

HRSD Commission Meeting Agenda  
9:00 a.m. – March 26, 2024

In-person for Commissioners and essential staff at  
1434 Air Rail Avenue, Virginia Beach, VA 23455  
Virginia Initiative Conference Room – 1<sup>st</sup> Floor

Reservations are required for in-person and virtual public observation of all HRSD Commission and Committee meetings; to address the Commission; and to submit written comments to be read into the minutes. Reservations are accepted via the following link and must be completed by noon one business day prior to the meeting: [https://www.hrsd.com/contact/commission\\_meeting](https://www.hrsd.com/contact/commission_meeting).

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
	Call to Order	Commission Chair
1.	<a href="#">Awards and Recognition</a>	Bernas
2.	<a href="#">Public Comments Not Related to the Agenda</a>	Secretary
3.	<a href="#">Consent Agenda</a>	Bernas
4.	<a href="#">Eastern Shore Infrastructure Improvements – Transmission Force Main Phase 1 American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund Implementation (SLFRF) Subrecipient Grant Agreement</a>	de Mik
5.	<a href="#">Subordinate Wastewater Revenue Bonds Resolution</a>	de Mik
6.	<a href="#">Nansemond Treatment Plant Struvite Recovery Facility Improvements Additional Appropriation – Non-Regulatory (&gt;\$1,000,000)</a>	Husselbee
7.	<a href="#">Oceana Off-line Storage Facility Land Acquisition Initial Appropriation – Non-Regulatory</a>	Husselbee
8.	<a href="#">VIP SWIFT Tertiary Preliminary Engineering (GN016390), VIP SWIFT Tertiary Site Work (GN016391), and VIP SWIFT Tertiary Facility (GN016392) Initial Appropriation – Regulatory Required Capital Improvement Project (&lt;\$10,000,000), Contract Award (&gt;\$200,000), and Task Order (&gt;\$200,000)</a>	Husselbee
9.	<a href="#">Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements and Williamsburg Treatment Plant Influent Loading Reduction Improvements Initial Appropriation - Regulatory &gt;10,000,000 (WB013500), Contract Award &gt;\$200,000 (WB013500), and Contract Award &gt;\$200,000 (WB013600)</a>	Husselbee

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
10.	<a href="#">New Business</a>	Bernas
11.	<a href="#">Unfinished Business</a>	Bernas
12.	<a href="#">Commissioner Comments</a>	
13.	<a href="#">Informational Items</a>	Bernas

Next Regular Commission Meeting: April 23, 2024 at the North Shore Operations Center in Newport News

## AGENDA ITEM 1. – March 26, 2024

**Subject:** Awards and Recognition

**Recommended Action:** No action is required.

**Brief:** HRSD is pleased to announce the following:

a. Promotion Announcements

- (1) Megan Bachmann was recently promoted to Treatment Process Engineer for the Army Base-Boat Harbor-Nansemond Treatment Plants (ABN) Group. Megan was hired in 2020 as a Research Intern in the Water Technology Division. Megan has four years of experience in wastewater treatment process intensification. Megan graduated in 2020 with a bachelor's degree in Environmental Engineering from The Ohio State University and in 2024 with a master's degree from Virginia Tech. She is also currently earning a PhD in Civil Engineering through Virginia Tech. She will be working with the Nansemond Treatment Plant, focusing on implementing the new Greasezilla process, WASSTRIP process, and guiding the team as we move towards PdNA implementation with the ANRI upgrade.
- (2) Holly Anne Matel was recently promoted to Treatment Process Engineer for the ABN Group. Holly Anne was hired in 2020 as a Project Manager in the South Shore Design & Construction Division in the Engineering Department. She is a licensed Professional Engineer with 11 years of experience in wastewater treatment design and optimization. Holly Anne graduated with a bachelor's and master's degree in Environmental Engineering from Old Dominion University in 2011 and 2013, respectively. She will be working closely with the Atlantic Treatment Plant, focusing on the curing pilot, and the ROCI upgrade, and with the Boat Harbor Treatment Plant, focusing on continued process optimization.

b. New Employee Introduction

Barbara "BJ" Ward was recently hired as a Solids Process Engineer, which is a new position to HRSD. Prior to joining HRSD, BJ worked as an engineer specializing in the design of wastewater treatment processes focusing on solids thickening, dewatering, and biogas upgrading. She recently worked on solids process improvements at Army Base Treatment Plant, James River Treatment Plant, and Virginia Initiative Plant. BJ holds a master's degree in Civil Engineering from University of Colorado Boulder and a Ph.D. in Environmental Engineering from ETH Zurich (Switzerland). BJ will be working on solids and resource recovery-related projects across HRSD's Operations Department, including management of biosolids from Nansemond TP post-Boat Harbor Treatment Plant closure and Army Base Multiple Hearth Incinerator (MHI) decommissioning, distribution and marketing of HRSD's NutriGreen® biosolids at Atlantic Treatment Plant, and strategies to commoditize biogas generated across our facilities.

AGENDA ITEM 2. – March 26, 2024

**Subject:** Public Comments Not Related to Agenda

## AGENDA ITEM 3. – March 26, 2024

**Subject:** Consent Agenda

**Recommended Action:** Approve the Consent Agenda.

**Brief:** The items listed below are presented on the following pages for Commission action.

- a. Approval of Minutes - The draft minutes of the previous Commission Meeting were distributed electronically prior to the meeting.
- b. Contract Awards (>\$200,000)
  1. [Adobe Enterprise License Support](#) \$213,035
  2. [Lee Avenue - Wesley Street Horizontal Valve Replacement](#) \$270,895
  3. [Wastewater Process Tank Cleaning Service Contract](#) \$305,260
- c. Task Orders (>\$200,000)
  1. [South Shore Gravity Sewer Improvements Phase I](#) \$381,614
  2. [Treatment Plant Solids Handling Replacement Phase II](#) \$664,669
- d. Regulatory Capital Improvement Project – Additional Appropriation <\$10,000,000
  1. [Lucas Creek Pump Station Replacement](#) \$3,013,884

CONSENT AGENDA ITEM 3.b.1. – March 26, 2024

**Subject:** Adobe Enterprise License Support  
Contract Award (>\$200,000)

**Recommended Action:** Award a contract to CDW LLC DBA CDW Government LLC in the amount of \$42,607 for one year with four renewal options and an estimated cumulative value of \$213,035.

**Type of Procurement:** Use of Existing Contract Vehicle

**Contract Description:** This contract is for various Adobe Enterprise subscription licenses including Acrobat Pro, Captivate, Creative Cloud, and Photoshop Enterprise for the HRSD Information Technology Department. This support contract is in accordance with a cooperative contract competitively solicited by Fairfax County.

Upon evaluation of the Fairfax County contract terms and conditions, as a public agency, HRSD is eligible to use the contract awarded to CDW LLC DBA CDW Government LLC.

**Analysis of Cost:** By utilizing the Fairfax County contract number 4400006325 for Information Technology Hardware, Software, and Related Services, HRSD is receiving approximately six percent cost savings.

This work is in accordance with the Commission Adopted Procurement Policy

CONSENT AGENDA ITEM 3.b.2. – March 26, 2024

**Subject:** Lee Avenue - Wesley Street Horizontal Valve Replacement  
Contract Award (>\$200,000)

**Recommended Action:** Award a contract to Ferguson Enterprises LLC in the amount of \$270,895.

**CIP Project:** VP014800

**Regulatory Requirement:** Rehab Action Plan Phase 2 (2025 Completion)

Budget	\$4,081,470
Previous Expenditures and Encumbrances	(\$262,323)
Available Balance	\$3,819,147

**Type of Procurement:** Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Procurement Department advertised and solicited bids directly from potential bidders. The project was advertised on February 23, 2024, and two bids were received on March 6, 2024, as listed below:

Bidder	Bid Amount
Ferguson Enterprises LLC	\$270,895
LB Water Service, Inc.	\$297,255

**Engineer Estimate:** \$886,900

**Project Description:** This project will replace the inoperable 36-inch horizontal gate valve and install a new 48-inch valve at the intersection of Lee Avenue and Wesley Street in the City of Portsmouth. A Preliminary Engineering Report was completed in November 2007 making these recommendations.

**Project Justification:** The 36-inch horizontal gate valve is currently stuck in the open position and due to the configuration of the valve, will not close to allow flow isolation of SF-220 in case of a failure. SF-220 is a 36-inch reinforced concrete pipe (RCP) force main that was constructed in 1946. The installation of a new 48-inch valve on SF-221 where SF-221 intersects with SF-220 will allow flow isolation of SF-221 to the north and south of the intersection. SF-221 is a 48-inch RCP force main approximately 15,000 linear feet (LF) constructed in 1946 with isolation valves only located at each end. The valves will insure proper operation in the event of a failure on these aged force mains.

**Contract Description:** This contract is for the purchase of valves and fittings required for the valve installation at the intersection of Lee Avenue and Wesley Street in the City of Portsmouth. These valves and fittings will be ordered ahead of the construction to limit project delays.

**Analysis of Cost:** Costs are determined to be fair and reasonable based on the competitive bid results and past purchase history of similar valves and fitting materials.

This work is in accordance with the Commission Adopted Procurement Policy.

<b>Schedule:</b>	PER	December 2022
	Design	June 2023
	Bid	March 2024
	Construction	June 2024
	Project Completion	May 2025

CONSENT AGENDA ITEM 3.b.3. – March 26, 2024

**Subject:** Wastewater Process Tank Cleaning Service Contract  
Contract Award (>\$200,000)

**Recommended Action:** Award a contract to Potomac Environmental Inc. in the amount of \$61,052 for one year with four renewal options and an estimated cumulative value of \$305,260.

**Regulatory Requirement:** None

**Type of Procurement:** Competitive Bid

In accordance with HRSD’s competitive sealed bidding procedures, the Procurement Department advertised and solicited bids directly from potential bidders. The project was advertised on January 26, 2024, and three bids were received on February 15, 2024, as listed below:

<b>Bidder</b>	<b>Bid Amount</b>
Potomac Environmental Inc.	\$61,052
Hepaco LLC	\$99,970
Synagro-WWT, Inc.	\$363,334

**HRSD Estimate:** \$ 165,354

**Contract Description:** This is an estimated use contract for standard and emergency wastewater process tank cleaning services for all HRSD facilities. Services include hosing tank walls and floors, removing and dewatering residual debris to ensure no free liquid is present, and hauling and disposing of material. Tanks to be serviced include aeration tanks, primary clarifiers, secondary clarifiers, grit tanks, holding tanks, digester tanks, and equalization tanks.

**Analysis of Cost:** Costs are determined to be fair and reasonable based on the competitive solicitation results and past contract history for wastewater process tank cleaning services.

This work is in accordance with the Commission Adopted Procurement Policy.



CONSENT AGENDA ITEM 3.c.1. – March 26, 2024

**Subject:** South Shore Gravity Sewer Improvements Phase I  
Task Order (>\$200,000)

**Recommended Actions:** Approve a task order with Bridgeman Civil, Inc. in the amount of \$381,614.

**CIP Project:** GN015000

**Regulatory Requirement:** Rehab Action Plan Phase 2 (2025 Completion)

Budget	\$942,804
Previous Expenditures and Encumbrances	(\$351,834)
Available Balance	\$590,970
Proposed Change Order # to Contractor	(\$0)
Proposed Task Order to Contractor	(\$381,614)
Proposed Contingency	(\$0)
Project Shortage/Requested Additional Funding	(\$0)
Revised Total Project Authorized Funding	\$0

Contract Status with Task Orders:	Amount
Original Contract with Engineer	\$0
Total Value of Previous Task Orders	\$14,005,611
Requested Task Order	\$381,614
Total Value of All Task Orders	\$14,387,225
Revised Contract Value	\$14,387,225
Engineering Services as % of Construction	NA

**Project Description:** This project will rehabilitate and/or replace gravity sewer segments at four locations in the South Shore Interceptor System. Project locations include Arctic Avenue Pump Station, Seay Avenue Pump Station, Elmhurst Lane Pump Station, and the intersection of Powhatan Avenue/Bolling Avenue.

**Project Justification:** Condition assessment activities indicate that assets at these four project locations present a material risk of failure due to physical condition defects and I/I.

**Task Order Description:** This task order will provide construction services for the rehabilitation work at the Arctic Avenue Pump Station. Work consists of rehabilitation of a 30-inch diameter sanitary sewer pipeline using cured-in-place lining as well as rehabilitation of three sanitary sewer manholes. Additional work activities include bypass pumping operations, heavy pipe and wet well cleaning, and site restoration.

**Analysis of Cost:** The task order fee utilizes established unit prices as set in HRSD’s FY-2024 Sewer Repair and Condition Assessment contract. These estimates have been reviewed by the consulting engineer, Gannett Fleming, and are considered reasonable.

This work is in accordance with the Commission Adopted Procurement Policy.

**Schedule:**

Construction	April 2024
Project Completion	May 2025

CONSENT AGENDA ITEM 3.c.2. – March 26, 2024

**Subject:** Treatment Plant Solids Handling Replacement Phase II  
Task Order (>\$200,000)

**Recommended Action:** Approve a task order with HDR Engineering Inc. in the amount of \$664,669.

**CIP Project:** GN016700

**Regulatory Requirement:** None

Budget	\$5,972,000
Previous Expenditures and Encumbrances	(\$1,362,647)
Available Balance	\$4,609,353

<b>Contract Status with Task Orders:</b>	<b>Amount</b>
Original Contract with Engineer	\$663,839
Total Value of Previous Task Orders	\$0
Requested Task Order	\$664,669
Total Value of All Task Orders	\$664,669
Revised Contract Value	\$1,328,508
Engineering Services as % of Construction	14%

**Project Description:** This project will replace two and refurbish one Dewatering Centrifuges at the James River Treatment Plant (JRTP). The one existing Sharples DS706 Centrifuges and required accessory equipment will be uninstalled, refurbished, and reinstalled at the JRTP. Additionally, two DS-706 centrifuges acquired from DC Water will be rehabilitated and installed at the JRTP, for a total of three Sharples DS-706 machines in the facility. In addition to the dewatering equipment replacement, this project will replace ancillary equipment to the dewatering process, include centrate piping and NPW pumps and piping. This project will also include the construction of a new control room for a RIO cabinet on the third floor of the Dewatering Building.

**Project Justification:** Rehabilitating and replacing the existing dewatering centrifuges at JRTP with like dewatering equipment, instrumentation/controls, and operations across all dewatering systems will provide the plant with reliable dewatering processes as SWIFT comes online. This project will allow for leveraging of existing assets for established needs, renewing dewatering at JRTP with equipment that improves resource and operational efficiencies.

**Task Order Description:** Initially, this project included replacement of the remaining Sharples unit with a new Centrisys CS26-4 dewatering centrifuge and relocation of an existing CS26-4 dewatering centrifuge from the HRSD Nansemond Treatment Plant (NTP) in the space remaining following the relocation of the DS-706 to ATP. HRSD has since procured several DS-706 dewatering centrifuges, two of these will be refurbished and installed under this project. One of these units will replace the existing Centrisys machine and the other will be installed in the existing open space that was to be occupied by the relocated Centrisys CS26-4 from the NTP. In addition, the JRTP DCS will be expanded to serve the Centrifuge Building and allow for DCS control of the dewatering centrifuges. This amendment includes revision to the current design documents to provide a new control room on the third floor of the Centrifuge Building, refurbishment and installation of two DS-706 centrifuges, and electrical and instrumentation modifications to allow for DCS control of the centrifuge feed and polymer feed pumps. The redesigned project also includes modifications to the centrate system to

convey the dewatering centrate to the sidestream treatment facility by gravity, alleviating ongoing maintenance issues from pumping the centrate.

**Analysis of Cost:** This fee is based on a complete re-design of the project due to new centrifuges, including new centrate modifications and control room. The original design fee for this project was \$663,839 in 2020. Four years later, it is assumed that adding the same fee for a similar amount of work is reasonable. Award is recommended.

<b><u>Schedule:</u></b>	Design	February 2024
	Bid	January 2025
	Construction	July 2025
	Project Completion	July 2027

## CONSENT AGENDA ITEM 3.d.1. – March 26, 2024

**Subject:** Lucas Creek Pump Station Replacement  
Regulatory Required Capital Improvement Project - Additional Appropriation  
(<\$10,000,000)

**Recommended Action:** Appropriate additional funding in the amount of \$3,013,884.

**CIP Project:** JR013500

**Regulatory Requirement:** Rehab Action Plan Phase 2 (2025 Completion)

Budget	\$23,062,492
Previous Expenditures and Encumbrances	(\$22,776,376)
Available Balance	\$286,116
Proposed Estimated Change Order No. 5 to Contractor	(\$3,000,000)
Proposed Contingency	(\$300,000)
Project Shortage/Requested Additional Funding	(\$3,013,884)
Revised Total Project Authorized Funding	\$26,076.376

<b>Contract Status with Change Orders:</b>	<b>Amount</b>	<b>Cumulative % of Contract</b>
Original Contract with Contractor	\$19,285,068	
Total Value of Previous Change Orders	\$1,203,388	6.2%
Requested Change Order	\$3,000,000	
Total Value of All Change Orders	\$4,203,388	21.8%*
Revised Contract Value	\$23,488,456	
Time (Additional Calendar Days)		90*

\*13.3% of change order rate is for Owner requested changes. Cost and time for changes is estimated and has not been negotiated.

**Project Description:** This project includes the replacement of the existing Lucas Creek Pump Station to include all yard piping and an addition of two flow meters and vaults. After evaluating several alternatives and taking into consideration cost projections, it was determined that replacement of the pump station was the optimal solution to address conditional and operational issues.

The attached [map](#) depicts the project location.

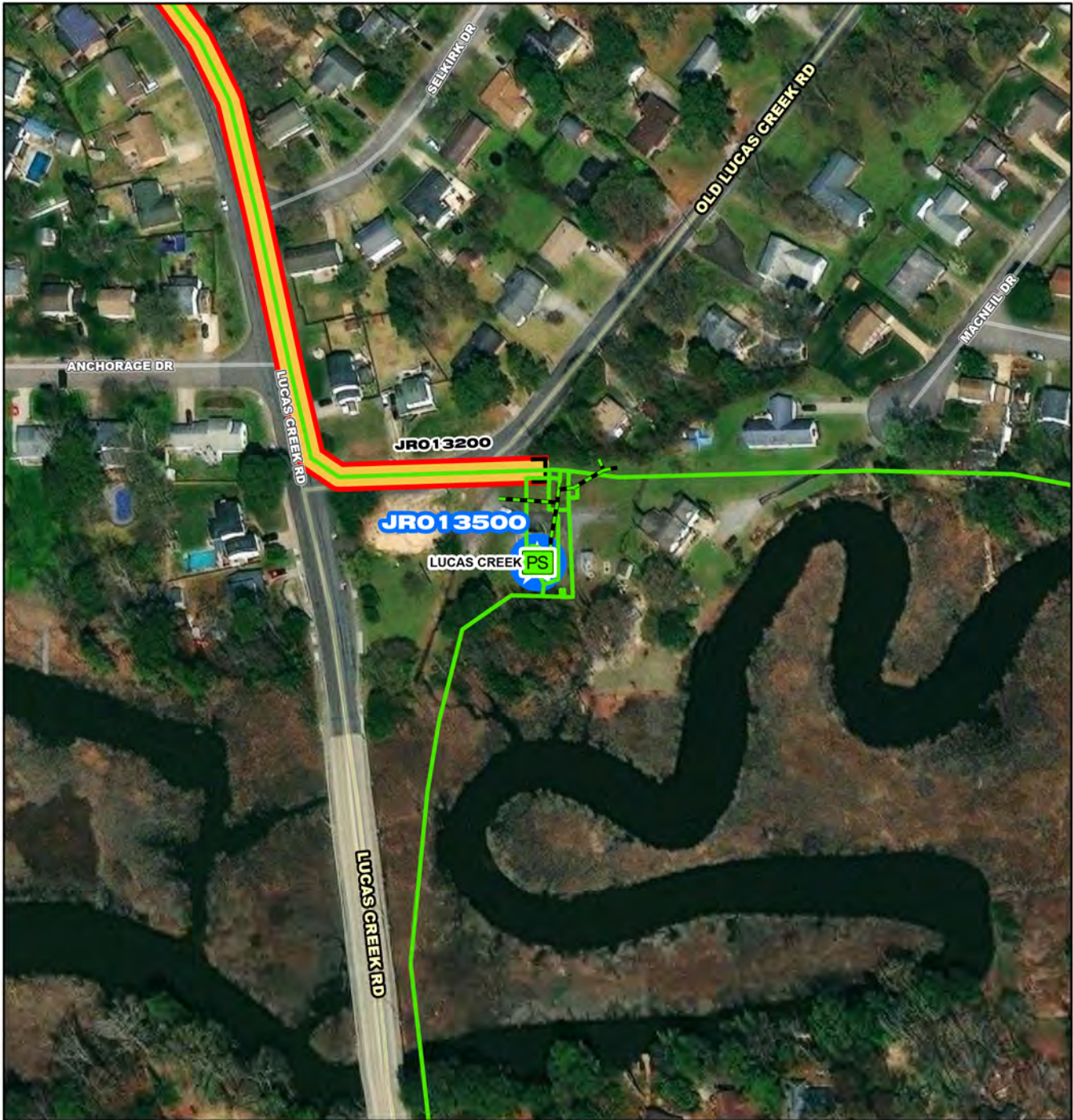
**Project Justification:** This project is required in order to provide expanded operational flexibility in the North Shore system. The new Kiln Creek Interceptor Force Main (IFM) and Route 171 IFM, in conjunction with upgrades to the Lucas Creek Pump Station, will reduce system pressures during wet weather events.

**Analysis of Cost:** The cost is based on Contractor and Engineer estimates for unforeseen conditions and necessary changes as well as Owner requested changes to the construction contract scope and price. Owner requested items include changes to electrically actuate the yard valves to allow for regulation of force main pressures. This change resulted in electrical, site plan and yard piping modifications. Additionally, the Owner has requested to install a gate valve for pump station isolation in lieu of the originally scoped sluice gate due to the increased longevity and reduced maintenance associated with the gate valve when compared to the sluice gate. Further items included in this proposed change order include a number of unforeseen conditions and potential upcoming changes

that have not yet been negotiated. [Attachment A](#) has been provided for a breakdown of the anticipated costs of the work. The cost is based on Engineer's opinions of probable cost and Contractor provided rough order of magnitude pricing. Additional appropriation prior to negotiated, final costs is necessary to prevent further schedule delay by allowing for the issuance of scope changes to the Contractor prior to having an agreed to price for the work.

**Funding Description:** This request includes a 10% contingency based on the proposed change order to the Contractor. The estimated amount for this work exceeds the available project balance by \$3,013,884.

<b><u>Schedule:</u></b>	Construction	June 2022
	Project Completion	May 2025



**JRO13500**

- Project Interceptor Line
- Project Interceptor Point
- Project Pump Station Point
- Project Area

**Legend**

- CIP Interceptor Point
- CIP Pump Station Point
- CIP Interceptor Line
- CIP Abandonment
- CIP Project Area
- HRSD Interceptor Force Main
- HRSD Interceptor Gravity Main
- HRSD Treatment Plant
- HRSD Pressure Reducing Station
- HRSD Pump Station

0    55    110    220    330    440    Feet

## JRO 13500

### Lucas Creek Pump Station Replacement

**CIP Location**

**Attachment A - Contractor Proposed Change Orders (PCO)**

<b>PCO No.</b>	<b>PCO Description</b>	<b>Contractor Estimated Cost</b>	<b>Notes</b>
13	Existing force main is encased in concrete	\$ 40,000.00	Contractor has indicated this will affect line stop contractor's work. Extent of potential scope change and cost has not been reviewed or negotiated. PCO forthcoming from Contractor and therefore the cost has not been negotiated.
13B	Additional work at Work Area No. 3	\$ 20,000.00	Work associated with pipe removal for installation of bypass piping. PCO forthcoming from Contractor and therefore the cost has not been negotiated.
14	Newport News Waterworks	\$ 7,000.00	Change required by Newport News Waterworks.
15	Clay layer discovered during excavation	\$ 90,000.00	Contractor intended to use excavated material for PS backfill based on Geotechnical Report. HRSD does not anticipate this PCO moving forward but is capturing the Contractor's estimated cost here in case proper justification can be made by the Contractor.
17	Electrical and Control Revisions and Valve Vaults	\$ 1,625,000.00	Change requested by HRSD. This work is associated with electrically actuating the yard valves to allow for regulating of force main pressures. Official work change directive has not yet been issued to the Contractor. This is a rough order of magnitude price for budgetary purposes and has not been negotiated.
17B	Time Related Overhead (schedule impacts) for Valve Vaults	\$ 675,000.00	Cost associated with extended overhead for equipment and facilities due to increased project duration associated with changes requested by HRSD. This is a rough order of magnitude price for budgetary purposes and has not been negotiated.
18	Motorized actuators, slide gate change	\$ 270,000.00	Cost is for HRSD requested change to electrically actuate the yard valves to allow for regulation of force main pressures. Cost also includes a gate valve for pump station isolation in lieu of the originally scoped sluice gate. Final cost has not yet been negotiated
21	Unforeseen utility conflict	\$ 25,000.00	Contractor discovered a pipe in conflict with the installation of new force main. Cost includes crew exploration, downtime in attempting to determine utility ownership and ultimate removal of the conflict. PCO is forthcoming from the Contractor and therefore the cost has not been negotiated.
22	Wall Backfill	\$ 40,000.00	The Contractor has cited issues with obtaining backfill material that is capable of achieving the required compaction criteria. They have proposed to backfill with 57 stone. HRSD does not anticipate this PCO moving forward but is capturing the Contractor's estimated cost here in case proper justification can be made by the
23	Storm Structure Adjustments	\$ 6,000.00	The Contractor was required to adjust storm structure inlet openings to account for invert elevations that were different from what was called out in the Contract Documents. PCO is forthcoming from the Contractor and therefore the cost has not been
24	Demolition of unknown concrete thrust blocks	\$ 200,000.00	The Contractor discovered concrete thrust blocks that required removal when installing the new force main. Based on already discovered locations, the Contractor is anticipating additional locations where thrust blocks may be encountered. These locations have not been verified, but estimated removal costs are being accounted for here in the event these costs are realized.
25	Concrete footing dimension change	\$ 5,000.00	Engineer adjusted footing dimensions resulting in increased excavation width, rebar and concrete. PCO has not been submitted by the Contractor and therefore the cost has not yet been
26	Paint color changes	\$ 6,000.00	The Contractor has indicated that selected paint colors resulted in a change to the Contract Documents. This has not yet been reviewed but costs are included here in the event that proper justification can be made by the Contractor.
<b>Total</b>		<b>\$ 3,009,000.00</b>	

AGENDA ITEM 4. – March 26, 2024

**Subject:** Eastern Shore Infrastructure Improvements – Transmission Force Main Phase 1 American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund Implementation (SLFRF) Subrecipient Grant Agreement

**Recommended Action:** Approve the terms and conditions of the ARPA SLFRF Subrecipient Grant agreement with the Virginia Department of Environmental Quality for the Eastern Shore Transmission Force Main and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary or desirable.

**CIP Project:** ES010100

**Agreement Description:** This agreement between the Virginia Department of Environmental Quality and HRSD is for capital costs associated with improvements relating to conveying flow from the Town of Accomac to the Onancock Treatment Plant. This work is being completed in the Eastern Shore Transmission Main Phase 1 CIP project under change orders three and four. The Town of Accomac will also be receiving ARPA funding to cover their portion of the project. Acceptance of this grant will not subject HRSD to any additional requirements beyond those already in place for obtaining Virginia Clean Water Revolving Loan funding.

The total grant award for this project is \$4,183,500.

The attached draft [Grant Agreement](#) was reviewed by staff and HRSD legal counsel.



**SUBRECIPIENT AGREEMENT  
FOR THE COMMONWEALTH OF VIRGINIA  
AMERICAN RESCUE PLAN ACT  
STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**ARPA Grant No.: SCS-08**

**SUBRECIPIENT AGREEMENT BETWEEN**

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
1111 EAST MAIN STREET  
RICHMOND, VA 23219**

and

**HAMPTON ROADS SANITATION  
DISTRICT  
PO BOX 5915  
VIRGINIA BEACH, VA 23471**

**THIS AGREEMENT (“AGREEMENT”) FOR THE COMMONWEALTH OF VIRGINIA’S (“VIRGINIA”) AMERICAN RESCUE PLAN ACT (“ARPA”) STATE AND LOCAL FISCAL RECOVERY FUND (“SLFRF”) IMPLEMENTATION** is made and entered into the [Insert day] day of [Insert month] 20[Insert year], by and between **the Department of Environmental Quality (“Department”)**, and the **Hampton Roads Sanitation District (“Subrecipient”)** (each a “Party” and jointly the “Parties”). This Agreement shall become effective on the date (“Effective Date”) this contract is signed by the Department.

The Award Terms and Conditions of this Agreement sets forth the compliance obligations for the Subrecipient pursuant to the SLFRF statute, the Office of Management and Budget’s Uniform Guidance, the United States Department of the Treasury’s updated final rule (31 CFR Part 35), applicable Federal laws and regulations, and applicable state laws, including acts appropriating ARPA funds to the Department to administer.

Pursuant to Section k of 2021 Special Session II Va. Acts Ch. 1, titled “CSOs and Wastewater”, as amended by 2022 Special Session I Va. Acts Ch. 1 Item 479.20, the General Assembly appropriated certain ARPA funds received by the Commonwealth to the Department to administer for investments in wastewater infrastructure, nutrient removal technology, and other eligible infrastructure improvements (the “Fund”). In addition, in 2022 Special Session I Va. Acts Ch. 2 Item 486 under the heading “Drinking Water, Wastewater, and CSOs” the General Assembly appropriated additional ARPA funds received by the Commonwealth to the Department to administer which are also part of the “Fund.”

The Subrecipient has been approved by the Department to receive a Grant from the Fund subject to the terms and conditions herein to finance the cost of the Eligible Project, which consists of the design and construction of wastewater infrastructure or other infrastructure as described herein. The Subrecipient will use the Grant to finance that portion of the Eligible Project Costs not being paid for from other sources as set forth in the Total Project Budget in Exhibit B to this Agreement. Such other sources may include, but are not limited to, the Virginia Water Facilities Revolving Fund, Chapter 22, Title 62.1 of the Code of Virginia (1950), as amended.

This Agreement provides for payment of the Grant, design and construction of the Eligible Project, and development and implementation by the Subrecipient of provisions for the long-term responsibility and maintenance of the infrastructure installed under the Eligible Project. This Agreement is supplemental to the State Water Control Law, Chapter 3.1, Title 62.1 of the Code of Virginia (1950), as amended, and it does not limit in any way the other water quality restoration, protection and enhancement, or enforcement authority of the State Water Control Board (the “Board”) or the Department.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth in this Agreement, including the recitals set forth above which are a material part of this Agreement, the sufficiency of which is hereby acknowledged, the Parties agree as follows:

## **ARTICLE I** **DEFINITIONS**

1. The capitalized terms contained in this Agreement shall have the meanings set forth below unless the context requires otherwise:

(a) “Agreement” means this Agreement between the Department and the Subrecipient, together with any amendments or supplements hereto.

(b) “Authorized Representative” means any member, official or employee of the Subrecipient authorized by resolution, ordinance or other official act of the governing body of the Subrecipient to perform the act or sign the document in question.

(c) “Eligible Project” means all grant eligible items of the particular project described in Exhibit A to this Agreement to be designed and constructed by the Subrecipient with, among other monies, the Grant, with such changes thereto as may be approved in writing by the Department and the Subrecipient.

(d) “Eligible Project Costs” means costs of the individual items comprising the Eligible Project as permitted by the Act with such changes thereto as may be approved in writing by the Department and the Subrecipient.

(e) “Extraordinary Conditions” means unforeseeable or exceptional conditions resulting from causes beyond the reasonable control of the Subrecipient such as, but not limited to fires, floods, strikes, acts of God, and acts of third parties that singly or in combination cause material breach of this Agreement.

(f) “Grant” means the particular grant described in Section 4.0 of this Agreement, with such changes thereto as may be approved in writing by the Department and the Subrecipient.

(g) “Total Eligible Project Budget” means the sum of the Eligible Project Costs as set forth in Exhibit B to this Agreement, with such changes thereto as may be approved in writing by the Department and the Subrecipient.

(h) “Total Project Budget” means the sum of the Eligible Project Costs (with such changes thereto as may be approved in writing by the Department and the Subrecipient) plus any ineligible costs that are solely the responsibility of the Subrecipient, as set forth in Exhibit B to this Agreement.

(i) “Project Engineer” means the Subrecipient’s engineer who must be a licensed professional engineer registered to do business in Virginia and designated by the Subrecipient as the Subrecipient’s engineer for the Eligible Project in a written notice to the Department.

(j) “Project Schedule” means the schedule for the Eligible Project as set forth in Exhibit C to this Agreement, with such changes thereto as may be approved in writing by the Department and the Subrecipient. The Project Schedule assumes timely approval of adequate plans and specifications and timely reimbursement in accordance with this Agreement by the Department.

## **ARTICLE II** **SCOPE OF PROJECT**

2. The Subrecipient will cause the Eligible Project to be designed, constructed, and placed in operation as described in Exhibit A to this Agreement.

## **ARTICLE III** **SCHEDULE**

3. The Subrecipient will cause the Eligible Project to be designed, constructed, and placed in operation in accordance with the Project Schedule in Exhibit C to this Agreement.

## **ARTICLE IV** **COMPENSATION**

4.0. Grant Amount. The total Grant award from the Fund under this Agreement is up to **\$4,183,500.00** and represents the Total Eligible Project Budget. Any material changes made to the Eligible Project after execution of this Agreement, which alters the Total Eligible Project Budget, will be submitted to the Department for review of grant eligibility. The amount of the Grant award set forth herein may be modified from time to time by written agreement of the Parties to reflect changes to the Eligible Project or the Total Eligible Project Budget.

4.1. Payment of Grant. Disbursement of the Grant will be in accordance with the payment provisions set forth in Section 4.2 herein and the eligibility determinations made in the Total Project Budget (Exhibit B).

4.2. Disbursement of Grant Funds. The Department will disburse the Grant to the Subrecipient not more frequently than once each calendar month for approved eligible reimbursement of a minimum of one thousand (\$1,000.00) dollars, excluding the final payment, upon receipt by the Department of the following:

(a) A requisition for approval by the Department, signed by the Authorized Representative and containing all receipts, vouchers, statements, invoices or other evidence that costs in

the Total Eligible Project Budget, have been incurred or expended and all other information called for by, and otherwise being in the form of, Exhibit D to this Agreement.

(b) If any requisition includes an item for payment for labor or to contractors, builders or material men, a certificate, signed by the Project Engineer, stating that such work was actually performed or such materials, supplies or equipment were actually furnished or installed in or about the construction of the Eligible Project.

Upon receipt of each such requisition and accompanying certificate(s) and schedule(s), the Department shall request disbursement of the Grant to the Subrecipient in accordance with such requisition to the extent approved by the Department.

Except as may otherwise be approved by the Department, disbursements shall be held at ninety-five percent (95%) of the total Grant amount to ensure satisfactory completion of the Eligible Project. Upon receipt from the Subrecipient of the certificate specified in Section 4.5, certification that the Eligible Project will be maintained for the useful service life of the installed facilities, and a final requisition detailing all retainage to which the Subrecipient is then entitled, the Department, subject to the provisions of this section and Section 4.3 herein, shall request disbursement to the Subrecipient of the final payment from the Grant.

4.3 Application of Grant Funds. The Subrecipient agrees to apply the Grant solely and exclusively to the reimbursement of Eligible Project Costs.

4.4. Agreement to Complete Project. The Subrecipient agrees to cause the Eligible Project to be designed and constructed, as described in Exhibit A to this Agreement, and in accordance with (i) the schedule in Exhibit C to this Agreement and (ii) plans and specifications prepared by the Project Engineer and approved by the Department.

4.5 Notice of Substantial Completion. When the Eligible Project has been completed, the Subrecipient shall promptly deliver to the Department a certificate signed by the Authorized Representative and by the Project Engineer stating (i) that the Eligible Project has been completed substantially in accordance with the approved plans and specifications and addenda thereto, and in substantial compliance with all material applicable laws, ordinances, rules, and regulations; (ii) the date of such completion; (iii) that all certificates of occupancy and operation necessary for start-up for the Eligible Project have been issued or obtained; and (iv) the amount, if any, to be released for payment of the final Eligible Project Costs.

4.6 Timing of Costs Incurred and Return of Funds. The Subrecipient agrees that the Grant may only be used to cover costs incurred and expended during the period beginning March 3, 2021 and ending December 31, 2026. The Subrecipient agrees that the final date upon which funds may be expended is December 31, 2026. The Subrecipient agrees to return funds not expended by December 31, 2026.

**ARTICLE V**  
**MATERIAL BREACH**

5.0. Material Breach. Any failure or omission by the Subrecipient to perform its obligations under this Agreement, unless excused by the Department, is a material breach.

5.1. Notice of Material Breach. If at any time the Subrecipient determines that it is unable to perform its obligations under this Agreement, the Subrecipient shall promptly provide written notification to the Department. This notification shall include a statement of the reasons it is unable to perform, any actions to be taken to secure future performance and an estimate of the time necessary to do so.

5.2 Extraordinary Conditions.

(a) The Subrecipient may assert, and it shall be a defense to any action by the Department to collect Grant funds or otherwise secure performance of this Agreement, except as required by Article 4.6 or Federal law or regulation, that the alleged non-performance was due to Extraordinary Conditions, provided that the Subrecipient:

(i) takes reasonable measures to effect a cure or to minimize any non-performance with the Agreement, and

(ii) provides written notification to the Department of the occurrence of Extraordinary Conditions, together with an explanation of the events or circumstances contributing to such Extraordinary Conditions and the measures taken to cure the conditions no later than 10 days after the discovery of the Extraordinary Conditions.

(b) If the Department disagrees that the events or circumstances described by the Subrecipient constitute Extraordinary Conditions, the Department must provide the Subrecipient with a written objection within sixty (60) days of Subrecipient's notice under paragraph 5.3(a)(2), together with an explanation of the basis for its objection.

5.3 Resolution and Remedy. If no resolution is reached by the parties, the Department may immediately bring an action in the Circuit Court of the City of Richmond to recover part or all of the Grant funds. In any such action, the Subrecipient shall have the burden of proving that the alleged noncompliance was due to Extraordinary Conditions. The Subrecipient agrees to venue to any such action in the Circuit Court of the City of Richmond, either north or south of the James River in the option of the Department.

**ARTICLE VI**  
**GENERAL PROVISIONS**

6.1 Acknowledgment of Required Information. In accordance with 2 CFR 200.332 and related Federal requirements for pass-through entities, Subrecipient hereby acknowledges receipt of Exhibit E and E-2 hereto and the additional information set forth therein.

6.2 Fiscal Agent. The Subrecipient agrees to act as the Department's fiscal agent as required for the limited purpose of the ARPA SLFRF award.

6.3 Funds Pass-Through. The Department agrees to transfer the SLFRF award fund(s) to the Subrecipient in accordance with Article IV of this agreement and promptly upon the Department's allotment of such funds from the Department of Planning and Budget ("DPB"); the Department's receipt of such funds from the Department of Accounts ("DOA"); and the compliance of the Subrecipient with any and all prerequisites of the acceptance of these funds, including those specified in Article IV of this agreement (i.e. certifications, proof of eligible expenditures, etc.).

6.4 SAM.gov Requirements. Subrecipient is required to register on System for Award Management ("SAM") at <https://www.sam.gov> pursuant to 2 CFR Part 25. Required SAM.gov information can be found online. Subrecipient must also report the names and total compensation of their five most highly compensated executives and their subrecipients' executives for the preceding completed fiscal year *if* (1) the Subrecipient received 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as provided by 2 CFR 170.320 (and subawards), and received \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act (and subawards), and (2) if the information is not otherwise public.

6.5 Reporting and Recordkeeping Requirements. Program and/or project quarterly reporting is required as outlined in Exhibit F. Subrecipients must maintain records and financial documents relating to its Eligible Project Costs and services provided under this Agreement for five (5) years after all funds have been expended, returned to the Department or upon termination of this agreement. The Department shall have access to all subrecipient's records relating to its Eligible Project Costs and services under this Agreement including but not limited to canceled checks, invoices, vouchers, purchase orders, subcontracts, time sheets, mileage records and all other records relating to services and expenditures. Subrecipient agrees to provide the Department with copies of such records at no expense upon request. Further, Treasury may request transfer of records of long-term value at the end of five years. Wherever practicable, such records should be collected, transmitted, and stored in open and machine-readable formats. Subrecipient agrees to provide or make available such records to the Department upon request. Subrecipient must cooperate and provide reasonable assistance to authorized representatives of the Department. The Department, its authorized agents, and/or State auditors will have full access to and the right to examine any of said materials during said period. Additionally, the Department and/or its representatives will have the right to access work sites during normal business hours, after reasonable notice to the Subrecipient, for the purpose of ensuring that the provisions of this Agreement are properly carried out. The Subrecipient also agrees to furnish any records or documents necessary for the Department to carry out its reporting requirements for the ARPA funds.

6.6 Single Audit. Subrecipients that expend more than \$750,000 in Federal awards during their fiscal year will be subject to an audit under the Single Audit Act and its implementing regulation at 2 CFR Part 200, Subpart F regarding audit requirements. Note that the Compliance Supplement provides information on the existing, important compliance requirements that the federal government expects to be considered as a part of such audit. The Compliance Supplement is routinely updated and is made available in the Federal Register and on Office of Management and Budget's (OMB) website: <https://www.whitehouse.gov/omb/office-federal-financial-management>. The Department and Subrecipients should consult the [Federal Audit Clearinghouse](#) to see examples of Single Audit submissions.

6.7 Internal Controls. Subrecipient must:

(a) Establish and maintain effective internal controls over the SLFRF award that provides reasonable assurance that the Subrecipient is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award.

(b) Comply with Federal statutes, regulations, and the terms and conditions of the SLFRF award.

(c) Evaluate and monitor the non-Federal entity's compliance with statutes, regulations, and the terms and conditions of Federal awards.

(d) Take prompt action when instances of noncompliance are identified including noncompliance identified in audit findings.

(e) Take reasonable measures to safeguard protected personally identifiable information.

6.8 Sub-awardee/Vendor Monitoring. The Subrecipient, when passing funds along to another subrecipient (or "Sub-awardee") or contractor, must:

(a) Ensure that the agreement is clearly identified as a Sub-awardee or subcontractor subaward and includes all the requirements of 2 CFR 200.332 referenced throughout this Agreement.

(b) Evaluate each Sub-awardee's risk for noncompliance as required by 2 CFR 200.332

(c) Monitor the activities of the Sub-awardee, or contractor, as necessary to ensure that the subaward is used for authorized purposes, in compliance with Federal statutes, regulations, and the terms and conditions of the subawards; that subaward performance goals are achieved; and that all monitoring requirements of 2 CFR 200.332 are met, including reviewing financial and programmatic reports, following up on corrective actions, and issuing management decisions for audit findings. Monitoring must include:

(i) Reviewing financial and performance reports required by the pass-through entity.

(ii) Following-up and ensuring that the Sub-awardee, or contractor, takes timely and appropriate action on all deficiencies pertaining to the Federal award provided to the Sub-awardee, or contractor, from the pass-through entity detected through audits, on-site reviews, and other means.

(iii) Issuing a management decision for audit findings pertaining to the Federal award provided to the subrecipient from the pass-through entity as required.

(d) Verify that every Sub-awardee is audited as required by 2 CFR 200.332. The Sub-awardee must also develop a subrecipient monitoring plan for its subrecipients that addresses monitoring of subrecipients to provide reasonable assurance that the subrecipient administers Federal awards in compliance with laws, regulations, and the provisions of the contract, and that performance goals are achieved. The Sub-awardee's monitoring plan of its subrecipients should include a risk-based assessment to determine the level of oversight, and monitoring activities such as reviewing financial and performance

reports, performing site visits, and maintain regular contact with subrecipients. The Sub-awardee must establish requirements to ensure compliance with its subrecipients as required by 2 CFR 200.332. The Sub-awardee must ensure that all transactions with vendors comply with laws, regulations, and provisions of contracts or grant agreements in compliance with 2 CFR 200.332.

6.9 Procurement, Suspension & Debarment. Subrecipients are responsible for ensuring that any procurement using SLFRF funds, or payments under procurement contracts using such funds, are consistent with the procurement standards set forth in the Uniform Guidance at 2 CFR 200.317 through 2 CFR 200.327, as applicable. The Uniform Guidance establishes in 2 CFR 200.319 that all procurement transactions for property or services must be conducted in a manner providing full and open competition, consistent with standards outlined in 2 CFR 200.320, which allows for non-competitive procurements only in circumstances where at least one of the conditions below is true: the item is below the micro-purchase threshold; the item is only available from a single source; the public exigency or emergency will not permit a delay from publicizing a competitive solicitation; or after solicitation of a number of sources, competition is determined inadequate. Recipients must have and use documented procurement procedures that are consistent with the standards outlined in 2 CFR 200.317 through 2 CFR 200.320. The Uniform Guidance requires an infrastructure for competitive bidding and contractor oversight, including maintaining written standards of conduct and prohibitions on dealing with suspended or debarred parties. Subrecipients must ensure adherence to all applicable local, State, and Federal procurement laws and regulations.

6.10 Compliance with Applicable Law. Subrecipient agrees to comply with all applicable federal, state, and local law. This includes environmental and permitting laws and regulations.

6.11 Eligible Project to be Technically Sound. Subrecipient agrees that all projects will be undertaken and completed in a manner that is technically sound, meaning that they must meet design and construction methods and use materials that are approved, codified, recognized, fall under standard or acceptable levels of practice, or otherwise are determined to be generally acceptable by the design and construction industry.

6.12 Civil Rights Compliance. Subrecipient and its vendors or contractors are required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the Treasury do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the Treasury Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Treasury Department's implementing regulations at 31 CFR part 23. The Subrecipient further agrees that every subcontract entered into for the performance of any contract or purchase order resulting here from, will contain a provision requiring non-discrimination in employment, service delivery and access, as herein specified binding upon each subrecipient. The Subrecipient agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

6.13 Repayment of SLFRF Awards. If the United States or Virginia lawfully requires repayment of some or all of the SLFRF award, Subrecipient agrees to repay such amount to the Recipient for such purpose within twenty (20) days of any such requirement.



6.14 Return of Unexpended SLFRF Awards. If all of the SLFRF award is not expended by the end of the identified performance period, Subrecipient is obligated to return unexpended funds to the Department. The Commonwealth and the Department, shall coordinate to accomplish the return of such funds in a timely manner in accordance with the SLFRF Treasury Final Rule.

6.15 Capital Expenditures. Among other requirements contained in 2 CFR 200, Appendix II, all contracts made by a recipient or subrecipient in excess of \$100,000 with respect to a capital expenditure that involve employment of mechanics or laborers must include a provision for compliance with certain provisions of the Contract Work Hours and Safety Standards Act, 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR part 5).

6.16 Further Cooperation. The Parties shall cooperate with each other as reasonably necessary to confirm or bring about the transfers contemplated by this Agreement.

6.17 Term. This Agreement shall be effective on the date it is executed by the Department and shall terminate upon final reimbursement to the Subrecipient.

6.18 Governing Law; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. If any word or provision of this Agreement as applied to any Party or to any circumstance is adjudged by a court to be invalid or unenforceable, the same shall in no way affect any other circumstance or the validity or enforceability of any other word or provision. The Subrecipient further agrees to comply with all laws and regulations applicable to the Subrecipient's performance of its obligations pursuant to this agreement.

6.19 Entire Agreement; Amendments. This Agreement contains the entire integrated agreement between the Parties as to the subject matter hereof and supersedes all previous written and oral negotiations, commitments, proposals, and writings. No alterations, amendments, or modifications may be made to this Agreement except by a writing signed by both Parties and attached hereto. This Agreement may be modified by agreement of the Parties for any purpose, provided that any significant modification to this Agreement must be preceded by public notice of such modification.

6.20 Counterparts; Signatures; Copies. This Agreement may be executed in counterparts, both of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile or scanned signature may substitute for and have the same legal effect as an original signature. Any copy of this executed Agreement made by photocopy, facsimile or scanner shall be considered the original for all purposes.

6.21 Authorization. Each Party represents that its execution, delivery and performance under this Agreement have been duly authorized by all necessary action on its behalf, and do not and will not violate any provision of its charter or enabling legislation or result in a material breach of or constitute a material default under any agreement, indenture, or instrument of which it is a party or by which it or its properties may be bound or affected.

6.22. Effect of the Agreement on Permits. This Agreement shall not be deemed to relieve the Subrecipient of its obligations to comply with the terms of its Virginia Pollutant Discharge Elimination System (VPDES) and/or Virginia Water Protection (VWP) permit(s) issued by the Board or Department. This Agreement does not obviate the need to obtain, where required, any other State or Federal permit(s).

6.23. Disclaimer. Nothing in this Agreement shall be construed as authority for either Party to make commitments which will bind the other Party beyond the covenants contained herein.

6.24. Non-Waiver. No waiver by the Department of any one or more defaults by the Subrecipient in the performance of any provision of this Agreement shall operate or be construed as a waiver of any future default or defaults of whatever character.

6.25. Collateral Agreements. Where there exists any inconsistency between this Agreement and other provisions of collateral contractual agreements which are made a part of this Agreement by reference, the provisions of this Agreement shall control.

6.26. Conflict of Interest. The Subrecipient warrants that it has fully complied with the Virginia Conflict of Interest Act as it may apply to this Agreement.

6.27. Notices. All notices given hereunder shall be in writing and shall be sent by United States certified mail, return receipt requested, postage prepaid, and shall be deemed to have been received at the earliest of: (a) the date of actual receipt of such notice by the addressee, (b) the date of the actual delivery of the notice to the address of the addressee set forth below, or (c) five (5) days after the sender deposits it in the mail properly addressed. All notices required or permitted to be served upon either party hereunder shall be directed to:

Department: Virginia Department of Environmental Quality  
Clean Water Financing and Assistance Program  
P.O. Box 1105  
Richmond, VA 23218  
Attn: CWFAP Program Manager

Subrecipient: Hampton Roads Sanitation District  
PO Box 5915  
Virginia Beach, VA 23471  
Attn: Jay Bernas

6.28. Successors and Assigns Bound. This Agreement shall extend to and be binding upon the Parties hereto, and their respective legal representatives, successors and assigns.

6.29. Exhibits. All exhibits to this Agreement are incorporated herein by reference.

6.30. Recoupment of Funds. Failure to abide by the requirements of the Final Rule (31 CFR Part 35,) adopted by the United States Department of the Treasury, may result in recoupment of funds by the United States Department of the Treasury.

IN WITNESS WHEREOF, the Parties hereto have caused the execution of this Agreement as of the date first written above.

**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY**

By: \_\_\_\_\_ Date \_\_\_\_\_  
Alvie Edwards  
Director of Administration  
(804) 898-9883  
alvie.edwards@deq.virginia.gov

**HAMPTON ROADS SANITATION DISTRICT**

By: \_\_\_\_\_ Date \_\_\_\_\_  
Jay Bernas  
General Manager  
(757) 318-4335  
jbernas@hrsd.com

\_\_\_\_\_  
Steven G. de Mik, MBA, CPA  
Deputy General Manager & Director of Finance  
(757) 460-7240  
sdemik@hrsd.com

[END OF SIGNATURES]

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT A**

**ELIGIBLE PROJECT DESCRIPTION**

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Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08

Project Description:

This project will design and construct a force main to convey flows from the Town of Accomac to the conveyance system of the Onancock Wastewater Treatment Plant.

This project will provide for improved wastewater treatment for the Town of Accomac by taking advantage of unused capacity at the Onancock Wastewater Treatment Plant. The Town of Accomac is currently served by septic systems. Accomac and Accomack County desire to have centralized sewage collection facilities to serve the government buildings.

*Note: Only those eligible costs falling within the period outlined in Section 4.6 will be eligible for reimbursement through this grant.*

**SUBRECIPIENT AGREEMENT  
 FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT  
 STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT B**

**TOTAL PROJECT BUDGET**

Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08

The following budget reflects the estimated costs associated with eligible cost categories of the project.

<b>Sources</b>	
	<b>Total Allocated Funding</b>
Virginia Water Facilities Revolving Fund: Principal Repayment Loan	\$26,063,013
American Rescue Plan Act SCS-08 Grant - HRSD	\$4,183,500
American Rescue Plan Act 2022AP-05 Grant - Accomac	\$4,500,000
American Rescue Plan Act SCS-05 - Wachapreague	\$589,806
American Rescue Plan Act 2022AP-03 - Wachapreague	\$2,400,000
HRSD Contribution	\$3,866,040
<b>TOTAL:</b>	<b>\$41,602,359</b>

<b>Uses</b>	
<b>Engineering</b>	<b>Cost per Task</b>
Owner's Consultant Services	\$666,852
Design Services	\$4,404,226
Engineering Services	\$1,010,854
<b>Sub Total</b>	<b>\$6,081,932</b>
<b>Construction</b>	
Construction	\$32,641,735
Construction Contingency	\$875,493
Onancock WWTP Acquisition	\$1,953,199
<b>Sub Total</b>	<b>\$35,470,427</b>
<b>Other Project-Related Costs</b>	
Meter Replacement	\$50,000
<b>Sub Total</b>	<b>\$50,000</b>
<b>TOTAL:</b>	<b>\$41,602,359</b>

*Virginia Department of Environmental Quality  
ARPA Grant #SCS-08*

<b>Project Category/Project Name</b>	<b>Total Project Cost</b>	<b>This ARPA Grant SCS-08</b>	<b>ARPA Grant Accomac 2022AP-05</b>	<b>ARPA Grant Wachapreague SCS-05</b>	<b>ARPA Grant Wachapreague 2022AP-03</b>	<b>RLF Loan</b>	<b>Other Funding HRSD Cash</b>
Planning & Professional Services (HDR)	\$ 666,852.00	\$ -	\$ -	\$ -	\$ -	\$ 633,938.00	\$ 32,914.00
Design & Construction (Garney)	\$ 38,056,815.00	\$ 4,133,500.00	\$ 4,500,000.00	\$ 589,806.00	\$ 2,400,000.00	\$ 22,600,382.75	\$ 3,833,126.25
Construction Contingency	\$ 875,493.25	\$ -	\$ -	\$ -	\$ -	\$ 875,493.25	\$ -
WWTP Acquisition	\$ 1,953,199.00	\$ -	\$ -	\$ -	\$ -	\$ 1,953,199.00	\$ -
Meter Replacement	\$ 50,000.00	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTALS</b>	<b>\$ 41,602,359.25</b>	<b>\$ 4,183,500.00</b>	<b>\$ 4,500,000.00</b>	<b>\$ 589,806.00</b>	<b>\$ 2,400,000.00</b>	<b>\$ 26,063,013.00</b>	<b>\$ 3,866,040.25</b>

Notes:

1. Planning and professional services includes design, engineering, and owner’s consultant services (contract administration).
2. Only those eligible costs falling within the period outlined in Section 4.6 will be eligible for reimbursement through this grant.
3. The funding the Department is awarding through this agreement is outlined in the This ARPA Grant SCS-08 column in the Total Project Budget table above. The Department is providing additional funding for the Project outside of this Agreement; that additional funding is outlined in the ARPA Grant Accomac 2022AP-05, ARPA Grant Wachapreague SCS-05, ARPA Grant Wachapreague 2022AP-03 and RLF Loan columns in the Total Project Budget table. Only that funding outlined in the ARPA SCS-08 column is governed by this agreement.

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT C**

**PROJECT SCHEDULE**

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Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08

The Subrecipient has proposed the following schedule of key activities/milestones as a planning tool which may be subject to change. Unless authorized by a grant modification, it is the responsibility of the Subrecipient to adhere to the anticipated schedule for the Eligible Project as follows:

<b>Project Name</b>	<b>Project Description / Milestone</b>	<b>Schedule / Timeline</b>	<b>Note</b>
Town of Accomac Sewer System	Design/Plan Procurement	Complete	
	Plan & Specification Approval	Complete	
	Commence Construction – Force Main	6/13/2023	
	Commence Construction – Pump Station	11/1/2023	
	Construction Completion	9/30/2024	Per Change Order 3

*Note: Only those eligible costs falling within the period outlined in Section 4.6 will be eligible for reimbursement through this grant.*

The Subrecipient has proposed the following estimates for the grant funds for which it will request reimbursement:

<b>Quarter</b>	<b>Estimated Amount of Grant Funds to be Requested for Reimbursement</b>
<b>January – March 2024</b>	
<b>April – June 2024</b>	\$3,982,671.32
<b>July – September 2024</b>	
<b>October – December 2024</b>	\$200,828.68
<b>January – March 2025</b>	
<b>April – June 2025</b>	
<b>July – September 2025</b>	
<b>October – December 2025</b>	
<b>January – March 2026</b>	
<b>April – June 2026</b>	
<b>July – September 2026</b>	
<b>October – December 2026</b>	



**EXHIBIT D**

**REQUISITION FOR REIMBURSEMENT**

(To be on Subrecipient's Letterhead)

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Virginia Department of Environmental Quality  
Clean Water Financing and Assistance Program  
P.O. Box 1105  
Richmond, VA 23218  
Attn.: CWFAP Program Manager

**RE: American Rescue Plan Act Wastewater Grant**

ARPA Grant No.: SCS-08

Dear Program Manager:

This requisition, Number \_\_\_\_\_, is submitted in connection with the referenced Grant Agreement, dated as of *[insert date of grant agreement]* between the Virginia Department of Environmental Quality and \_\_\_\_\_. Unless otherwise defined in this requisition, all capitalized terms used herein shall have the meaning set forth in Article I of the Grant Agreement. The undersigned Authorized Representative of the Subrecipient hereby requests disbursement of grant proceeds under the Grant Agreement in the amount of \$\_\_\_\_\_, for the purposes of payment of the Eligible Project Costs as set forth on Schedule I attached hereto.

Documentation required by Section 4.2 of this agreement relating to the items for which payment is requested is attached.

The undersigned certifies that the amounts requested by this requisition will be applied solely and exclusively to the reimbursement of the Subrecipient for the payment of Eligible Project Costs that fall within the period outlined in Section 4.6 of this agreement.

This requisition includes (if applicable) an accompanying Certificate of the Project Engineer as to the performance of the work.

Sincerely,

\_\_\_\_\_

(Authorized Representative of the Subrecipient)

Attachments

**Schedule 1**

American Rescue Plan Act Wastewater Fund

Form to accompany request for reimbursement

Requisition # \_\_\_\_\_

Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08 Certifying Signature: \_\_\_\_\_ Title: \_\_\_\_\_

Cost Category	Original Budget	Previous Disbursements	Net Balance Available	Expenditures This Period	Total Expenditures to Date	Net Balance Remaining
Design & Construction	\$ 4,133,500.00	\$ -	\$ 4,133,500.00	\$ -	\$ -	\$ 4,133,500.00
Meter Replacement	\$ 50,000.00	\$ -	\$ 50,000.00	\$ -	\$ -	\$ 50,000.00
<b>TOTALS</b>	<b>\$ 4,183,500.00</b>	<b>\$ -</b>	<b>\$ 4,183,500.00</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,183,500.00</b>

Total Grant Amount: \$4,183,500.00

Previous Disbursements: \$ \_\_\_\_\_

This Request: \$ \_\_\_\_\_

Grant Proceeds Remaining: \$4,183,500.00

Certificate of the Project Engineer

Form to Accompany Request for Reimbursements (not applicable to SLPP Subawards)

Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08

This Certificate is submitted in connection with Requisition Number \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_, submitted by the \_\_\_\_\_ (the "Subrecipient") to the Virginia Department of Environmental Quality. Capitalized terms used herein shall have the same meanings set forth in Article I of the Grant Agreement referred to in the Requisition.

The undersigned Project Engineer for \_\_\_\_\_ hereby certifies that insofar as the amounts covered by this Requisition include payments for labor or to contractors, builders or material men, such work was actually performed or such materials, supplies, or equipment were actually furnished to or installed in the Eligible Project.

\_\_\_\_\_  
(Project Engineer)

\_\_\_\_\_  
(Date)

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT E**

**PASS-THROUGH INFORMATION REQUIREMENTS**

The following pass-through information requirements pertaining to the subaward to Subrecipient set forth below in satisfaction of 2 CFR 200.332 and per 2 CFR 200.1 of the Uniform Guidance. The Federal Award Identification for funds (subaward) addressed by this Agreement is the American Rescue Plan Act State and Local Fiscal Recovery Fund.

- (i) Subrecipient's Name: Hampton Roads Sanitation District
- (ii) Subrecipient's Unique Entity Identifier (UEI): NLNKLTGGRKZ6
- (iii) Federal Award Identification Number: SLFRP1026
- (iv) Federal Award Date: May 18, 2021
- (v) Subaward Period of Performance Start and End Date:  
Start Date is Date of this Agreement; End Date is December 31, 2026
- (vi) Subaward Budget Period Start and End Date:  
March 3, 2021; End Date is December 31, 2026
- (vii) Amount of Federal Funds Obligated by this Action by the Pass-Through Entity to the Subrecipient: \$4,183,500.00
- (viii) Total Amount of Federal Funds Obligated to the Subrecipient by the Pass-Through Entity Including the Current Financial Obligation: \$4,183,500.00
- (ix) Federal Award Project Description, as Required to be Responsive to the Federal Funding Accountability and Transparency Act (FFATA): This project includes the design and construct a force main to convey flows from the Town of Accomac to the conveyance system of the Onancock Wastewater Treatment Plant.
- (x) (A) Name of Federal Awarding Agency: U.S. Department of the Treasury  
(B) Name of Pass-Through Entity: Virginia Department of Environmental Quality  
(C) Contact Information for Awarding Official of the Pass-Through Entity:  
Alvie Edwards, Director of Administration  
804-898-9883  
alvie.edwards@deq.virginia.gov
- (xi) Assistance Listings Number (ALN) and Title (the pass-through entity must identify the dollar amount made available under each Federal award and the Assistance Listings Number at time of disbursement): ALN 21.027 – Coronavirus State and Local Fiscal Recovery Funds

- (xii) Identification of Whether the Award is R&D: Not R&D Award
- (xiii) Indirect Costs for the Federal Award: *Pursuant to the SLFRF Award Terms and Conditions, recipients are permitted to charge both direct and indirect costs to their SLFRF award as administrative costs as long as they are accorded consistent treatment per 2 CFR 200.403. Indirect cost rate for the Federal award (including if the de minimis rate of 10% is charged) per §200.414. N/A – no indirect costs are requested in the Subrecipient’s grant budget for this SLFRF award.*

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT E-2**

**ADDITIONAL PASS-THROUGH INFORMATION REQUIREMENTS FOR SLFRF  
INFRASTRUCTURE PROJECTS (EC.5)**

The following additional pass-through information requirements pertaining to the subaward to Subrecipient set forth below in satisfaction of State and Local Fiscal Recovery Fund Infrastructure Projects (EC.5) and the Federal Funding Accountability and Transparency Act (FFATA). The Federal Award Identification for funds (subaward) addressed by this Agreement is the American Rescue Plan Act State and Local Fiscal Recovery Fund.

- (i) Median Household Income and Lowest Quintile of Area Served by the Subaward: \$52,694 and \$11,980
- (ii) National Pollutant Discharge Elimination System (NPDES) Permit of Facility Involved in the Subaward Project, If Applicable; VA0021253
- (iii) Federal Award Subaward Number, as Required to be Responsive to the Federal Funding Accountability and Transparency Act (FFATA): SCS-08
- (iv) Executive Compensation Data, as Required to be Responsive to the Federal Funding Accountability and Transparency Act (FFATA): In the Preceding Year, Did your Business or Organization Receive (1) 80 Percent or More of your Annual Gross Revenues in U.S. Federal Contracts, Subcontracts, Loans, Grants, Subgrants, and/or Cooperative Agreements; and (2) \$25,000,000 or More in Annual Gross Revenues from U.S. Federal Contracts, Subcontracts, Loans, Grants, Subgrants, and/or Cooperative Agreements?: NO
  - a. If “YES”, Provide the Name of and Total Compensation for the Organization’s Five Highest Paid Officers, If Not Already Publicly Listed or Otherwise Listed in SAM.gov: N/A
- (v) Infrastructure Projects with Total Expected Costs Over \$10,000,000:
  - a. Do you certify that “all laborers and mechanics employed by contractors and subcontractors in the performance of the project are paid wages at rates not less than those prevailing, as determined by the U.S. Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the “Davis-Bacon Act”), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State (or the District of Columbia) in which the work is to be performed, or by the appropriate State entity pursuant to a corollary State prevailing-wage-in-construction law (commonly known as “baby Davis-Bacon Acts”)?: YES

- i. If “NO”, Provide:
  1. Number of employees of contractors and sub-contractors working on the project: N/A
  2. Number of employees on the project hired directly: N/A
  3. Number of employees on the project hired through a third party: N/A
  4. Are any of the wages at rates less than those prevailing?: N/A
  5. The wages and benefits of workers on the project by classification: N/A
  
- b. Do you certify that “the indicated project includes a project labor agreement, meaning a pre-hire collective bargaining agreement consistent with section 8(f) of the National Labor Relations Act (29 U.S.C.158(f))?”: NO
  - i. If “NO”, Answer:
    1. How the recipient will ensure the project has ready access to a sufficient supply of appropriately skilled and unskilled labor to ensure high-quality construction throughout the life of the project, including a description of any required professional certifications and/or in-house training?: Qualification based awards are made when issuing contracts. Firms are interviewed during the selection process to ensure they can complete the work appropriately and within the needed timeframe. Professional Engineers require certification.
    2. How the recipient will minimize risks of labor disputes and disruptions that would jeopardize timeliness and cost-effectiveness of the project?: HRSD requires contractors to pay workers the prevailing wage rate. HRSD has a compliance manager who ensures these requirements are met. These measures minimize risks of labor disputes.
    3. How the recipient will provide a safe and healthy workplace that avoids delays and costs associated with workplace illnesses, injuries, and fatalities, including descriptions of safety training, certification, and/or licensure requirements for all relevant workers (e.g., OSHA 10, OSHA 30)?: HRSD reviews and ensures OSHA compliance prior to contract award and has monthly on-site safety reviews.
    4. Will workers on the project receive wages and benefits that will secure an appropriately skilled workforce in the context of the local or regional labor market?: YES
    5. Does the project have a completed project labor agreement?: NO
    6. Does the project prioritize local hires?: NO
    7. Does the project have a Community Benefit Agreement, with a description of any such agreement?: NO

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT F**

**QUARTERLY REPORTING REQUIREMENTS**

On a quarterly basis, DEQ will report the following information for all ARPA subaward projects utilizing the information provided in Exhibits E and E-2, with the exception of the quarterly obligation, expenditure amounts, and additional programmatic data specific to Septic Local Partner Program (SLPP) subawards:

Below are the reporting requirements for subawards under \$50,000.

- Obligation amount (if applicable)
- Expenditure amount (if applicable)

Below are the reporting requirements for subawards over \$50,000.

- Unique Entity Identifier (UEI)
- Payee contact information
- Subaward date
- Subaward amount
- Subaward description
- Primary place of performance information
- Quarterly obligation amount
- Quarterly expenditure amount
- Subrecipient gross revenue information
  - Percentage of gross revenue from Federal contracts (Y/N above 80%)
  - Amount of gross revenue from Federal contracts (Y/N above \$25,000,000)
- Subrecipient executive compensation details if required.
- Additional programmatic data based on Expenditure Category

Subrecipients are required submit Exhibit F-2, Quarterly Reporting Re-Certification Statements, on a quarterly basis, re-certifying that the information provided to DEQ in Exhibits E and E-2 remain accurate and applicable to the subaward project.

For Septic Local Partner Program subawards only, subrecipients must provide, on a quarterly basis using Exhibit F-3, the following information for each property receiving cost-share assistance:

- Latitude/longitude in decimal degrees
- Amount of cost-share provided
- Certification of permitting and income verification



**SLFRF Key Reporting Deadlines**

Below are the deadlines for the Project and Expenditure Reports.

Quarterly Report	Year	Quarter	Period Covered	Due Date
1	2024	1	January 1 – March 31	April 5, 2024
2	2024	2	April 1 – June 30	July 5, 2024
5	2024	3	July 1 – September 30	October 5, 2024
6	2024	4	October 1 – December 31	January 5, 2025
7	2025	1	January 1 – March 31	April 5, 2025
8	2025	2	April 1 – June 30	July 5, 2025
9	2025	3	July 1 – September 30	October 5, 2025
10	2025	4	October 1 – December 31	January 5, 2026
11	2026	1	January 1 – March 31	April 5, 2026
12	2026	2	April 1 – June 30	July 5, 2026
13	2026	3	July 1 – September 30	October 5, 2026
14	2026	4	October 1 – December 31	January 5, 2027

**SUBRECIPIENT AGREEMENT**  
**FOR THE VIRGINIA AMERICAN RESCUE PLAN ACT**  
**STATE AND LOCAL FISCAL RECOVERY FUND IMPLEMENTATION**

**EXHIBIT F-2**

**QUARTERLY REPORTING RE-CERTIFICATION STATEMENTS**

Subrecipient: Hampton Roads Sanitation District

ARPA Grant No.: SCS-08

I certify:

1. The information submitted in Exhibit E on (Enter Date Here) remains accurate and applicable to this subaward; and,
2. The information submitted in Exhibit E-2 on (Enter Date Here) remains accurate and applicable to this subaward.

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(Authorized Representative)

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(Date)

## AGENDA ITEM 5. – March 26, 2024

**Subject:** Subordinate Wastewater Revenue Bonds  
Resolution

**Recommended Action:** Adopt a resolution authorizing the issuance and award of one or more series of Hampton Roads Sanitation District subordinate wastewater revenue bonds to refund certain outstanding bonds.

**Brief:** In 2009, HRSD issued its Wastewater Revenue Bonds, Series 2009B (Federally Taxable-Issuer Subsidy-Build America Bonds or BABs), of which approximately \$99,265,000 is currently outstanding. In 2014, HRSD issued its Wastewater Revenue Bonds, Refunding Series 2014A, of which approximately \$13,065,000 is currently outstanding. The Series 2009B Bonds and the Series 2014A Bonds were both issued pursuant to, and are the sole remaining obligations outstanding under, HRSD's Senior Trust Agreement. The resolution authorizes the issuance of Subordinate Wastewater Revenue Bonds to refund both of these bond series.

The 2009B bonds were issued through a federal program created in response to the Great Recession's dramatic effect on state and local public entities. According to the U.S. Treasury Department, these credit challenges eventually led to a 68 percent drop in monthly municipal bond issuances and a doubling of borrowing costs. The American Recovery and Reinvestment Act of 2009 authorized state and local governments to issue special taxable bonds (BABs) that received a direct 35 percent interest rate federal subsidy to the borrower.

HRSD's 2009 taxable BABs enabled HRSD to meet its capital funding requirements in a cost-effective manner during very difficult financial times.

Prior to issuing the 2009B bonds, staff briefed the Commission about the risk that the federal subsidy may be reduced, delayed, interrupted, or discontinued in the future. That risk came to fruition, when as a result of the "sequester provisions" of the Budget Control Act of 2011 and the American Taxpayer Relief Act of 2012, beginning March 1, 2013, the federal interest rate subsidy payment on all BABs were made subject to a sequestration (reduction), at an initial rate of 8.7 percent. Since 2013, the sequestration rate has ranged from 8.7 percent to 5.7 percent. Unless Congress takes action to modify the sequester, the federal interest rate subsidy on BABs is subject to a 5.7 percent reduction through federal fiscal year 2030. Congress retains the legal authority to increase or decrease the sequestration rate in future legislation.

Most BABs, including HRSD's, were issued with "Make Whole" calls making a refunding for "savings" impractical under most market conditions. Additionally, most were issued with "Extraordinary Optional Redemption Provisions" which, if met, make a refunding less cost prohibitive. The ability to exercise an extraordinary optional redemption is a contractual matter and the law firm of Norton Rose Fulbright (Norton) has indicated that they are able to give an unqualified opinion on HRSD's proposed refunding.

The estimated savings from a refunding of the BABs are derived from currently unique market conditions where the ratio of tax-exempt to taxable interest rates is low. However, even without savings, there are several benefits of refunding these bonds that staff will discuss in their briefing.

HRSD's Financial Policy indicates that when HRSD refinances debt to achieve debt service savings, HRSD will target minimum net present value savings of three percent of the amount refinanced.

The Financial Policy also states that HRSD may refinance debt that does not meet this threshold for another compelling business reason. Given, the structure of the BAB's call features making most refinancing transactions for savings impractical, and the other benefits associated with a refinancing of these bonds, staff recommends not applying the three percent target savings to this transaction.

The plan of finance contemplates that approximately 30 days after a conditional redemption notice to investors is posted, HRSD will set the redemption price and fund the redemption of the bonds with a draw on its line of credit from Bank of America (LOC). Upon closing of the bonds, generally 15 – 30 days after the bond pricing, the bond proceeds will be used to reimburse or pay down the LOC. In anticipation of the draw on the LOC, staff plans to increase the LOC limit to \$300 million. In addition, increasing the LOC limit allows HRSD the flexibility to bridge the cash demands of an expansive capital improvement program while waiting for reimbursement from other loans and will assist with funding needs if grant agreement approvals are delayed beyond expectations.

The [resolution](#) also authorizes the refunding of the 2014 Bonds, which, if the 2009B Bonds are redeemed as described above, would permit the discharge of the senior trust agreement.

Staff will provide a briefing on the proposed transaction.

*Hampton Roads Sanitation District*  
*Resolution of*  
*March 26, 2024*

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HAMPTON ROADS SANITATION DISTRICT COMMISSION

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A RESOLUTION  
AUTHORIZING THE ISSUANCE AND AWARD OF  
ONE OR MORE SERIES OF  
HAMPTON ROADS SANITATION DISTRICT  
SUBORDINATE WASTEWATER REVENUE BONDS  
TO REFUND CERTAIN OUTSTANDING BONDS OF THE DISTRICT

Adopted March 26, 2024

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Resolution

**RESOLUTION AUTHORIZING THE ISSUANCE AND  
AWARD OF ONE OR MORE SERIES OF HAMPTON ROADS  
SANITATION DISTRICT SUBORDINATE WASTEWATER  
REVENUE BONDS TO REFUND CERTAIN OUTSTANDING  
BONDS OF THE DISTRICT**

**WHEREAS**, the Hampton Roads Sanitation District (the “District”) was duly created under and pursuant to Chapter 407 of the Acts of Assembly of Virginia of 1940, and the Hampton Roads Sanitation District Commission (the “Commission”), created by said Chapter 407, is the governing body of the District;

**WHEREAS**, by virtue of Chapter 66 of the Acts of Assembly of Virginia of 1960, as amended (the “Act”), the Commission is authorized and empowered:

- (a) to construct, improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a wastewater treatment system or systems, either within or without or partly within and partly without the corporate limits of the District;
- (b) to issue, at one time or from time to time, revenue bonds, notes or other obligations of the District payable solely from the special funds provided under the authority of the Act and pledged for their payment, for the purpose of paying the cost of a wastewater treatment system or systems and extensions and additions thereto, and providing funds for any other authorized purpose of the Commission, and
- (c) to fix, revise, charge and collect rates, fees and other charges for the use of, and for the services and facilities furnished or to be furnished by, any such wastewater treatment system;

**WHEREAS**, as provided by the Act, the District is constituted a political subdivision of the Commonwealth of Virginia and established as a governmental instrumentality to provide for the public health and welfare;

**WHEREAS**, the Commission has previously authorized the execution and delivery of a Master Trust Indenture, dated as of December 1, 1993, as amended and restated as of March 1, 2008 (as supplemented and as further amended and supplemented from time to time, the “Senior Trust Agreement”), between the District and The Bank of New York, as Trustee (The Bank of New York Mellon Trust Company, N.A., as successor in interest to The Bank of New York, the “Senior Trustee”), to secure the payment of Senior Obligations (as defined in the Senior Trust Agreement) of the District, such Senior Obligations being payable from the Net Revenues (as defined in the Senior Trust Agreement) of the District;

**WHEREAS**, the Senior Trust Agreement permits the issuance of Subordinated Indebtedness (as defined in the Senior Trust Agreement), the payment on which will be, in all cases, subordinate and junior in right of payment to the prior payment in full of the Senior Obligations;

**WHEREAS**, the Commission has previously authorized the closure of the Senior Trust Agreement, prohibiting the further issuance of Senior Obligations, and, pursuant to such

authorization, the Senior Trust Agreement has been amended to bar the issuance of additional Senior Obligations;

**WHEREAS**, to secure the payment of and provide for the issuance of Subordinated Indebtedness, the Commission authorized the execution and delivery of a Trust Agreement, dated as of October 1, 2011 (the “Original Trust Agreement”), as amended and restated as of March 1, 2016, as further amended and supplemented (the Original Trust Agreement, as so amended, restated and supplemented, the “Trust Agreement”), each by and between the District and The Bank of New York Mellon Trust Company, N.A., as successor trustee (in such capacity, the “Trustee”), to provide for the issuance of Parity Obligations (as defined in the Trust Agreement);

**WHEREAS**, the District has heretofore issued Senior Obligations in accordance with the Senior Trust Agreement and Parity Obligations under the Trust Agreement, of which approximately (i) \$99,265,000 aggregate principal amount of the Wastewater Revenue Bonds, Series 2009B (Federally Taxable-Issuer Subsidy-Build America Bonds) (the “2009 BABs”), and (ii) \$13,065,000 aggregate principal amount of the Wastewater Revenue Bonds, Refunding Series 2014A (the “2014A Bonds”), remain outstanding as of the date of this Resolution;

**WHEREAS**, the District designated the 2009 BABs as “Build America Bonds” for purposes of the American Recovery and Reinvestment Act of 2009 (the “Recovery Act”), and at the time of such designation, expected to receive, on or about each interest payment date, a cash subsidy payment from the United States Treasury (the “Treasury”) equal to 35% of the interest payable on the 2009 BABs (the “Federal Subsidy”);

**WHEREAS**, after the issuance of the 2009 BABs, the Internal Revenue Service has published announcements of the sequestration, in each federal fiscal year since fiscal year 2013, of a portion of the Federal Subsidy otherwise payable to issuers, such as the District, on an across-the-board basis and not as the result of any act or omission by the District to satisfy the requirements to qualify to receive the Federal Subsidy from the Treasury, thereby resulting in multiple annual reductions in the Federal Subsidy payable to the District with respect to the 2009 BABs; and

**WHEREAS**, the District currently maintains a line of credit (the “Line of Credit”) with Bank of America, N.A., and the Line of Credit has a stated expiration date of June 30, 2025;

**WHEREAS**, the Commission has determined to provide for the issuance under the Trust Agreement, at one or more times, of one or more series, on a taxable or tax-exempt basis, of Parity Obligations of the District (the “Refunding Bonds”), for the purpose of providing funds, together with other available funds, to (i) to refund any or all Senior Obligations (collectively, the “Refunding Candidates”) or repay advances on the Line of Credit the proceeds of which were used to redeem Senior Obligations and (ii) pay certain expenses incurred in connection with the issuance of the Refunding Bonds by the District;

**WHEREAS**, each series of Refunding Bonds will be issued pursuant to a Supplemental Trust Agreement (each, a “Supplemental Agreement”), between the District and the Trustee; and

**WHEREAS**, the Commission has determined that Refunding Bonds shall be sold through a negotiated underwriting with one or more of the investment banking firms replying to the District’s request for proposals for investment banking services, dated May 30, 2023, to be selected by a

Delegate (as defined below) in accordance with the provisions of Section 3 hereof (the investment banking firm or firms so selected, the “Underwriters”);

**Now, Therefore, the HAMPTON ROADS SANITATION DISTRICT COMMISSION DOES HEREBY RESOLVE, as follows:**

**Section 1. Definitions.** Capitalized words and terms used in this Resolution and not defined herein shall have the same meanings in this Resolution as such words and terms are given in the Trust Agreement.

**Section 2. Authorization of Refunding Bonds.** In order to provide funds required to (i) refund all or a portion of the Refunding Candidates, or repay advances on the Line of Credit the proceeds of which were used to redeem Senior Obligations, and (ii) pay certain expenses incurred in connection with the Refunding Bonds by the District and pursuant to the authority granted to it by the Act, the District hereby authorizes the issuance at one or more times and in one or more series of Hampton Roads Sanitation District Subordinate Wastewater Revenue Bonds, Refunding Series 202[\_] [(Federally Taxable)] (the blanks to be completed with a number indicating the year of issuance and a letter indicating the appropriate series), in an aggregate principal amount not to exceed, One Hundred Twenty-Five Million Dollars (\$125,000,000), in each case dated as of such date, maturing no later than the end of the fiscal year in which the last maturity date of Refunding Candidates will occur, and in such principal amounts and bearing interest at such rates, on a federally taxable or tax-exempt basis, all as determined by the Chair of the Commission, the Vice Chair of the Commission, the General Manager of the District or the Deputy General Manager/Director of Finance of the District (each, a “Delegate”), any of whom may act, prior to the execution of the Bond Purchase Agreement (as defined in Section 3 below), and evidenced in the Bond Purchase Agreement.

The Commission hereby determines that the issuance of each series of the Refunding Bonds will be in the best interests of the District.

The Refunding Bonds shall be issued as fully registered bonds in denominations of \$5,000 or any whole multiple thereof or in any other denominations determined by a Delegate. The Refunding Bonds shall be issuable in book-entry form as provided in the Trust Agreement. Payments of principal of, premium, if any, and interest on the Refunding Bonds shall be forwarded by the Bond Registrar to the registered owners of the Refunding Bonds in such manner as is set forth in the Trust Agreement.

Each series of Refunding Bonds shall be authorized and issued in accordance with a Supplemental Agreement in substantially the form executed by the District in connection with the issuance of the District’s Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable), a copy of which supplemental agreement has been presented at the meeting of the Commission in which this Resolution was approved, with such updates, changes, modifications and deletions as such Delegate, with the advice of counsel, may deem necessary or desirable.

**Section 3. Method of Sale.** Each series of Refunding Bonds shall be sold by negotiated sale with one or more Underwriters. A Delegate, acting in consultation with PFM Financial Advisors LLC, Financial Advisor to the District (the “Financial Advisor”), is authorized to select such Underwriters, provided that each firm so selected shall have submitted a response to the District’s request for proposals for investment banking services, dated May 30, 2023, which has been deemed complete in all material respects. If a series of Refunding Bonds is to be sold in a negotiated sale, a Delegate is



authorized to execute a Bond Purchase Agreement with respect to each such series of the Refunding Bonds in substantially the form executed by the District in connection with the issuance of the District's Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable) (the "Bond Purchase Agreement"), a copy of which has been presented at the meeting of the Commission in which this Resolution was approved, with such updates, changes, modifications and deletions as such Delegate, with the advice of counsel, may deem necessary or desirable, including, but not limited to such changes as may be necessary or desirable in the case such Refunding Bonds are to be issued on a tax-exempt basis.

**Section 4. Redemption.** A Delegate is hereby authorized to determine the optional redemption and make-whole redemption provisions, if any, of each series of the Refunding Bonds as such Delegate, in consultation with the Financial Advisor, in writing, may deem advisable, and the Delegate may, with the advice of the Financial Advisor and counsel to the District, provide that such series of the Refunding Bonds (or any portion thereof) shall not be subject to optional or make-whole redemption before their respective maturities. A Delegate may further determine that any term Refunding Bonds shall be subject to mandatory sinking fund redemption and with such amortization requirements as determined by such Delegate. All such determinations by a Delegate shall be determined prior to the execution of the Bond Purchase Agreement relating to such series of Refunding Bonds.

**Section 5. Application of Bond Proceeds.** The proceeds of the Refunding Bonds shall be applied as provided in the related Supplemental Agreement and, if applicable, the related Escrow Deposit Agreement (as defined below). If any Refunding Bonds are issued, a Delegate is authorized to execute one or more Escrow Deposit Agreements, each by and between the District and a national banking association or similar bank or trust company qualified to do business in the Commonwealth, in substantially the form executed by the District in connection with the issuance of the District's Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable) (the "Escrow Deposit Agreement"), a copy of which has been presented at the meeting of the Commission in which this Resolution was approved, with such updates, changes, modifications and deletions as such Delegate, with the advice of counsel, may deem necessary or desirable. In the alternative, a Delegate may execute and deliver a letter of instructions to the Senior Trustee providing for the redemption of the related Refunded Bonds (as defined below).

**Section 6. Authorization of Basic Documents.** The forms, terms and provisions of each of the Supplemental Agreement, the Bond Purchase Agreement, the Continuing Disclosure Agreement and the Escrow Deposit Agreement (collectively, the "Basic Documents") are hereby approved in all respects, and the District Representatives (hereinafter defined) are hereby authorized and directed to execute and deliver the Basic Documents with respect to each series of Refunding Bonds in substantially the forms presented to this meeting, or as otherwise provided by this Resolution, together with such updates, changes, modifications and deletions as such District Representatives, with the advice of counsel, may deem necessary or desirable; such execution and delivery shall be conclusive evidence of the approval and authorization thereof by the District.

**Section 7. Refunding Candidates.** A Delegate is authorized to determine the Refunding Candidates to be refunded with the proceeds of any series of the Refunding Bonds (such Refunding Candidates, the "Refunded Bonds") or other money of the District available for such purpose, or, on an interim basis, with an advance on the Line of Credit. In accordance with Section 12(a) of the Enabling Act, the Commission hereby determines that it will be in the best interests of the District to refund any such Refunding Candidates without regard to the net interest cost on the Refunding Bonds or of the Refunding Candidates, because (i) such net interest cannot reasonably be calculated in the case of the

2009 BABs (for example in the case of variable rate or balloon indebtedness or due to the uncertainties related to future sequestration or other diminution of the Federal Subsidy with respect to the 2009 BABs) and (ii) of the substantial benefits to the District if the lien of the Senior Trust Agreement is released in the case of a refunding of all of the Refunding Candidates.

**Section 8. Execution of Bonds.** The form of the Refunding Bonds is to be similar to the form of bond set forth in the Supplemental Agreement and is hereby approved in all respects, and the Chair or Vice Chair and the Secretary or any Assistant Secretary of the Commission are hereby authorized and directed to execute, by manual or facsimile signature, as provided in such forms, and to deliver to the Bond Registrar for authentication on behalf of the District, the Refunding Bonds in definitive form for each series of the Refunding Bonds, with such updates, changes, modifications and deletions as they, with the advice of counsel, may deem necessary or desirable and consistent with the Trust Agreement and the related Supplemental Agreement; such execution and delivery shall be conclusive evidence of the approval and authorization thereof by the District.

**Section 9. Authorization and Delivery of the Refunding Bonds.** Upon their execution in the form and manner set forth in the Trust Agreement, the Refunding Bonds of each series shall be deposited with the Bond Registrar for authentication, and the Bond Registrar is hereby authorized and directed to authenticate such series of Refunding Bonds and, upon the due and valid execution of the Basic Documents, the Trustee shall cause the Bond Registrar to deliver such series of Refunding Bonds to or for the account of The Depository Trust Company, New York, New York, for the account of the Underwriters, in accordance with and subject to the provisions of Section 209 of the Trust Agreement.

**Section 10. Official Statement.** The form of the Preliminary Official Statement in the form executed by the District in connection with the issuance of the District's Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable) (the "Preliminary Official Statement"), a copy of which has been presented at the meeting of the Commission in which this Resolution was approved, with such updates, changes, modifications and deletions as such Delegate, with the advice of counsel, may deem necessary or desirable is hereby approved, and a Delegate is hereby authorized to approve the terms of and publish a Preliminary Official Statement with respect to each series of the Refunding Bonds, as updated to reflect any subsequent events if any series of Refunding Bonds is to be sold after the first series of Refunding Bonds, describing the Refunding Bonds and substantially in the same form as the Preliminary Official Statement presented to this meeting, and deem "final" such Preliminary Official Statement for purposes of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended; and a Delegate is hereby authorized to execute an official statement (the "Official Statement") with respect to each series of Refunding Bonds in substantially the form of the deemed "final" Preliminary Official Statement relating to such series of the Refunding Bonds, together with such updates, changes, modifications and deletions as such Delegate, with the advice of counsel, may deem necessary or appropriate; and the District hereby approves and authorizes the distribution and use of copies of the Official Statement and the Basic Documents in connection with such sale.

**Section 11. District Representatives.** The Chair of the Commission, the Vice Chair of the Commission, the General Manager and the Deputy General Manager/Director of Finance are each hereby appointed a District Representative within the meaning of such term under the Trust Agreement, with full power to carry out the duties set forth therein. Any one or more of the District Representatives may act for and on behalf of the District.

**Section 12. Securities Depository.** The Depository Trust Company, New York, New York, is hereby appointed as the initial Securities Depository for the Bonds, with Cede & Co., a nominee thereof, being the initial Securities Depository Nominee and initial registered owner of each series of the Refunding Bonds.

**Section 13. Further Actions.** The Delegates and the District Representatives are each authorized and directed (without limitation except as may be expressly set forth herein) to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary or desirable to effectuate the transactions contemplated by the Basic Documents, the Trust Agreement and the Official Statement.

**Section 14. Delegates' Certificate.** Each Delegate may execute a certificate or certificates evidencing the determinations made or other actions carried out pursuant to the authority granted in this Resolution, and any such certificate shall be conclusive evidence of the actions or determinations as stated therein.

**Section 15. Ratification of Prior Acts.** The actions heretofore taken by the Delegates and the District Representatives in connection with the proposed issuance of the Refunding Bonds are hereby ratified.

**Section 16. Sunset Provision.** No series of Refunding Bonds may be issued, pursuant to the authority provided by this Resolution after June 30, 2025.

**Section 17. Rate Schedule.** In compliance with Section 22 of the Act, incorporated herein the same as if set forth verbatim herein is the current "Rate Schedule effective July 1, 2023, amended September 26, 2023, effective November 1, 2023" for the use of, and for the services and facilities furnished or to be furnished by, the wastewater disposal system or systems and the wastewater improvements, for which the Refunding Bonds are to be issued. Such schedule appears in full on the District's website, [www.hrsd.com](http://www.hrsd.com).

**Section 18. Effective Date.** This Resolution shall take effect immediately upon its passage.

[END OF RESOLUTION]

**Adopted by the Hampton Roads Sanitation District Commission on March 26, 2024.**

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Stephen C. Rodriguez, Chair

## AGENDA ITEM 6. – March 26, 2024

**Subject:** Nansemond Treatment Plant Struvite Recovery Facility Improvements  
Additional Appropriation – Non-Regulatory  $\geq$ \$1,000,000

**Recommended Action:** Appropriate additional funding in the amount of \$2,489,903.

**CIP Project:** NP013700

**Regulatory Requirement:** None

Budget	\$41,727,911
Previous Expenditures and Encumbrances	(\$41,545,814)
Available Balance	\$182,097
Proposed Change Order No. 4 to Contractor	(\$505,006)
Proposed Contingency	(\$2,166,994)
Project Shortage/Requested Additional Funding	(\$2,489,903)
Revised Total Project Authorized Funding	\$44,217,814

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract with Contractor	\$29,043,990	
Total Value of Previous Change Orders	\$1,077,362	3.7%
Requested Change Order	\$505,006	
Total Value of All Change Orders	\$1,582,368	5.4%
Revised Contract Value	\$30,626,358	

Time (Additional Calendar Days)	0
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**Project Description:** This project involves the implementation of the WASSTRIP (Waste Activated Sludge Stripping to Remove Internal Phosphorus) process and improvements to the Struvite Recovery Facility (SRF). The WASSTRIP process consists of the storage of thickened WAS in a tank for a period sufficient to allow phosphorus and magnesium release, followed by post thickening, and transfer of thickened solids to digestion. The thickening filtrate (WASSATE) will be transferred to the SRF separate from the centrate stream. This project also includes the addition of a solids removal step for centrate and WASSATE and a small equalization tank for the WASSATE. The SRF upgrade includes improvement of the chemical system and system controls, additional reactor capacity, and replacement of the struvite product drying equipment. This project will be completed as one construction project in unison with Nansemond Treatment Plant Digester Capacity Upgrades.

**Project Justification:** This project will achieve the following improvements for the Nansemond Treatment Plant:

- Improve biological phosphorus removal reliability and decrease effluent phosphorus concentrations, which is important for the decrease in the James River waste load allocation;
- Allow for treatment of all centrate flow through the SRF and overcome capacity limitations that currently require bypassing of some centrate; provide SRF reactor redundancy to allow for maintenance activities;
- Improve solids dewatering performance and decrease polymer demand;
- Nearly double facility production of Crystal Green® which increases operating revenue;
- Decrease the frequency of digester cleaning due to less struvite accumulation; and

- Increase operational costs associated with nuisance accumulation of struvite in piping and equipment upstream of the SRF.

**Change Order Description:** This change order includes project modifications from four RFPs issued during construction. These documents address several issues, including changes in the WASSATE area NFPA 820 area classification, miscellaneous electrical and instrumentation revisions, an additional reactor in the SRF and guardrail replacement on the top of the new WASSTRIP tanks. The cost of this change order is \$505,006.

**Analysis of Cost:** The cost is based on the RFP responses from the contractor, MEB. These costs have been evaluated by the engineer and determined to be reasonable. Award is recommended.

**Funding Description:** This additional appropriation will cover upcoming additional project costs. These costs are approximated in the table below.

<b>Cost Item</b>	<b>Cost</b>	<b>Justification</b>
Change Order No. 4	\$505,006	Described above
<b>Contingency Item 1:</b> Reactor No. 3 costs	\$719,000	Includes additional costs associated with Reactor No. 3 in the SRF
<b>Contingency Item 2:</b> SRF Changes	\$827,475	Additional work in the SRF as a result of the decision to change chemical system from MgCl <sub>2</sub> to MgO.
<b>Contingency Item 3:</b> Project Contingency	\$410,944	20% of additional construction costs
<b>Contingency Item 4:</b> Additional Engineering	\$209,575	Additional engineering costs due to contract changes

**Schedule:** Project Completion April 2025

AGENDA ITEM 7. – March 26, 2024

**Subject:** Oceana Off-line Storage Facility Land Acquisition  
Initial Appropriation – Non-Regulatory

**Recommended Action:** Appropriate total project funding in the amount of \$725,000.

**CIP Project:** CE011841

**Regulatory Requirement:** None

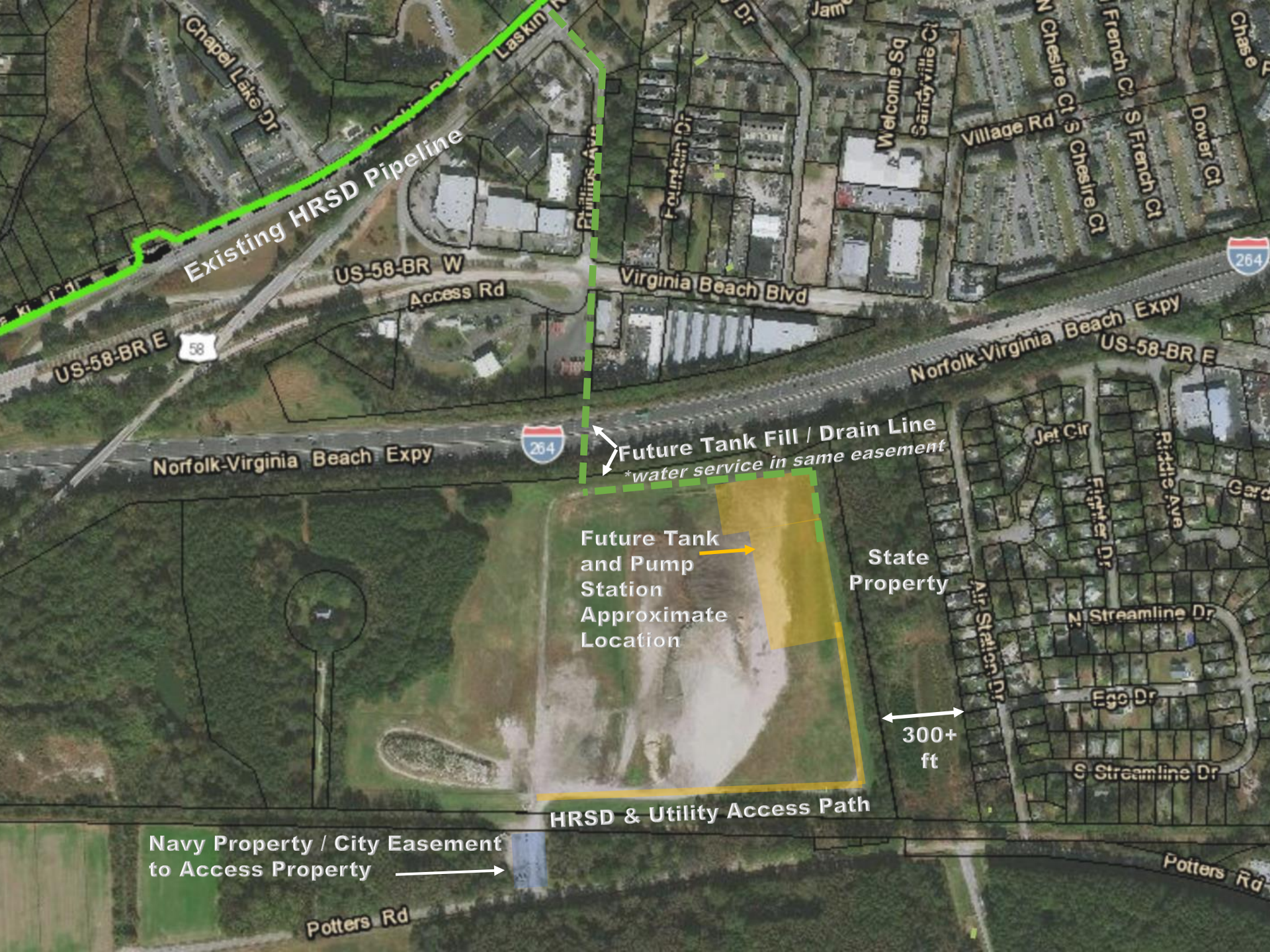
**Project Description:** This project will fund the purchase of land from the City of Virginia Beach for the future Oceana Off-line Storage Facility and required easements or agreements with the US Department of the Navy for access. The future tank(s) will be located in the northeast corner of the City's property along Potters Road that serves as a construction and storm debris landfill. The land purchase will include a subdivided, approximately 7.1-acre parcel for the tank(s) and ancillary facilities as well as additional easements that are required for underground utilities and access to the facilities.

This project will consist of a fee simple acquisition and three easements, of which negotiations are underway. HRSD Engineering and Real Estate staff are currently working with legal counsel to finalize an agreement with the City, which will be presented to the Commission for approval at a future meeting.

The attached [map](#) depicts the project location.

**Project Justification:** In 2019, HRSD's Planning & Analysis Division determined that the Oceana Off-line Storage Facility was not immediately needed to support the diversion from the recently closed Chesapeake-Elizabeth Treatment Plant to the Atlantic Treatment Plant (closure complete in December 2021). Instead, automated valves were installed in the HRSD system to use existing system capacity to manage the impacts of spatially variable rainfall events. There are very limited options to site this storage tank in this heavily developed area and the purchase of this property is necessary to support this future wet weather need.

**Analysis of Cost:** The price for the land acquisition is based on a formal land appraisal performed by Nancy Dove, MAI, SRA of Dove Valuation Services, LLC and a negotiated settlement with the owner.



Existing HRSD Pipeline

Future Tank Fill / Drain Line  
*\*water service in same easement*

Future Tank and Pump Station  
Approximate Location

State Property

300+ ft

Navy Property / City Easement to Access Property

HRSD & Utility Access Path

Potters Rd

US-58-BR E

US-58-BR W

Virginia Beach Blvd

Norfolk-Virginia Beach Expy

Norfolk-Virginia Beach Expy

US-58-BR E

Chapel Lake Dr

Laskin Dr

Phillips Ave

Fountain Dr

Welcome Sq

Sandyville Ct

Village Rd

N Chesire Ct

French Ct

S French Ct

Dover Ct

Jet Cir

Riddle Ave

Air Station Dr

N Streamline Dr

Ego Dr

S Streamline Dr

Potters Rd



AGENDA ITEM 8. – March 26, 2024

**Subject:** VIP SWIFT Tertiary Preliminary Engineering (GN016390), VIP SWIFT Tertiary Site Work (GN016391), and VIP SWIFT Tertiary Facility (GN016392)  
 Initial Appropriation – Regulatory Required Capital Improvement Project (<\$10,000,000)  
 Contract Award (>\$200,000), Task Order (>\$200,000)

**Recommended Actions:**

- a. Appropriate total project funding in the amount of \$5,377,000 for VIP SWIFT Tertiary Preliminary Engineering (GN016390).
- b. Award a contract to HDR Engineering, Inc. for the VIP SWIFT Tertiary Preliminary Engineering (GN016390), VIP SWIFT Tertiary Site Work (GN016391), and VIP SWIFT Tertiary Facility (GN016392).
- c. Approve a task order with HDR Engineering, Inc. in the amount of \$2,116,125 for the VIP SWIFT Tertiary Preliminary Engineering (GN016390).

**CIP Projects: GN016390, GN016391, GN016392**

**Regulatory Requirement:** Integrated Plan – SWIFT

**Type of Procurement:** Competitive Negotiation

A Public Notice was issued on August 14, 2023. Three firms submitted proposals on October 11, 2023, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Two firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
HDR Engineering, Inc.	87.25	1
Brown and Caldwell	81.21	2

The Committee recommends award to HDR Engineering, Inc. (HDR), whose professional qualifications, and proposed services best serve the interest of HRSD.

**Project Description:** These three projects will constitute the initial phase of SWIFT full-scale implementation at Virginia Initiative Plant (VIP) to help meet HRSD’s nutrient management strategy.

The VIP SWIFT Tertiary Preliminary Engineering (GN016390) project will provide the professional engineering services necessary to conduct feasibility analysis, alternatives analysis, landfill characterization, and other such studies to develop a comprehensive preliminary engineering report.

The VIP SWIFT Tertiary Site Work (GN016391) project will design and construct the necessary site preparation, grading, and debris removal to prepare the former Lambert's Point Landfill site adjacent for subsequent construction activities.



The VIP SWIFT Tertiary Facility (GN016392) project will design, construct, and commission the facilities necessary for SWIFT tertiary treatment.

The attached [map](#) depicts the project location.

**Project Justification:** These projects will support HRSD’s nutrient management strategy for meeting the 2032 Lower James River Basin total phosphorus discharge limits.

**Contract Description:** This contract is for professional engineering services for study, preliminary engineering, design, pre-construction, construction administration, construction inspection, start-up, and testing services required to complete the VIP SWIFT Tertiary Projects (GN016390, GN016391, GN016392).

**Task Order Description (GN016390):** The task order will provide professional engineering services to develop an initial conceptual evaluation of the necessary tertiary phosphorus treatment facilities, including an estimated size, configuration, location, and compatibility of treatment alternatives with the future SWIFT advanced water treatment and managed aquifer recharge.

The initial task orders for GN016391 and GN016392 will be negotiated separately at a later date.

**Analysis of Cost:** The total cost of this task order is \$2,116,125, based on a detailed, bottoms-up estimate of labor hours and other direct costs required to execute the agreed-upon scope of work. This proposed fee includes a lump sum task of \$1,267,681 plus \$848,444 for additional services to be issued on a time and materials basis, including topographic surveying and non-intrusive landfill assessment. The estimate was developed by HDR and their subconsultants and reviewed by HRSD.

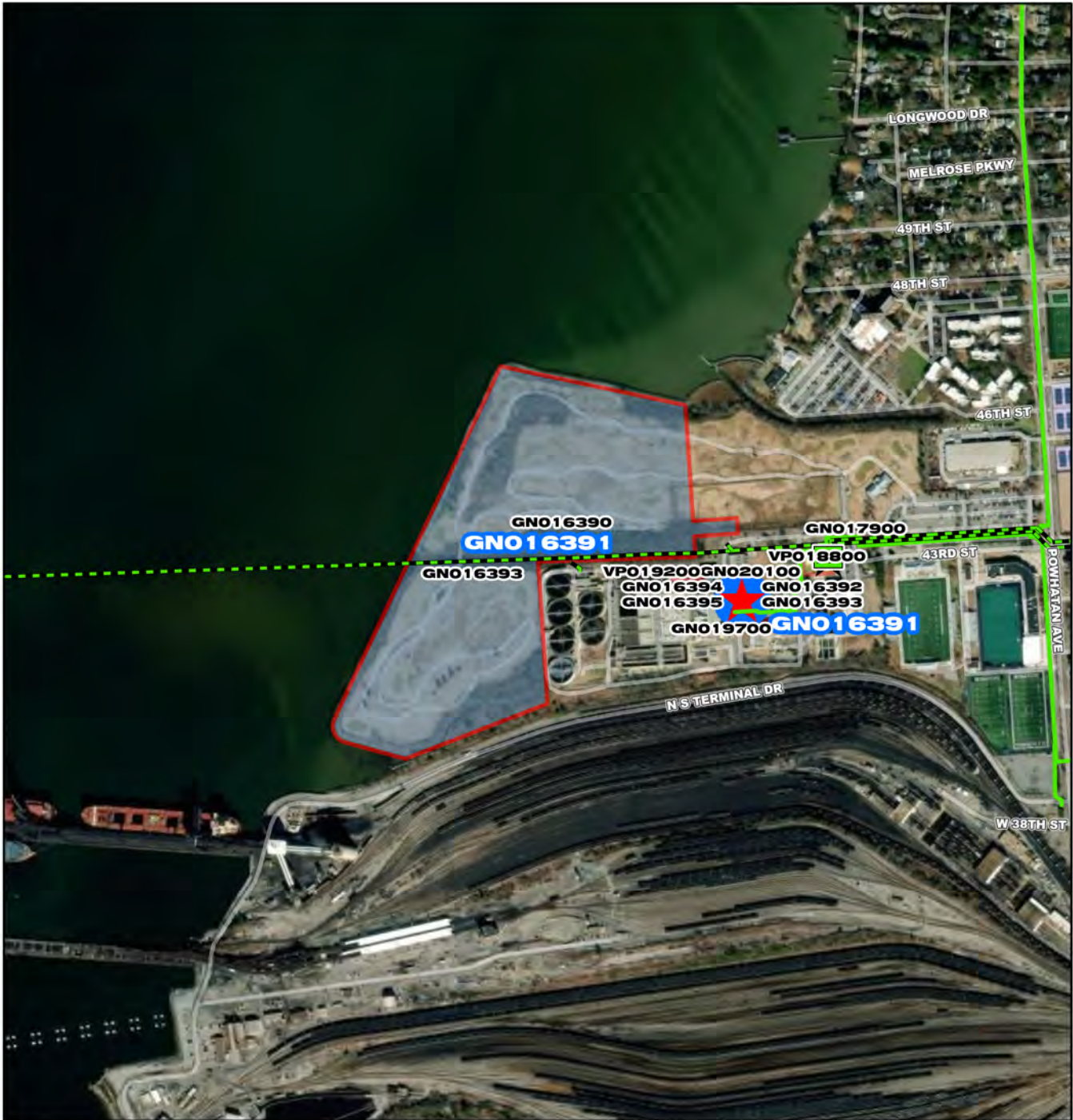
The lump sum fee for the base scope reflects a Study fee-to-construction cost ratio of 0.81% based on the target construction budget estimate of \$157,000,000. For comparison, cost data for past HRSD projects of similar type and size were collected, all three of which are Preliminary Engineering Report (PER) efforts. This ratio for the VIP Nutrient Reduction Improvement project, James River Plant Improvements Phase 1 and York River Plant Expansion Phase 1 were 1.5%, 1.2% and 0.8%, respectively.

Comparing the ratio from this Study to ratios of PER efforts for other projects of similar size and type, although not directly comparable at this stage, is a reasonable guideline to use for tracking the overall PER costs. This Study will be taking a slightly different approach to completing a PER, due to the lack of scope definition at this early stage of the project. A stepwise approach is proposed to answer key questions to sequentially define the scope with the final goal of producing a PER. The study phase engineering effort is assumed to take 10 months.

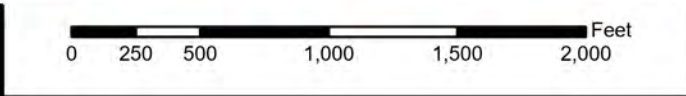
**Funding Description:** The capital project budget for services required to complete a PER was based on a percent of the initial estimate of construction costs for implementing SWIFT tertiary treatment at VIP. Requests for appropriation for the design and construction of the two separate and subsequent capital projects awarded under this contract will follow the completed PER.

This Project is included in the Water Infrastructure Finance and Innovation Act (WIFIA) programmatic loan. Additionally, the project team will apply for grant funding under the Water Quality Improvement Fund (WQIF) program.

<b>Schedule for GN016390:</b>	Study	March 2024
	PER	February 2025



- GNO16391**
- Project Intercepter Line
  - Project Intercepter Point
  - Project Pump Station Point
  - Project Area
- Legend**
- CIP Intercepter Point
  - CIP Pump Station Point
  - CIP Intercepter Line
  - CIP Abandonment
  - CIP Project Area
  - HRSD Intercepter Force Main
  - HRSD Intercepter Gravity Main
  - HRSD Treatment Plant
  - HRSD Pressure Reducing Station
  - HRSD Pump Station



**GNO 1 6 3 9 1**

**VIP SWIFT Tertiary Site Work**



## AGENDA ITEM 9. – March 26, 2024

**Subject:** Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements (WB013500) and Williamsburg Treatment Plant Influent Loading Reduction Improvements (WB013600)  
Initial Appropriation – Regulatory (>10,000,000) for WB013500  
Contract award (>\$200,000) for WB013500 and Contract award (>\$200,000) for WB013600

**Recommended Actions:**

- a. Appropriate total project funding in the amount of \$12,324,900 for WB013500.
- b. Award a contract to Brown and Caldwell in the amount of \$278,770 for WB013500 and \$676,160 for WB013600.

Note: Funds for WB013600 were appropriated in September 2023.

**CIP Project: WB013500 and WB013600**

**Regulatory Requirement:** Enhanced Nutrient Reduction Certainty Program (2023-2032 Completion)

**CIP Project: WB013600**

Budget	\$41,300,000
Previous Expenditures and Encumbrances	(\$0.00)
Available Balance	\$41,300,000

**Type of Procurement:** Competitive Negotiation

A Public Notice was issued on October 16, 2023. Five firms submitted proposals on November 28, 2023, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Three firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Brown and Caldwell	89.70	1
HDR – AECOM	88.15	2
Hazen and Sawyer	85.05	3

The Committee recommends award to Brown and Caldwell, whose professional qualifications and proposed services best serve the interest of HRSD.

**Project Description: Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements (WB013500):** This project will recommend process modifications, cost and an implementation schedule for wet weather flow management and phosphorus removal optimization by evaluating a method to convey intermediate clarifier effluent (ICE) to the chlorine contact tanks to manage secondary clarifier solids loading during wet weather

## AGENDA ITEM 9. – March 26, 2024

**Subject:** Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements (WB013500) and Williamsburg Treatment Plant Influent Loading Reduction Improvements (WB013600)  
Initial Appropriation – Regulatory (>10,000,000) for WB013500  
Contract award (>\$200,000) for WB013500 and Contract award (>\$200,000) for WB013600

**Recommended Actions:**

- a. Appropriate total project funding in the amount of \$12,324,900 for WB013500.
- b. Award a contract to Brown and Caldwell in the amount of \$278,770 for WB013500 and \$676,160 for WB013600.

Note: Funds for WB013600 were appropriated in September 2023.

**CIP Project: WB013500 and WB013600**

**Regulatory Requirement:** Enhanced Nutrient Reduction Certainty Program (2023-2032 Completion)

**CIP Project: WB013600**

Budget	\$41,300,000
Previous Expenditures and Encumbrances	(\$0.00)
Available Balance	\$41,300,000

**Type of Procurement:** Competitive Negotiation

A Public Notice was issued on October 16, 2023. Five firms submitted proposals on November 28, 2023, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Three firms were short-listed, interviewed, and technically ranked as listed below:

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The Committee recommends award to Brown and Caldwell, whose professional qualifications and proposed services best serve the interest of HRSD.

**Project Description: Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements (WB013500):** This project will recommend process modifications, cost and an implementation schedule for wet weather flow management and phosphorus removal optimization by evaluating a method to convey intermediate clarifier effluent (ICE) to the chlorine contact tanks to manage secondary clarifier solids loading during wet weather

conditions. This project will also evaluate options to convey and equally split ICE to each of four aeration tanks for improved phosphorus removal.

**Williamsburg Treatment Plant Influent Loading Reduction Improvements (WB013600):** This project will evaluate upgrades and modifications necessary to the Williamsburg Treatment Plant under reduced influent loading scenarios caused by the brewery. The recommended process modifications will allow the plant to cost-effectively remove Nitrogen to achieve regulatory levels while managing wet weather flows. This project also includes basic engineering design services for the implementation of a nonflammable carbon storage and feed system in the immediate future.

**Project Justification: Williamsburg Treatment Plant Intermediate Clarifier Wet Weather and Phosphorus Removal System Improvements (WB013500):** Williamsburg Treatment Plant (WBTP) is currently rated at 45 million gallons per day (MGD) peak hydraulic per original design documents. In 2016, as part of the Regional Wet Weather Management Plan evaluation work, Brown and Caldwell performed hydraulic modeling of WBTP which showed that the plant is capable of handling 55 MGD from a hydraulic standpoint. The problem with the 55 MGD condition is that process modeling demonstrated that an additional secondary clarifier would be needed to avoid significant solids washout during peak flow events. Recent very high peak flow events, which resulted from interceptor system upgrades, have demonstrated that the conclusion of the 2016 evaluation was indeed accurate. This project provides a cost-effective solution for better managing wet weather flows and secondary clarifier solids loading at WBTP and avoids the construction of an additional secondary clarifier or storage tanks in the interceptor system. The intermediate clarifier effluent contains nitrate/nitrite, has a low chemical oxygen demand, and is high in dissolved oxygen. These wastewater characteristics degrade the performance of biological phosphorus removal when returned to its current location upstream of aeration tank anaerobic zones. Returning intermediate clarifier effluent to the first anoxic zone of each aeration tank will bypass the anaerobic zones and improve biological phosphorus removal stability.

**Williamsburg Treatment Plant Influent Loading Reduction Improvements (WB013600):** Brewery load reductions are increasing in frequency, impacting nutrient removal. This study is needed to provide recommended process modifications along with costs for cost-effectively providing nutrient removal compliance in the event there is no or significantly decreased brewery load.

**Contract Description:** This contract is an agreement for study services for wet weather management and nutrient reduction improvements at the Williamsburg Treatment Plant.

**Funding Description and Analysis of Cost:** The estimated total project cost is \$12,324,900 for WB013500 and \$41,300,000 for WB013600 based on class 5 cost estimate completed by HRSD. The cost for this initial task order is based on time and materials, negotiated rates, and an estimate of time the consultant will need to perform the study (PER, Design and Construction phase services will be negotiated later). A fee of \$278,770 for WB013500 and a fee of \$676,160 for WB013600 was negotiated with Brown and Caldwell and represents approximately 2.8% and 2.6% of current estimated construction cost for each CIP. These costs are in line with projects of similar size and scope.

**Schedules:**

**CIP Project WB013500:**

Study	April 2024
PER	January 2025
Design	October 2025
Bid	May 2026
Construction	July 2026
Project Completion	September 2027

**CIP Project WB013600:**

Study	April 2024
PER	January 2025
Design	October 2025
Bid	February 2027
Construction	April 2027
Project Completion	May 2029

AGENDA ITEM 10. – March 26, 2024

**Subject:** New Business

AGENDA ITEM 11. – March 26, 2024

**Subject:** Unfinished Business



AGENDA ITEM 12. – March 26, 2024

**Subject:** Commissioner Comments

AGENDA ITEM 13. – March 26, 2024

**Subject:** Informational Items

**Recommended Action:** No action is required.

**Brief:** The following items listed below are presented for information.

- a. Management Reports
  - (1) [General Manager](#)
  - (2) [Communications](#)
  - (3) [Engineering](#)
  - (4) [Finance](#)
  - (5) [Information Technology](#)
  - (6) [Operations](#)
  - (7) [Talent Management](#)
  - (8) [Water Quality](#)
  - (9) [Report of Internal Audit Activities](#)
- b. [Strategic Metrics Summary](#)
- c. [Emergency Declaration - North Trunk Sewer Section D – Sinkhole from Collapsed Force Main](#)

March 13, 2024

Re: General Manager's Report



## Environmental Responsibility

There were multiple treatment and interceptor system events reported this month. Additional details are available in the Monthly Discharge Monitoring Report (DMR) Summary in the Water Quality (WQ) monthly report.

The Central Environmental Lab (CEL) completed its biennial state accreditation review. There were no findings or recommendations for improvement, which is unheard of. This highlights the excellent work by our dedicated, highly trained lab staff.

### Treatment Compliance and System Operations:

- From Fiscal Year (FY) 2024 to date, there have been four Permit Exceedances out of 37,685 Total Possible Exceedances.
- Pounds of Pollutants Removed in FY 2024 to date: 125.8 million pounds.

**Water Quality:** No civil penalties were issued in February.



## Financial Stewardship

Several budget meetings were held with department directors. Staff are finalizing their operating budget requests to ensure they align with our financial plan. The Commission will see presentations in March and April before the May budget approval vote.

The annual CIP review meeting was held on February 29. There are significant capital projects in the queue, and staff will have to prioritize projects based on available funding.

Staff worked with the Hampton Roads Planning District Commission (HRPDC) on a letter to our Senators in support of pending legislation to protect water utilities from a pending Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) ruling regarding PFAS. In short, the proposed legislation supports a "polluter pays model" (i.e. manufacturers of PFAS) so that our ratepayers are not footing the bill for any PFAS remediation that may be required in the future.

The Commission adopted the Updated 2022 Hampton Roads Hazard Mitigation Plan and HRSD Amendment at their January 23, 2024 meeting. HRSD's Amendment and Hazard Mitigation Plan has since been approved by FEMA and VDEM, allowing the Resolution to become effective. This is great news as HRSD is now eligible for multiple FEMA pre- and post-disaster mitigation grant

programs under HRSD's submitted Mitigation Action: Build proactive resilience for HRSD wastewater collection, conveyance, and treatment facilities to protect from flooding. Information from the recently completed Climate Change Study will be instrumental in applying for these grant opportunities.

The Operations Projects Team, our in-house small construction projects team, completed emergency pond cleaning saving over \$200,000 net compared to using a contractor.



## **Talent**

At the end of February, HRSD's staffing level ticked up to 95%. The IT Department has the lowest staffing level at 89% as IT recruitment remains a challenge. IT jobs remain in high demand. Fiscal Year to Date (FYD) turnover with retirements was 5.0% and, excluding retirements, was 3.2%, which is extremely low and highlights how we are able to attract and retain great people.

The Engineering Department held several activities outlined in their report in celebration of National Engineers Week.

I participated in the following meetings/activities with HRSD personnel:

1. Toured the Boat Harbor Transmission Force Main drilling platform
2. Had lunch with the new North Shore Chief of Electrical and Instrumentation
3. Worked with staff on the Microbial Source Tracking (MST) Program
4. Visited the Small Communities office in West Point to give them their Peak Performance award and answered questions about various topics
5. Held a quarterly meeting with Directors and Division Leaders



## **Community Engagement**

I presented to the Hampton Roads caucus on February 22 to lobby for \$400 million in the biennium budget. 78% or \$312 million is for HRSD's state-mandated Enhanced Nutrient Reduction Certainty Projects, which includes SWIFT. Without this funding, Hampton Roads ratepayers will have to cover the state's cost-share which has not happened since the program was created in 1997.

Staff assisted the Atlantic Surf Park Developer with technical issues they were having with their dewatering treatment system.

The Planning and Analysis Division began master planning for the Middle Peninsula. This will be important to ensure that HRSD can provide adequate capacity that aligns with the Localities' Comprehensive Plans.

Staff attended the Poquoson City Council meeting on February 12. There were several concerns and frustrations related to our work along Wythe Creek Road. The project is taking longer than

expected due to the limited hours our contractor is allowed to work. Since there are only two ways to get in and out of Poquoson, residents aired their frustrations about the project.

I participated in the following external meetings/activities:

1. Attended the monthly Director of Utilities meeting
2. Attended the quarterly NACWA board meeting
3. Attended the quarterly Potomac Aquifer Recharge Oversight Committee meeting (PAROC) virtually
4. Met with the City of Norfolk's Deputy City Manager on the latest update for our VIP projects and Lambert's Point property impacts



## Innovation

Testing continues on cybersecurity enhancements to our Operational Technology (OT) to ensure any threat vectors are blocked. As we venture into using more automation, artificial intelligence and machine learning, it is critical to ensure our system is protected.

Dave Matos, Heavy Equipment Operator, designed and fabricated a traffic cone dispenser/holder, which allows for easy access and reduces on the job injuries.

Staff are working with the IT department to develop web-based software to track new development submittals and efficiently manage the review process.

Staff have been working to pilot a new metal precipitant to remove zinc at the King William plant. If successful, we may be able to remove the Granular Activated Carbon from the process, saving operating costs and providing a single sample point for both the reuse and outfall flow.

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment.

**I look forward to seeing you in person in Virginia Beach at 9:00 a.m. on Tuesday, March 26, 2024.**

Respectfully submitted,

Jay Bernas, P.E.  
General Manager

TO: General Manager  
 FROM: Director of Communications  
 SUBJECT: Monthly Report for February 2024  
 DATE: March 7, 2024

A. Publicity and Promotion





1. HRSD and Sustainable Water Initiative For Tomorrow (SWIFT) were mentioned or featured in nine stories this month. Topics included:
  - a. Hampton Roads sewage infrastructure vulnerable to flooding
  - b. HRSD SWIFT initiative expanding to James River Treatment Plant (JRTP)
  - c. Former Lambert’s Point Golf Course will remain publicly accessible
2. Analysis of Media Coverage
  - a. Key results for February



b. Top performing news content





Top Article by Reach



 **Yahoo! News** · Brian Reese  
 Editorial | US | Feb 29 · 11:10 AM  
**Norfolk's former Lambert's Point Golf Course won't see private redevelopment, city says**  
 ... former golf course was taken over last January by the **Hampton Roads Sanitation District** for a new sustainable water initiative , though ...  
 Social Echo  0  0  0  
 60.8M Reach Neutral ○

Top Article by Reach and Volume



 **Yahoo! Finance** · PR Newswire  
 Editorial | US | Feb 6 · 10:15 AM  
**Meridian Integration Selected to Implement the IDEA Digital Customer Engagement Platform for Hampton Roads Sanitation District**  
 ... / -- After a rigorous planning and RFP process, **Hampton Roads Sanitation District** (HRSD) has selected Meridian Integration to implement ...  
 Social Echo  0  0  0  
 48.5M Reach Positive ○

Top Article by Social Echo



 **The Virginian-Pilot** · Ian Munro  
 Editorial | US | Feb 27 · 4:23 PM  
**Former Lamberts Point Golf Course will remain publicly accessible land, Norfolk city officials say**  
 ... -hole Lamberts Point Golf Course, which was closed in 2022. **Hampton Roads Sanitation District** bought an adjacent 40 acre-parcel of land ...  
 Social Echo  5  9  20  
 907K Reach Neutral ○

### c. Top entities and keywords

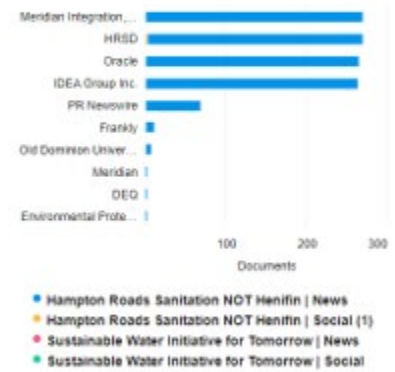
Top Entities



Top Keywords

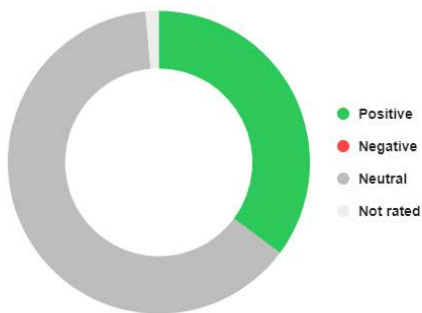


Top Organizations

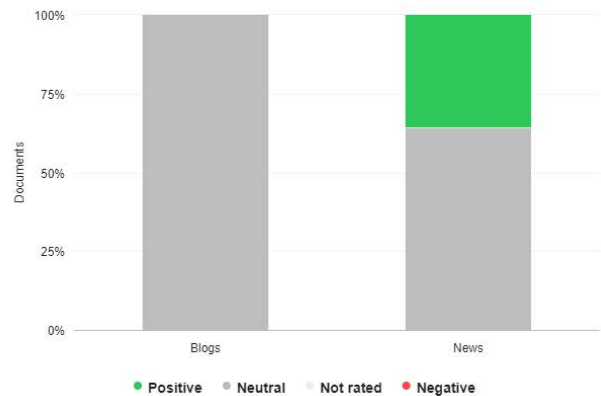


### d. How favorable is the content?

Sentiment Share of Voice

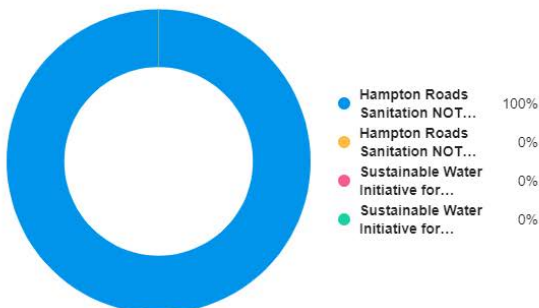


Sentiment by Source Type



### e. What is the potential reach?

Share of Voice by Reach

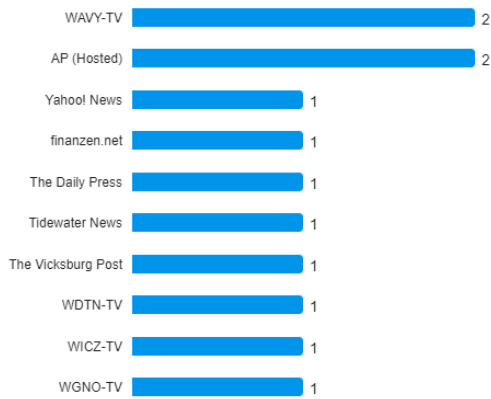


Potential News Reach

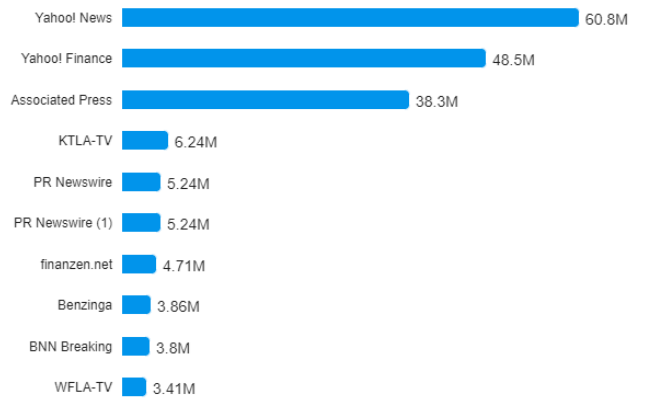


## f. Top publishers

Top Publications by Volume



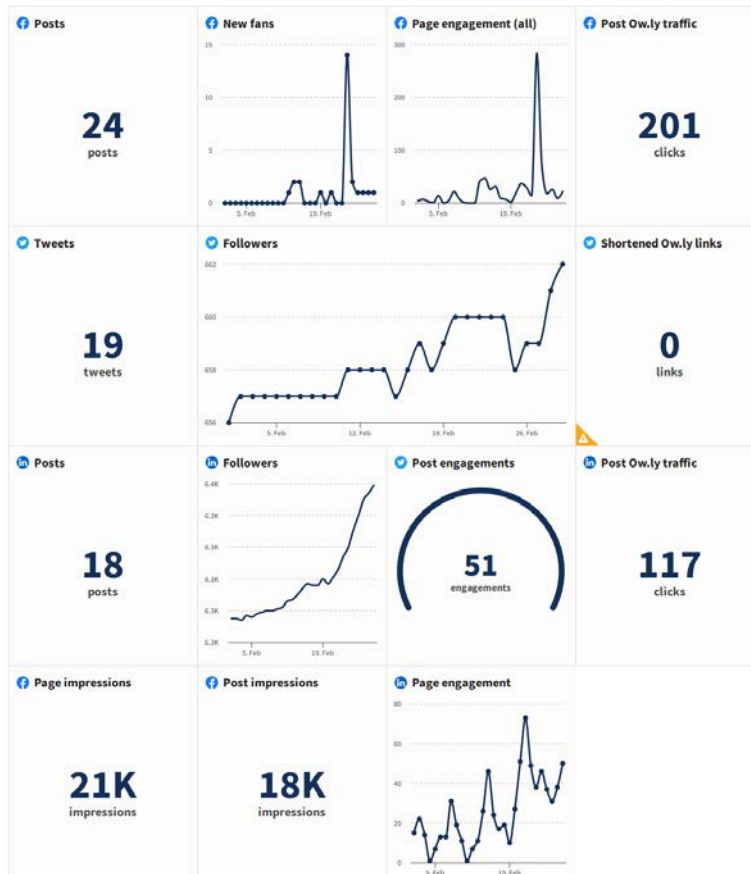
Top Publications by Reach



## Community Engagement

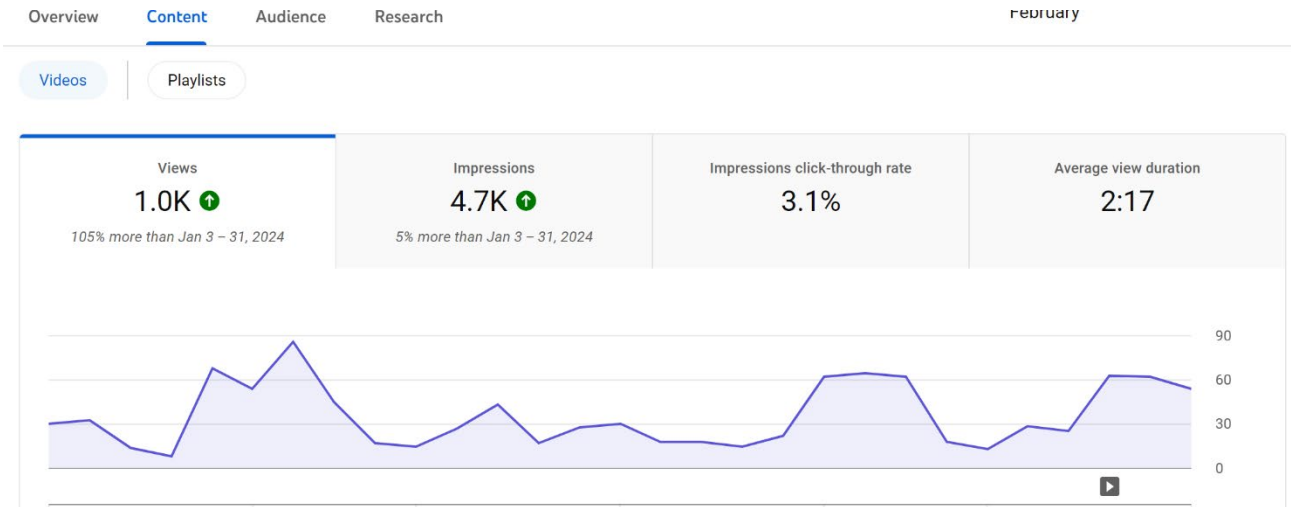
### B. Social Media and Online Engagement

#### 1. Metrics – Facebook, X and LinkedIn



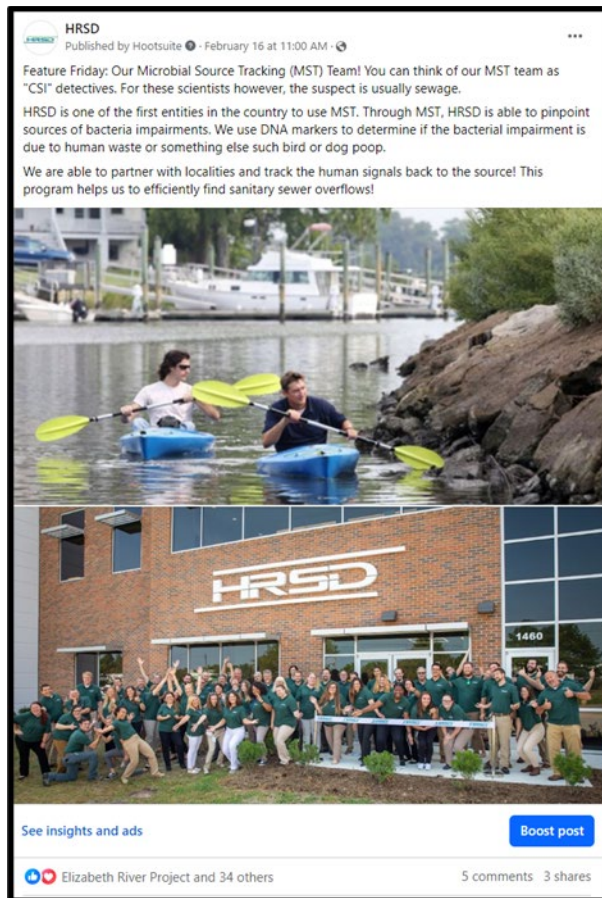


## 2. YouTube



## 3. Top posts on Facebook, Twitter, and YouTube

### a. Top Facebook post



b. Top Tweet



c. Top YouTube Videos

- (1) [The Wastewater Treatment Process](#) (523 views)
- (2) [SWIFT Research Center: What Is the Potomac Aquifer](#) (143 views)
- (3) [Why SWIFT Matters](#) (66 views)
- (4) [HRSD SWIFT Industry Day 2024](#) (51 views)
- (5) [HRSD Employee Testimonial- Robert](#) (30 views)

4. Website and Social Media Impressions and Visits

a. Facebook:

- (1) 21,134 page impressions
- (2) 17,691 post impressions reaching 16,837 users
- (3) Facebook Engagement of 757 (650 reactions, 55 shares, and 52 comments)

b. X: 1,198 post impressions, 6.6% engagement rate

c. HRSD.com/SWIFTVA.com: 1,253 page visits

- d. LinkedIn Impressions:
  - (1) 22,348 page impressions
  - (2) 23,045 post impressions
- e. YouTube: 1,041 views
- f. Next Door unique impressions: 37,991 post impressions from 31 targeted neighborhood postings and one regionally shared post with 674,512 total residents
- g. Blog Posts (2):
  - (1) 02/01/2024 - [Celebrating World Wetlands Day](#)
  - (2) 02/29/2024 - [Protecting the James River Treatment Plant: Strengthening Shorelines and Enhancing Community Access to Parks](#)
- h. Construction Project Page Visits – 2,048 total visits (not including direct visits from home page, broken down as follows):
  - (1) 1,797 visits to individual pages
  - (2) 251 to the status page

C. Education and Outreach Activity Highlights

Communications and engineering staff coordinated with the City of Chesapeake to provide an educational video detailing the work taking place at Shell Road and Hopewell Drive, which the City posted to its [YouTube](#) channel and HRSD further amplified by sharing it on NextDoor to the surrounding communities.

Project notices were distributed to 984 customers for 19 different projects across the service area this month. The department distributed and posted 20 construction or work notices and one traffic advisory to the HRSD.com Newsroom.

There were two SWIFT Research Center tours given by the Communications department and nine school and/or environmental and educational activities provided, reaching approximately 550 people.

D. Internal Communications

Director participated in the following internal meetings and events:

1. Compensation Study training session
2. Compensation study meetings about salary structure and review of job descriptions
3. SWIFT Community Commitment Plan steering committee meeting

4. Security Team meetings
5. Website redesign meeting
6. CrowdStrike tabletop training exercise with Information Technology Department (ITD)
7. Annual Capital Improvement Project (CIP) Review meeting
8. Bi-weekly General Manager (GM) briefings
9. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and HRSD QST meetings
10. Check-in meetings with Deputy General Manager (DGM)
11. Director also conducted biweekly Communications department status meetings and weekly one-on-one check-in meetings.
12. Staff participated in 39 project progress and/or construction meetings and communication planning meetings with various project managers and plant staff.



## **Talent**

The Communications department is currently fully staffed. Professional development activities for February include:

- Tabletop exercise with ITD conducted by CrowdStrike (Director and staff)
- Water Environment Federation/American Water Works Association Young Professional Summit
- Public Relations ethics training (via webinar)

Respectfully,

*Leila Rice, APR*

Director of Communications

TO: General Manager  
FROM: Director of Engineering  
SUBJECT: Engineering Monthly Report for February 2024  
DATE: March 14, 2024



### Environmental Responsibility

At each treatment plant, an outfall pipeline conveys treated flow to various water bodies in the region. At the end of each outfall pipe a diffuser is used to distribute this flow back into the local waterbody. The outfall pipe is typically buried below the mudline while the diffuser is exposed above the mudline to allow the treated water back into the environment. The diffusers have the potential to be damaged, buried or impacted by shellfish. Occasional underwater inspections are conducted on these diffuser structures to assess their condition and make any needed repairs. This year we have hired a local underwater diving firm to conduct inspections at the Atlantic, James River, Williamsburg, and York River treatment plant outfall diffusers. Work has been completed at the James River and Williamsburg treatment plant outfall diffusers and work at the remaining sites will occur over the next few months. Results at the inspected outfall diffusers have revealed some minor deficiencies that will be addressed in the near future.

Corrosion of buried pipelines is common in the Hampton Roads Region due to the impacts of soils, groundwater, and/or stray electrical currents from adjacent infrastructure. To mitigate against the potential for external corrosion, HRSD has installed cathodic protection systems in certain high-risk areas. One type of cathodic protection control is the use of sacrificial anodes. These anodes allow for protection by the deterioration of the anode in lieu of the buried pipe. There are three projects now underway to replace anodes that have reached the end of their useful life. This work is required as part of the Consent Decree's Rehabilitation Plan - Phase 2 to reduce sanitary sewer overflows in the region. Design-related work will begin in March with construction efforts to begin later this year.



### Financial Stewardship

Capital Improvement Program (CIP) spending for the seventh month of FY 2024 was below the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	40.35	323.86
Plan	50.60	333.50

A small, but important way to manage costs for large organizations like HRSD is to control the inventory of spare parts. Managing this inventory allows for the sharing of these resources in the most economical way possible. HRSD has a robust system of inventory control which is managed through

the Asset Management System. This inventory system includes spare parts for equipment located throughout the HRSD Service Area except for the Small Communities. A new initiative is now in place to inventory the spare parts for the Small Communities Division. This effort will focus on organization of the storage space, labeling parts and entering this data into the Asset Management System. This effort will allow individuals at various work centers to better manage this inventory and order new spare parts when inventory levels are low.



## Talent

The Engineering Department will be participating in the Old Dominion University (ODU) 2024 Spring Career & Internship Fair planned for March 19. Based on current staffing needs, we are proactively engaging with groups like this to look for future talent. HRSD has benefitted from our relationship with ODU, and we have found many talented employees and interns over the years. We will continue to build relationships with ODU and other local colleges to find the talent we need to meet our mission.

Recruitment remains a challenge, and finding qualified candidates is a significant time commitment. The Engineering Department has had two open positions due to a pending retirement and promotion. We are in the process of recruiting candidates for one of the open positions and hope to complete the recruitment in April. The Engineering Department is excited to add Mr. Donald Jennings as a North Shore Design & Construction Division Project Manager. Don brings a wealth of experience and will add great value as we continue to implement the ever-growing CIP.



## Community Engagement

The Engineering Department coordinated several activities for National Engineers Week held from February 19-23, 2024. This year's theme was "Welcome to the Future." Activities conducted by HRSD staff included:

- Project Spotlight – We highlighted a series of complex projects during the week using HRSD's social media platforms. The goal was to highlight the complexity of the work and the importance of engineers to the successful outcomes of these efforts.
- School Outreach – Staff from HRSD met with students from schools throughout the region to discuss the role of Engineer's and compete in a fun and educational project. We met with four schools and interacted with over 100 students as part of the outreach effort.

The Planning & Analysis Division has begun to prepare a Sewer Master Plan for the Middle Peninsula. This significant effort will help guide future infrastructure investments and determine when these new facilities will be needed. We will be working closely with the communities on the Middle Peninsula to estimate future growth in this region. A consultant, HDR Engineering, is assisting with this effort and we hope to have this study completed by the end of the year.



## Innovation

Staff continue their involvement in a Water Research Foundation (WRF) project to address best practices associated with One Water Program Management (WRF-5196). HRSD's SWIFT Program is an excellent example of how to effectively deliver a large and complex One Water Program. HRSD's

lessons learned will be shared with other utilities participating in the study. This project is being administered using a workshop format to facilitate input from numerous stakeholders.

Staff are working with HRSD's IT Department to develop a web-based software program to manage Development Services submittals from the public. The effort to coordinate the various requests from numerous requestors is an expanding responsibility. This new program will allow external users to make requests to HRSD and allow the request to be tracked. Requests can take many forms, including information related to HRSD's existing infrastructure, future connections to the existing sewer system and general information requests associated with growth and development. This program is in beta-testing and a public facing roll-out is planned for later this year.

*Bruce W. Husselbee*

Bruce W. Husselbee, PhD, P.E., BCEE, DBIA

TO: General Manager  
FROM: Director of Finance  
SUBJECT: Monthly Report for February 2024  
DATE: March 14, 2024



## Financial Stewardship

Staff worked with departments on their 2025 fiscal year budget requests. Staff also met with the Finance Committee February 27, to discuss preliminary results of the Compensation Study and the potential impact on the proposed budget.

The Interim Financial Report indicates that most revenue and expense accounts are generally in line with the amended budget. Water consumption, which drives the largest and most significant revenue source for HRSD, is running slightly ahead of budgetary expectations.

The first Water Quality Improvement Fund (WQIF) Conveyance grant was approved by the Commission in February in the amount of \$4.9 million. The grant agreement will now move through the signing process in Department of Environmental Quality (DEQ) and should be available to apply toward our outstanding principal on the clean water loan in March.

Accounts Receivable over 30 days past due remained steady during February 2024, with no significant increases or decreases. The Low-Income Household Water Assistance Program (LIHWAP) ended in December 2023, and as expected, past due accounts receivable has been slightly increasing, particularly accounts over 90 days past due.

Field staff delivered 3,445 warning door tags and disconnected water service to 2,568 accounts during February 2024.

Customer call and email volumes increased in February, ranging from 3,000 to 3,900 per week. In spite of the increased calls, average service levels increased to 66% from 63% of calls answered within three minutes. There continues to be increased calls due to billing delays in a partner locality.



A. Interim Financial Report

1. Operating Budget for the Period Ended February 29, 2024.

	Amended Budget	Current YTD	Current YTD as % of Budget (67% Budget to Date)	Prior YTD as % of Prior Year Budget
<b>Operating Revenues</b>				
Wastewater	\$ 405,832,000	\$ 277,996,265	69%	68%
Surcharge	1,600,000	973,885	61%	60%
Indirect Discharge	4,400,000	2,992,716	68%	91%
Fees	2,894,000	2,497,499	86%	78%
Municipal Assistance	800,000	799,502	100%	53%
Miscellaneous	1,295,000	1,343,331	104%	53%
<b>Total Operating Revenue</b>	<b>416,821,000</b>	<b>286,603,198</b>	<b>69%</b>	<b>69%</b>
<b>Non Operating Revenues</b>				
Facility Charge	6,095,000	4,541,815	75%	64%
Interest Income	3,000,000	8,987,412	300%	178%
Build America Bond Subsidy	1,954,000	995,531	51%	51%
Other	620,000	273,112	44%	153%
<b>Total Non Operating Revenue</b>	<b>11,669,000</b>	<b>14,797,870</b>	<b>127%</b>	<b>80%</b>
<b>Total Revenues</b>	<b>428,490,000</b>	<b>301,401,068</b>	<b>70%</b>	<b>69%</b>
Transfers from Reserves	17,120,789	11,413,859	67%	67%
<b>Total Revenues and Transfers</b>	<b>\$ 445,610,789</b>	<b>\$ 312,814,927</b>	<b>70%</b>	<b>69%</b>
<b>Operating Expenses</b>				
Personal Services	\$ 70,450,193	\$ 45,981,991	65%	68%
Fringe Benefits	28,487,963	18,412,135	65%	59%
Materials & Supplies	16,073,465	8,682,786	54%	56%
Transportation	2,003,573	1,078,097	54%	55%
Utilities	16,843,498	11,354,139	67%	70%
Chemical Purchases	17,688,997	10,197,893	58%	60%
Contractual Services	53,541,285	24,721,514	46%	45%
Major Repairs	13,696,912	4,207,430	31%	45%
Capital Assets	1,258,970	286,440	23%	21%
Miscellaneous Expense	3,938,563	1,950,101	50%	53%
<b>Total Operating Expenses</b>	<b>223,983,419</b>	<b>126,872,526</b>	<b>57%</b>	<b>58%</b>
<b>Debt Service and Transfers</b>				
Debt Service	76,150,000	56,433,394	74%	73%
Transfer to CIP	145,217,370	96,811,580	67%	67%
Transfer to Risk management	260,000	173,336	67%	67%
<b>Total Debt Service and Transfers</b>	<b>221,627,370</b>	<b>153,418,310</b>	<b>69%</b>	<b>69%</b>
<b>Total Expenses and Transfers</b>	<b>\$ 445,610,789</b>	<b>\$ 280,290,836</b>	<b>63%</b>	<b>63%</b>

## 2. Notes to Interim Financial Report

The Interim Financial Report summarizes the results of HRSD's operations on a basis of accounting that differs from generally accepted accounting principles. Revenues are recorded on an accrual basis, whereby they are recognized when billed, and expenses are generally recorded on a cash basis. No provision is made for non-cash items such as depreciation and bad debt expense.

This interim report does not reflect financial activity for capital projects contained in HRSD's Capital Improvement Project (CIP).

Transfers represent certain budgetary policy designations as follows:

- a. Transfer to CIP: represents current period's cash and investments that are designated to partially fund HRSD's capital improvement program.
- b. Transfers to Reserves: represents the current period's cash and investments that have been set aside to meet HRSD's cash and investments policy objectives.

## 3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended February 29, 2024.

### HRSD - RESERVE AND CAPITAL ACTIVITY

February 29, 2024

	General Reserve				Capital		
	General	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds	
	Unrestricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted	
<b>Beginning - July 1, 2023</b>	\$ 203,718,301	\$ 4,406	\$ 33,830,226	\$ 4,539,551	\$ 3,115,384	\$ -	
<b>Current Year Sources of Funds</b>							
<b>Current Receipts</b>	304,251,006						
Line of Credit						31,420,145	
VRA Draws						46,731,376	
WIFIA Draws						226,646,436	
Transfers In				173,336	96,811,580		
<b>Sources of Funds</b>	304,251,006	-	-	173,336	96,811,580	304,797,957	
<b>Total Funds Available</b>	\$ 507,969,307	\$ 4,406	\$ 33,830,226	\$ 4,712,887	\$ 99,926,964	\$ 304,797,957	
<b>Current Year Uses of Funds</b>							
Cash Disbursements	187,317,589				46,108,896	304,797,957	
CARES Transfer Out		4,406					
Transfers Out	96,984,916						
<b>Uses of Funds</b>	284,302,505	4,406	-	-	46,108,896	304,797,957	
<b>End of Period - October 31, 2023</b>	\$ 223,666,802	\$ -	\$ 33,830,226	\$ 4,712,887	\$ 53,818,068	\$ -	
Unrestricted Funds	\$ 282,197,757						

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended February 29, 2024.

**HRSD - PROJECT ANALYSIS** February 29, 2024

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2023	Expenditures Year to Date FY2024	Total Project Expenditures	Encumbrances	Available Funds
Administration	\$ 71,284,950	\$ 25,407,455	\$ 4,101,872	\$ 29,509,327	\$ 4,806,155	\$ 36,969,468
Army Base	167,458,058	125,866,880	247,349	126,114,229	550,606	40,793,223
Atlantic	238,176,729	81,665,064	6,658,278	88,323,342	17,466,387	132,387,000
Boat Harbor	508,039,124	75,596,057	79,875,514	155,471,571	273,850,335	78,717,218
Ches-Eliz	87,134,516	34,995,850	370,791	35,366,641	1,589,046	50,178,829
Eastern Shore	63,122,892	26,927,768	11,164,398	38,092,166	6,130,309	18,900,417
James River	374,714,824	104,382,910	60,015,013	164,397,923	171,545,590	38,771,311
Middle Peninsula	98,206,116	23,493,172	4,811,040	28,304,212	7,170,182	62,731,722
Nansemond	482,462,276	83,702,138	71,938,794	155,640,932	251,909,222	74,912,122
Surry	60,391,465	41,079,533	2,729,497	43,809,030	8,584,657	7,997,778
VIP	236,420,362	34,150,127	19,674,068	53,824,195	52,040,205	130,555,962
Williamsburg	69,707,119	21,441,839	262,305	21,704,144	5,396,568	42,606,407
York River	117,618,863	21,027,494	16,718,426	37,745,920	49,224,115	30,648,828
General	1,189,476,680	201,364,418	93,384,080	294,748,498	241,148,684	653,579,498
	<b>\$ 3,764,213,974</b>	<b>\$ 901,100,705</b>	<b>\$ 371,951,425</b>	<b>\$ 1,273,052,130</b>	<b>\$ 1,091,412,061</b>	<b>\$ 1,399,749,783</b>

5. Active Capital Grants

Active Capital Grants Activities						
Grant Name	Funder	Project	CIP#	Application Submitted	Amount Requested	HRSD Award Amount
American Rescue Plan Act	VDEQ	Eastern Shore Infrastructure Improvements - Transmission Force Main Phase II (Accomac Sewer Collection System)	ES010200	11/28/2022	\$ 8,367,000	\$ 4,183,500
American Rescue Plan Act	VDEQ	James River Treatment Plant Advanced Nutrient Reduction Improvements	JR013400	10/7/2022	\$ 50,000,000	\$ 36,124,859
American Rescue Plan Act	VDEQ	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II	NP013820	10/7/2022	\$ 50,000,000	\$ 31,693,207
FY2024 Congressionally Directed Funding Warner-Kaine	CDF FY24	Eastern Shore Wastewater Improvements	ES010100	3/9/2023	\$ 9,677,112	\$ -
Water Quality Improvement Fund, Conveyance	VDEQ	Chesapeake-Elizabeth Treatment Plant Conveyance	Multiple	2/7/2023	\$ 100,647,746	\$ -
Water Quality Improvement Fund, Conveyance	VDEQ	Eastern Shore TFM Phase 1	ES010100	5/2/2022	\$ 4,900,000	\$ -
Water Quality Improvement Fund, Nutrient Reduction	VDEQ	James River SWIFT - Advanced Nutrient Reduction Improvements	JR013400	3/23/2023	\$ 344,741,547	\$ -
					<b>\$ 568,333,405</b>	<b>\$ 72,001,566</b>

## 6. Debt Management Overview

### HRSD - Debt Outstanding (\$000's) February 29, 2024

	Principal Jan 2024	Principal Payments	Principal Draws	Principal Feb 2024	Interest Payments
<b>Fixed Rate</b>					
Senior	\$ 146,861.00	\$ -	\$ -	\$ 146,861.00	\$ -
Subordinate	980,118	(3,939)	31,823	1,008,002	(4,082)
<b>Variable Rate</b>					
Subordinate	50,000	-	-	50,000	(121)
<b>Line of Credit</b>	100,000			100,000	(371)
<b>Total</b>	<b>\$ 1,276,979</b>	<b>\$ (3,939)</b>	<b>\$ 31,823</b>	<b>\$ 1,304,863</b>	<b>\$ (4,574)</b>

### HRSD- Series 2016VR Bond Analysis March 1, 2024

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	1.12%	0.80%	-0.32%
Minimum	0.01%	0.01%	0.00%
As of 3/01/24	3.30%	3.15%	-0.15%

\* Since October 20, 2011 HRSD has averaged 80 basis points on Variable Rate Debt

### Subsidised Debt Activity

Source	Funder	Loan Amount	Current Drawn Total	% Remain	Initial Draw Date - Projected
WIFIA Tranche 1	EPA	\$ 225,865,648	\$ 179,373,649	21%	Ongoing
WIFIA Tranche 2	EPA	\$ 476,581,587	\$ 158,511,192	67%	Ongoing
WIFIA Tranche 3	EPA	\$ 346,069,223	\$ -	100%	July 2025
Clean Water Program 2022	DEQ	\$ 100,000,000	\$ 85,257,862	15%	Ongoing
Clean Water Program 2024	DEQ	\$ 80,000,000	\$ -	100%	March 2024

## 7. Financial Performance Metrics for the Period Ended February 29, 2024.

### HRSD - UNRESTRICTED CASH

Can be used for any purpose since it is not earmarked for a specific use and is extremely liquid

		Days Cash on Hand	Adjusted Days Cash on Hand
<b>Total Unrestricted Cash</b>	<b>\$ 282,197,757</b>		<b>460</b>
Risk Management Reserve	\$ (4,712,887)	(8)	452
Capital (PAYGO only)	\$ (53,818,068)	(88)	364
<b>Adjusted Days Cash on Hand</b>	<b>\$ 223,666,802</b>		<b>364</b>

Risk Management Reserve as a % of Projected Claims Cost is 25% YTD compared to 25% Policy Minimum

Adjusted Days Cash on Hand Policy Minimum is 270-365 days.

### HRSD - SOURCES OF FUNDS

February 29, 2024

Primary Source	Beginning	YTD	YTD	YTD	Ending	Allocation of	Credit Quality	Current
	Market Value				Market Value			
	July 1, 2023	Contributions	Withdrawals	Income Earned	February 29, 2024	Funds		
BOA Corp Disbursement Account	30,761,730	615,717,314	590,963,249	726,896	56,242,691	24.3%	N/A	0.55%
VIP Stable NAV Liquidity Pool	129,511,237	60,000,000	20,000,000	6,061,925	175,573,162	75.7%	AAAm	5.51%
<b>Total Primary Source</b>	<b>\$ 160,272,967</b>	<b>\$ 675,717,314</b>	<b>\$ 610,963,249</b>	<b>\$ 6,788,821</b>	<b>\$ 231,815,853</b>	<b>100.0%</b>		

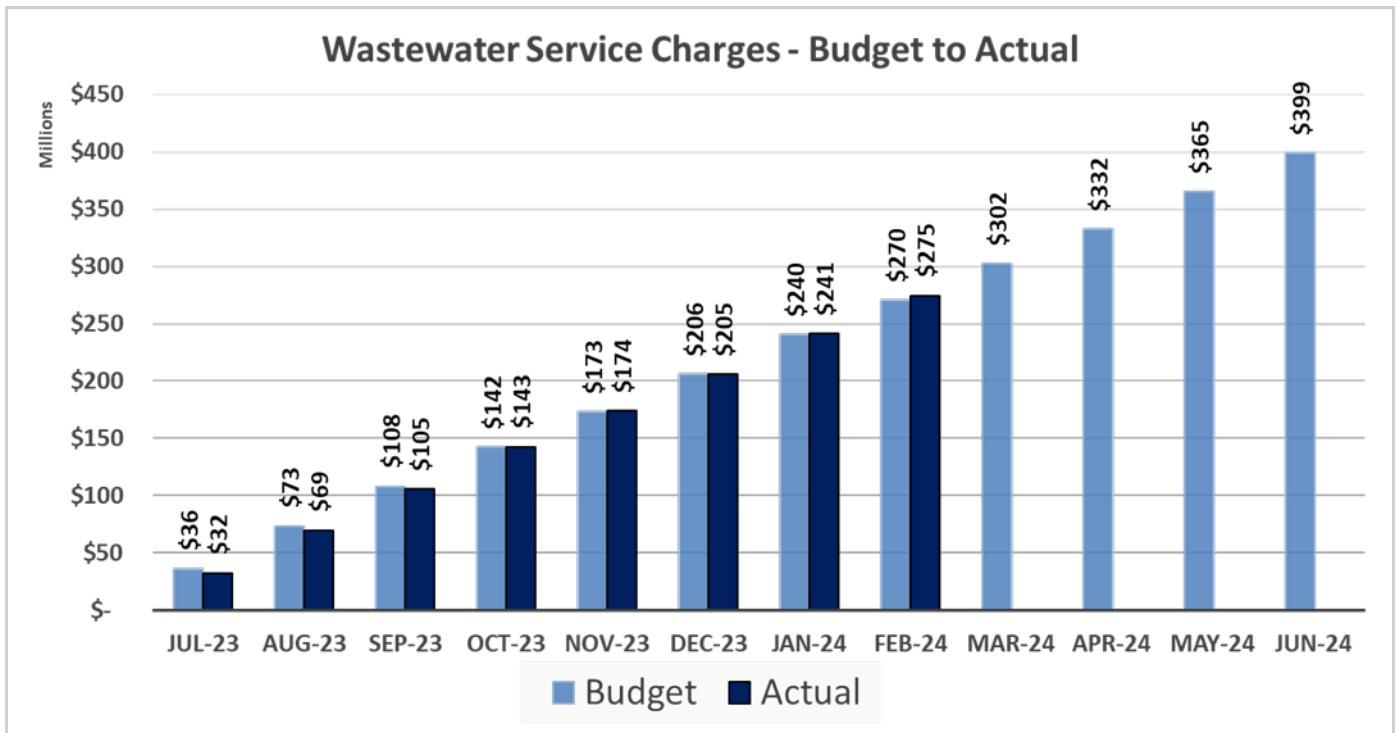
VIP Stable NAV Liquidity Pool performed 0.02% above Va Local Government Investment Pool's (the market benchmark) in the month of February 2024.

Secondary Source	Beginning	YTD	YTD	YTD	Ending	Ending Cost	LTD	Yield to
	Market Value				Market Value			
	July 1, 2023	Contributions	Withdrawals	& Realized G/L	February 29, 2024		Mkt Adj	at Market
VIP 1-3 Year High Quality Bond Fund	63,074,075	-	8,568	1,518,004	65,097,211	66,398,276	(1,301,065)	
<b>Total Secondary Source</b>	<b>\$ 63,074,075</b>	<b>\$ -</b>	<b>\$ 8,568</b>	<b>\$ 1,518,004</b>	<b>\$ 65,097,211</b>	<b>\$ 66,398,276</b>	<b>\$ (1,301,065)</b>	

VIP 1-3 Year High Quality Bond Fund performed 0.01% below ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) in February 2024.

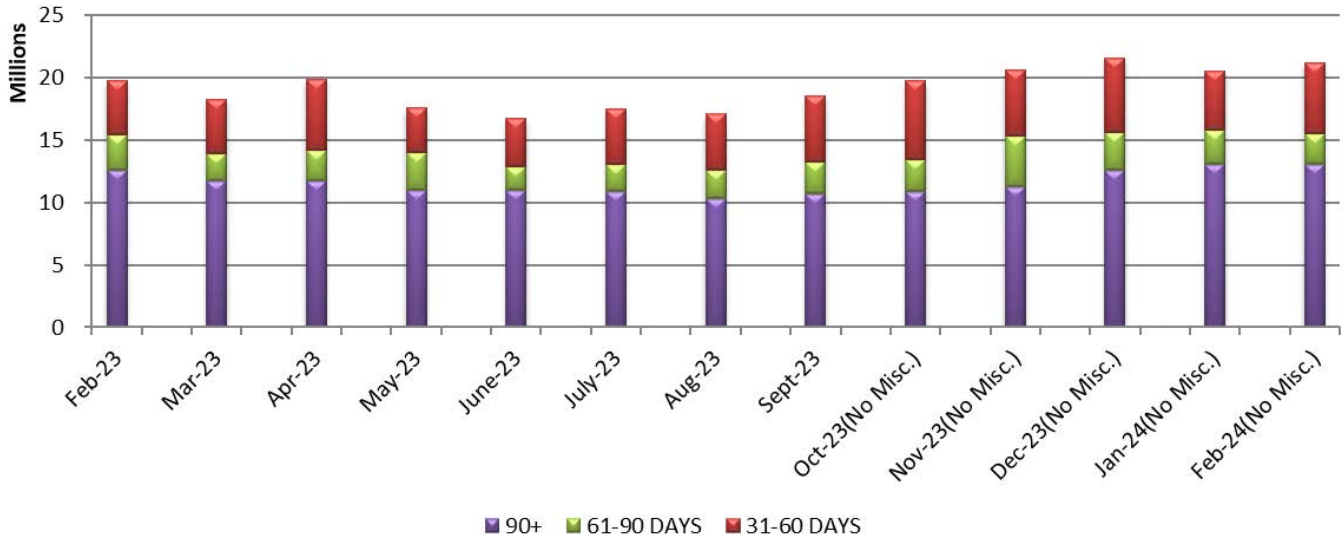
	Total	Fund Alloc
Total Primary Source	\$ 231,815,853	78.1%
Total Secondary Source	\$ 65,097,211	21.9%
<b>TOTAL SOURCES</b>	<b>\$ 296,913,064</b>	<b>100.0%</b>

8. Summary of Billed Consumption



Month	FY2024 Cumulative Budget Estimate	FY2024 Cumulative Actual	% Difference		% Difference		% Difference	
			From Budget	Cumulative FY2023 Actual	From FY2023	Cumulative 3 Year Average	From 3 Year Average	
July	4,678	4,504	-3.7%	4,682	-3.8%	4,803	-6.2%	
Aug	9,644	9,432	-2.2%	9,652	-2.3%	9,543	-1.2%	
Sept	14,196	13,965	-1.6%	14,208	-1.7%	14,297	-2.3%	
Oct	18,663	18,854	1.0%	18,680	0.9%	18,863	0.0%	
Nov	22,756	23,004	1.1%	22,777	1.0%	22,307	3.1%	
Dec	27,109	27,127	0.1%	27,133	0.0%	27,430	-1.1%	
Jan	31,641	31,819	0.6%	31,669	0.5%	32,004	-0.6%	
Feb	35,568	36,182	1.7%	35,601	1.6%	35,952	0.6%	
March	39,770	-	N/A	39,807	N/A	40,351	N/A	
Apr	43,694	-	N/A	43,735	N/A	44,473	N/A	
May	48,027	-	N/A	48,072	N/A	48,548	N/A	
June	52,500	-	N/A	52,549	N/A	53,329	N/A	

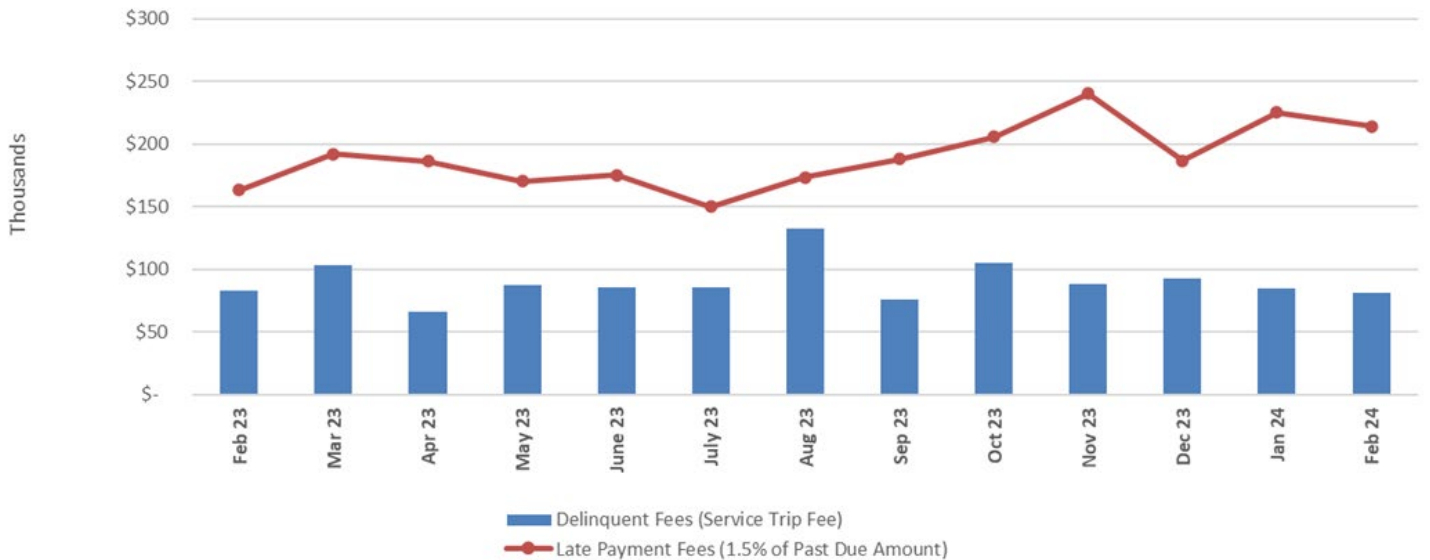
## HRSD Accounts Receivable Aging +30 Days



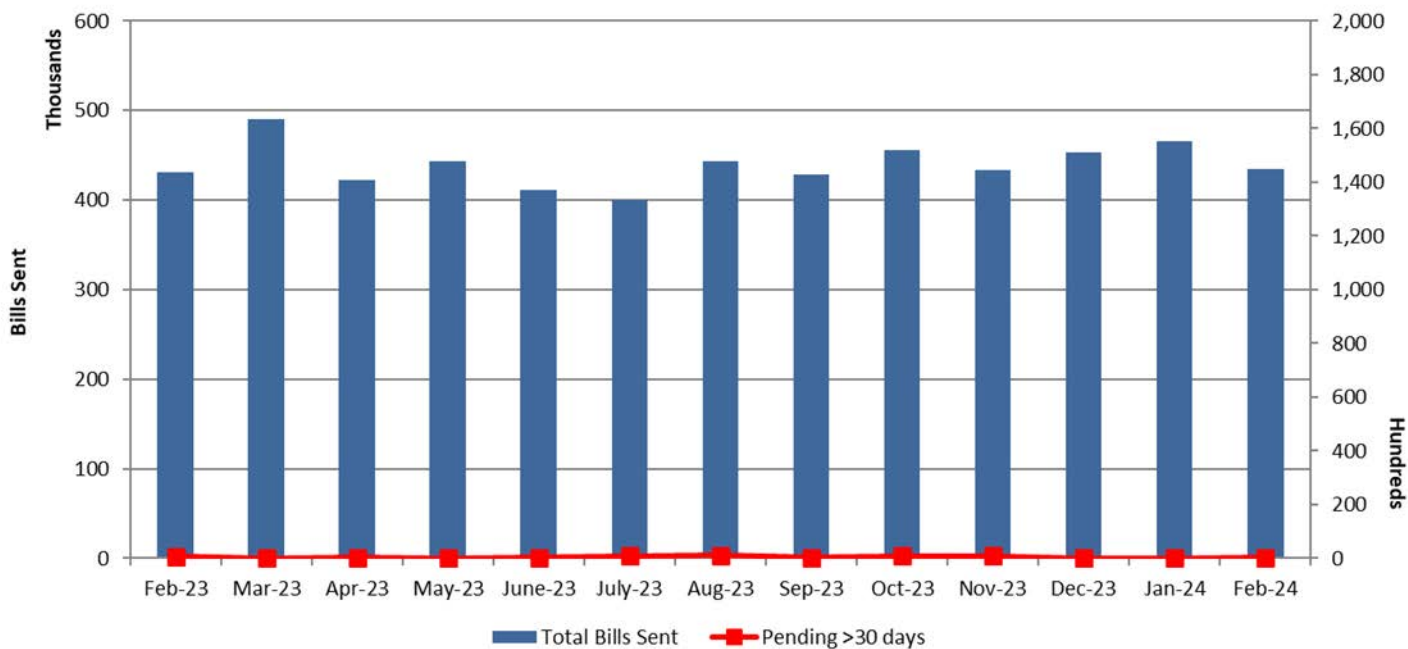
### B. Customer Care Center

#### 1. Accounts Receivable Overview

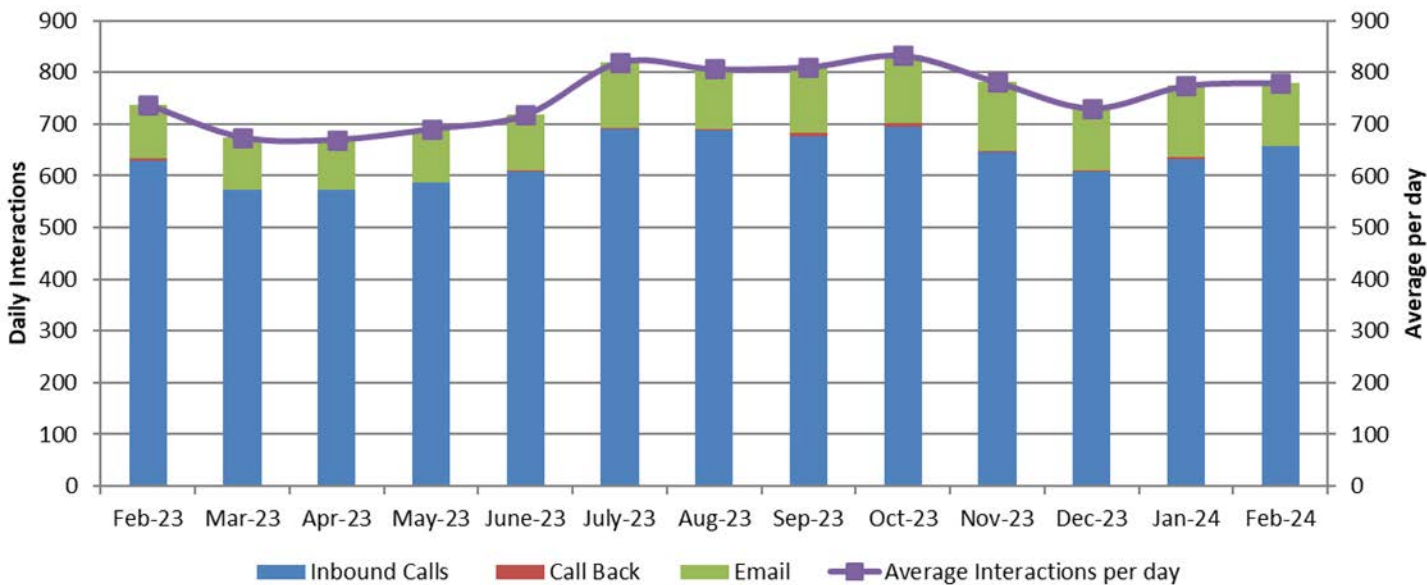
### Delinquent & Late Payment Fees



### Billing Summary

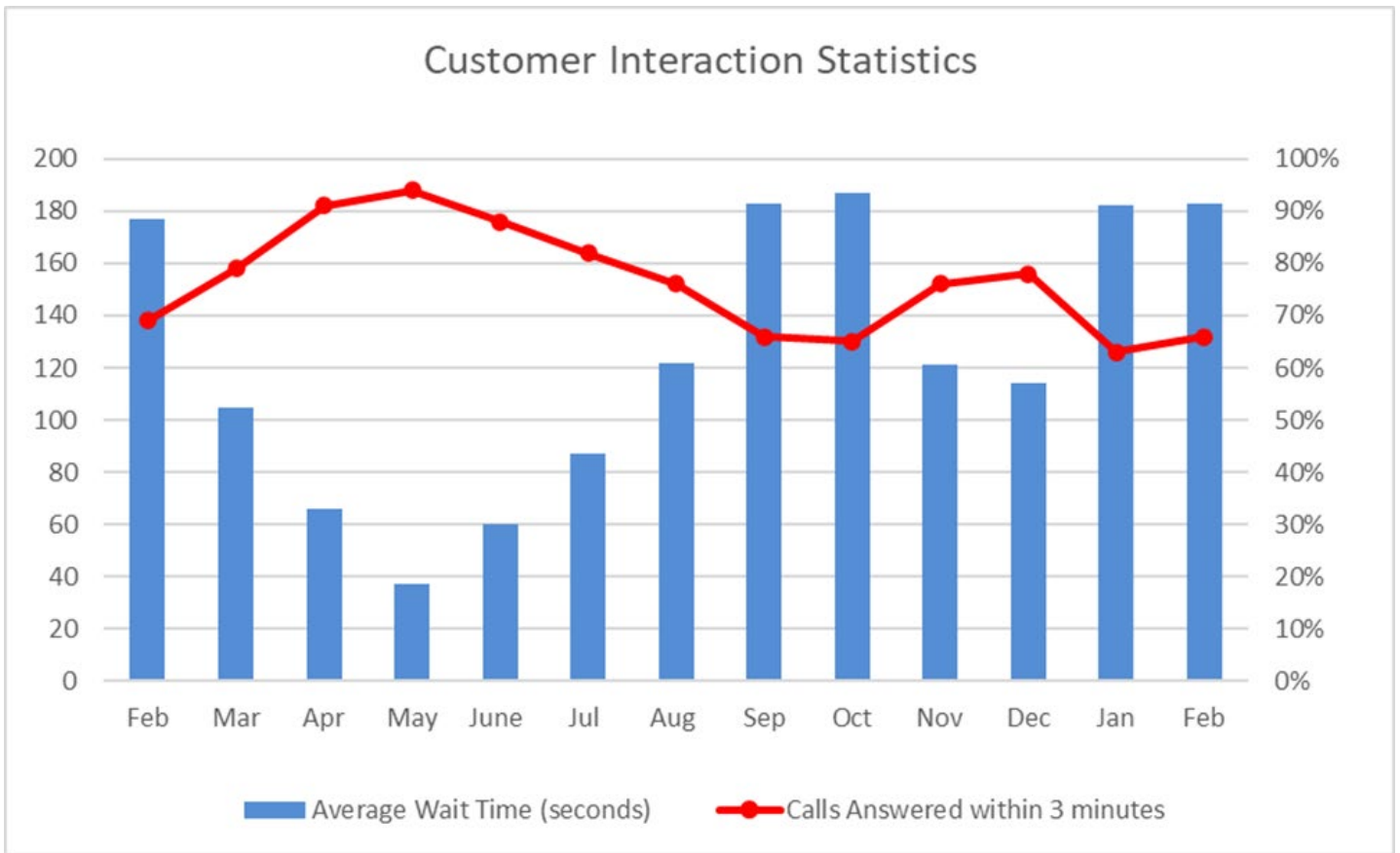


### Call Center Interactions (per day)



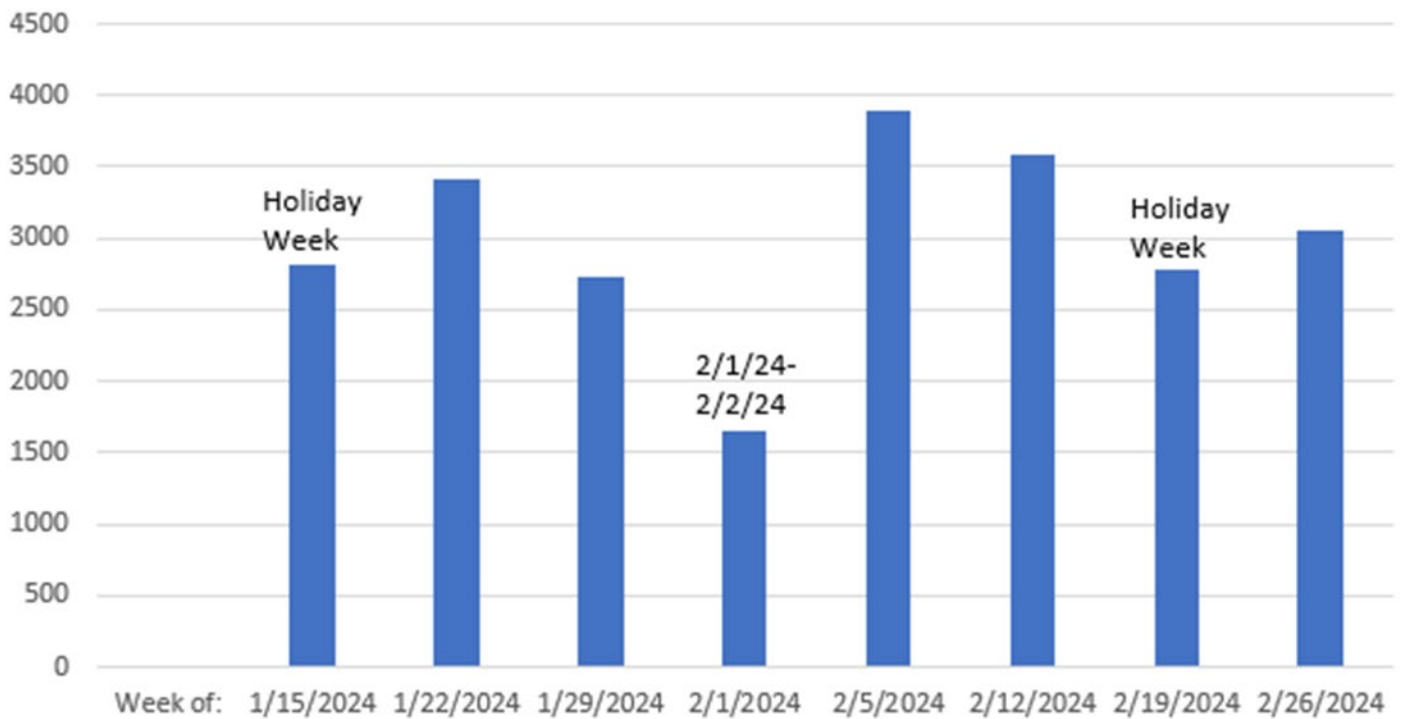


## 2. Customer Care Center Statistics



Customer Interaction Statistics	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Calls Answered within 3 minutes	69%	79%	91%	94%	88%	82%	76%	66%	65%	76%	78%	63%	66%
Average Wait Time (seconds)	177	105	66	37	60	87	122	183	187	121	114	182	183
Calls Abandoned	11%	7%	5%	4%	5%	7%	8%	11%	12%	10%	9%	13%	12%

## Total Calls Received by Week



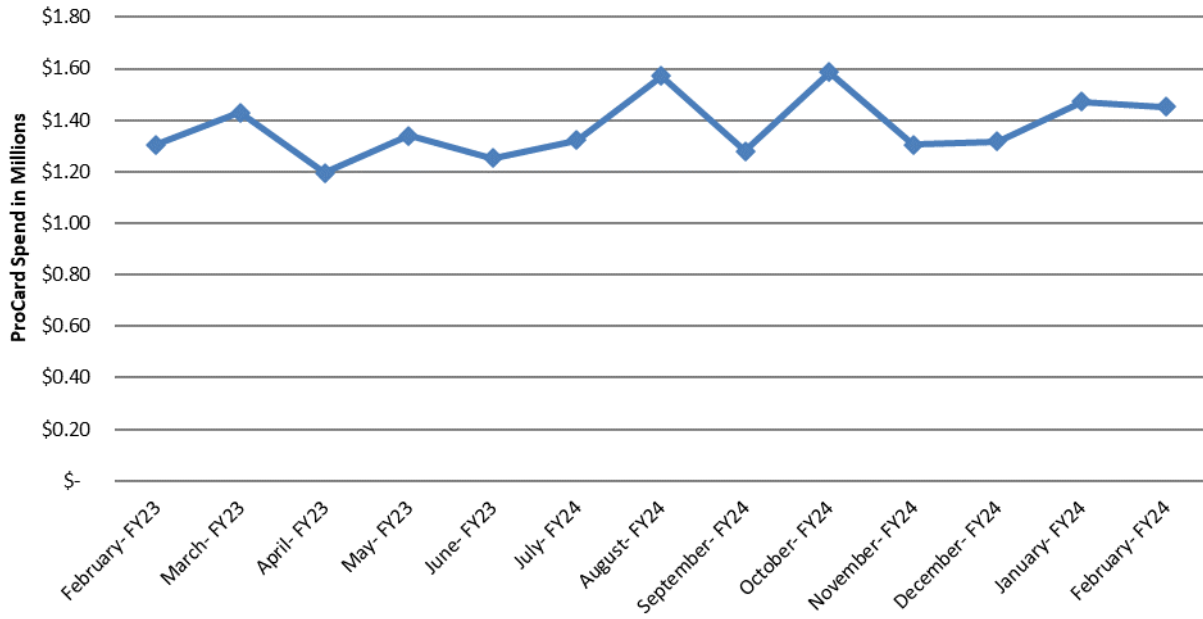
### C. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings <sup>1</sup>	\$1,072,795	\$1,674,162
Negotiated Savings <sup>2</sup>	\$36,962	\$59,032
Salvage Revenues	\$6,243	\$135,629
Corporate VISA Card - Estimated Rebate	\$21,650	\$168,478

<sup>1</sup> Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsive/responsible bidder.

<sup>2</sup> Negotiated savings are savings obtained during a Request for Proposal process, or if all bids received exceed the budgeted amount, or if only one bid is received.

## ProCard Spend FY24



Respectfully,

*Steven G. de Mik*

Steven G. de Mik  
Deputy General Manager/Chief Financial Officer

TO: General Manager  
FROM: Director Services Information Technology  
SUBJECT: Information Technology Department (ITD) Report for February 2024  
DATE: March 12, 2024



## Innovation

The upcoming Surface Pro rollout begins with limited distribution of the new hardware within ITD. Originally scheduled for the end of this month, staff encountered unanticipated challenges stemming from the substantially different design of the Windows 11 platform and its integration with existing on-premises and cloud-based networks. To their credit, staff have effectively resolved these issues and distribution to ITD staff will begin early next month for final image tuning. This is the final step before distribution of the new Surface Pros throughout HRSD.

The IT Help Desk processed 378 work orders and requests for assistance in February, ensuring availability of computing resources to those working locally and remotely.

Oracle database instances were upgraded for numerous test, development, and production platforms in January. Testing metrics show marked improvement in processing speed and data management following the upgrades.

User acceptance testing of the new call center platform in January revealed a couple of issues requiring remediation. Working with the vendor implementation team, those issues are now resolved and the go-live is scheduled for the middle of March.

Cybersecurity enhancements to the Operational Technology (OT) network are being tested both internally, and by a third-party consultant specializing in OT fortification and vulnerability mitigation. Such efforts are ongoing, as cybersecurity threat vectors are constantly changing.



## Community Engagement

Staff are configuring the necessary and secure access required to begin work on the recently awarded contract to design and implement HRSD's Customer Engagement Portal.

Respectfully,

*Don Corrado*

TO: General Manager  
FROM: Director of Operations  
SUBJECT: Operations Monthly Report for February 2024  
DATE: March 13, 2024



## Environmental Responsibility

### Treatment and Interceptor System Reportable Items:

There were multiple events reported this month. Additional details are available in the Air and Effluent Summary in the Water Quality (WQ) monthly report.

### Internal Air and Odor Compliance:

1. There were four Maximum Achievable Control Technology (MACT) 129 deviations at Virginia Initiative Plant (VIP) in February for use of the incinerator bypass stack. The first three occurrences on February 7, as well as the fourth occurrence on February 13, were all due to utility power loss.
2. There was one Total Hydrocarbon (THC) permit deviation at VIP in February for failing to record two valid THC readings in one hour. The THC analyzer would not calibrate on February 27, resulting in loss of THC data for 14 hours and 32 minutes.
3. There were three MACT 129 deviations at Army Base Treatment Plant (ABTP) in February for failing to record two valid THC readings in one hour. ABTP Incinerator #2 had a negative draft issue that was corrected on February 28. This issue created unstable conditions during incinerator operations causing the THC analyzer to malfunction.
4. Atlantic Treatment Plant (ATP) staff continues working to reduce off site odors from various sources. The plant received a total of three odor complaints and one noise complaint this month. Staff investigated the complaints that seem to be primarily related to the digester gas, the pad/curing operation, and the mobile boiler.
5. Four THC reportable events occurred at the Boat Harbor Treatment Plant (BHTP) in the month of February. On February 6, 9, and 24, the Continuous Emissions Monitoring (CEM) unit failed calibration and required a manual calibration of the unit. On February 6, the THC unit was unable to record readings when the Incinerator lost Non-Portable Water flow, and the ID fan tripped out for an extended time.
6. Williamsburg Treatment Plant (WBTP) had 35 incinerator deviations and two odor scrubber exceptions. One was a failure to meet the minimum 12-hour average burn zone temperature. The cause was a malfunction of two burners. Thirty-four were a failure of the THC CEM system to record two valid readings per hour due to calibration issues. A Capital Improvement Project (CIP) was submitted which includes replacing the THC CEM equipment with an updated and more reliable system. The two odor scrubber exceptions were due to a low chemical feed rate for the concentration of hydrogen sulfide in the odor scrubber influent.

## **Air Compliance Summary:**

Additional details are available in the Air and Effluent Summary in the Water Quality (WQ) monthly report.

On the Advanced Nutrient Removal Improvement (ANRI)/Sustainable Water Initiative For Tomorrow (SWIFT) Project at James Rive Treatment Plant (JRTP) the contractor continued installing the stainless-steel rake arm structure in the new #1 secondary clarifier. Work on the return activated solids building continued with above ground precast walls erected and the Integrated Fixed Film Activated Solids (IFAS) effluent channel along IFAS tanks #4 through #6. Wall construction the new administration building continued. On the SWIFT side, concrete floors, walls, and structures continue to be formed and poured on SWIFT buildings #1 and #2, the main power supply building, the SWIFT and well backflush equalization tanks and the chemical building. The new Lucas Creek force main is almost complete. Well drilling the on-site well next to administration building #2 continued.

## **Additional Topics for Compliance:**

1. All plants met VPDES permit requirements. ABTP continued to see elevated conductivity. Temporary repairs made by the Navy have routinely failed, causing plant flows to increase by as much as 3-5 million gallons per day (MGD) from sea water.
2. On February 12, the feeder breaker for the ATP Preliminary Treatment Facility, a side Motor Control Center (MCC) tripped, causing two of the influent screens to lose power. With only one screen online, the channel could not contain all the influent flow and the channel overflowed. Staff responded and restored power to the MCC and resumed normal screen operations. Wires to a grit classifier had grounded which caused this feeder breaker to trip. Staff replaced the damaged wires to prevent this from reoccurring.
3. The Secondary Clarifier #3 was taken out of service on February 10 at the BHTP due to solids buildup. The investigation is ongoing, but the critical seal around the center shaft is the suspected cause, which if confirmed will require significant effort to replace. Inspections of the draft tubes, return ports and influent windows are being conducted first to rule out other possibilities.
4. The Primary Clarifier #2 was placed in service on February 9 at the Nansemond Treatment Plant (NTP). This was done in preparation for Digester #1 cleaning and has also significantly increased dewaterability of solids.
5. Eastern Shore (Onancock Plant and Collection System) received a Department of Environmental Quality (DEQ) Inspection on January 18. The official report found no significant issues during the inspection and the plant Operations and Maintenance (O&M) Manual has been reviewed, updated, and has received the Director's signature for the changes. All documentation and action items have been sent back to the DEQ for review.
6. The Small Communities Division (SCD) received a warning letter from DEQ for an effluent Biological Oxygen Demand (BOD) violation that occurred in October 2023. Staff are working on equalizing influent flow and improving secondary clarification and tertiary filtration to prevent further BOD issues.
7. ATP Cambi system remote Human- Machine Interface (HMI) experienced a failure. Staff purchased and installed a refurbished HMI as an interim solution awaiting a new unit from Cambi. The new HMI unit from Cambi was also received, installed, and put into operation.
8. Staff managed the conveyance and treatment of over 147 MG of wastewater this month.



## Financial Stewardship

1. All divisions completed and submitted FY 2025 budgets and CIP requests.
2. The Project Team completed the West Point Treatment Plant (WPTP) emergency pond cleaning project. Contractor cost estimates for this effort were approximately \$258,000. Based on the burdened labor booked of \$19,528.42 and equipment and disposal fees of \$22,387.57, HRSD estimates a savings of \$216,084.01 by completing this project in-house. The Project Team also completed the disassembly and removal of the NTP Centrisys centrifuge and all parts associated with it.
3. The Machine Shop had 18 projects during the month of February with three projects being pump rebuilds. Two projects to highlight:
  - Fabricating plates and brackets for newly acquired DS706 centrifuges from DC Water to allow for existing and newly purchased centrifuges to be interchangeable.
  - The Machine Shop is installing fenders on the new trucking fleet tractors to cover both sets of rear tires. This will help limit the amount of mud and debris from the tires as the truck travels in and out of the landfill.

This work is invaluable and has a direct impact on operations and the environment.



## Talent

1. North Shore (NS) Interceptors welcomed Mr. Arthur Wagoner (Wags) and Mr. Edward Hawkins (Hawk) as Heavy Equipment Operators. Interviews concluded and two offers were extended for the remaining open positions in February for NS which would result in being fully staffed in March.
2. Mr. Brandan Hupman was promoted to Interceptor System Supervisor with South Shore (SS) Interceptors.
3. Interviews to fill the vacant Maintenance Lead Operator (LO) position at VIP were held in February. Mr. Rocky Taylor was selected for the position and will be a great addition to the team.
4. Ms. Del Bronson, Plant Operator (PO) at ABTP, received her Class One Wastewater License.
5. BHTP LO, Mr. Kshitiz Uprety was accepted into WEF's Water Leadership Institute Class of 2024. The program had over 200 applicants this year.
6. Interviews were conducted for the Eastern Shore Systems Operator position and a new Operator has been selected. Mr. Howard Cook will be reporting to the Onancock Treatment Plant on March.



## Community Engagement

1. North Shore Interceptors staff attended the Poquoson City Council Meeting on February 12 to provide a presentation on the Bethel-Poquoson Force Main Phase 2 project and work along the Wythe Creek Road corridor.

2. Mr. Mike Hess, System Manager with South Shore Interceptors, was a guest lecturer for a senior level engineering class at Old Dominion University (ODU) on February 6. He discussed the practical aspects of engineering, emphasizing the importance of constructability, schedule, community outreach, and communication.
3. ABTP Treatment Process Engineers (TPE), Mrs. Ali Gagnon and Mr. Jeff Nicholson hosted Naval Facilities Engineering System Command (NAVFAC) for a plant tour; they continue working with the Norfolk Resilience Partners and Virginia Port Authority for the Coastal Storm Risk Management.
4. VIP LOs, Mr. Rocky Taylor and Mr. Jacob Hoagland, and PO Mr. Scott Whitby led two plant tours for Princess Anne High School's Advanced Placement Environmental Science class on February 21 and February 28.
5. VIP TPE Mrs. Ali Gagnon and Plant Superintendent Ms. Kelly Lamp, provided information on Cyanide Removal for Multiple Hearth Furnaces to the Delcora Company, to benefit operation of a Wastewater Treatment Plant in Chester, PA.
6. ATP and other HRSD staff conducted the monthly Earth Action Day planning meeting with Ocean Lakes High School.
7. Mrs. Christel Dyer, Chief of Treatment, kicked off the ATP and Lynnhaven River NOW Outreach Event planning efforts. This tour is scheduled for May 18 and will be open to the public.
8. A tour of the York River Treatment Plant (YRTP) was conducted on February 29 for four wastewater treatment operators from the Norfolk Naval Shipyard and five from Craney Island in Portsmouth, along with their consultant. The purpose of their visit was to learn how a larger treatment plant operates.
9. SCD staff worked with the Mayor of Nassawadox on new connection requests to the existing gravity collection system.



## Innovation

1. ABTP staff, with help and input from Mr. Mike Parsons, TPE, resolved the draft issue on MHI #2. For months, the incinerator was not pulling proper draft resulting in erratic operation and the need to rely solely on MHI #1. After brainstorming and subsequent field testing, staff were able to discover significant scaling just upstream of the venturi throat. Staff burned out and disassembled the venturi and removed the scaling, which resolved the problem. This will ensure mitigated risks for future incinerator operations.
2. Mr. Dave Matos, Heavy Equipment Operator with SS Interceptors, designed and fabricated four manually operated traffic cone holder/dispensers and installed them on four Interceptor trucks. These dispensers allow for easier access, saving time and decreasing the potential for on-the-job injury. He was referred to Safety for a safety innovation award.
3. The total volume of SWIFT recharge into the Potomac aquifer for February was 9.47 MG, or 35.2% Recharge Time based on 650 gallons per minute which remains significantly lower than the internal HRSD goal of 70% recharge. Staff are resolute to increase the recharge percentage. The following issues contributed to the recharge decrease in February:
  - a. Clogging issues on the polymer system causing higher turbidities in both Floc-Sed and the Biological Active Filters (BAFs)



- b. Two potable water shutdowns to accommodate contractor work
  - c. The automated valve on the Granular activated carbon faulted
  - d. Contractor work on Supervisory Control and Data Acquisition system interfered with Ozone communication
  - e. High turbidities on the plant secondary clarifier effluent caused issues on the coagulation/flocculation/sedimentation process
  - f. A three-day shutdown to accommodate research on injectivity issues
  - g. High Plant Total Inorganic Nitrogen on February 22 interfered with recharge operations
4. Onancock Treatment Plant's existing digesters have aeration piping with multiple underground leaks and poor aeration. A permanent repair would be a very costly and lengthy process. Staff were able to salvage several blowers from the now offline Nassawadox Treatment Plant and pipe a new above-ground aeration system at minimal cost that will suffice until the Solids Handling CIP project is completed.
5. SCD staff have been working on process optimization and metals removal at the King William Treatment plant. A new metal precipitant chemical was piloted to remove zinc, and we are in the process of working with DEQ to remove the Granular Activated Carbon from the process. This will benefit HRSD from an operational cost standpoint and simplify operations to combine to a single sample point for both reuse and outfall flow.
6. Water Environment Federation (WEF) will host the Innovations in Treatment Technology Conference May 21-24 at the Virginia Beach Convention Center. This conference will highlight a wide range of innovative projects ongoing at HRSD, and a pre-conference tour will be offered for the NTP and the SWIFT Research Center. HRSD has negotiated a registration discount for HRSD staff through the WEF Utility Partnership Program, and we anticipate sending many employees who are involved in all aspects of treatment plant design, operation, and management. This is a wonderful opportunity to demonstrate HRSD's technical leadership for a national and international audience and to provide an opportunity for staff to network with leaders and peers in our industry.

Respectfully submitted,

Eddie M. Abisaab, PE, PMP, ENV SP  
Director of Operations

[Attachment: MOM Reporting](#)

## MOM Reporting Numbers

MOM #	Measure Name	Measure Target	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	37	3	3	3	4	3	3	4	4				
2.7	# of PS Annual PMs Performed (SS)	53	4	0	7	5	7	3	5	5				
2.7	# of Backup Generator PMs Performed	4.6	12	7	14	14	10	4	26	10				
2.8	# of FM Air Release Valve PMs Performed (NS)	234	234	199	296	241	109	116	210	207				
2.8	# of FM Air Release Valve PMs Performed (SS)	1,550	154	174	59	569	71	148	141	141				
2.9	# of Linear Feet of Gravity Clean (NS)	2,417	2,808	2,762	3,791	4,969	5,741	4,074	3,429	2,088				
2.9	# of Linear Feet of Gravity Clean (SS)	2,417	5,994	5,637	7,169	1,610	0	0	1,693	1,693				
2.9	# of Linear Feet of Gravity CCTV Inspection	3,300	0	0	0	0	0	0	0	0				

TO: General Manager  
FROM: Director of Talent Management  
SUBJECT: Talent Management Monthly Report for February 2024  
DATE: March 13, 2024



## Talent

Staff retention and recruitment remain significant priorities for the Talent Management (TM) Department. Talent Management has one vacant position for a Workforce Development Specialist. A selection was made, the background process is complete, and we are looking forward to filling the position next month. We are fully staffed in all divisions, outside of this new position.

**Human Resources (HR)** HR staff continue to work on the final two phases of the compensation study. In addition, HR staff continue to meet with the new benefit carriers weekly to work on the transition and implementation of our benefits for an effective date of July 1, 2024. Preparations for Open Enrollment meetings and scheduling began along with the creation of materials and Enterprise Resource Planning (ERP) setup. All 1095-C forms were prepared and mailed to meet the deadline for ACA distribution.

Participation in HRSD's Wellness Program continues to grow. The 2023-2024 Wellness year ended this month. The Wellness Specialist assisted employees in uploading their information for the lowest deductible and incentives and review the documentation provided, conducted onsite visits, virtual lunch and learns, emailed informational flyers, and facilitated virtual guided meditation sessions.

**Learning and Development (L&D):** This month, the L&D division facilitated training sessions related to Phases 1 – 4 of the ongoing compensation study for all HRSD work centers. A total of 39 training sessions were hosted, and a recorded session has been posted for review on SharePoint. Additionally, L&D organized the graduation ceremony for the Leadership and Management Academy (LAMA). Each of the three LAMA 2023 groups presented their capstone projects to members of the leadership team, who agreed to establish a focus group comprising LAMA participants to champion an employee recognition application. Lastly, L&D is in the process of developing a new training program to introduce the DiSC Assessment. This training will serve as a team-building event for divisions and is scheduled to commence in April.

**Safety:** Staff conducted required safety trainings and medical monitoring. Weekly, monthly, and quarterly safety inspections, and testing and monitoring were performed at various work centers and construction sites. There were four reported work-related injuries requiring medical attention and four auto/property damage accidents.



## **Community Engagement**

Staff provided outreach at career events. This outreach was focused on the variety of career fields represented at HRSD. Information was shared about our open positions, the Apprenticeship Program, how we positively impact the local waterways and our generous benefits. Staff also explained how to apply for a position at HRSD and answered questions about what it's like to work at HRSD.

Respectfully submitted,

*Dorissa Pitts-Paige*

Director of Talent Management

TO: General Manager  
FROM: Director of Water Quality (DWQ)  
SUBJECT: Monthly Report for February 2024  
DATE: March 13, 2024



## Environmental Responsibility

1. HRSD's Regulatory Activities:
  - a. Monthly Discharge Monitoring Report (DMR) Summary and Items of Interest: [Effluent and Air Emissions Summary](#).
  - b. From Fiscal Year (FY) 2024 to date, there have been four Permit Exceedances out of 37,685 Total Possible Exceedances.
  - c. Pounds of Pollutants Removed in FY 2024 to date: 125.8 million pounds.
  - d. The Division of Consolidated Laboratory Services completed the Virginia Environmental Laboratory Accreditation Program assessment of the Central Environmental Laboratory (CEL) which is scheduled every two years. The assessment included documentation review, analyst interviews and an in-depth evaluation of the quality management system. There were no findings or recommendations for improvement identified, and the assessment team was very complimentary of the CEL facility, staff and overall operation of the laboratory.
2. Pretreatment and Pollution Prevention (P3) Program Highlights:
  - a. No civil penalties were issued by the P3 Division in February.
  - b. Participated in a National Association of Clean Water Agencies (NACWA) review of the Environmental Protection Agency (EPA) proposed pretreatment standards for the Meat & Poultry Products category. Comments related to the rule were provided verbally during the meeting.
  - c. Provided pretreatment program and permitting guidance to Hopewell Renewal Pretreatment Program and Sussex Service Authority.
3. Environmental and Regulatory Advocacy
  - a. The Sustainability Environment Advocacy (SEA) Group coordinated a food drive throughout the month of February. Donated items were combined with collections from "Engineer's Week", amounting to 472 lbs. of food items. This is the

equivalent of 394 meals. Donations were given to the Virginia Peninsula Foodbank and the Foodbank of Southeastern Virginia and the Eastern Shore.

b. Director participated in the following advocacy and external activities:

- (1) A meeting of the Hampton Roads Planning District Commission's Regional Environmental Committee.
- (2) Co-chaired a meeting of the Chesapeake Bay Program's Wastewater Treatment Workgroup. This is the first meeting of the reinstated committee, and we discussed wastewater-related updates needed for the Phase 7 Watershed Model. The model is used as a tool to identify progress and needs for Chesapeake Bay Total Maximum Daily Load (TMDL) attainment.
- (3) Legislative meetings to discuss legislative proposals and advocacy needs for the 2024 General Assembly session with the following advocacy groups: Virginia Association of Municipal Wastewater Agencies (VAMWA) and the Virginia Biosolids Council (VBC).
- (4) A meeting of the VBC and VAMWA representatives to discuss alternative approaches to permitting for the Distribution and Marketing of Exceptional Quality biosolids.
- (5) Attended the monthly meeting of the VBC. The agenda centered largely on legislative updates for the Virginia General Assembly and a proposed expansion of research efforts to include work with Virginia State University.
- (6) Attended the NACWA Winter meeting, themed "Claiming the High Ground for Public Clean Water Utilities" and co-chaired the biosolids committee meeting. The overarching theme of the meeting was highlighting opportunities as well as the urgent need to tell our story of innovation, public health, and environmental protection to our communities, environmental advocates, and to legislators at the state and federal level. The biosolids committee agenda was dominated by conversation around pending Per- and Polyfluoroalkyl Substances (PFAS) legislation and regulatory action.
- (7) Attended the quarterly meeting of the Potomac Aquifer Recharge Oversight Committee (PAROC). PAROC heard updates on activities from the Potomac Aquifer Recharge Monitoring Laboratory (PARML) and a research update from Dr. Samantha Hogard and her work in Validating Pathogen Reduction in Ozone-Biofiltration Water Reuse Applications.
- (8) Met with PARML representatives to discuss needs for the lab as HRSD transitions over to full-scale operations with the implementation of James River Sustainable Water Initiative for Tomorrow (SWIFT) in 2026.

- (9) Met with United States Geological Survey (USGS) representatives at the SWIFT Research Center to discuss modification of the scope of work for USGS management of the Nansemond extensometer and water quality monitoring to incorporate additional enhancements to vertical land motion data capture, with consideration given to better understanding the impact of James River SWIFT on land subsidence.
- (10) Executive Board meeting for Virginia Forever. Virginia Forever is a coalition of businesses, environmental organizations and outdoor enthusiasts that advocates for increased government funding for water quality improvements and land conservation across the Commonwealth. It is the only statewide organization that has a primary focus on increasing funding for natural resources protection. One of the key advocacy efforts for this General Assembly session was to secure the needed \$400M for wastewater improvements in the Water Quality Improvement Fund. HRSD is expected to be eligible for grant reimbursement of nearly 80% of this allotment.
- (11) A meeting of the Chesapeake Bay Program (CBP) Tracking Team, a coalition representing VAMWA, the Virginia Association of Municipal Stormwater Agencies (VAMSA), the Maryland Association of Municipal Wastewater Agencies (MAMWA) and the Metropolitan Council of Governments (MCOG). This team tracks key issues being considered by the CBP, particularly the Water Quality Goal Implementation Team, and provides input as needed to support practical implementation of the Bay restoration plan.



## **Financial Stewardship**

Staff supported the generation of high-quality data for use in permitting and environmental management decisions through our Municipal Assistance Program (MAP), which offers services to other municipal and regional authorities throughout the state. HRSD costs for this program are reimbursed by the customer. Below are program highlights for the month.

HRSD provided sampling and analytical services to the following to support monitoring required for their respective Virginia Permit Discharge Elimination System (VPDES) permits:

1. City of Chesapeake
2. City of Franklin
3. New Kent County
4. Northumberland County

5. Westmoreland County



**Talent**

1. Mr. Juwon Seaborne started as a P3 Technician in the South Shore Field Office.
2. Completed the development of the new apprenticeship course – Water Quality Standards & Regulations. The course is now active as part of Term 4 of the Apprenticeship Program.
3. Director participated in a compensation study update.



**Community Engagement**

Staff supported Microbial Source Tracking (MST) investigations in partnership with Hampton Roads localities. This work is required as part of HRSD's Integrated Plan. Sampling and analytical services were provided for the localities and projects identified below:

1. City of Chesapeake (Southern Branch)
2. City of Hampton (New Market Creek)
3. City of Newport News (Southeast Newport News)
4. City of Norfolk (Mason Creek)
5. City of Suffolk (downtown)
6. City of Virginia Beach (Thalia Creek)
7. James City County



**Innovation**

Director participated in the following advocacy and external activities:

1. Attended the Water Research Foundation's (WRF) Research Planning Expert Summit focused on Receiving Water Quality Management. Participants were tasked with identifying priority research topics within the assigned focus area to inform the two-year planning cycle of WRF's Research Advisory Council (RAC).



2. A meeting of the Norfolk Innovation Corridor (NIC) Environmental Subcommittee. The NIC is a state-designated technology zone and is focused on supporting resilience products, services, and technologies. The Environmental Subcommittee specifically focuses on opportunities to support and incentivize environmental resilience.

Respectfully submitted,

*Jamie Heising-Mitchell*

Director of Water Quality

### EFFLUENT SUMMARY FOR FEBRUARY 2024

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	11.94	66%	7	8.1	3	5	0.61	0.67	3.7	3.8	13
ATLANTIC	43.49	81%	7	6.8	2	2	NA	NA	NA	NA	7
BOAT HARBOR	12.74	51%	7	8.3	2	3	0.45	0.40	17	16	2
CENT. MIDDLESEX	0.013	54%	3	3.6	1	1	NA	NA	NA	NA	NA
JAMES RIVER	11.75	59%	6	4.8	1	<1	0.78	0.66	9.8	9.6	8
KING WILLIAM	0.090	90%	<2	0.51	NA	1	0.11	0.10	2.3	2.4	NA
NANSEMOND	16.29	54%	10	9.7	8	3	2.0	1.7	3.8	3.6	3
ONANCOCK	0.225	30%	<2	0.14	<1	1	0.15	0.13	2.0	1.6	NA
SUNSET BAY	0.008	21%	5	<1.0	1	1	NA	NA	NA	NA	1
URBANNA	0.053	53%	4	9.6	1	7	0.54	0.86	8.8	10	NA
VIP	29.30	73%	4	3.9	2	<1	0.28	0.26	3.8	4.3	1
WEST POINT	0.635	106%	18	11	<1	3	2.0	1.9	14	13	1
WILLIAMSBURG	7.74	34%	6	5.1	4	4	0.59	0.90	3.0	3.0	14
YORK RIVER	13.02	87%	3	0.30	1	<1	0.25	0.29	5.2	4.8	2
	<u>147.30</u>										

% of  
Capacity

North Shore

55%

South Shore

71%

Small Communities

58%

**AIR EMISSIONS SUMMARY FOR FEBRUARY 2024**

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
MHI PLANT											
ARMY BASE	0	0	0	0	0	0	0	0	64	9	0
BOAT HARBOR	0	1	0	n/a	0	0	0	1	10	87	0
VIP	0	0	0	n/a	0	0	0	4	26	97	0
WILLIAMSBURG	1	0	0	n/a	0	0	0	0	21	66	0

## Items of Interest – February 2024

### **MULTIPLE HEARTH INCINERATION (MHI)**

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 66% for all but Army Base who had 9% data capture.

The MHIs had two (2) deviations from the required 129 SSI rule minimum operating parameters, four (4) minor bypass events (<60 minute), and one (1) reportable bypass event that lasted more than an hour.

Boat Harbor had a malfunction that required the use of the MHI emergency bypass stack for more than one hour on February 6. A low NPW scrubber flow tripped the ID fan that in turn triggered an interlock which kept plant operations from taking immediate corrective action. After the NPW flow was restored and the interlock was satisfied normal MHI operations resumed. DEQ was notified per Title V prompt notification requirements.

Submitted to DEQ:

- VIP MHI #2 stack test protocol for testing scheduled March 26
- Semi-annual 129 deviation reports (MHI plants)
- Title V semi-annual monitoring reports (DEQ Forms)
- Title V annual compliance certifications (DEQ Forms)

### **AIR PERMITS and ODOR CONTROL.**

On January 17, 2024, DEQ sent Army Base's draft T5 permit renewal to 30-day public notice with concurrent EPA review. If there is no adverse comment, a final permit should be issued by end of March.

Submitted to EPA ATP CHP test report for testing completed December 19.

Submitted to DEQ:

- Atlantic Treatment Plant's permit odor management plan annual update
- Minors (JR, YR, AT PRS) annual updates (thruput only)

There were a total of six (6) odor control complaints during the month of February.

Atlantic Plant received four (4) odor complaints from Ocean Lakes neighbors and two (2) odor complaints/observations from a neighbor in the Lago Mar neighborhood. One of the Ocean Lakes complaints can be omitted as it related to indoor plumbing. Plant Staff and TSD responded to all complaints and followed up with our neighbors with investigation results as documented and relayed to them accordingly.

Atlantic Plant had a failure of the CHP engine's (DG-2) gas clean-up system on February 25. The hydrogen sulfide (H<sub>2</sub>S) exceeded the permit digester gas limit of 50 PPM for 10 hours and 33 minutes before the CHP engine was secured. DEQ has been notified of the malfunction event.

## **TREATMENT**

DEQ was notified of the following reportable events:

### James River

On February 13, a bell fitting on an exposed non-potable water (NPW) line in an open excavation broke. NPW was discharged into the excavation, onto the road, and into nearby storm drains. Approximately 18,000 gallons of NPW were released with 5,375 gallons recovered.

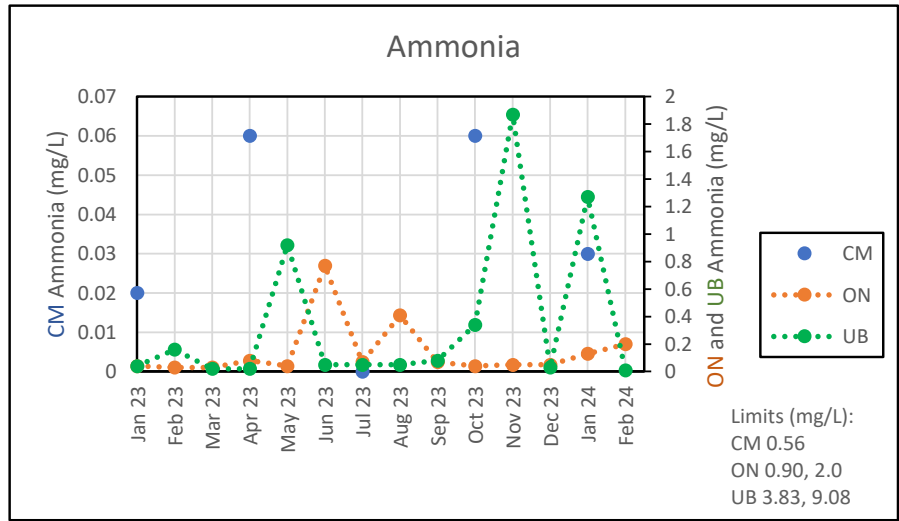
### Nansemond

On February 21, a NPW line broke when a contractor closed a valve on the PVC line creating a water hammer. Approximately 1,755 gallons of NPW were released to the ground and drained to an onsite holding pond.

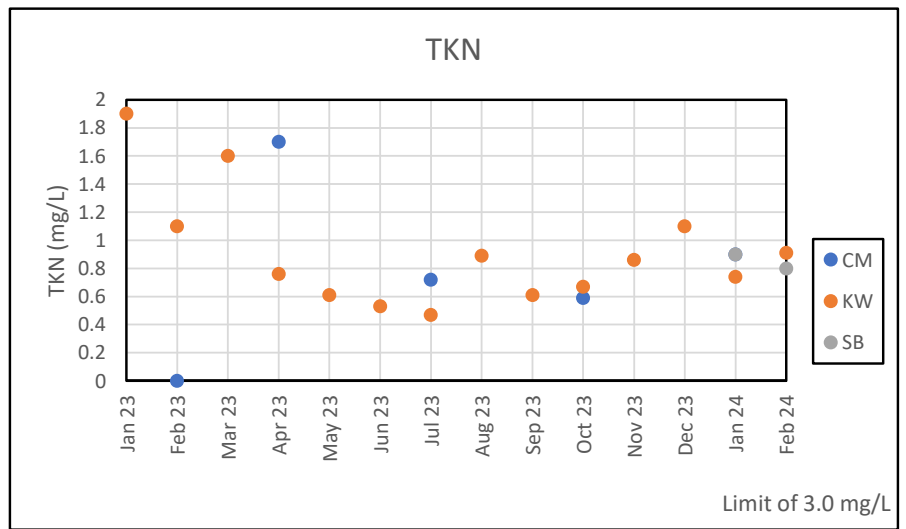
Flow summaries, nutrient data, and rainfall information is located here:

[DMR - Power BI \(powerbigov.us\)](https://powerbigov.us)

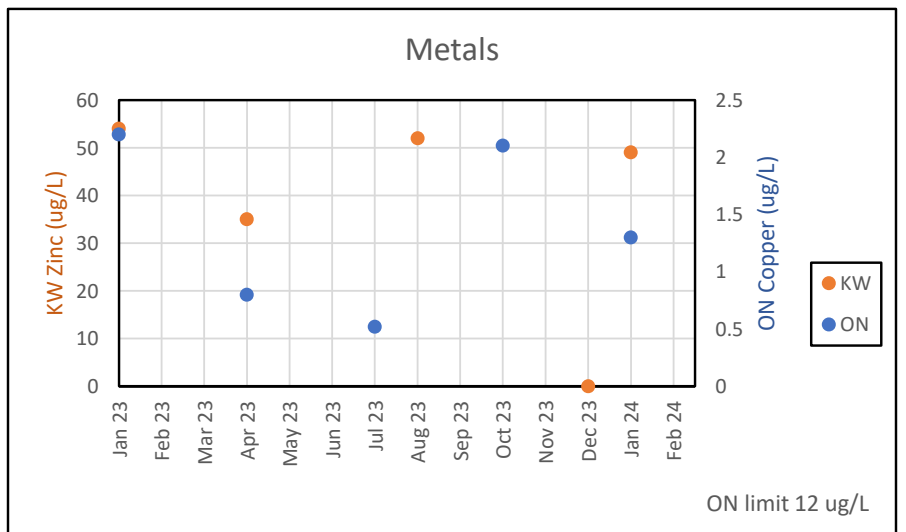
	Ammonia		
	CM	ON	UB
Jan 23	0.02	0.04	0.04
Feb 23		0.03	0.16
Mar 23		0.03	0.02
Apr 23	0.06	0.08	0.02
May 23		0.04	0.92
Jun 23		0.77	0.05
Jul 23	<0.02	0.07	0.05
Aug 23		0.41	0.05
Sep 23		0.07	0.08
Oct 23	0.06	0.04	0.34
Nov 23		0.05	1.87
Dec 23		0.05	0.03
Jan 24	0.03	0.13	1.27
Feb 24		0.20	0.01



	TKN		
	CM	KW	SB
Jan 23		1.9	
Feb 23	<0.50	1.1	
Mar 23		1.6	
Apr 23	1.7	0.76	
May 23		0.61	
Jun 23		0.53	
Jul 23	0.72	0.47	
Aug 23		0.89	
Sep 23		0.61	
Oct 23	0.59	0.67	
Nov 23		0.86	
Dec 23		1.1	
Jan 24	0.90	0.74	0.90
Feb 24		0.91	0.80



	Zinc	Copper
	KW	ON
Jan 23	54	2.2
Feb 23		
Mar 23		
Apr 23	35	0.80
May 23		
Jun 23		
Jul 23		0.52
Aug 23	52	
Sep 23		
Oct 23		2.1
Nov 23		
Dec 23	<5.0	
Jan 24	49	1.3
Feb 24		



The following Internal Audit Status document has been prepared by SC&H for the HRSD Commission. Below is a summary of projects in process, upcoming projects, and the status of current management action plan monitoring.

## ***I. Projects in Process***

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### **Operational Technology Security and Resilience**

- **Completed Tasks (February 2024)**
  - Obtained and reviewed initial documentation for scoping and planning.
  - Conducted entrance meeting for each plant.
  - Continued development of planning steps to construct an audit program.
- **Upcoming Tasks (March 2024)**
  - Continue development of planning steps to construct an audit program.
  - Conduct meetings/walkthroughs with stakeholders to assess controls against audit objectives.
  - Begin communicating fieldwork document request list.

### **Risk Assessment Refresh**

- **Completed Tasks (February 2024)**
  - Administered supplemental Commission and IT surveys and evaluated responses.
  - Continued analyzing Director and Chief survey results.
  - Continued updating risk assessment workbook documentation.
- **Upcoming Tasks (March 2024)**
  - Share preliminary results and FY25 plan with HRSD.
  - Prepare for April Commission presentation.

### **Design and Construction Estimating**

- **Completed Tasks (February 2024)**
  - Continued updating and refining process documentation.
  - Received and conducted initial data review upon receipt.
- **Upcoming Tasks (March 2024)**
  - Continue updating and refining process documentation.
  - Meet with Engineering Director to discuss progress and next steps (3/21).

### **Accounts Payable and ProCards**

- **Completed Tasks (February 2024)**
  - Continued fieldwork procedures.
  - Communicated secondary open items.
- **Upcoming Tasks (March 2024)**
  - Finalize testing and submit draft report.

### **Remote Access**

- **Completed Tasks (February 2024)**
  - Issued initial draft report and requested feedback from stakeholders.
  - Followed up requesting management response/feedback on report.
- **Upcoming Tasks (March 2024)**
  - Update report based on management responses and request additional feedback.



- Finalize audit report and deliver to stakeholders.

**II. Upcoming Projects**

- Billing, accounts receivable, and aging: April 2024

**III. Management Action Plan Status**

SC&H performs on-going management action plan (MAP) monitoring for completed internal audits/projects. SC&H begins MAP follow-up approximately one year following the completion of each audit and periodically follows up until conclusion.

For each recommendation noted in an audit report, SC&H gains an understanding of the steps performed to address the action plan and obtains evidence to confirm implementation, when available.

The following describes the current project monitoring status. This listing does not include audits which were determined by HRSD Management and the Commission to include confidential or sensitive information.

Audit / Project	Next Follow-up	Recommendations		
		Closed	Open	Total
Personally Identifiable Information	March 2024	0	3	3
Safety Division	February 2024	2	1	3
Freedom of Information Act	February 2024	0	1	1
Family Medical Leave Act (FMLA)	April 2024	0	4	4
Succession Planning	April 2024	2	2	4
Closed Audit/Projects (x16)	Closed	127	0	127
	<b>Totals</b>	131	11	142



Strategic Measures  
February 2024

Strategic Planning Measure	Jan-2024	Feb-2024	FY-24
Educational and Outreach Events	17	26	154
Number of Community Partners	9	14	122
Number of Technical Presentations	0	2	31
Revenue vs. Budget	107%	102%	105%
Wastewater Expenses vs. Budget	103%	102%	102%
Accounts Receivable (HRSD)	\$49,128,798	\$47,695,139	\$44,732,684
Aging Accounts Receivable	31.50%	32.40%	27.81%
Turnover Rate wo Retirements	0.35%	0.47%	3.19%
Turnover Rate w Retirements	0.47%	0.70%	4.97%
Avg Time to Hire	4 months 23 days	3 months 24 days	3 months 10 days
Number of Vacancies	48	55	39
Average number of applicants per position	16.6	11.3	8.0
Percentage of positions filled with internal applicants	9.4%	40.7%	29.6%
Recruitment source Return on Investment	*	*	*
Average time required (days) to onboard new employees, including from initial posting of position to candidates' first day	*	*	*
Customer Call Wait Time (mins)	3.02	3.30	2.56
Capacity Related Overflows with Stipulated Penalties (Reported Quarterly)	**	**	0
Non-Capacity Related Overflows with Stipulated Penalties (Reported Quarterly)	**		1
TONS OF CARBON: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	*	*	*
GAS CONSUMPTION: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	*	*	*
ELECTRICITY CONSUMPTION: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	*	*	*
Monthly CIP Spending	***		\$47,299,067

**\*Not currently tracking due to constraints collecting the data.**

**\*\* Inputted Quarterly after EPA Quarterly Report submittal.**

**\*\*\*Billing is one month behind**

Strategic Measures  
February 2024

<b>Education Outreach Events</b>	
Date	Event
2/1/2024	TCC Norfolk Career Event
2/5/2024	NTP Provided a tour for internal interns in the Engineering Department
2/6/2024	Classroom activities (Just Throw it Away, Edible Aquifer, Bay in a Bottle) at St. Helena Elementary School
2/6/2024	ABTP Tour for NAVFAC
2/7/2024	SWIFT Tour - HRSD Friends and Family
2/8/2024	Classroom activity (Just Throw It Away) at St. Helena Elementary School
2/8/2024	Hampton University Career Event
2/12/2024	Classroom Activity (Water Cycle in a bag) at St. Helena Elementary School
2/12/2024	Poquoson Council Meeting
2/13/2024	Classroom activities (Edible Aquifer and Water Cycle in a Bag) at St. Helena Elementary School
2/14/2024	Presentation at Utility Management Conference
2/15/2024	SWIFT Tour for Virginia Living Museum staff
2/21/2024	Classroom activity (Water Filter activity) at Kilgore Gifted Center
2/21/2024	Kevin Parker presented WQ career options to CNU undergraduate and graduate students as part of the university "Wednesday for Work" lecture series.
2/21/2024	VIP Tour for Princess Anne High School's Advanced Placement Environmental Science
2/22/2024	Water Industry Presentation
2/22/2024	Hampton Roads Internship Connection Virtual Event
2/23/2024	Western Branch Primary STEAM Day
2/23/2024	Girl Scouts World Thinking Day event
2/24/2024	Tabling event at Waves of Change environmental awareness weekend
2/24/2024	Waves of Change event at the Virginia Aquarium with askhrgreen.org
2/25/2024	Tabling event at Waves of Change environmental awareness weekend
2/27/2024	Chrysler Museum STEAM Day
2/27/2024	StrEAMline Conference Presentation
2/28/2024	VIP Tour for Princess Anne High School's Advanced Placement Environmental Science
2/29/2024	YRTP Tour for Norfolk Naval Shipyard

<b>Technical Presentations</b>			
Date	Department	Presenter	Presentation
02/06/2024	Operations	Mike Hess	Practical aspects of engineering emphasizing the importance of constructability, schedule, community outreach, and communication
02/12/2024	Operations	Ryan Brewster	Poquoson City Council Meeting

Strategic Measures  
February 2024

<b>Community Partners</b>		
<b>Month</b>	<b>Department</b>	<b>Event</b>
February	Communications	Chesapeake Public Schools
February	Communications	Chrysler Museum of Art
February	Engineering	City of Poquoson
February	Communications	Girl Scouts of the USA
February	Communications	Hampton City Schools
February	Communications	HRSD
February	Communications	Norfolk Public Schools
February	Engineering	Norfolk State University
February	Communications	Surfrider Foundation
February	Communications	Virginia Living Museum

INFORMATIONAL AGENDA ITEM 13.c. – March 26, 2024

**Subject:** North Trunk Sewer Section D – Sinkhole from collapsed force main  
Emergency Declaration

**Recommended Action:** No action is required.

**CIP Project:** N/A

**Regulatory Requirement:** None

**Brief:** An emergency declaration was authorized on March 18, 2024 due to a force main failure in the City of Norfolk that occurred on March 10, 2024. The failure was caused by pipe wall thickness degradation due to internal corrosion.

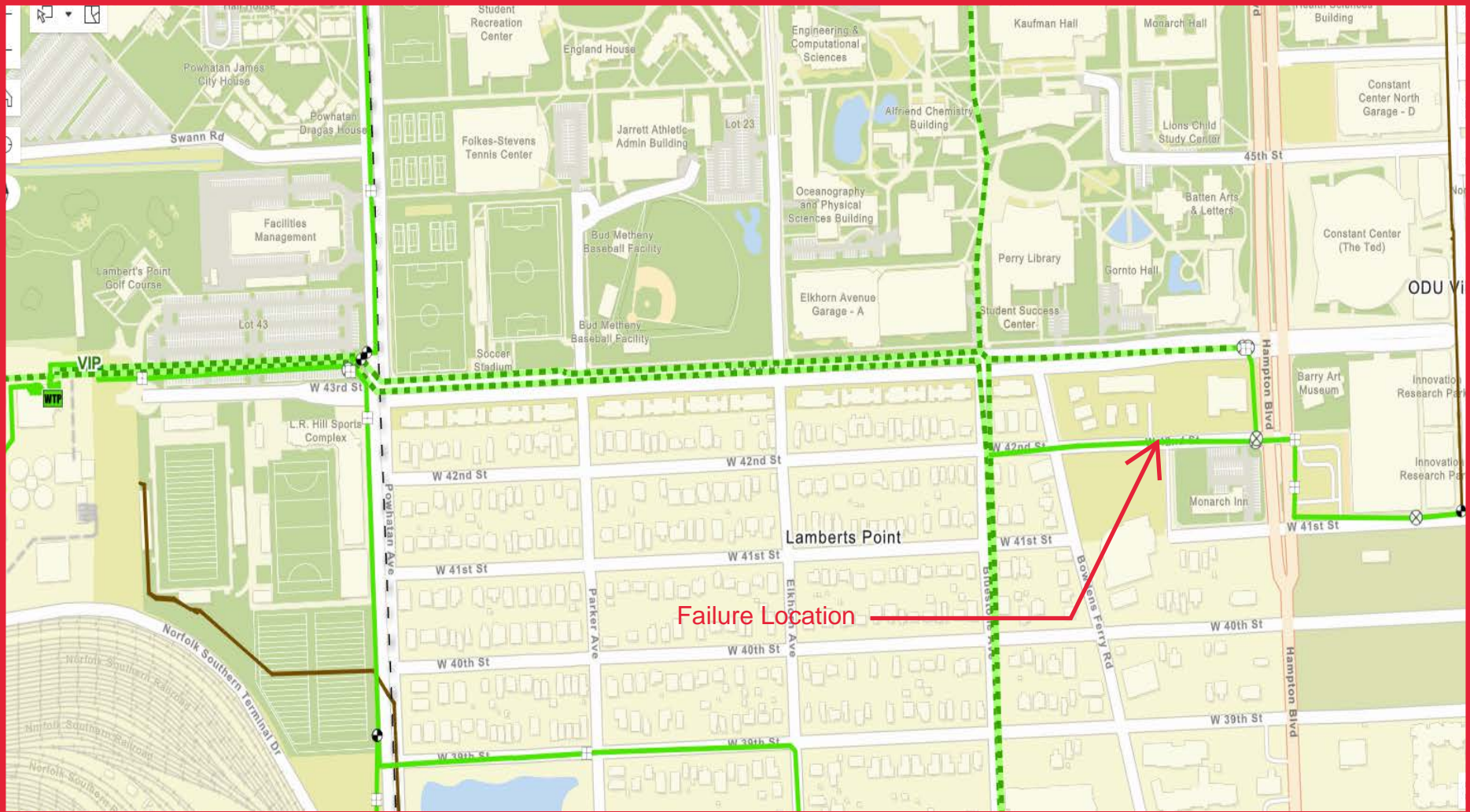
On March 10, 2024, staff was notified of a large sinkhole on 42nd Street in Norfolk that was located on top of a 24-inch prestressed concrete cylinder pipe (PCCP) force main installed in the 1960s. A parked private vehicle was later identified to be affected with minor damage by the sinkhole the evening prior. During the week of March 11 through March 14, staff excavated the area to facilitate condition assessment work; staff determined that the pipe was severely corroded. Subsequent modeling indicated that the pipe was not necessary and could be removed permanently from service. Abandonment of the pipe through permanent disconnection from the interceptor system and filling it with structural flowable fill is necessary to avoid future potential sinkholes from developing.

HRSD staff will use the Prompt Repair On-Call Services contractor, Bridgeman Civil, Inc. (BC) to isolate the force main, flowable fill the abandoned pipeline, and restore the area impacted by the failure and construction. Staff will also utilize the On-Call Condition Assessment consultant, Hazen and Sawyer, to provide construction administration and inspection while BC completes the work.

The attached [map](#) and [photos](#) depict the break and project location.

**Analysis of Cost:** The estimated cost of work is \$200,000 and will be funded from the Operating Budget. The cost estimate includes the force main condition assessment, pipeline abandonment, construction administration, construction inspection, and contingency. The cost is based on engineer review. These estimates have been reviewed by staff and are considered reasonable.

<b>Schedule:</b>	Emergency Declaration	March 2024
	Construction	March 2024
	Project Completion	April 2024



Failure Location

Lamberts Point

ODU Vi





