacuum truck. Maintenance and E&I staff are working to repair the mixers and place them back in service. | 1000 | 100 | Digested Solids | Ground | |
| 6/13/2024 | Atlantic | Operators were spraying non-potable water (NPW) to knock down foam in digester 2. The operators left the hose on causing the digester to overflow. | 185 | The Operator secured the NPW hose. | 2500 | 300 | Digested Solids | Ground, Storm water ditch on Firefall Dr | |

*NPW – Non-potable water (treated effluent)

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|-------------------------------------|------------------------|---------------------------------|-------------------------|--------------------------|--|---------------------------|--|--------------------------------|--|---------------------|--|
| 7/8/2023 7:35 | Corner of Robin Hood Road and Birch | #167 | Ground | Norfolk | Maintenance-Other | HRSD responded to a low oil alarm. The pump was turned off for maintenance. Once restored and pump put back in service an aluminum clamp failed and the hose came off the pump. | 0 hour(s) 0 minute(s) | Additional standby staff responded. Replaced damaged hose. Cleaned up and spread lime. -----July 11, 2023 02:19 PM----- | 50 | 40 | SSORS#2024-T-106297 | NO |
| 8/4/2023 17:44 | 1500 Bainbridge Boulevard | MH-SG-149-4989 | Scuffeltown Creek | Chesapeake | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows exceeding system capacity. Ferebee Ave Pump Station saw a maximum rainfall of 0.28" in 15 minutes (08/4/23 at 3:30 pm), with a total of 0.50" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 2.44". Overflow was indicated by station alarm at 5:11 pm and occurred at HRSD manhole upstream of the Park Avenue Pump Station. The manhole is located in the parking lot of a local business. | 6 hour(s) 36 minute(s) | HRSD staff verified Park Avenue Pump Station was operating properly. At 8am on 8/5/2023, a vaccon was used to remove standing sewage and debris from sidewalk and parking lot. Lime was also applied to affected area. -----August 9, 2023 12:44 PM----- | 32025 | 31925 | SSORS#2024-T-106306 | YES |
| 8/5/2023 18:45 | 715 Fairfax Avenue | SS-PS-107 | Elizabeth River | Norfolk | Infrastructure | Heavy rainfall in the area resulted in increased system flows and high pressures causing the pipe to the Emergency Pump Connection (EPC) behind the station to fail. Sewage was released each time the pumps ran. | 0 hour(s) 5 minute(s) | HRSD received a call from the oncall service at 6:11 PM on 8/5/2023 that a spill was reported behind Colley Avenue Pump Station. On call staff isolated the station ending spill, shut valve to the emergency pump connection and turned the station back on. Standby crews pumped sewage from the hole created by the leak and placed lime over the affected area. -----August 9, 2023 10:17 AM----- | 200 | 100 | SSORS#2024-T-106307 | NO |
| 8/28/2023 15:45 | 5734 Chesapeake Boulevard | SS-PS-105 | Lafayette River via Wayne Creek | Norfolk | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Chesapeake Boulevard Pump Station causing sewage to overflow from this overflow pipe. Chesapeake Boulevard Pump Station saw a maximum rainfall of 1.62" falling in 1 hour; total rainfall for the rain event for this rain gauge was 3.28". | 2 hour(s) 5 minute(s) | HRSD staff verified the Chesapeake Boulevard Pump Station was operating properly. Once the rain subsided the pump station was able to pull the levels within the gravity system down enough to stop the overflow. -----September 1, 2023 12:41 PM----- | 200000 | 200000 | SSORS#2024-T-106314 | YES |

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|---------------------------|------------------------|---------------------------------------|-------------------------|--------------------------|--|---------------------------|---|--------------------------------|--|-------------------------|--|
| 8/28/2023 15:35 | 3609 Cedar Lane | MH-SG-035-17632 | Western Branch of the Elizabeth River | Portsmouth | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Cedar Lane Pump Station causing sewage to overflow from this manhole. Cedar Lane Pump Station saw a maximum rainfall of 2.98" falling in 1 hour; total rainfall for the rain event for this rain gauge was 6.46". | 0 hour(s) 55 minute(s) | HRSD staff verified the Cedar Lane Pump Station was operating properly. Once the rain subsided the pump station was able to pull the levels within the gravity system down enough to stop the overflow. -----September 1, 2023 12:46 PM----- | 1000 | 1000 | SSORS#202 4-T-106316 | NO |
| 12/18/2023 0:07 | 720 Bayshore Lane | MH-NG-095-109 | Ground draining to Chesapeake Bay | Hampton | Capacity-Weather Related | Significant wet weather resulted in increased system flows. The Bayshore Pump Station Rain Gauge saw a maximum rainfall of 0.26" in 15 minutes, with a total of 0.78" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 3.31". | 3 hour(s) 43 minute(s) | Verified pump station operating properly, monitored the SSO, and cleaned up the site after the event. -----December 18, 2023 03:08 PM----- | 750 | 750 | SSORS#202 4-T-106359 | YES |
| 12/18/2023 2:30 | 219 National Avenue | NS-PS-225 | Storm Drain to Chesapeake Bay | Hampton | Infrastructure | The permanent bypass pump was experiencing mechanical issues, resulting in the loose discharge flange connection and sewage being released. The Bayshore Pump Station Rain Gauge saw a maximum rainfall of 0.26" in 15 minutes, with a total of 0.78" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 3.31". | 0 hour(s) 2 minute(s) | Crews reconnected discharge flange connections. -----December 18, 2023 03:12 PM----- | 300 | 300 | SSORS#202 4-T-106361 | NO |
| 12/18/2023 10:52 | 5734 Chesapeake Boulevard | SS-PS-105 | Lafayette River via Wayne Creek | Norfolk | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Chesapeake Boulevard Pump Station causing sewage to overflow from this overflow pipe. The Luxembourg Avenue station saw a maximum rainfall of 0.30" in 15 minutes, with a total of 0.76" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 3.62". | 3 hour(s) 10 minute(s) | HRSD staff verified the Chesapeake Boulevard Pump Station was operating properly. Once the rain subsided the pump station was able to pull the levels within the gravity system down enough to stop the overflow. All sewage from this overflow was conveyed directly to the creek behind the station via gravity overflow pipe. No sewage was spilled onto the ground. -----December 21, 2023 03:40 PM----- | 32500 | 32500 | SSORS#202 4-T-106362 | YES |

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|--|--------------------------|---|-------------------------|--------------------|--|---------------------------|---|--------------------------------|--|---------------------|--|
| 12/24/2023 16:30 | Intersection of Great Bridge Boulevard and Neal Street | SG-162-3194, SG-162-3569 | Storm drain to Newton Creek / Elizabeth River | Chesapeake | Third Party Action | HRSD contractor's plug from adjacent CIP project plugged line causing overflows at HRSD's manholes and numerous City of Chesapeake sanitary sewer manholes and clean outs. | 1 hour(s) 30 minute(s) | <p>Responding to a call from Chesapeake Public Utilities, staff discovered manhole SG-162-3194 at the corner of Great Bridge Boulevard and Neal Street was surcharged to the rim of the structure. This manhole is a discharge point for an active bypass system supporting HRSD's CIP AT013000. The bypass system, which pumped sewage from a City of Chesapeake manhole several hundred feet to the east, was still in operation and when called to run caused the surcharged manhole to spill onto the ground. The contractor was on site and was instructed to turn the bypass system off. Once the bypass was turned off, the spill at the HRSD manholes stopped. However, City manholes and cleanouts in the north-east area of the neighborhood, the lowest part of the collection system, continued to spill for several more hours. Staff shut off Doziers Corner Pump Station and coordinated a shut down of Chesapeake PS-12 to minimize the sewage lost. Anticipating a blockage in the downstream pipe, staff jetted the line several times to attempt to free up the perceived blockage. After the jetting did not produce results, the contractor and HRSD pumper trucks pumped out of local manholes while a bypass system was put in place to pump around the apparent blockage. After the spilling from City manholes was stopped and the collection system upstream from SG-162-3194 was pumped down, a plug belonging to the CIPP contractor was visible in the manhole in the downstream pipe. Bypass system stayed on line until contractor's plug was removed on 12/25/2023. Clean up of the area was performed by HRSD and contractor staff. Vactor trucks were deployed to collect debris and contractor and HRSD staff spread bleach and lime in the spill areas.</p> <p>-----December 28, 2023 01:56 PM-----</p> | 2500 | 2500 | SSORS#2024-T-106364 | NO |

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|-----------------------------------|------------------------|--|-------------------------|---------------------------------|---|------------------------------|--|--------------------------------|--|-------------------------|--|
| 3/6/2024 12:00 | 5734 Chesapeake Boulevard | SS-PS-105 | Lafayette River via Wayne Creek | Norfolk | Capacity- Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Chesapeake Boulevard Pump Station causing sewage to overflow at from this overflow pipe and also manhole SG-073-54. The Luxembourg Avenue Pump Station Rain Gauge saw a maximum rainfall of 0.20" in 15 minutes (3/6/24 at 10:15 am), with a total of 0.54" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 1.79". | 36 hour(s) 1 minute(s) | HRSD staff verified the Chesapeake Boulevard Pump Station was operating properly. Once the rain subsided, the pump station was able to pull the levels within the gravity system down enough to stop the overflow. All flow was conveyed directly to the creek behind the station via gravity overflow pipe with none released onto the ground. -----March 11, 2024 02:55 PM----- | 440000 | 440000 | SSORS#202 4-T-106399 | YES |
| 3/6/2024 12:53 | 3748 Chesapeake Avenue | MH-NG- 143-2581 | Chesapeake Bay | Hampton | Capacity- Weather Related | Rainfall and increased ground water level resulted in increased system flows. The Bridge Street Tide Gate rain gauge saw a maximum rainfall of 0.16" in 15 minutes (3/6/24 at 10:30 am), with a total of 0.49" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 1.63". | 1 hour(s) 2 minute(s) | Verified pump station operating properly and monitored the SSO. -----March 7, 2024 09:52 AM----- | 55 | 55 | SSORS#202 4-T-106400 | YES |
| 3/6/2024 11:58 | 720 Bayshore Lane | MH-NG- 095-109 | Chesapeake Bay | Hampton | Capacity- Weather Related | Significant wet weather resulted in increased system flows. The Bayshore Pump Station Rain Gauge saw a maximum rainfall of 0.19" in 15 minutes (3/6/24 at 10:45 am), with a total of 0.56" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 1.81". | 4 hour(s) 2 minute(s) | Verified pump station operating properly and monitored the SSO. After the event the site was cleaned. -----March 11, 2024 02:59 PM----- | 1410 | 1410 | SSORS#202 4-T-106401 | YES |
| 3/11/2024 11:07 | 2250 East Washington Street | MH-SG-193- 15840 | Shingle Creek | Suffolk | Third Party Action | HRSD staff observed sewage overflowing from a manhole. | 2 hour(s) 50 minute(s) | HRSD staff and contracted services deployed vectors and CCTV equipment to clean and determined a blockage had caused the overflow. Once the blockage was cleared the overflow stopped. A small diameter sewer pull was removed as well as debris typically associated with the sewer blockages. It is believed the small diameter plug and associated hoses were a significant contributor to the blockage and overflow. The area was cleaned and lime was applied. -----March 15, 2024 02:54 PM----- | 60000 | 60000 | SSORS#202 4-T-106404 | NO |
| 3/25/2024 12:06 | 138 Normandy Lane | JR1011A-2 | Ground to Hogge Pond | Newport News | Other | Branch valve with no connection was open resulting in a leak. | 2 hour(s) 56 minute(s) | Valve was closed and the leak stopped. -----March 26, 2024 07:19 AM----- | 528 | 528 | SSORS#202 4-T-106408 | NO |

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|--|------------------------|---------------------------------|-------------------------|--------------------------|---|----------------------------|--|--------------------------------|--|-------------------------|--|
| 3/28/2024 11:45 | 3541 Seay Avenue | SS-PS-125 | Storm drain to Elizabeth River | Norfolk | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Seay Avenue Pump Station causing sewage to overflow at from manhole MH-SPS-125-1055 outside of the station. Virginia Beach Boulevard Rain Gauge saw a maximum rainfall of 0.17" in 15 minutes (3/28/24 at 5:30 am), with a total of 0.48" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 3.06". | 3 hour(s) 50 minute(s) | HRSD staff verified the Seay Avenue Pump Station was operating properly. Once the rain subsided, the pump station was able to pull the levels within the gravity system down enough to stop the overflow. All sewage from this overflow was conveyed by surface drainage storm system to the Elizabeth River. -----March 30, 2024 03:25 PM----- | 157 | 157 | SSORS#202 4-T-106411 | YES |
| 3/28/2024 9:00 | 5734 Chesapeake Boulevard | SS-PS-105 | Lafayette River via Wayne Creek | Norfolk | Capacity-Weather Related | Heavy rainfall in the area resulted in increased system flows. The flows exceeded the capacity of the Chesapeake Boulevard Pump Station causing sewage to overflow at from this overflow pipe and also manhole SG-073-54. Luxembourg Avenue Pump Station Rain Gauge saw a maximum rainfall of 0.15" in 15 minutes (3/28/24 at 9:30 am), with a total of 0.39" falling in 1 hour. Total rainfall for the rain event for this rain gauge was 3.00". | 27 hour(s) 30 minute(s) | HRSD staff verified the Chesapeake Boulevard Pump Station was operating properly. Around noon on 3/29, and after flows had dropped to a point where this approach was possible, SS Interceptors began carefully throttling the 12-inch pump at Robin Hood Road Pump Station so that Chesapeake Boulevard Pump Station could pump at a higher rate, which ended the spill. The storm related flows started to drop around and by 4 am of 3/30 the pump station was able to pull the levels within the gravity system down enough without manual operation. All sewage from this overflow was conveyed directly to the creek behind the station via gravity overflow pipe. No sewage was spilled onto the ground. -----March 30, 2024 09:36 AM----- | 254250 | 254250 | SSORS#202 4-T-106412 | YES |
| 3/28/2024 10:48 | 461 Center Avenue; Intersection of Center Avenue and Macon Avenue | MH-NG-101-5/133/4812 | Storm drain to Government Ditch | Newport News | Infrastructure | Electric actuator on automated valve JR2024-6 failed resulting in the valve opening to 100% and sending NF-042 flow to the gravity system. | 0 hour(s) 34 minute(s) | Manually closed valve and cleaned the area. -----March 28, 2024 05:25 PM----- | 278800 | 278800 | SSORS#202 4-T-106413 | NO |
| 5/6/2024 22:32 | 612 N Hope Street | MH-NG-160-27107 | Storm drain to Chesapeake Bay | Hampton | Third Party Action | The MHs at Hope and Yukon and Hope and Chamberlin overflowed due to issues with a downstream bypass system setup. The Bridge Street Tide Gate rain gauge recorded 1.76" during this rain event. | 1 hour(s) 26 minute(s) | Checked Willard Pump Station and bypass system setup. Contacted contractor about issues with bypass system. -----May 9, 2024 10:10 AM----- | 23650 | 23650 | SSORS#202 4-T-106435 | NO |

Table 6-2. Detailed Listing of HRSD SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Potential Receiving Waters | Spilled In Jurisdiction | SSO Classification | Description of Incident from SSORS | SSO Duration | Action Taken and Explanation of SSO | Discharge Quantity (gallons)** | Amount Reaching State Waters (gallons)** | DEQ IR | Occurred in previous five years at same location |
|---------------------------|-------------------|------------------------|----------------------------|-------------------------|--------------------|--|---------------------------|--|--------------------------------|--|---------------------|--|
| 6/4/2024 13:58 | 34 Doolittle Road | NF-058-1697 | Ground | Hampton | Damage By Others | Contractor was performing conduit install via boring when they struck the HRSD FM. | 3 hour(s) 32 minute(s) | Isolated the force main to perform repair. ----June 4, 2024 07:03 PM---- Repair completed and site cleaned. Lime was applied to contaminated ground. ----June 6, 2024 07:48 AM---- ----June 6, 2024 08:12 AM---- | 6360 | 2360 | SSORS#2024-T-106448 | NO |

7. PLANNED ACTIVITIES FOR FY 2025

HRSD will be continuing the overall program outlined in the Consent Decree in FY 2025. The following sub-sections provide specifics on this work.

7.1 Flow, Pressure, and Rainfall Monitoring Program

7.1.1 Implementation of the FPR Monitoring Plan

Although not required by the Consent Decree, HRSD intends to continue to collect data from flow, pressure, and rainfall sensors in FY 2025, and plans to continue to operate a portal to allow access for the Localities to the HRSD flow, pressure, and rainfall data from the FPR sites (AVEVA PI server data). In FY 2025, HRSD may modify the network and delete and/or relocate some monitoring points.

7.2 Condition Assessment Plan

HRSD will continue to implement the approved Rehabilitation Action Plan.

7.3 Interim System Improvements

HRSD completed all required Interim System Improvements as of November 1, 2018.

7.4 Management, Operations, and Maintenance Program

7.4.1 Implementation of MOM Program

HRSD will continue to implement its MOM Program, including MOM-related Condition Assessment activities.

7.4.2 Quantitative Performance Measures

In FY 2025, HRSD will continue tracking the performance measures to assess the program. This will include the list of six measures that are subject to stipulated penalties per Paragraph 34 of the Consent Decree.

7.5 Regional Wet Weather Management Plan

HRSD began implementation prior to the 5th Amendment being approved by the court on February 8, 2022.

7.6 Short Term Wet Weather Operational Plan

HRSD will continue to implement the approved plan with periodic updates.

7.7 SSO Emergency Response Plan

HRSD will continue to implement its approved SSO Response Plan. An annual update to the plan has been posted to the www.hrsd.com website .

7.8 Consultation with Localities

HRSD will continue to actively participate and facilitate a wide variety of consultation activities in FY 2025. These activities include:

- Periodic meetings of the Capacity Team to discuss RWWMP implementation and other Consent Decree issues;
- Periodic briefings of the Directors' of Utilities Committee to share progress on compliance with the Consent Decree and MOA; and
- Maintain [EPA Consent Decree | HRSD.com](https://www.hrdsd.com/EPA-Consent-Decree) website to provide documents to the regional Capacity Team.

7.9 Public Participation

HRSD will have an annual information meeting and publish a newsletter by the next anniversary of the Date of Entry, February 23, 2025. Information and approved plans continue to be posted to HRSD's website which is accessible to the public.

7.10 Reporting

HRSD will prepare Quarterly Reports and a Semi-Annual Report in addition to this Annual Report in FY 2025. HRSD continues to publish post-storm analysis for qualifying storms and submit those reports to EPA/DEQ as part of the quarterly report submittal.

8. FORESEEABLE ISSUES RELATED TO UPCOMING COMPLIANCE DEADLINES AND MILESTONES

HRSD continues to experience significant headwinds in completing a handful of Consent Decree projects. Real estate acquisition, railroad easement permitting, and lengthy locality approvals have created extended design phases beyond what could be reasonably anticipated by HRSD. HRSD sent a Force Majeure Notice on August 6th, 2024 identifying unanticipated delays which will likely impact our ability to meet certain Rehab Action Plan (RAP) Phase II completion deadlines. HRSD received a response from the Agencies on September 27, 2024 and is currently preparing additional details to supplement the request for adjustments to specific Rehab Action Plan project deadlines. HRSD believes that its requested changes constitute minor modifications.

9. SIGNIFICANT ISSUES THAT REQUIRE A CHANGE IN THE
CONSENT DECREE REQUIREMENTS

None noted.

10. IDENTIFICATION OF CHANGES IN KEY PERSONNEL DIRECTLY RESPONSIBLE FOR COMPLIANCE ACTIVITIES

In response to a compensation study completed in FY 2024, many job titles across HRSD were updated. The position responsibilities and personnel working on compliance activities remained unchanged.

APPENDIX A. PROJECT CERTIFICATION FORMS

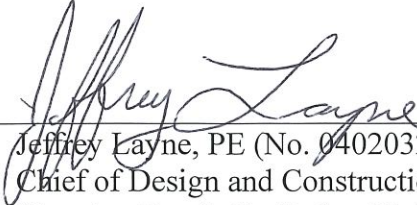
Rehabilitation Action Plan Projects
Verification of Completion

As required by Section VIII of the Third Amended Consent Decree dated May 30, 2015, a set of Rehabilitation Action Plan projects have been identified that must be completed according to the schedule in that document. For capital projects in excess of \$1,000,000, Paragraph 87a of the Consent Decree requires that verification be made by a Professional Engineer that the project was completed satisfactorily.

Through March 30, 2024, the following projects have been completed satisfactorily and consistent with the scope provided to the EPA and DEQ in the Consent Decree:

| <u>Ref No.</u> | <u>CIP No.</u> | <u>Project Name</u> | <u>Project Cost</u> | <u>Completion Date</u> |
|----------------|----------------|--------------------------------|---------------------|------------------------|
| BH-R5 | BH-159 | Bloxom's Corner FM Replacement | \$6,285,960 | January 26, 2024 |

Hereby verified by



Jeffrey Layne, PE (No. 0402032946)
Chief of Design and Construction, North Shore
Hampton Roads Sanitation District

APPENDIX B. REGIONAL SS SYSTEM CAPACITY RELATED SSOS

Table B-1. Regional SS System Capacity Related SSORs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Jurisdiction | SSORS ID | Description of Incident from SSORS | Corrective Action from SSORS | Quantity from SSORS (gallons) | Comments* and Response |
|---------------------------|-------------------------|------------------------|--------------|----------|---|--|-------------------------------|---|
| 08/28/2023 13:19 | 5349 Rockingham Drive | LS 6-1 | James City | 106318 | Heavy rain/high intensity and pressures - totaling 5" in 6 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----August 29, 2023 01:43 PM----- | 14,093 | Significant wet weather event covered the pump station service area with over 3.6 inches of rain. Nearest HRSD rain gauge registered a 10yr RRI (3hr). Locality described wet weather event of 5" in 6 hours. |
| 08/28/2023 14:13 | 123 Depot Street | LS 6-8 | James City | 106320 | Heavy rain/high intensity and pressures - totaling 2" in 2 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----August 29, 2023 02:11 PM----- | 17,984 | Significant wet weather event covered the pump station service area with over 2 inches of rain. Locality described wet weather event of 2" in 2 hours. |
| 08/28/2023 14:25 | 173 Forest Heights Road | LS 6-2 | James City | 106319 | Heavy rain/high intensity and pressures - totaling 4.5" in 6 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----August 29, 2023 01:52 PM----- | 9,011 | Significant wet weather event covered the pump station service area with over 3.6 inches of rain. Nearest HRSD rain gauge registered a 10yr RRI (3hr). Locality described wet weather event of 4.5" in 6 hours. |
| 08/28/2023 14:43 | 152-A Red Oak Landing | LS 4-8 | James City | 106317 | Heavy rain/high intensity and pressures - totaling 3.57" in 6 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----August 29, 2023 01:29 PM----- | 1,637 | Significant wet weather event covered the pump station service area with 3.6 inches of rain. Nearest HRSD rain gauge registered a 25yr RRI (3hr). Locality described wet weather event of 3.5" in 6 hours. |
| 08/28/2023 15:00 | 76-Z Carlton Court | PS # 9 | Williamsburg | 106312 | During heavy rain fall force main pressures were high and kept pump station from pumping. | Pump station was monitored until pump resumed. -----August 29, 2023 07:33 AM----- | 3,100 | Significant wet weather event covered the pump station service area with over 3.6 inches of rain. Nearest HRSD rain gauge registered a 10yr RRI (3hr). |
| 08/28/2023 15:12 | 8798 Six Mt Zion Road | LS 9-7 | James City | 106321 | Heavy rain/high intensity and pressures - totaling 3.36" in 6 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----August 29, 2023 02:31 PM----- | 2,377 | Significant wet weather event covered the pump station service area with over 2 inches of rain. Locality described wet weather event of 3.3" in 6 hours. |

Table B-1. Regional SS System Capacity Related SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Jurisdiction | SSORS ID | Description of Incident from SSORS | Corrective Action from SSORS | Quantity from SSORS (gallons) | Comments* and Response |
|---------------------------|---------------------------|------------------------|--------------|----------|---|---|-------------------------------|--|
| 08/28/2023 15:15 | 99 Patrick Henry Drive | PS # 7 | Williamsburg | 106313 | During heavy rain fall force main pressures were high and kept pump station from pumping. | Pump station was monitored until pumping resumed. -----August 29, 2023 07:36 AM----- | 2,850 | Significant wet weather event covered the pump station service area with over 3.6 inches of rain. Nearest HRSD rain gauge registered a 10yr RRI (3hr). |
| 09/23/2023 11:41 | 5349 Rockingham Drive | LS 6-1 | James City | 106329 | Spill due to heavy rain/intensity and pressures - 2.9 inches in 24 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----September 24, 2023 05:03 PM----- | 4,236 | Service area impacted by Tropical Storm Ophelia. Significant wet weather event covered the pump station service area with over 2.5 inches of rain. Locality described wet weather event of 2.9" in 24 hours. |
| 09/23/2023 12:34 | 115 Depot Street | LS 6-8 | James City | 106330 | Spill due to heavy rain/intensity and pressures - 3.37 inches in 24 hours. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----September 24, 2023 05:09 PM----- | 13,142 | Service area impacted by Tropical Storm Ophelia. Significant wet weather event covered the pump station service area with over 2.4 inches of rain. Locality described wet weather event of 3.3" in 24 hours. |
| 09/30/2023 14:15 | 4500 Westmoreland Terrace | Manhole | Portsmouth | 106333 | Pump Station was offline and tidal surge at high tide. | We pump and hauled from the manhole until the pumpstation was back online and the tide receded. -----October 2, 2023 07:18 PM----- | 70 | Description attributes infrastructure failure as the cause |
| 12/17/2023 00:17 | 174 Forest Heights Road | LS 6-2 | James City | 106356 | Spill due to heavy rain/intensity and pressures - 2.99 inches | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----December 18, 2023 11:52 AM----- | 3,236 | Significant wet weather event covered the pump station service area with over 2.6 inches of rain. Locality totaled wet weather event of 2.99" of rainfall. |
| 12/17/2023 18:08 | 115 Depot Street | LS 6-8 | James City | 106355 | Spill due to heavy rain/intensity and high pressures - 3.07 inches of rain | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----December 18, 2023 11:45 AM----- | 4,692 | Significant wet weather event covered the pump station service area with over 2.5 inches of rain. Locality totaled wet weather event of 3.07" of rainfall. |

Table B-1. Regional SS System Capacity Related SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Jurisdiction | SSORS ID | Description of Incident from SSORS | Corrective Action from SSORS | Quantity from SSORS (gallons) | Comments* and Response |
|---------------------------|--|------------------------|--------------|----------|---|---|-------------------------------|--|
| 12/17/2023 20:05 | 99 Patrick Henry Drive | PS # 7 | Williamsburg | 106354 | During heavy rainfalls force main pressures reach nearly 50 psi making it impossible for pump station to pump. Station was shutdown to prevent damage to pumps, until pumping could be restored. | Station was monitored until FM pressures subsided. -----December 18, 2023 08:42 AM----- | 10,375 | Significant wet weather event covered the pump station service area with over 2.6 inches of rain. |
| 12/17/2023 23:09 | 5349 Rockingham Drive | LS 6-1 | James City | 106357 | Heavy rain/high intensity and pressures - totaling 2.99 inches | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. -----December 18, 2023 11:58 AM----- | 2,834 | Significant wet weather event covered the pump station service area with over 2.6 inches of rain. Locality totaled wet weather event of 2.99" of rainfall. |
| 12/18/2023 09:20 | 4 manholes along City gravity main on Buckroe, from 1752 Nickerson Boulevard to 491 Seaboard Avenue. Manhole IDs 203-0140, -0138, -0137, and -0135. Discharges to HRSD Seaboard gravity interceptor. | Buckroe and Seaboard | Hampton | 106360 | Large rainfall volumes (over 3 inches) on Sunday and Monday have elevated the flows in the system. HRSD gravity main on Seaboard and the HRSD Bayshore PS were elevated but HRSD PS was pumping. Overflow coming out of City manholes because our rim elevations are lower than the HRSD rim elevations in this area. City staff called and met with HRSD personnel on site, HRSD began investigating possible restriction in flow in their system. Nearby HRSD construction project has a temporary flow diversion for work at Fox Hill/Old Buckroe that impacted flows going to this location and involved additional pump station shutdowns to resolve overflow. | City of Hampton pumping stations 48, 44, and 33 were identified as tying in to the HRSD force main upstream of this overflow site. These three City pump stations were shut down starting at 10:30am. Pump and haul recovered some volume while HRSD Bayshore PS pumped the system down. Overflow stopped at 12:20pm. At approximately 1pm the pump stations began being turned back on. Will monitor the manholes in Buckroe/Nickerson intersection over the coming hours to ensure that overflow situation does not resume. -----December 18, 2023 03:10 PM----- ** update 12/26/23 HRSD operations staff performed some activities (unsure of exactly what) and they had the system pumped down prior to City turning the three mentioned pump stations back online. -----December 26, 2023 08:20 AM----- | 6,800 | Significant wet weather event covered the pump station service area with over 3.3 inches of rain. Locality totaled wet weather event of over 3" of rainfall. |
| 01/09/2024 19:30 | 99 Patrick Henry Drive | PS # 7 | Williamsburg | 106370 | During extreme weather event high force main pressures prevented pumps from pumping. | Station was monitored until pressure subsided. -----January 10, 2024 08:16 AM----- | 5,250 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |
| 01/09/2024 20:28 | 5349 Rockingham Drive | LS 6-1 | James City | 106372 | Heavy rain/high intensity and pressures - 2.77 inches of rain | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. JCSA is working with HRSD to resolve high pressure issues according to RWWMP. -----January 10, 2024 03:32 PM----- | 7,900 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |

Table B-1. Regional SS System Capacity Related SSOs (July 1, 2023 to June 30, 2024)

| Date and Time of Incident | Location | Sewer System Component | Jurisdiction | SSORS ID | Description of Incident from SSORS | Corrective Action from SSORS | Quantity from SSORS (gallons) | Comments* and Response |
|---------------------------|----------------------------|------------------------|--------------|----------|---|---|-------------------------------|---|
| 01/09/2024 20:39 | 115 Depot Street | LS 6-8 | James City | 106374 | Spill due to heavy rain/intensity and high pressures - 3 inches of rain. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. JCSA is working with HRSD to resolve high pressure issues according to RWWMP. -----January 10, 2024 03:40 PM----- | 10,000 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |
| 01/09/2024 20:51 | 8798 Six Mt Zion Road | LS 9-7 | James City | 106375 | Spill due to heavy rain/high intensity and pressures - totaling 2.45 inches of rain. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. JCSA is working with HRSD to resolve high pressure issues according to RWWMP. -----January 10, 2024 03:45 PM----- | 11,000 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |
| 01/09/2024 20:57 | 174 Forest Heights Road | LS 6-2 | James City | 106373 | Spill due to heavy rain/intensity and pressures - 2.77 inches | When the rain tapered off, pressures in the system dropped and extraneous flow reduced and the pumps were able to keep up with the flow. JCSA is working with HRSD to resolve high pressure issues according to RWWMP. -----January 10, 2024 03:36 PM----- | 9,000 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |
| 03/04/2024 21:26 | 2273 Wilroy Road (at Ciba) | Wilroy Road | Suffolk | 106393 | PS 031 failed to operate due to higher than normal force main pressure during a wet weather event. | Staff utilized an emergency bypass pump to maintain the station. -----March 5, 2024 03:01 PM----- | 1,629 | Significant wet weather event covered the pump station service area. The rain gauge closest to this location was invalid for this event, but an average of over 3.4" of rainfall was recorded from surrounding rain gauges. |
| 03/05/2024 08:00 | 27 W Preston Street | 27 W Preston | Hampton | 106392 | PS 23 could not deliver design flow due to pressures in HRSD interceptor force main so the gravity system backed up. PS 34 is upstream of PS 23. The spill location is immediately downstream of PS 34's force main discharge so when PS 34 turned on, some of the flow could not get into gravity system and spilled out of the receiving manhole. Most flow from PS 34 stayed contained within the gravity mains, and PS 34 does not run continuously so on-time was taken from observations and SCADA. | Shut off PS 34. Coordinated with HRSD to adjust valving at PS 23's downstream point of connection to HRSD interceptor system. The adjustments to HRSD valving allowed PS 23 to pump down the system. PS 34 was turned back on after levels in flow area 23 went down. -----March 5, 2024 12:12 PM----- *DP update 3/11/24: Monitored the location all last week during additional rain events. No additional spill was observed. Flows are still returning to normal across the city after greater than 5 inches of rain last week (Saturday to Saturday). Will perform a followup CCTV on the receiving gravity line on Preston this week as flows return to baseline, per standard protocols. -----March 11, 2024 04:42 PM----- *DP update 3/13/24: Followup CCTV showed no evidence of blockage. SSO cause confirmed to be | 100 | Significant wet weather event covered the pump station service area with over 2.9 inches of rain. |

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| Date and Time of Incident | Location | Sewer System Component | Jurisdiction | SSORS ID | Description of Incident from SSORS | Corrective Action from SSORS | Quantity from SSORS (gallons) | Comments* and Response |
|---------------------------|-----------------------|------------------------|--------------|----------|--|--|-------------------------------|--|
| | | | | | | wet weather capacity related. -----March 13, 2024 01:30 PM----- | | |
| 03/06/2024 01:07 | 221 Douglas Avenue | Pump Staton | Portsmouth | 106402 | System up due to heavy rain. | Switch out pump, pump and hauled until overflow stopped. -----March 7, 2024 11:13 AM----- | 1 | Significant wet weather event covered the pump station service area with over 3.5 inches of rain. |
| 03/06/2024 11:02 | 3301 Carney Farm Lane | Pump Staton | Portsmouth | 106403 | System up due to heavy rain. | Pump and hauled. -----March 7, 2024 11:20 AM----- | 70 | Significant wet weather event covered the pump station service area with over 5 inches of rain. |
| 03/06/2024 13:58 | 1620 Rokeby Avenue | Rokeby Avenue | Chesapeake | 106396 | A city crew arrived at 1620 Rokeby Avenue for a sewer stoppage. Upon arrival, they witnessed sewer spilling from the inspection box in the street at a rate of 50 gpm. PS104 was in a high-level status due to a heavy accumulation of rain. | The capacity-weather classification was used due to the capacity of basin 104. Crews investigated the pump station, and installed an emergency pump to help alleviate the increased flow during the wet weather event. 2 city vacuum trucks and 1 city pump and haul truck were called to start pulling sewer from the gravity main to stop the spill and gain control of the gravity system. 3 contracted pump and haul trucks arrived to assist in the effort. All vacuum trucks and pump and haul trucks stayed until approx. 4 am ensuring the system was under control. Effected gravity lines were cleaned the same night as a precaution. Crews are onsite this morning (3-7-2024) to recheck the systems manholes, pump station, and cleanouts as well as cleaning the street with water and HTH. -----March 7, 2024 08:11 AM----- -----March 11, 2024 09:41 AM----- | 4,250 | Significant wet weather event covered the pump station service area with over 3.3 inches of rain. |
| 03/06/2024 21:58 | 115 Depot Street | LS 6-8 Basin | James City | 106397 | Spill due to heavy rain/high intensity and pressures - 2.22 inches of rain. | When rain tapered off, pressures in the system dropped and the extraneous flow reduced to the point where the pumps were able to keep up with the flow. JCSA is working with HRSD to resolve high pressure issues according to RWWMP. -----March 7, 2024 08:37 AM----- | 7,552 | Significant wet weather event covered the pump station service area with over 2.9 inches of rain. Locality totaled wet weather event of 2.22" of rainfall. |

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|---------------------------|-----------------------|------------------------|--------------|----------|---|--|-------------------------------|---|
| 03/06/2024 22:04 | 5349 Rockingham Drive | LS 6-1 | James City | 106398 | Spill due to heavy rain/high intensity and pressures - 2.00 inches of rain. | When the rain tapered off, pressures in the system dropped and extraneous flow reduced to a point the pumps were able to keep up with the flow. -----March 7, 2024 09:00 AM----- | 2,964 | Significant wet weather event covered the pump station service area with over 2.9 inches of rain. Locality totaled wet weather event of 2" of rainfall. |
| 03/28/2024 05:15 | 1240 Gatewood Road | 1240 Gatewood Road | Newport News | 106410 | Overflow is due to a capacity issue at HRSD pump Station 218 Morrison due to today's rain event. | This SSO is still currently ongoing. Once the station can keep up and the overflow stops the area will be investigated and sanitized as needed. Overflow amount will also be updated. -----March 28, 2024 03:35 PM----- The overflow continued until approximately 8:15pm 3/28/2024. Amounts and time have been updated. -----March 29, 2024 08:19 AM----- | 17,700 | Significant wet weather event covered the pump station service area with over 3.4 inches of rain. |
| 03/28/2024 11:34 | 200 Brook Avenue | 200 Brook Avenue | Suffolk | 106416 | SSO from public clean-out associated with parcel at 200 Brook Avenue. SSO occurred during extended wet weather event. | Follow-up mainline sewer investigations are planned to determine if this event was a capacity issue or an infrastructure issue related to recent private franchise utility work occurring in the area. -----March 29, 2024 08:53 AM----- | 2,700 | Significant wet weather event covered the pump station service area with over 2.4 inches of rain. |
| 03/28/2024 11:55 | 1620 Rokeby Avenue | Rokeby Avenue | Chesapeake | 106423 | Due to a rain event, Pump Station 104 was not keeping up with the flow. A spill was reported from the inspection box at Rokeby Avenue with various rates, 11:55 am - 7:40 pm at a rate of 50 gpm, Total 23,250 gallons. 7:40 pm - 9:52 pm at a rate of 2 gpm, Total 264 gallons. Total combined 23,514 gallons. | Crews arrived onsite and recognized the spill. We immediately sent 2 trucks to start a pump and haul, to help with flows. Due to the rain event and capacity issues in this basin, a contractor was called in with 2 more pump and haul trucks to assist. An emergency pump was set up at the pump station to help with extra flow. Crews walked all of the gravity basin to identify areas that were flooded. Plastic and sandbags were put down over a manhole that was completely underwater. Rain pans were changed at 4 other locations. A total of 5 trucks were used to pump from the system at the station. US-5010: 40,000 gal. US-3027: 15,000 gal. US-3011: 19,800. 2 contracted trucks: gal. 56,900. Total pulled from system:130,900 gal. -----April 1, 2024 10:47 AM----- | 23,250 | Significant wet weather event covered the pump station service area with over 2.8 inches of rain. |
| 03/28/2024 13:25 | 1107 Elder Avenue | PS 103 | Chesapeake | 106419 | During rain event the pump station could not pump into HRSD system to keep up with the flows. | Staff arrived at the pump station to check for pump operation. Continued to monitor the pump station during the duration. -----March 29, 2024 02:09 PM----- | 12,705 | Significant wet weather event covered the pump station service area with over 2.8 inches of rain. |

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| 03/28/2024 14:55 | 321 Center Avenue | 321 Center Avenue | Newport News | 106415 | Overflowing lateral due to capacity issue at HRSD station #236. | Washed down and disinfected area -----March 28, 2024 07:07 PM----- SSO addressed on Work Order 508590 -----March 29, 2024 10:01 AM----- | 300 | Significant wet weather event covered the pump station service area with over 3.1 inches of rain. |
| 03/28/2024 16:00 | 42 Franklin Road | 42 Franklin Road | Newport News | 106414 | SSO due to capacity issue at HRSD pump station #236. | Vacuumed up puddled material. washed down and sanitized entire area. -----March 28, 2024 06:44 PM----- SSO addressed on Work order 508594 -----March 29, 2024 10:04 AM----- | 1,525 | Significant wet weather event covered the pump station service area with over 3.1 inches of rain. |
| 03/28/2024 21:30 | 1112 Oleander Avenue | PS 060 | Chesapeake | 106418 | The two pumps in the pump station were unable to pump into HRSD force main and the station could not keep up. Resulting in a spill at the two manholes in front of the pump station on Oleander Avenue. Spill was a rate of 10 GPM. | Used Vacuum trucks and pump and haul trucks to pump the gravity line and the wet well down to stop spilling and to allow time for force main pressure to drop. Storm subsided and station was able to operate normally. -----March 29, 2024 11:10 AM----- -----March 29, 2024 02:12 PM----- | 760 | Significant wet weather event covered the pump station service area with over 2.8 inches of rain. |
| 03/29/2024 12:34 | 1518 Lea View Avenue | 1518 Lea View Avenue | Norfolk | 106421 | Record breaking rainfall in March lead to a system overload. During this incident Norfolk received 4" of rainfall in 24 hours. | N/A -----April 1, 2024 07:58 AM----- | 2,800 | Significant wet weather event covered the pump station service area with over 2.5 inches of rain. Locality totaled wet weather event of 4" of rainfall in 24 hours. |
| 03/29/2024 16:34 | 1350 Moose Avenue | 1350 Moose Avenue | Norfolk | 106422 | Record breaking rainfall in March lead to a system overload. During this incident Norfolk received 4" of rainfall in 24 hours. | N/A -----April 1, 2024 08:00 AM----- | 2,500 | Significant wet weather event covered the pump station service area with over 2.7 inches of rain. Locality totaled wet weather event of 4" of rainfall in 24 hours. |

*Comments have been added for the Annual Report that were not part of the SSORS original report
The remainder of the table is a subset of raw data extracted from SSORS