

HRSD Commission Meeting Agenda  
9:00 a.m. – March 28, 2023

In-person for Commissioners and essential staff at  
1434 Air Rail Avenue, Virginia Beach, VA 23455

Electronic attendance via Zoom for all others

Public participation and observation of all HRSD Commission and committee meetings is available electronically via Zoom due to space limitations. To receive a link for virtual attendance or observation, to request accommodations to attend the meeting in-person, or submit comments to be read into the minutes, please send your request to [commissionsecretary@hrsd.com](mailto:commissionsecretary@hrsd.com) or by phone to 757.460.7003. Requests must be received by noon one business day prior to the meeting.

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
	Call to Order	Rodriguez
	Roll Call of HRSD Commission	Cascio
1.	<a href="#">Awards and Recognition</a>	Bernas
2.	<a href="#">Consent Agenda</a>	Bernas
3.	<a href="#">Middlesex Interceptor System Program Phase II-Transmission Force Main Project Public Hearing on Determination of Public Need for Fee Simple and Easement Acquisition and Resolution</a>	Husselbee
4.	<a href="#">Suffolk Pump Station Replacement Public Hearing on Determination of Public Need for Fee Simple and Easement Acquisition and Resolution</a>	Husselbee
5.	<a href="#">Post-Issuance Tax Compliance Policy Revisions Commission Adopted Policy</a>	de Mik
6.	<a href="#">Hampton Roads Bridge Tunnel Expansion Project Hampton Roads Water Quality Credit Trade Agreement for Chesapeake Bay Restoration Compliance Year 2022</a>	Mitchell
7.	<a href="#">Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements Additional Appropriation &amp; Contract Award (&gt;\$200,000)</a>	Abisaab
8.	<a href="#">Deep Creek Interceptor Force Main Risk Mitigation Additional Appropriation</a>	Husselbee
9.	<a href="#">Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Additional Appropriation, Contract Change Order (&gt;25%)</a>	Husselbee

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
10.	<a href="#">Lucas Creek – Woodhaven Interceptor Force Main Replacement Phase II Additional Appropriation, Contract Award (&gt;\$200,000) and Task Order (&gt;\$200,000)</a>	Husselbee
11.	<a href="#">Suffolk Pump Station Replacement Easement Acquisition 568 East Constance Road a/k/a 568 Wilroy Road, Suffolk</a>	Husselbee
12.	<a href="#">Unfinished Business</a>	Bernas
13.	<a href="#">New Business</a>	Bernas
14.	<a href="#">Commissioner Comments</a>	
15.	<a href="#">Public Comments</a> – A request to make public comments during the meeting via Zoom or written comments to be read into the minutes should be submitted to <a href="mailto:commissionsecretary@hrsdc.com">commissionsecretary@hrsdc.com</a> or by phone to 757.460.7003 and must be received by noon one business day prior to the meeting.	Cascio
16.	<a href="#">Informational Items</a>	Bernas
17.	<a href="#">Closed Meeting</a>	Bernas
18.	<a href="#">Reconvened Meeting</a>	Rodriguez
19.	<a href="#">Work Session – FY-2024 Annual Budget</a>	de Mik

Next Regular Commission Meeting: April 25, 2023 in Virginia Beach

AGENDA ITEM 1. – March 28, 2023

**Subject:** Awards and Recognition

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

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

**a. Service Awards**

The Commission Chair will present a service award to Guy Dominique who marked his 30<sup>th</sup> year of service with HRSD on March 1, 2023. Guy began his career at HRSD as a Solids Handling Maintenance Operator Assistant at the Virginia Initiative Plant (VIP). In July of 1994 he switched roles to Plant Operator Assistant (POA) at VIP, then transferred to the Nansemond Treatment Plant as a POA in March of 2000, and was promoted to his current position as Maintenance Operator Assistant in February of 2016.

Guy has been and continues to be a crucial team member in the success of the Nansemond Treatment Plant and has been especially instrumental in both the operations and maintenance of the Struvite Recovery Facility and the Regional Residuals Facility.

We often say that every facility has that one guy you can rely on, who can fill in the gap no matter where you ask them to be, who excels, and is eager, we are incredibly fortunate to not only have a guy but “the” Guy.

**b. New Employee Introductions**

- Mr. Dale Stevick has joined HRSD’s E&I Division as the South Shore Instrumentation Manager. Dale is a graduate of the U.S. Navy Nuclear Power Training program. He also graduated with a Bachelor of Science in Applied Science and Technology from Thomas Edison State College. In his new role, Dale’s primary responsibilities will include supporting CIP project engineering design reviews, contract management (i.e., preventive maintenance, engineering services, etc.), organizational development, and budgetary management.
- Mr. Nicholas Taschner was hired in March 2023 as a Project Manager in the South Shore Design and Construction Division. Nick holds a Bachelor’s of Science in Systems Engineering from the United States Naval Academy. He is an active participant in the United States Marine Corps Reserve and the Professional Association of Dive Instructors (PADI). Nick’s responsibilities will include design and construction management oversight for both capital and non-capital projects and serving on cross departmental committees as with the HRSD Design and Construction Standards.

c. **Other Awards**

(1) **HRSD Environmental Improvement Fund Awards**

The winners of the HRSD Environmental Improvement Fund Awards were presented on March 12 during the 72<sup>nd</sup> Tidewater Science and Engineering Fair. The following recipients were selected by a team of Water Quality scientists, led by Environmental Scientist, Chris Burbage (TSD). Judging panel members were Kaitlyn Stone (P3), Tina-Marie Haskell (TSD), Jacy Hazlitt (TSD), Marcos Davila-Banrey (TSD), and Heather Groundwater (CEL).

Junior Division (Middle School)

**Isaac West (Yorktown Middle School)** *More than just seafood: The role oysters play on the waters of the Chesapeake Bay.*

**Mason Anderson (Tabb Middle School)** *Nature vs. Machine*

Senior Division (High School)

**Zahra Rizvi (Grafton High School)** *Flowing into the future: Addressing urbanization's impact on water quality in the Chesapeake Bay.*

**Hannah Chen (Governor's School of Science and Technology)** *Predicting life in water with math.*

The prizes were:

**Junior Division:** First Place - \$450 cash, a certificate, and a trophy; Second Place - \$350 cash, a certificate, and a trophy.

**Senior Division:** First Place - \$550 cash, a certificate, and a trophy; Second Place - \$450 cash, a certificate, and a trophy.

HRSD also presents a \$100 cash honorarium to the teacher that mentored and supported each winner.

(2) **Virginia Water Environment Association (VWEA) Industrial Waste and Pretreatment Excellence Platinum Award**

HRSD nominated STIHL Incorporated for a VWEA Industrial Waste and Pretreatment Excellence Platinum Award. The Platinum award requires 100% compliance with pretreatment regulations for five or more consecutive years.

STIHL has been in perfect compliance with HRSD's regulations and permit requirements for 13 consecutive years. STIHL has decreased chemical usage in various departments, eliminated chemical rinse tanks and is currently working on introducing a mop water recycle system. The company follows a well-developed Environmental Management System and has developed a global climate strategy for

sustainability to include elimination of single use plastics, climate neutral facilities, and increased efficiency. They have reduced their industrial water usage by over 20% in the previous five-year span and decreased process chemical use by six gallons per month through chemical alteration.

HRSD staff received the award at the ceremony earlier this month on behalf of STIHL who was unable to attend.



AGENDA ITEM 2. – March 28, 2023

**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 Change Orders
  - 1. [James River Treatment Plant MIFAS Conversion Emergency](#) \$396,330
- c. Sole Source
  - 1. [Duperon Flexrake® GTS](#)
- d. HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
  - 1. [Cybersecurity Practice and Procedure Initiative](#) \$560,000

## CONSENT AGENDA ITEM 2.b.1. – March 28, 2023

**Subject:** James River Treatment Plant MIFAS Conversion Emergency  
Contract Change Order (>25% or \$50,000)

**Recommended Action:** Approve a change order with Pioneer Industries in the amount of \$396,330.

**CIP Project:** JR013401

**Regulatory Requirement:** None

Budget	\$5,000,000
Previous Expenditures and Encumbrances	(\$4,489,557)
Available Balance	\$510,443

<b>Contract Status:</b>	Amount	Cumulative % of Contract
Original Contract with Pioneer Industries	\$44,253	
Total Value of Previous Change Orders	\$0	%
Requested Change Order No. 1	\$396,330	
Total Value of All Change Orders	\$396,330	895%
Revised Contract Value	\$440,583	

**Project Description:** This project modified the James River Treatment Plant (JRTP) integrated fixed-film activated sludge (IFAS) basins by adding a second anoxic zone to achieve partial denitrification-anammox (PdNA).

Parallel with the James River Treatment Plant Advanced Nutrient Reduction Improvements (ANRI) (JR013400) project, it was decided to upgrade the JRTP aeration tanks from an A2O configuration to a 5-stage Bardenpho with moving media IFAS (MIFAS) PdNA in a newly created second anoxic zone in 8 of the 9 IFAS tanks. PdNA MIFAS provides considerable operational cost savings, but more importantly, this is needed to meet nitrogen limits in the future for the James River SWIFT Facility (GN016360) and to meet new total nitrogen discharge requirements. PdNA MIFAS construction began immediately before the large SWIFT/ANRI design-build project (JR013400) construction project to avoid significant conflicts with the larger project performing construction in the same space to upgrade the secondary clarifiers.

This initial MIFAS construction allowed HRSD to get the needed mechanical equipment installed for a PdNA MIFAS zone on a very rapid timeline. MIFAS was started in one tank and has demonstrated anammox and PdNA activity, confirming the full-scale validity of this technology. Other tanks will start up as the ANRI project sequence proceeds. The optimization of this MIFAS process must continue in the same sequence with which tanks are out-of-service for the ANRI portion of JR013400 construction in order to meet the timeline needed for nutrient limits.

As a full-scale pilot test for other HRSD plant PdNA upgrades, one of the nine IFAS tanks was upgraded with fixed media IFAS (FIFAS). This tank was placed in service in November 2022. Similar to MIFAS, some optimization work is required.

**Project Justification:** PdNA MIFAS (moving media integrated fixed-film activated sludge) provides considerable operational cost savings, but more importantly, this is needed to meet nitrogen limits in the future for James River SWIFT and to meet new total nitrogen discharge requirements.

**Change Order Description:** This change order must proceed along a timeline that matches the ANRI construction schedule and includes:

1. The addition of a swing zone fine bubble aeration system in the last cell of the first anoxic zone of eight IFAS tanks. Aerobic operation in this zone accommodates the removal of excess internal carbon upstream of the nitrification zone which will help provide a stable ammonia versus nitrate (AvN) ratio that is required for the downstream PdNA zone. This concept was piloted in IFAS tank #5, and Pioneer performed the installation. The observed nitrification performance improvements suggest that deploying this in other tanks will be needed for effective winter operation. Following the tank #5 upgrade, it was anticipated that Pioneer would be requested to complete the remaining eight IFAS tank swing zone installations. It is also critical that this work be initiated immediately in IFAS tanks 1, 2, and 3 while they are out of service for ANRI work, moving to the other IFAS tanks as they are sequentially taken out of service for the needs of the ANRI project construction.
2. Repairs and optimization of the FIFAS modules based on experience over the last few months of operation. Since Pioneer originally assembled and installed the FIFAS modules, they are the obvious selection to perform these repairs.
3. Adjustments to the wet weather PdNA bypass gates to accommodate a slightly higher water surface elevation in the IFAS tanks.

**Analysis of Cost:** The cost of this change order is based on a negotiated price between HRSD and Pioneer Industries and is in agreement with other similar efforts from other suppliers.

This work is in accordance with Commission Adopted Procurement Policy.

<b><u>Schedule:</u></b>	Design	February 2022
	Construction	March 2024
	Project Completion	March 2024



CONSENT AGENDA ITEM 2.c.1. – March 28, 2023

**Subject:** Duperon Flexrake® GTS  
Sole Source (>\$10,000)

**Recommended Action:** Approve the use of Duperon Flexrake® GTS at the Nansemond Treatment Plant.

**Regulatory Requirement:** None

**Sole Source Justification:**

- Compatibility with existing equipment or systems is required
- Support of a special program in which the product or service has unique characteristics essential to the needs of the program
- Product or service is covered by a patent or copyright
- Product or service is part of standardization program to minimize training for maintenance and operation, and parts inventory

**Details:** Product includes one Duperon Flexrake® GTS mechanically cleaned bar screen. The same make of screen was installed in the Nansemond Treatment Plant (NTP) Preliminary Treatment Facility (PTF) in 2020. The new screens will use the same maintenance and tools that are currently used at the PTF and will have the same maintenance requirements. Additionally, the Duperon screens do not have a lower sprocket which decreases the maintenance on the screen. This feature prevents the requirement of needing a channel drum screen that would require hot water accessibility and additional modifications to the channel structure. These features were listed as requirements in the specification.

The screen will be purchased as part of a future construction contract and will be purchased and installed by the Contractor.

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

## CONSENT AGENDA ITEM 2.d.1. – March 28, 2023

**Subject:** Cybersecurity Practice and Procedure Initiative  
 HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award  
 (>\$200,000)

**Recommended Actions:**

- a. Approve the use of the Fairfax County Contract# 4400006325 for IT Hardware, Software & Related Services for Darktrace Software and System Support.
- b. Award a contract for Darktrace Software and System Support to CDW LLC DBA CDW Government LLC in the estimated amount of \$140,000 for year one with three years annual renewal options and an estimated cumulative value in the amount of \$560,000.

**HRSD Estimate: \$560,000**

**CIP Project: AD012500**

**Regulatory Requirement: None**

Budget	\$15,500,000
Previous Expenditures and Encumbrances	(\$5,218,471)
Available Balance	\$10,281,529

**Project Description:** This project will provide for the development of a sustainable comprehensive framework for secure computing and data management utilizing a variety of hardware, software, and professional contractual services.

**Project Justification:** IT staff has coordinated an IT security and vulnerability assessment. This project will address the assessment's recommendations for minimizing risk exposure.

**Contract Description and Analysis of Cost:** This contract is for Darktrace software that provides network security service to our current cybersecurity portfolio and addresses a known gap in protection. Darktrace reduces network risk by prioritizing vulnerabilities and hardening systems. By utilizing the cooperative contract through Fairfax County, HRSD is receiving 5.5 percent cost savings.

<b><u>Schedule:</u></b>	PER	July 2019
	Design	March 2021
	Bid	June 2025
	Construction	June 2025
	Project Completion	June 2025

AGENDA ITEM 3. – March 28, 2023

**Subject:** Middlesex Interceptor System Program Phase II-Transmission Force Main Project  
Public Hearing on Determination of Public Need for Fee Simple and Easement  
Acquisition and Resolution

**Recommended Actions:**

1. Conduct public hearing.
2. Adopt the Resolution approving the public use determination and directing acquisition by condemnation, or other means, of permanent and temporary easements for the Middlesex Interceptor System Program Phase II-Transmission Force Main Project.

**CIP Project:** MP013730

**Regulatory Requirement:** None

**Project Description:** This project consists of multiple, smaller projects to construct a sewage conveyance system to serve Middlesex County. The new system will include new pipes and pump stations to convey wastewater from Middlesex County to HRSD's existing sewage system in Mathews County. The projects will help enable the decommissioning of both the HRSD Urbanna and Central Middlesex Treatment Plants. The new pipes and pump stations will generally be constructed in the Town of Urbanna, Urbanna Road (Route 227), General Puller Highway (Route 33), Twiggs Ferry Road (Route 3), and near the Waverley Lane/John Clayton Memorial Highway in Gloucester.

**Project Justification:** The project includes constructing new sanitary sewer pump stations: one in Saluda, one in the Town of Urbanna, one in the Locust Hill area, one in the Hartfield area, and one in Gloucester on Waverley Lane. The new pump stations will include new pipes to convey wastewater from Middlesex County to HRSD's existing sewage system in Mathews County. The Saluda Pump Station will be constructed within an existing parking area adjacent to the Middle Peninsula Regional Security Center. The new pipes will generally be constructed along Oaks Landing Road and Bowden Street. The Urbanna Pump Station will be constructed along Linden Avenue. The Locust Hill Pump Station will be constructed along General Puller Highway near St. Clare Walker Middle School. The Hartfield Pump Station and pipes will generally be constructed along Wood Brothers Road and General Puller Highway. The Gloucester Booster Pump Station will be constructed along Waverley Lane and will connect to HRSD's existing Mathew's sewer system.

As part of the project, HRSD anticipates a total of 87 temporary and permanent easements and five fee simple acquisitions.

A public hearing will be held to review the scope of the project, to define the public need of the project and identify the specific impact to the properties where condemnation may be considered and to receive public input. Attempts to purchase the property and easements from the owners have been unsuccessful. While a purchase is still possible, condemnation will likely be necessary to keep the project on schedule. The attached [Resolution](#) meets the requirements of the Code of Virginia should condemnation be necessary. The resolution has been reviewed by HRSD legal counsel.

Staff will provide a short overview for the Commission and the public immediately prior to the Public Hearing.



## RESOLUTION

***Providing for the acquisition by condemnation, if necessary,  
of parcels and/or easements with respect to  
the Middlesex Interceptor System Program Phase II-Transmission  
Force Main Project; CIP NO. MP013730***

**WHEREAS**, Hampton Roads Sanitation District (hereinafter "HRSD"), as part of its Capital Improvement Program, is proceeding with the project known as the Middlesex Interceptor System Program Phase II-Transmission Force Main Project; MP013730 (the "Project"); and

**WHEREAS**, as a part of the said Project, HRSD has determined that it is necessary to acquire certain property and easements, as shown on the plans for the Middlesex Interceptor System Program Phase II-Transmission Force Main Project (the "Plans"), the Plans being on file in the offices of HRSD at 1434 Air Rail Avenue, Virginia Beach, Virginia, (the "Property"), by condemnation (or other means); and

**WHEREAS**, HRSD provided public notice, duly published in newspapers of general circulation in the County of Middlesex, and held a public hearing on this matter at 1434 Air Rail Avenue, Virginia Beach, Virginia on March 28, 2023; and

**WHEREAS**, at the public hearing, HRSD allowed for public input with respect to the proposed condemnation, as well as considered information provided by HRSD staff, and considered whether the proposed use is a public use and whether the acquisition of the said Property by condemnation (or other means) should be authorized by HRSD; and

**WHEREAS**, after holding a public hearing on the matter, HRSD has determined that a public necessity exists for the acquisition of the Property for the Project and that the Project is in the public interest;

***NOW, THEREFORE, BE IT RESOLVED*** on the 28th day of March 2023, by the HRSD Commission that:

1. The Project is approved as a public use, necessary for the construction of said Project within HRSD's system; and said Project is further declared to be in the public interest;
2. The acquisition of the Property by purchase or condemnation is necessary for the said Project and is hereby approved;
3. The Property will be used by HRSD in furtherance of its public functions pursuant to the Virginia Code, and that the acquisition of the Property for that public use: (i) will serve only public interests which dominate any private gain; (ii) are sought for the primary purpose of serving public interests and not private financial gain, private benefit, or an increase in employment; and (iii) otherwise complies with §1-219.1 of the Virginia Code;
4. HRSD previously has made bona fide efforts to acquire the Property from the landowners, but, to date, those efforts have been ineffectual;

5. HRSD authorizes its staff and counsel, respectively, to take all actions for and on behalf of HRSD which are or may be appropriate or necessary for HRSD to acquire the Property through the exercise of its power of eminent domain, including but not limited to, the filing of any papers or pleadings with the applicable circuit court, and other actions related to the initiation of any legal proceedings necessary or appropriate to acquire the Property by eminent domain, provided, however, that nothing in this Resolution shall be construed as preventing the continued negotiation by HRSD, its staff, and/or counsel for the acquisition by purchase or other means of the Property before or after the initiation of any such eminent domain proceedings; and
6. This resolution shall take effect immediately upon its adoption.

The undersigned further certifies that the foregoing has been properly approved and adopted in accordance with all applicable requirements of the HRSD Commission.

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Stephen C. Rodriguez, Chair

AGENDA ITEM 4. – March 28, 2023

**Subject:** Suffolk Pump Station Replacement  
Public Hearing on Determination of Public Need for Fee Simple and Easement  
Acquisition and Resolution

**Recommended Actions:**

- a. Conduct public hearing.
- b. Adopt the Resolution approving the public use determination and directing acquisition by condemnation, or other means, of fee simple acquisition, permanent and temporary easements for the Suffolk Pump Station Replacement project.

**CIP Project:** NP010620

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

**Project Description:** This project will design and construct two replacement pump stations in lieu of constructing one replacement for the existing Suffolk Pump Station located at 1136 Sanders Drive, in Suffolk. The benefit of the two-pump station scenario includes abandonment/removal of over 7,000 linear feet of gravity sewer and 34 manholes along Shingle Creek and associated wetlands with ongoing concerns for potential overflows, pipe failure and difficulty accessing for maintenance.

**Project Justification:** The new stations will meet current capacity needs and provide for future expansion to meet anticipated growth and improve system efficiencies. The existing pump station site does not provide the needed space for expansion, is difficult to access and creates a nuisance to traffic in the surrounding residential neighborhood.

As part of the project, HRSD anticipates a total of 26 temporary and permanent easements and three fee simple acquisitions.

A public hearing will be held to review the scope of the project, to define the public need of the project and identify the specific impact to the properties where condemnation may be considered and to receive public input. Attempts to purchase the property and easements from the owners have been unsuccessful. While a purchase is still possible, condemnation will likely be necessary to keep the project on schedule. The attached [Resolution](#) meets the requirements of the Code of Virginia should condemnation be necessary. The resolution has been reviewed by HRSD legal counsel.

Staff will provide a short overview for the Commission and the public immediately prior to the Public Hearing.



## **RESOLUTION**

***Providing for the acquisition by condemnation, if necessary,  
of parcels and/or easements with respect to  
Suffolk Pump Station Replacement; CIP NO. NP010620***

**WHEREAS**, Hampton Roads Sanitation District (hereinafter "HRSD"), as part of its Capital Improvement Program, is proceeding with the project known as the Suffolk Pump Station Replacement; CIP NO. NP010620 (the "Project"); and

**WHEREAS**, as a part of the said Project, HRSD has determined that it is necessary to acquire certain property and easements, as shown on the plans for the Suffolk Pump Station Replacement (the "Plans"), the Plans being on file in the offices of HRSD at 1434 Air Rail Avenue, Virginia Beach, Virginia, (the "Property"), by condemnation (or other means); and

**WHEREAS**, HRSD provided public notice, duly published in newspapers of general circulation in the City of Suffolk, and held a public hearing on this matter at 1434 Air Rail Avenue, Virginia Beach, Virginia on March 28, 2023; and

**WHEREAS**, at the public hearing, HRSD allowed for public input with respect to the proposed condemnation, as well as considered information provided by HRSD staff, and considered whether the proposed use is a public use and whether the acquisition of the said Property by condemnation (or other means) should be authorized by HRSD; and

**WHEREAS**, after holding a public hearing on the matter, HRSD has determined that a public necessity exists for the acquisition of the Property for the Project and that the Project is in the public interest;

***NOW, THEREFORE, BE IT RESOLVED*** on the 28th day of March, 2023, by the HRSD Commission that:

1. The Project is approved as a public use, necessary for the construction of said Project within HRSD's system; and said Project is further declared to be in the public interest;
2. The acquisition of the Property by purchase or condemnation is necessary for the said Project and is hereby approved;
3. The Property will be used by HRSD in furtherance of its public functions pursuant to the Virginia Code, and that the acquisition of the Property for that public use: (i) will serve only public interests which dominate any private gain; (ii) are sought for the primary purpose of serving public interests and not private financial gain, private benefit, or an increase in employment; and (iii) otherwise complies with §1-219.1 of the Virginia Code;
4. HRSD previously has made bona fide efforts to acquire the Property from the landowners, but, to date, those efforts have been ineffectual;

5. HRSD authorizes its staff and counsel, respectively, to take all actions for and on behalf of HRSD which are or may be appropriate or necessary for HRSD to acquire the Property through the exercise of its power of eminent domain, including but not limited to, the filing of any papers or pleadings with the applicable circuit court, and other actions related to the initiation of any legal proceedings necessary or appropriate to acquire the Property by eminent domain, provided, however, that nothing in this Resolution shall be construed as preventing the continued negotiation by HRSD, its staff, and/or counsel for the acquisition by purchase or other means of the Property before or after the initiation of any such eminent domain proceedings; and
6. This resolution shall take effect immediately upon its adoption.

The undersigned further certifies that the foregoing has been properly approved and adopted in accordance with all applicable requirements of the HRSD Commission.

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Stephen C. Rodriguez, Chair



AGENDA ITEM 5. – March 28, 2023

**Subject:** Post-Issuance Tax Compliance Policy Revisions  
Commission Adopted Policy

**Recommended Action:** Approve the revised Post-Issuance Tax Compliance Policy.

**Brief:** HRSD from time-to-time issues tax-exempt bonds and other “tax-advantaged” obligations (collectively “Tax-Advantaged Bonds”) to raise funds to finance and refinance various capital improvements.

The Post-Issuance Tax Compliance Policy (Policy) was originally adopted by the Commission in March 2012 and was created to assist staff in monitoring compliance with rules applicable to Tax-Advantaged Bonds in order to preserve their tax-advantaged status.

This Policy covers (1) record retention, (2) limitations on “private loans” and “private business use,” including the rules relating to the taking of “remedial action” to preserve the status of an issue of Tax-Advantaged Bonds, and (3) limitations on earning arbitrage, including the payment of arbitrage rebate to the federal government at various intervals.

This Policy reflects best practices, and is to be revised periodically as circumstances warrant, including changes in federal tax law, and as the municipal bond market and Internal Revenue Service (“IRS”) enforcement each evolve.

Given the scope and complexity of HRSD’s financings, the Policy requires ongoing review and refinement. The changes reflected herein are generally administrative and clarifying in nature. The 2012 policy contained an appendix which staff believes is too technical in nature to be contained within a policy document and has therefore been eliminated. Generally, the provisions within the appendix are contained within each financing’s tax certificate delivered at closing.

The attached [policy](#) was reviewed by staff and HRSD’s bond counsel.

## **1.0 Purpose and Need**

Hampton Roads Sanitation District (“HRSD”) from time to time issues tax-exempt bonds and other “tax-advantaged” ~~bonds-obligations~~ (collectively “Tax-Advantaged Bonds”) to raise funds to finance *and refinance* various capital improvements of HRSD. These procedures (the “Post-Issuance Compliance Procedures”) have been adopted by HRSD to assist it in monitoring compliance with certain rules applicable to Tax-Advantaged Bonds in order to preserve their tax-advantaged status. These Post-Issuance Compliance Procedures specifically cover:

- (1) record retention;
- (2) limitations on *“private loans” and* “private business use,” including in particular the rules relating to the taking of “remedial action” to preserve the status of an issue of Tax-Advantaged Bonds; and
- (3) limitations on earning arbitrage, including the payment of arbitrage rebate to the federal government at various intervals (the “Rebate Requirement”).

HRSD recognizes that the various tax-related limitations, including the above-mentioned limitations, are based on the provisions of the Internal Revenue Code of 1986, as amended (the “Internal Revenue Code”), and the regulations of the U.S. Treasury promulgated thereunder (the “Treasury Regulations”).

These Post-Issuance Compliance Procedures are intended to document and supplement existing practices and describe various procedures and systems implemented and to be implemented to demonstrate compliance with the requirements that must be satisfied before and after the issuance of Tax-Advantaged Bonds. Compliance with applicable provisions of the Internal Revenue Code and the Treasury Regulations is an ongoing requirement and an integral component of HRSD’s debt management program. Accordingly, implementation of these Post-Issuance Compliance Procedures will require ongoing surveillance through, and sometimes beyond, the final maturity of Tax-Advantaged Bonds and may require *on-going* consultation with ~~legal-bond~~

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<sup>1</sup> Reference to Tax-Advantaged Bonds herein includes tax-exempt bonds and other tax-advantaged obligations issued by other governmental entities, e.g., Virginia Resources Authority, the proceeds of which are loaned to HRSD to finance or refinance various capital improvements of HRSD, and other forms of borrowing, e.g., leases entered into to purchase equipment, revolving credit arrangements, and private loans advanced by a local bank.

**COMMISSION ADOPTED POLICY**  
**Post-Issuance Tax Compliance**



Adopted: March 27, 2012

Revised: *March 28, 2023*

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counsel ~~beyond the initial engagement for~~ *after* the issuance of particular obligations.

These Post-Issuance Compliance Procedures are intended to reflect best practices, to be revised periodically as circumstances warrant, including changes in federal tax law, and as the municipal bond market and Internal Revenue Service ("IRS") enforcement each evolve. Given the scope and complexity of HRSD's financings, compliance with these Post-Issuance Compliance Procedures will require ongoing review and refinement. Failure to conform to any element of these Post-Issuance Compliance Procedures, however, should in no way imply that HRSD is not in compliance with the provisions of the Internal Revenue Code applicable to its Tax-Advantaged Bonds. In addition, the Tax Compliance Designee (defined below) is authorized to deviate from strict compliance with these Post-Issuance Compliance Procedures to the extent necessary to carry out the intent and purpose of the Post-Issuance Compliance Procedures and provided such deviations do not jeopardize the tax-advantaged status of any Tax-Advantaged Bonds.

## 2.0 Definitions

**Construction Contracts and Other Purchases of Capital Assets:** A contract with a Nongovernmental Person to construct capital assets or to sell capital assets to HRSD does not generally result in Private Use unless *the Nongovernmental Person is providing* additional services ~~are being provided by the Nongovernmental Person~~ in connection with such contract, e.g., construction management or consulting services, *or has some other special legal entitlement or special economic benefit with respect to such capital assets*. Such services, *special legal entitlement or special economic benefit* with respect to bond financed property must be analyzed for Private Use ~~under Revenue Procedure 97-13~~.

**Leases of bond financed property:** All leases of bond financed property to a Nongovernmental Person constitute Private Use of such property unless an exception for short term use is satisfied.

**Management and Service Contracts:** With respect to management and service contracts, the determination of whether a particular contract results in Private Use shall be based on the application of the Code and Treasury Regulations, including particularly Revenue Procedure *2017-13, 2017-6 I.R.B. 787 97-13, 1997-1 C.B. 632, as amended by Revenue Procedure 2001-39, 2001-2 C.B. 39* ("Revenue Procedure ~~97~~*2017-13*"), *and, for any management and*

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*service contract entered into before August 18, 2017 and not materially modified or extended on or after such date, such determination may be made on the basis of applying Revenue Procedure 97-13, 1997-1 C.B. 632, as amended by Revenue Procedure 2001-39, 2001-2 C.B. 38, and as amplified by Notice 2014-67, 2014-46 I.R.B. 822 (collectively, "Revenue Procedure 97 13" and referred to collectively with Revenue Procedure 2017-13 as the "Management Contract Safe Harbors").* Such management and service contracts include, but are not limited to, operating agreements, construction management agreements, business services agreements, technical consulting services agreements and other similar agreements. Further, for purposes of determining the nature of a Private Use, any management or service contract that is properly characterized as a lease for federal income tax purposes is treated as a lease. Consequently, any such agreements, even though referred to as a management or service contract may nevertheless be treated as a lease. In determining whether a management or service contract is properly characterized as a lease, it is necessary to consider all of the facts and circumstances, including, *but not limited to*, the following factors:

- the degree of control over the property that is exercised by a Nongovernmental Person; and
- whether a Nongovernmental Person bears risk of loss of the financed or refinanced property.

**Materials and Commodity Supply Contracts:** A contract or purchase order for materials, commodities, inventory or other supplies from a Nongovernmental Person does not generally result in Private Use unless there are additional services being provided by the Nongovernmental Person in connection with the contracts, e.g., consulting services. Such service arrangements with respect to bond financed property must be analyzed for Private Use under *the Management Contract Safe Harbors*. ~~Revenue Procedure 97-13~~

**Nongovernmental Person:** Any person or entity other than a state or local government entity. State and local governments used herein are governmental entities. The United States of America (*including any federal agencies*) and *non-profit corporations, including charitable organizations exempt from tax under Section 501(c)(3) of the Code, are Nongovernmental Persons.*

**Nonpossessory Incidental Use:** Any nonpossessory incidental use such as vending machines, bank machines and similar uses may be excluded from the Private Use rules *if the nonpossessory use is not functionally related to any other use of the bond financed facility by the same person and all such nonpossessory*

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*uses of the financed facility do not in the aggregate involve the use of more than to the extent of 2.5% of facility*~~an issue of Tax-Advantaged Bonds~~. Such use of bond financed property shall be tracked by Tax Compliance Designee.

**Ownership of bond financed property:** If bond financed property is owned by a Nongovernmental Person, *either in name or in substance pursuant to the federal income tax rules*, such ownership will be considered Private Use of the asset for purposes of the Private Use rules.

**Private Payments:** For purposes of these Post-Issuance Compliance Procedures, "Private Payments" means payments derived, directly or indirectly, in respect of property used or to be used for Private Use. As an example, if there is Private Use with regard to a facility of HRSD as a result of a non-complying management contract and HRSD customers make payments with respect to such facility, such payments may be treated as Private Payments.

**Private Use:** For purposes of these Post-Issuance Compliance Procedures, the term "Private Use" means any activity that constitutes a trade or business that is carried on by Nongovernmental Persons. Any activity carried on by a person other than a natural person is treated as a trade or business. Any asset financed with Tax-Advantaged Bonds not owned by a Governmental Entity will be considered to be used in a Private Use.

In most cases, Private Use will occur only if a Nongovernmental Person has a special legal entitlement to use the bond financed property. Such a special legal entitlement includes ownership or actual or beneficial use pursuant to a lease, management, service or incentive payment contract, output contract, research agreement or similar arrangement. Private Use may also be established solely on the basis of a special economic benefit to one or more Nongovernmental Person.

**Short-Term Use Exception:** Arrangements fitting within either of the following two exceptions will not result in Private Use *unless the property is financed for the principal purpose of providing that property for use by that Nongovernmental Person*.

- (1) **100 Day Exception - Use Pursuant to Generally Applicable and Uniformly Applied Rates:** ~~Use pursuant to a~~An arrangement will not result in Private Use if:

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- (a) the arrangement does not transfer ownership *for federal income tax purposes* of the property to a Nongovernmental Person,
- (b) the term of the use under the arrangement, including all renewal options, is not longer than 100 days, and
- (c) *the arrangement would be treated as general public use, except that it is not available for use on the same basis by natural persons not engaged in a trade or business because compensation under the arrangement is based on* generally applicable and uniformly applied rates *are not reasonably available to natural persons not engaged in a trade or business.*

(2) ***50 Day Exception - Use Pursuant to Negotiated Arm's Length Arrangements:*** ~~Use pursuant to a~~An arrangement will not result in Private Use if:

- (a) the arrangement does not transfer ownership *for federal income tax purposes* of the property to a Nongovernmental Person,
- (b) the term of the use under the arrangement, including all renewal options, is not longer than 50 days, and
- (c) the arrangement is a negotiated arm's-length arrangement and compensation under the arrangement is at fair market value.

***Special Priority Rights or Special Economic Benefits:*** A contract ~~which that~~ conveys special priority rights or special economic benefits in bond financed property to a Nongovernmental Person may create Private Use. In determining whether special economic benefit gives rise to Private Use of bond financed property, it is necessary to consider all of the facts and circumstances, including, *but not limited to*, one or more of the following factors:

- whether the bond financed property is functionally related or physically proximate to property used in the trade or business of a Nongovernmental Person;

- whether only a small number of Nongovernmental Persons receive the economic benefit; and
- whether the cost of the bond financed property is treated as depreciable by the Nongovernmental Person.

Such arrangements with respect to bond financed property must be reviewed by bond counsel.

### **3.0 Procedures**

#### **3.1 Guiding Principles**

**Policies and Post-Issuance Compliance Procedures Generally:** HRSD's Director of Finance shall be responsible for monitoring tax compliance with regard to HRSD's debt offerings (the "Tax Compliance Designee"). The Tax Compliance Designee shall also be responsible for ensuring an adequate succession plan for transferring tax compliance responsibilities when changes in staff occur.

The Tax Compliance Designee needs to review the tax compliance procedures and systems on a periodic basis (*e.g.*, annually), and consult with the General Manager and bond counsel as appropriate and as needed.

#### **3.2 Private Use, Change in Use and Remedial Action**

##### **1. Private Use Generally**

Tax-Advantaged Bonds may lose their tax status if they meet *either*:

- the private business use test in Section 141(b)(1) of the Internal Revenue Code, and
- the private security or payment test in Section 141(b)(2) of the Internal Revenue Code, or
- the private loan financing test in Section 141(c) of the Internal Revenue Code.

The private business use test relates to the use of the proceeds of an issue and the test is met if more than the lesser of (1) \$15,000,000 and (2)



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10%<sup>2</sup> of the proceeds of an issue meet the private business use test. Generally, private business use arises if proceeds of an issue are used by ~~persons or entities other than state or local governmental entities~~ (“Nongovernmental Persons”) in a trade or business (“Private Use”). It is necessary to look to direct and indirect uses as well as actual and beneficial uses. In most cases, Private Use arises if a Nongovernmental Person has special legal entitlements with respect to financed property. Private payments include revenues derived, directly or indirectly, with respect to property used or to be used for a Private Use (“Private Payments”). Private security takes into account the payment of debt service on an issue that is directly or indirectly secured by any interest in property used or to be used for a Private Use.

*The private loan financing test is met if more than the lesser of:*

- (1) \$5,000,000, and*
- (2) 5% of the proceeds of an issue is or are to be used, directly or indirectly, to make or finance loans to Nongovernmental Persons (“Private Loan”)<sup>3</sup>.*

In addition to these procedures, the Tax Compliance Designee shall refer to the Tax Certificate executed for a particular issue of Tax-Advantaged Bonds for purposes of ascertaining the application of the private business tests and the private loan financing test to such issue of Tax-Advantaged Bonds. The Tax Compliance Designee shall also consult with bond counsel as appropriate for clarification and guidance with respect to the application of such tests.

The following are specific HRSD policies with respect to addressing Private Use.

- a. Structuring of Arrangements to Avoid Private Use or Private Payments.* It is the policy of HRSD that, to the extent consistent

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<sup>2</sup> Such ten percent limitation is reduced to five percent with respect to Private Use that is either unrelated to governmental uses of proceeds of the same issue, or disproportionate to related governmental uses of proceeds of such issue.

<sup>3</sup> *Such arrangements may include arrangements in which the Nongovernmental Person leases the bond financed property and is the owner for federal income tax purposes, or installment sales of bond financed property to Nongovernmental Persons.*



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with the business objectives of HRSD, any potential arrangement ~~which~~ *that* might result in Private Use of bond financed property shall be structured so as to avoid or minimize Private Use or Private Payments.

- ~~a.~~ *b.* **Structuring of Arrangements to Avoid Private Loans.** *It is the policy of HRSD that, to the extent consistent with the business objectives of HRSD, any potential arrangement with respect to bond financed property that might result in a direct or indirect loan of bond proceeds to a Nongovernmental Person shall be structured so as to avoid or minimize the amount of such loan.*
  
- ~~b.~~ *c.* **Allocating Equity or Taxable Debt to Capital Improvement Program Components with Private Use or Private Payments.** *If an arrangement cannot be structured so as to avoid Private Use, Private Payments or Private Loan, it ~~is~~ is the general policy of HRSD ~~that to the extent an arrangement that might result in Private Use cannot be structured so as to avoid Private Use or Private Payments, HRSD will~~ to use its equity, or proceeds of debt that is not tax-advantaged, to finance the subject property.*
  
- ~~c.~~ *d.* **Allocation of Bond Proceeds to Assets Financed.** For each issue of Tax-Advantaged Bonds, HRSD shall maintain records establishing costs financed. *In addition, to the extent any improvements are financed with taxable debt that HRSD anticipates to be refinanced with the proceeds of Tax-Advantaged Bonds, HRSD shall maintain records establishing the costs of the capital improvements financed by such taxable debt.* Guidelines for allocating proceeds to expenditures/costs are set forth in Treasury Regulations Sections 1.141-6 and 1.148-6.

Generally, HRSD must account for the allocation of proceeds to expenditures (final allocations) not later than 18 months after the later of:

- ~~(i)~~ the date the expenditure is paid, ~~or~~ *and*
- ~~(ii)~~ the date the project that is financed by the issue is placed in service but in no event later than the date 60 days after the fifth anniversary of the respective issue date or the date 60 days after the retirement of the issue, if earlier.

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*d.e. Contract Log.* A listing of the ownership arrangements, leases, management contracts, output contracts, research agreements, other arrangements that convey special legal entitlements, arrangements with special economic benefits, and other contractual arrangements with respect to the Tax-Advantaged Bonds ~~issued by HRSD~~ shall be developed and maintained substantially in the form attached hereto as Schedule 1 (referred to as the "Contract Log").

Each item listed in the Contract Log shall set forth ~~(i)~~ the issue or issues of Tax-Advantaged Bonds that financed property used in connection with such arrangement, ~~(ii)~~ the amount of proceeds of such issue allocable to such property, and ~~(iii)~~ the amount of payments, if any, expected with respect to such arrangement, net of the incremental costs incurred by HRSD to operate and maintain the facility as a result of such arrangement.

*e.f. Quantifying Private Use and Periodic Review.* HRSD will monitor compliance with the private business tests and the private loan financing tests and develop and maintain a log with respect to each issue of Tax-Advantaged Bonds, either separate and apart from or part of the Contract Log and Disposition Log, and periodically (e.g., annually), set forth the amount of proceeds of such issue allocable to each separate facility financed by HRSD, and the amount of proceeds of such issue attributable to Private Use *and Private Loan*.

*f.g. Dispositions.* HRSD policies with respect to dispositions of HRSD property are addressed in the HRSD Procurement Manual and appendices thereto (the "Surplus Property Procedures"). It is the policy of HRSD that all dispositions of bond-financed property are to be addressed in a manner that does not jeopardize the tax-advantaged status of obligations issued by or for the benefit of HRSD. In furtherance of this policy, HRSD personnel responsible for implementing the Surplus Policy Procedures are required to be familiar with the requirements of these Post Issuance Compliance Procedures and are to receive training as necessary. *If capital assets financed or refinanced with Tax-Advantaged Bonds are to be transferred to another state or local governmental entity (a "Governmental Transferee"), such Governmental Transferee shall also be required to comply with the private business use and private loan limits.*

## 2. Remedial Action and Voluntary Compliance Agreement Program

Even though HRSD reasonably expects on the issue date of each issue of Tax-Advantaged Bonds to satisfy all applicable federal tax requirements relating to such bonds for so long as the bonds remain outstanding, post-issuance events can occur that jeopardize compliance with these requirements. As a private business use example, ~~HRSD may lease~~ property financed with *Tax-Advantaged Bonds* ~~governmental bonds that is leased~~ to a private party *may be in a manner* contrary to the private business tests. Such lease may be entered into out of necessity or without an understanding that it may be contrary to the private business tests. As an arbitrage example, HRSD may inadvertently violate ~~the an~~ applicable yield restriction.

In the event HRSD does not stay within the limitations of the private business tests, the private loan financing tests, or the arbitrage requirements described herein, the Tax Compliance Designee shall work with bond counsel to take appropriate steps to preserve the tax-advantaged status of the respective bond issue, including taking appropriate “remedial action” pursuant to Section 1.141-12 of the Treasury Regulations. Remedial action for this purpose may consist of the redemption or defeasance of bonds and/or the investment/expenditure of amounts received as a result of the sale of bond financed property in other qualified capital improvements of HRSD. HRSD may also be able to take corrective action under the Voluntary Compliance Agreement Program of the IRS (commonly referred to as VCAP). The Tax Compliance Designee shall maintain copies of the documentation with respect to the remedial action.

### 3.3 Arbitrage and Rebate

Section 148 of the Internal Revenue Code, the regulations promulgated thereunder and pronouncements relating thereto (the “Arbitrage Rules”) are intended to ensure that issuers of Tax-Advantaged Bonds, such as HRSD, issue Tax-Advantaged Bonds for the primary purpose of financing property needed ~~by HRSD~~ to carry out its governmental purposes, and not for the purpose of exploiting the difference between the *tax exempt and taxable interest rates*. ~~cost to HRSD on the Tax-Advantaged Bonds and the yield on higher yielding taxable obligations.~~ *Compliance with the Arbitrage Rules requires that:*

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- (a) *proceeds of Tax-Advantaged Bonds are not invested at a yield in excess of the yield of the Tax-Advantaged Bonds unless an exception applies, and*
- (b) ~~Section 148(f) of the Internal Revenue Code, which sets forth the “Rebate Requirement,” requires that even if an issuer is permitted to invest the proceeds at a higher yield pursuant to an exception, an amount equal to the sum of (i) the excess of the aggregate amount earned on all investments over the amount that would have been earned if such investments had a yield equal to the yield of the~~ *with respect to the respective* Tax-Advantaged Bonds, plus ~~(ii) any income attributable to such the excess~~ *must described in (i), be rebated paid* to the United States Treasury *unless an exception applies.*

~~Compliance with the Arbitrage Rules is required on a continuing basis and primarily involves ensuring that proceeds of Tax-Advantaged Bonds (“Bond Proceeds”) are invested in accordance with the applicable yield limitations, and rebating certain investment earnings to the United States Treasury, unless an exception to the Rebate Requirement can be satisfied.~~

The Tax Compliance Designee shall undertake the following actions in furtherance of complying with the Arbitrage Rules:

1. Refer to the Tax Certificate executed for a particular issue of Tax-Advantaged Bonds for purposes of ascertaining the application of the Arbitrage Rules to such issue of Tax-Advantaged Bonds.
2. Consult with bond counsel as appropriate for clarification and guidance with respect to application of the Arbitrage Rules.
3. Review these Post-Issuance Compliance Procedures with bond counsel periodically (e.g., annually) and refine and update the procedures as needed.
4. Ensure that adequate records are established and maintained to set forth the date, amount and nature of each expenditure of the Bond Proceeds of each issue of Tax-Advantaged Bonds and investment earnings thereon. Specifically, a record of the following ~~are~~ *is* to be established and maintained *ed* for each investment of Bond Proceeds:

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- ~~(i)~~ the purchase date,
- ~~(ii)~~ the purchase price,
- ~~(iii)~~ information establishing that the purchase price is the fair market value as of such date (e.g., the published quoted bid by a dealer in such an investment on the date of purchase),
- ~~(iv)~~ any accrued interest paid,
- ~~(v)~~ the face amount,
- ~~(vi)~~ the coupon rate,
- ~~(vii)~~ periodicity of interest payments,
- ~~(viii)~~ disposition price,
- ~~(ix)~~ any accrued interest received, and
- ~~(x)~~ disposition date.

~~5. For each issue of fixed rate Tax-Advantaged Bonds, obtain a computation of the yield on such issue from HRSD's financial advisor, and obtain from bond counsel the Tax Certificate and a listing of all arbitrage yield restrictions attributable to Bond Proceeds or amounts treated as Bond Proceeds of each such issue. The tax certificate will typically contain the information described in the preceding sentence.~~

~~6. For each issue of variable rate Tax-Advantaged Bonds, obtain from bond counsel the Tax Certificate and a listing of all arbitrage yield restrictions attributable to Bond Proceeds or amounts treated as Bond Proceeds of each such issue.~~

~~7. Maintain with respect to each issue of Tax-Advantaged Bonds a schedule setting forth:~~

~~a. The latest date the Bond Proceeds of each issue may be invested at an unrestricted yield;~~

~~b. The benchmarks that must be satisfied in order to meet exceptions to the arbitrage rebate requirements (a general description of the rebate exceptions is set forth in Appendix C attached hereto); and~~

~~c. The dates on which any arbitrage rebate computations are required to be completed and arbitrage rebate is required to be paid to the United States Treasury.~~

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- ~~8.5.~~ Monitoring the expenditure of Bond Proceeds *of each issue of Tax-Advantaged Bonds* and any investment earnings *thereon*, ~~which monitoring shall include obtaining and reviewing monthly reports of the expenditure and investment of proceeds of each issue of Tax-Advantaged Bonds.~~
- 9.6. Maintain a procedure for the allocation of proceeds of each issue of Tax-Advantaged Bonds and investment earnings to expenditures, including the reimbursement of pre-issuance expenditures.
- ~~10.7.~~ Consult with and seek the assistance of HRSD's financial advisor as needed to comply with and memorialize compliance with the requirements set forth in these Post-Issuance Compliance Procedures.
- ~~11.8.~~ Engage a firm with expertise in the area of arbitrage rebate compliance (the "Rebate Consultant") with respect Tax-Advantaged Bonds to arrange, as necessary, for the monitoring of Bond Proceeds expenditure for compliance with various expenditure exceptions (~~described in Appendix A~~) and timely computation of arbitrage rebate or arbitrage yield reduction liability.
- ~~12.9.~~ If rebate or a yield reduction payment is due to the IRS, arrange for the timely filing of Form 8038-T and the payment of such rebate liability.
- ~~13.10.~~ Prior to engaging in any post-issuance credit enhancement transactions (e.g., bond insurance, letter of credit) or hedging transactions (e.g., interest rate swaps, caps), the Tax Compliance Designee is to consult with bond counsel.
- ~~14.11.~~ In the case of refunding bonds, the Tax Compliance Designee should *consult with bond counsel and* coordinate with HRSD's financial advisor, the bond trustee or escrow agent to arrange for the purchase of the refunding escrow securities, and should obtain a computation of the yield on such escrow securities from HRSD's outside arbitrage rebate specialist.

**3.4 Reissuance**

Generally, a reissuance occurs when there are significant changes to the terms of a bond so that the bond ceases to be the same bond for federal tax purposes. A reissuance is a *deemed exchange* of the modified bond for the original bond *and is treated as a new debt issuance* for federal income tax purposes. ~~The reissuance rules apply to all Tax-Advantaged Bonds, from a large bond issue, a loan from Virginia Resources Authority, a small lease entered into to purchase equipment and to a note held by a local bank.~~

The Tax Compliance Designee is to:

- (a) identify and consult with bond counsel regarding any post-issuance change to any terms of an issue of Tax-Advantaged Bonds,
- (b) request bond counsel to determine whether such potential change would cause the bond issue to be treated as “reissued” for federal income tax purposes, and
- (c) take such action as may be required to the preserve the tax-advantaged status of the subject obligations.

### **3.5 Records Retention**

The Tax Compliance Designee is to coordinate procedures for record retention and review of such records as more fully described herein and shall be familiar with IRS Forms 8038-G, 8038-B, 8038-TC, 8038-CP, and relevant provisions of the Internal Revenue Code and the Treasury Regulations, including but not limited to Treasury Regulations Sections 1.141-2, 1.141-3, 1.141-12, and 1.148-1 through 1.150-2.

Commonwealth of Virginia statutes also address record retention requirements (the “Virginia Record Retention Requirements”). These Post-Issuance Compliance Procedures are ~~not intended to conflict with~~ *independent of* the Virginia Record Retention Requirements. It is HRSD’s policy and intention to fully comply with both the federal requirements applicable to Tax Advantaged Bonds and the Virginia Record Retention Requirements.

**Retention of Record:** *In addition to the preparation and maintenance of the Contract Log As* described above, ~~HRSD is to prepare and maintain the Contract Log, which summarizes potential Private Uses to HRSDs Tax-Advantaged Bonds~~ *In addition,* HRSD is to retain the following documentation (the “Records”):



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- a. All legal and accounting documents relating to proceeds of the Tax-Advantaged Bonds, including opinions of counsel and the tax certificate with respect to each issue of Tax-Advantaged Bonds.
- b. Expenditure of proceeds of Tax-Advantaged Bonds as described below:
  - Documents evidencing the expenditure of the proceeds of the Tax-Advantaged Bonds and investment earnings thereon and the specific assets financed with such proceeds, including projected draw schedules and invoices (e.g., records with respect to the bond accounts and funds);
  - Documents setting forth all funds and accounts relating to the Tax-Advantaged Bonds;
  - Documents pertaining to the investment of the proceeds of the Tax-Advantaged Bonds (e.g., records with respect to the bond accounts and funds), including the purchase and sale of securities, guaranteed investment contracts, and swap/hedge transactions; *and*
  - With respect to all investments acquired in any fund or account in connection with the Tax-Advantaged Bonds, the specific information set forth under the heading "Arbitrage and Rebate" herein.
- c. Documents evidencing any allocations with respect to the proceeds of the Tax-Advantaged Bonds;
- d. Documents evidencing the use and ownership of the bond financed property, including contracts for the use of such property (e.g., the Contract Log described herein, and documents evidencing the sale or other disposition of the bond financed property; ~~and~~.
- e. ~~copies~~ *Copies* of the documentation with respect to any remedial actions.

**Required Retention Period:** HRSD will retain the Records until the date that is six years after the complete retirement of the related Tax-Advantaged Bonds.

**Form of Records:** HRSD will keep all records in a manner that ensures complete access thereto for the applicable above described period either in hard copy or electronic format. ~~If the records~~ *Records are* kept in electronic format, ~~compliance is necessary with the requirements of~~ *shall comply with* - Revenue



Procedure 97-22, 1997-1 C.B. 652 (or subsequent guidance provided by the Internal Revenue Service), which provides guidance for maintaining books and records by using an electronic storage system that either images their hardcopy books and records or transfers their computerized books and records to an electronic storage media (e.g., an electronic data compression system).

### 3.6 Training and Periodic Review of Post-Issuance Compliance Procedures

HRSD personnel are to periodically obtain training with regard to the record retention, private business use, arbitrage and rebate issues addressed by these Post-Issuance Tax Compliance Procedures. The training shall include a review of HRSD's recent compliance initiatives, discussions relating to restrictions on the use of proceeds of Tax-Advantaged Bonds, arbitrage requirements and recent developments with respect to Tax-Advantaged Bonds. Training is especially warranted in the event of changes in law or changes in HRSD staff.

HRSD shall periodically (e.g., annually) review its post-issuance compliance efforts and these Post-Issuance Compliance Procedures and consult with bond counsel with regard to updates or changes that may be warranted.

### 3.7—Additional Resources

~~Additional resources available to HRSD include the following, accessible on the internet.~~

<u>Item</u>	<u>Description</u>
<del>IRS Publication 3755</del>	<del>Addresses filing requirements applicable to tax-exempt bonds (e.g., 8038-G and 8038-T)</del>
<del>IRS Publication 4079</del>	<del>IRS Tax-Exempt Governmental Bonds Compliance Guide</del>
<del><a href="http://www.irs.gov/taxexemptbond/">http://www.irs.gov/taxexemptbond/</a></del>	<del>IRS website providing Information for the Tax Exempt Bond Community</del>

Approved:

~~Vishnu K. Lakdawala, Ph.D.~~ *Stephen C. Rodriguez*  
Commission Chairman

Date

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Attest:

\_\_\_\_\_  
Jennifer L. ~~Heilman~~-Cascio  
Commission Secretary

\_\_\_\_\_  
Date

~~APPENDIX A~~

~~1. BONA FIDE DEBT SERVICE FUND EXCEPTION~~

~~Amounts earned on money in a bona fide debt service fund shall not be taken into account for a bond year for purposes of complying with the Rebate Requirement. For purposes of complying with the Rebate Requirement with respect to issues other than as described in the preceding sentence, amounts earned on money in a bona fide debt service fund shall not be taken into account for a Bond Year if the gross earnings thereon are less than \$100,000; an issue with an average annual debt service not in excess of \$2,500,000 may be treated as satisfying this \$100,000 limitation. A bona fide debt service fund is defined as a fund that (a) is used primarily to achieve a proper matching of revenues with principal and interest payments within each bond year, and (b) is depleted at least once each bond year, except for a reasonable carryover amount not to exceed the greater of the earnings on the fund for the immediately~~

~~preceding bond year or one-twelfth of the principal and interest payments on the issue for the immediately preceding bond year.~~

## ~~2. EXPENDITURE EXCEPTIONS~~

~~The “Six-Month Exception” to rebate is set forth in subsection (a) below and the “Eighteen-Month Exception” to rebate is set forth in subsection (b) below. The “Two-Year Exception” to rebate, available only with respect to “available construction proceeds,” is set forth in subsections (c) and (d) below).~~

### ~~a. Six-Month Exception~~

- ~~i. In General. The Six-Month Exception will be treated as having been satisfied if (A) all “Gross Proceeds”<sup>4</sup> of the Tax-Advantaged Bonds are allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds no later than the date that is six months after the date of issuance of the Tax-Advantaged Bonds, and (B) the Rebate Requirement is satisfied with respect to [1] other Gross Proceeds that arise after six months from the date of issue but that are not reasonably anticipated to arise as of the date of issue, [2] repayment of any grants made with proceeds of the Tax-Advantaged Bonds, [3] sale or investment proceeds on payments under a purpose investment, and [4] amounts on deposit in a reasonably required reserve or replacement fund, if any.~~
- ~~ii. Gross Proceeds. For purposes of meeting clause (i) above, the term Gross Proceeds excludes (A) amounts on deposit in the Bond Fund, (B) other Gross Proceeds that arise after six months from the date of issue but that are not reasonably~~

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~~<sup>4</sup> Gross Proceeds means proceeds and replacement proceeds, within the meaning of Treasury Regulation Section 1.148-1. Under Section 1.148-1 of the Treasury Regulations, proceeds are amounts derived from the sale of the Tax-Advantaged Bonds, investment earnings thereon and transferred proceeds of an issue. Under Section 1.148-1 of the Treasury Regulations, amounts are replacement proceeds of an issue if the amounts have a sufficiently direct nexus to the issue or to the governmental purpose of the issue to conclude that the amounts would have been used for that governmental purpose if the proceeds of the issue were not used or to be used for that governmental purpose. Replacement proceeds are more fully described in Section 1.148-1(e) and include, but are not limited to, sinking funds, pledged funds, and “other replacement proceeds.”~~

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~~anticipated to arise as of the date of issue, (C) repayment of any grants made with proceeds of the Tax-Advantaged Bonds, (D) sale or investment proceeds on payments under any purpose investment, and (E) amounts on deposit (if any) in a reasonably required reserve or replacement fund, as defined in Treasury Regulation Section 1.148-7(b)(5).~~

- ~~iii. Additional Six Months for Non-Private Activity Bonds. The Six-Month Exception will be treated as satisfied if, in addition to satisfying subparagraph (ii) of this subsection (a), all Gross Proceeds of the Tax-Advantaged Bonds are expended as provided in paragraph (i) of this subsection (a) except for an amount of Gross Proceeds that does not exceed the lesser of five percent (5%) of the proceeds of the Tax-Advantaged Bonds and \$100,000 and such unexpended amount of Gross Proceeds is expended within one year from the date of issuance of the Tax-Advantaged Bonds.~~

~~b. Eighteen-Month Exception~~

- ~~i. In General. The Eighteen-Month Exception will be treated as having been satisfied if (A) all Eighteen-Month Moneys (as defined in paragraph (ii) below) meet the Eighteen-Month Test, (B) the Rebate Requirement is satisfied with respect to all Gross Proceeds of the Tax-Advantaged Bonds other than Eighteen-Month Moneys and amounts on deposit in a bona fide debt service fund for the Tax-Advantaged Bonds, and (C) all Eighteen-Month Moneys qualify for the three (3) year temporary period set forth in Section 1.148-2(e)(2) of the Treasury Regulations.~~

- ~~ii. Eighteen-Month Moneys. For purposes of meeting paragraph (b)(iii) below, the term "Eighteen-Month Moneys" means all Gross Proceeds of the Tax-Advantaged Bonds other than (A) amounts on deposit in a bona fide debt service fund, (B) Gross Proceeds of the Tax-Advantaged Bonds that arise after eighteen (18) months from the date of issue but are not reasonably anticipated to arise as of the date of issue, (C) repayment of grants financed with proceeds of the Tax-Advantaged Bonds, (D) sale or investment proceeds derived from payments under any~~

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~~purpose investment of the Tax-Advantaged Bonds, and (E) any amounts on deposit in a reasonably required reserve or replacement fund, as defined in Treasury Regulation Section 1.148-7(b)(5). For purposes of complying with the first two spending periods set forth in paragraph (b) (iii) below, above, the estimated amount of investment earnings as of the issue date (based on reasonable expectations) are to be included in the gross proceeds of the issue.~~

- ~~iii. Eighteen-Month Test. To meet the Eighteen-Month Test, (A) at least fifteen percent (15%) of the Eighteen-Month Moneys have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the six (6) month period beginning on the date of issuance of the Tax-Advantaged Bonds, (B) at least sixty percent (60%) of the Eighteen-Month Moneys have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the one (1) year period beginning on the date of issuance of the Tax-Advantaged Bonds and (C) all of the Eighteen-Month Moneys have been expended for the governmental purposes of the Tax-Advantaged Bonds within the eighteen (18) month period beginning on the date of issuance of the Tax-Advantaged Bonds.~~
- ~~iv. Reasonable Retainage. For purposes of paragraph (iii) of this subsection (b), an issue will not fail to satisfy the spending requirement for the third spending period as a result of a reasonable retainage if such amount is allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within thirty (30) months from the date of issuance of the Tax-Advantaged Bonds. For purposes of this paragraph (iv), a reasonable retainage is an amount retained for reasonable business purposes relating to the property financed with the proceeds of the Tax-Advantaged Bonds, e.g., a retention to ensure compliance with a construction contract in circumstances in which the amount retained is not yet payable or in which the Issuer reasonably determines that a dispute exists regarding completion of payment, and shall not exceed five percent (5%) of the net sale proceeds of the Tax-Advantaged Bonds minus \$100,000.~~

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~~v. De Minimis Exception. Any failure to satisfy the final spending requirement of the Eighteen-Month Exception is disregarded if the Issuer exercises due diligence to complete the project and the amount of the failure does not exceed the lesser of three percent (3%) of the issue price of the Tax-Advantaged Bonds and \$250,000.~~

~~e. Two-Year Exception~~

~~i. 75 Percent Test. The Issuer reasonably expects as of the issue date of the Tax-Advantaged Bonds that at least seventy-five percent (75%) of the "available construction proceeds" (defined below) of the Tax-Advantaged Bonds will be allocated to construction expenditures (including reconstruction and rehabilitation) with respect to property that is owned by a governmental unit or an organization described in Section 501(c)(3) of the Code and exempt from federal income tax under Section 501(a) of the Code.~~

~~ii. Two Year Test. To meet the Two-Year Exception, (A) at least ten percent (10%) of the available construction proceeds of the Tax-Advantaged Bonds have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the six (6) month period beginning on the date of issuance of the Tax-Advantaged Bonds, (B) at least forty-five percent (45%) of the available construction proceeds have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the one (1) year period beginning on the date of issuance of the Tax-Advantaged Bonds, (C) at least seventy-five percent (75%) of the available construction proceeds of the Tax-Advantaged Bonds have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the eighteen (18) month period beginning on the date of issuance of the Tax-Advantaged Bonds, and (D) all of the available construction proceeds of the Tax-Advantaged Bonds have been allocated to expenditures for the governmental purposes of the Tax-Advantaged Bonds within the two (2) year period beginning on the date of issuance of the Tax-Advantaged Bonds. For purposes of determining~~

~~compliance with the first three spending periods described above, the estimated amount of investment earnings as of the issue date (based on reasonable expectations) are to be included in the gross proceeds of the issue.~~

~~d. Available Construction Proceeds~~

~~i. In General. For purposes of subsection (c), the term “available construction proceeds” means an amount equal to the issue price of the Tax-Advantaged Bonds (or the portion thereof at least seventy-five percent (75%) of the available construction proceeds of which are to be used for the purposes described in paragraph (i) of subsection (c) above), plus investment earnings on the Tax-Advantaged Bonds or, where applicable, such portion thereof, plus investment earnings on any reasonably required reserve or replacement fund not funded from proceeds of the Tax-Advantaged Bonds, plus investment earnings on all of the above described investment earnings, minus the amount of the issue price of the Tax-Advantaged Bonds (or, where applicable, such portion thereof) deposited in the debt service reserve fund (if any) or to be applied to pay costs of issuance of the Tax-Advantaged Bonds (if any), minus pre-issuance accrued interest. The term “available construction proceeds,” however, shall not include payments on any obligation acquired to carry out the governmental purpose of the issue or the investment earnings thereon, and shall not include investment earnings on amounts on deposit in a debt service reserve fund, if any, after the earlier of two years from the date of issue or the date on which construction of the project is substantially completed.~~

~~ii. Reasonable Retainage. For purposes of paragraph (ii) of subsection (c), all of the available construction proceeds of the Tax-Advantaged Bonds shall be treated as expended for the governmental purposes of the Tax-Advantaged Bonds within two (2) years from the date of issuance of the Tax-Advantaged Bonds if all of such proceeds are expended for the governmental purposes of the Tax-Advantaged Bonds within three (3) years from the date of issuance of the Tax-Advantaged Bonds and such amounts would have been~~

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~~expended for such purposes within two (2) years from the date of issuance of the Tax-Advantaged Bonds but for an amount that is retained for reasonable business purposes relating to property financed with the proceeds of the Tax-Advantaged Bonds and that amount retained does not exceed five percent (5%) of the available construction proceeds of the Tax-Advantaged Bonds as of the end of the fourth (4th) spending period referred to in paragraph (ii) of subsection (c) above. Reasonable retainage may include, for example, an amount retained to ensure compliance with the terms of a construction contract in circumstances in which the amount retained is not yet payable, or in which the Issuer reasonably determines that a dispute exists regarding either completion of construction or payment.~~

~~De Minimis Exception. Any failure to satisfy the final spending requirement of the Two-Year Exception is disregarded if the Issuer exercises due diligence to complete the project and the amount of the failure does not exceed the lesser of three percent (3%) of the issue price of the Tax-Advantaged Bonds and \$250,000.~~



AGENDA ITEM 6. – March 28, 2023

**Subject:** Hampton Roads Bridge Tunnel Expansion Project  
Hampton Roads Water Quality Credit Trade Agreement for Chesapeake Bay  
Restoration Compliance Year 2022

**Recommended Action:** Approve the terms and conditions of the compliance credit trade agreement with the Hampton Roads Connector Partners (HRCP) 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.

**Brief:** The Hampton Roads Connector Partners (HRCP) is a joint venture of Dragados USA, Inc., HOR, Mott MacDonald, Vinci Construction Grands Projets, Dodin Campenon Bernard and Flatiron Constructors, Inc. that is expanding the Hampton Roads Bridge-Tunnel ("HRBT") to ease congestion along the existing I-64 HRBT corridor. The project includes a new bridge-tunnel complex that will add four additional lanes of traffic. This construction activity requires a Virginia Pollutant Discharge Elimination System (VPDES) permit to discharge wastewater generated during construction. HRCP entered into an [agreement](#) with HRSD in October 2020 to obtain the nutrient offset required for issuance. This agreement provided HRCP with a wasteload allocation of 4,000 lbs/yr of Total Nitrogen (TN) and 2,000 lbs/yr of Total Phosphorus (TP) through a transfer of allocation from HRSD to HRCP for a defined period (through December 31, 2025), intended to cover the period of construction.

Given that the HRBT Expansion is a regional initiative offering multi-jurisdictional benefits within the HRSD service area, the credit offset was provided at no cost, consistent with HRSD's [Nutrient Credit Management Policy](#). This policy considers overall cost to ratepayers for trades and offsets that provide the region with maximum environmental benefit at the lowest net cost. The HRBT expansion project is funded primarily by the Hampton Roads Transportation Accountability Commission (HRTAC), a commission supporting regional transportation projects.

For the 2022 compliance year, HRCP exceeded its 4,000 lbs/yr TN allocation by 3,828 lbs and approached HRSD for the compliance credits necessary to meet their 2022 obligation under Virginia's Watershed General Permit for the discharge of nutrients into the Chesapeake Bay. In 2022, HRSD generated more than 1.6 million pounds of credits on the Lower James. Consistent with HRSD's Nutrient Credit Management policy, staff recommends providing HRCP's 2022 compliance credits at no cost as outlined in the [credit trade agreement](#). Additional compliance credits may be needed each of the next 2 – 3 years over the duration of construction.

**HAMPTON ROADS WATER QUALITY CREDIT TRADE AGREEMENT FOR  
CHESAPEAKE BAY RESTORATION, COMPLIANCE YEAR 2022**

**THIS HAMPTON ROADS WATER QUALITY CREDIT TRADE AGREEMENT FOR CHESAPEAKE BAY RESTORATION, COMPLIANCE YEAR 2022** (this “Agreement”) made this \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between the Hampton Roads Sanitation District (“HRSD”) and the Hampton Roads Connector Partners (“HRCP”) (each a “Party” and jointly the “Parties”) is hereby amended as follows:

**BACKGROUND**

- A. HRSD. HRSD owns and operates various wastewater treatment plants that are authorized to discharge the nutrients total nitrogen (“TN”) and total phosphorus (“TP”) to the James River in the Chesapeake Bay watershed (the “HRSD Plants”). The HRSD Plants have TN and TP waste load allocations (the “HRSD James River Basin Allocations”) assigned by the State Water Control Board and the Virginia Department of Environmental Quality (jointly, “DEQ”) pursuant to the Water Quality Management Planning Regulation, 9 VAC 25-720, and by the U.S. Environmental Protection Agency (“EPA”) pursuant to the Chesapeake Bay Total Maximum Daily Load (“TMDL”). The HRSD Plants are subject to the General Virginia Pollutant Discharge Elimination System (“VPDES”) Watershed Permit Regulation for TN and TP Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9 VAC 25-820, most recently reissued by DEQ effective January 1, 2022, as hereafter modified or reissued from time to time (the “Watershed General Permit”).
- B. HRCP. HRCP is an unincorporated joint venture of Dragados USA, Inc., Vinci Construction Grands Projets, Inc., Dodin Campenon Bernard Inc. and Flatiron Constructors, Inc., that is expanding the Hampton Roads Bridge Tunnel (“HRBT”) to ease congestion along the existing I-64 HRBT corridor. The project includes a new bridge-tunnel complex that will add two new twin-lane tunnels to accommodate four additional lanes of traffic. HRCP is authorized by DEQ through the Watershed General Permit to discharge TN and TP on a short-term basis for the period of construction.
- C. HRSD-HRCP Nutrient Offset Agreement. In October of 2020, HRSD and HRCP entered into the Nutrient Offset Agreement for I-64 Hampton Roads Bridge Tunnel Expansion Project (the “Offset Agreement”) that provided HRCP with the necessary temporary TN and TP offset obligation required to satisfy HRCP’s obligation under the Watershed General Permit. The agreed upon offset provided HRCP with 4,000 pounds per year (“lbs/yr”) of TN and 2,000 lbs/yr of TP (the “Offset Allocations”).
- D. HRCP Additional Credit Needs. The original offset request was based on assumptions of water quality, flows and annual nutrient loads. HRCP’s actual nitrogen discharge in 2022 exceeded the HRSD-provided TN Offset Allocation by 3,828 lbs.
- E. HRSD Credit Trade Authority. Through exceptional performance and current operating conditions at HRSD Plants, HRSD discharged less TN and TP in Calendar Year 2022 than the HRSD Plants are authorized to discharge under the Watershed General Permit while protecting Chesapeake Bay water quality and, therefore, HRSD

**HAMPTON ROADS WATER QUALITY CREDIT TRADE AGREEMENT FOR  
CHESAPEAKE BAY RESTORATION, COMPLIANCE YEAR 2022**

has the ability to provide additional TN compliance credits to the HRCF. Pursuant to Code of Virginia section 62.1-44.19:12 *et seq.* and 9 VAC 25-820-70 Part I J, HRSD is authorized to transfer to the HRCF the compliance credits needed to fulfill its obligation under the Watershed General Permit.

**AGREEMENT**

NOW, THEREFORE, and in consideration of the mutual covenants and conditions herein, and for other good and valuable consideration, the receipt and sufficiency of which the Parties acknowledge, the Parties agree as follows.

1. Credit Transfers, Calendar Year 2022. HRSD agrees to transfer 3,828 lbs TN credits generated in the James River Basin in the Calendar Year 2022 for use by HRCF to comply with its 2022 discharge limits under the Watershed General Permit.
2. No Monetary Cost for Offset Allocations. In consideration of the importance of regional project in benefiting HRSD's ratepayers and the regional economy as well as the modest nature of the request (<5,000 lbs), there shall be no monetary cost charged by HRSD to HRCF for the additional compliance credits provided for the 2022 Calendar Year.
3. Brokerage Commissions. The Parties represent and warrant to each other that they have not dealt with any business broker or agent who would be entitled to a brokerage commission or finders fee as a result of this Agreement or any related transactions. Each Party agrees, to the extent permitted under law and without waiving sovereign immunity, to indemnify and hold the other harmless from any and all claims for commissions of broker's or finder's fees claiming by, through or under the indemnifying Party, including any losses related to any such claim.
4. Governing Law; Venue; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement is a Virginia contract deemed executed and accepted in the City of Virginia Beach; and all questions with respect to any of its provisions shall be instituted, maintained, and contested in a court of competent jurisdiction in the City of Virginia Beach, Virginia or the U.S. District Court for the Eastern District of Virginia, Norfolk Division. 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.
5. No Waiver. Neither any failure to exercise or any delay in exercising any right, power or privilege under this Agreement by either Party shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege hereunder preclude the exercise of any other right, power or privilege. No waiver of any breach of any provision shall be deemed to be a waiver of any preceding or succeeding breach of

**HAMPTON ROADS WATER QUALITY CREDIT TRADE AGREEMENT FOR  
CHESAPEAKE BAY RESTORATION, COMPLIANCE YEAR 2022**

the same or any other provision, nor shall any waiver be implied from any course of dealing.

6. Entire Agreement; Amendments. This Agreement contains the entire agreement between the Parties as to the subject matter hereof and supersedes all previous written and oral negotiations, commitments, proposals and writings. No amendments may be made to this Agreement except by a writing signed by both Parties.
7. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument. The Parties further agree that a facsimile, scanned or electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile or scanner shall be considered an original.
8. The Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on March 28, 2023.

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

**HAMPTON ROADS SANITATION DISTRICT**

By: \_\_\_\_\_  
Jay A. Bernas  
General Manager

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

**HAMPTON ROADS WATER QUALITY CREDIT TRADE AGREEMENT FOR  
CHESAPEAKE BAY RESTORATION, COMPLIANCE YEAR 2022**

SIGNATURE PAGE OF NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT

**HAMPTON ROADS CONNECTOR  
PARTNERS**

By: \_\_\_\_\_  
Name:  
Title:

[END OF SIGNATURES]

AGENDA ITEM 7. – March 28, 2023

**Subject:** Atlantic Treatment Plant Secondary Clarifier Effluent Weir Replacement and Enhancements  
Additional Appropriation & Contract Award (>\$200,000)

**Recommended Actions:**

- a. Appropriate additional funding in the amount of \$503,740.
- b. Award a contract to D&D Mechanical, Inc. in the amount of \$2,998,800.

**CIP Project: AT015500**

**Regulatory Requirement:** None

Budget	\$2,645,000
Previous Expenditures and Encumbrances	(\$0)
Available Balance	\$2,645,000
Construction Contract	\$2,998,800
Contingency (5%)	\$149,940
Project Shortage/Request Additional Funding	\$503,740
Revised Total Project Authorized Funding	\$3,148,740

**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 1, 2023, and three bids were received on February 16, 2023. The bids received are listed below:

Bidder	Bid Amount
D&D Mechanical, Inc	\$2,998,800
Rebuild-It Services Group, LLC	\$3,528,845
Pioneer Industries	\$6,484,000

**HRSD Estimate:** \$2,325,170

**Project Description:** This project will replace secondary clarifier effluent weirs, launders, and add new covers to the weirs for Secondary Clarifiers 1 through 4.

**Project Justification:** The effluent weirs are failing in all four of the secondary clarifiers due to age and sun exposure. This project will replace all weirs, to include the launders, and will include the purchase and installation of covers to prevent UV degradation on the fiberglass weirs.

**Contract Description:** This contract is for the replacement of the effluent weirs, launders, and to add new covers to the weirs for Secondary Clarifiers 1 through 4.

**Analysis of Cost:** The cost for this effort is based on a competitive bid of \$2,998,800 and a five percent contingency. The reason for the cost increase and the request for additional funding is due to the original estimate being based on a vendor quote from 2021 and the fact that fiberglass materials have gone up significantly due to supply chain issues. The material cost from the original vendor quote was \$532,894 less than the bid price received last month.

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

**Schedule:** Construction April 2023

## AGENDA ITEM 8. – March 28, 2023

**Subject:** Deep Creek Interceptor Force Main Risk Mitigation  
Additional Appropriation

**Recommended Action:** Appropriate additional funding in the amount of \$284,895.

**CIP Project:** NP013400

**Regulatory Requirement:** None

Budget	\$3,135,562
Previous Expenditures and Encumbrances	(\$3,133,091)
Available Balance	<u>\$2,471</u>
Proposed Change Order No. 2 to Tidewater Utility Construction, Inc.	\$276,813
Proposed Task Order to Whitman Requardt & Associates, LLP	\$9,553
Proposed Contingency	\$1,000
Project Shortage/Requested Additional Funding	\$284,895
Revised Total Project Authorized Funding	<u>\$3,420,457</u>

**Project Description:** This project constructed 3,800 linear feet of 6-inch force main, 600 linear feet of 12-inch force main, and 2,400 linear feet of 4-inch low pressure force main. Pipe work was complete in September 2020. The remaining work involves flowable fill of the Hot Ditch and fly ash pile at the Dominion Energy power facility near the Coleman Bridge in Chesapeake.

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

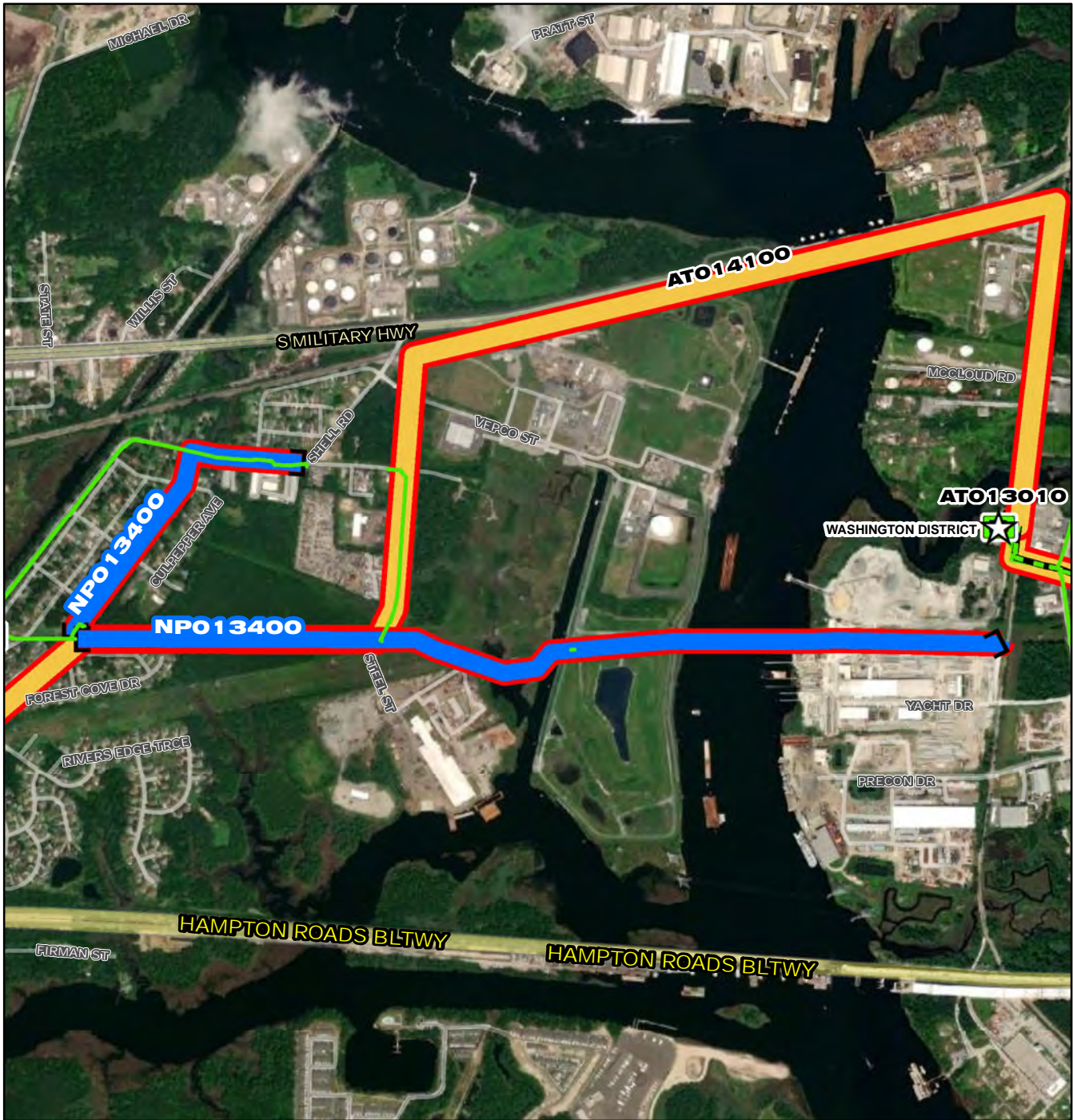
**Project Justification:** This project will eliminate the risk associated with operating an aging ductile iron and pre-stressed concrete force main beneath a capped coal ash pile and Hot Ditch within the Dominion Energy owned property.

**Funding Description:** This project requires additional funding to complete the restoration efforts. A change order has been negotiated with Tidewater Utility for \$276,813 for the remaining work. A task order has been negotiated with Whitman Requardt for \$9,553 to provide contract administration and field engineering and inspection services through the end of construction. This request also includes \$1,000 in contingency to accommodate any additional unforeseen conditions.

**Schedule:**

Construction	October 2019
Project Completion	September 2023





**NPO 13400**

- 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

Feet

0    445    890    1,780    2,670    3,560

## NPO 13400

### Deep Creek Interceptor Force Main Risk Mitigation Project

N  
W    E  
S

**CIP Location**



## AGENDA ITEM 9. – March 28, 2023

**Subject:** Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I  
Additional Appropriation, Contract Change Order (>25%)

**Recommended Actions:**

- a. Appropriate additional funding in the amount of \$5,641,804.
- b. Approve a change order to the contract with Garney Companies, Inc. (Garney) in the amount of \$5,167,141.

**CIP Project: ES010100****Regulatory Requirement:** None

Budget	\$32,914,664
Previous Expenditures and Encumbrances	(\$31,839,185)
Available Balance	\$1,075,479
Proposed Change Order No. 4 to Garney	(\$5,167,141)
Proposed Contingency	(\$1,550,142)
Project Shortage/Requested Additional Funding	(\$5,641,804)
Revised Total Project Authorized Funding	\$38,556,468

<b>Contract Status with Change Orders:</b>	<b>Amount</b>	<b>Cumulative % of Contract</b>
Original Contract (Stipulated Price) for Garney	\$22,961,728	
Total Value of Previous Change Orders	\$6,007,946	26.17%
Requested Change Order	\$5,167,141	
Total Value of All Change Orders	\$11,175,087	48.67%
Revised Contract Value	\$34,136,815	
Time (Additional Calendar Days)		0

**Project Description:** This project is a Design-Build project with Garney who have teamed up with the engineering firm of AECOM to install approximately 26 miles of 4-inch, 6-inch, 10-inch and 12-inch pipeline for 25 miles along the Railway right-of-way and along Wachapreague Road all on the Eastern Shore of Virginia, in Northampton and Accomack Counties. The project will also be constructing three wastewater pumping stations in the Towns of Nassawadox, Exmore, and Onancock.

**Project Justification:** This project will provide service to the Eastern Shore for the Towns or Nassawadox, Exmore, Accomack, and will serve the County Courthouse Complex for Accomack. The pipelines will primarily be located in the Railway right-of-way. The [map](#) depicts the project location.

**Change Order Description and Analysis of Cost:** This change order includes the following additional scope items and work:

1. Design and construct a new pump station serving the Town of Accomack (\$1,137,746),
2. Design and construct approximately 1,700 linear feet (LF) of gravity sewer including five manholes, and abandon the existing pumping facilities and septic tank system in the Town of Accomack (\$1,029,395),

3. Design and construct approximately 1,200 LF of 8-inch gravity sewer, five manholes, and reconnection of ten existing laterals to provide sewer to the Carnival Grounds in the Town of Onancock (\$1,500,000), and
4. Complete repairs to the gravity sewer interceptor in the Town of Onancock the runs parallel to the North Branch of Onancock Creek to address deficiencies (\$1,500,000).

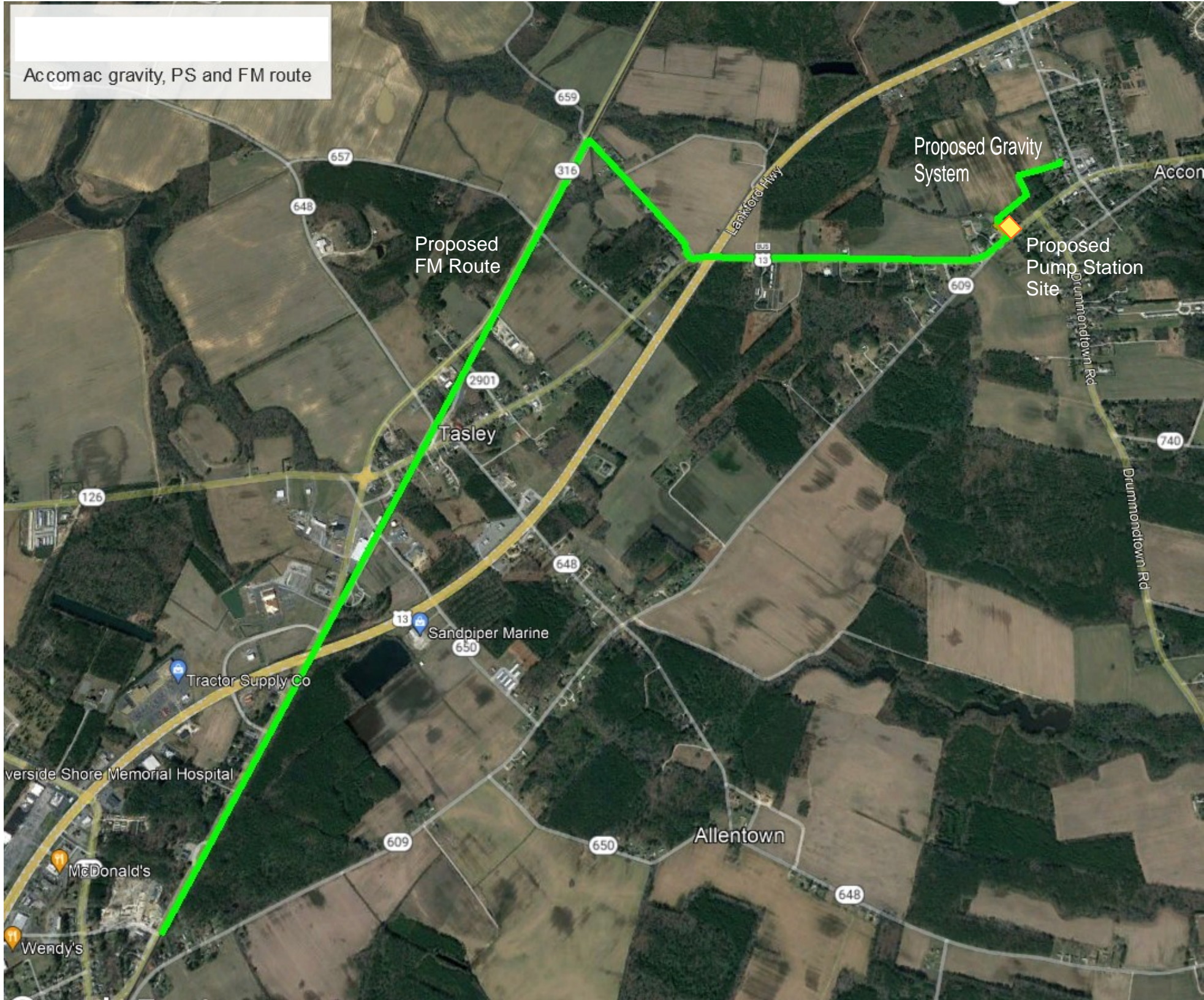
There was an extensive review of the scope and cost by HRSD for this change and the additional funding for all other costs associated with the additional work being performed under the current phase of the contract.

This project is currently included in the Virginia Clean Water Revolving Loan Fund (VCWRLF) programmatic loan and American Rescue Plan Act (ARPA) Sewer Collection System (SCS) Program. Portions of this contract change order will be reimbursed by the Town of Accomac to HRSD.

<b><u>Schedule:</u></b>	Construction	May 2022
	Project Completion	September 2024



Accomac gravity, PS and FM route





## AGENDA ITEM 10. – March 28, 2023

**Subject:** Lucas Creek – Woodhaven Interceptor Force Main Replacement Phase II  
Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)

**Recommended Actions:**

- a. Appropriate additional funding in the amount of \$1,705,892.
- b. Award a contract to Tidewater Utility Construction, Inc. in the amount of \$3,117,300.
- c. Approve a task order with Michael Baker International (Michael Baker) in the amount of \$361,870.

**CIP Project: JR013200****Regulatory Requirement:** None

Budget	\$2,445,000
Previous Expenditures and Encumbrances	(\$371,722)
Available Balance	\$2,073,278
Proposed Task Order to Michael Baker	\$361,870
Proposed Contract to Tidewater Utility Construction, Inc.	\$3,117,300
Proposed Contingency	\$300,000
Project Shortage / Requested Additional Funding	\$1,705,892
Revised Total Project Authorized Funding	\$4,150,892

**Type of Procurement:** Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on January 24, 2023, and 2 bids were received on February 28, 2023, as listed below:

Bidder	Bid Amount
Tidewater Utility Construction	\$3,117,300
Bridgeman Civil	\$3,178,230

**HRSD/Engineer Estimate:** \$2,714,800

The design engineer, Michael Baker, evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder Tidewater Utility Construction in the amount of \$3,117,300.

**Project Description:** This project involves the replacement of approximately 1,500 linear feet of ductile iron pipe between Denbigh High School and Stoney Run Elementary School. This section of pipe will be replaced with a 30-inch horizontal directional drilled polyethylene pipe underneath Stony Run.

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

**Project Justification:** In 2014, two failures occurred on the Lucas Creek-Woodhaven Interceptor Force Main just south of Woodhaven Road within a 6-month period. These failures shared the same characteristics as the previous failures on the prestressed concrete cylinder pipe force main in 2007 that required the replacement of approximately 2 miles of HRSD force main. After the first failure, condition assessment was performed along the force main from Woodhaven Road to Lucas Creek Road along Warwick Boulevard. The testing confirmed a loss of wall thickness along the bottom third of the pipe. While no condition assessment has been performed along this section of force main from Warwick Boulevard and Lucas Creek Road to the Lucas Creek Pump Station, it is anticipated that a loss of wall thickness has occurred along the bottom of the pipe. This 1,500 linear foot section of pipe to be replaced represents the most difficult section of force main to access and repair from Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase I (JR013100) to Lucas Creek Pump Station. This portion of the 1970 Ductile Iron pipe lies between Denbigh High School and Stoney Run Elementary School.

Additional appropriation is required for construction services to complete this project.

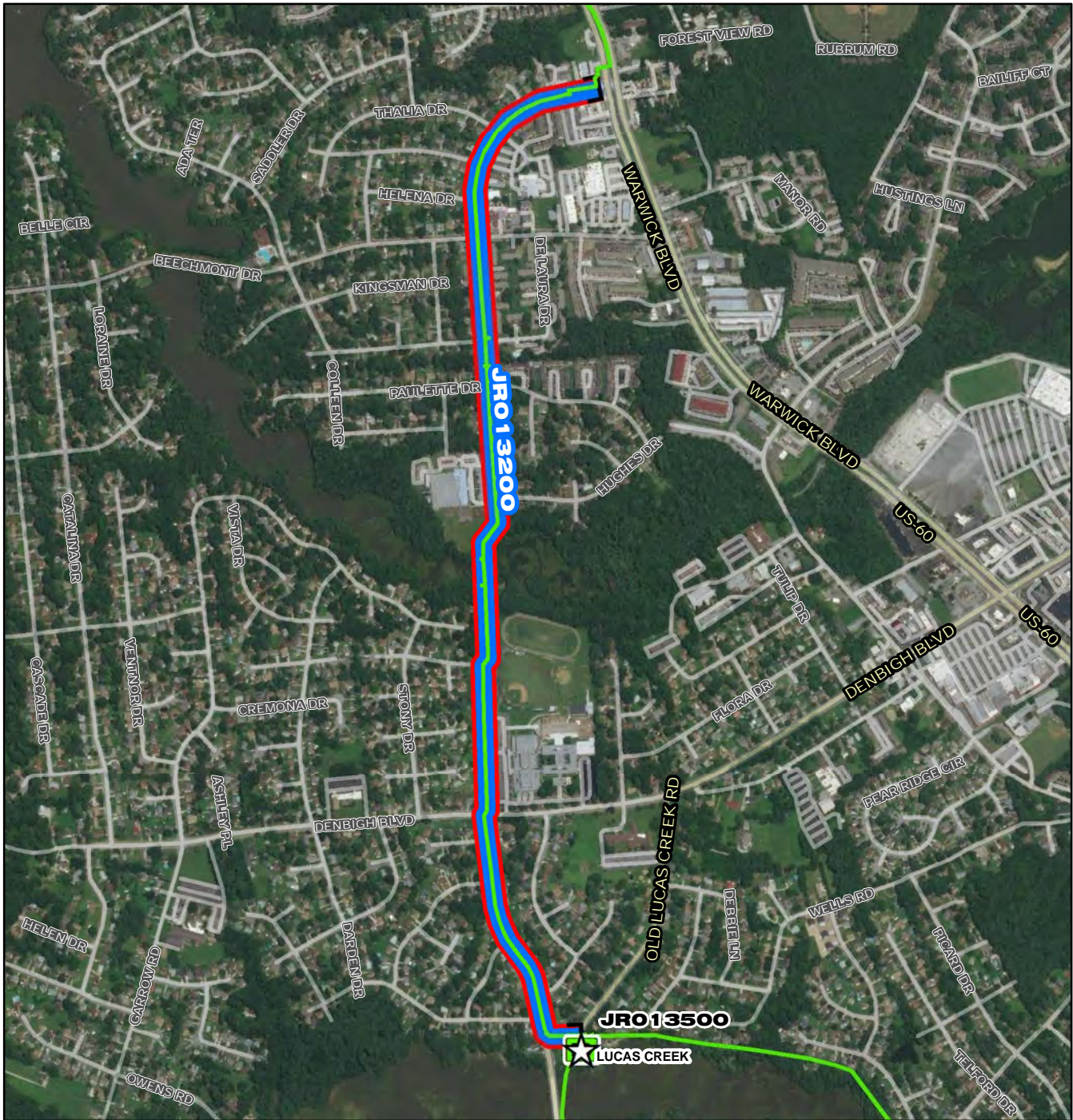
**Contract Description:** This contract is for the construction services with Tidewater Utility Construction.

**Task Order Description:** This task order will provide construction administration and construction inspection services for the subject project. HRSD and the design engineer, Michael Baker, negotiated a fee in the amount of \$361,870. The fee proposal is comparable to other projects of similar size and complexity.

**Funding Description:** The original CIP project estimate did not foresee the current market conditions as they relate to inflation, labor shortages and long lead times for materials. This request includes a 10% contingency to accommodate any unforeseen conditions. Additional appropriation is being requested for the construction contract award and construction phase services. The amount for this work exceeds the balance available for this CIP project by \$1,705,892.

**Analysis of Cost:** Two bids were received and evaluated based upon the requirements of the Invitation for Bid. Tidewater Utility Construction is the apparent low bidder with a bid amount of \$3,117,300. The low bid results are 12.9% higher than the Engineer's Opinion of Probable Construction Cost. An analysis was performed on the bid prices and determined that the cost difference was mainly due to a higher unit price for the ductile iron pipe installation. This is likely the result of the Contractor trying to account for the relatively small quantity of ductile iron pipe that is required to be installed. Based on the information provided and verifications performed, it appears Tidewater Utility Construction, Inc., as the prime contractor, meets the intent of the qualifications and presents adequate experience to competently perform the work set forth in the Contract Documents. The information herein supports the award of this construction contract to Tidewater Utility Construction as the lowest responsive bidder in the amount of \$3,117,300.

<b><u>Schedule:</u></b>	Construction	May 2023
	Project Completion	June 2024



**JRO13200**

- 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

Feet

0    370    740    1,480    2,220    2,960

## JRO 13200

### Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase II

N  
W    E  
S

**CIP Location**



AGENDA ITEM 11. – March 28, 2023

**Subject:** Suffolk Pump Station Replacement  
 Easement Acquisition  
 568 East Constance Road a/k/a 568 Wilroy Road, Suffolk

**Recommended Action:** Approve the acquisition of a variable width permanent (+/- 0.052 acres) HRSD utility and temporary (+/- 0.103 acres) HRSD construction easements located at 568 East Constance Road a/k/a 568 Wilroy Road in Suffolk, Tax Parcel#: 35D\*F\*A and associated acquisition costs of \$36,430 in accordance with the terms and conditions of the Purchase Agreement with Ralph L. Wetherington, Jr., (Seller) and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

**CIP Project:** NP010620

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

Budget	\$12,049,000
Previous Expenditures and Encumbrances	(\$3,639,817)
Available Balance	\$8,409,183

**Project Description:** This project will design and construct two replacement pump stations in lieu of constructing one replacement for the existing Suffolk Pump Station located at 1136 Sanders Drive, in Suffolk. The benefit of the two-pump station scenario includes abandonment/removal of over 7,000 linear feet of gravity sewer and 34 manholes along Shingle Creek and associated wetlands with ongoing concerns for potential overflows, pipe failure and difficulty accessing for maintenance.

**Project Justification:** The new stations will meet current capacity needs and provide for future expansion to meet anticipated growth and improve system efficiencies. The existing pump station site does not provide the needed space for expansion, is difficult to access and creates a nuisance to traffic in the surrounding residential neighborhood.

**Acquisition Details:** As part of the project, HRSD will require 26 temporary and permanent easements. These easements inhabit a portion of the active business’s parking lot owned by Ralph L. Wetherington, Jr. and is perceived by the property owner to possibly limit parking for this business. This subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD’s Policy and Guidelines and requires Commission approval.

**Agreement Description:** The [Purchase Agreement](#) between HRSD and Ralph L. Wetherington, Jr. was reviewed by HRSD staff and real estate legal counsel. The [Plat](#) and [Map](#) depict the project and easement locations.

**Analysis of Cost:** The cost for the easements is based on an appraisal by Brian Dundon & Associates. The total cost is the result of a negotiated settlement with the property owner to include: a cost to cure; securing a three year window for the start of the project activities at this site; securing the usage for six months for the temporary construction easement area with flexibility to extend if needed, setting the future rental price if the work extends past the planned six months, and bringing this item to resolution.

TAX PARCEL NO.: 35D\*F\*A  
PROJECT: Suffolk Pump Station Replacement Phase 1 (NP010610)  
ROUTE/STREET: 568 East Constance Road  
CITY/COUNTY: Suffolk, VA

### PURCHASE AGREEMENT

**THIS CONTRACT FOR PURCHASE AND SALE**, made this 24<sup>th</sup> day of February 2023, by and among HAMPTON ROADS SANITATION DISTRICT ("HRSD"), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 their successors and/or assigns (the "Buyer"), and Ralph ~~E.~~<sup>L.</sup> Wetherington, Jr., (the "Landowner"). Collectively, Buyer and Landowner shall be referred to as the "Parties."

WITNESSETH: That for and in consideration of ten dollars (\$10.00) and other valuable consideration, receipt of which is hereby acknowledged, Landowner agrees to convey to HRSD, its successors and assigns, forever, the perpetual right, privilege, easement and right of ingress/egress over, across under and through hereinafter described, for the purpose of laying, erecting, constructing, operating, and maintaining underground wastewater and/or water reuse force mains and/or gravity mains together with above and/or below ground equipment, accessories, and appurtenances the following described property of the Landowner, by deed of easement, properly executed, acknowledged, and delivered.

The land and improvements subject to this Purchase Agreement for a Permanent Utility Easement and Temporary Construction Easement (hereinafter referred to as "the Easement Area") are described as follows:

Being as shown on attached plat prepared by Rouse-Sirine Associates, Ltd., entitled "PLAT SHOWING VARIABLE WIDTH PERMANENT HRSD UTILITY EASEMENT AND TEMPORARY HRSD CONSTRUCTION EASEMENT TO BE ACQUIRED FROM RALPH L. WETHERINGTON, JR. BY HAMPTON ROADS SANITATION DISTRICT" and dated November 10, 2020 and signed November 11, 2020 and containing 0.052 acres (2,269 square feet), more or less land for the proposed permanent HRSD utility easement and 0.103 acres (4,473 square feet) more or less land for proposed temporary HRSD construction easement; and vested in Ralph L. Wetherington, Jr., pursuant to deed dated September 9, 1999, from Patricia C. Darden Revocable Living Trust, which is recorded in the Clerk's office of the Circuit Court of the City of Suffolk Virginia, in Deed Book 680, Page 745.

Together with all and singular the buildings and improvements, tenements, hereditaments, rights, privileges, and appurtenances thereunto belonging or in anywise appertaining (the "Easement Area"), a copy of which plat is attached hereto and made a part hereof.

The total consideration for the conveyance provided for herein is as follows:



**CONSIDERATION: THIRTY-SIX THOUSAND FOUR HUNDRED THIRTY AND 00/100 DOLLARS (\$36,430.00)** in full for the easements described hereinbefore and for all damages, if any.

The consideration hereinabove mentioned represents the value of all estates or interests in such land, and the damage to remaining lands of the Landowner which may result by reason of the use to which HRSD will put the land to be conveyed. The Landowner agrees to accept his legal proportionate share of such total consideration for his interest and right in the said land.

HRSD will notify the Landowner thirty (30) days in advance of work starting on the Easement Area.

The Temporary Construction Easement will commence on the Date of the Deed of Temporary Easement, and it will automatically expire and terminate upon the earlier to occur of: (i) three (3) years following the commencement of the Temporary Construction Easement, or (ii) within six months of work started on the Easement Area. In the event the need for the Temporary Construction Easement extends past six months, through no fault of the Landowner, the Landowner is entitled to additional compensation for the Temporary Construction Easement. A monthly rental rate for the Temporary Construction Easement area is hereby established at Four Thousand Seven Hundred Sixty-Six and 30/100 (\$4,766.30). Upon completion of work within the Temporary Construction Easement and upon request, HRSD will promptly execute and record a termination agreement by which it will acknowledge the termination and the relinquishment of the Temporary Construction Easement.

The Landowner hereby covenants and agrees for himself, his heirs and assigns and successors, that the consideration herein mentioned shall be in lieu of any and all claims to compensation and damages by reason of the location, construction and maintenance of the project by HRSD, including such drainage facilities as may be necessary.

In the event the Landowner is unable to convey clear title to the above easement to HRSD as herein provided, and HRSD should elect to institute condemnation proceedings for the purpose of acquiring such easements, it is agreed by the Landowner that this instrument may be introduced in such proceedings as evidence of the value of land and damages, if any, to the remaining property of the Landowner.

The Landowner by execution of this instrument acknowledges that the plans for the aforesaid project as they affect the subject property have been fully explained to the undersigned.

HRSD or its contractor will restore Landowner's land and Parcel affected as a result of construction of the project as closely as is reasonably possible to its pre-construction condition (or better) upon completion of the Project including replacing with acceptable landscaping.

HRSD or its contractor hereby agrees that it will perform all such measures in a manner causing as little inconvenience and disruption to the Landowner, and Landowner's invitees, licensees and occupants as is reasonably possible.

HRSD shall have the right to trim, cut and remove trees, shrubbery or other obstructions which interfere with or threaten the efficient and safe construction, operation, and maintenance of said facilities. All brush, branches, and other debris resulting from any cutting, trimming, or clearing of said right of way shall be removed from lands of Landowner for disposal.

HRSD, or its agents, successors and assigns may exercise the unimpeded right to enter upon so much of the parcel or land needed for such purposes as may be necessary for the construction operation or maintenance of said facilities, and further provided that such use is not inconsistent with any laws, ordinances or codes pertaining to the construction, operation or maintenance of said facilities, without

*Rw*

further notice to the Landowner. Landowner shall not place any permanent improvements within the easement without permission of Buyer, or its successors, including but not limited to houses, buildings, pools, sheds, signs, or similar permanent structures. Landowner may install fences, driveways, pavement and landscaping (trees and shrubs shall be varieties that will not exceed 20 feet tall at maturity).

Notwithstanding the above, should the property on which the aforesaid perpetual easement lies be subdivided, then the access rights to the easement as above enumerated shall be along the publicly dedicated streets within the said subdivision as far as practical, and then the access shall be on subdivided lots within the subdivision which shall efficiently provide access for the purposes of the Buyer as herein enumerated.

**INSURANCE.** HRSD shall maintain, at its expense, or cause to be maintained, and keep in force at all times during the term of this Agreement, a policy of comprehensive general public liability insurance, including a contractual liability endorsement, and personal injury liability coverage in an amount of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate, which shall include coverage against claims for any injury, death, or damage to persons or property occurring on, in, or about the Easement Area and HRSD's use thereof. Prior to making any entry onto the Easement Area, HRSD shall furnish to Landowner a valid certificate of insurance evidencing the foregoing coverages.

**LANDOWNER NOT LIABLE:** In no event shall Landowner be liable for any damage to, or loss of personal property or equipment sustained by HRSD within the Easement Area, whether or not it is insured.

**ETHICS IN PUBLIC CONTRACTING:** By executing this Agreement, the undersigned Landowner or its representative, and the representative of HRSD, certify that the prices agreed to in this Agreement were arrived at without collusion or fraud and that they have not offered or received any payment, kickbacks or other inducement from any other party to this Agreement or its agent or employee in connection with this Agreement, and that they have not conferred on any public employee having responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised unless disclosed in this Agreement.

Landowner acknowledges that HRSD has relied upon these covenants, representations, and warranties in purchasing the above easement.

This Agreement is contingent on the review and approval of the purchase by the Hampton Roads Sanitation District Commission and upon such Commission granting authorization to the General Manager to proceed under the terms of this Agreement.

Settlement shall be within ninety (90) days, or as soon thereafter, allowing a reasonable time to correct any title defects reported by the title examiner and preparation and signing of the necessary documents to enable the HRSD to take proper title.

THE COVENANTS, AGREEMENTS, REPRESENTATIONS, WARRANTIES OF THE LANDOWNER CONTAINED IN THESE PARAGRAPHS SHALL SURVIVE THE CLOSING AND DELIVERY OF THE DEED OF EASEMENT ACROSS THE SUBJECT LAND.

WITNESS the following signatures and seals:

*RLW*

IN WITNESS WHEREOF, the Hampton Roads Sanitation District Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on \_\_\_\_\_, 2023. This Agreement is expressly subject to approval by the HRSD Commission

**BUYER:**

**HAMPTON ROADS SANITATION DISTRICT (HRSD)**

By: \_\_\_\_\_ Date: \_\_\_\_\_

Name: Jay Bernas, P.E.

Title: General Manager

Contact Address: 1434 Air Rail Avenue, Virginia Beach, Virginia 23455

**COMMONWEALTH OF VIRGINIA**

City of Virginia Beach, to-wit:

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 2023, by Jay Bernas, P.E., General Manager, Hampton Roads Sanitation District.


\_\_\_\_\_  
Notary Public

Notary Public Registration No. \_\_\_\_\_

My commission expires: \_\_\_\_\_

RLW

**LANDOWNER(S):**  
**Ralph L. Wetherington, Jr.**

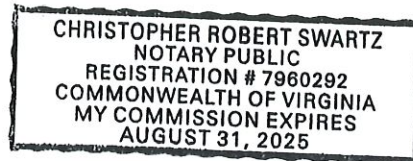
  
(Signature)

COMMONWEALTH OF VIRGINIA  
City/County of Norfolk, to-wit:

The foregoing instrument was acknowledged before me this 24 day of February, 2023, by  
Ralph L. Wetherington, Jr.

  
Notary Public

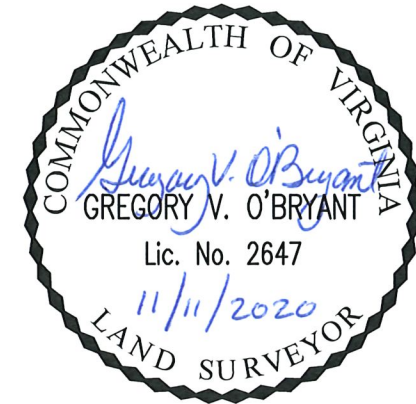
Notary Public Registration No. 7960292  
My commission expires: August 31, 2025



**PROJECT PARCEL NO. 001** HRSD CIP#NP010620 – SHINGLE CREEK

PROPERTY OF: RALPH L. WETHERINGTON, JR.  
 PROPERTY ADDRESS: 568 WILROY ROAD  
 OWNER ADDRESS: 9709 DOLPHIN RUN NORFOLK, VA 23518  
 TAX MAP #: 35D\*F\*A

TAX MAP NO.	AREA TABLE							
	TOTAL PARCEL AREA		VARIABLE WIDTH PERMANENT HRSD UTILITY EASEMENT		TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
35D*F*A	21,344 +/-	0.49 +/-	2,269	0.052	4,473	0.103	14,602 +/-	0.335 +/-



001

PLAT SHOWING

VARIABLE WIDTH PERMANENT HRSD UTILITY EASEMENT

AND

TEMPORARY HRSD CONSTRUCTION EASEMENT

TO BE ACQUIRED FROM

**RALPH L. WETHERINGTON, JR.**

BY

**HAMPTON ROADS SANITATION DISTRICT**

SUFFOLK BOROUGH - CITY OF SUFFOLK, VIRGINIA

PROJECT: HRSD CIP#NP010620 - SHINGLE CREEK

DATE : NOVEMBER 10, 2020 / CADD: SRE

**ROUSE-SIRINE ASSOCIATES, LTD.**

LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"

www.rouse-sirine.com

333 OFFICE SQUARE LANE  
 VIRGINIA BEACH, VIRGINIA 23462  
 TEL:(757)490-2300  
 FAX:(757)499-9136

1311 JAMESTOWN ROAD  
 SUITE 103  
 WILLIAMSBURG, VIRGINIA 23185  
 TEL.(757)903-4695



NOTES:

- MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN IN U.S. SURVEY FEET.
- THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE MAY NOT SHOW ALL EASEMENTS OR PROPERTY REFERENCES THAT AFFECT THIS PROPERTY.
- THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY. PARCEL AREAS SHOWN ARE APPROXIMATE AND BASED ON PLATS AND DEEDS OF RECORD, OR CITY TAX RECORDS AND ARE APPROXIMATE IN NATURE.

1	2
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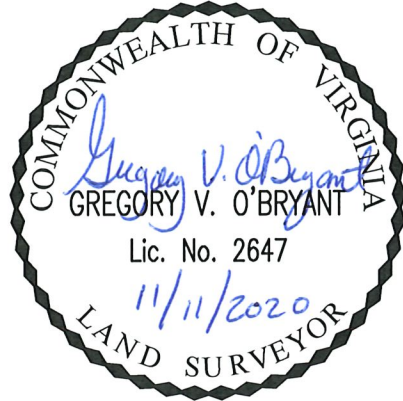
**MACARTHUR DRIVE**  
(50' RIGHT-OF-WAY)

NOW OR FORMERLY  
**BRIAN S. SERVIDIO &  
WENDI L. SERVIDIO**  
(INST. #160013724)  
(P.B. 6, P. 72-73)  
TAX MAP: 35D\*FPT\*10\*11

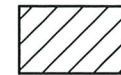
NOW OR FORMERLY  
**JOSHUA A. WEST &  
PHYLLIS C. BRUCKSE,**  
LIFE ESTATE  
(INST. #200005443)  
(P.B. 6, P. 72-73)  
TAX MAP: 35D\*F12\*PT\*11

N: 3,434,463.867  
E: 12,049,159.224  
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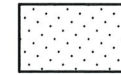
CURVE TABLE						
CURVE NO.	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD
C1	97.91'	1,068.70'	05°14'58"	48.99'	N57°15'11"W	97.88'
C2	13.42'	1,068.70'	00°43'10"	6.71'	N59°31'05"W	13.42'
C3	43.47'	1,068.70'	02°19'50"	21.74'	N57°59'35"W	43.47'
C4	41.02'	1,068.70'	02°11'58"	20.51'	N55°43'41"W	41.02'



LEGEND



VARIABLE WIDTH PERMANENT HRSD  
UTILITY EASEMENT TO BE ACQUIRED



TEMPORARY CONSTRUCTION  
EASEMENT TO BE ACQUIRED

(001)

PLAT SHOWING

**VARIABLE WIDTH PERMANENT HRSD UTILITY EASEMENT  
& TEMPORARY HRSD CONSTRUCTION EASEMENT**

TO BE ACQUIRED FROM

**RALPH L. WETHERINGTON, JR.**

BY

**HAMPTON ROADS SANITATION DISTRICT**

SUFFOLK BOROUGH - CITY OF SUFFOLK, VIRGINIA

PROJECT: HRSD CIP#NP010620 - SHINGLE CREEK

SCALE: 1" = 30'

DATE: NOVEMBER 10, 2020 / CADD: SRE

**ROUSE-SIRINE ASSOCIATES, LTD.**

LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"

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WILLIAMSBURG, VIRGINIA 23185

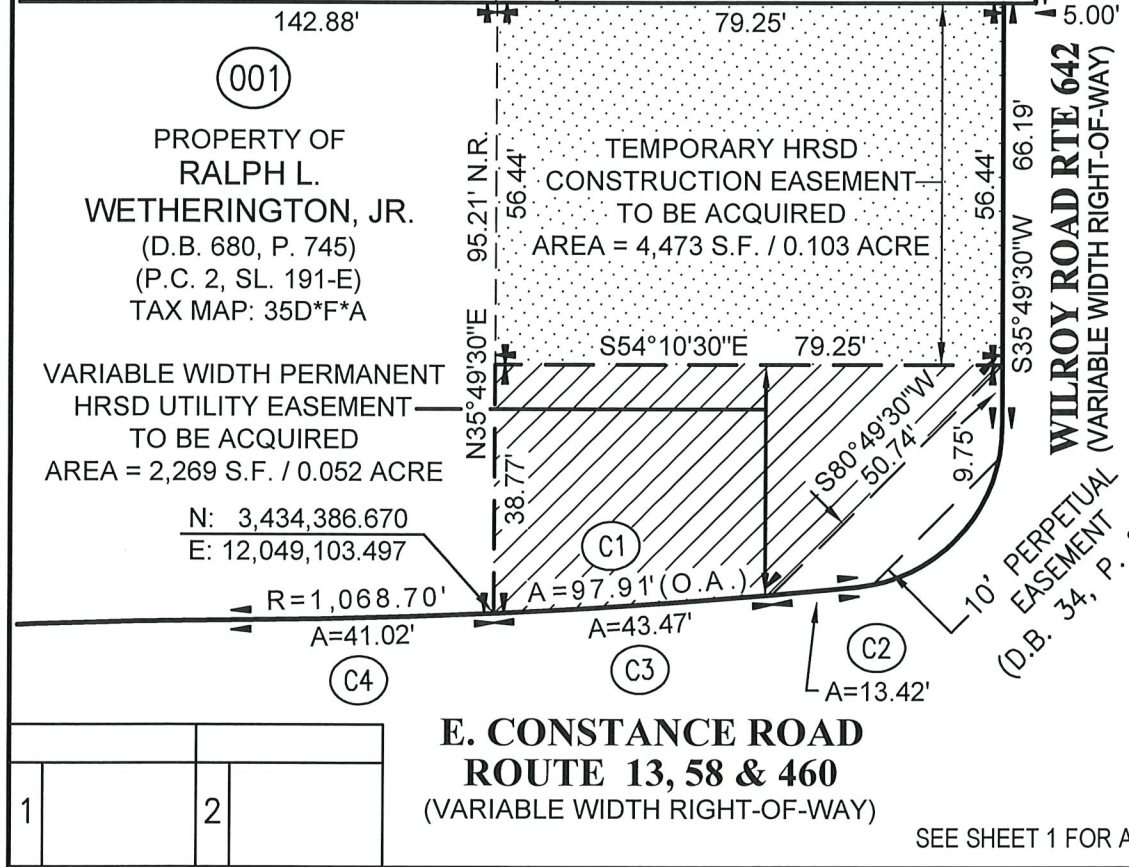
FAX:(757)499-9136

TEL.(757)903-4695



0 30 60 90 FEET

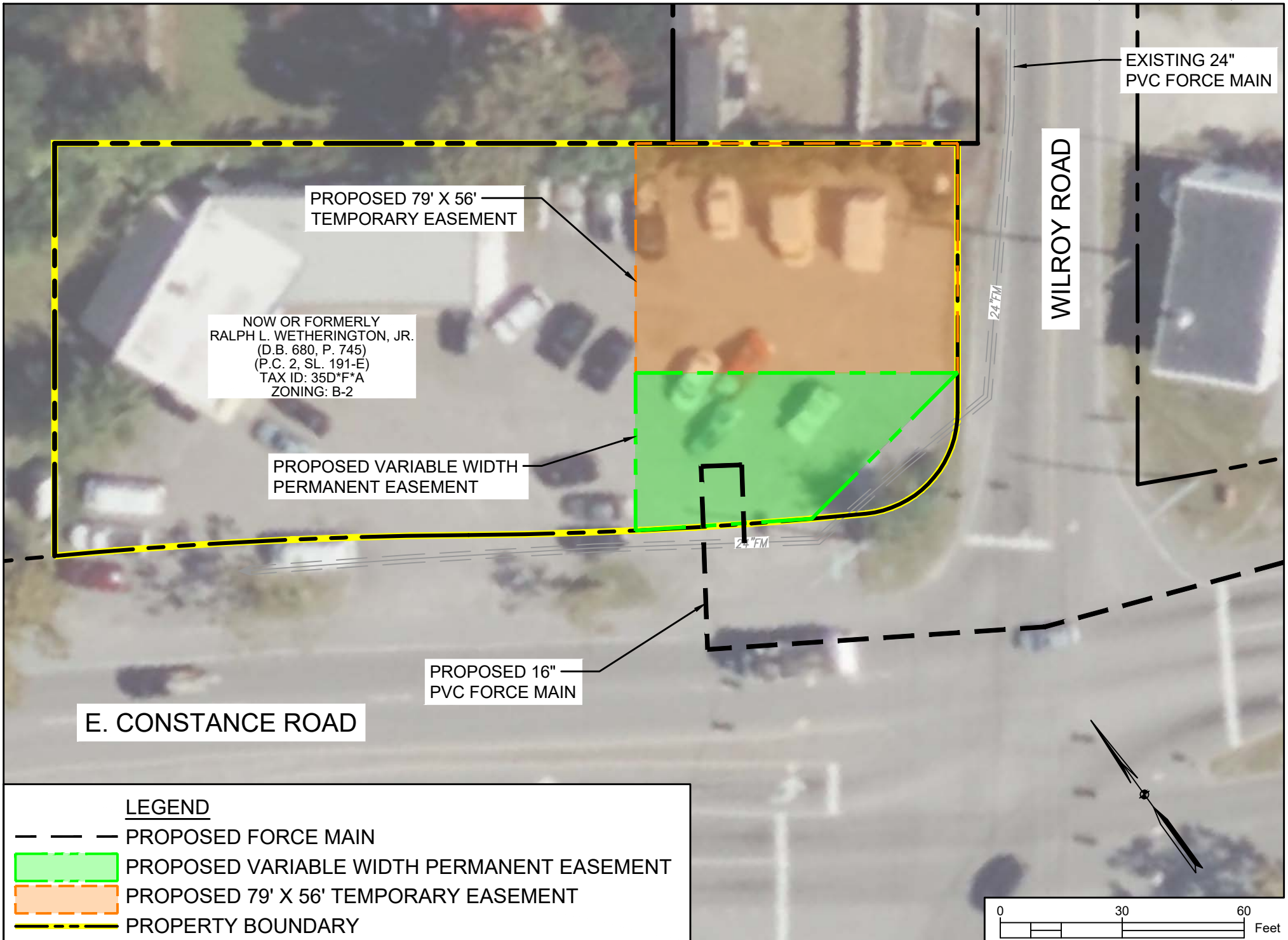
GRAPHIC SCALE



1	2
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**E. CONSTANCE ROAD**  
**ROUTE 13, 58 & 460**  
(VARIABLE WIDTH RIGHT-OF-WAY)

SEE SHEET 1 FOR ALL NOTES AND AREA TABLE.



AGENDA ITEM 12. – March 28, 2023

**Subject:** Unfinished Business



AGENDA ITEM 13. – March 28, 2023

**Subject:** New Business

AGENDA ITEM 14. – March 28, 2023

**Subject:** Commissioner Comments

AGENDA ITEM 15. – March 28, 2023

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

AGENDA ITEM 16. – March 28, 2023

**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) [Wastewater Surveillance Data](#)
  - (10) [Report of Internal Audit Activities](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Emergency Declaration – Great Bridge Interceptor Force Main Emergency Repair \(SF-180\)](#)



March 20, 2023

Re: General Manager's Report

Dear Commissioners:

The FY-2024 budget continues to be challenging. Historic inflation and the tight labor market (where HRSD needs to be competitive to attract and retain talent) are driving year over year cost increases. Staff remain vigilant on ensuring ratepayer affordability and staying within our financial plan.

HRSD is not impacted by the bank failures occurring around the world. HRSD uses Bank of America that many believe is "too big to fail." In addition, the Commonwealth has the Virginia Security of Public Deposits Act, whereby the bank must have 110 percent of HRSD's deposits in collateral. If there is a failure, the Treasurer takes possession of the collateral, liquidates it and reimburses HRSD.

The Low-Income Household Water Assistance Program (LIHWAP) continues to ramp up as more than \$4.8 million has been applied to over 13,000 accounts. We are working with different organizations to lobby for continued LIHWAP funding.

The highlights of February's activities are below. The detailed version is in the attached monthly reports.

A. **Treatment Compliance and System Operations:** There was only one conveyance SSO in February. It occurred in a utility access hole in King William due to construction material blocking the pipe. Staff removed the debris to prevent future spills.

The Army Base incinerator is down for repairs. Staff initially used dump trucks to haul away solids but will transition to a contractor pending repair efforts. Parts have been ordered and the repair should be complete in the coming months.

B. **Water Quality:** No civil penalties this month.

C. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:

1. Annual review of Pump Station Architectural Guidelines.
2. Several budget related meetings.
3. Held a town hall session with the Boat Harbor and James River Treatment Plants.

D. **External Communications:** I participated in the following meetings/activities:

1. Attended the NACWA board meeting and sat on a panel discussing HRSD's Integrated Plan and Financing.

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PO Box 5911, Virginia Beach, VA 23471-0911 • 757.460.7003

2. Participated on a utility management panel along with other regional utility directors on current and future challenges such as workforce, financing and customers.
3. Provided a SWIFT Research Center tour to Congresswoman Kiggans.

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 am on Tuesday, March 28, 2023.**

Respectfully submitted,

Jay Bernas, P.E.  
General Manager

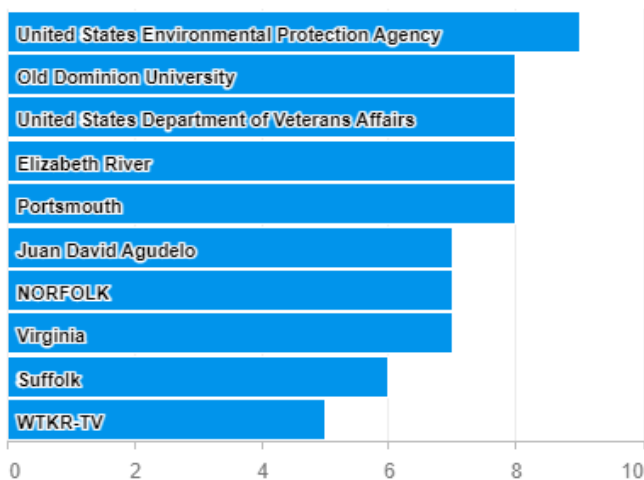
TO: General Manager  
FROM: Director of Communications  
SUBJECT: Monthly Report for February 2023  
DATE: March 6, 2023

A. Publicity and Promotion

1. HRSD and/or SWIFT were mentioned or featured in 4 news stories or media/social media mentions. Topics included:
  - a. WTKR TV reporter visits HRSD treatment plant in Norfolk to learn what not to flush
  - b. HRSD work in Nassawadox and other areas of the Eastern Shore
  - c. Social media posts re: Representative Jen Kiggans' visit to the SWIFT Research Center
2. Analysis of media coverage

## What are the top entities and keywords?

Top Entities

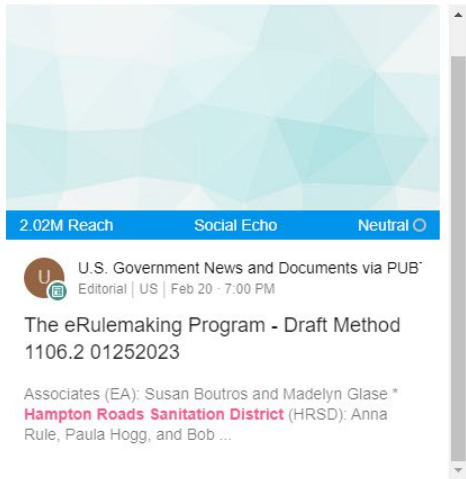


Top Keywords

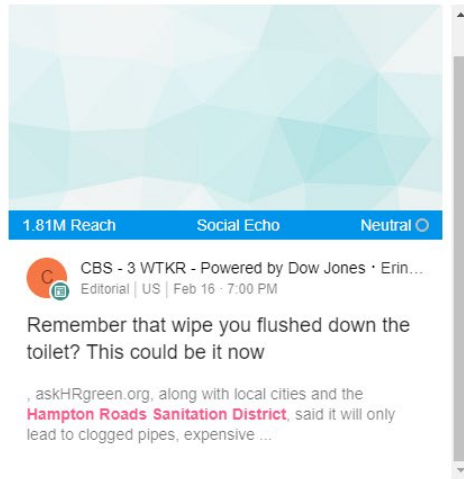
community educator  
plants, fish and crabs  
items toilet  
drain  
wastewater hand  
wastewater treatment plant  
even dental floss whole community

# What is the top performing news content?

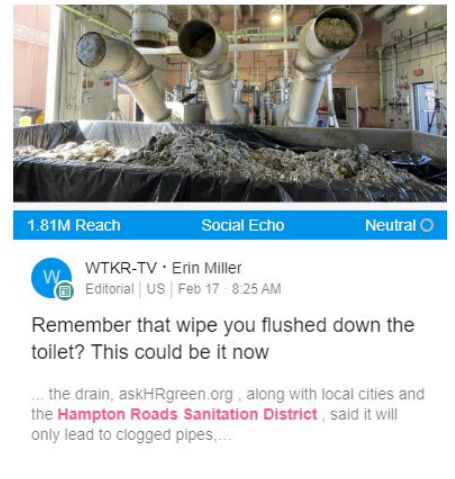
Top Article by Reach



Top Article by Reach and Volume

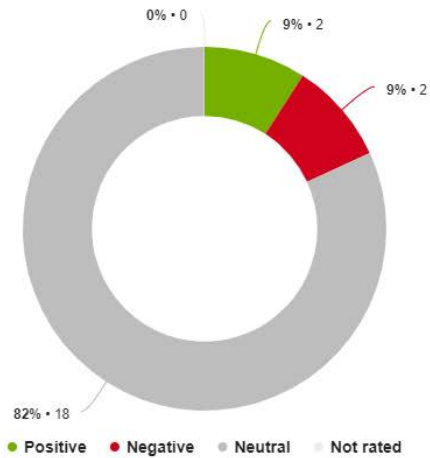


Top Article by Social Echo

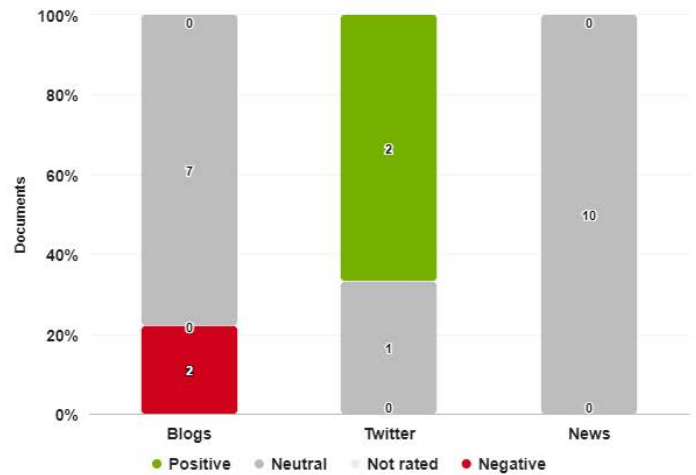


# How favorable is the content?

Sentiment Share of Voice



Sentiment by Source Type

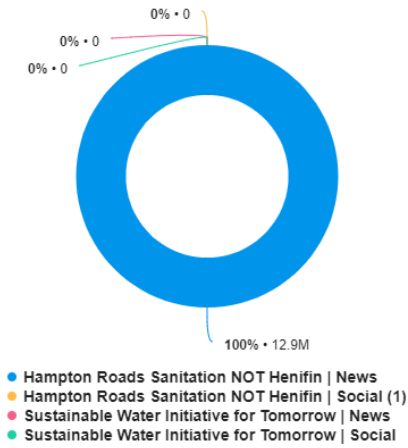


(NOTE: 'Negative' sentiment erroneously calculated based on flawed natural language processing algorithm. The two blogs were in fact additional positive coverage of WTKR's story related to 'flushable' wipes)

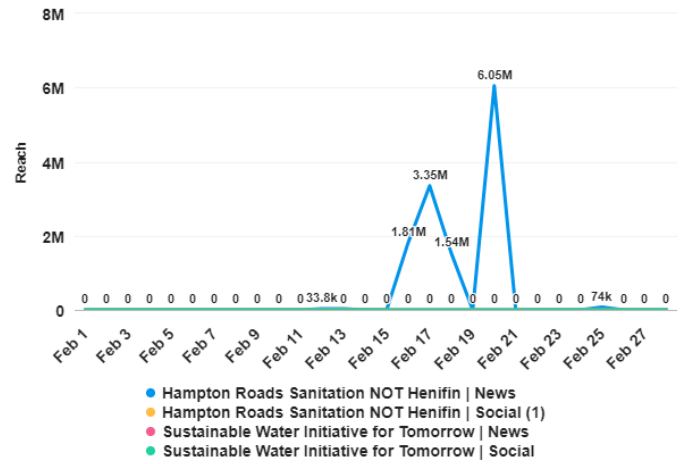


# What is the potential reach?

Share of Voice by Reach

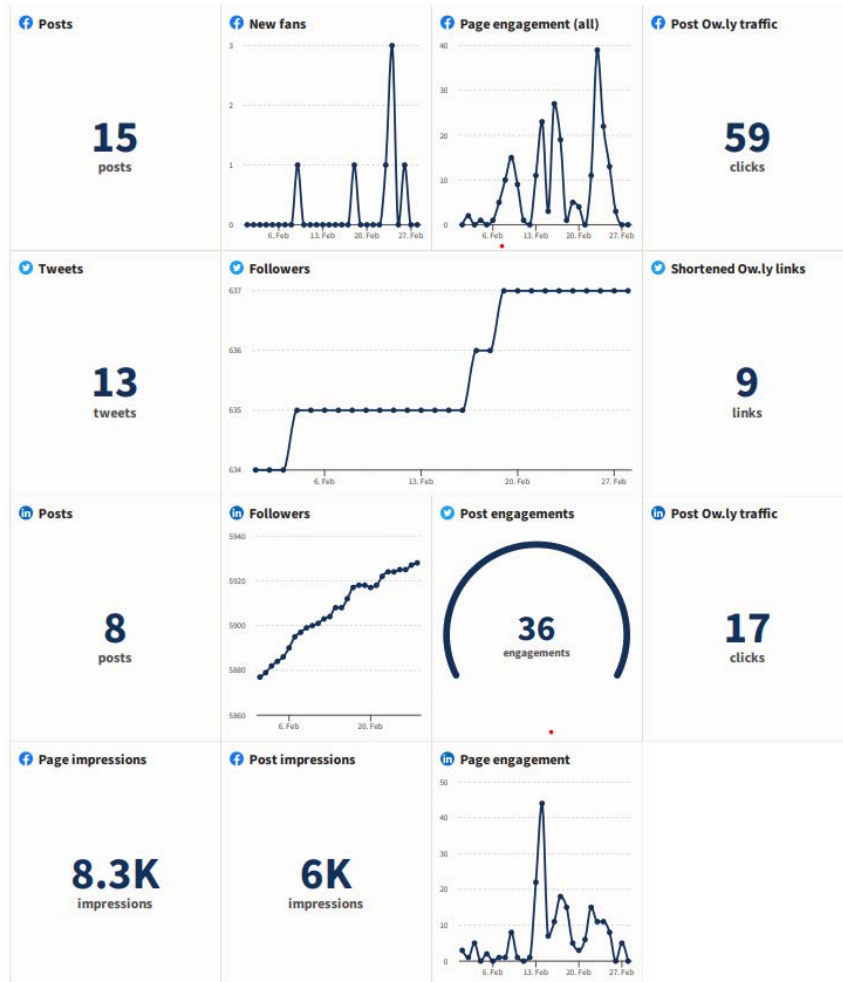


Potential News Reach



## B. Social Media and Online Engagement

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



## 2. YouTube Channel analytics



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

### a. Top Facebook post

HRSD  
Published by Hootsuite · February 16 at 12:33 PM ·

Check out this feature of Dorissa Pitts-Paige, HRSD Director of Human Resources !

**CIVIC Leadership Institute Class of 2023**

**WELCOME**  
*Wednesday*

**Dorissa Pitts-Paige**  
HRSD

**CIVIC**  
Leadership Institute

**CIVIC Leadership Institute**  
February 15 at 12:02 PM ·

Dorissa Pitts-Paige joined HRSD in November of 2006 as a Human Resources Business Partner. She was promoted to Director of Talent Management in December 2021. Ms. Pitts-Paige has worked in public sector human resources for over 20 years as a strategic business partner in the areas of organizational development and training, employee relations, recruitment, benefits, and champion for diversity, equity, and inclusion. Ms. Pitts-Paige holds a bachelor's degree in Broadcast Journalism from Hampton University, master's from Troy University in Human Resources Management and a Master of Law degree from Regent University. She served as the Director of Workforce Development for the Hampton Roads Society for Human Resources Management (HRSHRM) from 2019-2021. She currently serves as the Vice Co-Chair of the Virginia Water Environment Association (VWEA) Diversity, Equity, and Inclusion Council.

No insights to show

Boost a post

26

2 comments

b. Top Tweet



c. Top YouTube Videos

- [The Wastewater Treatment Process](#) (172 views)
- [SWIFT Research Center: What is the Potomac Aquifer](#) (109 views)
- [What is Asset Management](#) (50 views)
- [HRSD Employee Testimonials - Robert](#) (20 views)
- [HRSD Atlantic Treatment Plant Cambi](#) (22 views)

4. Website and Social Media Impressions and Visits

a. Facebook:

- 8,284 page impressions
- 6,041 post impressions reaching 5,692 users
- Facebook Engagement of 225 (181 reactions, 26 shares, and 18 comments)

b. Twitter:

- 1,671 tweet impressions
- 348 profile visits
- 5 mentions

c. HRSD.com/SWIFTVA.com: 1,192 page visits

d. LinkedIn Impressions:

- 6,322 page impressions
- 5,876 post impressions

e. YouTube: 572 views

- f. Next Door unique impressions: 21,878 post impressions from 8 targeted neighborhood postings shared with 552,063 residents
- g. Blog Posts: (1) [Celebrating Engineer's Week: Get To Know Our Engineers](#)
- h. Construction Project Page Visits – 1,610 total visits (not including direct visits from home page, broken down as follows:
  - 1,249 visits to individual pages
  - 361 to the status page

C. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Web Postings: 16

- 1. News Releases: 0
- 2. Traffic Advisories: 1
- 3. Construction Notices and/or notices to neighbors: 9
- 4. Advertisements: 0
- 5. Project Notices: 6 (via door hangings, reaching 124 residents)
- 6. Project/Community Meetings: 0
- 7. New Project Web Pages: 0
- 8. New Project Videos: 0

D. Special Projects and Highlights

Director, General Manager (GM) and Deputy General Manager (DGM) met with SIR Research to review results of the recently completed HRSD Brand Perception study to gain insights into customer satisfaction and perceived value of HRSD services.

E. Internal Communications

- 1. Director participated in the following internal meetings and events:
  - a. Meeting with GM and DGM to review Strategic Plan Key Performance Indicators (KPIs) for Community Outreach
  - b. Meeting with GM, DGM and procurement to evaluate Crisis Communication consultant Request For Proposals (RFPs)
  - c. Orientation meeting with new North Shore Chief of Design and Construction
  - d. Meeting to discuss ideas for 2023 Pollution Prevention Awards event
  - e. Interviews for North Shore Public Information Specialist position
  - f. Pump station Architectural Guidelines review meeting
  - g. HRSD LIFE (Learning, Innovating and Fostering Excellence) Internal Conference planning meetings
  - h. SWIFT Community Commitment Plan steering team meeting

- i. Bi-weekly GM briefings
  - j. Engineers Week planning meetings
  - k. HRSD security assessment meetings
  - l. UNIFIED Council meeting
  - m. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and HRSD QST meetings
2. Director also conducted biweekly Communications department status meetings and weekly team and one-on-one check-in meetings.
  3. Staff attended 11 project progress and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities: 57 (50 virtual, 7 in-person)
  - a. Self-guided SWIFT Virtual Tours – 50 views (analytics specify number of times “Take a Tour” button was selected)
  - b. 02/01/23 – LEAD Peninsula Treatment Plant & SWIFT Research Center (SWIFT RC) Tours | 50 participants
  - c. 02/08/23 – Norfolk Naval Shipyard SWIFT RC Tour | 7 participants
  - d. 02/13/23 – WTKR Interview and Tour of Virginia Initiative Plant (VIP)
  - e. 02/16/23 – Commonwealth Youth Challenge SWIFT RC Tour | 15 students
  - f. 02/23/23 – St. Helena Elementary School ‘Ocean in a Bottle’ activity | 40 students
  - g. 02/27/23 – Edible Aquifer activity -Kilgore Gifted Center | 121 students
  - h. 02/28/23 – James River SWIFT presentation to Denbigh Plantation Garden Club | 15 participants
2. Number of Community Partners: 6
  - a. LEAD Peninsula
  - b. Norfolk Naval Shipyard
  - c. Commonwealth Youth Academy
  - d. Norfolk Public Schools
  - e. Hampton Public Schools
  - f. Denbigh Plantation Garden Club
3. Additional Activities Coordinated by Communications Department: 3
  - a. 02/08/23 – Atlantic Treatment Plant Tour Challenge Youth Academy | 15 students
  - b. 02/21/23 – Williamsburg Treatment Plan Tour to Johns Hopkins student
  - c. 02/23/23 – Anheuser-Busch SWIFT Technical Tour | 10 participants

4. Monthly Metrics Summary

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>February 2023</b>
M-1.4a	Total Training Hours per Full Time Employee (4) - Current Month	Hours / #FTE	0.5
M-1.4b	Total Training Hours per Full Time Employee (4) - Cumulative Fiscal Year-to-Date	Hours / #FTE	6.54
M-5.2	Educational and Outreach Events	Number	57
M-5.3	Number of Community Partners	Number	6

Respectfully,

Leila Rice, APR  
Director of Communications

TO: General Manager  
FROM: Director of Engineering  
SUBJECT: Engineering Monthly Report for February 2023  
DATE: March 13, 2023

A. General

1. Capital Improvement Program (CIP) spending for the seventh month of Fiscal Year (FY) 2023 was below the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	20.45	166.71
Plan	34.25	219.75

2. Staff retention and recruitment remains a significant focus for the Engineering Department. A total of 5 positions are needed to fully staff the Engineering Department. Two new employees have joined the Engineering Department this month:
  - Shirley Smith – Design & Construction Project Manager
  - Nick Taschner – Design & Construction Project Manager

We have offers out to two more Project Managers and hope to have them on board in March. Finding qualified candidates remains challenging, but we are making progress to reduce the number of open positions in the Engineering Department.

B. Asset Management Division

1. Staff are working with the Operations Department to reduce the backlog of incomplete condition assessment data at the treatment plants. Assets are being scored based on their existing condition which is a key input to the Asset Management Plan. Progress on this data gathering effort has improved and now approximately 75% of all existing assets have been assessed.
2. Staff are working with the Operations Department to assess the condition of buried plant piping. Work has been completed at the York River and Williamsburg treatment plants. Assessment work is being planned at the James River, VIP, and Atlantic treatment plants. Key segments to be assessed include the piping upstream and downstream of the headworks facilities.

C. North Shore, South Shore, Special Projects, and SWIFT Design & Construction Divisions

1. Initial design efforts are underway for the Surry Force Main and Pump Station – Dominion Energy project. The contract has been executed by both HRSD and Dominion Energy. The Design-Build Team began conducting the aerial survey and determined the needed easements to be acquired. Although this project is being designed and built by HRSD, Dominion Energy will reimburse HRSD for the cost of this work. HRSD will ultimately own and operate the pump station and associated force main.

2. Preliminary design efforts continue for the Central Environmental Laboratory Expansion and Rehabilitation project. A draft Preliminary Engineering Report was received this month and will be finalized soon. The Project Team is preparing the Request for Qualifications which will be used to hire a Construction Management (CM) firm. This procurement process will take a few months to complete. To date, five CM firms have expressed interest in the project. This project is being constructed using a Construction Manager at Risk delivery method and the close collaboration between HRSD, designer and contractor will be valuable on this complex project.
3. The emergency work to replace the damaged odor control scrubber at the Atlantic Treatment Plant continues. The forensic analysis of the fire damaged equipment indicates that the bearing within the odor scrubber fan failed causing the fan blades to impact the fan housing. Friction caused by this interaction ignited the fiberglass material. Equipment delivery delays have delayed the planned completion of the work until June 2023. Staff are working with the insurance adjuster to provide needed cost information related to this claim.
4. An important SWIFT Program milestone was reached in February with the acceptance of the stipulated price from the Design-Builder for the Nansemond Advanced Nutrient Reduction Improvements (ANRI) Phase II project. Although design efforts continue on this project, approval of the stipulated price allows the Design-Build Team to begin certain construction-related activities. This project is important as we ready the Nansemond Treatment Plant for the future full-scale SWIFT facilities and additional flow from the future closing of the Boat Harbor Treatment Plant.

D. Planning & Analysis Division

1. Staff continue coordination discussions related to future sewer improvements in Chincoteague. Discussions include HRSD staff, the Town of Chincoteague, a local developer, and a homeowner association. Discussions have included possible treatment plant improvements, service to existing and future development and needed property acquisitions. A Memorandum of Understanding has been drafted to address these issues and provide a path forward.
2. Staff completed a study to address the need for a future equalization tank in the Oceana section of Virginia Beach. The City of Virginia Beach has a possible site that could be acquired by HRSD for this future tank. Negotiations are underway with the City to determine the feasibility and cost to acquire this property. This effort is moving forward, and the property should be acquired in the coming year.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 5
  - a. 02/03/2023 – Staff hosted One-Water Nevada as part of a discussion on Water Reuse and HRSD's SWIFT Program.
  - b. 02/22/2023 – Staff made numerous presentations as part of National Engineer's Week to a number of local schools including Middlesex Elementary, Crossroads Middle School, and Indian River High School.



- c. 02/22/2023 – Staff made a presentation to the Hampton Master Gardeners related to the HRSD SWIFT Program.
- d. 02/23/2023 – Staff made a presentation to Congresswoman Jennifer Kiggins related to the HRSD SWIFT Program.
- e. 02/27/2023 – Staff met with the Philadelphia Water Department to discuss the use of the HRSD Program Management System and methods to improve capital project delivery.

2. Number of Community Partners: 7

- a. Congresswoman Jennifer Kiggins
- b. Crossroads Middle School
- c. Hampton Master Gardeners
- d. Indian River High School
- e. Middlesex Elementary School
- f. One-Water Nevada
- g. Philadelphia Water Department

3. Number of Research Partners: 0

4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	February 2023
M-1.4a	Total Training Hours per Full Time Employee (53) - Current Month	Hours / #FTE	3.08
M-1.4b	Total Training Hours per Full Time Employee (53) - Cumulative Fiscal Year-to-Date	Hours / #FTE	18.10
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Number of Community Partners	Number	7
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee

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

TO: General Manager  
FROM: Director of Finance  
SUBJECT: Monthly Report for February 2023  
DATE: March 21, 2023

A. General

1. On Friday, March 10, Silicon Valley Bank (SVB) failed, and the Federal Deposit Insurance Corporation (FDIC) was named as receiver. With over \$200 billion in assets, it was the largest bank failure since 2008. Most bank failures are related to recessions or exposure to bad loans. Although SVB was considered well capitalized by regulatory standards, it carried some unique risks. In 2019 and 2022, SVB grew significantly with a heavy client concentration in the technology and venture capital sectors.

It has been reported that as deposits grew, SVB purchased long duration investments whose value fell when interest rates began to rise in 2022. When their clients needed liquidity, the bank was forced to sell some of their investments at a loss, putting its credit ratings in jeopardy helping to create a “run on the bank.”

Subsequently other regional US banks were also shut down as global concerns about bank sector stability, continued rising interest rates and a recession grew.

While HRSD’s bank deposits far exceed insurance provided by the FDIC, its deposits are collateralized in accordance with the Virginia Security for Public Deposits Act (the Act). In accordance with the Act, a bank pledges collateral in the form of federal obligations with a fair value equal to 110 percent of HRSD’s deposits with a third-party trustee in the name of the Treasurer of the Commonwealth. If a bank fails, the Treasurer will take possession of the collateral, liquidate it, and reimburse HRSD up to the value of the deposits. The State Treasury Board monitors compliance with the collateralization and reporting requirements of the Act.

2. Staff completed a grant application to reimburse HRSD for some of the costs associated with closing the Chesapeake-Elizabeth Treatment Plant (CETP). Staff are optimistic that HRSD may receive an award amounting to \$100 million in fiscal year 2024.
3. HRSD began receiving Low Income Household Water Assistant Program (LIHWAP) payments in mid-November 2022. As of the end of February 2023, a total of \$4,813,071 has been applied to over 8,500 customer accounts for water, sewer and wastewater charges. HRSD accepts LIHWAP payments on behalf of locality Hampton Roads Utility Billing Service (HRUBS) partners.

The following is a breakout of combined water, sewer, and wastewater treatment assistance received for all HRSD and locality HRUBS charges:

	<b>LIHWAP</b>	<b>Count</b>
<b>HRSD</b>	<b>\$ 2,277,025.90</b>	<b>8,572</b>
Norfolk	\$ 1,723,426.51	2,419
Suffolk	\$ 501,849.71	1,663
Chesapeake	\$ 271,167.10	749
JCSA	\$ 29,332.91	149
Smithfield	\$ 6,803.30	13
Urbanna	\$ 1,593.71	4
King William	\$ 1,048.06	6
Surry County	\$ 756.10	2
Town of Surry	\$ 67.83	1
	<b>\$ 4,813,071.13</b>	<b>13,578</b>

The following demonstrates LIHWAP applied to HRSD Wastewater charges only, by locality:

	<b>HRSD LIHWAP</b>	<b>Count</b>
Norfolk	\$ 715,925.00	3,134
Newport News	\$ 584,297.12	1,623
Virginia Beach	\$ 287,217.38	937
Portsmouth	\$ 279,109.51	944
Chesapeake	\$ 182,792.51	879
Suffolk	\$ 177,903.49	886
JCSA	\$ 22,816.10	103
Smithfield	\$ 5,966.30	17
King William	\$ 4,335.30	7
Urbanna	\$ 3,821.92	5
Windsor	\$ 3,200.74	14
Gloucester	\$ 2,865.44	7
Isle of Wight	\$ 2,435.54	7
Surry County	\$ 2,208.48	3
Aqua	\$ 1,524.40	5
Town of Surry	\$ 606.67	1
	<b>\$ 2,277,025.90</b>	<b>8,572</b>

4. Staff delivered 4,346 warning door tags and disconnected water service to 1,357 accounts during February, over 1,200 more field activities than the previous month. However, an emphasis was placed on warning tags paired with a LIHWAP informational tag to promote the availability of assistance. Approvals of LIHWAP funding are uploaded daily in the billing system to prevent disconnection for customers awaiting assistance.
5. Customer call and email volumes remained steady throughout the month of February 2023. Increased field activities combined with four vacancies and training new staff contributed to a decrease in service level to 69 percent of calls answered within three minutes (down from 81 percent in January). Call abandonment is up slightly to 11

percent (eight percent in January). Average wait time has increased to two minutes, 57 seconds (up from less than two minutes in January). New hires are scheduled to begin in March and are ultimately expected to have a positive effect on service levels once training and all associated onboarding activities are complete.

6. The accompanying Interim Financial Report indicates that most revenue and expense accounts are in line with budgetary expectations.

Fee collections are significantly greater than last year because field activity in FY2022 was suspended due to the COVID-19 pandemic.

Interest Income continues to be a revenue bright spot and is well above budgetary expectations because of rising interest rates.

B. Interim Financial Report

1. Operating Budget for the Period Ended February 28, 2023

	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	\$ 366,882,000	\$ 251,277,753	68%	70%
Surcharge	1,755,000	1,050,729	60%	66%
Indirect Discharge	3,200,000	2,910,082	91%	62%
Fees	2,910,000	2,273,049	78%	3%
Municipal Assistance	800,000	423,933	53%	106%
Miscellaneous	1,254,000	668,079	53%	74%
<b>Total Operating Revenue</b>	<b>376,801,000</b>	<b>258,603,625</b>	<b>69%</b>	<b>69%</b>
<b>Non Operating Revenues</b>				
Facility Charge	7,150,000	4,590,128	64%	63%
Interest Income	1,570,000	2,788,250	178%	-70%
Build America Bond Subsidy	2,026,000	1,031,088	51%	51%
Other	302,000	463,286	153%	79%
<b>Total Non Operating Revenue</b>	<b>11,048,000</b>	<b>8,872,752</b>	<b>80%</b>	<b>47%</b>
<b>Total Revenues</b>	<b>387,849,000</b>	<b>267,476,377</b>	<b>69%</b>	<b>68%</b>
Transfers from Reserves	18,868,701	12,579,134	67%	67%
<b>Total Revenues and Transfers</b>	<b>\$ 406,717,701</b>	<b>\$ 280,055,511</b>	<b>69%</b>	<b>68%</b>
<b>Operating Expenses</b>				
Personal Services	\$ 63,288,297	\$ 43,203,310	68%	69%
Fringe Benefits	26,520,561	15,599,318	59%	64%
Materials & Supplies	13,385,885	7,494,148	56%	64%
Transportation	1,797,226	994,046	55%	56%
Utilities	15,055,652	10,595,566	70%	67%
Chemical Purchases	13,026,120	7,837,425	60%	64%
Contractual Services	57,808,888	26,163,082	45%	45%
Major Repairs	12,409,035	5,567,203	45%	34%
Capital Assets	625,737	129,168	21%	68%
Miscellaneous Expense	3,657,334	1,894,170	52%	56%
<b>Total Operating Expenses</b>	<b>207,574,735</b>	<b>119,477,436</b>	<b>58%</b>	<b>58%</b>
<b>Debt Service and Transfers</b>				
Debt Service	69,470,000	50,890,765	73%	74%
Transfer to CIP	129,412,966	86,275,311	67%	71%
Transfer to Risk management	260,000	173,336	67%	67%
<b>Total Debt Service and Transfers</b>	<b>199,142,966</b>	<b>137,339,412</b>	<b>69%</b>	<b>72%</b>
<b>Total Expenses and Transfers</b>	<b>\$ 406,717,701</b>	<b>\$ 256,816,848</b>	<b>63%</b>	<b>65%</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 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 28, 2023

### HRSD - RESERVE AND CAPITAL ACTIVITY

February 28, 2023

	General Reserve				Capital	
	General	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
<b>Beginning - July 1, 2021</b>	<b>\$ 189,168,885</b>	<b>\$ 420</b>	<b>\$ 33,134,065</b>	<b>\$ 4,279,547</b>	<b>\$ 32,535,033</b>	<b>\$ -</b>
<b>Current Year Sources of Funds</b>						
Current Receipts	238,411,624					
Line of Credit						
VRA Draws					45,540,858	
WIFIA Draws					35,159,916	
CARES Transfer In	730,692					
Days Cash on Hand Transfer In						
Transfers In	-			151,669	75,490,897	
<b>Sources of Funds</b>	<b>239,142,316</b>	<b>-</b>	<b>-</b>	<b>151,669</b>	<b>156,191,671</b>	<b>-</b>
<b>Total Funds Available</b>	<b>\$ 428,311,201</b>	<b>\$ 420</b>	<b>\$ 33,134,065</b>	<b>\$ 4,431,216</b>	<b>\$ 188,726,704</b>	<b>\$ -</b>
<b>Current Year Uses of Funds</b>						
Cash Disbursements	159,769,687				174,345,714	
CARES Transfer Out		(1,116)				
Days Cash on Hand Transfer Out						
Transfers Out	75,642,566					
<b>Uses of Funds</b>	<b>235,412,253</b>	<b>(1,116)</b>	<b>-</b>	<b>-</b>	<b>174,345,714</b>	<b>-</b>
<b>End of Period - February 28, 2023</b>	<b>\$ 192,898,948</b>	<b>\$ 1,536</b>	<b>\$ 33,134,065</b>	<b>\$ 4,431,216</b>	<b>\$ 14,380,990</b>	<b>\$ -</b>
Unrestricted Funds	<b>\$ 211,711,155</b>					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended February 28, 2023

**HRSD - PROJECT ANALYSIS**

February 28, 2023

Classification/ Treatment Service Area	Appropriated Funds	Expenditures		Total		Available Funds
		prior to 7/1/2022	Year to Date FY2023	Project Expenditures	Encumbrances	
Administration	73,738,240	24,017,666	3,506,670	27,524,336	1,830,390	44,383,514
Army Base	163,448,800	124,990,776	679,327	125,670,103	792,946	36,985,751
Atlantic	233,825,424	79,425,640	1,835,370	81,261,010	17,886,656	134,677,758
Boat Harbor	391,690,953	55,428,123	18,824,916	74,253,039	188,231,803	129,206,111
Ches-Eliz	183,518,801	118,083,285	3,026,284	121,109,569	4,823,828	57,585,404
Eastern Shore	34,564,664	3,409,844	13,851,815	17,261,659	15,109,203	2,193,802
James River	348,266,356	40,526,157	36,344,137	76,870,294	241,071,400	30,324,662
Middle Peninsula	102,724,107	19,904,529	5,379,141	25,283,670	11,867,249	65,573,188
Nansemond	494,728,123	41,289,643	18,314,454	59,604,097	313,422,240	121,701,786
Surry	60,391,465	38,362,111	2,243,283	40,605,394	11,659,801	8,126,270
VIP	180,644,256	17,792,976	12,498,874	30,291,850	42,875,911	107,476,495
Williamsburg	28,535,758	20,517,874	3,789,557	24,307,431	941,969	3,286,358
York River	77,255,863	13,910,493	2,501,811	16,412,304	15,792,375	45,051,184
General	1,147,886,755	153,413,076	70,051,630	223,464,706	327,354,969	597,067,080
	3,521,219,565	751,072,193	192,847,269	943,919,462	1,193,660,740	1,383,639,363

5. Debt Management Overview

**HRSD - Debt Outstanding (\$000's)**

February 28, 2023

	Principal			Interest	
	Jan 2023	Principal Payments	Principal Draws	Feb 2023	Payments
<b>Fixed Rate</b>					
Senior	166,437	-	-	166,437	-
Subordinate	688,781	(3,870)	7,420	692,331	(4,200)
<b>Variable Rate</b>					
Subordinate	50,000	-	-	50,000	(90)
<b>Line of Credit</b>	33,721			33,721	(104)
<b>Total</b>	<b>\$ 938,939</b>	<b>\$ (3,870)</b>	<b>\$ 7,420</b>	<b>\$ 942,489</b>	<b>\$ (4,394)</b>

**HRSD- Series 2016VR Bond Analysis**

March 03, 2023

	SIFMA Index	HRSD	Spread to
			SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.62%	0.58%	-0.04%
Minimum	0.01%	0.01%	0.00%
As of 03/03/23	2.80%	2.60%	-0.20%

\* Since October 20, 2011 HRSD has averaged 58 basis points on Variable Rate Debt

## 6. Financial Performance Metrics for the Period Ended February 28, 2023

### HRSD - UNRESTRICTED CASH

February 28, 2023

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
Total Unrestricted Cash	\$ 211,711,155		372
Risk Management Reserve	\$ (4,431,216)	(7)	365
Capital (PAYGO only)	\$ (14,380,990)	(26)	339
<b>Adjusted Days Cash on Hand</b>	<b>\$ 192,898,948</b>		<b>339</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 28, 2023

Primary Source	Beginning	YTD			Ending	Allocation of Funds	Credit Quality	Current Mo Avg Yield
	Market Value July 1, 2022	Contributions	Withdrawals	Income Earned	Market Value February 28, 2023			
BAML Corp Disbursement Account	25,498,734	372,441,387	364,887,542	290,244	33,342,823	19.5%	N/A	0.55%
VIP Stable NAV Liquidity Pool	144,268,153	10,000,000	20,000,000	2,984,919	137,253,072	80.5%	AAAm	4.73%
<b>Total Primary Source</b>	<b>\$ 169,766,887</b>	<b>\$ 382,441,387</b>	<b>\$ 384,887,542</b>	<b>\$ 3,275,163</b>	<b>\$ 170,595,895</b>	<b>100.0%</b>		

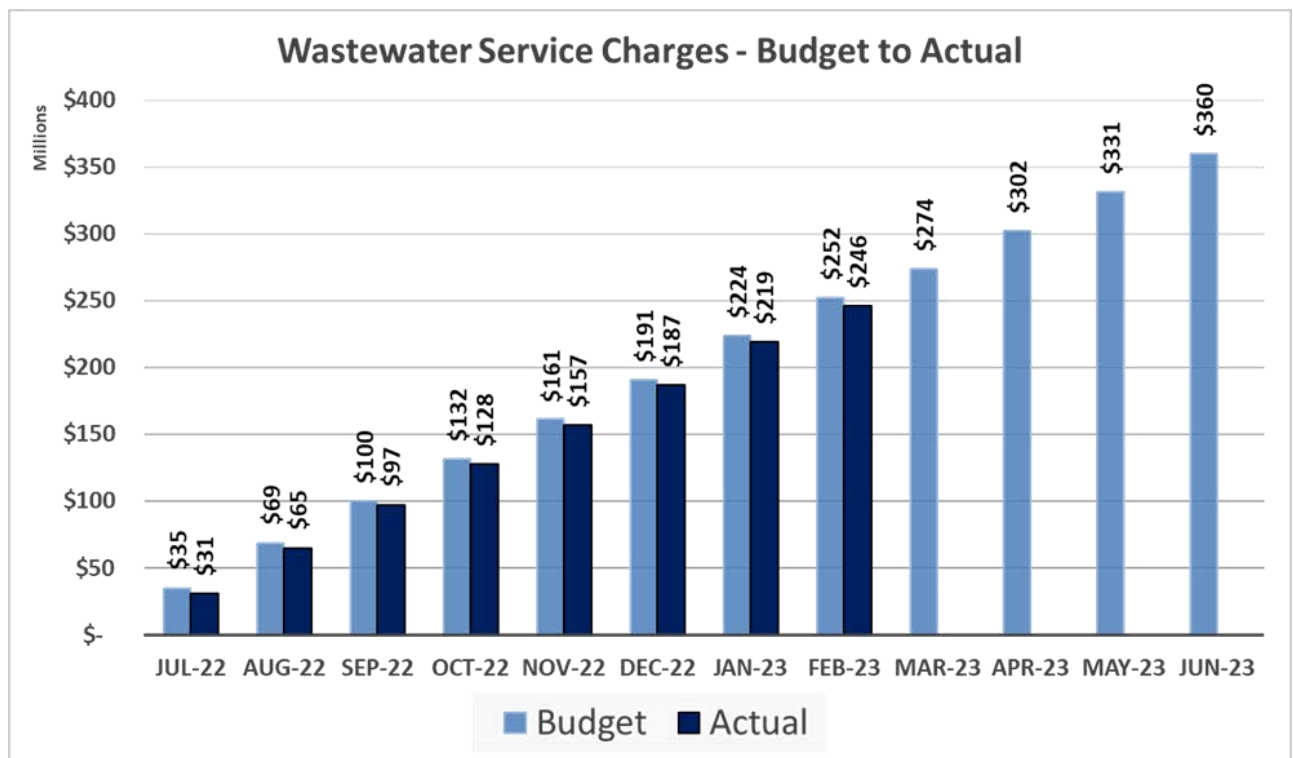
VIP Stable NAV Liquidity Pool performed at the same level as Va Local Government Investment Pool's (the market benchmark) in the month of February 2023.

Secondary Source	Beginning	YTD			Ending	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
	Market Value July 1, 2022	Contributions	Withdrawals	Income Earned & Realized G/L	Market Value February 28, 2023			
VIP 1-3 Year High Quality Bond Fund	62,932,017	-	8,395	614,717	62,385,104	64,350,340	(1,965,236)	4.90%
<b>Total Secondary Source</b>	<b>\$ 62,932,017</b>	<b>\$ -</b>	<b>\$ 8,395</b>	<b>\$ 614,717</b>	<b>\$ 62,385,104</b>	<b>\$ 64,350,340</b>	<b>\$ (1,965,236)</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 2023.

	Total	Fund Alloc
Total Primary Source	\$ 170,595,895	73.2%
Total Secondary Source	\$ 62,385,104	26.8%
<b>TOTAL SOURCES</b>	<b>\$ 232,980,999</b>	<b>100.0%</b>

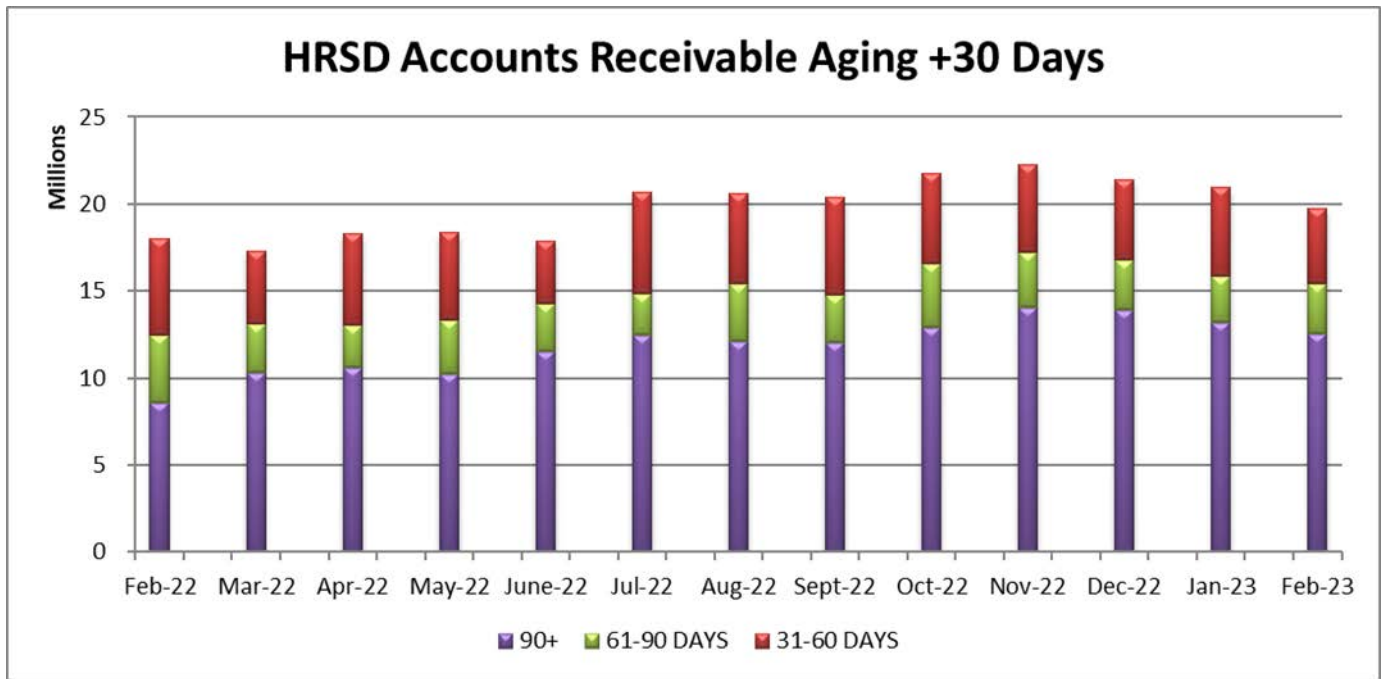
## 7. Summary of Billed Consumption



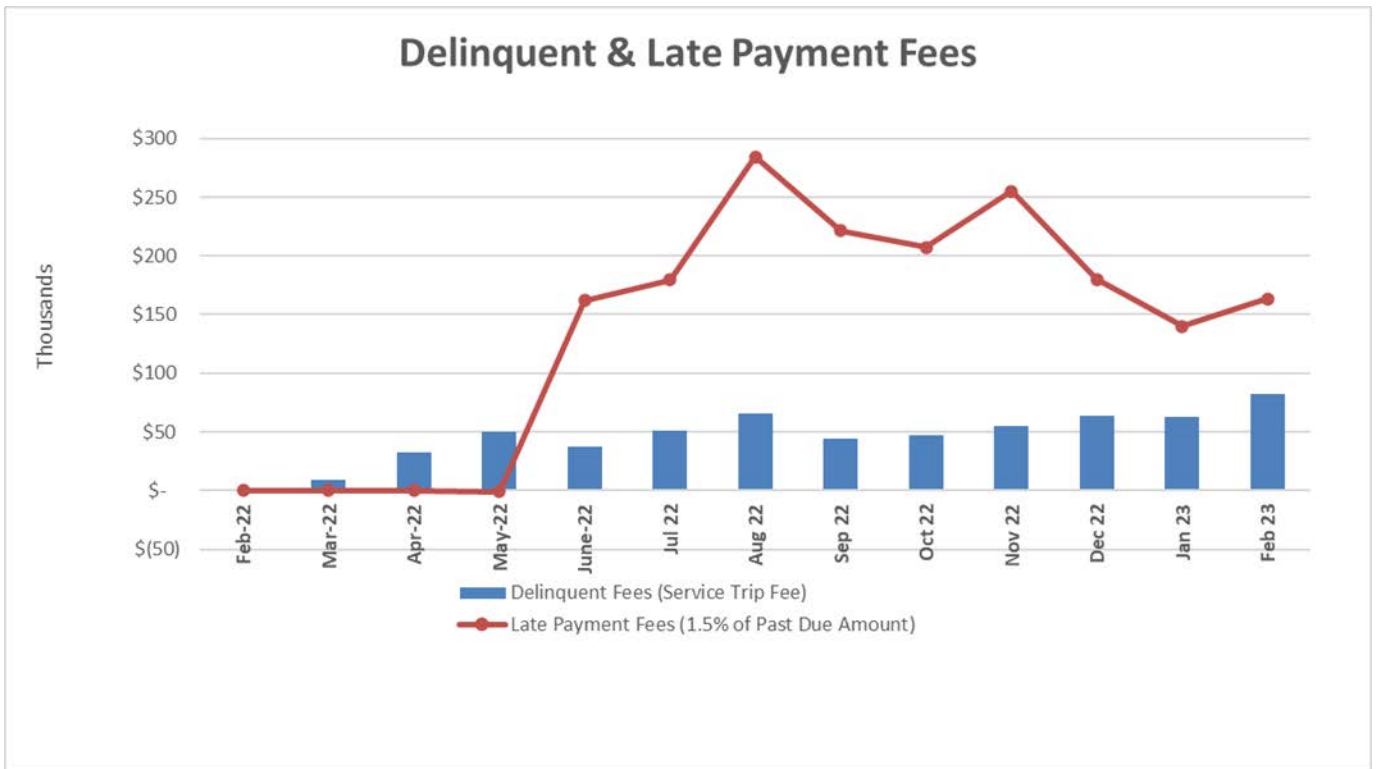


C. Customer Care Center

1. Accounts Receivable Overview

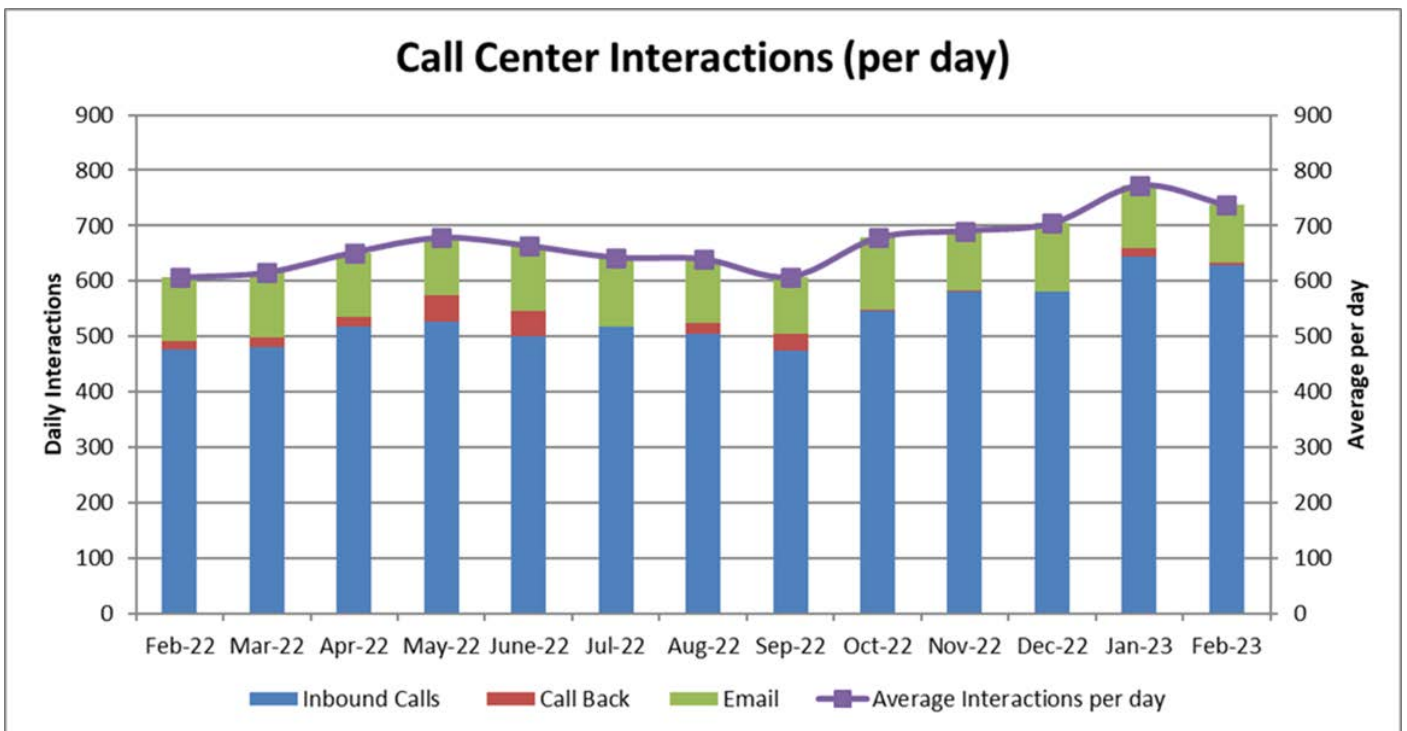


Summary of Billed Consumption (,000s ccf)							
Month	FY2023 Cumulative Budget Estimate	FY2023 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2022 Actual	From FY2022	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,682	-6.6%	4,976	-5.9%	4,947	-5.4%
Aug	9,883	9,651	-2.3%	9,518	1.4%	9,641	0.1%
Sept	14,413	14,207	-1.4%	14,347	-1.0%	14,345	-1.0%
Oct	18,892	18,679	-1.1%	19,048	-1.9%	18,955	-1.5%
Nov	23,125	22,776	-1.5%	22,953	-0.8%	22,412	1.6%
Dec	27,336	27,133	-0.7%	27,541	-1.5%	27,558	-1.5%
Jan	32,088	31,669	-1.3%	31,865	-0.6%	32,148	-1.5%
Feb	36,182	35,601	-1.6%	36,188	-1.6%	36,087	-1.3%
March	39,309	-	N/A	40,229	N/A	40,452	N/A
Apr	43,360	-	N/A	44,569	N/A	44,644	N/A
May	47,508	-	N/A	48,315	N/A	48,656	N/A
June	51,620	-	N/A	53,243	N/A	53,324	N/A



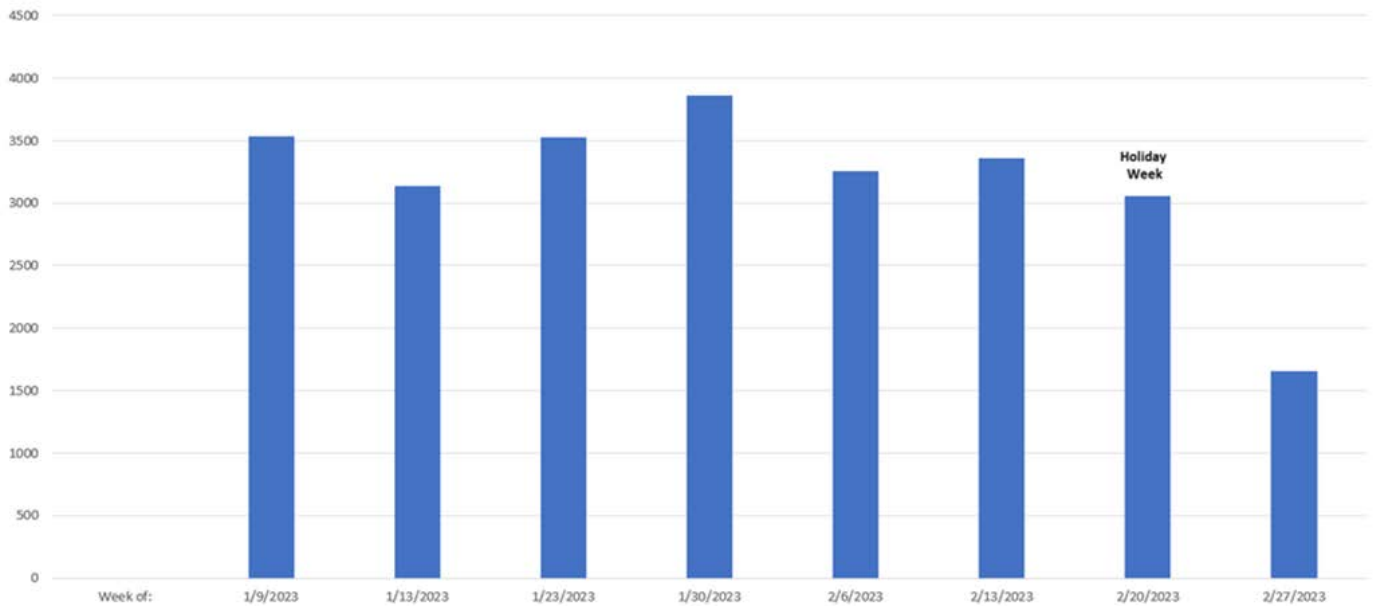
Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19.

## 2. Customer Care Center Statistics

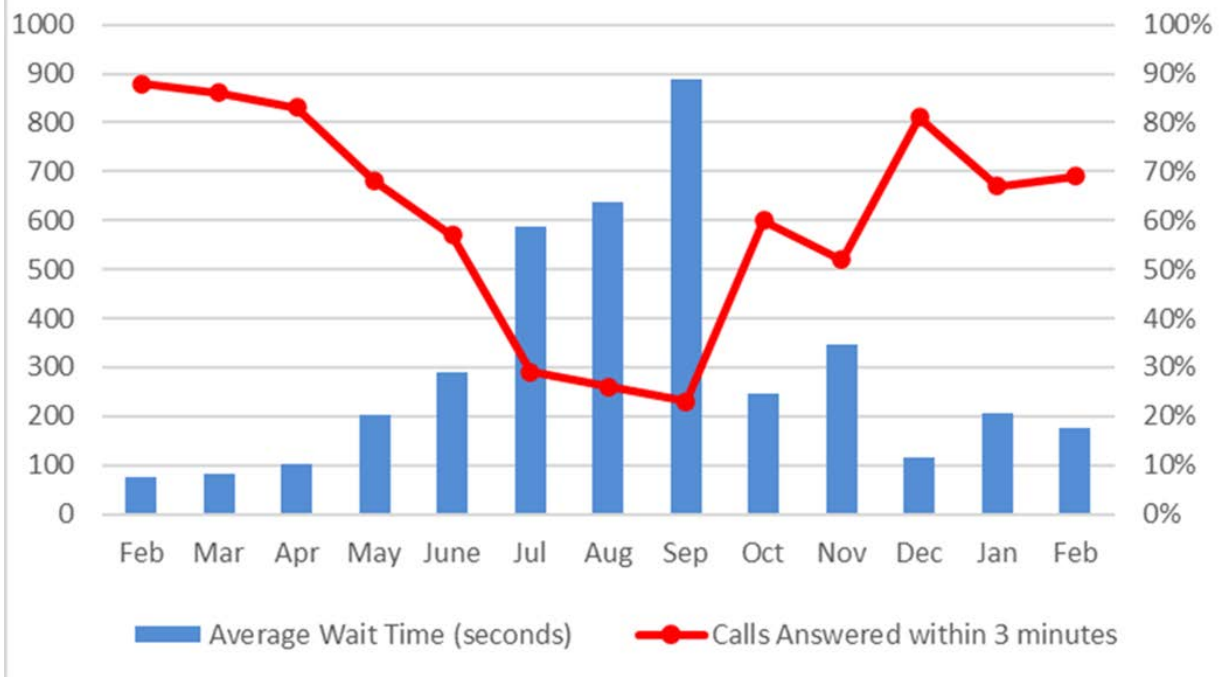


Customer Interaction Statistics	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Calls Answered within 3 minutes	88%	86%	83%	68%	57%	29%	26%	23%	60%	52%	81%	67%	69%
Average Wait Time (seconds)	75	81	101	203	291	587	638	887	246	347	117	206	177
Calls Abandoned	6%	7%	7%	12%	15%	25%	25%	31%	14%	18%	8%	12%	11%

Total Calls Received by Week

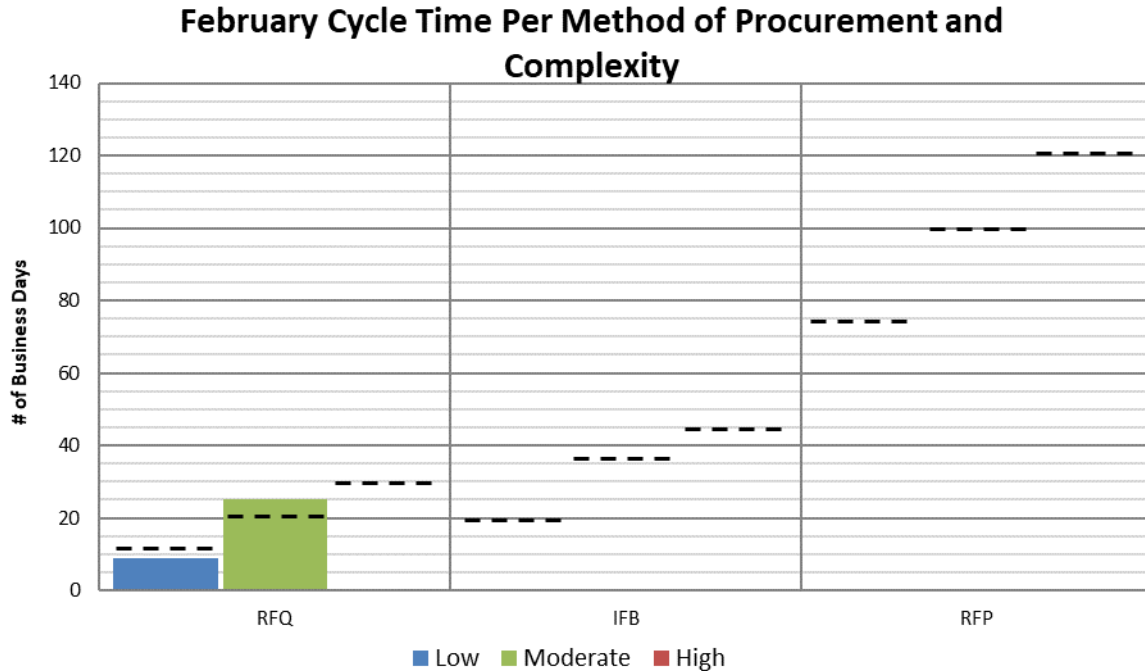


Customer Interaction Statistics



D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings <sup>1</sup>	\$10,307	\$367,824
Negotiated Savings <sup>2</sup>	\$3,105	\$28,813
Salvage Revenues	\$425	\$22,631
Corporate VISA Card - Estimated Rebate	\$19,448	\$159,247



**Dashed Line:** Target Service Level Cycle Time

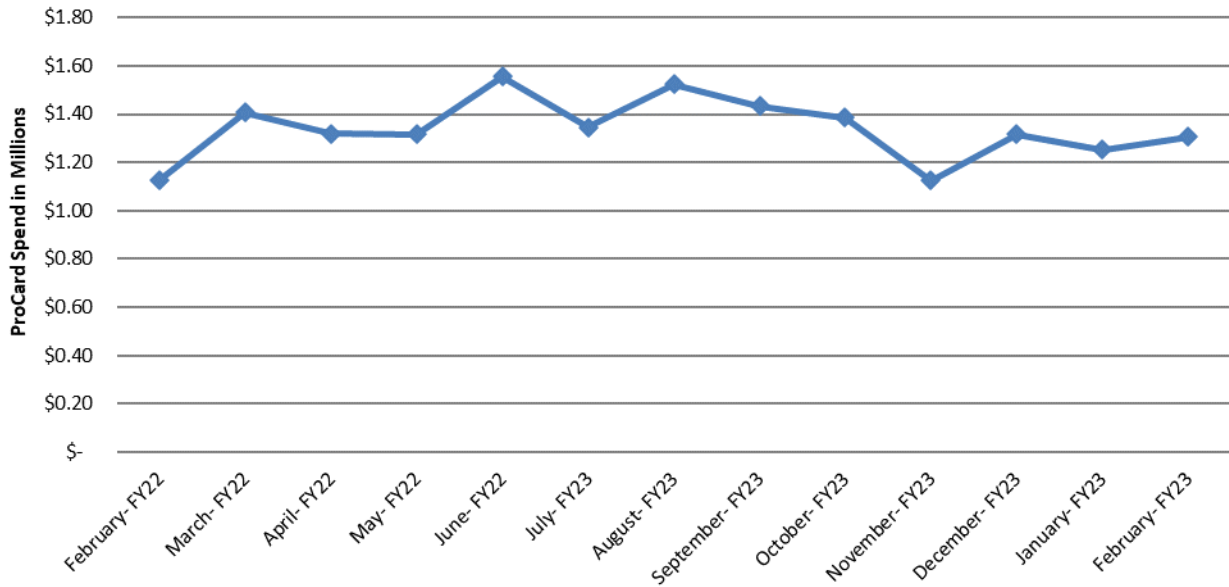
	Low	Moderate	High
RFQ	12	20	30
IFB	20	35	45
RFP	75	100	120

**Low:** Low technical, quick turnaround; **Moderate:** Technical, routine; **High:** Highly technical, time intensive.

<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 FY23



\***External Fraud:** Fraud from outside HRSD (i.e.: a lost or stolen card, phishing, or identity theft)

Item #	Strategic Planning Measure	Unit	February 2023
	Accounts Receivable (HRSD)	Dollars	\$39,724,461
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	31.6%

**E. Monthly Strategic Planning Metrics Summary**

1. Educational and Outreach Events: 0
2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2023
M-1.4a	Training During Work Hours Per Full Time Employee (103) – Current Month	Hours / #FTE	0.10
M-1.4b	Total Training During Work Hours Per Full Time Employee (103) – Cumulative Fiscal Year-to-Date	Hours / #FTE	5.02
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	101%
	General Reserves	Percentage of Operating Budget less Depreciation	111%
	Liquidity	Days Cash on Hand	346 Days
	Accounts Receivable (HRSD)	Dollars	\$39,724,461
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	31.6%

Respectfully,

*Steven G. de Mik*

Steven G. de Mik  
Deputy General Manager/CFO

TO: General Manager  
FROM: Director of Information Technology  
SUBJECT: Information Technology Department Report for February 2023  
DATE: March 15, 2023

A. General

1. IT staff are working in conjunction with Microsoft and other vendors in providing recommendations on how to enhance functionality and security in the Microsoft cloud.
2. Verizon completed installation and testing of the data circuit to Onancock. Network connectivity is being configured for both the business and operational networks. Following successful testing, the circuit will go live, and the existing slower interim circuit, removed.
3. The IT Help Desk processed 403 work orders and requests for assistance in February, ensuring availability of computing resources to those working locally and remotely.
4. The building automation system was migrated to a new server, thus facilitating the retirement of old equipment, and the introduction of stronger cybersecurity hardware, software, and firmware.
5. Staff are working to complete the installation of network servers to host the new engineering document management system, Adept, replacing the old system, Meridian.
6. In conjunction with various work centers, staff are conducting a market survey to identify which eSignature application best suits HRSD's business needs. Currently, users occasionally make use of the eSignature capability in currently licensed products (e.g., Microsoft O365 and Adobe Acrobat). Before selecting a standardized solution for HRSD, a business process needs analysis is being completed. This will ensure a "one-size-fits-all," standards-based, solution.

B. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Number of Community Partners: 0



3. Metrics Summary

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>February 2023</b>
M-1.4a	Training During Work Hours Per Full-Time Employee (54) – Current Month	Total Training Hours / # FTE	1.37
M-1.4b	Total Training During Work Hours Per Full-Time Employee (54) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	18.61
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,

*Don Corrado*

TO: General Manager  
FROM: Director of Operations  
SUBJECT: Operations Report for February 2023  
DATE: March 20, 2023

A. Interceptor Systems

1. North Shore (NS) Interceptors

- a. The Supervisory Control and Data Acquisition (SCADA) project progression continued in February with several factory acceptance tests, site cutovers and global changes performed.
- b. There were no Sanitary Sewer Overflows (SSOs) this month.
- c. There were no odor complaints, one interceptor complaint, and six system alarms during the month. The complaint was investigated and found not to be HRSD's infrastructure. The system alarms were all relatively minor and fully resolved by NS Operations staff.
- d. There were zero Miss Utility "No Shows" and three afterhours emergency tickets reported for the month.
- e. NS Operations and Engineering staff continue to support the numerous capital project under design and construction.
- f. Staff conducted a site visit to Clemson Engineering Hydraulics in Anderson, South Carolina to witness a physical model performing hydraulic testing on the proposed design for the future Boat Harbor Pump Station (PS). The testing went well and only minor changes were proposed to the Intermediate PS.
- g. Staff completed the review of all existing and newly proposed Capital Improvement Program (CIP) projects for the upcoming fiscal year (FY) budget.

2. South Shore (SS) Interceptor Systems

- a. There were no SSOs this month.
- b. There were no odor complaints reported this month.
- c. There were zero Miss Utility "No Shows" reported this month.
- d. There were four interceptor complaints reported this month. One issue was with the City of Virginia Beach Public Utilities Department and two issues were with the City of Portsmouth Public Utilities Department. Staff responded and resolved the minor issues. On February 24, a City of Virginia Beach resident called to report a broken valve lid at the intersection of South Independence Boulevard and Jericho Road. Staff replaced the valve lid and sealed it with epoxy.

- e. Staff responded to and resolved nine system alarms this month.
- f. On February 3, staff assisted the City of Chesapeake Department of Public Utilities staff with a force main failure repair by operating a system valve.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP), Virginia Initiative Plant (VIP), Treatment Projects Team (TPT) (ACV Group)

a. ABTP

- (1) ABTP staff met all Virginia Pollutant Discharge Elimination System (VPDES) permit requirements with no odor complaints.
- (2) ABTP had one exception for failing to record two valid Total Hydrogen Carbon (THC) readings per hour. The cause was low levels of helium in a helium bottle preventing proper calibration.
- (3) ABTP had one regulatory report for malfunctioning odor control system. The malfunction was due to an instrumentation failure.
- (4) Incinerator #1 is down awaiting substantial repairs.
- (5) Incinerator #2 is down waiting to be cleaned and thoroughly inspected to address substantial repairs.
- (6) Staff have been working to utilize the alternate cake chute to load out and haul dewatered solids to other facilities. This is being conducted so repairs can be completed within both incinerators. Plant staff are currently utilizing two North Shore Interceptors dump trucks to haul away solids, however the operation will transition to a contractor in March pending repair efforts.
- (7) Lead Operator and Maintenance Operator vacancies were filled this month.
- (8) Staff installed a new eductor on the secondary clarifier #3. The eductor replaced the old foam pumps.
- (9) The contract for the Chlorine Contact tank gate repair will be awarded in March.

b. VIP

- (1) VIP staff met all Virginia Pollutant Discharge Elimination System (VPDES) permit requirements with no odor complaints.
- (2) There were two reportable events for low chlorine residual levels in the contact tank effluent. The first event occurred on February 13, when staff

secured hypochlorite feed to the secondary clarifier weirs for special testing and did not increase contact tank hypochlorite dosage quickly enough to compensate. This resulted in three consecutive residuals less than 0.30 mg/L, with one residual less than 0.10 mg/L. The second event occurred on February 21, when staff were making repairs on the contact tank hypochlorite lines. This resulted in one effluent residual less than 0.10 mg/L.

- (3) Ammonia-Based Aeration Control (ABAC) is operating at a dissolved oxygen low-end setpoint of 0.5 mg/L, ortho-phosphate setpoint of 2.5 mg/L and ammonia setpoint of 1.50 mg/L. The average DO level in the aeration tanks was 0.9 mg/L for February. No supplemental carbon chemical addition was used for denitrification.
- (4) Incinerator #1 is in service, and Incinerator #2 is on standby, pending repairs.
- (5) Staff performed repairs on two primary solids pumps and the biosolids receiving conveyor system.
- (6) The Operations Project Team worked with maintenance staff to replace underground caustic tubing for the headworks and the Preliminary Treatment Facility (PTF) odor control system.
- (7) One primary clarifier rebuild was completed with assistance from the Operations Project Team. Another primary clarifier is under repair, pending parts delivery.
- (8) One dewatering centrifuge was returned after being rebuilt and is back in service.

c. TPT

- (1) Supported the Williamsburg Treatment Plant (WBTP) by performing operations and maintenance on the dewatering unit.
- (2) Supported the Onancock Treatment Plant (OTP) with maintenance activities.
- (3) Completed Atlantic Treatment Plant's (ATP) re-pipe drain line for D-gas booster.
- (4) Completed the repairs on the VIP storm drainpipe.
- (5) Completed Chemical tubing replacement to high water chemical scrubber at VIP.
- (6) Completed installation of Non-Potable Water (NPW) hose reels for Gravity Belt Thickener's (GBT) at Nansmond Treatment Plant (NTP).

- (7) Began installation of new primary sludge pump and motors #1 & #3 at WBTP.
- (8) Began installation of new digester blowers at West Point Treatment Plant (WPTP).
- (9) Completed WPTP new discharge piping on digester #1 & #2.
- (10) Completed replacement of three-yard hydrants WPTP.
- (11) Continued scoping and planning efforts for future projects.

2. Atlantic (ATP), Boat Harbor (BHTP), and Nansemond (NTP) Treatment Plant (ABN Group)

a. ATP

- (1) The plant met all VPDES permit requirements.
- (2) There were five odor complaints in February. Staff continue to work with Technical Services Division (TSD) to identify and mitigate off-site odors.
- (3) Staff along with a consultant (Black and Veatch) started engineering efforts on the ROCI (Reliability and Odor Control Improvements) upgrade.
- (4) There was one reportable spill event this month. On February 11, contact tank #3 developed a leak at an expansion joint. Upon discovery, staff took the tank out of service, an RRF (Regulatory Reporting Form) was completed and Permits Manager Lauren Grimmer was notified. Staff estimated that 150 gallons of chlorinated Final Effluent (FNE) leaked into the ground and was unrecoverable. A contractor has repaired this leaking expansion joint.
- (5) On February 27, the City of Virginia Beach inspected a stormwater site. Staff provided all required documentation as well as a site tour to the inspector. The final report is expected in a few weeks.
- (6) Staff continue working with the contractor installing the solids receiving station to accommodate the ABTP liquid solids. This project should be complete by the end of 2023.
- (7) The digester fire panel alarmed on February 6, dispatching the fire department. Staff were unable to clear the alarm which resulted in the fire marshal placing the plant on fire watch until the issue could be resolved. Staff contacted a contractor (Summit fire) to address the issue. It was found that the panel had a bad pull box and a bad duct detector. The replacement parts were ordered and a temporary fix is currently in place. Staff continue working with contractors and other HRSD personnel to prevent these panels from alarming and dispatching the fire department.

- (8) The curing pilot for biosolids continues on the South pad. This phase is nearly complete with total solids (TS) values currently at 55%. Once the data indicates that the solids are no longer drying out the current phase will end. Phase three will evaluate the stability of the cured biosolids as well as variables that may optimize the curing process.
- (9) Treatment Process Engineers (TPE) are working with Electrical & Instrumentation (E&I) staff to construct a pilot project in the basement of the Digester Solids Storage Tank (DSST) that will inform design decisions for the ROCI project upgrades. This pilot will evaluate the benefits of post-aerobic digestion and precipitation of phosphorous containing compounds within the DSST to potentially improve odors at the pads, increase polymer savings at final dewatering, and protect downstream equipment from struvite scale, among others. TPEs continue to onboard the first intern who will work on this project for their Master's thesis.
- (10) A contractor replaced a bad bearing for blower #1 and this blower is now operational.
- (11) A contractor started working on a trench between Odor B and Odor D. The chemical tanks at odor B need replacement. However, instead of replacing these tanks, the trench will allow us to use the storage tanks at odor D to feed chemicals to both odor D and odor B.
- (12) Staff started performing Preventative Maintenances (PMs) and cleaning of the odor D scrubber system. Train two has been completed, train three is in progress and train four will be completed in March.
- (13) Staff cleared drains at waste gas burners and gas booster buildings this month. This will allow odorous condensate from the digester gas system to drain more rapidly and should reduce the potential of off-site odors from condensate and methane gas piping.
- (14) The influent gate for #2 secondary clarifier separated from the operating stem. Staff were able to get the stem reconnected to the gate.
- (15) Staff cleaned out the primary scum concentrator and added a new bubbler line so that primary scum removal can be automated via Distributed Control Systems (DCS).
- (16) Staff rebuilt #3 final dewatering centrifuge and placed it back in service.
- (17) Pre-dewatering centrifuge #2 main drive motor is making noises that sound like bearings are going bad within the motor. Pre-dewatering centrifuge #3 has a bad Variable Frequency Drive (VFD) and the lead times for a new VFD is 3 months. Staff are developing a contingency plan in the event the #2 centrifuge motor fails before #3 centrifuge is repaired.
- (18) While staff were performing a PM to open and close the gate on inverter power for the influent screening's bypass channel, it malfunctioned, and

the actuator was damaged. Staff were able to repair the gate but now must investigate and fix the issue that caused this malfunction.

- (19) A contractor completed the coating work for digester #4 cover. Once the contractor removes their equipment; the digester will be placed back in service.
- (20) Odor B recirculation pumps failed this month due to a bad wire. The age and condition of this odor control system is making it difficult to maintain, which is why it is included in the ROCI Project for evaluation and upgrades.
- (21) #2 chlorine mixer failed on February 27 due to a bad motor. This mixer was placed in service about six weeks ago. Staff are contacting the vendor to follow up on the warranty.

b. BHTP

- (1) No odor complaints were reported.
- (2) No MACT 129 deviations occurred in the month.
- (3) One THC reportable event occurred during the month. On February 1, the THC unit failed calibration and staff called the vendor (STI) representative to address the issue. The unit is now running properly.
- (4) A contractor completed repairs on the bull gear for secondary clarifier #5 which is an integral component of the rake system. Staff placed the tank back in service after almost a year of downtime.
- (5) Programming and preparations for the side stream upgrades at BHTP continued this month. Plant leadership and the TPE met with the plant operators to explain the plan for testing the effectiveness of the upgrades this year to prepare for the delays in completing the BH pump station that is necessary to send flows to NTP.
- (6) The new side stream process pumps were tested and determined to operate at the expected design points. However, one of the pumps is significantly louder than the other. The root cause is currently unknown. In addition, the piping for the second pump is shaking due to the impact from the biological process mixers. The piping will be cut to minimize the length below the liquid level and supports will be added to resolve this issue.
- (7) Staff worked with the TPE and Industrial Automation Programmers to program new hypo control for BHTP. Plant leadership and the TPE met with operators to explain the program and answer questions. Optimization of the program will continue into next month.

c. NTP/Sustainable Water Initiative for Tomorrow (SWIFT) Research Center (RC)



- (1) The plant met all VPDES permit requirements.
- (2) There were no odor exceptions or odor complaints during the month.
- (3) There were no reportable events for the month.
- (4) The total volume of SWIFT recharge into the Potomac aquifer for the month of February was 8.99 million gallons (MG) (34.5% Recharge Time based on 650gpm).
- (5) Contractors continue construction of the Fats, Oils and Grease (FOG) handling facility, with a new estimated completion date of May 2023.
- (6) On February 8, staff replaced the sanitary drain well pump with a chopper pump to try to reduce clogging of the pump with debris.
- (7) On February 17, the odor control train #2 scrubber fan motor failed. Plant maintenance staff removed the motor from train #1 and installed it on train #2 awaiting the delivery of a new motor.
- (8) Staff continue to make progress on the Chlorine Analyzer (CL17) effort, adding robustness to the instrument itself and the processes that will protect the plant from permit exceptions. This month, it was observed that the pond diversion program did not work as intended when the CL17 began measuring low residual concentrations. The pond influent diversion valve opened, but the effluent valve did not close and therefore, reject water was allowed to short circuit. Staff are working with the Industrial Automation Programmers to put measures in place to prevent this from happening in the future.
- (9) Efforts began this month to create a sensor/analyzer training program for NTP operators. The format will resemble the CL17 training in Canvas. Jarbalyzers will be the first analyzer/sensor that will get included in the training program. Operators will have to review the training/course material and complete quizzes to demonstrate proper understanding. The intention is to expand this same type of training to the biological process controllers.
- (10) While operating only one Granular Activated Carbon (GAC) vessel during the beginning of the month, SWIFT went out of the water quality range due to the detection of Perfluorooctanoic Acid (PFOA) on SWIFT Water™. Operations transferred from discharging to the recharge wells back to the outfall until this was corrected.
- (11) On February 8, the GAC media on vessel #1 was replaced and took about five days for conditioning by performing several backwashes to remove small carbon fines, to adjust pH, and to ensure turbidity was within the operating parameters.

3. James River (JRTP), Williamsburg (WBTP), and York River (YRTP) Treatment Plant (JWY Group)

a. JRTP

- (1) The plant met all VPDES permit requirements.
- (2) There were three reportable wastewater events and one odor scrubber deviation. Two wastewater events were caused by a contactor excavating next to pipes. One incident was a non-potable water line break resulting in the release of 500 gallons and the other was a drain pipe break resulting in the release of 30,000 gallons of chlorinated effluent with some floatable solids. None of these releases were recovered with flows to the ground or down storm drains. The third event was about 400 gallons of foam exiting Integrated Fixed Film Activated Solids (IFAS) tanks during increased flows from a rain event. All but 10 gallons was recovered. The odor scrubber deviation was a scrubber effluent discharge over two parts per million (ppm) due to chemical optimization efforts.
- (3) The contractor drilling on-site wells worked on wells near the solids holding tank, shoreline, and the northwest corner of Riverview Farm Park.
- (4) The contractor working on the Advanced Nutrient Removal Improvements (ANRI)/SWIFT Project continued setting sheet piles for the new #1 secondary clarifier. Sheet piles were also set where the new return activated solids building will be located. Forms were installed at the IFAS effluent of tanks #1, #2, and #3 to construct the new IFAS effluent channel.,
- (5) Work continued on the foundation for buildings #1 and #2 at the SWIFT location, the main power supply building, and SWIFT equalization and moving bed bioreactor tank.
- (6) The contractor working on the Shoreline Stabilization project set timber piles and leveled the bank in preparation for constructing the trail.

b. WBTP

- (1) The plant met all VPDES permit requirements.
- (2) There were no reportable wastewater events, one reportable air event, one incinerator deviation, and nine odor scrubber deviations. The air event was a use of the incinerator emergency bypass stack due to loss of the induced draft fan. The incinerator deviation was a failure of the total hydrocarbon meter to record two valid readings per hour due to calibration issues. The odor scrubber deviations were effluent exhaust hydrogen sulfide readings over two ppm due to control parameters needing adjustment, low chemical feed, or equipment failure.

- (3) The contractor continued work on the Administration Building Renovation Project which is expected to be complete in April 2023.

c. YRTP

- (1) The plant met all VPDES permit requirements.
- (2) The contractor working on the Administration Building Renovation Project installed rebar and set forms for constructing the walls on the main expansion, northwest of the existing administration building.

d. Multiple Hearth Incinerator (MHI) Operations Events Summary

- (1) All plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) met the 100 PPM THC limit with continuous emissions monitoring valid data captured of greater than 81%.
- (2) The MHIs had no deviations from the required 129 Sewage Sludge Incineration (SSI) rule minimum operating parameters and one minor bypass events (<60 minute).

C. Small Communities (SC) Division (SCD)

1. Middle Peninsula

- a. There was one SSO in the Middle Peninsula System. On February 8, a utility access manhole in the King William service area overflowed due to a contractor blocking the pipe with construction material. HRSD staff pumped the surcharged utility access manhole to stop the potential for future spills from this service area. The area was cleaned, and lime applied to the spill area. Approximately 70 gallons of raw wastewater went into a storm drain to Moncuin Creek.
- b. There were no odor complaints and no collection system complaints.
- c. There were zero Miss Utility “no shows” and five after-hour emergency tickets for the month.
- d. Four new single-family home connections were made in February.
- e. There may be a possible monthly average BOD exceedance for February but at the time of this report the final monthly values have not been received. BOD levels were elevated due to treating excess pond water after having to utilize the pond discharge valve several times during repairs. A clean-in-place was performed on the tertiary filter on March 1 and should also improve BOD removal.
- f. West Point Treatment Plant (WPTP)
  - (1) On February 9, the number two secondary clarifier overflowed overnight when two Tertiary Filter Pump Station wet well pumps tripped. The third pump is currently out of service pending repairs. The fail safes including a

power monitor and a float to discharge to the pond both failed during this event. Staff were able to correct the issue and place everything back in service shortly afterwards. E&I staff repaired the failed float on the number two secondary clarifier and staff completed the wiring and programming for the automatic valve between the contact tank and the tertiary filter pump station. Approximately 90,000 gallons of secondary clarifier effluent overflowed, with approximately 1,600 gallons recovered; the remaining 88,400 gallons drained to the Mattaponi River.

- (2) On February 14, staff were replacing a leaking yard hydrant on plant site and hit an electrical conduit while excavating. The broken conduit led to most of the treatment plant losing power, except for the tertiary filter pump station and one effluent pump station pump. From 11:30 a.m. to 12:00 p.m. the chemical building was without power, and effluent was being discharged during this time. Given the 30-minute duration of this event, water discharge was chlorinated and processed through the contact tank, but residuals would have been lower than normal. Dechlorination did not occur. The plant operator opened the bypass valve at the headworks of the plant to send flow to the storage pond. At 12:00 p.m. staff realized that one of the effluent pumps and the tertiary filter pump station still had power and manually turned them off. E&I staff were able to restore power to the plant shortly after, and the bypass valve was closed. Chemical feeds were restored and verified prior to discharge resuming at 12:55 p.m.
- (3) On February 23, staff found water coming from the ground near the plant entrance. The release occurred from a two-inch air vent riser pipe with a half inch-diameter hole caused by corrosion. Staff diverted flow to the plant equalization pond and began shutdown procedures at 1:40 p.m. Staff removed the damaged riser and will rebuild the air vent once parts arrive. Plant flow was restored, and start-up procedures began at 10:10 p.m. Approximately 2,450 gallons of final effluent were released to the ground and finally to the Mattaponi River.
- (4) Staff spent considerable time updating the Operations and Maintenance (O&M) Manual for the Department of Environmental Quality (DEQ) five-year plant inspection. DEQ has received and reviewed the updated O&M and have no comments or concerns.
- (5) SCD staff repaired a misaligned joint on a gravity sewer main in the town of West Point.

g. King William Treatment Plant (KWTP)

- (1) Staff completed Clean in Place procedures on the plant membranes.
- (2) Staff inspected McCauley Park subdivision gravity system for debris after the spill on February 8. Multiple utility access manholes had debris from road paving that the contractor removed.

h. Mathews Collection System

- (1) There were multiple service calls on the vacuum system and several repairs were made, and blockages cleared.

2. Surry Systems

- a. There were no SSOs this month.
- b. There were no odor complaints and no collections system complaints.
- c. There were zero Miss Utility “no shows” and no after-hour emergency tickets reported for the month.
- d. Sussex Sewer Authority (SSA) staff salvaged everything of value from the town treatment plant for start of demolition and the county plant tanks are currently being cleaned for future demolition as well.

3. Lawnes Point (LP)

- a. There were no SSOs this month.
- b. Pump and haul operations continue. A contractor (Atlantic Heating and Cooling) performed four days of pump and haul of the Sequential Batch Reactor (SBR) tank this month.

4. Eastern Shore (ES)

- a. There were no SSOs this month.
- b. There were two permit exceedances for the month. At the Nassawodox Treatment Plant, a Total Suspended Solids (TSS) value was 24.4 mg/L which is above the permitted weekly average of 23 mg/L. Also, the monthly average value came in at 18.2 mg/L above the 15 mg/L permitted level. These elevated TSS levels were from algae growth in the clarifiers and lagoon. Measures were taken to control algae and the TSS values have greatly improved.
- c. There were no odor complaints and no collections system complaints.
- d. There were zero Miss Utility “no shows” and seven after-hour emergency tickets reported for the month.
- e. Onancock Treatment Plant (OTP)
  - (1) SS Interceptors provided a Vactor Truck and staff to assist plant personnel with cleaning the grit from Aeration Basin #1 in preparations to placing it back in service.
  - (2) Staff replaced broken diffusers on Membrane #2 Cassette and pulled Membrane #3 Cassettes for inspections.

- (3) A Gate Card Reader and a security camera were installed at the plant entrance.

f. Nassawadox Treatment Plant

Staff took extra measures to control algae growth and get the effluent TSS levels back below permitted values.

g. Chincoteague Treatment Plant

Planning is underway for HRSD to assume ownership of the package plant in early 2023.

D. Electrical & Instrumentation (E&I)

1. Staff submitted the Dominion Energy (DE) Interconnection Agreement (IA) application for the James River (JR) Sustainable Water Initiative for Tomorrow (SWIFT) Project. A meeting with DE will be scheduled to determine next steps to prevent any scheduling delays.
2. Staff worked with consultant HDR to finalize the design drawings and specifications for VIP Motor Control Center (MCC) replacement Capital Improvement Project (CIP). This month, 100% drawings and preliminary contractor submittals were reviewed and comments provided.
3. Staff worked with contractors HDR and IFCO on burner replacements for both Incinerators at VIP. Work involved verifying control drawings and submittal reviews, as well as answering questions about equipment and conduit needs.
4. Staff and electrical contractor REW Corporation met at WPTP to discuss the replacement of two feeder cables that serve the lab and effluent pump #2, respectively. The cables were damaged while staff were excavating to replace a water hydrant.
5. Staff coordinated with contractor E.T. Gresham for the replacement of medium voltage (MV) feeder cables that were spliced for the YRTP Administration Project.
6. Staff connected a temporary generator due to an issue discovered by the Automotive Shop during routine preventive maintenance (PM) of the permanent generator at Rolling Hills Pump Station (PS). Automotive staff are coordinating with Carter Cat, the generator manufacturer, to resolve the automatic start issue. A replacement controller was ordered.
7. There were periodic and intermittent SCADA communication failures at Oak Grove PS in West Point. After several days of troubleshooting, staff determined that the direct communication path between the Oak Grove PS and WPTP Front End Processor (FEP) are no longer possible, (specific reasons unknown). Oak Grove communications are now "hopped" or redirected through the Pamunkey PS and forwarded to the WP FEP. Program and antenna changes were made at both PS's to facilitate this change.

8. Staff worked with CEC and Systems East Inc. (SEI), the contractors, and Interceptor Division staff to update the existing controls to the new SCADA Remote Terminal Unit (RTU) controls at Independence Pressure Reducing Station (PRS), Windsor Pressure Control Valve (PCV), and Dominion/Cedar Road PS. In addition, proposals for four more station cutovers are under review.
9. Staff assisted contractors with the SCADA upgrade at various locations. Staff also installed a temporary SCADA alarm panel to provide alarming at Greens Springs PS while the station was being cut over to the new system.
10. Staff coordinated with (NS) Interceptor staff and electrical contractor Infralogix to schedule two remaining PS thermographic inspections that were not completed in Fall 2022. The original schedule was postponed due to construction at Kingsmill PS and contractor gate access issues at Fort Eustis. This completes inspections for NS stations and reports are forthcoming.
11. The IAPs participated in the successful completion of cutover testing for the new Ovation SCADA System at Independence PRS, Fords Colony PS, Windsor PCV, and Dominion/Cedar Road Pressure Monitoring Site (PMS). The final site testing was completed by SEI staff, CEC Staff, Emerson staff, IAPs, E&I staff, and Interceptor Systems staff. These sites are now active on the new Ovation SCADA systems.
12. Staff installed a Flexim portable flow meter to verify flow measurements at Kempsville Road PRS and Atlantic PRS. As a result of these efforts, they were able to confirm the accuracy of the permanently installed flow meter at Kempsville Road PRS. In addition, they determined the erratic flow measurements were attributed to loose connections on the direct burial flow meter at Atlantic PRS. Staff tightened the loose connections and the flow meter operated as designed.
13. Staff assisted Automotive with diesel generator load bank testing at Camden Avenue, Chesapeake Boulevard, Copeland Park, Freeman Avenue, and Luxembourg PSs. The generators operated as designed and were returned to service. The generator at Fort Eustis PS will be load banked after replacement of the controller.
14. Staff experienced a power outage on the main server equipment while performing the monthly generator PM test run at the South Shore (SS) Main Complex. The Uninterrupted Power Source (UPS) system failed to maintain power to the critical server equipment. This occurred during the transfer of power from utility to generator and back. Power was restored and all server equipment was brought back online. Investigation continues into the cause and prevention of this failure.
15. Staff responded to five SCADA communication failures, and five Telog communication failures. A communication failure is defined as a total loss of communication at a site that may require staff to respond to the site location during and/or after normal working hours. Staff responded and addressed the minor failures.
16. Staff met with Prince George Electric Cooperative (PGEC) and School Administrators onsite to determine the best route for the new electrical service to feed the future PS located behind Surry County High School. The route was finalized and PGEC will generate a costing letter for Hampton Roads Sanitation District (HRSD's) approval.



17. Staff placed arc flash labels on equipment at Industrial Park PS located in Dendron, Virginia (VA).

## E. Support Systems (SS)

### 1. Facilities Maintenance (FM)

- a. Renovation of the electrical shop at ATP continues. The HVAC contractor installed a 5-ton HVAC unit. They are awaiting the electrical contractor to install a new breaker so the startup can be performed. The contractors were delayed so the drywall will be ready for paint the week of March 6, along with the installation of the suspended ceiling in mid-March.
- b. The Carpentry Shop (CS) reconfigured two offices at 1434, as well as primed and painted walls at Independence Blvd. CS also repaired wall damage for conference rooms at both VIP and ATP.
- c. The Machine Shop (MS) had a total of 18 projects with four pump rebuilds. There were two notable projects for February. The first is making 30 custom Teflon strainers for TSD that are used for sampling and to be sold to other municipalities around the country. The second was assisting the Automotive Shop with extracting a broken bolt in the intake manifold that was a part of the Exhaust Gas Recirculation (EGR) system for one of our fleet trucks.

### 2. Infrastructure Assessment (IA)

- a. Staff continue to work with TSD and the Automotive Superintendent on the transition of Underground Storage Tanks (UST) inspections to the IA group.
- b. The Concrete Coatings staff oversaw several coating and concrete rehabilitation projects at ABTP, BHTP, and NTP. Staff completed rehabilitating two steel equalization tanks for SCD County Line PS and two at the Beaver Damn PS.

### 3. Material Transportation & Logistics (MTL)

The Material Transportation and Logistics work center is now official with the promotion of Garrett Clower as the new Transportation Superintendent. Garrett is currently assisting NTP a few hours each week until his Lead Operator position is filled.

## F. Resource Recovery (RR)

1. Methane reduction: Planning with Interceptor System (IS) staff are working on the implementation of the Proof-of-Concept of flaring high methane. This will include addressing safety concerns, familiarizing staff with the flare, and discussing the flare specifications. The next step is to field test the flare and provide adequate discussion for IS staff to feel comfortable before performing the test. This could include site visits to work centers that currently have flares and having a question and answer with the flare manufacturer.
2. Greenhouse Gases: Staff developed a spreadsheet with all the required data to calculate HRSD's Metric for Alternate Energy.

3. HRSD KPI: Staff met with stakeholders to automate the data entry process and to create one spreadsheet utilized for calculating HRSD's Alternate Energy.

#### G. Water Technology and Research

HRSD will be subjected to much more stringent phosphorus (P) limits for our plants discharging into the James River in incremental decreases in permit limits in 2028, 2030, and 2032. Improved P removal can be achieved by very efficient removal/polishing of suspended solids prior to discharge. This is typically known as tertiary filtration and removes particulate P remaining in the secondary effluent. This process already exists at the York River, King William, and Onancock treatment plant (OTP), and it makes sense given that these plants already have total phosphorus (TP) treatment objectives of about 0.3 mg/L. In addition to removing particulate P, we must also improve the efficiency of removing ortho-phosphate (OP). This can be achieved by chemical precipitation using iron or aluminum salts, but it is expensive in terms of chemical cost, solids production, capacity utilization, and alkalinity consumption. All our large plants are reliant to a large degree on biological P removal (bioP) to remove OP, and this process is sustainable and economical. Unfortunately, bioP is not always reliable, and there are numerous considerations that impact the efficiency of this process. Unlike other biological processes, warm wastewater temperatures in the summer tend to impact bioP. Other factors include sidestream recycle P load management and saltwater inflow and infiltration. Looking ahead, staff will be focusing more on optimizing the efficiency of bioP in preparation for new treatment limits. As an example, we are evaluating at both pilot- and full-scale the benefits of low dissolved oxygen operation in summer months as a means of improving warm temperature bioP.

SWIFT recharge is also a significant benefit for P removal requirements because it effectively removes that P load from the final effluent. In addition, SWIFT treatment provides very good OP and particulate P polishing for achieving very low levels of effluent TP due to the combination of coagulation with aluminum salts and biofiltration.

H. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	4	3	4	3	2	3	5	4				
2.7	# of PS Annual PMs Performed (SS)	3	6	7	8	3	1	2	2				
2.7	# of Backup Generator PMs Performed (Target is 4.6)	17	15	10	13	16	12	15	12				
2.8	# of FM Air Release Valve PMs Performed (NS)	105	192	136	181	403	337	184	305				
2.8	# of FM Air Release Valve PMs Performed (SS)	8	193	135	98	149	131	258	241				
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	2,685	4,501	4,298	2,197	3,549	3,935	5,602	1,553				
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	6130	7044	14,051	6,967	0	8,964	13,303				
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	10,896	11,845	17,293	17,293	0	2,274	0				

I. Strategic Measurement Data

1. Education and Outreach Events: 6

- a. 02/03/2023 – SWIFT staff provided a tour for the “One water” Nevada team
- b. 02/08/2023 – ATP Plant staff provided a tour for Commonwealth Challenge Academy
- c. 02/13//2023 – News Channel 3 report on flushable vs. non flushable material. – Riley Riggins, Matt Poe, Lacie Weaver, John Farley
- d. 02/21/2023 - Middlesex Elementary School Engineers Week - Jeremiah Bulford
- e. 02/22/2023 - Eggdrop contest at Crossroads Middle School - Thomas Chappell and Sami Ghosn
- f. 02/28/2023 – Water Environment Federation (WEF) winter meeting - Germano Salazar-Benites

2. Community Partners: 9

- a. Atlantic Treatment Plant Roundtable Group, OLHS, OL Neighborhood, Lynnhaven River NOW, City of VB, Navy
- b. Accomack County
- c. Chesapeake Bay Foundation
- d. DOE Jefferson Lab
- e. Ocean Lakes (OL) High School
- f. Old Dominion University (ODU)
- g. Town of Parksley
- h. Norfolk Public Schools
- i. Middlesex County Public Schools

### 3. Monthly Metrics

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>February 2023</b>
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (524) – Current Month	Hours / FTE	2.86
M-1.4b	Total Training During Work Hours per FTE (524) – Cumulative Year-to-Date	Hours / FTE	20.05
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	27,996.26
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	57.06%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	20.85%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	22.08%
M- 4.1a	Energy Use: Treatment	kWh/MG	2,569
M-4.1b	Energy Use: Pump Stations	kWh/MG	262
M-4.1c	Energy Use: Office Building	kWh/MG	101
M-5.2	Educational and Outreach Events	Number	6
M-5.3	Number of Community Partners	Number	9

Respectfully submitted,  
Eddie M. Abisaab, PE  
 Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for February 2023

DATE: March 15, 2023

A. Talent Management Executive Summary

1. Recruitment Summary

Current Vacancies	47
New Recruitment Campaigns	10
Job Offers Accepted – Internal Selections	7
Job Offers Accepted – External Selections	20
Internal Applications	30
External Applications	114
Average Days to Fill Position	190

2. Employee Separation Summary

	February 2023	Total (April 2022-February 2023)
Career/Better Opportunity	2	19
Content of work	2	5
Family circumstances	0	5
Dismissal	1	9
Going to school	0	1
Lack of Opportunity for Advancement	0	1
Moving from the area	0	5
Salary	0	5
Retirement	3	15
End of Assignment (PT)	0	23
Administrative Separation	0	2
Unknown	0	1

3. Continued addressing and monitoring suspected COVID-19 cases and potential exposures based on Virginia Department of Health (VDH) guidelines:

Description	February 2023	Total (March 2020 – February 2023)
Quarantines due to illness or direct exposure (household or external)	0	452
Work Related Quarantines	0	106
Personal Travel Quarantines	0	61
Confirmed Employee COVID-19 Cases	1	330
Work Related Confirmed COVID-19 Cases	0	13
Contractor COVID-19 Cases on HRSD Sites*	0	12
Work Related exposure no quarantine required*	1	91
Vaccine Acknowledgements	5	907
Booster Acknowledgements	14	488
Vaccination Rate	93%	
Boosted*	44%	

\*Added May 2022

4. HRSD continued work with the consultant on system changes to benefit interfaces and benefit plan changes.
5. Benefits and Compensation
- Held a final renewal meeting for health benefits with MMA.
  - Preparation is underway for the scope of work for the compensation RFP process with a final report date from the selected vendor of January 1, 2024.
6. Wellness Program
- Participation

Year Ten Participation Activities	Unit	February 2023	Year to Date (March 2022– February 2023)
Biometric Screenings	Number	329	555
Preventive Health Exams	Number	328	506
Preventive Health Assessments	Number	167	512
Online Health Improvement Programs	Number	0	N/A
Web-MD Online Health Tracking	Number	0	N/A
New Challenges (Previously HIP)	Number	0	442
Fit-Bit Promotion	Number	0	N/A
WellSpark Challenges - Healthy Heart Challenge (ends Feb. 27 <sup>th</sup> )		212 enrolled	



- b. The WellSpark Wellness Specialist) conducted a virtual presentation on *Stress Hardiness* to the HRSD Leadership forum with a total of 30 employees in attendance.
  - c. Presented the wellness program during New Employee Orientation (NEO) to 8 new employees.
  - d. Continued one-on-one conversations with employees to answer questions and administered 24 biometric readings, 25 individual wellness meetings, and gained one new employee in coaching.
  - e. Reached a total of 88 employees through the engagement activities mentioned above.
7. Organizational Development and Training (ODT):
- a. Worked with consultant Hicks-Carter-Hicks (H-C-H) and the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) initiatives. Conducted the final Leadership and Management Academy (LAMA) workshop on Inclusion.
  - b. Facilitated the full day Your Role in Quality (YRIQ) workshop.
  - c. Worked with consultant H-C-H on executive coaching. Interviewed certified coach to begin an executive coaching partnership.
  - d. Continued work on the Corporate Training software. We are currently reviewing courses to finalize offerings.
  - e. Continued work with the Customer Care Division to curate online learning paths and integration of available Corporate Training courses.
  - f. Continued work with the Water Quality Department to increase quality assurance training courses.
  - g. Began a new initiative with the Water Quality Department to facilitate several focus groups around the topic of communication.
  - h. Continued to work with a cross-departmental team to advance the functionality of Canvas.
8. Apprenticeship Program
- Work continued on the following:
- a. Apprenticeship Mentoring Program
  - b. Building and structuring a day Apprenticeship Program
  - c. Developing Standard Operating Procedures for ODT responsibilities

- d. Trade curricula revisions and course development to update and enhance course offerings

9. Safety

- a. Mishaps and Work-Related Injuries Status to Date (OSHA Recordable)

	<u>2022</u>	<u>2023</u>
<b>Mishaps</b>	36	2
<b>Lost Time Mishaps</b>	4	0
<i>Numbers subject to change pending HR review of each case.</i>		

10. Safety Division Monthly Activities

Safety Training Classes	22
Work Center Safety Inspections	6
Reported Accident Investigations	1
Construction Site Safety Evaluations	8
Contractor Safety Briefings	12
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	61
Industrial Hygiene Monitoring Events	2

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (13)

- a. 2/1/2023 Ft. Eustis Transition Assistance Program (TAP)
- b. 2/3/2023 Virginia Beach Vocational and Technical School
- c. 2/3/2023 Norfolk Vocational and Technical School
- d. 2/8/2023 Great Bridge Technical Education Career Event
- e. 2/9/2023 Hampton University Spring Career Event
- f. 2/14/2023 Veterans Employment Center, Newport News
- g. 2/15/2023 College and Career Fair Great Bridge
- h. 2/15/2023 VEC Workforce Wednesday
- i. 2/17/2023 Veterans and Military Spouse Employer Panel
- j. 2/23/2023 Langley Resume Review Session and Veterans Career Summit
- k. 2/27/2023 Langley Transition Assistance Program (TAP)
- l. 2/28/2023 Veterans Employment Center, Newport News
- m. 2/28/2023 TCC Career Fair

2. Community Partners: (7)

- a. Career and Technical Education (CTE) Advisory Board, Suffolk Public Schools
- b. City of Chesapeake Public Schools
- c. City of Newport News
- d. City of Virginia Beach Public Schools
- e. Organizational Development Regional Committee

- f. Virginia Career Works
- g. Virginia Employment Commission (VEC)

3. Monthly Metrics

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>February 2023</b>
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.97
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.36%
M-1.4a	Total Training Hours Per Full Time Employee (18)	Total Training Hours/ FTE	0.83
M-1.4b	Total Training During Work Hours Per Full Time Employee (18) – Cumulative Fiscal Year-to-Date	Hours / FTE	15.86
M-5.2	Educational and Outreach Events	Number	13
M-5.3	Community Partners	Number	7

Respectfully submitted,

**Dorissa Pitts-Paige**  
 Director of Talent Management

TO: General Manager  
FROM: Director of Water Quality (DWQ)  
SUBJECT: Monthly Report for February 2023  
DATE: March 15, 2023

A. General

1. No civil penalties were issued by the Pretreatment and Pollution (P3) Division in February.
2. Laboratory Manager, Ashley Roberts, winner of the 2022 Water Environment Federation (WEF) Analyst Award, was interviewed for a spotlight in Treatment Plant Operator Magazine. Highlights include her professional experience, educational background, outreach, and future initiatives.
3. Central Environmental Laboratory (CEL), Technical Services Division (TSD), and Nansemond Treatment Plant (NTP) staff have completed testing and data evaluation of online Total Residual Chlorine (TRC) analysis as part of implementing the Alternate Test Procedure for compliance monitoring. Full scale implementation is scheduled for March 1, 2023.
4. WQ continued work with Operations staff to address ongoing odor issues at the Atlantic Treatment Plant (ATP). TSD maintained increased odor surveillance and worked with ATP staff to identify and mitigate odor sources and provide immediate response to odor complaints.
5. DWQ participated in the following HRSD activities:
  - a. HRSD Quality Steering Team (QST)
  - b. SWIFT QST
6. Advocacy and external activities:
  - a. Chesapeake Bay Total Maximum Daily Load (TMDL) Tracking Team, a team of stakeholders across Virginia and Maryland from stormwater and wastewater sectors
  - b. Coalition of Recyclers of Residual Organics by Providers of Sustainability (CRROPS) briefing for congressional staff on the science and policy priorities associated with the development of federal policies to address Per- and Polyfluoroalkyl Substances (PFAS) chemicals in the environment
  - c. Elizabeth River Project's Knitting Mill Creek Eco-District Committee
  - d. National Association of Clean Water Agencies (NACWA) Winter Conference "Galvanizing Ratepayer Trust in Turbulent Times" and co-chaired the joint Biosolids Committee and Water Quality Committee's session on PFAS
  - e. Potomac Aquifer Recharge Monitoring Committee meeting

- f. Recorded an episode of the Virginia Water Environment Association's (VWEA) "Straight Flush" podcast: "[Sewer Signals: Using Wastewater to Track Disease](#)" with Dr. Raul Gonzalez of HRSD and Dr. Marcia Degen of the Virginia Department of Health (VDH)
- g. SWIFT Research Center (SRC) tour with Congresswoman Jennifer Kiggans
- h. Water Research Foundation (WRF) project 5123 workshop, "Establishing Seasonal Targets for Receiving Waters: Rethinking Wet Weather versus Dry Weather Expectations"

B. Quality Improvement and Strategic Activities

The Sustainability Environment Advocacy (SEA) Group reported no activities for the month of February.

C. Municipal Assistance Program (MAP)

HRSD provided sampling and analytical services to the following to support monitoring required for their respective VPDES permits:

1. City of Franklin
2. Northumberland County
3. Westmoreland County

D. Microbial Source Tracking (MST)

Hampton Roads Projects - HRSD provided sampling and analytical services to:

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: (2)
  - a. 02/03/23 - Homeschool Science, Technology, Engineering, and Math (STEM) Student Tour of NTP and SRC
  - b. 02/27/23 – Christopher Newport University Microbiology Class Tour of NTP and SRC
2. Community Partners: (10)
  - a. American Red Cross
  - b. Christopher Newport University
  - c. City of Chesapeake, Chesapeake Local Health District

- d. City of Virginia Beach
- e. Elizabeth River Project – Knitting Mill Creek Eco-District
- f. Hampton Roads Planning District Commission (HRPDC)
- g. HRPDC Fats, Oils & Grease (FOG) Subcommittee
- h. Lynnhaven River Now Citizen Monitoring project
- i. VDH
- j. VDH – Division of Shellfish Sanitation

3. Odor Complaints:

See attached [Effluent and Air Emissions Summary](#)

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2023
M-1.4a	Training During Work Hours Per Full Time Employee (120) (Current Month)	Total Hours / # FTE	6.14
M-1.4b	Total Training During Work Hours Per Full Time Employee (120) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	36.34
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	10:41,126
M-3.2	Odor Complaints	#	5
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	154,000,577
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	16%
M-5.2	Educational and Outreach Events	#	2
M-5.3	Community Partners	#	10
	Average Daily Flow	Total MGD for all Treatment Plants	151.79
	Pretreatment Related System Issues	#	0

Respectfully submitted,

*Jamie Heisig-Mitchell*

Director of Water Quality



### EFFLUENT SUMMARY FOR FEBRUARY 2023

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	9.87	55%	6	5.7	1	2	0.34	0.40	2.9	3.9	18
ATLANTIC	46.31	86%	14	13	4	3	NA	NA	NA	NA	7
BOAT HARBOR	12.95	52%	5	6.0	4	5	0.31	0.44	23	24	4
CENT. MIDDLESEX	0.013	50%	<2	1.4	<1	1	NA	NA	NA	NA	NA
JAMES RIVER	13.31	67%	8	6.4	2	<1	0.59	0.52	13	11	15
KING WILLIAM	0.065	65%	<2	<1.0	NA	<1	0.044	0.038	1.3	1.9	NA
NANSEMOND	16.61	55%	5	8.8	2	3	0.46	0.51	4.3	4.0	1
NASSAWADOX	0.015	15%	3	18	1	1	0.30	0.37	14	14	NA
ONANCOCK	0.194	26%	<2	0.14	<1	1	0.15	0.10	2.1	1.6	NA
URBANNA	0.039	39%	4	12	5	6	3.1	3.2	13	12	NA
VIP	30.12	75%	6	3.6	1	<1	0.21	0.21	4.1	3.8	7
WEST POINT	0.470	78%	31	20	1	<1	2.5	2.5	18	18	0
WILLIAMSBURG	8.09	36%	6	3.6	12	4	0.45	0.48	2.2	2.4	12
YORK RIVER	13.74	92%	1	0.29	<1	<1	0.39	0.27	4.8	4.7	0
	151.79										

<b>Tributary Summary</b>						
	% of Capacity	<u>Annual Total Nitrogen</u>			<u>Annual Total Phosphorus</u>	
		Discharged YTD	Operational Projection CY23		Discharged YTD	Operational Projection CY23
<b>Tributaries</b>		%	Lbs	%	%	Lbs
James River		9%	2,395,978	68%	5%	232,424
York River		12%	213,861	74%	13%	13,552
Rappahannock		8%	NA	NA	7%	NA

Permit Exceedances: Total Possible Exceedances, FY23 to Date: 10:41,126  
Pounds of Pollutants Removed in FY23 to Date: 154,000,577  
Pollutant Lbs Discharged/Permitted Discharge FY23 to Date: 16%

#### Rainfall (inch)

	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	2.21"	2.51"	2.11"
Normal for Month	2.92"	2.89"	2.78"
Year to Date Total	5.15"	5.63"	4.99"
Normal for YTD	6.40"	6.10"	6.27"

\*Small Communities includes Eastern Shore

**AIR EMISSIONS SUMMARY FOR FEBRUARY 2023**

	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	35	88	0
BOAT HARBOR	0	0	0	n/a	0	0	0	0	25	81	0
VIP	0	0	0	n/a	0	0	0	0	32	98	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	23	99	0

**ALL OPERATIONS**

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action:	0
DEQ Warning Letter:	0
DEQ Notice of Violation:	0
Other Air Permit Deviations:	0
Odor Complaints Received:	5
HRSD Odor Scrubber H2S Exceptions:	11

## Items of Interest – February 2023

### **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 81%.

The MHIs had no deviations from the required 129 SSI rule minimum operating parameters and one (1) minor bypass event (<60 minute).

Submitted 129 semiannual deviation reports, the Title V semiannual and Title V annual compliance certifications for the four MHI plants to DEQ.

DEQ approved the test protocol for Army Base's 129 emission limits test scheduled for April 26, 2023.

DEQ air compliance inspected Boat Harbor on February 22 and was deemed in compliance with their Title V federal operating permit.

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

Submitted to DEQ the annual thruput updates for the Atlantic pressure reducing station and James River and York River Plants.

Eleven (11) odor control scrubber system hydrogen sulfide (H<sub>2</sub>S) exception were measured and five (5) odor complaints were received in February.

Atlantic Plant received five (5) odor complaints from Ocean Lakes and Lago Mar neighbors. Plant Staff and TSD responded to all complaints and followed up with our neighbors with investigation results as documented and relayed to them accordingly.

### **TREATMENT**

DEQ was notified of the following reportable events:

#### Atlantic

On February 11, Contact Tank #3 was leaking from the side wall at an expansion joint. The leak was plugged, and the contact tank was drained and taken out of service. Repairs to the expansion joint have been completed but the tank remains out of service. Approximately 150 gallons of chlorinated final effluent soaked onto the ground during this event.

#### James River

On February 6, contractors digging with an excavator broke the bisulfite feed line to the final effluent. The broken feed line was secured within 10 minutes and switched to the back up line. Approximately 500 gallons of chlorinated non potable water with trace bisulfite went into the ground and was not recoverable.

### James River

On February 8, while a contractor was pumping ground water from an excavation site and continuing to excavate, the contractor struck a pipe from the plant drain system. During the investigation, it was determined the pipe was broken previously and the hoses had been moved to the stormwater outfall on 2/6/2023. Plant staff secured the drain to the stormwater outfall and discharge was rerouted to send the flow back into the plant collection system, and the hoses were routed into a process tank. Further training and standard procedures were updated with the contractor. Approximately 30,000 gallons was discharged to the storm drain to Flaxmill Creek.

On February 13, during a high flow event caused by rainfall, one of the Integrated Fixed Film Activated Sludge (IFAS) tanks was not feeding enough defoamant. During this time a filamentous foam from the biological process breached the tank and spilled onto the ground. When it was discovered, the foam had already stopped overflowing the tank, but the operator increased the defoamant dosage to match the other tanks. Recovery occurred and applied lime to the ground. Approximately 400 gallons of aeration foam was released, with 390 gallons recovered; the remaining 10 gallons soaked into the ground.

### Virginia Initiative Plant

On February 13, three consecutive 30 minute contact tank residuals were less than 0.30 mg/l, with one being under 0.10 mg/l, between 4:15 AM and 8:30 AM. Hypo is often fed in two places; at the secondary clarifier and at the head of the chlorine contact tank. Feed to the secondaries had been cut off at midnight in preparation for TSD sampling. The chlorine contact tank hypo feed was active but insufficient. To correct the problem operators fed supplemental ammonia, placed sodium hypochlorite pump in AUTO, and increased the hypo flow setpoint. Additionally, operators cleaned the 5- and 30-minute analyzer strainers and calibrated the 5-minute analyzer.

On February 21, a low chlorine residual of 0.06 mg/l was recorded at 12:17 PM. The service line was switched to the standby line and corrective maintenance was performed. Additionally, operators increased the hypo feed setpoint.

## **SYSTEM/TREATMENT, SMALL COMMUNITIES, SURRY, AND EASTERN SHORE**

### King William Collection System

On February 8, a manhole overflowed due to a contractor blocking the pipe with construction material. HRSD staff pumped the surcharged manhole to stop the potential for future spills from this service area. The area was cleaned, and lime applied to the spill area. Approximately 70 gallons of raw wastewater went into a storm drain to Moncuin Creek.

### King William Treatment Plant:

On February 26th, 2023 the plant operator did not perform a daily pH or DO measurement for the King William Plant final effluent. The Operator thought the plant was sending all of the effluent to reuse and measured only pH at the reuse system discharge. The plant had not been properly changed over to reuse and the outfall was still active. The operator has been re-trained on how to change over the plant between outfall and reuse.

### Nassawadox

During the week of February 5, 2023, the weekly maximum concentration for the final effluent TSS limit was exceeded. Elevated TSS began in January and continued into February. As such, the monthly average TSS concentration limit was also exceeded for February.

The Nassawadox plant continued to struggle with clarifier performance in February. The weekly average for the first week of the month was 24 mg/L which was greater than the weekly limit of 23 mg/L. Modifications were made to improve mixing in the aeration basin which helped improve settling. However even after settling improved, algae growth in the clarifier caused high TSS values. Measures were taken to control algae growth in both the influent equalization lagoon and the clarifier. It now appears that the plant is back on track to meet the monthly TSS permit limits for March as the average for the last 7 days of the month was <13 mg/L. Despite these recent low values, we were not able to meet the monthly permit of 15 mg/L as we ended the month at 18 mg/L. The Nassawadox-Riverside facility met all other weekly and monthly permit limits.

### West Point

On February 9, the number two secondary clarifier overflowed overnight when the Tertiary Filter Pump Station feed pumps number one and two tripped. The wet weather pump (pump 3) is out for repairs. The power monitoring equipment installed to track power anomalies failed approximately two weeks prior and is in the process of being repaired. The float in the number two secondary clarifier which opens the automatic pond bypass valve was also discovered to be malfunctioning at the same time. The automatic valve between the contact tank and the tertiary filters that was recently installed is in the process of being wired and programmed. The Variable Frequency Drives (VFDs) and the pumps were brought back into service and the overflow ended shortly afterwards. HRSD Electrical and Instrumentation staff repaired the failed float on the number two secondary clarifier, and staff completed the wiring and programming for the automatic valve between the contact tank and the tertiary filter pump station. Approximately 90,000 gallons of secondary clarifier effluent overflowed, with approximately 1,600 gallons recovered; the remaining 88,400 gallons drained to the Mattaponi River.

On February 14, HRSD Project Team was replacing a leaking yard hydrant on plant site and hit an electrical conduit while excavating. The broken conduit led to a majority of the treatment plant losing power, except for the tertiary filter pump station and one effluent pump station pump. From 11:30AM to 12:00PM the chemical building was without power, and no hypochlorite or bisulfite was being fed into the contact tank. Effluent was being discharged during this time. Given the 30-minute duration of this event, water discharged had been chlorinated and processed through the contact tank, but residuals would have been lower than normal. Dechlorination did not occur. The plant operator opened the bypass valve at the headworks of the plant to send flow to the storage pond. At 12:00 pm staff realized that one of the effluent pumps and the tertiary filter pump station still had power and manually turned them off. Electrical staff was able to restore power to the plant shortly after and the bypass valve was closed. Chemical feeds were restored and verified prior to discharge resuming at 12:55pm.

### West Point

On February 23, HRSD staff found water coming from the ground near the plant entrance. The release occurred from a two-inch air vent riser pipe with a half inch diameter hole caused by corrosion. HRSD staff diverted flow to the plant equalization pond and began shutdown procedures at 13:40 hours. Staff removed the damaged riser and will rebuild the air vent once parts arrive. Plant flow was restored, and start-up procedures began at 22:10 hours. Approximately 2,450 gallons of final effluent were released to the ground/Mattaponi River.

For the month of February 2023, the monthly maximum average BOD concentration was exceeded at the West Point STP (VA0075434). The permitted monthly maximum average concentration for the West Point STP is 30 mg/L. The average BOD concentration value for the month of February was 31 mg/L. During the month of February, we had two emergency events that led to plant staff diverting all influent flow coming to the treatment plant to the storage pond, temporarily bypassing the treatment plant. After both events, the storage pond water was pumped into the headworks of the plant for treatment. The storage pond water may have contained elevated BOD concentrations which increased effluent BOD, leading to the permit exceedance. To avoid this issue in the future, plant operators have been instructed to decrease the amount of water that's pumped from the storage pond into the plant influent, and floating mechanical aerators will be installed in the storage pond later this year which should lower BOD concentrations.

## 2023 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56	0.02	NA										
	TKN	3.0	NA	<0.50										
King William	Zinc	*	54	NA										
	TKN	3.0	1.9	1.1										
	Cadmium	2.0	<0.50	<0.50										
Nassawadox	Copper	23	<5.0	<5.0										
Riverside	Nickel	38	14	18										
	Zinc	150	<50	<50										
	Ammonia	1.7	0.31	0.67										
Onancock	Copper	12	2.2	NA										
	Ammonia	0.90, 2.0	0.04	0.03										
	Copper	5.9	2.0	NA										
Surry County	Zinc	56	24	NA										
	Ammonia	0.77	NA	NA										
	TKN	3.0	NA	NA										
Urbanna	Ammonia	3.83, 9.08	0.04	0.16										

\*No limit. Treatment objective 53 ug/L  
 Units: TKN, Ammonia: mg/L. Metals: ug/L

## 2023 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	9.10	9.87											9.49	8.19
Atlantic	44.58	46.31											45.44	44.13
Boat Harbor	11.60	12.95											12.27	10.50
C.Middlesex	0.013	0.013											0.013	0.012
James River	12.46	13.31											12.89	12.03
King William	0.070	0.065											0.068	0.070
Lawnes Point	0.000	0.000											0.000	0.000
Nansemond	15.97	16.61											16.29	15.16
Nassawadox	0.016	0.015											0.015	0.014
Onancock	0.170	0.194											0.182	0.166
Surry, County	0.011	0.000											0.006	0.028
Surry, Town	0.000	0.000											0.000	0.019
Urbanna	0.035	0.039											0.037	0.057
VIP	27.26	30.12											28.69	22.92
West Point	0.466	0.470											0.468	0.352
Williamsburg	7.73	8.09											7.91	8.89
York River	12.69	13.74											13.21	11.22
North Shore	44.47	48.09											46.28	42.64
South Shore	96.91	102.91											99.91	90.40
Small Communities	0.78	0.80											0.79	0.72
<b>TOTAL</b>	<b>142.16</b>	<b>151.79</b>											<b>146.98</b>	<b>133.75</b>

*Bold values indicate monthly plant flow average >95% of permitted design flow*

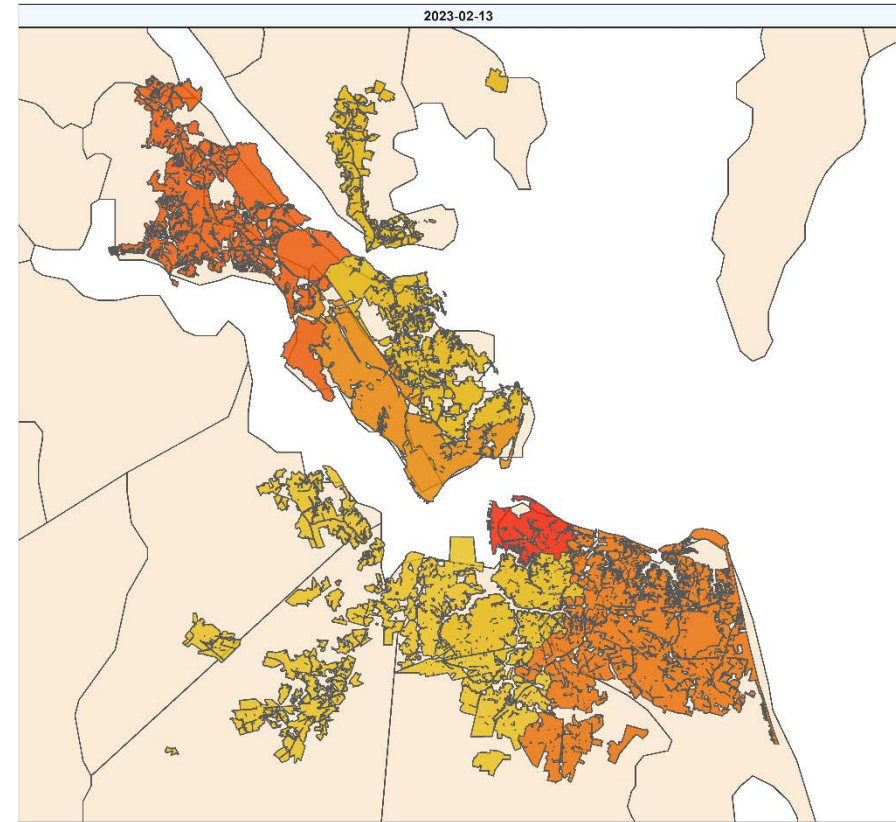
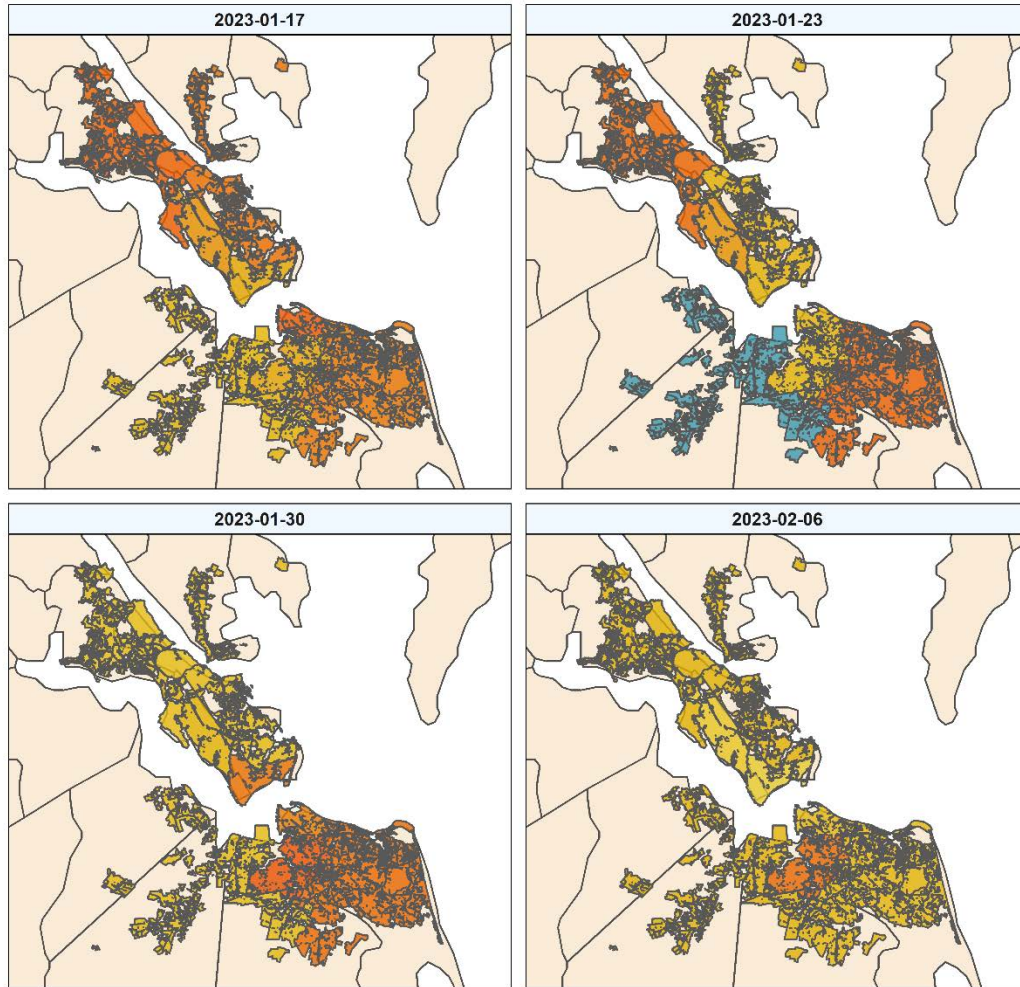




# Wastewater Surveillance Commission Report

March 2023

# SARS-CoV-2 Most Recent 5 Weeks

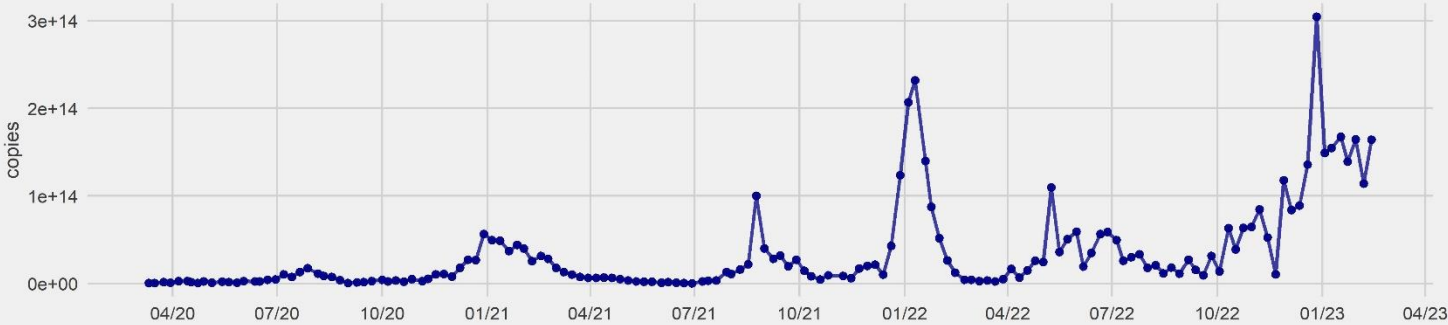


\*\* Note that the scale for this heatmap is now based on the range of the most recent 5 weeks of data.

Log<sub>10</sub> copies person<sup>-1</sup> 7.2 7.6 8.0 8.4

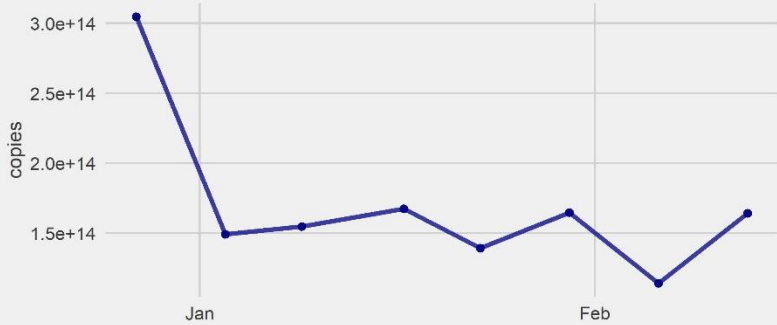
# Regional Viral Load, Hospitalizations, and Deaths

**Aggregate Viral Load for HRSD Treatment Facilities**



**Wastewater Data HRSD Facilities**

Most Recent 8 Weeks



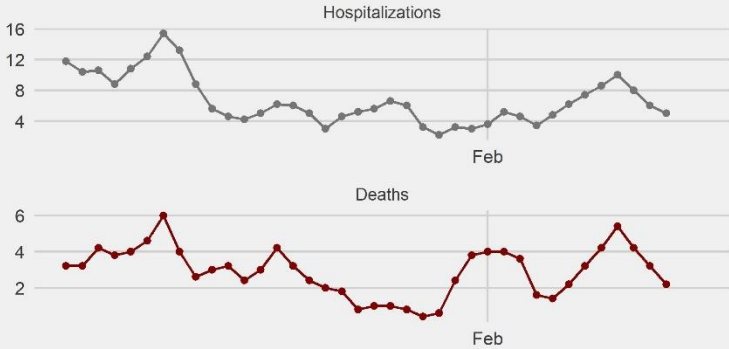
**COVID-19 Hospitalizations and Deaths**

Hampton Roads 5 Day Rolling Mean



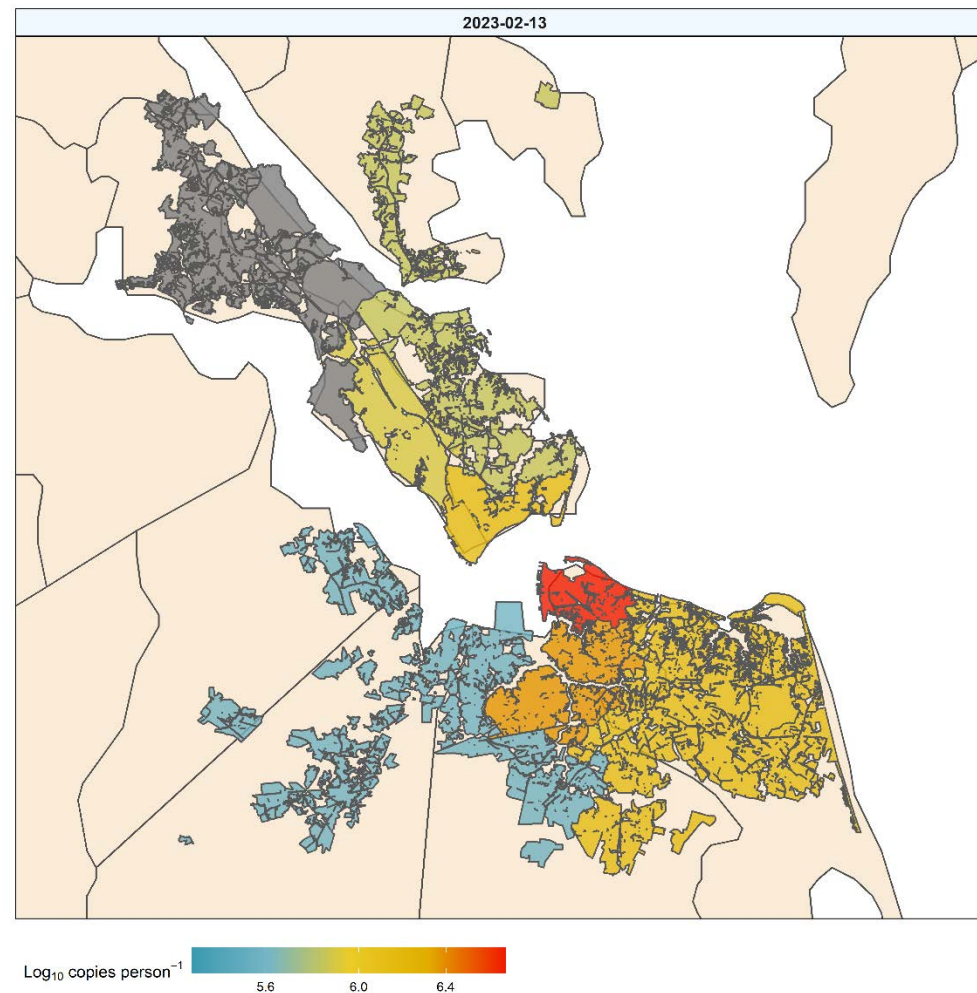
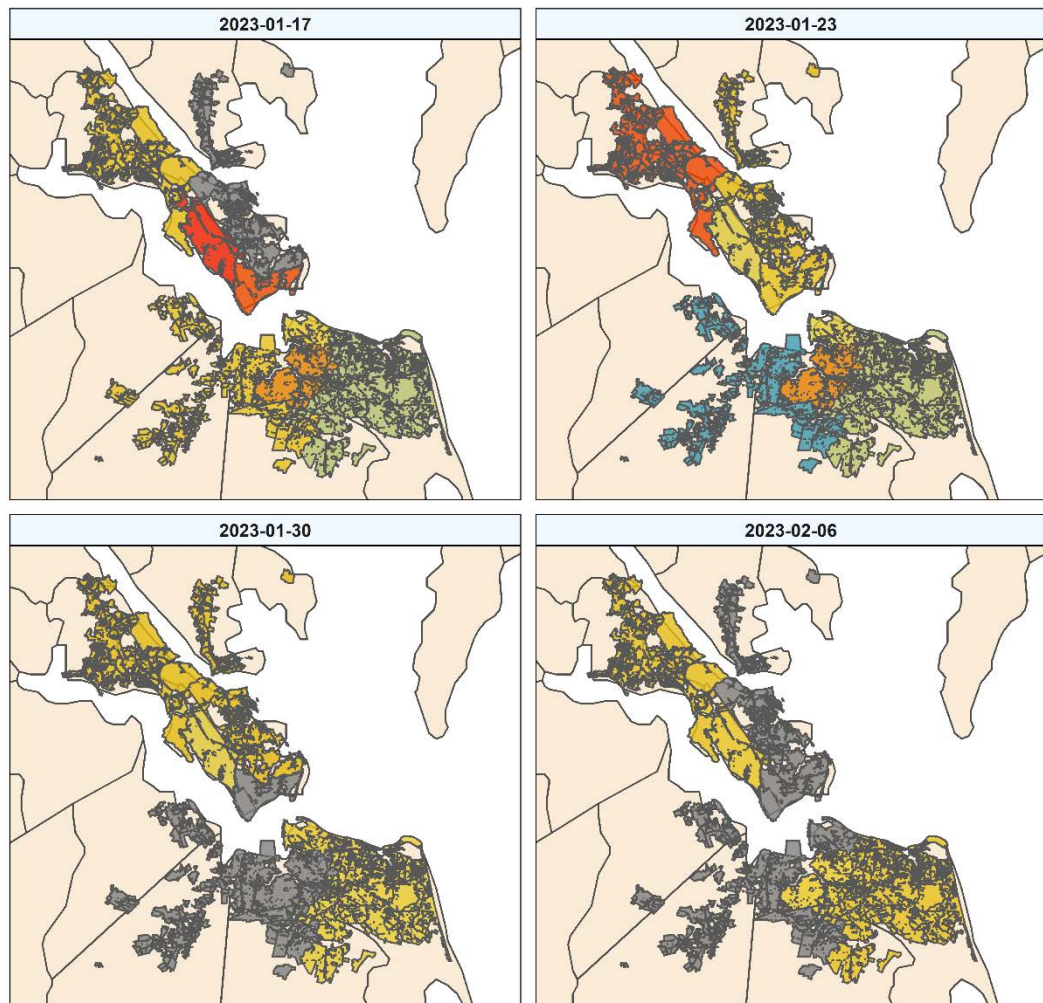
**COVID-19 Hospitalizations and Deaths**

Most Recent 8 Weeks



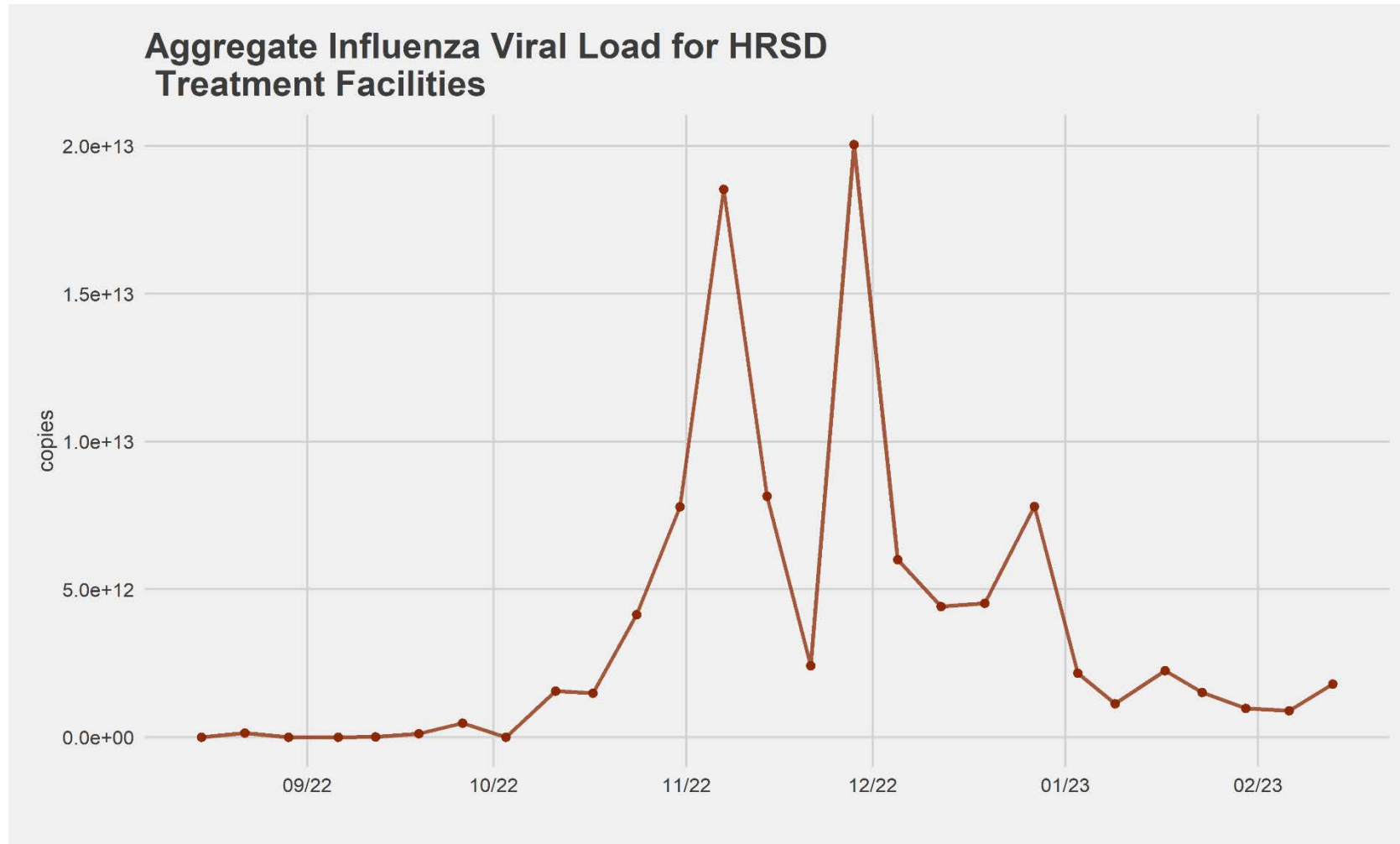


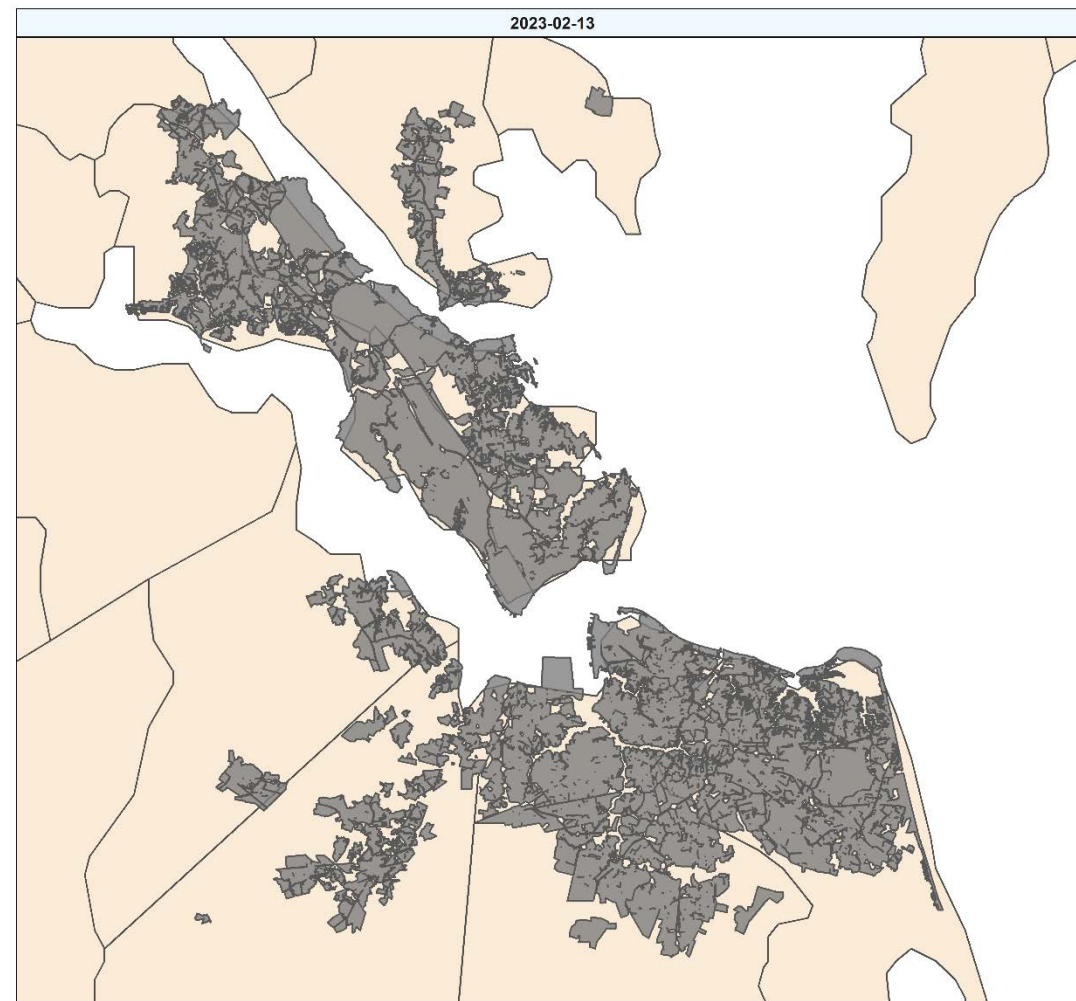
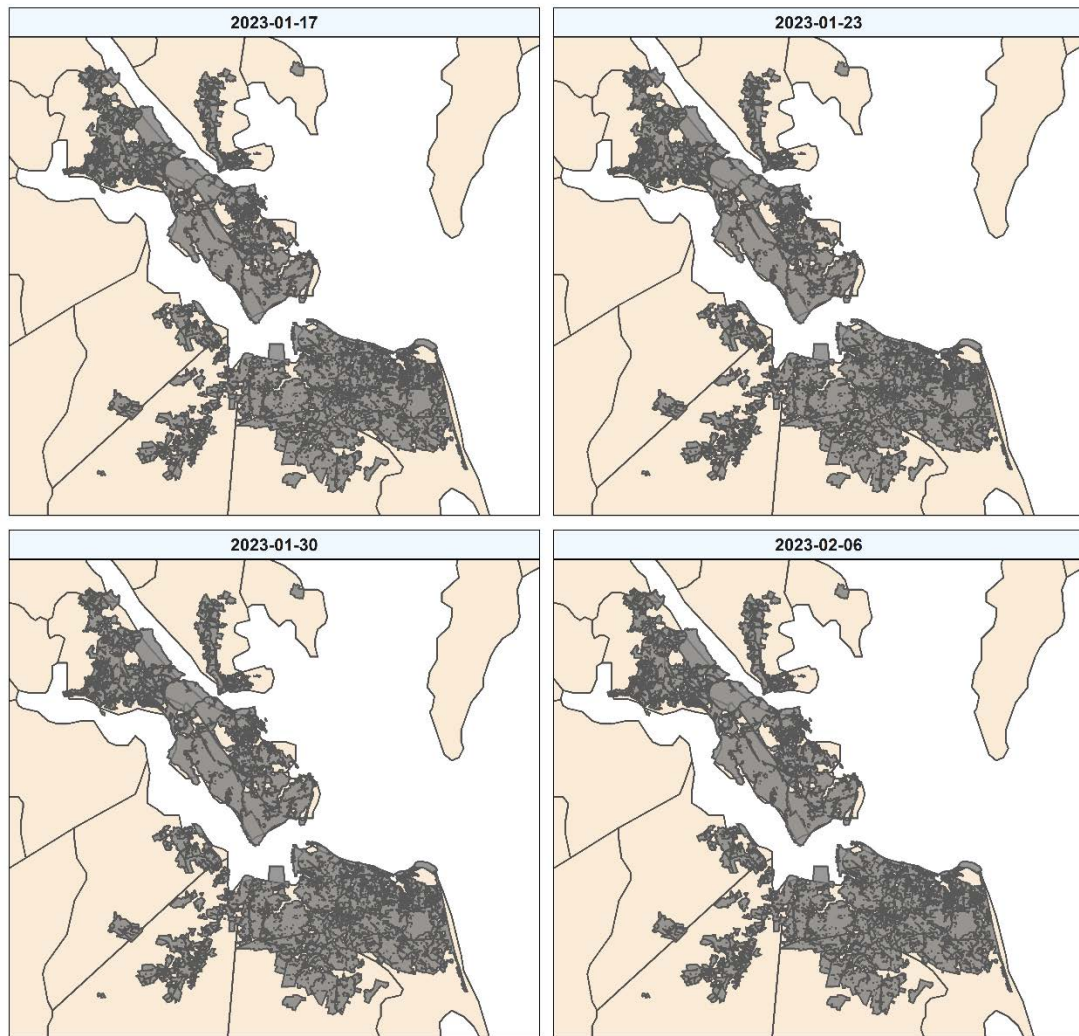
# Influenza



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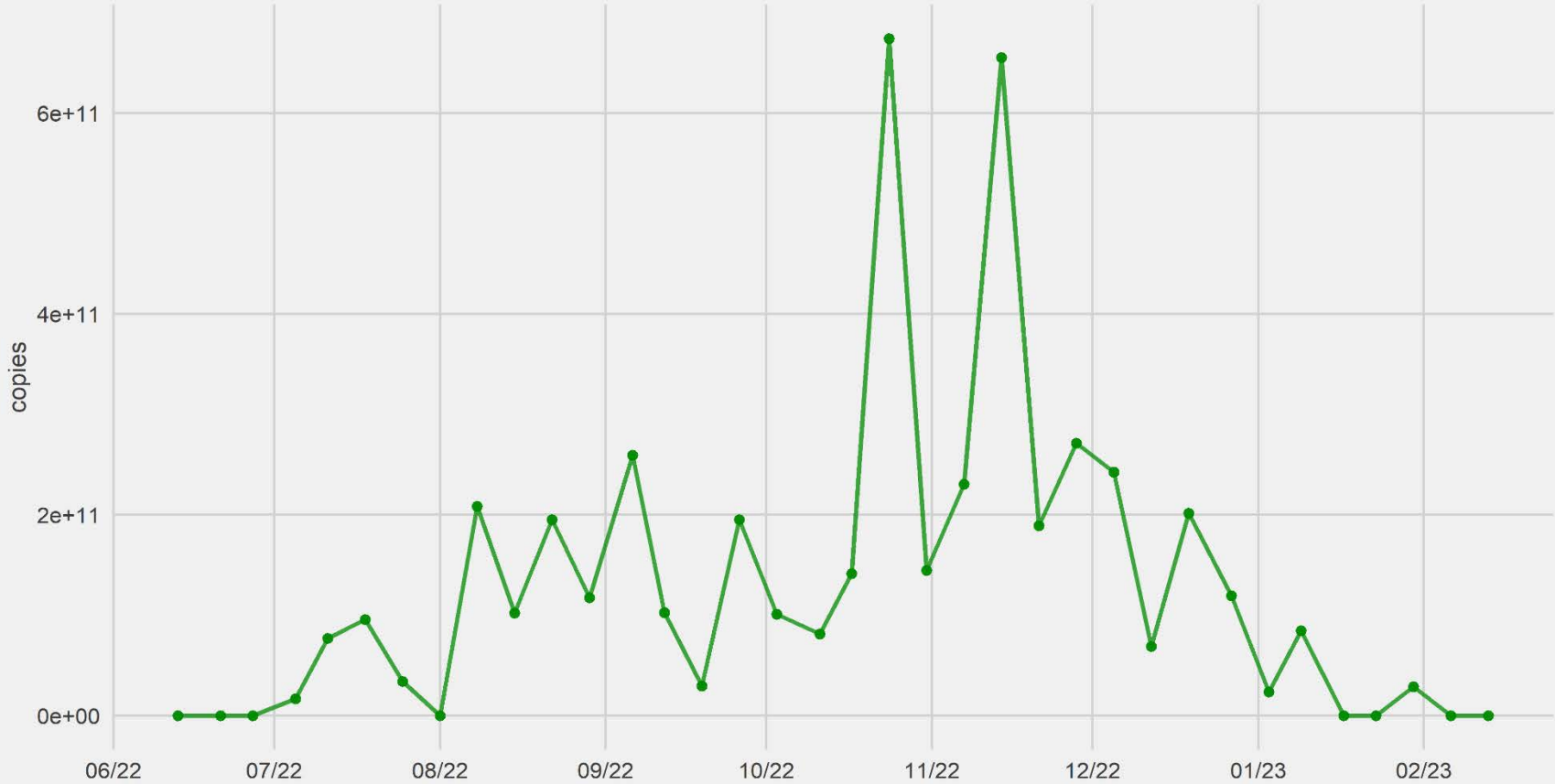
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Aggregate MPX Viral Load for HRSD Treatment Facilities





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 audits, and the status of current management action plan monitoring.

## **I. Projects in Process**

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### **Personally Identifiable Information**

- **Tasks Completed (February 2023)**
  - Finalized audit program
  - Discussed strategy with Deputy General Manager and Director of Finance
- **Upcoming Tasks (March 2023)**
  - Begin scheduling fieldwork walkthrough meetings
  - Commence fieldwork procedures

### **Risk Assessment**

- **Tasks Completed (February 2023)**
  - Finalized surveys to directors, chiefs, and Commission
  - Administered IT specific RA questionnaire
  - Updated risk assessment procedures and internal audit plan
- **Upcoming Tasks (March 2023)**
  - Finalize risk assessment procedures
  - Finalize internal audit plan, submit for review

### **Grants Management**

- **Tasks Completed (February 2023)**
  - Finalized preliminary improvement
  - Scheduled meeting (3/1/23) with Finance to discuss improvement opportunities
- **Upcoming Tasks (March 2023)**
  - Finalize and closeout project

### **Family Medical Leave Act (FMLA)**

- **Tasks Completed (February 2023)**
  - Presented draft report to Talent Management
- **Upcoming Tasks (March 2023)**
  - Finalize report and provide to HRSD stakeholders

### **Remote Access**

- **Tasks Completed (February 2023)**
  - Began internal planning for audit
  - Drafted entrance meeting materials
- **Upcoming Tasks (March 2023)**
  - Conduct entrance meeting





**Management Action Plan Monitoring**

SC&H is performing on-going management action plan (MAP) monitoring for internal audits previously conducted for HRSD. SC&H begins MAP follow-up approximately one year following the completion of each audit and will assess bi-annually.

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	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
Safety Division	9/12/19	March 2023	2	1	3
SWIFT Program	2/24/2021	March 2023	11	1	12
Succession Planning	6/4/2021	March 2023	0	4	4
Emergency Repairs	1/18/2022	February 2023	0	3	3
Freedom of Information Act	12/21/2022	December 2023	0	1	1
D&C: CIP Project Management	5/11/16	Closed	13	0	13
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
Treatment Plant Operations	10/15/18	Closed	9	0	9
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
Customer Care Division	7/26/19	Closed	4	0	4
Pollution Source Control	6/2/20	Closed	8	0	8
Fleet Services	2/24/2021	Closed	17	0	17
Biosolids Recycling	10/8/16	Closed	8	0	8
Unifier/ERP Integration	6/27/2022	Closed	4	0	4
<b>Totals</b>			125	10	135

Annual Metrics																
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%	6.63%	6.78%	6.31%	16.04%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%	2.10%	3.08%	5.44%	1.64%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	63%	63%	78%	65%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60	95	74.52
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1	40.9	39.3	28.2	32.3
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7	4.1	4.8	4.1	4.53
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34	1.3	1.09
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8	1.6	4.1	3.43
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%	123%	120%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%	155%	152%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887	29,596	28,722	28,030
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%	62%	61%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%	16%	15%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%	25%	22%	24%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%	7%	6%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.58	1.66	1.66	1.58	1.7	1.75	1.89
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940	56,473,800	58,044,110	53,931,273
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277	2,408	2,459	2,439
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174	170	218
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102	82	136
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%	1.8%	1.3%	1.4%	1.4%
M-4.3	Total Labor Cost/MGD	Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423	\$1,348	\$1,487	\$1,545	\$1,542
M-4.4	Affordability	Median Household Income	< 0.5%		0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%	0.71%	0.67%	0.65%	0.65%
M-4.5	Total Operating Cost/MGD	365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959	\$3,823	\$4,048	\$4,311	\$4,436
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A	53%	N/A	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%	138%	128%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32	27	39
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8	152.23	149.84	149.72	145.75
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24	53.1	48.49	54.04	38.18
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%	72%	84%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%	5.80%	6.03%	7.55%
	Total Debt Coverage	Net Revenue/Total Annual Debt	> 1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%	2.81%	2.66%	3.04%

\*to be reported

Monthly Updated Metrics																	FY-23	FY-23
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22	Jan-23	Feb-23
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	131.3	142.2	151.8
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	4	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	106%	106%	106%	105%	101%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	106%	109%	111%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,900,803	\$27,335,100	\$34,060,154	\$39,539,639	\$41,315,851	\$39,724,461
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	32%	32%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	9:60879	23:60879	9:60879	7:35985	10:41126
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	51	11	5
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	182,759,003	183,123,855	177,322,331	139,094,381	154,000,577
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	22%	22%	17%	17%	17%	18%	14%	16%	16%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	687	65	70
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	125	27	37

## AGENDA ITEM 16.c. – March 28, 2023

**Subject:** Great Bridge Interceptor Force Main Emergency Repair (SF-180)  
Emergency Declaration

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

**CIP Project:** N/A

**Regulatory Requirement:** None

**Brief:** An emergency declaration was authorized on March 13, 2023, due to a force main failure likely caused by a “spud” from a dredge vessel.

On March 10, 2023, at approximately 5:00pm, the City of Chesapeake notified HRSD about a force main failure under the Intracoastal Waterway, between the Great Bridge Lock (operated by the U.S. Army Corps of Engineers – Norfolk District) and the Great Bridge Drawbridge (operated by the City of Chesapeake). The failure was on a 20-inch ductile iron (DI) force main that was installed in 1968. By 8:00pm, HRSD Interceptor Operations was able to isolate the failure via valve closures. Pressure data indicated that the pipeline failure occurred at approximately 1:15 p.m., and flow data from the Elbow Road PRS and Atlantic Treatment Plant suggest 2.5 million gallons of sewage were spilled during this event.

According to the Incident Report from the Army Corp of Engineers, a tugboat was moving a dredge vessel and one of the dredge’s “spuds” was reported to have ‘gotten stuck on something’ in the Waterway. The time of this Report (1:03 p.m.) aligns with when the HRSD system pressures dropped, thus the spud is the likely cause of the force main failure.

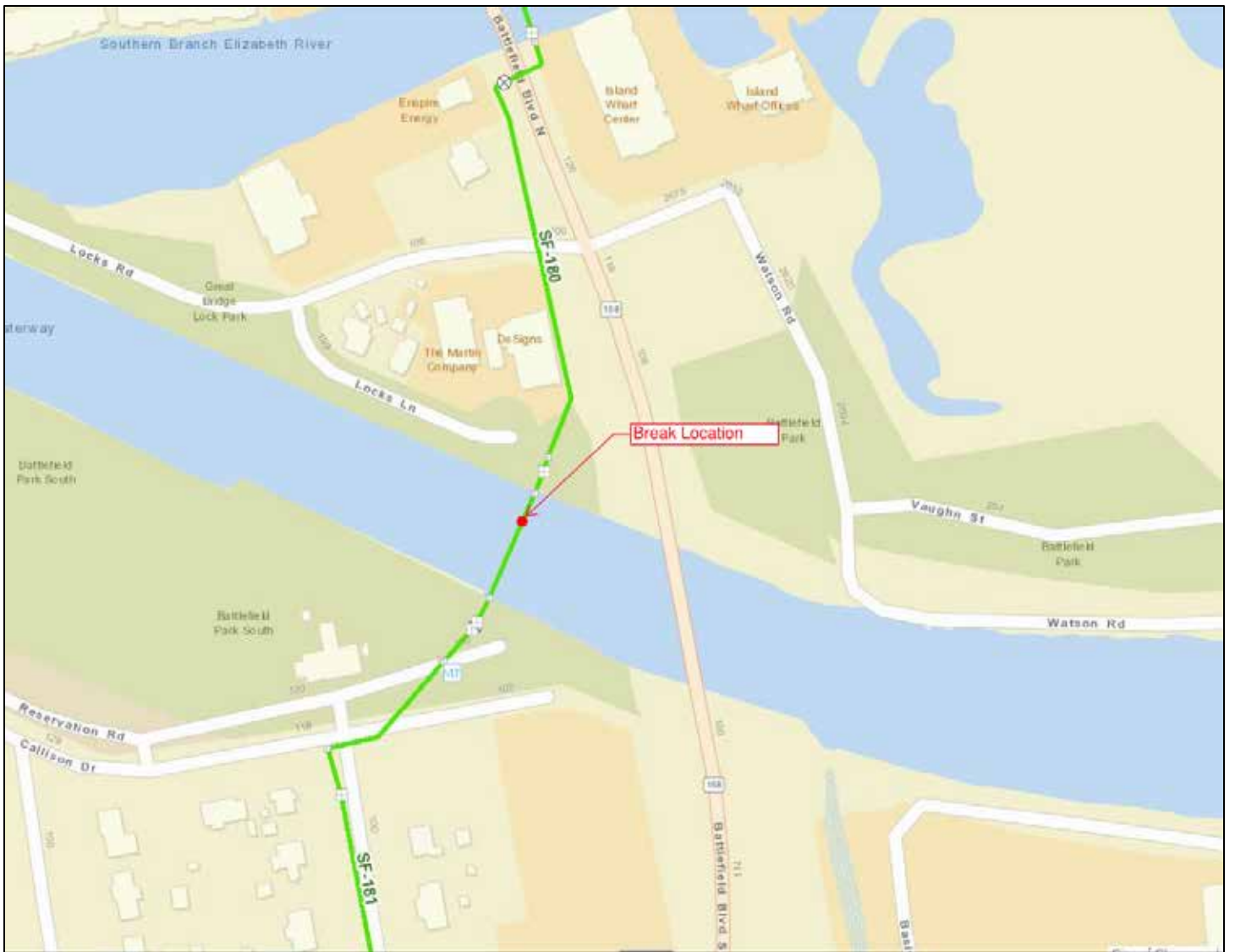
The City of Chesapeake Pump Station No. 33 is located within the area of isolation and is currently being pump-and-hauled by the City. In addition, HRSD’s Elbow Road PRS is being operated continuously to help maintain pressures for City and private pump stations affected by the diversion of flow.

Staff will utilize RK&K and Crofton Industries (via Bridgeman Civil, Inc.) to assist with the initial evaluation of the damaged pipeline and any design necessary for repairs. The attached [map](#) depicts the force main failure location.

Staff will provide a briefing on this issue and efforts to make needed repairs to this force main.

**Analysis of Cost:** The initial estimated cost of this work is \$500,000 and will be funded from the Operating budget. The cost for this is based on high-level, preliminary estimates developed prior to completion of the damage assessment.

<b>Schedule:</b>	Emergency Declaration	March 2023
	Inspection/Repair	March – April 2023
	Project Completion	Unknown at this time



AGENDA ITEM 17. – March 28, 2023

**Subject:** Closed Meeting

**Recommended Action:** Approve a motion to go into closed meeting to consider acquisition of real property for a public purpose of publicly held real property located in the City of Suffolk as provided for in Code of Virginia §2.2-3711A3.

**Exemption Description:**

A3. Discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body.

AGENDA ITEM 18. – March 28, 2023

**Subject:** Reconvened Meeting

**Recommended Action:** Pursuant to Section 2.2-3712.D of the Code of Virginia, we will now have a roll call vote to certify that to the best of each Commission member's knowledge: (i) only public business matters lawfully exempted from open meeting requirements under this chapter, and (ii) only such public business matters as were identified in the motion by which the closed meeting was convened were heard, discussed or considered. Any Commissioner who believes there was a departure from these two requirements shall so state prior to the vote, indicating the substance of the departure.

AGENDA ITEM 19. – March 28, 2023

**Subject:** Fiscal Year-2024 Annual Budget Work Session

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

**Brief:** Staff will present key components of the General Manager's Proposed Fiscal Year-2024 Operating Budget. The following topics will be covered:

- Operating Revenues
- Operating Expenses