

HRSD Commission Meeting Agenda
9:00 a.m. – January 24, 2023

In-person for Commissioners and essential staff at
2389 G. Avenue, Newport News, VA

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/observation or to request accommodations to attend the meeting in-person, please send your request to Jennifer Cascio at 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.	Awards and Recognition	Bernas
2.	Consent Agenda	Bernas
3.	Atlantic Treatment Plant Emergency Odor Control Repairs Additional Appropriation, Task Order, Contract Change Order	Husselbee
4.	Atlantic Treatment Plant Reliability & Odor Control Improvements Contract Awards	Husselbee
5.	James River Land Improvements – Phase I Additional Appropriation, Contract Award (>\$200,000), Task Order	Husselbee
6.	Nansemond SWIFT Facility Proposal Compensation	Husselbee
7.	North Shore Gravity Sewer Improvements Phase 1 Additional Appropriation, Contract Award and Task Order (>\$200,000)	Husselbee
8.	Suffolk Pump Station Replacement Real Estate Acquisition – Easement Interest 619 E. Pinner Street, Suffolk	Husselbee
9.	U.S. EPA Consent Decree Annual Public Meeting	Bernas
10.	Unfinished Business	Bernas
11.	New Business	Bernas
12.	Commissioner Comments	

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
13.	Public Comments – A request to make public comments during the meeting via Zoom or written comments to be read into the minutes should be submitted to Jennifer Cascio by email to commissionsecretary@hrsd.com or by phone to 757.460.7003 and must be received by noon one business day prior to the meeting.	Cascio
14.	Informational Items	Bernas
15.	Closed Meeting – General Manager Annual Performance Review	Bernas
16.	Reconvened Meeting	

Next Regular Commission Meeting Date: January 24, 2023 in Newport News

AGENDA ITEM 1. – January 24, 2023

Subject: Awards and Recognition

Recommended Action: No action is required.

Brief: HRSD is pleased to announce the following:

a. New Employee Introduction

Mr. Keith Britt, Electrical Manager, was recently hired in the Electrical and Instrumentation Division in the Operations Department. He is a licensed Professional Engineer with 15 years of experience in electrical design, inspection, maintenance and troubleshooting of protective devices and electrical equipment. Keith graduated with a Bachelor of Science in Electrical Engineering from Old Dominion University and a Master of Engineering degree in Power Systems Engineering from Worcester Polytechnic Institute. Keith most recently worked for Dominion Energy at Surry Power Station within their electrical design team and before that he worked within Dominion Energy's Distribution Operations & Transmission Protection. Keith's experience will be beneficial as he works closely with the Electrical & Instrumentation staff to maintain and improve HRSD's equipment and facilities.

b. New Employee Introduction

Mr. Chris Swartz, Hydraulic Analysis Manager, was recently hired in Planning and Analysis Division in the Engineering Department. He is a licensed Professional Engineer, Project Management Professional, and an Envision Sustainability Professional with 15 years of experience in real estate and capital improvement planning. Chris graduated with a bachelor's degree in nuclear and radiological engineering from Georgia Institute of Technology and a master's degree in business administration from Longwood University. He recently worked for a consulting firm and before that the City of Hampton Department of Public Works. He will be working closely with Data Analysis Section and GIS Group.

AGENDA ITEM 2. – January 24, 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 Awards
 - 1. [4G LTE Data Circuit](#) \$202,020
 - 2. [Nansemond Treatment Plant Interceptors Storage Yard](#) \$917,435
- c. Sole Source
 - 1. [WEMCO® Pumps and Parts](#)
- d. HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
 - 1. [Short-Term and Long-Term Disability Program for VRS Hybrid Plan Participants](#) \$319,575

CONSENT AGENDA ITEM 2.b.1. – January 24, 2023

Subject: 4G LTE Data Circuit
Contract Award (>\$200,000)

Recommended Action: Award a contract for 4G LTE Data Circuit to Virginia Information Technologies Agency (VITA) in the estimated amount of \$40,404 for year one with four annual renewal options and an estimated cumulative value in the amount of \$202,020.

Regulatory Requirement: None

Type of Procurement: Other

No competition was required as VITA is an entity of the Commonwealth of Virginia.

Contract Description and Analysis of Cost: This contract will provide 4G LTE Data Circuits and Private Internet Protocol (PIP) Wireless Gateways at 1434 Air Rail, Virginia Beach; 2389 G Avenue, Newport News; and 310 Industrial Pkwy, Williamsburg, in support of the Supervisory Control And Data Acquisition (SCADA) platform. These data circuits will receive and transmit information from/to pump stations within HRSD's SCADA network, managing traffic through the corresponding gateways which connect to HRSD's operational technology network. Costs are in-line with previous monthly bills for same/similar circuits already in use.

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

CONSENT AGENDA ITEM 2.b.2. – January 24, 2023

Subject: Nansemond Treatment Plant Interceptors Storage Yard
Contract Award (>\$200,000)

Recommended Action: Award a contract to Parkway Grading, Inc. in the amount of \$917,435.

CIP Project: NP014900

Regulatory Requirement: None

Budget	\$2,221,000
Previous Expenditures and Encumbrances	(\$0)
Available Balance	\$2,221,000
Proposed Contract to Parkway Grading, Inc.	(\$917,435)
Proposed Task Order to RK&K	(\$144,138)
Proposed Contract for Pipe and Fitting Procurement	(\$775,000)
Proposed Contingency	(\$384,427)
Project Shortage/Requested Additional Funding	(\$0)
Revised Total Project Authorized Funding	\$2,221,000

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 November 28, 2022, and two bids were received on December 20, 2022. The bids received are listed below:

Bidder	Bid Amount
Parkway Grading, Inc.	\$917,435
Virginia Carolina Civil, Inc.	\$1,658,777

Engineer Estimate: \$1,103,680

The design engineer, RK&K, evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder Parkway Grading, Inc. in the amount of \$917,435.

Project Description: This project will construct a new pipe storage yard to service both North Shore and South Shore Interceptors, located at the Nansemond Treatment Plant in Suffolk. This project will also provide funding to cover the procurement of large diameter pipe and fittings to be stored at the storage yard. The attached [map](#) depicts the project location.

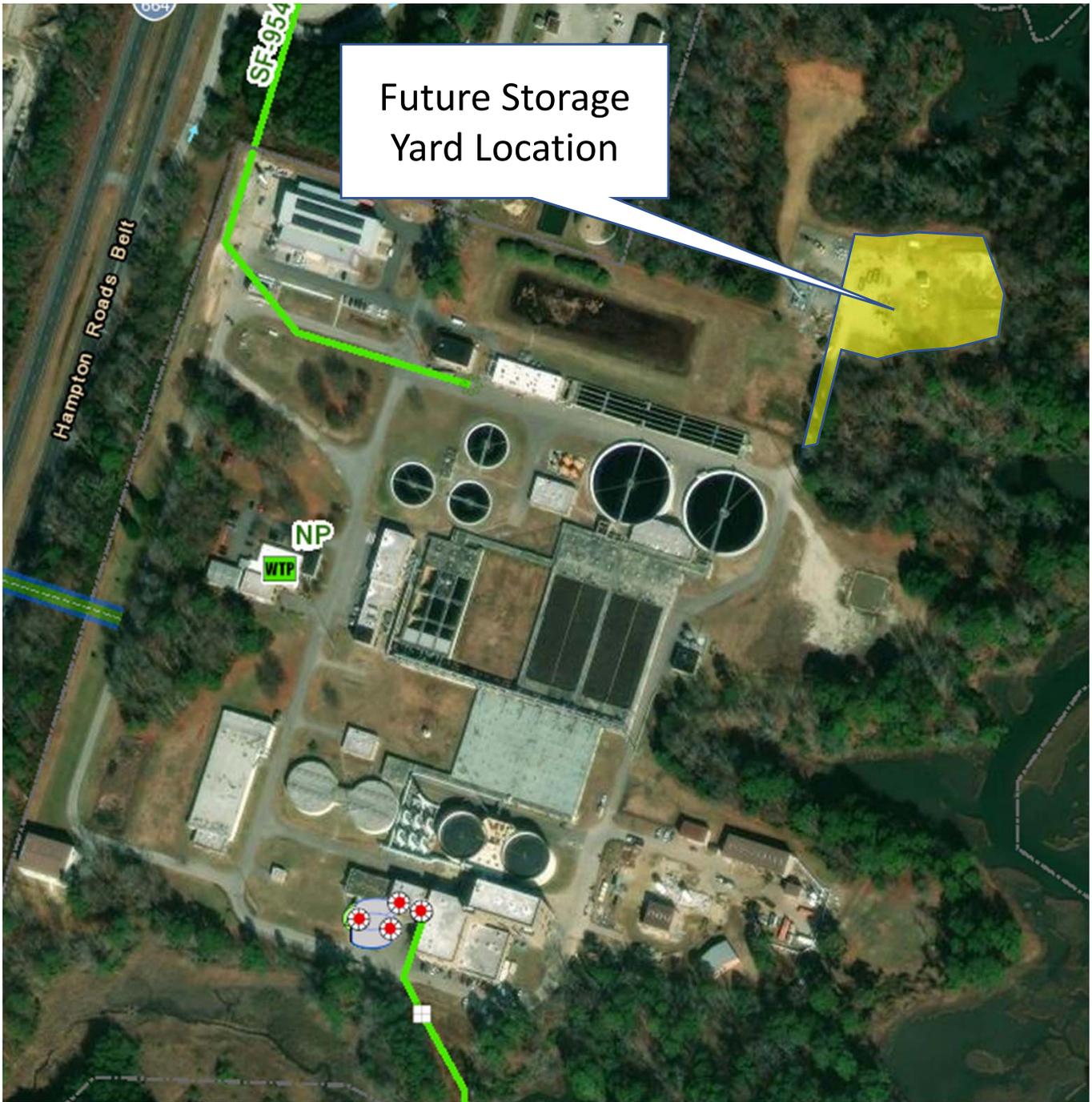
Project Justification: North Shore Interceptors will need to relocate pipes, fittings, valves and pumps from their existing location at 2401 G Avenue to a new location once the HRSD property is sold or leased. A temporary pipe storage area at the James River Treatment Plant also needs to be relocated due to upcoming Swift Upgrades. South Shore Interceptors is also limited on space for large diameter pipe, fittings and valves and will use the proposed pipe yard for storage of their larger assets. This combined facility at the Nansemond Treatment Plant will increase inventory efficiency, consolidate inventory on-hand and be jointly maintained by Interceptor Operations. The proposed pipe and fittings to be purchased as part of this CIP will ensure a sufficient inventory of 10-inch to 54-inch materials to support an emergency repair on any pipes within the HRSD system.

Contract Description and Analysis of Cost: The low bid amount of \$917,435 is 17% lower than the engineer's estimate of \$1,103,451. Discounting the pipe racks, which were independently designed and estimated by Collins Engineering, the combined bid amount for the unit price site improvement bid items alone is within 9% of RK&K's engineering estimate. The engineer's estimate is based on quantities of labor, materials, and average installed unit prices for construction of the pipe storage yard. The estimate is comparable based on similar project bid results but may not represent the actual field conditions or current industry market conditions.

Direct comparison of the apparent low bidder and engineer's estimate reveals, the apparent low bidder's unit price of \$24,165 for the six Fabricated Steel Pipe Storage Racks is \$17,935 lower than the design engineer's estimate and represents the greatest magnitude difference of total cost relative to any single bid item. The design engineer's estimate for this item included a contingency allowance which is not reflective of the AACE Class 1 estimates HRSD typically considers in evaluating project bids. Discounting this estimate contingency reduces the difference between the apparent low bid and adjusted engineer's estimate from 17% to 12%. This remaining difference may be attributed to apparent low bidder experience, work backlog, or planned means and methods and variations in material costs and sourcing.

The lowest responsive and responsible bid amount of \$917,435 does not exceed the current balance available for the CIP project. A 17 percent construction contingency is also being requested for unforeseen conditions, coordination with other contractors in the project area, and continued fluctuations in market pricing for pipe and fittings (to be purchased separately in 2023 by Operations), in the amount of \$384,427. RK&K will be used to perform construction phase service, in the amount of \$144,138 which is comparable to other similar efforts.

<u>Schedule:</u>	Construction	March 2023
	Project Completion	July 2023



Location Map for Nansemond Storage Yard Project
(NP014900)

CONSENT AGENDA ITEM 2.c.1. – January 24, 2023

Subject: WEMCO® Pumps and Parts
Sole Source (>\$10,000)

Recommended Actions: Approve the use of Western Equipment Manufacturing Company (WEMCO®) Pumps and Parts by ClearWater, Inc. at all HRSD facilities.

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 the purchase of WEMCO® pumps and replacement parts. These pumps are sized to operate with pressure and flow conditions that are regularly experienced following the closure of the Chesapeake-Elizabeth Treatment Plant. They reduce upstream pressures allowing locality stations to operate without modifications or disruption.

This work is in accordance with Commission Adopted Procurement Policy

CONSENT AGENDA ITEM 2.d.1. – January 24, 2023

Subject: Short-Term and Long-Term Disability Program for VRS Hybrid Plan Participants
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the County of Henrico Contract No. 1670 for Group Short-Term & Long-Term Disability Program for Virginia Retirement System (VRS) Hybrid Plan Participants.
- b. Award a contract to continue providing, as required by the Code of Virginia, employer-paid Short-Term and Long-Term Disability coverage under a comparable program for VRS Hybrid Retirement members to Standard Insurance Company in the estimated amount of \$63,915 for year one with four annual renewal options and an estimated cumulative value in the amount of \$319,575.

HRSD Estimate: \$319,575

Regulatory Requirement: None

Contract Description and Analysis of Cost: Services include Group Short-Term and Long-Term Disability coverage for the Virginia Retirement System (VRS) Hybrid Retirement Plan participants. This will be an estimated use contract. The rate for the program coverage is 0.59% of monthly insured earnings for both Short-Term Disability administration and Long-Term Disability Insurance. The cost for this service is fair and reasonable compared to similar insurance program rates and is in agreement with previous contract pricing.

This work is in accordance with the Commission Adopted Procurement Policy

AGENDA ITEM 3. – January 24, 2023

Subject: Atlantic Treatment Plant Emergency Odor Control Repairs
Additional Appropriation, Task Order, Contract Change Order

Recommended Actions:

- a. Appropriate additional funding in the amount of \$650,000.
- b. Approve a task order with HDR Engineering, Inc. (HDR) in the amount of \$212,243.
- c. Approve a change order to the contract with Crowder Construction Company (Crowder) in the amount of \$948,831.

CIP Project: AT016200

Regulatory Requirement: None

Budget	\$1,500,000
Previous Expenditures and Encumbrances	<u>(\$782,541)</u>
Available Balance	\$717,459
Proposed Change Order No. 1 to Crowder	(\$948,831)
Proposed Task Order to HDR	(\$212,243)
Proposed Contingency	(\$206,385)
Project Shortage/Requested Additional Funding	<u>(\$650,000)</u>
Revised Total Project Authorized Funding	<u>\$2,150,000</u>

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for Crowder	\$677,038	
Total Value of Previous Change Orders	\$0	0%
Requested Change Order	\$948,831	
Total Value of All Change Orders	\$948,831	140%
Revised Contract Value	\$1,625,869	

Time (Additional Calendar Days)	0
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Contract Status with Task Orders:	Amount
Original Contract with HDR	\$105,503
Total Value of Previous Task Orders	\$0
Requested Task Order	\$212,243
Total Value of All Task Orders	\$212,243
Revised Contract Value	\$317,746
Engineering Services as % of Construction	19.5%

Project Description: The Atlantic Treatment Plant Odor Control System (OCS) D includes four separate trains which includes two scrubber vessels and an associated fan with each train. The project will fund the repairs to Train 1 of the OCS D which was established on August 23, 2022, with a budget of \$1,500,000. Initially, the full extents of damage were unknown, but assumed to be limited to only the fan and motor, as well as the adjacent fiberglass ductwork and electrical wiring. After

extensive investigation, testing and analysis it was determined that the scrubber #2 vessel, including the interior media and mist eliminators were also damaged beyond repair. Replacement of the scrubber will require additional engineering analysis as well as extensive contractor effort and expense due to its location, access, supports and the multiple connections into and out of the vessel. The full extent of all replacement work will not be known until the existing scrubber can be removed due to limited access to the back side of the vessel.

Project Justification: On July 31, 2022, Train 1 of the OCS D at the Atlantic Treatment Plant caught on fire, likely due to the fan motor or belt. Although the plant OCS D has four trains, three of the trains are required for proper air flows and odor management for the front half of the treatment plant. Train 4 is currently out of service for maintenance, but once repaired and back in service, this will leave zero redundancy in equipment. Due to long leads time on equipment and fiberglass reinforced pipe (FRP) components, and recent odor challenges at this treatment facility, time is of the essence with getting Train 4 maintenance completed and Train 1 repaired and operational.

Task Order Description and Analysis of Cost: This task order includes engineering design and construction administration and inspection services related to the additional damages to the scrubber and associated appurtenances, as well as an allowance for additional work identified once the damaged scrubber unit can be removed. The total value of all task orders is approximately 20 percent of the total construction cost. The rates and proposed subconsultant fees are consistent with the rate structure for the General Engineering Services contract.

Change Order Description and Analysis of Cost: This change order includes equipment, materials, inspections and subcontractor expenses related to the additional fire damage, labor to support the installation of this additional equipment, and approximately 12% contingency for additional unknowns that may be encountered when the existing scrubber unit is removed. The cost for the change order is based on negotiated costs and quotes from subconsultants and suppliers, where available.

Schedule: Project Completion June 2023

AGENDA ITEM 4. – January 24, 2023

Subject: Atlantic Treatment Plant Reliability & Odor Control Improvements (ATP-ROCI):
 ATP Liquid Side Odor Evaluation and Improvements
 ATP Gravity Belt Thickener and Pre-Dewatering Polymer Improvements
 ATP Odor and Solids Improvements 2023
 ATP Solids Curing Facility and Pad Improvements
 Contract Awards

Recommended Actions:

- a. Award a contract to Black and Veatch Corp. in the amount of \$809,911 for the ATP Liquid Side Odor Evaluation and Improvements (AT015800) project.
- b. Award a contract to Black and Veatch Corp. for the ATP Gravity Belt Thickener and Pre-Dewatering Polymer Improvements (AT015900) project.
- c. Award a contract to Black and Veatch Corp. in the amount of \$1,049,500 for the ATP Odor and Solids Improvements 2023 (AT016000) project.
- d. Award a contract to Black and Veatch Corp. for the ATP Solids Curing Facility and Pad Improvements (AT016100) project.

CIP Project: AT015800, AT015900, AT016000, AT016100

Regulatory Requirement: None

CIP	<u>AT015800</u>	<u>AT015900</u>	<u>AT016000</u>	<u>AT016100</u>
Budget	\$2,016,000	\$6,395,000	\$55,103,000	\$11,730,000
Previous Expenditures and Encumbrances	(\$0)	(\$0)	(\$0)	(\$0)
Available Balance	\$2,016,000	\$6,395,000	\$55,103,000	\$11,730,000

Type of Procurement: Competitive Negotiation

A Public Notice was issued on September 6, 2022. Seven firms submitted proposals on October 17, 2022, and all firms were determined to be responsive and deemed fully qualified, responsible, and suitable to the Professional Services Selection Committee (Committee) and to the requirements in the Request for Proposals. Three firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Black and Veatch Corp.	88.88	1
HDR Engineering Inc.	80.08	2
Brown and Caldwell	76.96	3

The Committee recommends award to Black and Veatch Corp., whose professional qualifications and proposed services best serve the interest of HRSD.

Project Description: These projects will provide for treatment plant improvements to Atlantic Treatment Plant (ATP). These improvements will increase treatment reliability and minimize offsite odors for the surrounding community.

Project Justification: There has been an increase in odor complaints around the ATP in calendar year 2022 since the implementation of the new solids handling process and the diversion of all Chesapeake-Elizabeth Treatment Plant flow. These projects include design and construction to perform needed solids handling and odor control upgrades at the ATP. The four projects included in this effort are:

ATP Liquid Side Odor Evaluation and Improvements (AT015800):

- Evaluate and address any potential odors not captured as part of the ATP Odor and Solids Improvements 2023 CIP, to include Odor Control Stations (OCS) B and D and the areas they serve from the headworks, through the primary clarifiers, and the covered portions of the aeration tanks.

ATP Gravity Belt Thickener and Pre-Dewatering Polymer Improvements (AT015900):

- Since the diversion of the Chesapeake-Elizabeth Flows to the ATP, at peak solids loadings, the plant requires a fourth gravity belt thickener to maintain redundancy.
- The pre-dewatering polymer systems at the ATP does not meet expected performance and is often the root cause of failures in the pre-dewatering system. Upgrading the system will minimize such failures. Upgrades to the thickening polymer system that is adjacent to the pre-dewatering polymer system will allow for standardization, operating cost minimization, and additional operational flexibility.

ATP Odor and Solids Improvements 2023 (AT016000):

- Demolish the old high-purity oxygen tanks and construct two gravity thickeners in their place. This will allow for thickening of primary solids outside of the rectangular primary clarifiers which will protect the chain and flight mechanisms and allow for effective operation of the primary clarifiers.
- Replace the outdated OCS A & C with a new odor control station that has the capacity to serve areas currently treated by OCS A & C as well as the gravity thickeners, scrubbed digester annular space and Dystor cover vents, and the primary fermenter.
- Assess the overall digester gas system and upgrade as necessary. This will include replacing the current flares with enclosed flares to reduce offsite odors and eliminate a visible flame as well as covering and scrubbing both the annular space around the floating covers on Digesters 1 through 4 and the vents from the Dystor covers on Digesters 5 and 6.
- Install an additional Cambi B6 skid, screw loadout from the existing pre-dewatering hopper, and a third FOG tank to improve reliability, increase capacity, and provide more operational flexibility.
- Retrofit the existing Digested Solids Storage Tank to allow for post-digestion struvite precipitation to protect downstream equipment.

ATP Solids Curing Facility and Pad Improvements (AT016100):

- Enclose and scrub a portion of the South Biosolids Pad to allow for curing of biosolids without producing offsite odors. Once the solids are cured, they can then be moved to open areas on the biosolids pads with less potential for producing offsite odors.
- Increase wall height around the remaining, uncovered portion of the South Biosolids Pad to allow for higher stacking of cured biosolids.
- Construct a conveyor that runs from the newly constructed curing area to the North Biosolids Pad.

- Repair degraded support columns on both the North and South Biosolids Pads.

Contract Description and Analysis of Cost: These contracts are for agreements to provide preliminary engineering phase services including early procurement assistance for the CAMBI B6 Skid for the four projects. This cost is based on negotiated cost and is in alignment with other efforts of similar size and complexity. The initial task orders for AT015900 (\$77,593) and AT016100 (\$123,593) are less than \$200,000 and do not require Commission approval.

<u>Schedule:</u>	PER	November 2023
	Design	May 2025
	Bid	August 2025
	Construction	August 2027
	Project Completion	April 2028

AGENDA ITEM 5. – January 24, 2023

Subject: James River Land Improvements – Phase I
Additional Appropriation, Contract Award (>\$200,000), Task Order

Recommended Actions:

- a. Appropriate additional funding in the amount of \$7,759,579.
- b. Award a contract to Howard Brothers Contractor, Inc. in the amount of \$7,787,368.
- c. Approve a task order with Vanasse Hangen Brustlin, Inc. (VHB) in the amount of \$787,920.

CIP Project: GN016344**Regulatory Requirement:** Integrated Plan – SWIFT

Budget	\$2,095,000
Previous Expenditures and Encumbrances	(\$889,291)
Available Balance	\$1,205,709
Proposed Contract to Howard Brothers Contractor, Inc.	(\$7,787,368)
Proposed Task Order to VHB	(\$787,920)
Proposed Contingency	(\$390,000)
Project Shortage/Requested Additional Funding	(\$7,759,579)
Revised Total Project Authorized Funding	<u>\$ 9,854,579</u>

Contract Status with Task Orders:	Amount
Original Contract with VHB	\$197,658
Total Value of Previous Task Orders	\$679,752
Requested Task Order	\$787,920
Total Value of All Task Orders	\$1,467,672
Revised Contract Value	\$1,655,330
Engineering Services as % of Construction	21.4%

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 November 14, 2022, and the four bids listed below were received on January 5, 2023:

Bidder	Bid Amount
Howard Brothers Contractor, Inc.	\$7,787,367.90
Kokosing Industrial, Inc.	\$9,721,363.00
Virginia Carolina Civil, Inc.	\$9,999,777.00
Crowder Construction Co.	\$14,438,769.47

Engineer Estimate: **\$4,827,198.00**

The design engineer, VHB, evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder Howard Brothers Contractor, Inc. in the amount of \$7,787,367.90.

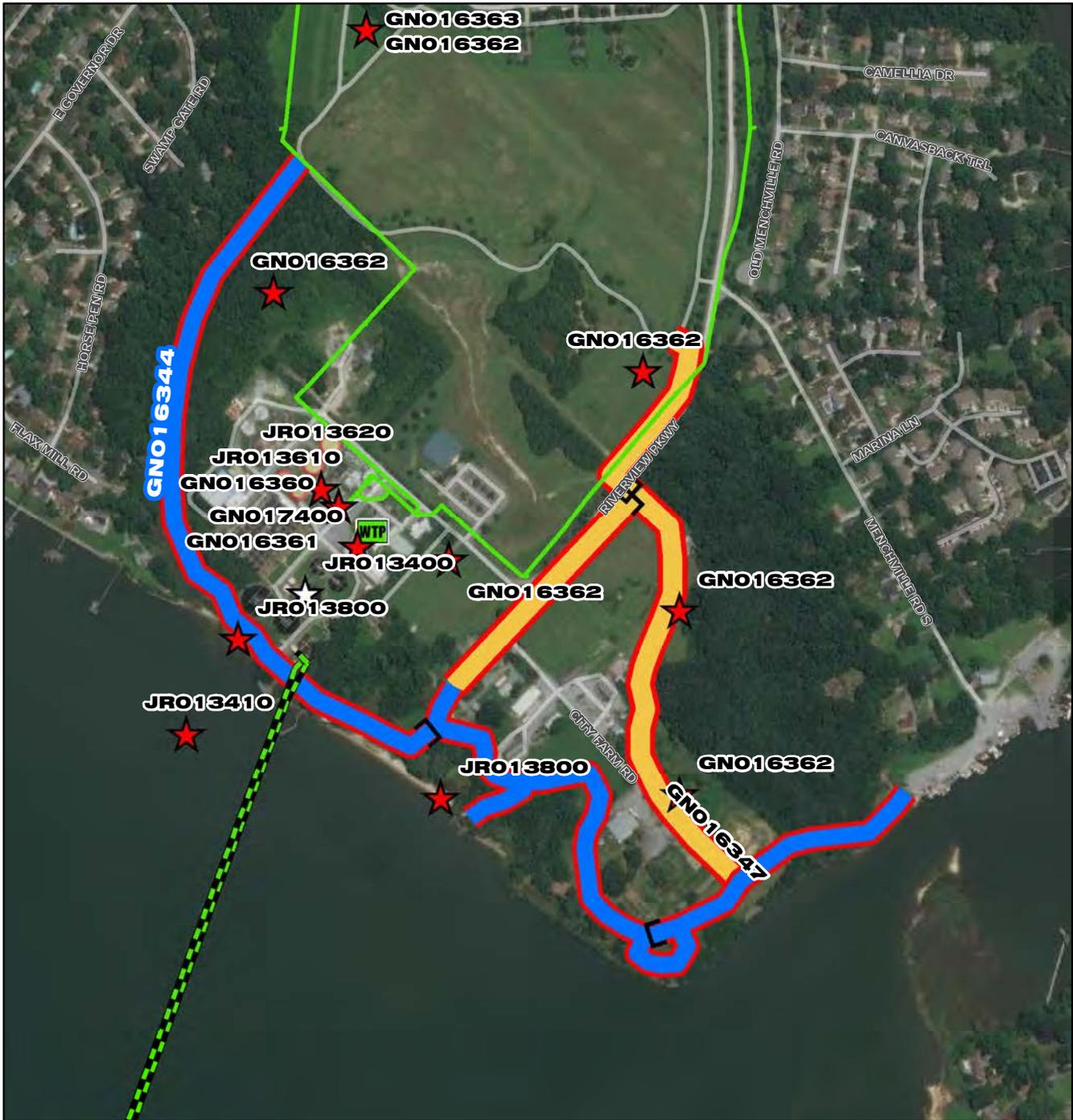
Project Description: This project will provide design and construction of improvements to the land surrounding the James River Treatment Plant (JRTP), including development of a nearly one (1) mile of linear park and trail system. The trail consists of elevated timber boardwalk structures and asphalt on grade trails within HRSD’s open space easement and in the City Farm section of Riverview Farm Park. The attached [map](#) depicts the project location.

Project Justification: HRSD Commission approved an [Agreement](#) with the City of Newport News in 2020 to purchase approximately 10 acres of land adjacent to the JRTP and receive the required easements for managed aquifer recharge wells, buildings, and related piping. Among the requirements stated in the land purchase Agreement is the commitment by HRSD to design and construct public access trails, which will be operated and maintained by the City of Newport News.

Contract Description and Analysis of Cost: This contract is for construction of the Phase 1 project as defined in the contract documents. The Engineer’s estimate was significantly less, than the lowest responsive bidder Howard Brothers Contractor, Inc. VHB used comparable unit price items from recent projects, including two projects in Newport News, along with VDOT’s district averages and R.S. Means to develop the estimate. These standard pricing comparisons did not account for the project specific site challenges, such as constricted access to the work area around the perimeter of JRTP that requires coordination with other on-site contractors, and a narrow work area, which increase the complexity of construction by requiring sequential handling of materials. Due to the location of the project and the commitments HRSD has made to the City of Newport News related to this trail, site challenges cannot be alleviated to reduce cost. Although the lowest responsive bidder is higher than planned, award is recommended. Advancing this project will maintain HRSD’s ability to provide the City of Newport News with a section of trail by the end of 2023. This project had requested initial appropriation in 2020 prior to the finalization of the Agreement with the City of Newport News. The final form of the Agreement included construction of additional assets beyond what was initially estimated.

Task Order Description and Analysis of Cost: This task order will provide construction administration and inspection services and will be issued as an Amendment to an existing Professional Services Agreement with VHB. The cost for this task order is based on a detailed estimate of labor hours and direct costs required to execute the negotiated scope of work. The total hours budgeted are appropriate for the proposed services. The lump sum fee for construction administration services is 4.1 percent of the construction cost and time of materials fee for construction inspection services is 5.9 percent of the construction cost.

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

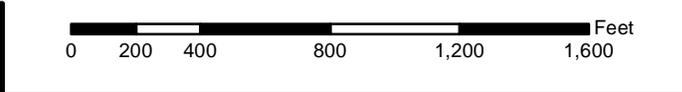


GNO 16344

- 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



GNO 16344

James River Land Improvements Phase 1

CIP Location

AGENDA ITEM 6. – January 24, 2023

Subject: Nansemond SWIFT Facility
Proposal Compensation

Recommended Action: Approve the proposal compensation of \$500,000 for each responsive short-listed team not selected for the Nansemond SWIFT Facility project.

CIP Project: GN016380

Brief: The project will design, construct, and commission new advanced water treatment facilities necessary to convert highly treated wastewater from Nansemond Treatment Plant (NTP) into SWIFT Water, which will meet drinking water quality standards and be compatible with the Potomac Aquifer. The proposed facility is expected to have an advanced treatment capacity of 34 million gallons per day (MGD). A pre-planning effort, and subsequent Basis of Design, have established the performance-based requirements for the project. The scope includes mixing and sedimentation basins, biologically active filters, solids handling facilities, granular activated carbon contactors, ozone, ultra-violet light, and chlorine contact disinfection tanks, electrical, instrumentation and control systems, site grading, yard piping, SWIFT Water distribution and well backflush piping, and well enclosures.

This project will be delivered concurrently with multiple capital projects, including the Boat Harbor Treatment Plant to pump station conversion and transmission force main sections required to enable the treatment of wastewater from both Boat Harbor and Nansemond service areas, and the Nansemond Recharge Wells which will install well casings to provide SWIFT Water to the aquifer.

The Commission approved the use of the Design-Build project delivery method for the project at the June 2022 meeting. The teams competing for this very large project will incur significant cost to develop the technical approach and contract cost limit required for a complete proposal.

In accordance with HRSD's Procurement Policy, proposal compensation may be used for this selection effort to provide the following benefits:

- Provides a financial incentive to increase competition from the best firms in the industry.
- Encourages proposers to explore innovative ideas during the proposal stage.
- Follows an industry standard and process used by other large public sector organizations.
- Allows HRSD to retain the rights to use innovative ideas from unsuccessful proposers.

For this procurement effort a proposal compensation of \$500,000 is recommended for each unsuccessful, responsive short-listed team.

<u>Schedule:</u>	Preliminary design approval and begin Procurement process	February 2023
	Selection of Design-Build firm/establish Contract Cost Limit (CCL)	December 2023
	Detailed design development/Stipulated Fixed Final Price	December 2024
	Construction Completion	May 2028

AGENDA ITEM 7. – January 24, 2023

Subject: North Shore Gravity Sewer Improvements Phase 1
Additional Appropriation, Contract Award and Task Order (>\$200,000)

Recommended Actions:

- a. Appropriate additional funding in the amount of \$7,455,707.
- b. Award a contract to Bridgeman Civil, Inc. in the amount of \$10,968,580.
- c. Approve a task order with Tetra-Tech in the amount of \$577,737.

CIP Project: GN014900**Regulatory Requirement:** Rehab Action Plan Phase 2 (2025 Completion)

Budget	\$5,639,906
Previous Expenditures and Encumbrances	(<u>\$549,296</u>)
Available Balance	\$5,090,610
Proposed Task Order to Engineer	\$577,737
Proposed Contract to Contractor	\$10,968,580
Proposed Contingency	\$1,000,000
Project Shortage/Requested Additional Funding	<u>\$7,455,707</u>
Revised Total Project Authorized Funding	<u>\$13,095,613</u>

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 September 27, 2022, and one bid was received on October 27, 2022. The bid received is listed below:

Bidder	Bid Amount
Bridgeman Civil, Inc.	\$12,648,580

Engineer's Estimate: \$4,734,400

The design engineer, Tetra-Tech, evaluated the bid based on the requirements in the invitation for bid and suggested areas where a lower price could be negotiated. These changes to the contract were communicated to Bridgeman Civil, Inc. to renegotiate the bid price in accordance with the Instruction to Bidders, Article 20 – Negotiation With the Lowest Responsible Bidder, since the Bid exceeds available funds.

Negotiated Price: \$10,968,580

Bridgeman Civil and HRSD met on December 12, 2022, to discuss the bid price. A new contract price of \$10,968,580 was agreed upon. This was based on HRSD's approval of the use of flow through plugs and altering the length of bypass piping as requested by Bridgeman.

Project Description: This project will provide for rehabilitation/replacement of gravity sewer infrastructure in multiple locations Newport News, Hampton and Williamsburg. For a complete list of affected assets refer to the Rehabilitation Plan.

The attached [drawing](#) depicts the project locations.

Project Justification: Condition assessment activities indicate that various assets present a material risk of failure due to sanitary sewer overflow, Inflow/Infiltration and physical condition defects.

Contract Description: This contract is for construction phase services with Bridgeman Civil, Inc. In the amount of \$10,968,580.

Task Order Description: This task order will provide construction administration and construction inspection services for the subject project. HRSD and the design engineer, Tetra-Tech, negotiated a fee in the amount of \$577,737. The fee proposal is comparable to other projects of similar size and complexity.

Analysis of Cost: The cost for this construction contract is based on the sole bid received and subsequent negotiations with the contractor. This contract for \$10,968,580 is 2.3 times the value presented in the engineers estimate of \$4,734,400. The main source of cost differential coming from the costs associated with pump and haul and bypass pumping operations. Based on the low interest in the project, the time sensitive nature of consent decree projects, market volatility, and past positive experience working with Bridgeman Civil, it is recommended that HRSD proceed with the construction contract as presented.

<u>Schedule:</u>	Construction	March 2023
	Project Completion	April 2024

WASHINGTON STREET AREA
GRAVITY SEWER



SCALE: 1" = 500'



COPELAND PARK
GRAVITY SEWER



SCALE: 1" = 500'



SEABOARD LANE / BAY SHORE LANE
GRAVITY SEWER



SCALE: 1" = 500'



WILLIAMSBURG PUMP STATION
INFLUENT LINES



SCALE: 1" = 500'



HAMPTON UNIVERSITY PUMP
STATION INFLUENT LINE



SCALE: 1" = 500'



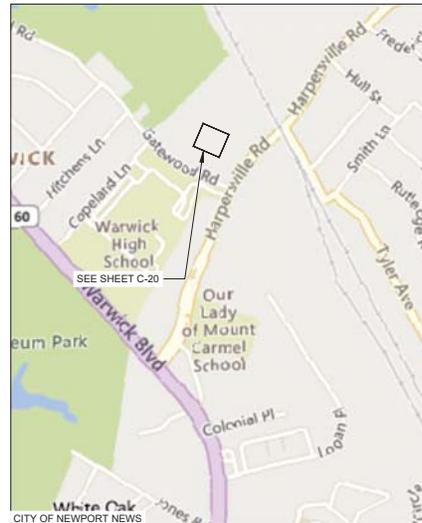
FERGUSON PARK PUMP STATION
INFLUENT LINE



SCALE: 1" = 500'



MORRISON PUMP STATION
INFLUENT LINE



SCALE: 1" = 500'



Pump Sta. ID	Owner	Name	Address
PS 209	HRSD	Copeland Park PS	4401 City Line Rd, Newport News
PS 203	HRSD	Bay Shore PS	720 Bay Shore Lane, Hampton
PS 226	HRSD	Williamsburg PS	540 South England Street, Williamsburg
PS 211	HRSD	Hampton University PS	54 Shore Drive, Hampton
PS 210	HRSD	Ferguson Park PS	227 75th Street, Newport News
PS 218	HRSD	Morrison PS	1228 Gatewood Rd, Newport News



PROJECT No.	DATE	DES.	DR.	CKD.	No.	DATE	REVISION
200-01275-21004	8/29/2022	BMH	EB	JMA			



NORTH SHORE GRAVITY SEWER
IMPROVEMENTS PHASE I (GN014900)

SHEET NO.
G-1
SHEET 2 OF 39

VICINITY MAPS

AGENDA ITEM 8. – January 24, 2023

Subject: Suffolk Pump Station Replacement
 Real Estate Acquisition – Easement Interest
 619 E. Pinner Street, Suffolk

Recommended Action: Approve the acquisition of a 30-foot permanent utility easement located at 619 E. Pinner Street in Suffolk and associated acquisition costs of \$40,000 in accordance with the terms and conditions of the Purchase Agreement with Hampton Roads Box Company Inc. (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	(\$3,178,635)
Available Balance	\$8,870,365

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/Disposition Details: As part of the project, HRSD will require 26 temporary and permanent easements. This acquisition site crosses through the active business of Hampton Roads Box Company, Inc. and is perceived by the property owner to be limiting future development or sale of the property. 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 Hampton Roads Box Company, Inc. 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 easement 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 their perceived losses to their business and future development of the site.

TAX PARCEL NO.: 35E(A)N*H
PROJECT: Suffolk Pump Station Replacement Phase 1 (NP010610)
ROUTE/STREET: 619 Old East Pinner Street
CITY/COUNTY: Suffolk, VA

PURCHASE AGREEMENT

THIS CONTRACT FOR PURCHASE AND SALE, made this _____ day of _____ 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 **Hampton Roads Box Company, Inc.**, a Virginia limited liability company, (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 Property") are described as follows:

Being as shown on attached plat prepared by Rouse-Sirine Associates, Ltd., entitled “PLAT SHOWING 30’ PERMANENT HRSD UTILITY EASEMENT TO BE ACQUIRED FROM HAMPTON ROADS BOX COMPANY, INC. BY HAMPTON ROADS SANITATION DISTRICT ” and dated November 10, 2020 and signed Maay 21, 2022, and containing 0.134 acres (5,837 square feet), more or less land for the proposed permanent HRSD utility easement vested in Hampton Roads Box Company, a Virginia corporation, pursuant to deed dated November 25 1981 from William C. Basnight and Annie D. Basnight with regard to Tract #1, 2.678 Acres which is recorded in the Clerk’s office of the Circuit Court of the City of Suffolk Virginia, on December 1, 1981 in Deed Book 97, Page 42 and pursuant to deed dated July 21, 1982 from Viola C. Annas and Jack E. Annas with regard to Tract #2, 1.06 Acres which was recorded in the aforesaid Clerk’s Office on August 5, 1982 in Deed Book 104, Page 527.

Together with all and singular the buildings and improvements, tenements, hereditaments, rights, privileges, and appurtenances thereunto belonging or in anywise appertaining (the “Property”), 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: FORTY THOUSAND AND 00/100 DOLLARS (\$40,000.00) 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.

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 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.

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:

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 January 24, 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: _____

LANDOWNER(S):
HAMPTON ROADS BOX COMPANY, INC.

BY: Mark Sullivan
(Signature)

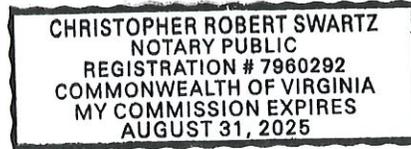
ITS: President
(Title)

COMMONWEALTH OF VIRGINIA
City/County of Suffolk . to-wit:

The foregoing instrument was acknowledged before me this 16 day of December, 2022, by
Mark Sullivan (Name), President (Title).

Christopher Robert Swartz
Notary Public

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



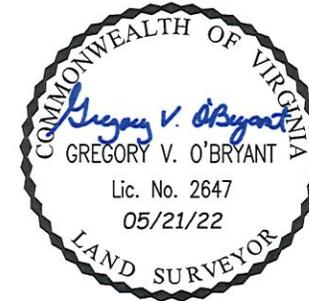
PROJECT PARCEL NO. 004 HRSD CIP#NP010620 – SHINGLE CREEK

PROPERTY OF: HAMPTON ROADS BOX COMPANY, INC.
 PROPERTY ADDRESS: 619 OLD EAST PINNER STREET
 OWNER ADDRESS: P O BOX 1157 SUFFOLK, VA 23439
 TAX MAP #: 35E(A)N*H

AREA TABLE						
TAX MAP NO.	TOTAL PARCEL AREA		30' PERMANENT HRSD UTILITY EASEMENT		RESIDUAL PARCEL AREA	
	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
35E(A)N*H	116,741 +/-	2.68 +/-	5,837	0.134	110,904 +/-	2.55 +/-

NOTES:

1. MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN IN U.S. SURVEY FEET.
2. 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.
3. 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.



004

PLAT SHOWING
30' PERMANENT HRSD UTILITY EASEMENT
 TO BE ACQUIRED FROM
HAMPTON ROADS BOX COMPANY, INC.
 BY
HAMPTON ROADS SANITATION DISTRICT

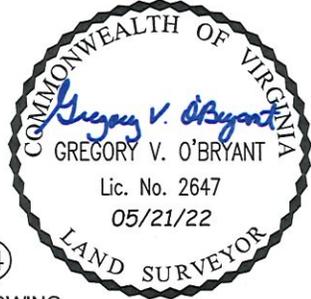
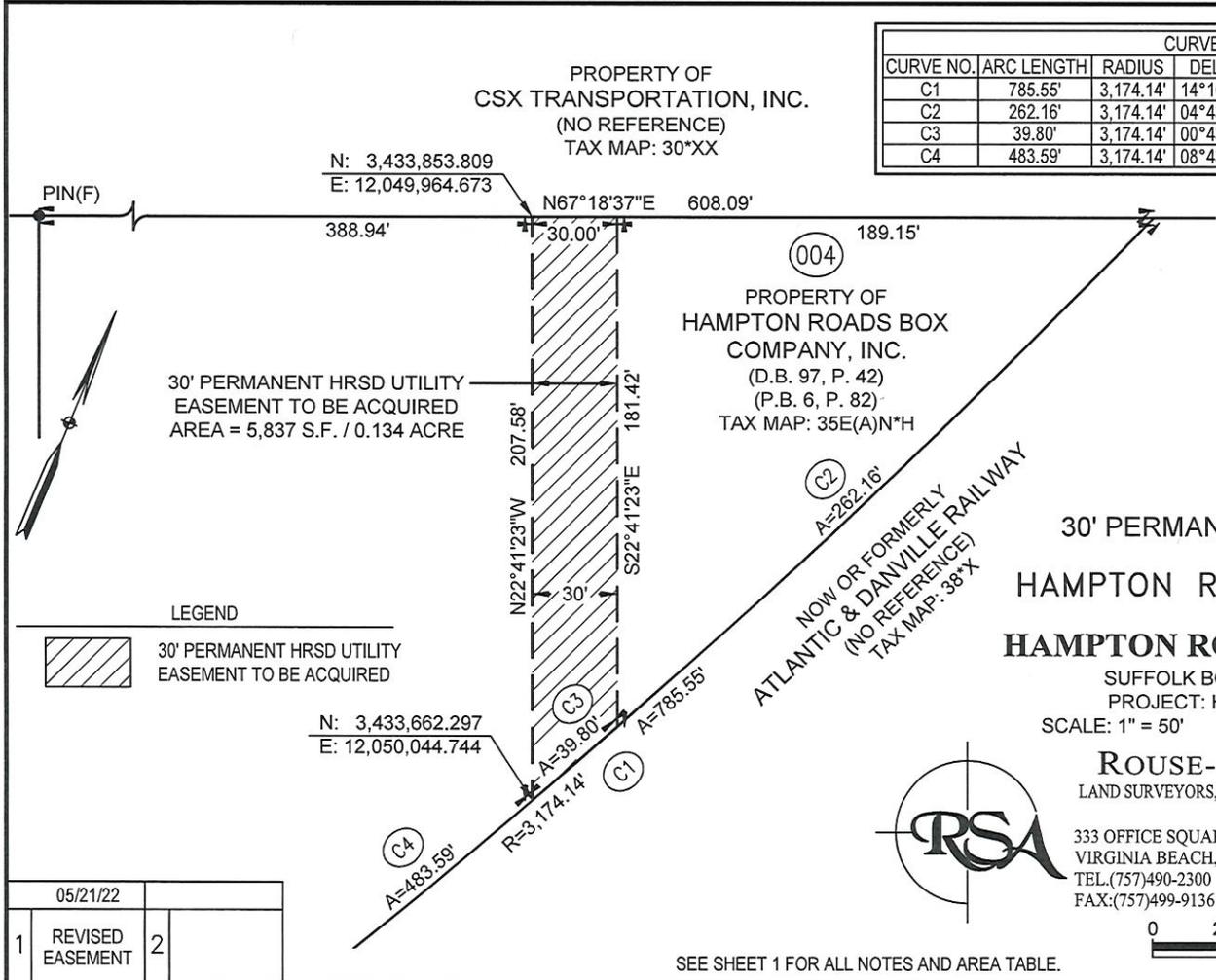
SUFFOLK BOROUGH - CITY OF SUFFOLK, VIRGINIA
 PROJECT: HRSD CIP#NP010620 - SHINGLE CREEK
 DATE : NOVEMBER 10, 2020 / CADD: SRE



ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
www.rouse-sirine.com
 333 OFFICE SQUARE LANE 1311 JAMESTOWN ROAD
 VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695

05/21/22		
1	REVISED EASEMENT	2

CURVE TABLE						
CURVE NO.	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD
C1	785.55'	3,174.14'	14°10'48"	394.79'	S28°13'40"W	783.55'
C2	262.16'	3,174.14'	04°43'56"	131.16'	S23°30'14"W	262.09'
C3	39.80'	3,174.14'	00°43'06"	19.90'	S26°13'45"W	39.80'
C4	483.59'	3,174.14'	08°43'45"	242.26'	S30°57'11"W	483.12'



PLAT SHOWING
30' PERMANENT HRSD UTILITY EASEMENT
 TO BE ACQUIRED FROM
HAMPTON ROADS BOX COMPANY, INC.
 BY
HAMPTON ROADS SANITATION DISTRICT

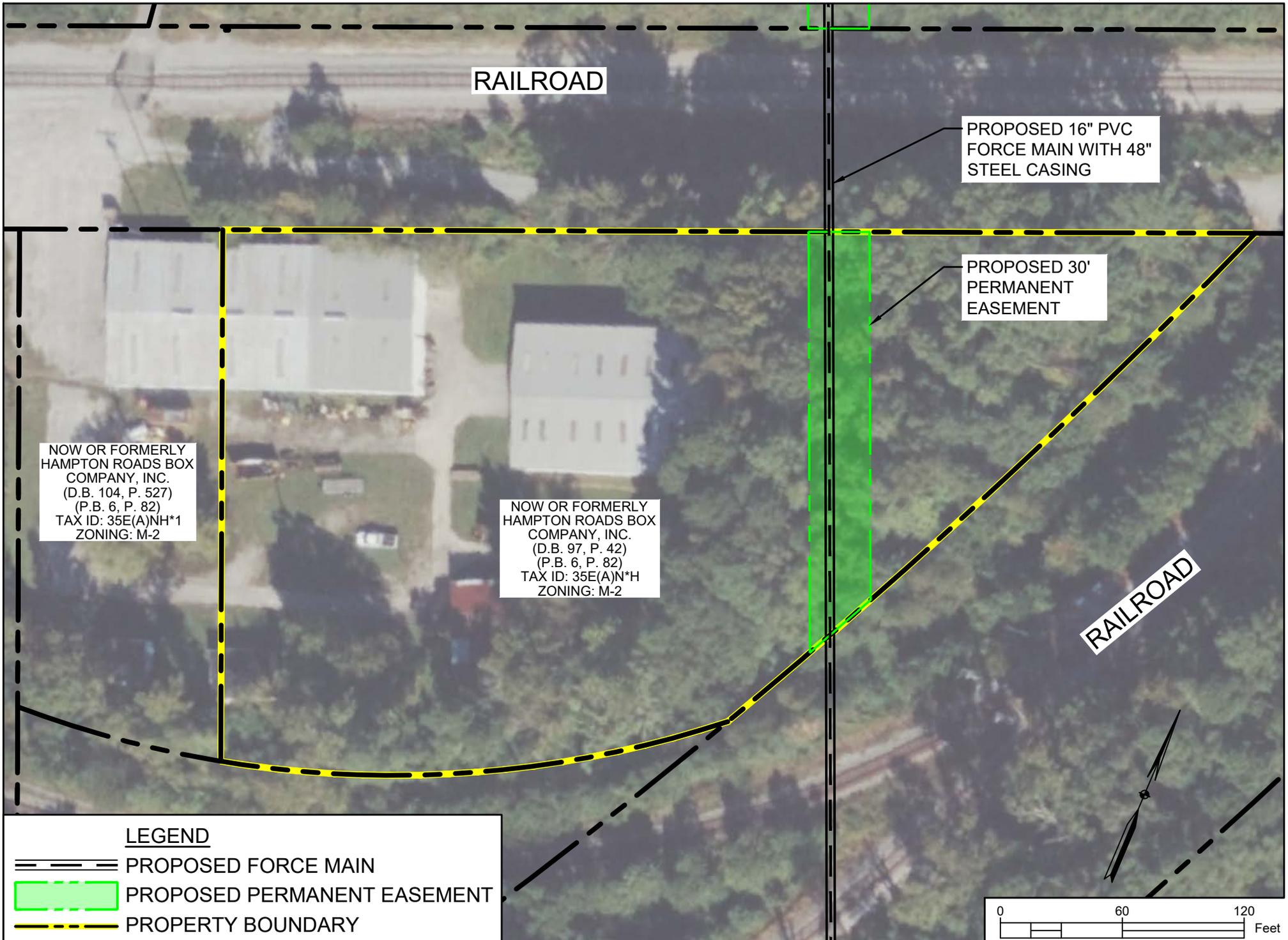
SUFFOLK BOROUGH - CITY OF SUFFOLK, VIRGINIA
 PROJECT: HRSD CIP#NP010620 - SHINGLE CREEK
 SCALE: 1" = 50' DATE: NOVEMBER 10, 2020 / CADD: SRE

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05/21/22	
1	2
REVISED	EASEMENT

SEE SHEET 1 FOR ALL NOTES AND AREA TABLE.



AGENDA ITEM 9. – January 24, 2023

Subject: U.S. EPA Consent Decree Annual Public Meeting

Recommended Action: No action is required.

Brief: The Consent Decree with the U.S. EPA requires that we hold an annual informational meeting open to the public and the localities we serve. The meeting is intended to provide an update on compliance activities and status of all activities related to the Consent Decree. The virtual meeting will be held at 1:30 p.m. on January 24, 2023.

The overview will include an explanation of Consent Decree requirements, the Sanitary Sewer Overflow (SSO) history, and asset management program. The asset management program focuses on how to prevent infrastructure breaks and not capacity related overflows. The overwhelming volume of overflow lost across the years is due to infrastructure failure and not capacity related issues that would be prevented by further investment in the Consent Decree.

AGENDA ITEM 10. – January 24, 2023

Subject: Unfinished Business

AGENDA ITEM 11. – January 24, 2023

Subject: New Business

AGENDA ITEM 12. – January 24, 2023

Subject: Commissioner Comments

AGENDA ITEM 13. – January 24, 2023

Subject: Public Comments Not Related to Agenda

AGENDA ITEM 14. – January 24, 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](#)
 - (11) [Internal Audit Report – Freedom of Information Act \(FOIA\)](#)
- b. [Strategic Planning Metrics Summary](#)



January 14, 2023

Re: General Manager's Report

Dear Commissioners:

There's a lot going on in the City of Suffolk. On December 13, staff were honored to give the Governor a tour of the SWIFT Research Center. We invited the TCC President, Dr. Marcia Conston, to highlight our ongoing partnership with the TCC foundation. The Governor had some great questions and we sent him a follow-up brief to graphically show the answers to some his questions.

On December 7, Lauren Zuravnsky and I presented to Suffolk City Council on the proposed easement through Cypress Park and the ongoing SWIFT projects in the City. The City Council had some great questions, and they voiced their support of the project. We are currently working with the City Manager on coordinating a tour of the SWIFT Research Center for the City Council.

On December 20, staff presented the proposed rezoning and conditional use permit to the Planning Commission. The Commission unanimously approved the request, and it is scheduled for City Council approval in January. At the meeting, surrounding neighbors voiced their concerns. We took down their contact information and will try to schedule a tour of the Research Center for them. The big takeaways are that we need to be very cognizant of maintaining a visual buffer and need to continue being a good neighbor, especially during construction.

On December 23, President Biden signed the 2023 National Defense Authorization Act (NDAA) into law. The 2023 NDAA included the 7.9 acres the Navy is now authorized to transfer to HRSD for our Atlantic Treatment Plant access road. Staff will work with the Navy to expedite the transfer so we can start building the private access road and reroute the large trucks from the Ocean Lakes neighborhood.

HRSD hosted an international workshop on partial denitrification-anammox (PdNA). The Water Research Foundation (WRF) organized the workshop as part of our United States Environmental Protection Agency (USEPA) grant on this topic. As you know, York River is the first plant in the world to use our jointly-patented technology, and James River will be the second. At York River, we save over \$1 million a year in operating costs.

The Low-Income Household Water Assistance Program (LIHWAP) continues to ramp up as more than \$2.3 million has been applied to 3,800 accounts. Hampton Roads has received over 50% of the total LIHWAP distributed in Virginia.

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

- A. **Treatment Compliance and System Operations:** The treatment plants had a number of chlorinated Non-Potable Water (NPW) spills due to freezing temperatures. In King William,

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

there was a pump failure causing a Sanitary Sewer Overflow (SSO) and a force main break, which occurred where a previous line break was repaired. The failure was due to a coupling deflection from large slabs of concrete on top of the previous repair.

- B. **Water Quality:** One Civil Penalty for \$1,200 was assessed to Divers Processing Company in December for technical violations regarding Acrolein and n-Hexane Extractable Material Oil and Grease.
- C. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:
 - 1. General Manager briefing to Small Communities Division.
 - 2. General Manager briefing to the Pretreatment and Pollution Prevention (P3) Division.
 - 3. Attended the first UNIFIED Council's (Diversity, Equity & Inclusion) Ask Session.
 - 4. Participated in the Atlantic Treatment Plant's Master Planning Charette.
- D. **External Communications:** I participated in the following meetings/activities:
 - 1. Attended the Potomac Aquifer Recharge Oversight Committee meeting.
 - 2. Attended the Joint Directors of Utilities Committee and Health Directors Meeting.
 - 3. Attended the Virginia Association of Municipal Wastewater Agencies (VAMWA) Member meeting.
 - 4. Provided an interview with WVEC TV on the closing of Lambert's Point Golf Course on December 31 for the future VIP SWIFT facility.
- E. **Strategic Plan:** The sixth Strategic Planning workshop was held on December 8 to develop the Key Performance Indicators. Staff will be working in the next few months to finalize the plan before it is presented to staff on March 8.



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 Newport News at 9 am on Tuesday, January 24, 2023.**

Respectfully submitted,

Jay Bernas, P.E.
General Manager

TO: General Manager
FROM: Director of Communications
SUBJECT: Monthly Report for December 2022
DATE: January 10, 2023

A. Publicity and Promotion

1. HRSD and/or SWIFT were mentioned or featured in 12 news stories or media/social media mentions (there were 279 total mentions of 'Hampton Roads Sanitation District' in the media for the month, but all other HRSD mentions are related to Ted Henifin's role as third-party administrator at Jackson Water). Of those directly about HRSD and/or SWIFT, topics that included:
 - a. Lambert's Point Golf Course closure and sale to HRSD
 - b. Chesapeake Family seeks answer from water company for \$7,000 bill
 - c. Social media posts shared on Twitter and LinkedIn re: SWIFT Industry Day
2. Analysis of media coverage (NOTE: negative sentiment rating is not entirely directly related to HRSD, but also includes being mentioned in stories detailing Jackson Water)

What are the key results for the timeframe?

Mentions

Compared to last period

279

↓ 42%

Total Potential News Reach

Compared to last period

726M

↓ 29%

Sentiment

Compared to last period

-2

↑ 98%

What is the top performing news content?

Top Article by Reach

178M Reach Social Echo Neutral ○

MSN.com · Ryan King
Editorial | US | Dec 1, 2022 · 10:32 AM

Jackson gets rare federal intervention in water crisis

... experience, including 15 years as a general manager of the **Hampton Roads Sanitation District** in Virginia Beach, Virginia. As interim man...

Top Article by Reach and Volume

78.6M Reach Social Echo Neutral ○

Daily Mail · By Associated Press
Editorial | GB | Dec 5, 2022 · 6:08 PM

DOJ appointee eyes 1-year window for Jackson water upgrades

... city. Henifin spent 15 years as general manager of the **Hampton Roads Sanitation District** in Virginia before retiring in February. He wi...

Top Article by Social Echo

805k Reach Social Echo Neutral ○

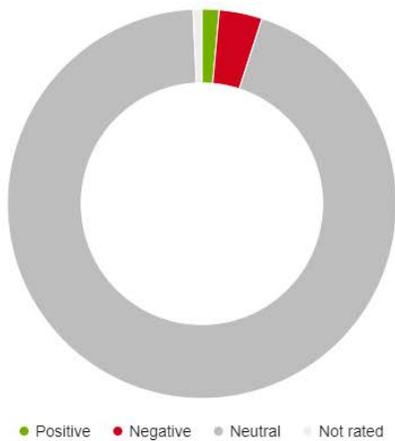
WVEC-TV · Allison Bazzle
Editorial | US | Dec 30, 2022 · 5:44 PM

Chesapeake family seeks answers from water company after receiving \$7,000 bill

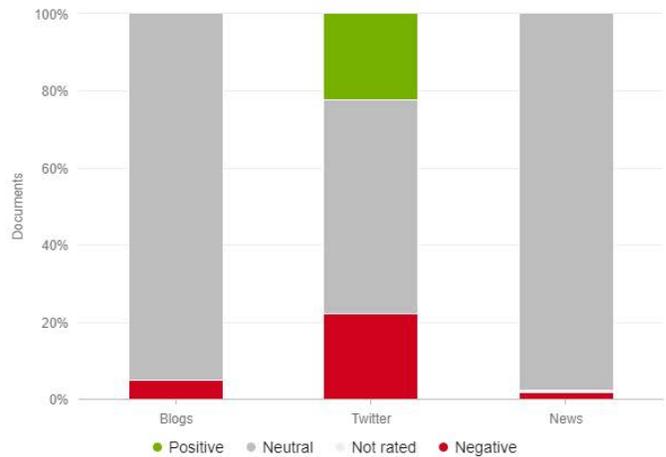
... is going on, where is this water going." The **Hampton Roads Sanitation District** serves all seven cities. City leaders set the water rate...

How favorable is the content?

Sentiment Share of Voice

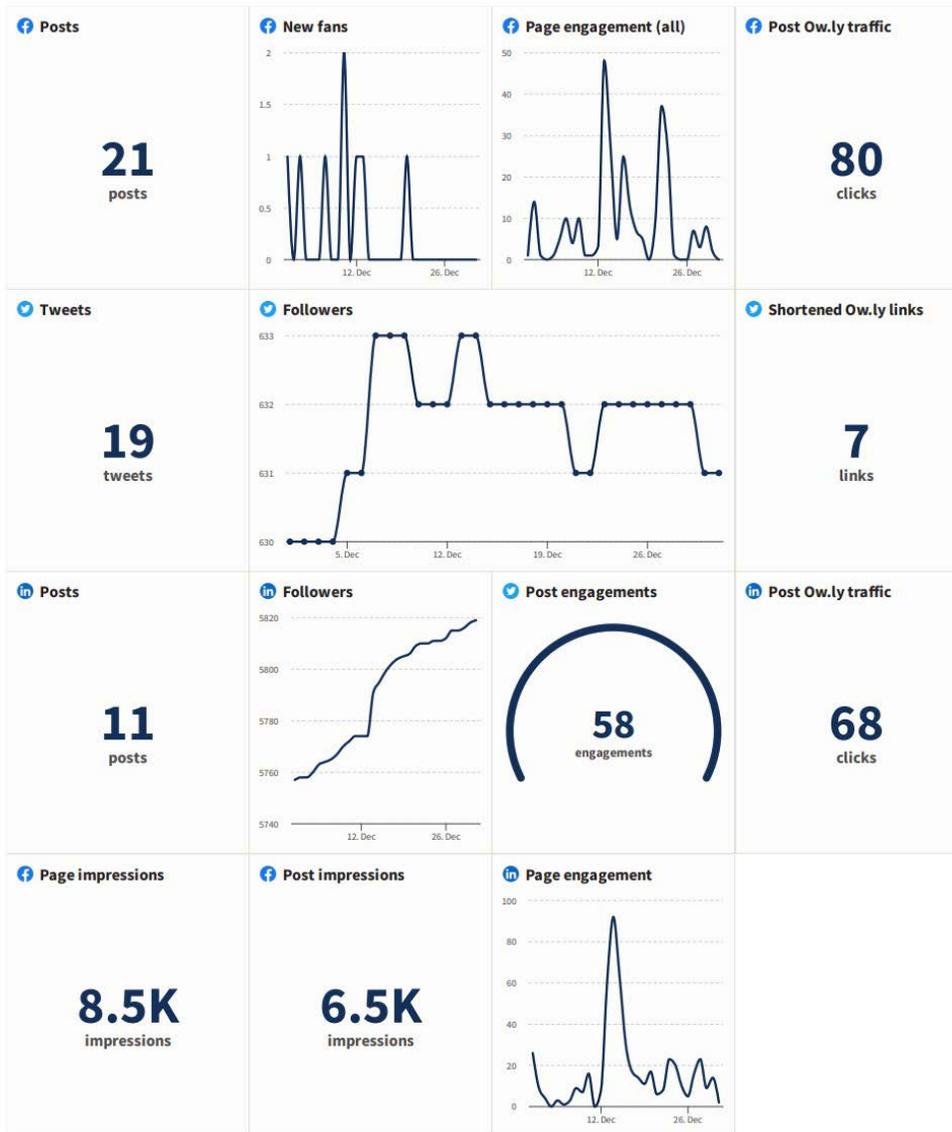


Sentiment by Source Type

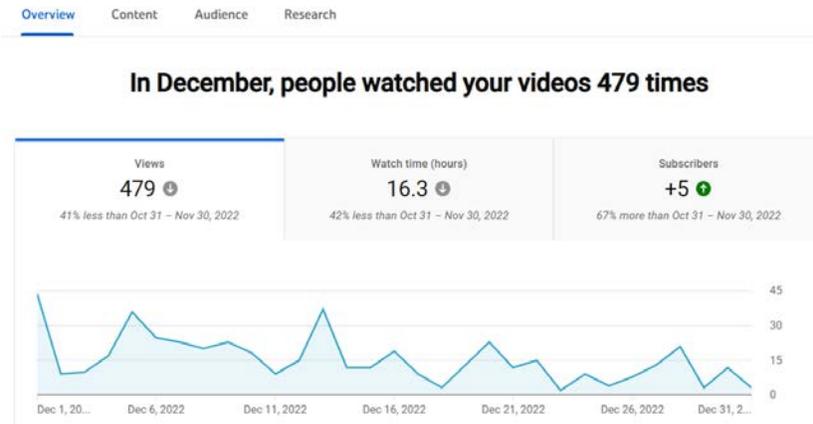


B. Social Media and Online Engagement

1. Metrics – Facebook, Twitter and LinkedIn



2. YouTube



3. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post

The image shows a Facebook post from HRSD, published by Hootsuite on December 13, 2022, at 1:38 PM. The post text reads: "Today HRSD welcomed Virginia Governor Glenn Youngkin to tour the SWIFT Research Facility in Suffolk, Virginia. SWIFT is an innovative water treatment project in eastern Virginia designed to ensure a sustainable source of groundwater to meet current and future needs in the region. Once fully implemented in 2032, SWIFT will be able to replenish the Potomac Aquifer with up to 100 million gallons of SWIFT Water™ per day." Below the text are two side-by-side photographs. The left photo shows Governor Glenn Youngkin in a dark suit, pointing upwards while speaking to a group of people. The right photo shows him standing in a modern, well-lit interior space, possibly a museum or research facility, with other people and informational displays in the background. At the bottom of the post, there is a "See insights and ads" link, a "Boost post" button, and engagement metrics showing 40 reactions and 6 shares.

b. Top Tweet



c. Top YouTube Videos

- [The Wastewater Treatment Process](#) (129 views)
- [SWIFT Research Center: What is the Potomac Aquifer](#) (92 views)
- [HRSD Employee Testimonials - Robert](#) (36 views)
- [HRSD Atlantic Treatment Plant Cambi](#) (25 views)
- [What is the Impact of Stormwater on Wastewater Systems](#) (18 views)

4. Website and Social Media Impressions and Visits

a. Facebook:

- 8,537 page impressions
- 6,510 post impressions reaching 6,256 users
- Facebook Engagement of 274 (229 reactions, 26 shares, and 19 comments)

b. Twitter:

- 2,966 tweet impressions
- 538 profile visits
- 10 mentions

c. HRSD.com/SWIFTVA.com: 1,197 page visits

d. LinkedIn Impressions:

- 16,198 page impressions
- 16,31 post impressions

e. YouTube: 479 views

- f. Next Door unique impressions: 333 post impressions from three targeted neighborhood postings shared with 3,376 residents
- g. Blog Posts: (1)
 - [Sustainable Gift Wrapping Tips and Tricks To Reduce Waste This Holiday](#)
- h. Construction Project Page Visits – 1,911 total visits (not including direct visits from home page, broken down as follows:
 - 1,502 visits to individual pages
 - 409 to the status page

C. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Web Postings: 7

- 1. News Releases: 0
- 2. Traffic Advisories: 0
- 3. Construction Notices and/or notices to neighbors: 3
- 4. Advertisements: none
- 5. Project Notices: 4 (via door hangings, reaching 249 residents)
- 6. Project/Community Meetings: 0
- 7. New Project Web Pages: 1
 - [Portsmouth Sanitary Sewer Inflow & Infiltration Reduction](#)
- 8. New Project Videos: 0

D. Special Projects and Highlights

- 1. Director participated in the Governor's tour of the SWIFT Research Center.
- 2. Staff attended Hampton City Schools Maritime Project-Based Learning Meetings

E. Internal Communications

- 1. Director participated in the following internal meetings and events:
 - a. HRSD LIFE Internal Conference planning meetings
 - b. DEI Council ASK Session
 - c. Strategic planning workshop #6
 - d. Atlantic Treatment Plant Progress Farm Land Conversion Charette meetings
 - e. SWIFT Industry Day planning meetings
 - f. Engineers Week planning meeting
 - g. SWIFT Community Commitment Plan database development meeting

- h. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
- 2. Director also conducted biweekly Communications department status meetings and weekly team and one-on-one check-in meetings.
- 3. Staff attended project progress and outreach development meetings with various project managers.

F. Metrics

- 1. Educational and Outreach Activities: 28 (27 virtual, one in-person)
 - a. Self-guided SWIFT Virtual Tours – 27 views (analytics specify number of times “Take a Tour” button was selected)
 - b. 12/07/22 – SWIFT RC Employee Tour | 7 participants
- 2. Number of Community Partners: 0
- 3. Additional Activities Coordinated by Communications Department: 1
 - a. 12/14/22 – Norfolk Collegiate Central Environmental Lab (CEL) Tour | 31 participants
- 4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Total Training Hours per Full Time Employee (4) - Current Month	Hours / #FTE	0.25
M-1.4b	Total Training Hours per Full Time Employee (4) - Cumulative Fiscal Year-to-Date	Hours / #FTE	5.54
M-5.2	Educational and Outreach Events	Number	28
M-5.3	Number of Community Partners	Number	0

Respectfully,

Leila Rice, APR
 Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for December 2022
DATE: January 10, 2023

A. General

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

CIP Spending (\$M):

	Current Period	FYTD
Actual	29.03	119.45
Plan	34.25	151.25

2. The Federal Omnibus Appropriations Bill, signed on Dec. 29, 2022, included a provision which authorized the U.S. Navy to convey to HRSD the needed land at the Dam Neck Annex for the construction of a new access road to the Atlantic Treatment Plant. This effort had been stalled for the past three years, but this authorization will allow this project to proceed. Negotiations will now begin in order to conduct the needed cultural, environmental and legal reviews to convey this property to HRSD. The transfer of the property will likely include an in-kind consideration instead of financial payment. This in-kind contribution will be negotiated with the U.S. Navy once the fair market value of the land is determined. Once the negotiations and land conveyance are completed, the final design and construction efforts for this new roadway will commence.

B. Asset Management Division

1. Staff are working with the Operations Department to assist with needs for the FY-2024 Major Repair and Replacement budget. The expected asset replacement needs can be estimated using the asset management data, and any deviations can be used to better calibrate the plan. Although many variations were found between the requests for new repairs and replacements and the Asset Management Plan, the model is showing similar asset needs for budgeted purposes.
2. Staff continue to perform a pump and motor life cycle cost analysis at various treatment plants. Pumps are a very common and critical asset at each treatment plant. Understanding the condition and energy efficiency of each critical pump and motor is a responsibility of the Asset Management Division. Keeping this information current is important as we make plans for future investments and upcoming projects, such as the many SWIFT efforts underway at several treatment plants.

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

1. Construction for the Willard Avenue Pump Station Replacement project is underway. Prior to the start of construction, HRSD purchased the necessary land and demolished three homes to facilitate the work. The contractor has mobilized on site and has begun the soil excavation and sheeting efforts. This is a very tight site and to limit the chance for off-site impacts, the contractor has installed noise and vibration monitoring equipment. Work to install this replacement pump station within a very congested and developed section of Hampton will continue through 2023.
2. Design efforts continue for the Wilroy Pressure Reducing Station and Offline Storage Tank project. The recent selection of a Construction Manager will help the Design Team with constructability reviews and will assist as we determine the impacts to adjacent properties. Design work will continue as we acquire needed property for this project. Numerous challenges will impact this project, including an aggressive project schedule, site limitations including wetlands and utilities, and the continued impacts of supply chain challenges and cost increases caused by inflation and a limited labor pool of skilled trades.
3. Construction continues to address emergency work to replace a section of the Bowers Hill Interceptor Force Main Section I. The initial effort to provide a repair to a failed section of pipe was completed in 2022. The current phase of the project includes the replacement of a much longer section of pipe determined to be in poor condition and requiring immediate replacement. Work to install a bypass pipe segment is underway which will allow for the installation of a new section of force main. This work is scheduled for completion in mid-2023.
4. The SWIFT Program will be on display as we conduct the fourth annual HRSD SWIFT Industry Day. This in-person event will be held in Newport News on January 26 and we expect to have approximately 250 participants. The event will be facilitated by HRSD's SWIFT consultant, AECOM and will include an Opening Session discussing the SWIFT Program and HRSD procurement procedures. Breakout areas will be available to attendees in which specific SWIFT projects will be reviewed. This event was well received in past years, and we continue to share the SWIFT Program with others as it evolves and grows.

D. Planning & Analysis Division

1. Staff continue to assist in the implementation of HRSD's Pump Station Supervisory Control and Data Acquisition (SCADA) Upgrade Program. This new and more powerful SCADA System will improve both monitoring and control features at HRSD's 147 pump stations. To date, 62 pump stations have been upgraded to this new system. An average of four pump stations per month are upgraded. This work will continue through 2023 to provide a state-of-the-art SCADA system to assist in achieving HRSD's goal of have a truly "smart sewer" system.
2. Staff has completed a procurement effort to select a new document management system. This system is used primarily for construction related documents and allows both internal and external staff to have access to this information and provide updates as filed data changes over time. The new vendor, Synergis-Adept, was chosen after short-listing a total of four qualified software firms. The implementation stage will take

the next three to four months and will be followed by training for end users. This system is an important way for the Engineering Department to share critical information with staff across HRSD and to external consultants and contractors that need this important data.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 4
 - a. 12/01/2022 – Staff made a presentation entitled, *HRSD’s Capital Improvement Program*, to the Old Dominion University American Society of Civil Engineers (ASCE) Student Chapter.
 - b. 12/06/2022 – Staff made a presentation at the Sustainable Water Infrastructure Management (SWIM) Conference entitled, *Pipeline Asset Management*.
 - c. 12/08/2022 – Staff made a presentation at the SWIM Conference entitled, *HRSD’s Resiliency Program*.
 - d. 12/13/2022 – Staff made a presentation to the Governor at the SWIFT Research Center.
2. Number of Community Partners: 3
 - a. Governor of Virginia
 - b. ODU - ASCE Student Chapter
 - c. Virginia Tech SWIM Conference
3. Number of Research Partners: 0
4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Total Training Hours per Full Time Employee (53) - Current Month	Hours / #FTE	3.06
M-1.4b	Total Training Hours per Full Time Employee (53) - Cumulative Fiscal Year-to-Date	Hours / #FTE	13.30
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	3
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 December 2022
 DATE: January 17, 2023

A. General

1. The Department of Environmental Quality (DEQ) communicated their informal approval of a \$5 million Water Quality Improvement Fund award for the Eastern Shore Transmission Force Main.
2. HRSD has been receiving Low-Income Household Water Assistance Program (LIHWAP) payments since mid-November 2022. A total of \$2,327,282.18 has been applied to over 3,800 low-income qualified customer accounts for water, sewer and wastewater charges. HRSD accepts LIHWAP payments on behalf of its locality partners. The following is a breakout of total assistance received for all HRSD and locality HRUBS charges:

	LIHWAP	Count
HRSD	\$1,037,102.84	3,830
Norfolk	\$ 922,879.78	1,214
Suffolk	\$ 250,125.39	783
Chesapeake	\$ 92,985.20	293
JCSA	\$ 18,782.63	78
Smithfield	\$ 4,380.38	7
Urbanna	\$ 585.61	1
Surry County	\$ 440.35	1
	\$2,327,282.18	6,207

3. Staff delivered 3,438 warning door tags and disconnected water service to 971 accounts during December; over 500 more field activities than the previous month. However, an emphasis was placed on pairing warning tags with a LIHWAP informational tag to promote the availability of assistance. Disconnection activities stopped on December 15 and resumed on January 4, 2023.
4. Customer call and email volumes remained inconsistent this month due to the holiday weeks. Reduced field activities, combined with new hires answering in all call queues along with continued training have improved service levels to 81% of calls answered within three minutes (up from 52% in November). Call abandonment is down to 8% (18% in November). Average wait times have decreased to less than two minutes (down from three minutes, 50 seconds in November).

B. Interim Financial Report

1. Operating Budget for the Period Ended December 31, 2022

	Amended Budget	Current YTD	Current YTD as % of Budget (50% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 366,882,000	\$ 190,787,627	52%	53%
Surcharge	1,755,000	807,599	46%	52%
Indirect Discharge	3,200,000	2,173,816	68%	47%
Fees	2,910,000	1,712,732	59%	2%
Municipal Assistance	800,000	291,479	36%	74%
Miscellaneous	1,254,000	564,993	45%	57%
Total Operating Revenue	376,801,000	196,338,246	52%	52%
Non Operating Revenues				
Facility Charge	7,150,000	3,727,193	52%	49%
Interest Income	1,570,000	1,658,865	106%	-18%
Build America Bond Subsidy	2,026,000	1,031,088	51%	51%
Other	302,000	385,883	128%	75%
Total Non Operating Revenue	11,048,000	6,803,029	62%	44%
Total Revenues	387,849,000	203,141,275	52%	52%
Transfers from Reserves	18,868,701	9,434,351	50%	50%
Total Revenues and Transfers	\$ 406,717,701	\$ 212,575,626	52%	52%
Operating Expenses				
Personal Services	\$ 63,288,297	\$ 33,260,728	53%	53%
Fringe Benefits	26,520,561	11,692,867	44%	49%
Materials & Supplies	13,385,885	5,797,384	43%	51%
Transportation	1,797,226	754,434	42%	43%
Utilities	15,055,652	7,298,206	48%	46%
Chemical Purchases	13,026,120	5,895,415	45%	45%
Contractual Services	57,808,888	19,811,183	34%	34%
Major Repairs	12,409,035	3,923,002	32%	27%
Capital Assets	625,737	100,647	16%	47%
Miscellaneous Expense	3,594,334	1,390,989	39%	47%
Total Operating Expenses	207,511,735	89,924,855	43%	44%
Debt Service and Transfers				
Debt Service	69,533,000	40,919,798	59%	60%
Transfer to CIP	129,412,966	64,706,483	50%	54%
Transfer to Risk management	260,000	130,002	50%	50%
Total Debt Service and Transfers	199,205,966	105,756,283	53%	56%
Total Expenses and Transfers	\$ 406,717,701	\$ 195,681,138	48%	50%

2. Notes to Interim Financial Report

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

This interim report does not reflect financial activity for capital projects contained in HRSD’s Capital Improvement Program (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 December 31, 2022

HRSD - RESERVE AND CAPITAL ACTIVITY						December 31, 2022
	General Reserve				Capital	
	General	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
Beginning - July 1, 2021	\$ 189,168,885	\$ 420	\$ 33,134,065	\$ 4,279,547	\$ 32,535,033	\$ -
Current Year Sources of Funds						
Current Receipts	203,110,125					
Line of Credit						
VRA Draws					45,540,858	
WIFIA Draws					27,686,452	
CARES Transfer In	730,692					
Days Cash on Hand Transfer In						
Transfers In	-			130,002	64,706,483	
Sources of Funds	203,840,817	-	-	130,002	137,933,793	-
Total Funds Available	\$ 393,009,702	\$ 420	\$ 33,134,065	\$ 4,409,549	\$ 170,468,826	\$ -
Current Year Uses of Funds						
Cash Disbursements	141,226,908				157,248,236	
CARES Transfer Out		(1,116)				
Days Cash on Hand Transfer Out	-					
Transfers Out	64,836,485					
Uses of Funds	206,063,393	(1,116)	-	-	157,248,236	-
End of Period - December 31, 2022	\$ 186,946,309	\$ 1,536	\$ 33,134,065	\$ 4,409,549	\$ 13,220,590	\$ -
Unrestricted Funds	\$ 204,576,448					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended December 31, 2022

HRSD - PROJECT ANALYSIS							Dec 31, 2022
Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2022	Expenditures Year to Date FY2023	Total Project Expenditures	Encumbrances	Available Funds	
Administration	73,738,240	24,017,666	2,731,467	26,749,133	1,836,380	45,152,727	
Army Base	163,448,800	124,990,776	657,577	125,648,353	809,833	36,990,614	
Atlantic	233,175,424	79,968,839	1,542,845	81,511,684	5,971,340	145,692,400	
Boat Harbor	392,865,555	56,493,327	13,144,654	69,637,981	188,025,274	135,202,300	
Ches-Eliz	183,518,801	118,083,285	2,165,691	120,248,976	5,087,447	58,182,378	
Eastern Shore	34,564,664	3,409,844	11,858,077	15,267,921	17,017,378	2,279,365	
James River	349,687,804	41,947,605	27,846,979	69,794,584	249,334,464	30,558,756	
Middle Peninsula	103,712,230	20,701,425	3,773,423	24,474,848	9,707,297	69,530,085	
Nansemond	466,501,657	42,047,584	12,556,016	54,603,600	315,499,432	96,398,625	
Surry	60,391,465	38,362,111	1,831,482	40,193,593	3,828,899	16,368,973	
VIP	180,644,256	17,792,976	8,116,108	25,909,084	29,301,934	125,433,238	
Williamsburg	27,906,619	20,951,191	2,511,188	23,462,379	1,787,020	2,657,220	
York River	77,255,863	13,910,493	1,446,204	15,356,697	16,713,977	45,185,189	
General	1,132,671,469	212,260,993	(4,505,696)	207,755,297	329,453,846	595,462,326	
	\$ 3,480,082,847.00	\$ 814,938,115.00	\$ 85,676,015.00	\$ 900,614,130.00	\$ 1,174,374,521.00	\$ 1,405,094,196.00	

5. Debt Management Overview

HRSD - Debt Outstanding (\$'000's)					December 31, 2022	
	Principal Nov 2022	Principal Payments	Principal Draws	Principal Dec 2022	Interest Payments	
Fixed Rate						
Senior	166,437	-	-	166,437	-	
Subordinate	675,306	(1,511)	7,560	681,355	(167)	
Variable Rate						
Subordinate	50,000	-	-	50,000	(82)	
Line of Credit	33,721			33,721	(108)	
Total	\$ 925,464	\$ (1,511)	\$ 7,560	\$ 931,513	\$ (357)	

HRSD- Series 2016VR Bond Analysis				January 03, 2023
	SIFMA Index	HRSD	Spread to SIFMA	
Maximum	4.71%	4.95%	0.24%	
Average	0.49%	0.55%	0.06%	
Minimum	0.01%	0.01%	0.00%	
As of 01/03/23	1.85%	3.65%	1.80%	

* Since October 20, 2011 HRSD has averaged 55 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended December 31, 2022

HRSD - UNRESTRICTED CASH

December 31, 2022

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	\$ 204,576,448		360
Risk Management Reserve	\$ (4,409,549)	(8)	352
Capital (PAYGO only)	\$ (13,220,590)	(23)	329
Adjusted Days Cash on Hand	\$ 186,946,309		329

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

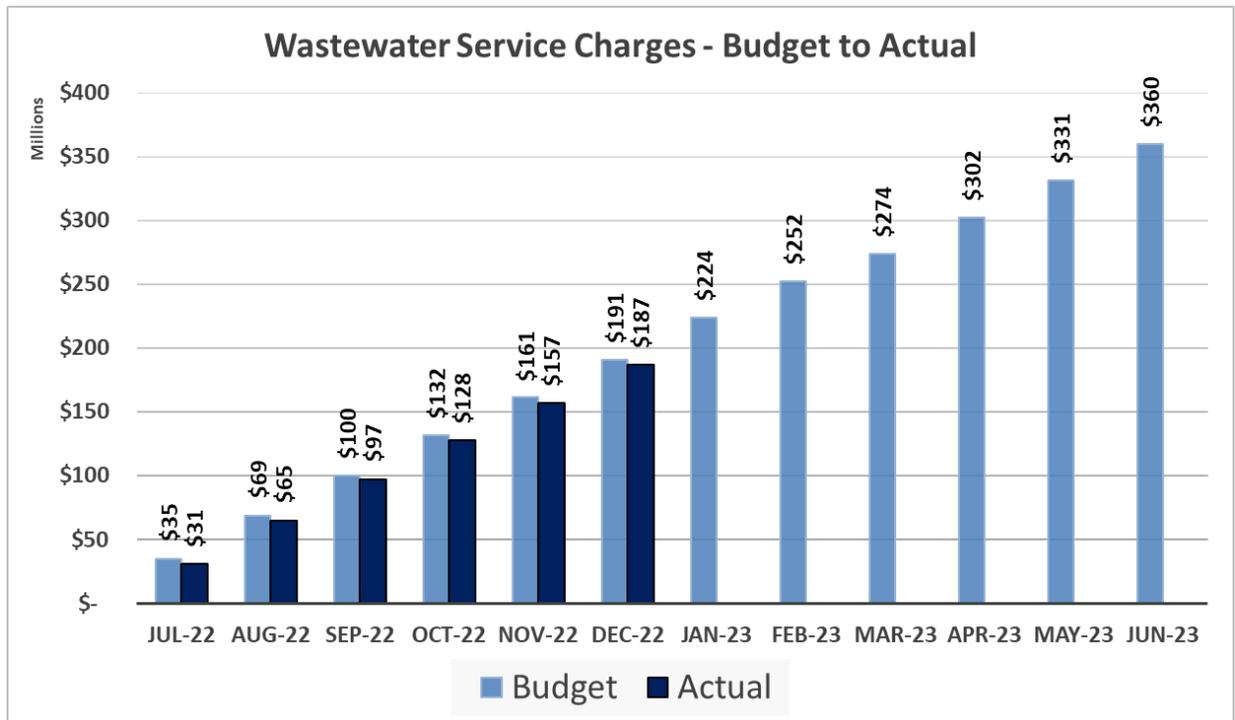
December 31, 2022

Primary Source	Beginning Market Value	YTD	YTD	YTD	Ending Market Value	Allocation of Funds	Credit Quality	Current Mo Avg Yield
	July 1, 2022	Contributions	Withdrawals	Income Earned	December 31, 2022			
BAML Corp Disbursement Account	25,498,734	295,861,813	291,719,863	172,587	29,813,271	18.0%	N/A	0.55%
VIP Stable NAV Liquidity Pool	144,268,153	10,000,000	20,000,000	1,961,919	136,230,072	82.0%	AAAm	4.23%
Total Primary Source	\$ 169,766,887	\$ 305,861,813	\$ 311,719,863	\$ 2,134,506	\$ 166,043,343	100.0%		

Secondary Source	Beginning Market Value	YTD	YTD	YTD	Ending Market Value	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
	July 1, 2022	Contributions	Withdrawals	Income Earned & Realized G/L	December 31, 2022			
VIP 1-3 Year High Quality Bond Fund	62,932,017	-	6,271	402,967	62,423,112	64,140,713	(1,717,601)	
Total Secondary Source	\$ 62,932,017	\$ -	\$ 6,271	\$ 402,967	\$ 62,423,112	\$ 64,140,713	\$ (1,717,601)	

	Total	Fund Alloc
Total Primary Source	\$ 166,043,343	72.7%
Total Secondary Source	\$ 62,423,112	27.3%
TOTAL SOURCES	\$ 228,466,455	100.0%

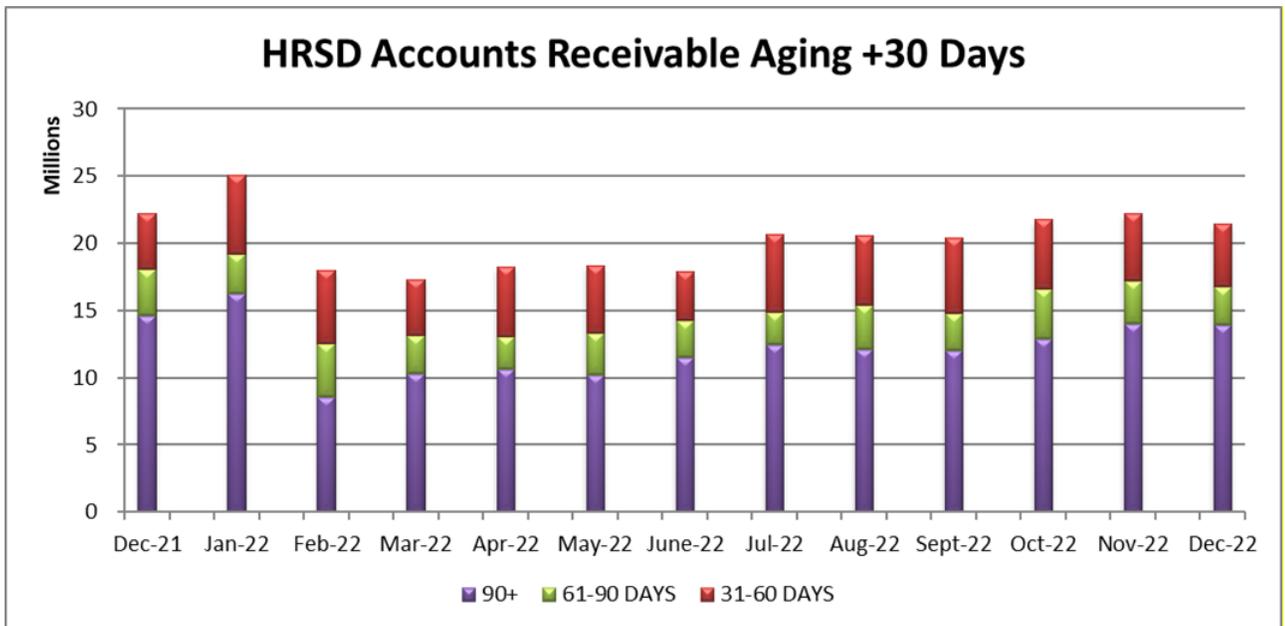
7. Summary of Billed Consumption

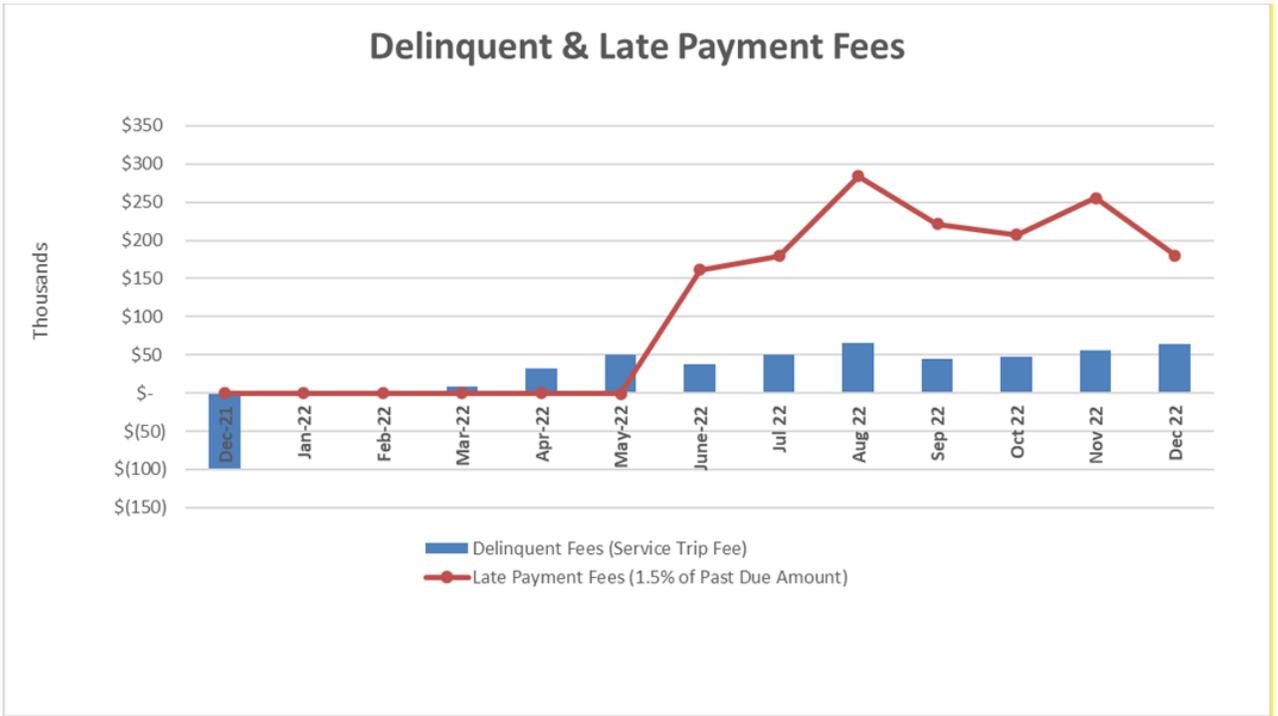


Summary of Billed Consumption (,000s ccf)							
Month	FY2023	FY2023	% Difference		% Difference		% Difference
	Cumulative Budget Estimate	Cumulative Actual	From Budget	Cumulative FY2022 Actual	From FY2022	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,682	-6.6%	4,976	-5.9%	4,947	-5.4%
Aug	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	-	N/A	31,865	N/A	32,148	N/A
Feb	36,182	-	N/A	36,188	N/A	36,087	N/A
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

C. Customer Care Center

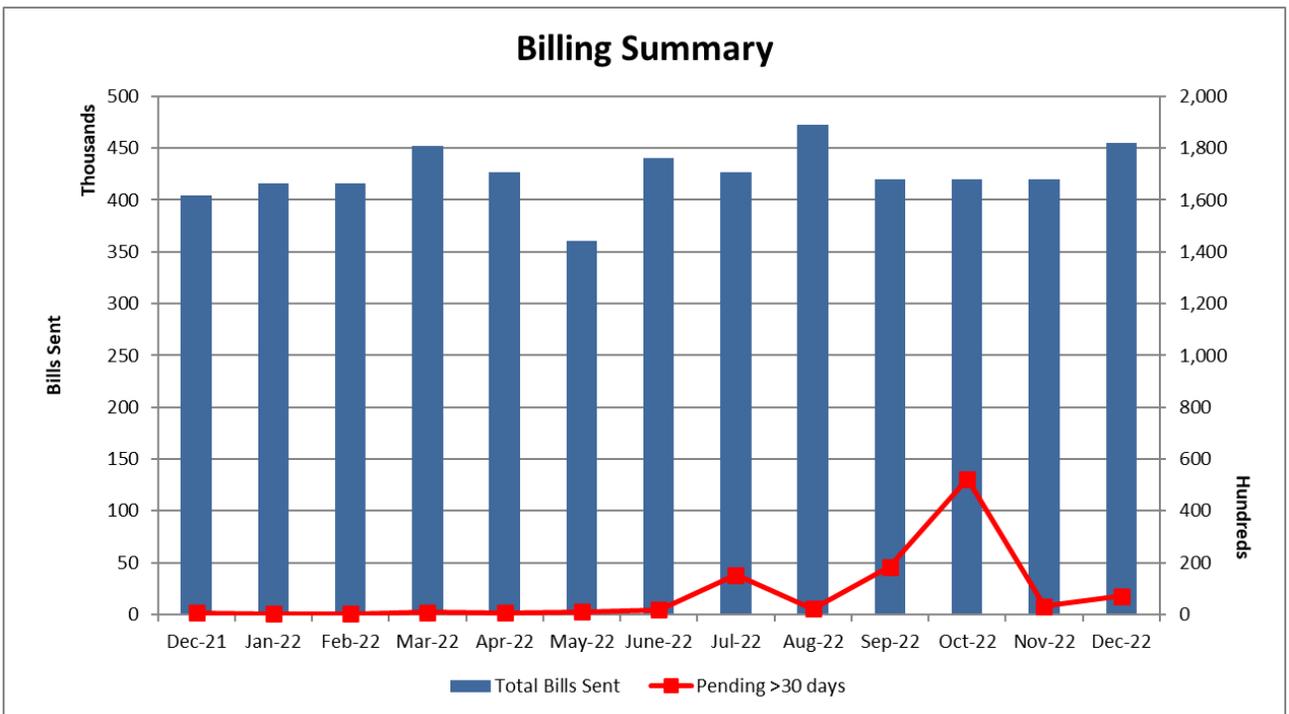
1. Accounts Receivable Overview



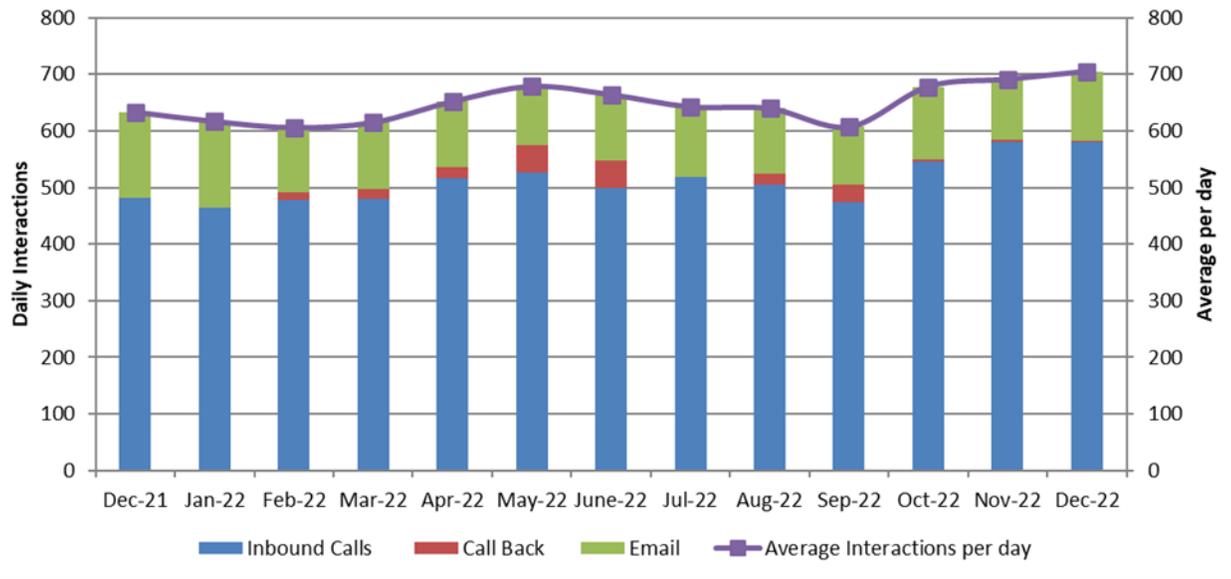


Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19.

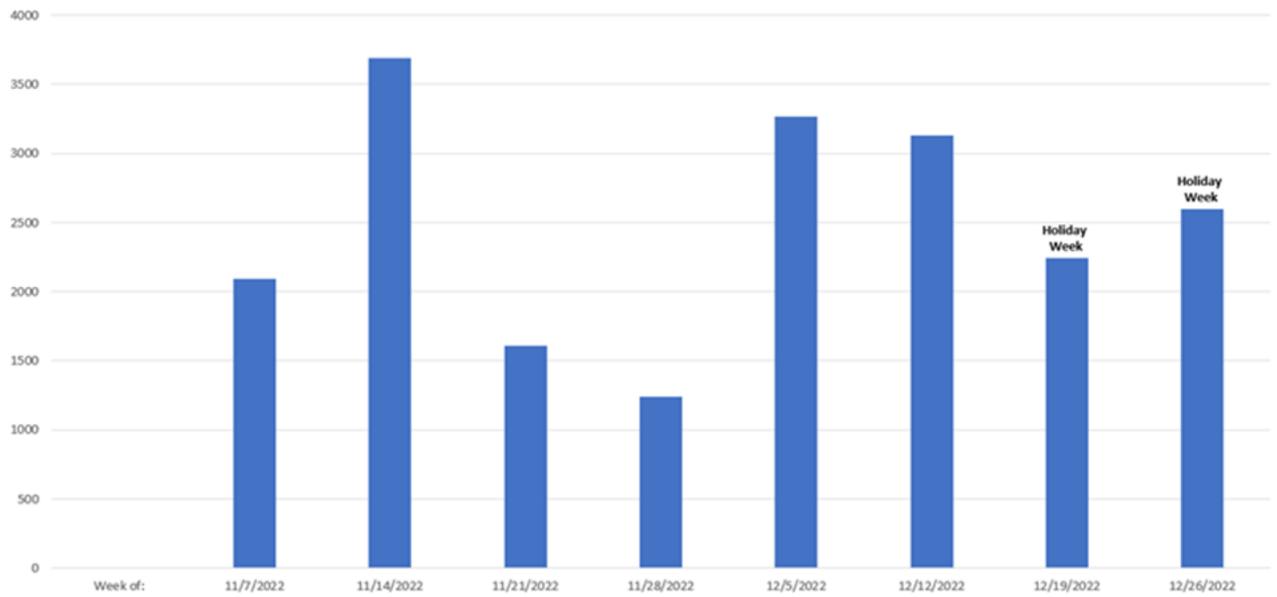
2. Customer Care Center Statistics

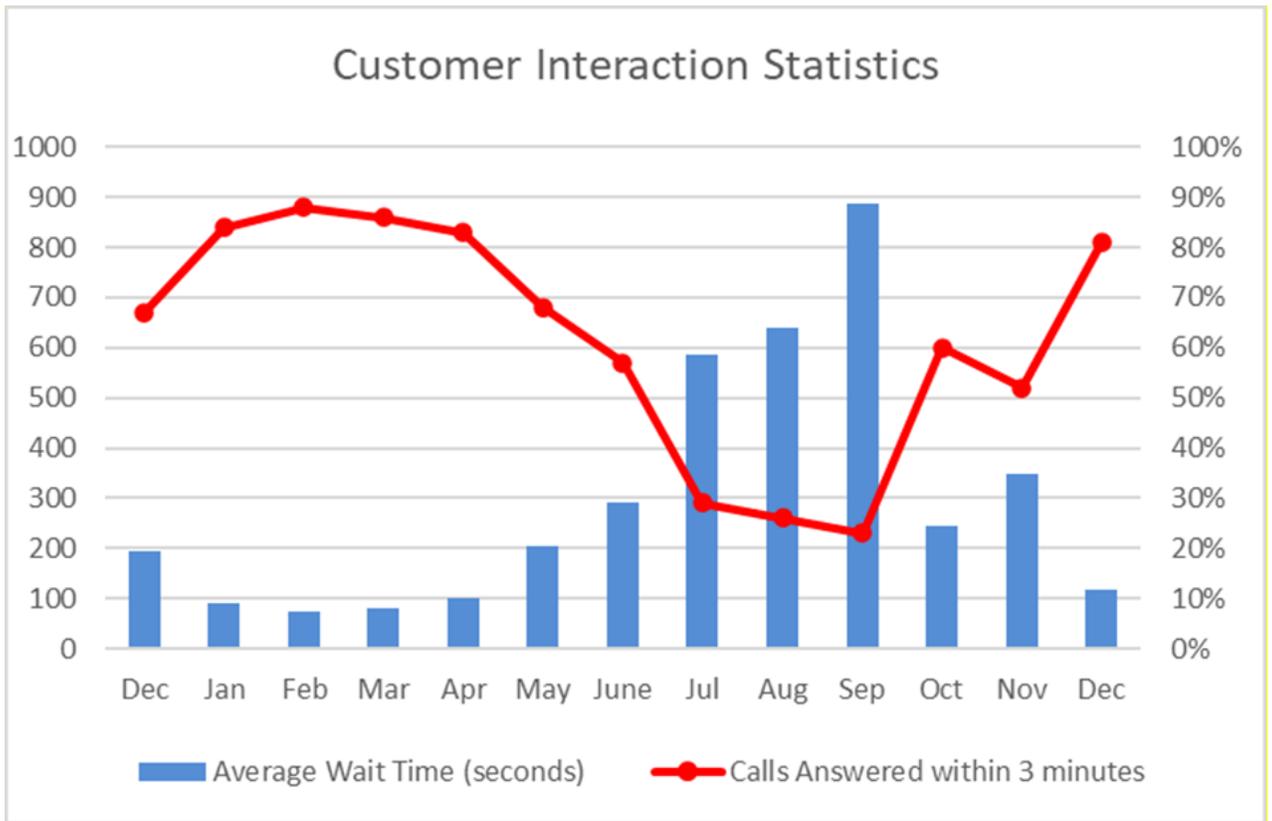


Call Center Interactions (per day)



Total Calls Received by Week





Customer Interaction Statistics	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
Calls Answered within 3 minutes	67%	84%	88%	86%	83%	68%	57%	29%	26%	23%	60%	52%	81%
Average Wait Time (seconds)	193	89	75	81	101	203	291	587	638	887	246	347	117
Calls Abandoned	15%	9%	6%	7%	7%	12%	15%	25%	25%	31%	14%	18%	8%

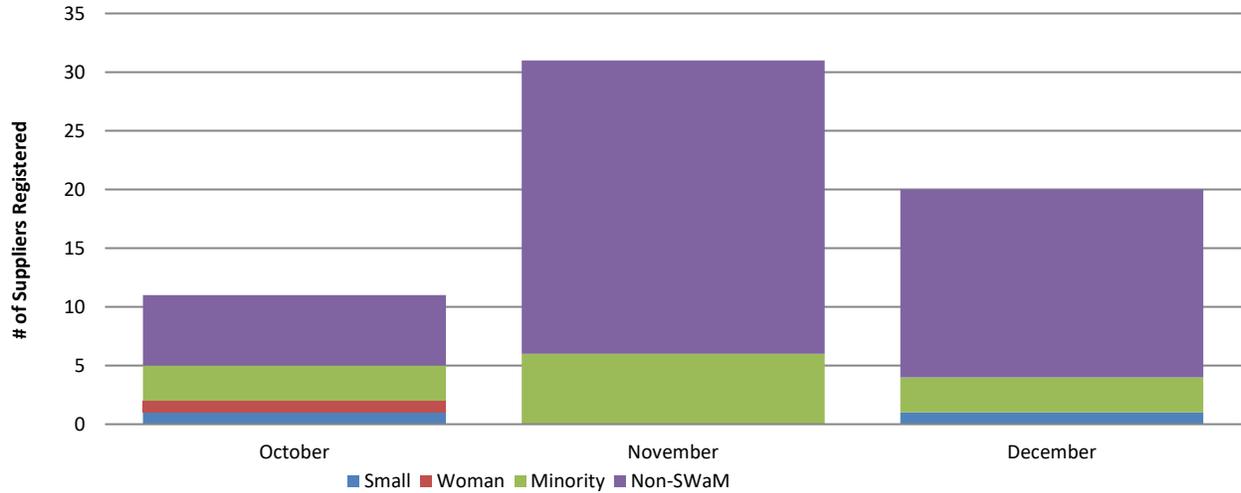
D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings ¹	\$16,622	\$307,721
Negotiated Savings ²	\$4,686	\$18,823
Salvage Revenues	\$604	\$21,771
Corporate VISA Card - Estimated Rebate	\$19,615	\$121,142

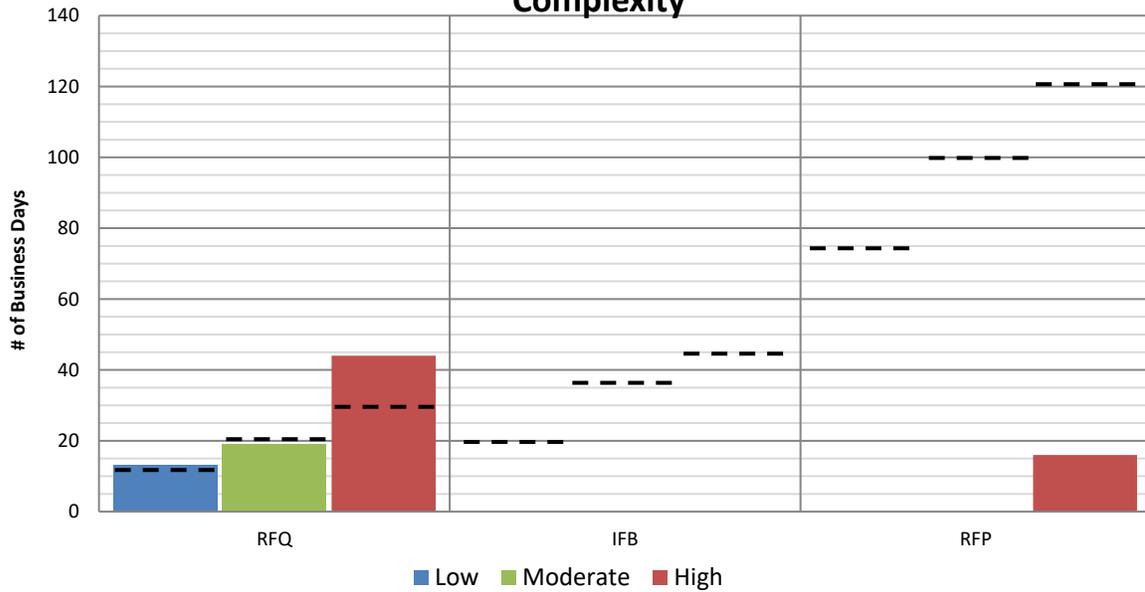
¹ Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsive/responsible bidder.

² 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.

New Suppliers Registered in ERP



December Cycle Time Per Method of Procurement and Complexity



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.

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	6	Caught By Cardholder. All transaction were on the same card.
September	2	Caught By Cardholder
October	3	Caught By Bank
November	3	Caught By Bank
December	3	Caught By Bank

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

Accidental Use, which is anything that is not purchased for use and ownership by HRSD, was at 2 transaction (0.09%) out of the 2158 December ProCard transactions, with a total of \$11.76.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Community Partners: 0
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Training During Work Hours Per Full Time Employee (103) – Current Month	Hours / #FTE	1.04
M-1.4b	Total Training During Work Hours Per Full Time Employee (103) – Cumulative Fiscal Year-to-Date	Hours / #FTE	4.45
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	104%
	General Reserves	Percentage of Operating Budget less Depreciation	106%
	Liquidity	Days Cash on Hand	360 Days
	Accounts Receivable (HRSD)	Dollars	\$40,487,489
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	34.4%

Respectfully,

Steven G. de Mik

Deputy General Manager/CFO

TO: General Manager
FROM: Director of Information Technology
SUBJECT: Information Technology Department Report for December 2022
DATE: January 11, 2023

A. General

1. IT programming staff worked diligently alongside the Customer Care Division in preparation for the Low-Income Household Water Assistance Program (LIWAP) payment processing readiness.
2. The Community Commitment Plan Portal went live in December. This portal is enables SWIFT project partners to enter and track their community service/outreach hours using a standardized method and database. This portal is a contractually required tool for all SWIFT contractors and is intended to highlight community outreach efforts related to the SWIFT project. The data will be shared with the public on the HRSD web site.
3. The IT Help Desk processed 322 work orders and requests for assistance in December, ensuring availability of computing resources to those working locally and remotely.
4. Staff successfully completed work with the City of Chesapeake IT Department with IT infrastructure upgrades related to billing operations. All went according to plan, and Chesapeake is projected to Go Live as a Model 3, in May, at which time the City of Chesapeake will be using HRSD's Customer Care and Billing platform to bill their customers, in lieu of replacing their existing legacy billing platform.
5. Implementation of security enhancements continues on HRSD building management systems including the introduction of several applications and hardware appliances which further enhance overall cybersecurity at HRSD.
6. Staff successfully replaced the existing data circuits at Norfolk and Chesapeake with a more secure, contemporary, and manageable solution providing enhanced monitoring and reporting functionality.

B. Strategic Planning Metrics Summary

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

C. Metrics Summary

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Training During Work Hours Per Full-Time Employee (54) – Current Month	Total Training Hours / # FTE	0.39
M-1.4b	Total Training During Work Hours Per Full-Time Employee (54) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	13.89
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 December 2022
DATE: January 10, 2023

A. Interceptor Systems

1. North Shore (NS) Interceptors

- a. The Supervisory Control and Data Acquisition (SCADA) project progression slowed during the holidays as expected, but we were able to complete several cutovers and global changes. Next month, Emerson will be presenting options for extending our industrial operational control network across new interceptor facilities that directly impact treatment plants and the Sustainable Water Initiative for Tomorrow (SWIFT).
- b. Staff continue to support numerous capital projects currently under design and construction.
- c. Staffing remains challenging as we currently have the following vacancies: one heavy equipment operator, five vacant Interceptor Technician positions, and one Interceptor Engineer position.
- d. There were no Sanitary Sewer Overflows (SSO).
- e. There were two odor complaints, no interceptor complaints, and eight system alarms during the month. The odor complaints were not associated with HRSD infrastructure, and the system alarms were relatively minor and were resolved by staff.
- f. There were no Miss Utility “No Shows” and five after-hour emergency tickets reported for the month.

2. South Shore (SS) Interceptor Systems

- a. There were no SSOs reported this month.
- b. There were no odor complaints reported this month.
- c. There were no Miss Utility “no shows” reported this month.
- d. There were six interceptor complaints reported this month. One complaint with the City of Virginia Beach Public Utilities Department, one complaint with City of Suffolk Public Utilities Department, and four with Norfolk Department of Utilities. All complaints were resolved.
- e. Staff responded to and resolved nine system alarms this month.

- f. On December 8, staff assisted the City of Chesapeake Department of Public Utilities by completing an emergency valve operation to support city staff with a force main repair.
- g. On December 19, staff assisted the City of Norfolk Department of Public Utilities by completing an emergency valve operation to support city staff with a connection activation.
- h. On December 24, staff assisted the City of Virginia Beach Department of Public Utilities by completing two emergency valve operations to support city staff with a force main repair.
- i. On December 28, staff assisted the City of Portsmouth Department of Public Utilities with a vacuum sewer repair.
- j. Staffing remains challenging as we currently have nine vacant Interceptor Technician positions.

B. Major Treatment Plant Operations

- 1. Army Base (ABTP) Treatment Plant, Virginia Initiative Treatment Plant (VIP), Treatment Projects Team) (TPT) (ACV Group)
 - a. Both VIP and ABTP met all Virginia Pollutant Discharge Elimination System (VPDES) permit requirements with no odor complaints.
 - b. ABTP
 - (1) Staff completed routine preventive maintenance and repairs.
 - (2) Staff installed new bearing and idler drum for the solid's conveyor belt. Staff fabricated new brackets and installed them in the gearbox for the bucket elevator. This will provide more strength and less down time if the mouthing bolts break.
 - (3) Staff repaired several broken Non-Potable Water (NPW) lines that ruptured due to freezing temperatures.
 - (4) On December 17, the Total Hydrogen Carbon (THC) analyzer failed to record two valid readings in one hour at ABTP. The unit was not properly calibrating during auto recalibration. The issue was resolved.
 - (5) On December 23, the THC analyzer failed to record two valid readings in one hour. The issue was caused by bad concentration from the Hydrogen/Helium gas bottle.
 - (6) On December 25, there was a NPW discharge of approximately 100 gallons. The discharge was a result of a frozen NPW line that failed. In addition, odor control B had an instrumentation failure causing a shutdown for over an hour. The failure was addressed on the same day.

- (7) On December 29, the THC analyzer failed to record two valid readings in one hour. The issue is the air conditioner for the unit failed causing over temps of the analyzer.

c. VIP

- (1) There was one reportable MACT 129 permit deviation for use of the incinerator bypass stack. Automatic control of the NPW pumps was lost due to Distributed Control System hardware problems, causing low flow to the incinerator off-gas scrubber system, shutting down the induced draft fan and causing the bypass stack damper to open.
- (2) There were two reportable events for NPW leaks into the storm drain system in December. A valve break at the Preliminary Treatment Facility, caused a 200-gallon NPW leak into the storm drain system. There was a mechanical joint failure at the Versatile Biological Reactor, causing a 1,000-gallon NPW leak into the storm drain system. Both breaks were caused by outdoor pipes freezing and bursting during freezing weather conditions.
- (3) Ammonia-Based Aeration Control (ABAC) is operating at a dissolved oxygen low-end setpoint of 0.8 mg/L, ortho-phosphate setpoint of 2.5 mg/L and ammonia setpoint of 2 mg/L. The average Dissolved Oxygen (DO) level in the aeration tanks was 0.5 mg/L for December. No supplemental carbon chemical addition was used for denitrification.
- (4) Staff returned Incinerator #2 to service and addressed issues with the incinerator burners.
- (5) One primary clarifier was returned to service following an emergency screw conveyor rebuild. Two primary clarifiers remain out of service for repairs.
- (6) One dewatering centrifuge was disassembled and inspected onsite for conveyor and feed tube wear, then reassembled for return to service.
- (7) One dewatering centrifuge has been off site for repairs since May. Labor and parts shortages have delayed its return until early 2023.
- (8) The rotating sweep arm mechanism on Secondary Clarifier #4 sheared a drive pin due to ice built up on the clarifier surface. Staff broke up ice, replaced the pin and returned the clarifier to service.

d. TPT

- (1) Staff supported Onancock TP with membrane repair.
- (2) Staff supported Onancock TP with normal maintenance activities and small projects.

- (3) Staff assisted Small Communities Division (SCD) and contractors with bypass installation and testing for the King William Treatment Plant (KWTP) upgrade.
- (4) Staff completed install of water pressure valves on raw influent pilot #1 and #2 pumps at VIP.
- (5) Staff completed installation of Atlas GX11 compressor at VIP.
- (6) Staff completed installation of new Waste Activated Sludge (WAS) suction line at ABTP.

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 was one odor complaint reported in December. On December 13, while plant staff were emptying solids holding tank #1, Odor Control Station (OCS) A lost the ability to remove Hydrogen Sulfides (H₂S), resulting in high H₂S exhaust. Plant staff adjusted chemical feed to the scrubber to correct the issue.
- (3) Plant and Technical Services Division (TSD) staff continue working on minimizing offsite odors. There were five odor complaints in December, which were all received during the annual Thermal Hydrolysis Process (THP) shutdown.
- (4) Staff completed annual THP maintenance. This year's shutdown required a mobile dewatering unit to allow the plant to bypass the pre-dewatering hopper so contractors could replace two failed live bottom screws and the gates on the bottom of the hopper.
- (5) Plant staff received two curtailment notices to run the emergency generators per the power agreement due to cold weather. The first was a three-hour run on December 23 and the second was a 15-hour run on December 24. Plant staff started and operated the generators as required.
- (6) A biosolids spill from an upper floor entered a loose cap on a conduit and ran into the control panel for the Variable Frequency Drive (VFD) for pre-dewatering centrifuge #3. Staff secured the cover on the conduit and ordered a new drive (20-week lead time). Staff will also ship out the failed VFD to have it evaluated for repair.
- (7) A contractor completed repairs to the hoist that operates the primary scum claw. The scum claw was refurbished by plant staff while the hoist was being serviced. This scum managing system is back in service.

- (8) Secondary clarifier #2 failed on a torque condition. Staff will drain and clean the tank to determine the cause of the torque alarms.

b. BHTP

- (1) No odor complaints were reported.
- (2) Two MACT 129 permit deviations occurred this month due to loss of power from a power blip, causing the emergency bypass stack to open.
- (3) Three THC reportable event occurred this month.
- (4) There was one Department of Environmental Quality (DEQ) reportable event during the freezing weather conditions on December 25 for a NPW spill into a storm drain. Approximately 250 gallons of NPW spilled onto the ground from broken PVC pipes. Around 120 gallons were recovered, with 130 gallons lost to the ground or storm drain.
- (5) Two curtailment events occurred in the month of December. The plant was asked to run on emergency generator power on December 23 and 24 during extreme cold weather to shed electrical load on the power grid for the Newport News area.
- (6) The plant experienced only a few minor events of higher-than-normal hypochlorite usage during the month. Recent findings suggest saltwater infiltration during the high tides could be contributing to the high hypo demand. Plant staff increased the solids retention time to act as a buffer for when the events happen, and the demand has continued to stay at more manageable levels.
- (7) Coatings work is still in progress on grit tank #2 despite a couple of wet weather events. The wet weather events required the use of the tank as a flow through to avoid a wastewater overflow from the head of the grit tanks.
- (8) Two THC reportable events occurred this month. On December 3, staff replaced the Flame Ionization Detector (FID) fuel bottle. The FID flame quenched and was not verified until the next day. Once the flame was lit and the unit was calibrated, the reading became valid. On December 24, the THC monitor failed calibration and gave invalid readings. Later that day, staff resolved the issue and received valid readings. On December 28, failed calibration was discovered, and staff were unable to conduct a manual calibration. Further inspection of the monitor revealed a loose cable causing the keyboard to not work. Once the cable was secured, the monitor calibrated as it should.
- (9) EPA Office of Research and Development (ORD) staff as well as subcontractors toured both BHTP and VIP on December 12 as potential sites for a Pre-and-Poly-Fluoroalkyl Substances (PFAS) fate and transport study that they plan to conduct later this calendar year. HRSD will be one of six different sites that EPA ORD will sample to better understand PFAS

fate and transport through wastewater plants. This will help the EPA to create future guidance for treatment plant sampling best practices. EPA will be paying for all analytical work that is completed as part of this study and should be selecting between BH and VIP shortly.

- (10) Contractors performed the yearly preventative maintenance on both emergency generators. No issues were found, and the generators are back in normal operation.
- (11) Contractors replaced an air conditioning (AC) unit on the northwest building of the aeration complex. These units are critical to keeping the electrical equipment cool in the summer to avoid overheating. One AC unit has been replaced on the south side. With one out of two units now replaced on each side, the likely hood of failure is mitigated.
- (12) Staff discovered a leak on the backside of the contact tank near sample lines. Plant staff, with help from NS Interceptors staff were able to excavate and identify the leak. They plan to drain the tank for inspection to assess the failure in January 2023.

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) The total volume of SWIFT recharge into the Potomac aquifer for this month was 8.38 million gallons (MG) (29% Recharge Time based on 650gpm).
- (4) Contractors continue construction of the Fats, Oils and Grease (FOG) handling facility.
- (5) There were three reportable events this month:
 - On December 9, staff noticed water pooling on the north side of the chlorine contact tank #4. A residual was taken and showed 0.37 mg/l of chlorine indicating that the tank was leaking water from a joint in the concrete. The tank was taken out of service and will be repaired before being placed back in service.
 - On December 9, it was discovered that a NPW hose filling secondary clarifier #4 fell out of the tank and was spilling on the ground. The water was secured and as much water as possible was recovered with the vacuum trailer. Approximately 1,000 gallons were not recovered.
 - On December 28, a temporary drain line on the centrate holding tanks installed by contractors was leaking onto the ground. Contractors worked on getting temporary plugs installed in the line until repairs were made. Approximately 300 gallons were not recovered.

- (6) On December 16, plant staff completed a rebuild on primary clarifier #1.
- (7) On December 27, a NPW line froze and broke on top of digester #2. Several feet of water were added to the digester causing a temperature drop which slowed production of gas from the digester to fuel the boilers. A boiler was switched to fuel oil to help bring the temperature of the digester back into the acceptable range and restart gas production.
- (8) Below are events that impacted recharge operations to the SWIFT RC:
 - Quarterly maintenance shutdown
 - Upsets at NTP (high Total nitrogen to SWIFT)
 - Potable water shutdown for repairs at NTP
 - Issues with the Ultra-Violet (UV) system – lamp failure
 - Ozone system issues due to a power blip
 - Maintenance/repairs on Granular Activated Carbon (GAC) pump station level sensor
- (9) On December 13, the GAC flow setpoint was adjusted to send 90% of the flow to GAC #2, which is the vessel that contains the newest (fresh) carbon media. This adjustment was made to lower the Perfluorooctanoic Acid (PFOA) concentration on SWIFT water.

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 no reportable wastewater events or odor scrubber deviations.
- (3) Staff performed routine maintenance and repair.
- (4) Staff completed repairs to the #1 primary clarifier weirs and started work on modifications to the scum removal trough.
- (5) Contract work was completed on modifying cell #3 of Integrated Fixed Film Activated Solids (IFAS) tank #5 to create an aerobic/anoxic swing zone below the waterline. A valve actuator and control work remain to be completed. Through this winter, the swing zone will be used to determine if ammonia reduction can be improved across the #5 IFAS tank.

- (6) The contractor drilling on-site wells worked on wells near the solids holding tank, shoreline, and the Sustainable Water Initiative for Tomorrow (SWIFT) site.
- (7) The contractor drilling off-site wells worked on wells in the northwest corner of Riverview Farm Park near Menchville High School.
- (8) On the Advanced Nutrient Removal Improvements (ANRI)/SWIFT project the contractor completed work on IFAS effluent pipe connections and the temporary secondary effluent piping to the contact tanks. Successful tests were completed on the temporary secondary effluent pipes and their pumps. Demolition of #1 and #2 secondary clarifiers was started. Excavation and shoring continued at the SWIFT location along with setting of piles for SWIFT process buildings #1 and #2.
- (9) The shoreline stabilization project commenced. Trees and other vegetation were removed and hauled off by the contractor. The contractor also graded the shoreline, delivered and laid sand, and began setting stone in the river.

b. WBTP

- (1) The plant met all VPDES permit requirements.
- (2) There were no reportable wastewater events, two air events, one incinerator deviation, and no odor scrubber deviations. The air events were due to not achieving less than the minimum 12-hour average burn temperature on the incinerator, which occurred during a scheduled burnout. The use of the emergency bypass stack was due to a loss of the induced draft fan after a power blip. The incinerator deviation was a failure of the THC meter to recorded two valid readings per hour. The THC meter did not operate properly the entire month. Replacing the existing THC monitoring system is being evaluated.
- (3) Staff performed routine maintenance and repair.
- (4) Staff made repairs to scum removal system on #3 primary clarifier.
- (5) Work continued on the administration building renovation project. The contractor continued with interior coating, installed interior doors, trim, and cabinets, and put in service restrooms on the northeast side of the building.
- (6) Conceptual designs, costing, and scheduling were completed by our engineering consultant for the Intermediate Clarifier Effluent Wet Weather and Improved Phosphorus Removal Study and the FOG System Improvement Study.

c. YRTP

- (1) The plant met all VPDES permit requirements.

- (2) There were no reportable wastewater events or odor scrubber deviations. There were three odor complaints from a neighbor in the Seaford area. TSD staff communicated with the neighbor and setup a hydrogen sulfide meter at the residence to monitor for potential odors.
- (3) Staff performed routine maintenance and repairs.
- (4) Refurbishment of the #1 centrifuge was completed and returned to the plant by a contractor. Staff reinstalled, tested the centrifuge, and returned it to normal operation.
- (5) E&I staff continued worked on the new secondary clarifiers duct bank. This duct bank will replace the existing, deteriorating duct bank.
- (6) The contractor worked on removing the old duct bank and pouring the footer for the expansion part of the renovation on the administration building renovation project.

d. Multiple Hearth Incinerator (MHI) Operations Events Summary

- (1) All four plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) met the 100 parts per million (PPM) THC limit with continuous emissions monitoring valid data captured of greater than 62%.
- (2) The MHIs had one deviation from the required 129 SSI rule minimum operating parameters and four minor bypass events (<60 minute).

C. Small Communities (SC) Division (SCD)

1. Middle Peninsula

- a. There were two SSOs in the Middle Peninsula System:
 - (1) On December 12, a utility access hole overflowed at King William MH-0406 when the downstream pump station (Central Crossing) experienced a float control issue. Staff were able to restore the pump station and applied lime to the spill area. Approximately 50 gallons of raw wastewater soaked into the ground.
 - (2) On December 29, a force main failed at a 2019 repair location. During the excavation, large slabs of concrete were found on top of the previous repair couplings causing one coupling to deflect and leak. The concrete was removed, and new couplings and a section of PVC pipe were installed. Approximately 750 gallons of raw wastewater could not be recovered and entered a storm drain leading to Aylett Creek.
- b. There were no permit exceedances this month.
- c. There were no odor complaints and no collection system complaints.

- d. There were no Miss Utility “No Shows” and no after-hour emergency tickets reported for the month.
- e. Staffing remains challenging as we currently have six vacant System Operators positions.
- f. Urbanna Treatment Plant (UBTP)
Staff continues to optimize and update sampling methods.
- g. West Point Treatment Plant (WPTP)
A Contact Tank Blower failed, and staff were able to find parts and complete the repair over the Christmas Holiday.

h. King William Treatment Plant (KWTP)

On December 23, a major cold front arrived and disabled the SCADA communications for most of the Middle Peninsula Service Area. Power outages were also experienced throughout the system due to strong winds, but no alarms were received. Both plant trains were offline due to the power outage, and the EQ drain lines froze. Staff were called in to pump and haul the EQ tanks to prevent a spill and thaw out and repair the frozen pipelines. Staff worked throughout the Christmas holiday to prevent further damage to the treatment plant. On a good note, the Phase I project was completed, and the new Ultraviolet (UV) system is online.

2. Surry Systems

- a. There were no SSOs in Surry County.
- b. There were no permit exceedances this month.
- c. There were no odor complaints, and no collections system complaints.
- d. There were no Miss Utility “No Shows” and no after-hour emergency tickets reported for the month.

3. Eastern Shore (ES)

- a. There were no SSOs for this month.
- b. There were no permit exceedances for the month.
- c. There were no odor complaints and no collections system complaints.
- d. There were no Miss Utility “No Shows” and no after-hour emergency tickets reported for the month.

- e. Staff installed several new cleanouts throughout the collection system.
- f. Onancock Treatment Plant (OTP)
 - (1) Staff rebuilt Fine Screen #2 and the Programmable Logic Control (PLC) updates were completed. The screen is currently online.
 - (2) The freeze protection and heat tape installed by E&I staff was tested during the cold front and worked flawlessly.
 - (3) Staff worked to repair a broken membrane in filter #1.
- g. Chincoteague Treatment Plant

Staff held multiple meetings with Procurement, TSD, laboratory staff, and Environmental Systems Services, Limited, (ESS) to finalize the services contract. Preparations are being made for HRSD to take ownership of the package plant in early 2023.

D. Electrical & Instrumentation (E&I)

- 1. The main circuit breaker located in the influent pump room tripped multiple times at the Nassawadox TP. Staff discovered a rodent's nest inside of an electrical wiring trough. Staff removed the nest, cleaned the trough, and replaced all damaged wiring.
- 2. The SCADA Front End Processors (FEPs) failed at WPTP and UBTP. In addition, the Bagby PS Modbus interface between the Programmable Logic Control (PLC) and the Motorola equipment failed simultaneously. Staff reestablished FEP communications at both locations by rebooting the equipment. However, the issue at Bagby PS was more complicated and took several days to resolve.
- 3. The generator at Lucas Creek PS failed during a station check. Staff assisted the manufacturer (Carter Cat) with diagnosis and repairs. The battery charger was replaced, and the station was returned to normal operation.
- 4. Staff continue to coordinate light emitting diode (LED) fixture replacements with the contractor (REW Corporation) at YRTP, JRTP, VIP, NTP, and ATP.
- 5. Staff worked with the contract (Cummins) to change the programming on the emergency generator system at ABTP. These changes will allow the plant to manually transfer power from generator to utility. Prior to these changes, the system would have to time out before transferring.
- 6. Staff worked with the contractor (CEC) to install a generator at Courthouse Pressure Reducing Station (PRS). This generator will be used in the event of a power loss.

7. Staff worked with the contractors (CEC and Systems East Inc.) and Interceptors staff to update the existing controls to the new SCADA Remote Terminal Unit (RTU) controls at Norview PS. In addition to this cutover, four stations had a preproposal review completed for future cutovers.
8. Industrial Automation Programmer's (IAPs) worked with ABTP E&I staff to move the Incinerator control room to the recently renovated E&I shop.
9. Staff installed additional alarms for the UV Disinfection System at KWTP. The additional alarms were necessary to alert operations staff when problems occur in the system.
10. The Electrical Manager conducted Arc Flash Training for E&I staff and apprentices. The training objective was to increase awareness of the potential arc flash and electrical shock hazards and to assist employees with mitigating and safeguarding against those potential hazards that exist within the workplace.
11. The Electrical Manager supported the DEI Unified Council's Awareness, Support, and Knowledge (ASK) session panel discussion, by introducing the DEI Committee and responding to questions presented by participants.
12. Staff assisted Automotive with diesel generator load bank testing at 33rd Street, Colonial Williamsburg, Elmhurst, and Park Avenue PSs. The generators operated as designed and were returned to service.
13. Staff responded to 10 SCADA communication failures and nine 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.

E. Support Systems (SS)

The automotive and electrical personnel performed routine load bank and generator test at Colonial Williamsburg, 33rd Street, Park Avenue, and Elmhurst Land PSs. A monthly generator test was completed at NS and SS main complexes. All generators operated as designed and were returned to service.

1. Facilities Maintenance (FM)

- a. Renovation of the electrical shop at ATP continues. The HVAC contractor installed all ductwork.
- b. The Carpentry Shop (CS) repaired the lockset at Luxemburg PS. Staff also made 260 wedges for NS Operations and a Golden Plunger Award for Operations. Staff repaired walls and painted three vacant offices at 1434 Air Rail Avenue.
- c. The Machine Shop (MS) had a total of 11 projects with two pump rebuilds. There was one notable project in which the staff repaired a stainless-steel compactor

screw. In addition, staff were able to repair a 40-year-old check valve at BHTP that no longer has available parts.

2. Infrastructure Assessment (IA)

- a. IA staff issued requisitions for work orders for the Closed-Circuit Television (CCTV) inspection of 42,544 Linear Feet (LF) for NS and SS Interceptors for FY-2023. Staff also issued requisitions for SC CCTV totaling 31,440 LF for FY-2023.
- b. Staff are working with TSD and John Jones (Automotive Superintendent) on the transition of Underground Storage Tanks (UST) inspections to the IA group.
- c. The Concrete Coatings staff continues to work on Digester #4 at ABTP as well as rehabilitation projects for interior steel buckets, rails, and brackets at BHTP. Staff have completed influent channel rehabilitation around the windows for Primaries #1 and #2 at NTP while continuing to work on rehabilitating a fiberglass storage tank's exterior and interior surface. They also continue to work on pipe restorations for contact tank pipes #1 to #4 at NTP. Staff also completed work on the Oxidation Tanks #1 and #2 at WBTP.

F. Resource Recovery (RR)

1. Staff presented the financial strategy and a three-year overall plan for the installation of a solar (photovoltaic) power system to leadership. Leadership agreed that the installation of the proposed solar power system has a return on investment that benefits HRSD.
2. Staff continue to evaluate Methane reduction. The intent is to identify the highest methane producers in the force main system. Choosing the right technology depends on methane data. Several manufacturers of flares and regenerative thermal oxidizers were contacted. Staff provided the methane quantities to our annual services consultant so that a feasibility study could be considered.
3. Staff worked with ATP staff and a contractor to haul loads of dewatered solids offsite to facilitate the five day annual maintenance for the Cambi THP. Solids were hauled to local landfills, incinerators plants, and to Waste Management. The operation was successful with a few odor complaints that were addressed by Staff and the contractor.
4. Staff continues to work on gathering data for Greenhouse Gases (GHG) emissions.

G. Water Technology and Research

HRSD was the host of an international workshop on the development and implementation of partial denitrification-anammox (PdNA). The Water Research Foundation (WRF) organized the workshop as part of our United States Environmental Protection Agency (USEPA) grant on this topic. The workshop was attended by almost 100 wastewater professionals from around the United States (US) and several from Europe. It concluded with research, a needs discussion and a tour of the JRTP. Two important outcomes of the workshop were the use of PdNA as a stepping stone to get to partial nitrification-anammox, and the need to target sensor and control system performance and requirements to treatment objectives and process needs.

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	4	3	4	3	2	3						
2.7	# of PS Annual PMs Performed	3	6	7	8	3	1						
2.7	# of Backup Generator PMs Performed (Target is 4.6)	17	15	10	13	16	12						
2.8	# of FM Air Release Valve PMs Performed	105	192	136	181	403	337						
2.8	# of FM Air Release Valve PMs Performed	8	193	135	98	149	131						
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	3935						
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	6130	7044	14,051	6,967	0						
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target	0	10,896	11,845	17,293	17,293	0						

I. Strategic Measurement Data

1. Education and Outreach Events: 12

- a. 12/02/2022 - Tour of and meetings at the Radford Army Ammunition Plant – Charles Bott
- b. 12/06/2022 - New York City Department of Environmental Protection visit to JRTP, NTP, YRTP, and the Pathogen Lab as part of a WRF See It program – Charles Bott
- c. 12/07/2022 - IWA Biofilm Conference, Podium Presentation, Electron Beam Cometabolic Removal of 1,4-Dioxane in Biologically Active Carbon Filtration: Challenges of Moving from Pilot to Full Scale – Hannah Stohr
- d. 12/07/2022 – Cambi tour for New York City Department of Environmental Protection – Dana Gonzalez
- e. 12/07/2022 – SWIFT RC tour for New York City Department of Environmental Protection – Germano Salazar-Benites
- f. 12/07/2022 - New York City Department of Environmental Protection visit to JRTP, NTP, YRTP, and the Pathogen Lab as part of a WRF See It program – Charles Bott
- g. 12/12/2022 - PAROC Presentation on PFAS removal at the SRC – Charles Bott
- h. 12/13/2022 – Cambi tour for Kristen Waksman – Dana Gonzalez
- i. 12/13/2022 – Cambi tour of BHTP for PFAS study – Dana Gonzalez and Laura Jones
- j. 12/14/2022 - Podium presentations at the WRF/EPA PdNA Research and Implementation Workshop – Charles Bott and Stephanie Klaus
- k. 12/15/2022 - Podium presentations at the WRF/EPA PdNA Research and Implementation Workshop – Charles Bott and Stephanie Klaus
- l. 12/15/2022 – SWIFT tour for Jacobs – Germano Salazar-Benites

2. Community Partners: 3

- a. City of Virginia Beach Department of Public Utilities
- b. DOE Jefferson Lab
- c. Old Dominion University (ODU)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (524) – Current Month	Hours / FTE	2.66
M-1.4b	Total Training During Work Hours per FTE (524) – Cumulative Year-to-Date	Hours / FTE	13.45
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	25,713
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	64.17%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	18.87%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	16.96%
M- 4.1a	Energy Use: Treatment	kWh/MG	2,419
M-4.1b	Energy Use: Pump Stations	kWh/MG	250
M-4.1c	Energy Use: Office Building	kWh/MG	124
M-5.2	Educational and Outreach Events	Number	12
M-5.3	Number of Community Partners	Number	3

4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2023
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours (average)	28,030
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours (average)	61%
M-2.3c	Planned Maintenance-Corrective Maintenance	% of Total Maintenance Hours (average)	15%
M-2.3d	Planned Maintenance-Projects	% of Total Maintenance Hours (average)	24%
M-3.6	Alternate Energy	Total kWh	53,931,273
M- 4.1a	Energy Use: Treatment	kWh/MG	2,439
M-4.1b	Energy Use: Pump Stations	kWh/MG	218
M-4.1c	Energy Use: Office Building	kWh/MG	136

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

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for December 2022

DATE: January 17, 2023

A. Talent Management Executive Summary

1. Recruitment Summary

Current Vacancies	62
New Recruitment Campaigns	8
Job Offers Accepted – Internal Selections	4
Job Offers Accepted – External Selections	13
Internal Applications	31
External Applications	192
Average Days to Fill Position	151

2. Employee Separation Summary

	December 2022	Total (April 2022-December 2022)
Career/Better Opportunity	2	12
Content of work	0	3
Family circumstances	2	5
Dismissal	1	6
Going to school	0	1
Lack of Opportunity for Advancement	0	1
Moving from the area	1	5
Salary	0	5
Retirement	2	11
End of Assignment (PT)	5	23
Unknown	1	1

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

Description	December 2022	Total (March 2020 – December 2022)
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	12	325
Work Related Confirmed COVID-19 Cases	0	13
Contractor COVID-19 Cases on HRSD Sites*	0	12
Work Related exposure no quarantine required*	6	90
Vaccine Acknowledgements	5	892
Booster Acknowledgements	14	446
Vaccination Rate	92%	
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
- a. Gallagher provided their recommendations from the Compensation study, and they were reviewed internally.
 - b. SC&H is working to finalize the internal audit of our Family Medical Leave process.
6. Wellness Program
- a. Participation

Year Ten Participation Activities	Unit	December 2022	Year to Date (March 2022– February 2023)
Biometric Screenings	Number	20	130
Preventive Health Exams	Number	23	90
Preventive Health Assessments	Number	62	177
Online Health Improvement Programs	Number	0	N/A
Web-MD Online Health Tracking	Number	0	N/A
New Challenges “ <i>Team to Team</i> ”	Number	65	259
Fit-Bit Promotion	Number	0	N/A

- b. Leonora (Norie) Ellis started on December 12 as HRSD's onsite Wellness Specialist. In-person workcenter meetings will begin in January.
7. Organizational Development and Training
- a. Worked with consultant Hicks-Carter-Hicks (H-C-H) and the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) initiatives.
 - b. Worked with consultant H-C-H on executive coaching. Interviewed certified coach to begin an executive coaching partnership.
 - c. Continued work on the Corporate Training software. We are currently reviewing courses to finalize offerings.
 - d. Continued work with the Customer Care Division to curate online learning paths and integration of available Corporate Training courses.
 - e. Continued work with the Water Quality Department to increase quality assurance training courses.
 - f. Began a new initiative with Water Quality to facilitate several focus groups around the topic of communication.
 - g. Continued to work with a cross-departmental team to advance the functionality of Canvas.
8. The UNIFIED Council held their first ASK Session, aimed at increasing Awareness, Support, and Knowledge of different groups within HRSD. The first ASK Session hosted members of the UNIFIED Council to discuss the purpose and goals of the Council and to give employees the opportunity to engage directly with the Council. The ASK Session had approximately 100 employees in attendance, with employees attending both in-person and virtually through Teams. The UNIFIED Council plans to host ASK Sessions with different groups on a bi-monthly schedule.
9. Apprenticeship Program
- a. Held New Apprentice Orientation
 - b. Created Apprentice Graduation Committee to allow upcoming graduates to assist with planning graduation and incorporating graduate feedback
 - c. Held semi-annual Apprentice Representative meeting
 - d. Work continued on the following:
 - (1) Apprenticeship Mentoring Program
 - (2) Building and structuring a day Apprenticeship Program
 - (3) Developing Standard Operating Procedures for ODT responsibilities
 - (4) Trade curricula revisions and course development to update and enhance course offerings

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

	<u>2021</u>	<u>2022</u>
Mishaps	33	41
Lost Time Mishaps	12	4
<i>Numbers subject to change pending HR review of each case.</i>		

11. Safety Division Monthly Activities

Safety Training Classes	14
Work Center Safety Inspections	8
Reported Accident Investigations	1
Construction Site Safety Evaluations	6
Contractor Safety Briefings	12
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	202
Industrial Hygiene Monitoring Events	2

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (4)

- a. 12/7/2022 Oscar Smith Career Day
- b. 12/13/2022 Veteran Center
- c. 12/15/2022 One City Job Fair, Newport News
- d. 12/16/2022 Military Recruitment Strategy

2. Community Partners: (6)

- a. Catholic Charities
- b. Chesapeake Public Schools
- c. City of Newport News
- d. Virginia Bonding Program
- e. VWEA/AWWA Joint DE&I Committee
- f. The GAP Initiative

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	December 2022
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.10
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.24%
M-1.4a	Total Training Hours Per Full Time Employee (18)	Total Training Hours/ FTE	0.17
M-1.4b	Total Training During Work Hours Per Full Time Employee (18) – Cumulative Fiscal Year-to-Date	Hours / FTE	14.69
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Community Partners	Number	6

Respectfully submitted,

Dorissa Pitts-Paige
Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (DWQ)
SUBJECT: Monthly Report for December 2022
DATE: January 11, 2023

A. General

1. Pretreatment and Pollution (P3) Division issued one civil penalty in December.

Divers Processing Company, Incorporated – Portsmouth

An Enforcement Order which included a \$1,200 Civil Penalty was issued to Divers Processing Company, Incorporated in November 2022 for a series of technical violations. The permittee failed to meet all sampling, method, accreditation, and quality control requirements for Acrolein in June 2022, and exceeded the daily maximum permit limit for n-Hexane Extractable Material Oil and Grease (HEM-O&G) in August 2022. At the Show Cause meeting held on October 26, 2022, the permittee provided explanations regarding the violations and corrective action steps taken.

The permittee stated that the Acrolein violations were due to the contract laboratory not being aware of reporting limit requirements. The permittee explained that the HEM-O&G exceedance was likely related to either leaking tubes on the oil side of the evaporator system or the need to clean the #2 Dissolved Air Flotation (#2 DAF). The permittee has specified reporting limit requirements with the contract laboratory, repaired the evaporator tubes and cleaned the #2 DAF. The Enforcement Order was accepted, and the Civil Penalty was paid in full by the due date in December.

2. The Central Environmental Laboratory (CEL) completed mandatory Quality Assurance Manual training as the final step in implementing The National Environmental Laboratory Accreditation Conference (NELAC) 2016 standard requirements, recently adopted by the Virginia Environmental Laboratory Accreditation Program (VELAP).
3. The WQ and Operations Manager presented the 2022 Quality Assurance (QA) Management Review to the WQ Quality Steering Team (QST). The presentation summarized activities and accomplishments related to implementing key QA elements in P3, Technical Services Division (TSD) and Operations including policies and procedures, training, documentation and control, auditing, and equipment maintenance and support. Significant progress has been made in implementing a digital platform for procedures, policies, document control, guidance, and online training. The QA group expanded QA elements in P3 and TSD and made several improvements to quality systems in Operations.
4. CEL, TSD and Nansemond Treatment Plant (NTP) staff continued testing and data evaluation of online Total Residual Chlorine (TRC) analysis as part of implementing the Alternate Test Procedure for compliance monitoring. The

Permit Manager and NTP representatives continued to evaluate data for the final steps of online analysis. All operator training has been completed and data handling procedures finalized for full implementation of regulatory testing in February 2023.

5. WQ continued work with Operations staff to address ongoing odor issues at the Atlantic Treatment Plant (ATP). TSD maintained increased odor surveillance and work with ATP staff to identify and mitigate odor sources and provide immediate response to odor complaints.
6. Kevin Parker was selected to serve as the new Chief of TSD.
7. DWQ participated in the following HRSD Activities:
 - a. ATP Land Conversion Charette
 - b. HRSD LIFE Program Development Committee
 - c. HRSD QST
 - d. SC&H Internal Audit survey regarding Personally Identifiable Information
 - e. SharePoint Governance Team meeting
 - f. Strategic Planning Meetings
 - g. SWIFT QST
 - h. SWIFT Strategy meeting
8. Advocacy and external activities:
 - a. City of Norfolk Innovation Corridor Environmental Subcommittee
 - b. Potomac Aquifer Recharge Oversight Committee (PAROC) meeting
 - c. Virginia Association of Municipal Wastewater Agencies (VAMWA) Board and membership meeting
 - d. Virginia Forever Board and Budget Briefing meeting
 - e. Water Environment Federation Utility Management Committee exploratory meetings for formation of a Leadership Subcommittee

B. Quality Improvement and Strategic Activities

The WQ Communication team continued planning WQ focus group meetings. The team leader coordinated with HRSD facilitators to plan a meeting with the team to prepare for next steps.

C. Municipal Assistance Program (MAP)

1. HRSD provided sampling and analytical services to the following to support monitoring required for their respective VPDES permits:
 - a. Northumberland County
 - b. Stafford County
 - c. Town of Lawrenceville
 - d. Western Virginia Water Authority
 - e. Westmoreland County

2. [MAP Billed Reimbursements](#) for service provided from October 1 to December 31, 2022.
3. [MAP Invoice Summary](#) for the fourth Quarter 2022 calendar year.

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: (1)
 - a. 12/13/2022 - SWIFT Research Center tour for Governor Glen Youngkin and the Secretary of Historic and Natural Resources
2. Community Partners: (6)
 - a. City of Chesapeake, Chesapeake Local Health District
 - b. City of Virginia Beach
 - c. Hampton Roads Planning District Commission (HRPDC)
 - d. HRPDC Fats, Oils & Grease (FOG) Subcommittee
 - e. Lynnhaven River Now Citizen Monitoring project
 - f. Virginia Department of Health
3. Odor Complaints:

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

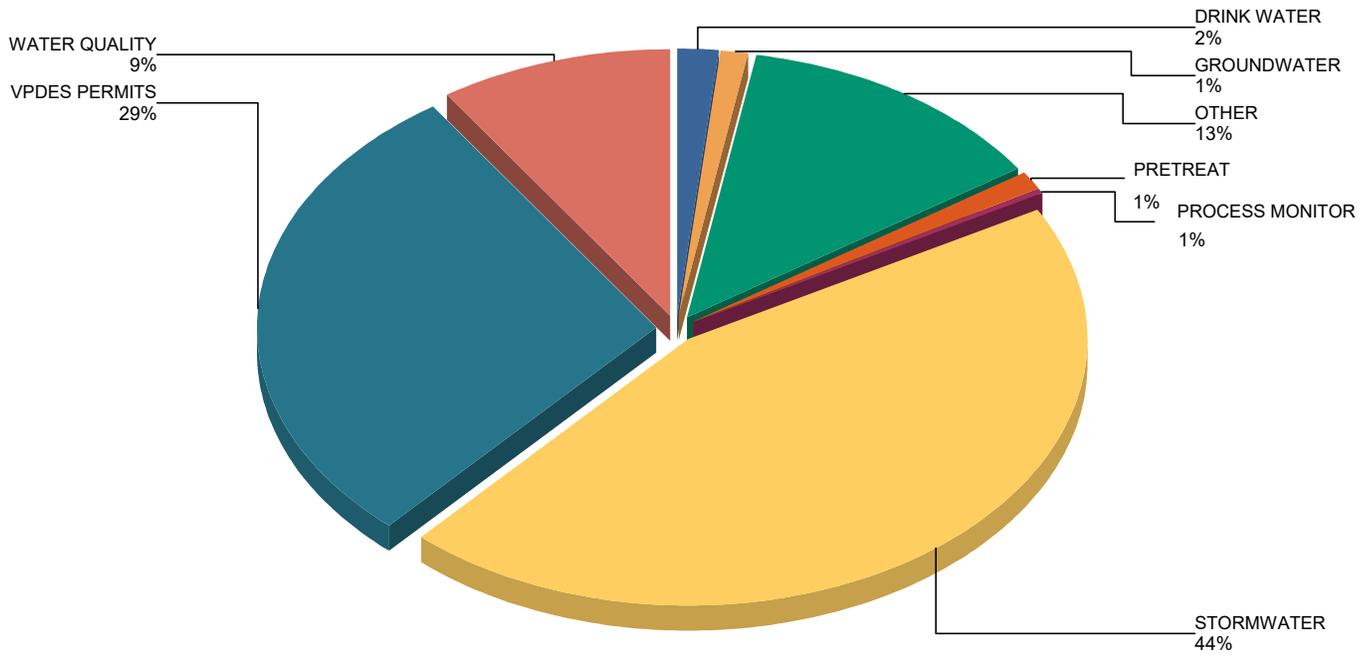
4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	December 2022
M-1.4a	Training During Work Hours Per Full Time Employee (120) (Current Month)	Total Hours / # FTE	3.67
M-1.4b	Total Training During Work Hours Per Full Time Employee (120) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	25.7
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	6:32,117
M-3.2	Odor Complaints	#	10
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	120,102,111
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	15%
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	6
	Average Daily Flow	Total MGD for all Treatment Plants	133.58
	Pretreatment Related System Issues	#	0

Respectfully submitted,
Paula A Hogg
 Director of Water Quality

Municipal Assistance Billed Reimbursements per Service From 10/01/2022 to 12/31/2022

Attachment 1



Notes: Other = Equipment purchase, consultation, validation studies, boater pump-out program, etc.

Municipal Assistance Invoice

From 10/01/2022 - 12/31/2022

Municipality	Reimbursements
Accomack County	\$1,507.67
Appomattox River Water Authority	\$794.82
Buckingham County	\$1,096.72
City of Boise	\$1,025.19
City of Chesapeake	\$1,148.75
City of Emporia	\$377.61
City of Franklin	\$1,609.49
City of Hampton	\$3,952.07
City of Norfolk	\$2,888.06
City of Portsmouth	\$3,473.04
City of Roanoke	\$901.94
City of Suffolk	\$5,330.38
City of Virginia Beach	\$3,745.44
Exmore WWTP	\$408.56
HRPDC	\$53,456.61
Henrico County	\$1,307.26
Lynnhaven River NOW	\$331.95
New Kent County	\$6,732.36
Northampton County WWTP	\$884.70
Northumberland Co. - Callao WWTP	\$1,458.66
Rivanna Water and Sewer Authority	\$4,642.20
Spotsylvania County	\$1,740.89
St Brides Corr Ctr WWTP	\$4,126.70
Stafford County	\$191.89
Town of Cape Charles	\$6,292.44
Town of Lawrenceville	\$1,502.55
Upper Occoquan Service Authority	\$1,670.46
Virginia Department of Health	\$6,071.65
Westmoreland County	\$1,186.78
Totals:	\$119,856.84

EFFLUENT SUMMARY FOR DECEMBER 2022

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	8.37	47%	3	4.9	2	3	0.52	0.88	5.7	4.6	0
ATLANTIC	42.78	79%	15	13	4	1	NA	NA	NA	NA	13
BOAT HARBOR	11.05	44%	9	14	19	1	1.7	0.86	31	27	20
CENT. MIDDLESEX	0.009	37%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA
JAMES RIVER	11.86	59%	6	4.4	1	1	1.3	0.62	13	9.7	1
KING WILLIAM	0.067	67%	0	0.19	NA	1	0.54	0.23	1.6	2.2	NA
NANSEMOND	15.53	52%	5	6.4	1	1	0.48	0.60	3.9	3.8	3
NASSAWADOX	0.014	14%	5	11	1	1	0.45	0.61	13	15	NA
ONANCOCK	0.172	23%	<2	0.68	1	2	0.055	0.26	1.6	1.6	NA
SURRY, COUNTY	0.038	58%	5	1.2	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.000	0%	NA	NA	NA	NA	NA	NA	NA	NA	NA
URBANNA	0.053	53%	5	13	5	10	3.1	3.1	13	14	NA
VIP	23.10	58%	4	2.5	1	1	0.22	0.56	3.5	3.9	6
WEST POINT	0.408	68%	26	8.3	1	3	3.0	2.8	20	19	0
WILLIAMSBURG	8.37	37%	5	2.8	3	4	1.0	0.89	3.2	2.8	2
YORK RIVER	11.75	78%	3	<1.0	<1	1	0.17	0.26	4.4	5.0	0
	<u>133.58</u>										

	Tributary Summary						
	% of Capacity	<u>Annual Total Nitrogen</u>			<u>Annual Total Phosphorus</u>		
		Discharged	Operational		Discharged	Operational	
		YTD	Projection	CY22	YTD	Projection	CY22
Tributaries	%	Lbs	%	%	Lbs	%	
James River	54%	1,915,242	54%	52%	162,941	52%	
York River	69%	196,818	68%	64%	12,356	64%	
Rappahannock	78%	NA	NA	71%	NA	NA	

Permit Exceedances: Total Possible Exceedances, FY23 to Date: 6:32,117
Pounds of Pollutants Removed in FY23 to Date: 120,102,111
Pollutant Lbs Discharged/Permitted Discharge FY23 to Date: 15%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	4.31"	3.06"	3.17"
Normal for Month	3.82"	3.38"	3.59"
Year to Date Total	50.06"	39.21"	41.65"
Normal for YTD	52.06"	49.40"	49.11"

*Small Communities includes Eastern Shore

AIR EMISSIONS SUMMARY FOR DECEMBER 2022

	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	63	62	0
BOAT HARBOR	0	0	0	n/a	0	0	0	2	26	96	0
VIP	0	0	0	n/a	0	0	0	1	30	99	0
WILLIAMSBURG	1	0	0	n/a	0	0	0	1	16	78	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:	10
HRSD Odor Scrubber H2S Exceptions:	2

Items of Interest – December 2022

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 62%. The aged CEMS systems at Army Base and Williamsburg had significant downtime and required intense maintenance and repair by E&I. A reinvestment in the THC CEMS is needed to continue to meet this regulatory requirement especially for MHIs that will operate well past 2026.

The MHIs had one (1) deviation from the required 129 SSI rule minimum operating parameters and four (4) minor bypass events (<60 minute).

November 29, air emission limits stack testing was successfully conducted on MHI #1 at VIP. All tested parameters demonstrated compliance. The contractor's draft final test report is pending. A concerning observation was the MHI's measured lead emission concentration of 0.292 mg/dscm just below the 0.3 mg/dscm lead limit. All previous measurements of lead emissions at VIP have been less than 0.1 mg/dscm. Analytical results were "triple checked" and the source high lead emission measured is currently unknown.

AIR PERMITS and ODOR CONTROL.

On December 15, DEQ issued a letter requesting additional information for Williamsburg's pending permit modification and ultimately for the issuance of the Title V permit renewal. HRSD submitted the additional information December 29 that identified the applicable federal requirements for the plant's new emergency engine.

Two (2) odor control scrubber system hydrogen sulfide (H₂S) exception were measured and a total of ten (10) odor complaints were received.

Atlantic Plant received seven (7) odor complaints from Ocean Lakes and Lago Mar neighbors. Five of Atlantic's seven complaints occurred during the THP shutdown during the first week of December. One complaint received was caused by odors from the digesters. While one complaint's source of odor was undetermined.

York River received three (3) odor complaints from our neighbor located at 716 Back Creek Road. During the last complaint received H₂S monitoring was taking place at the complainant's residence. The highest H₂S recorded during that event was only 5 PPB which is right at the odor detection threshold.

Plant Staff and TSD responded to all complaints and followed up with our neighbors with the investigation results as documented and relayed to them accordingly.

TREATMENT

DEQ was notified of the following reportable events:

Army Base

On December 25, a Non-Potable Water (NPW) line burst on the back of the Biological Nutrient Removal tank causing water to spill off the roof and into a storm drain. An estimated 100 gallons of chlorinated NPW was discharged to a storm drain to the Elizabeth River.

Boat Harbor

On December 25, multiple NPW lines burst due to below freezing temperatures. Approximately 250 gallons was discharged with 120 gallons recovered using squeegees and a floor sucker to pump the NPW into an empty tote. The remaining 130 gallons went to storm drains leading to the James River.

Nansemond

On December 9, water was found pooling on the ground north of the chlorine contact tanks. The discharge was determined to be chlorinated NPW from the tanks. The tanks were switched and the leaking tank was drained for repair. Approximately 300 gallons of chlorinated NPW soaked into the ground.

On December 16, a fire hose used for filling #4 secondary clarifier backed its way out of the tank and sprayed NPW onto the ground and into a storm drain before it could be secured. With the use of a mobile vac trailer approximately 500 of the 1500 gallons of chlorinated NPW was recovered. The remaining 1000 gallons soaked into the ground.

On December 28, a leak formed on a contractor-installed pipe joint on a temporary drain line to the centrate tank. Approximately 1000 gallons of centrifuge centrate soaked into the ground.

Virginia Initiative

On December 24, NPW valves burst due to below freezing temperatures. Approximately 200 gallons of chlorinated NPW was discharged into a storm drain leading to the Elizabeth River.

On December 25, an NPW line blew a gasket due to below freezing temperatures. Approximately 1000 gallons of chlorinated NPW was released into a storm drain leading to the Elizabeth River.

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

King William Collection System

On December 12, an upstream manhole overflowed when a pump failed, releasing approximately 50 gallons of raw wastewater onto the ground. Pumps were restored and lime was applied to the spill area.

On December 29, a force main failed at the same location of a previous line break in 2019. During excavation large slabs of concrete were found on top of the previous repair couplings causing one couplings to deflect and leak. The concrete was removed from the previous repair, and new couplings and a section of PVC pipe were installed. Approximately 750 gallons of raw wastewater could not be recovered and entered a storm drain leading to Aylett Creek.

Town of Surry

During calendar year 2022, influent cBOD monitoring was required once per week for one month in the year. cBOD was analyzed once per month for each month in the year. Therefore, the monitoring frequency was not met. This facility ceased discharge on November 14, 2022.

CENTRAL ENVIRONMENTAL LABORATORY

During the period October 1, 2022 - December 31, 2022, two TKN samples were collected for Central Middlesex, and both results were flagged due to a QC failure. Troubleshooting revealed a matrix interference that could not be overcome unless the sample was diluted, raising the Limit of Quantitation (LOQ) to a level that exceeds the LOQ specified in the VPDES Permit (0.50 mg/L). CEL will perform studies to determine if using a lower LOQ is possible.

2022 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56	0.03	NA	NA	0.23	NA	NA	0.19	NA	NA	0.06	NA	NA
	TKN	3.0	<0.50	NA	NA	<0.50	NA	NA	0.52	NA	NA	<0.50	<0.50	NA
King William	Zinc	*	75	NA	NA	18	NA	NA	NA	25	NA	54	NA	NA
	TKN	3.0	1.3	2.6^	0.44	0.40	0.26	0.27	0.24	0.13	0.03	0.28	0.35	0.68
Nassawadox Riverside	Cadmium	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	Copper	23	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	Nickel	38	17	23	14	15	<10	<10	<10	<10	<10	<10	<10	<10
	Zinc	150	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	Ammonia	1.7	2.2^	0.09	0.07	0.09	0.07	0.08	0.06	0.06	0.04	0.03	0.04	0.24
Onancock	Copper	12	2.0	NA	NA	1.3	NA	NA	2.7	NA	NA	1.7	NA	NA
	Ammonia	0.90, 2.0	0.29	0.16	0.02	0.04	0.10	0.18	0.49	0.06	0.75	<0.02	0.10	0.07
Surry County	Copper	5.9	3.0	2.0	1.0	4.0	4.0	5.5^	3.0	5.6	4.0	3.0	6.0	2.0
	Zinc	56	24	33	11	31	28	37	16	21	14	17	23	16
	Ammonia	0.77	NA	NA	NA	NA	NA	**	1.9^	0.09	0.03	0.10	NA	NA
	TKN	3.0	0.55	NA	0.57	NA	2.7	NA	<0.50	NA	0.78	NA	**	0.96
Town of Surry	Copper	12	2.0	6.0	3.0	5.0	4.0	2.0	3.0	2.0	2.0	11	2.0	NA
	Zinc	39	14	12	12	14	11	10	11	10	10	19	9	NA
	Ammonia	4.5	0.11	0.10	0.11	0.11	<0.10	<0.10	<0.10	0.16	0.10	2.2	0.46	NA
	TKN	6.7	2.0	1.9	1.8	1.3	0.57	1.2	1.6	0.71	1.9	2.8	1.2	NA
Urbanna	Ammonia	3.83, 9.08	7.76	0.05	1.26	0.08	0.41	0.14	<0.02	0.08	0.12	0.25	0.11	0.07

*No limit. Treatment objective 53 ug/L

Units: TKN, Ammonia: mg/L. Metals: ug/L

^ NR monthly average 2.2, weekly Jan 23 3.4

^ KW monthly average 2.6, weekly Feb 6 9.95

^ CSY monthly average 5.5, weekly June 5 7.0

** CSY weekly ammonia samples not collected during the month of June

^ CSY monthly average 1.9, weekly July 3 7.7

** CSY TKN sample was not collected during the monitoring period (Oct and Nov)

	2022 MONTHLY FLOW AVERAGES												YR AVG	FY AVG
	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
Army Base	8.38	8.29	9.12	8.56	8.56	8.05	8.01	7.53	7.38	7.59	7.64	8.37	8.12	7.75
Atlantic	42.47	42.46	42.81	40.26	42.88	43.58	46.32	46.01	43.20	42.19	41.66	42.78	43.05	43.70
Boat Harbor	15.64	13.78	13.31	12.04	11.66	10.17	10.10	9.51	9.63	9.67	9.46	11.05	11.33	9.90
C.Middlesex	0.005	0.006	0.006	0.010	0.011	0.011	0.011	0.012	0.013	0.011	0.011	0.009	0.009	0.011
Ches-Eliz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
James River	14.47	13.70	14.65	13.10	12.12	11.39	11.97	11.95	11.65	11.65	11.39	11.86	12.49	11.74
King William	0.064	0.050	0.066	0.070	0.069	0.073	0.071	0.073	0.074	0.074	0.067	0.067	0.068	0.071
Lawnes Point	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nansemond	16.32	15.78	16.16	15.46	15.54	14.53	14.64	14.99	14.42	14.53	14.58	15.53	15.21	14.78
Nassawadox	0.020	0.013	0.022	0.023	0.017	0.016	0.016	0.013	0.013	0.013	0.013	0.014	0.016	0.013
Onancock	0.177	0.160	0.208	0.174	0.171	0.175	0.174	0.155	0.143	0.165	0.158	0.172	0.169	0.161
Surry, County	0.047	0.043	0.057	0.046	0.040	0.036	0.039	0.039	0.037	0.034	0.031	0.038	0.041	0.036
Surry, Town	0.043	0.044	0.057	0.047	0.039	0.032	0.041	0.035	0.024	0.026	0.027	0.000	0.035	0.026
Urbanna	0.041	0.034	0.038	0.059	0.068	0.074	0.075	0.068	0.061	0.065	0.060	0.053	0.058	0.064
VIP	25.64	26.17	27.83	23.85	23.53	20.25	20.27	20.39	19.82	22.08	20.32	23.10	22.77	21.00
West Point	0.433	0.385	0.429	0.415	0.345	0.312	0.297	0.300	0.286	0.279	0.313	0.408	0.350	0.314
Williamsburg	8.25	7.59	8.41	8.51	8.64	8.49	9.36	9.72	9.64	9.88	8.34	8.37	8.77	9.22
York River	14.08	12.97	13.66	12.81	12.35	11.02	10.87	10.43	9.80	10.29	10.23	11.75	11.69	10.56
North Shore	52.45	48.03	50.03	46.45	44.76	41.07	42.30	41.60	40.71	41.50	39.43	43.03	44.28	41.43
South Shore	92.81	92.70	95.92	88.13	90.52	86.40	89.24	88.93	84.81	86.39	84.20	89.79	89.15	87.23
Small Communities	0.83	0.73	0.88	0.84	0.76	0.73	0.72	0.70	0.65	0.67	0.68	0.76	0.75	0.70
TOTAL	146.09	141.47	146.84	135.42	136.04	128.20	132.26	131.22	126.17	128.55	124.30	133.58	134.18	129.35

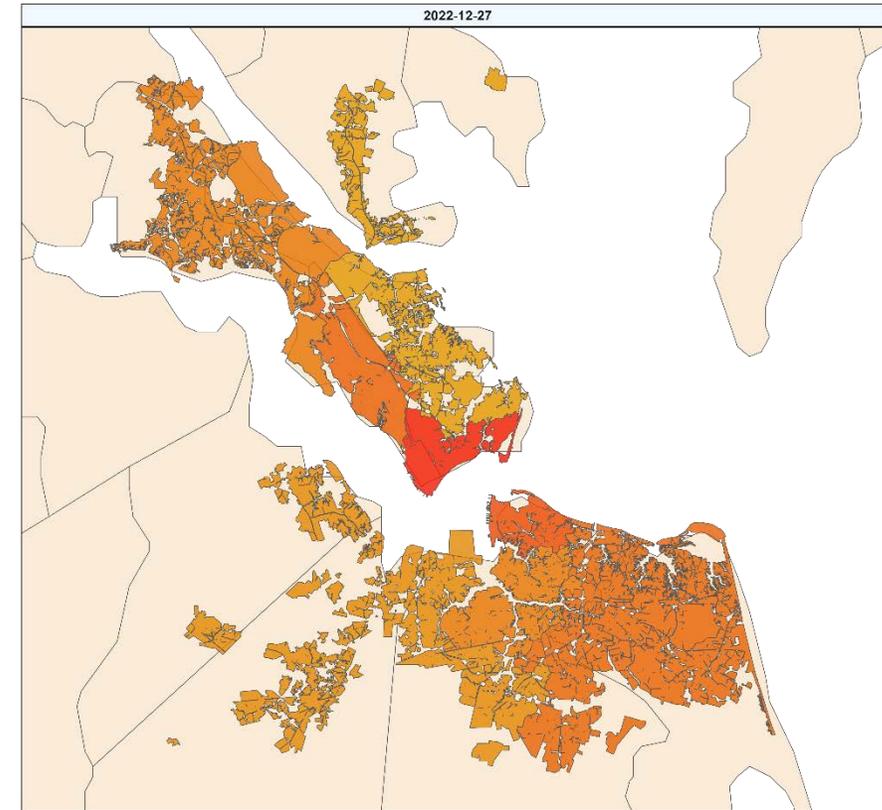
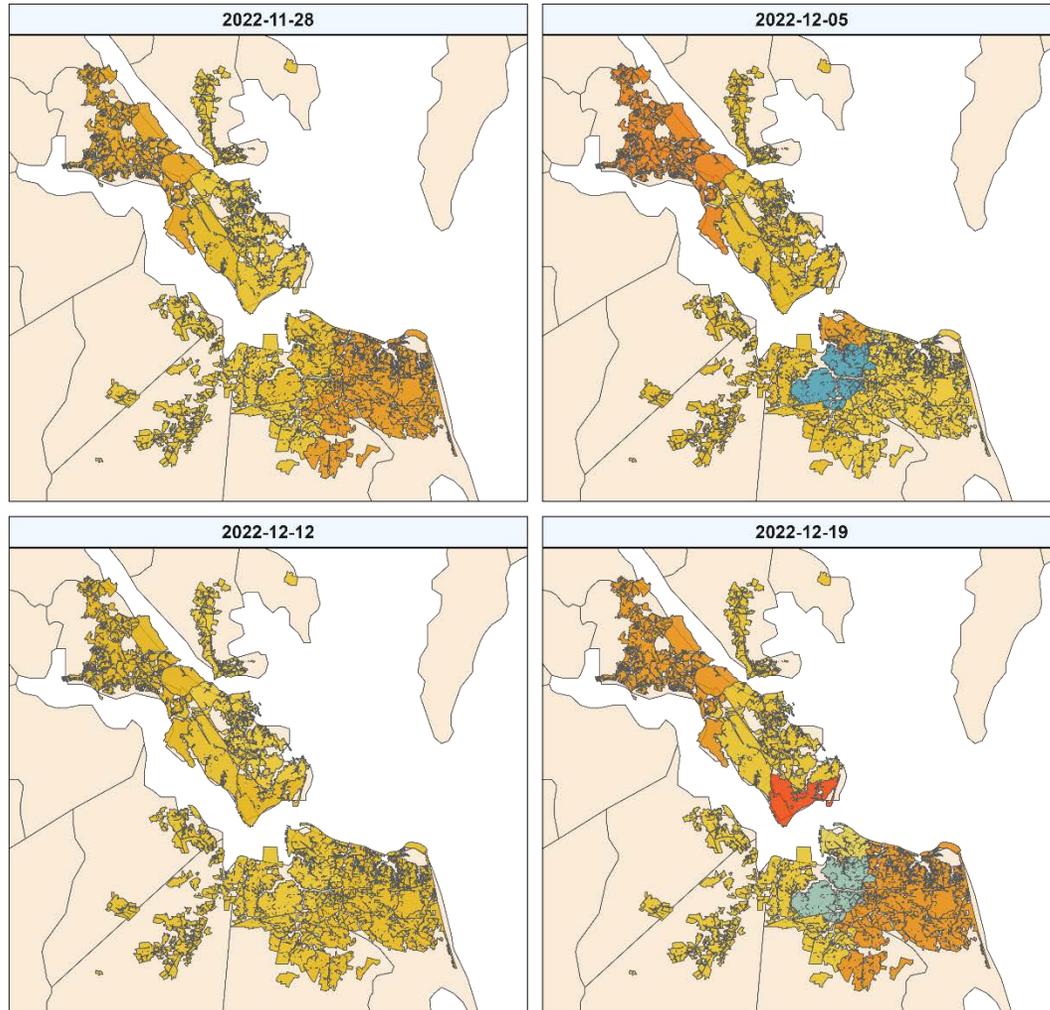
Bold values indicate monthly plant flow average >95% of permitted design flow



Wastewater Surveillance Commission Report

January 2023

SARS-CoV-2 Most Recent 5 Weeks



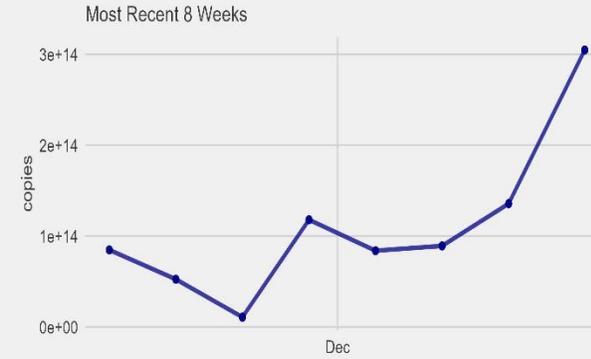
** Note that the scale for this heatmap is now based on the range of the most recent 5 weeks of data.

Regional Viral Load, Hospitalizations, and Deaths

Aggregate Viral Load for HRSD Treatment Facilities



Wastewater Data HRSD Facilities



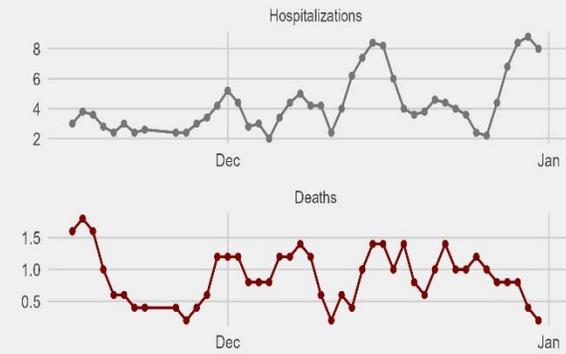
COVID-19 Hospitalizations and Deaths

Hampton Roads 5 Day Rolling Mean

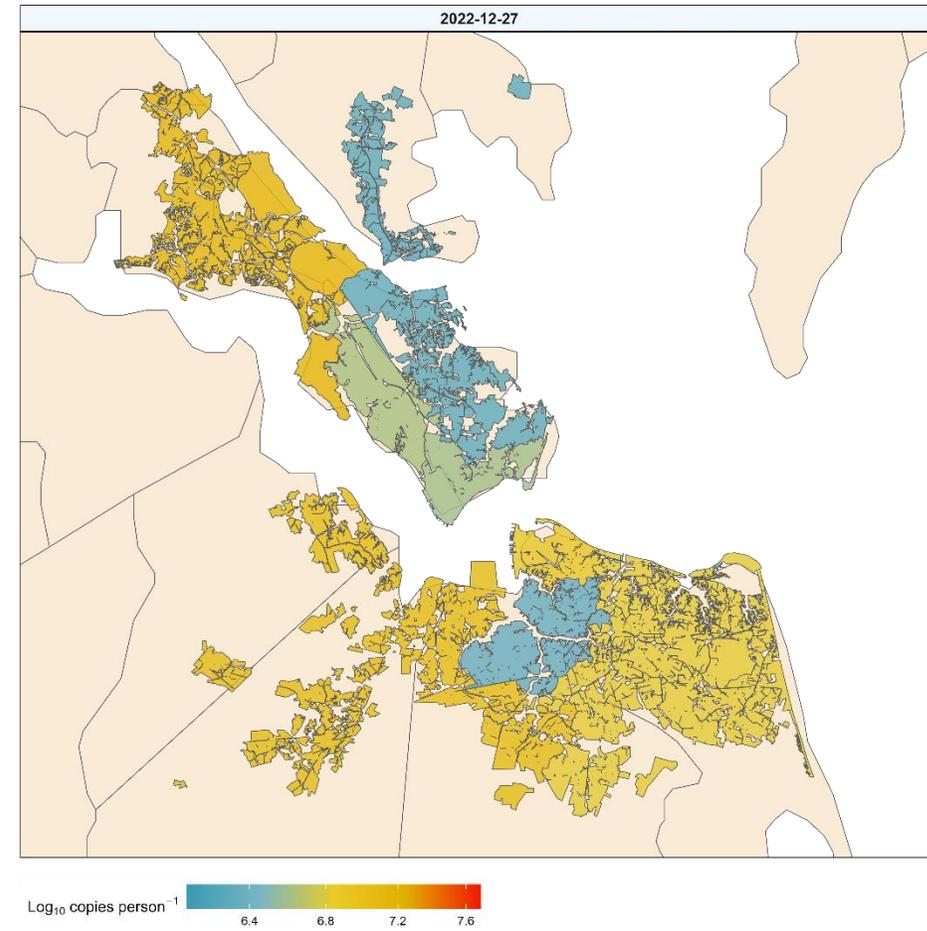
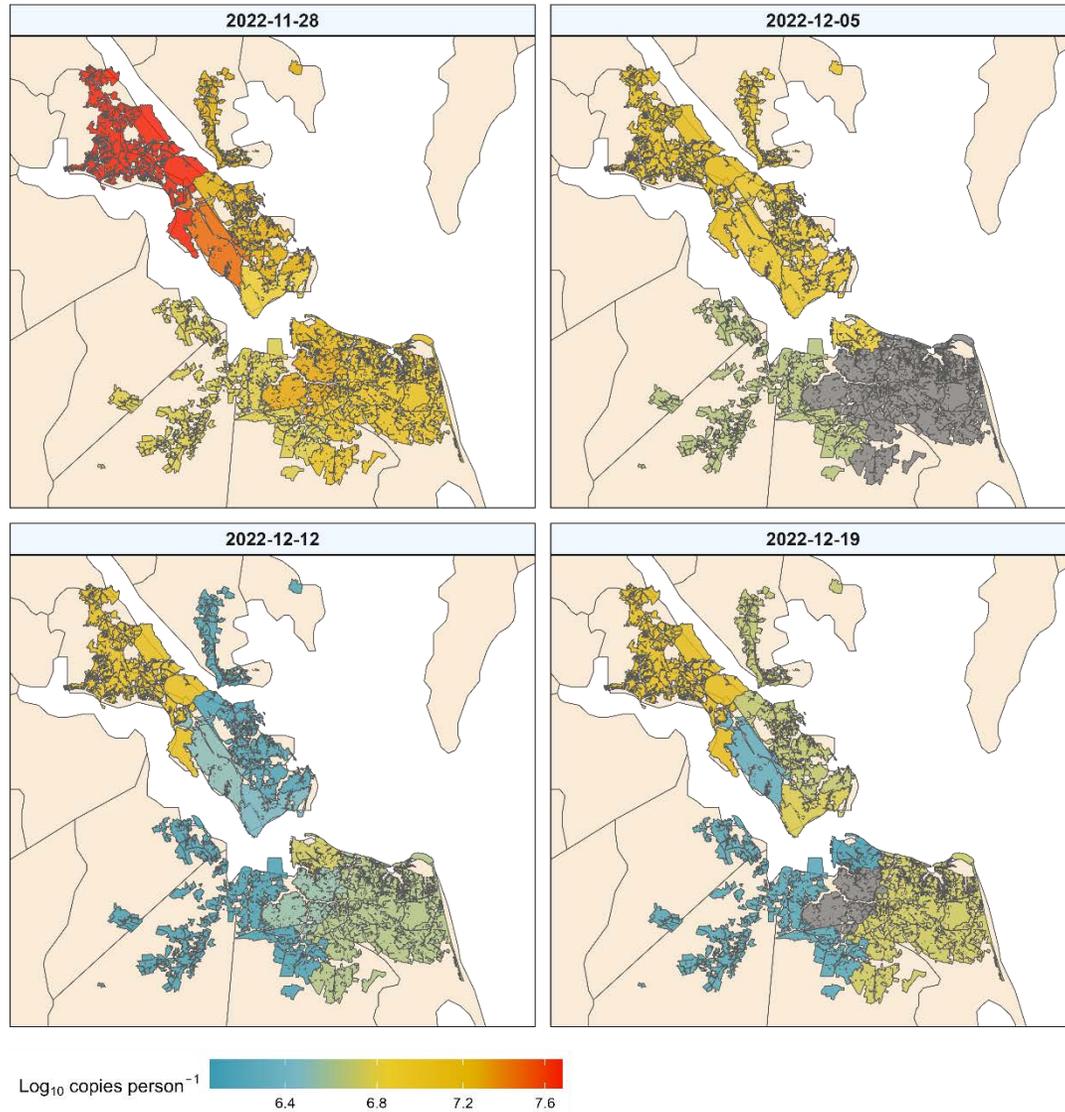


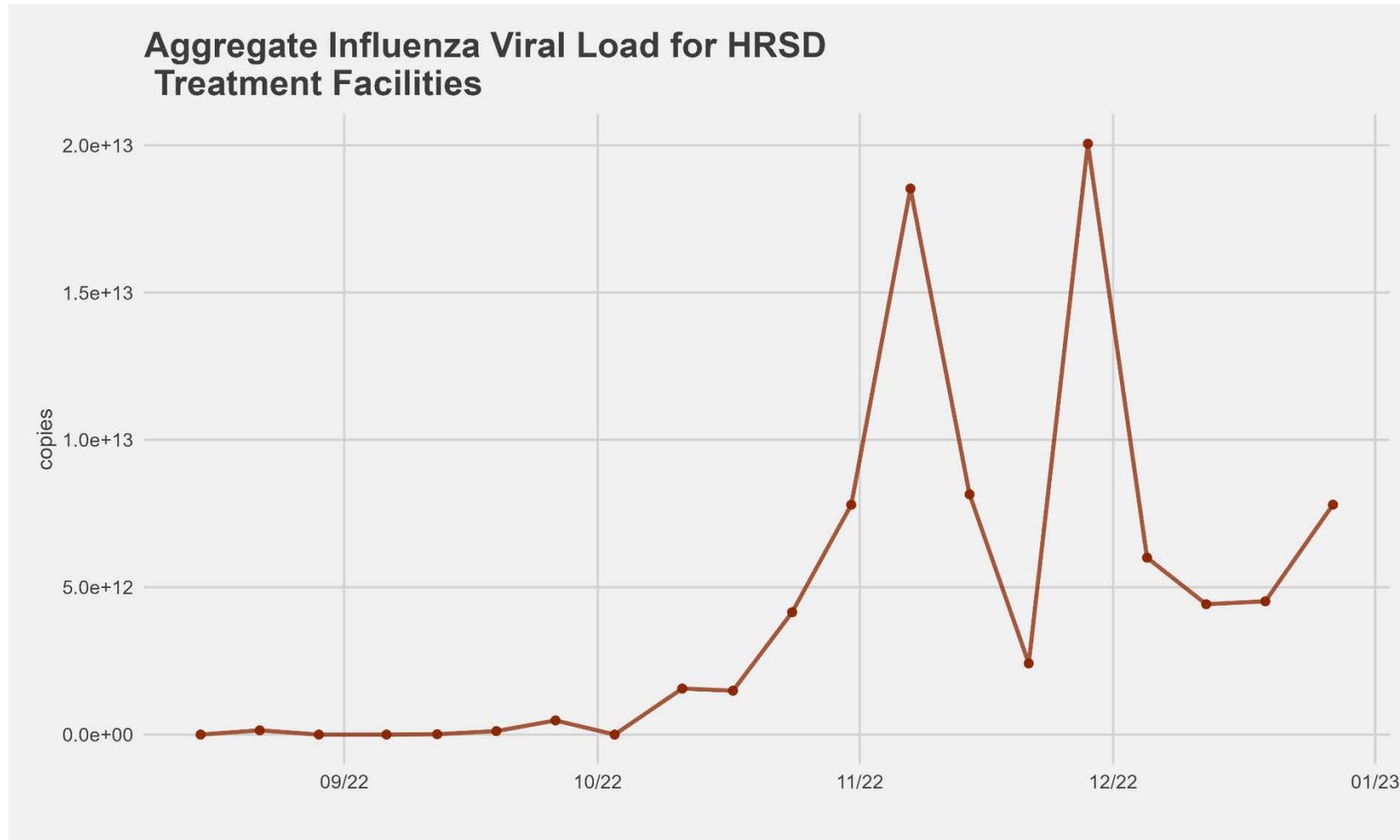
COVID-19 Hospitalizations and Deaths

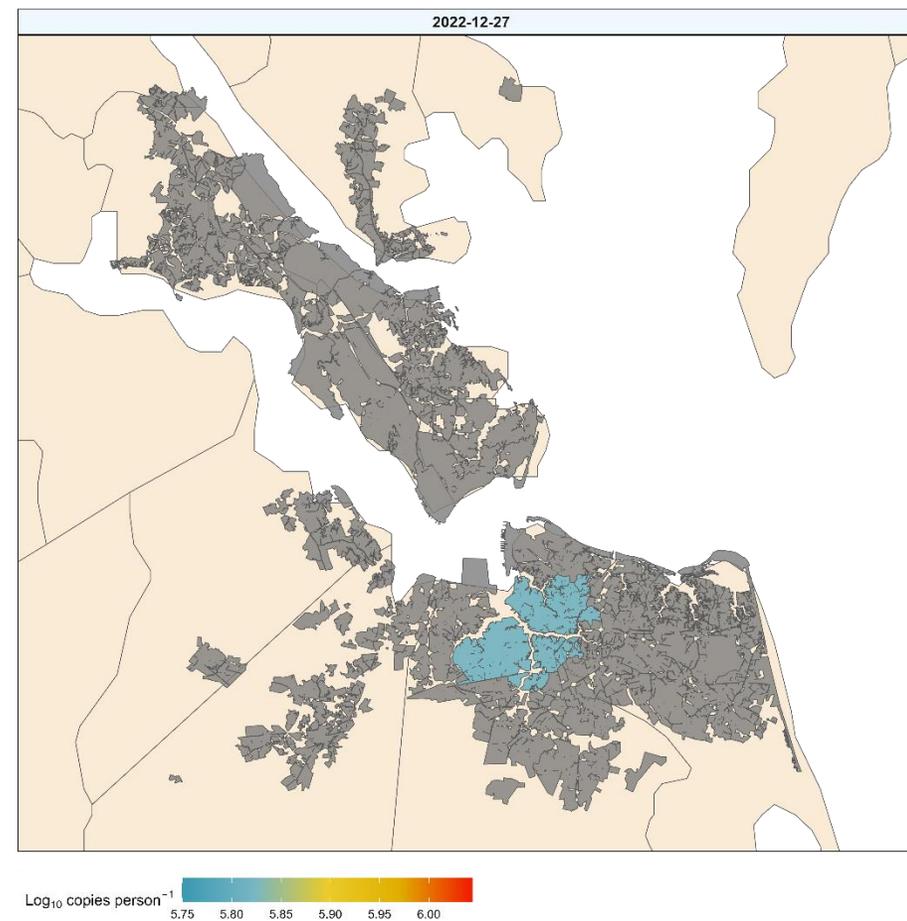
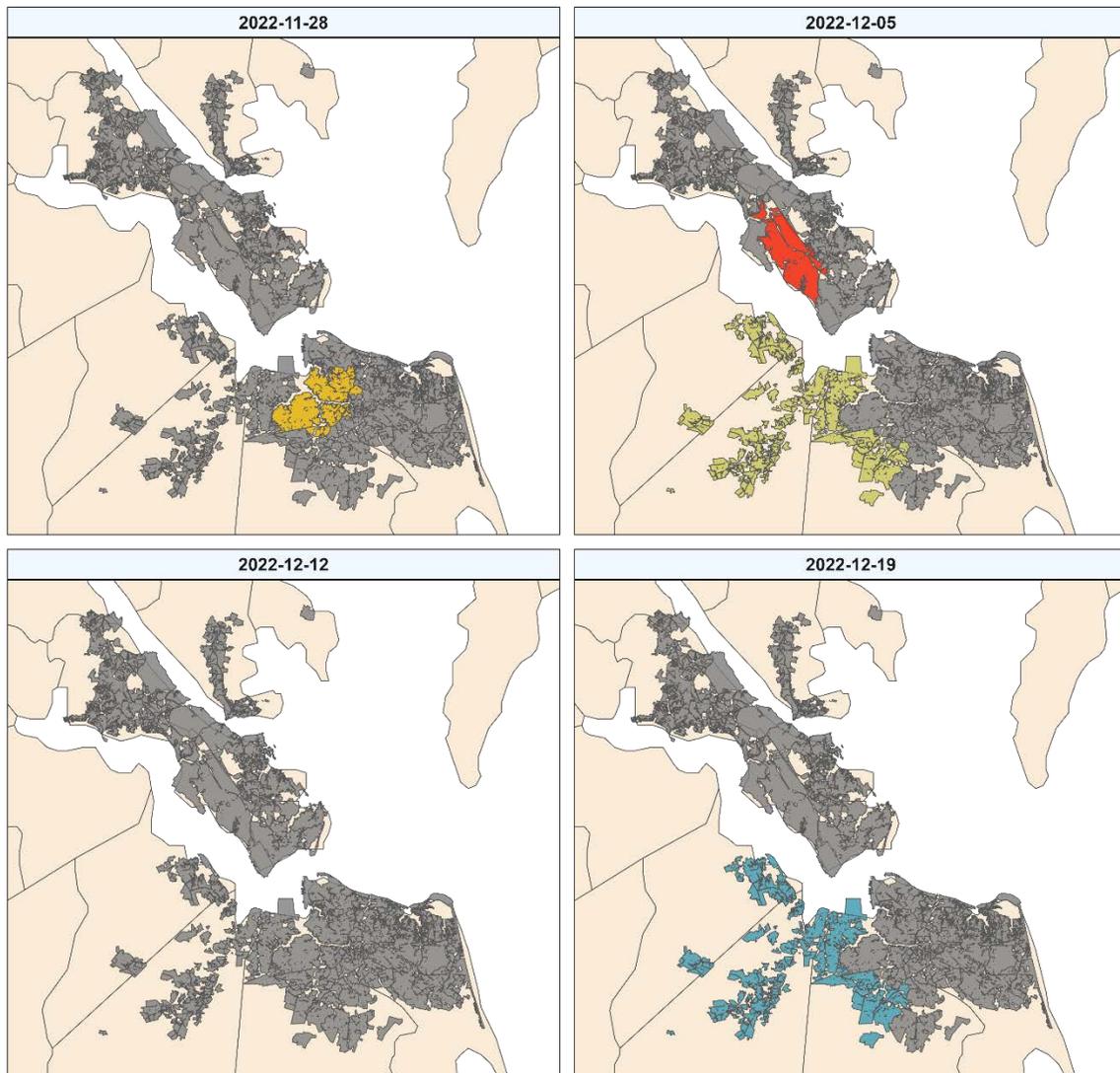
Most Recent 8 Weeks



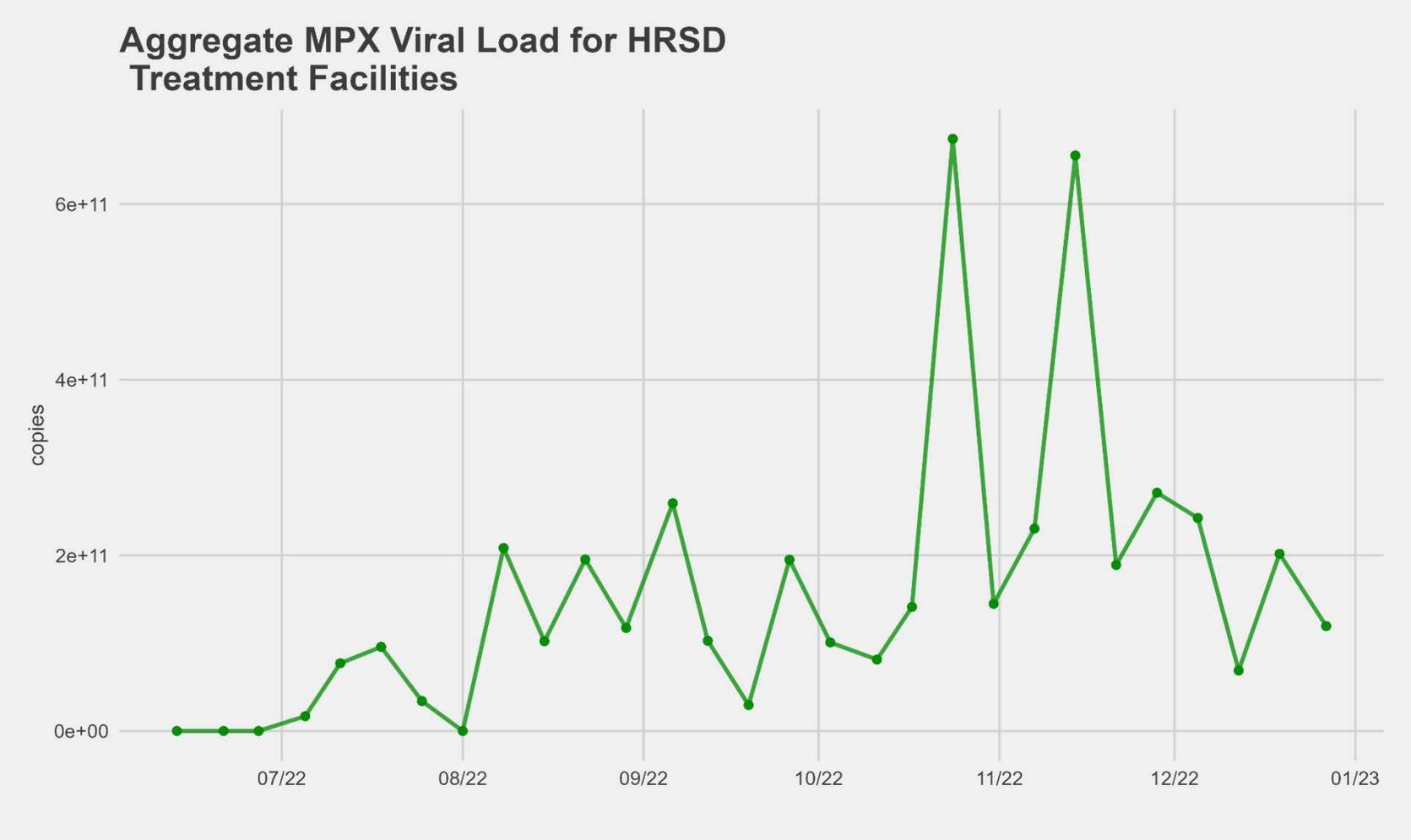
Influenza







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

Personally Identifiable Information

- **Tasks Completed (December 2022)**
 - Sent survey (sent 12/7)
 - Continued planning procedures
 - Began drafting audit program
 - Began initial walkthrough meetings
- **Upcoming Tasks (January 2023)**
 - Collect survey results
 - Continue initial walkthrough meetings

Risk Assessment

- **Tasks Completed (December 2022)**
 - Began prepping for risk assessment procedures
- **Upcoming Tasks (January 2023)**
 - Administer survey and perform risk assessment procedures

Grants Management

- **Tasks Completed (December 2022)**
 - Conducted additional process walkthroughs
 - Finalized flowcharts, checklists/tools
 - Developed preliminary improvement opportunities
- **Upcoming Tasks (January 2023)**
 - Finalize improvement opportunities memorandum

Family Medical Leave Act (FMLA)

- **Tasks Completed (December 2022)**
 - Received remaining documentation from Talent Management
 - Finalized fieldwork procedures
 - Communicated finding logs to Talent Management
- **Upcoming Tasks (January 2023)**
 - Finalize report and provide to Talent Management

Freedom of Information Act (FOIA)

- **Tasks Completed (December 2022)**
 - Updated report based on HRSD feedback
 - Submitted final report to HRSD



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	January 2023	2	1	3
SWIFT Program	2/24/2021	January 2023	9	3	12
Succession Planning	6/4/2021	January 2023	0	4	4
Emergency Repairs	1/18/2022	February 2023	0	3	3
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
Totals			123	11	134

Hampton Roads Sanitation District
Internal Audit
Freedom of Information Act



December 21, 2022





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Executive Summary

SC&H conducted an internal audit of Hampton Roads Sanitation District's (HRSD) Freedom of Information Act (FOIA) function.

The Freedom of Information Act of 1966 entitles members of the public access to any public records and free entry to meetings of a governmental agency. FOIA requires governmental entities to comply with either Federal or State FOIA policies depending on the entity. As a political subdivision of the Commonwealth of Virginia, HRSD is required to comply with the Commonwealth of Virginia's FOIA policy (VA FOIA) and has established a policy with procedures to respond to FOIA requests.

The following provides a summary of the internal audit's objectives, process, and results.

SC&H thanks HRSD's Commission and Executive Secretary, and the Communications department and their personnel, whose assistance and attentiveness were vital during the internal audit process.

Objectives

- A. Evaluate current HRSD policies and procedures to ensure compliance with applicable FOIA laws, rules, and regulations.
- B. Perform benchmarking procedures to compare the FOIA procedures performed at HRSD with those performed by similarly sized organizations and determine areas for enhancement of procedures.
- C. Perform analytical procedures to calculate and aggregate costs associated with FOIA requests to determine potential cost recovery for HRSD.

Internal Audit Process

SC&H conducted the internal audit with the following three-phased approach.

1. Planning: Understand processes, evaluate risks/controls, develop audit program
2. Fieldwork: Conduct evaluation procedures to achieve internal audit objectives
3. Reporting: Conclude internal audit, report results

SC&H will conduct a 4th phase (Follow Up) at a later time to review management action plans resulting from the internal audit's results.

Summary Results

HRSD's overall FOIA program appears to incorporate organized and effectively operating procedures that align with its policy.

One observation is provided that identifies opportunities for risk mitigation and program enhancements. Details are located in the "Observations and Recommendations" section of this report.

Internal Audit Summary

Background

SC&H conducted an internal audit of Hampton Roads Sanitation District's (HRSD) Freedom of Information Act (FOIA) function.

The Freedom of Information Act (FOIA) of 1966 entitles members of the public access to public records and free entry to meetings of a governmental agency. FOIA requires governmental entities to comply with either Federal or State FOIA policies depending on the entity. As a political subdivision of the Commonwealth of Virginia, HRSD is required to comply with the Commonwealth of Virginia's FOIA policy (VA FOIA) and has established a policy with procedures to respond to FOIA requests.

FOIA requirements are established at the federal¹ and state² level so members of the general public and representatives of the media have appropriate access to public records held by public bodies, public officials, and public employees. Regulatory guidance considers all record requests made by the public to be FOIA requests. HRSD's Commission and Executive Secretary acts as HRSD's FOIA Officer. HRSD's Director of Communications serves as the back-up FOIA Officer (administers FOIA related responsibilities the case of the FOIA Officer's absence). The FOIA Officer's responsibilities include:

1. Reviewing and responding to FOIA requests
2. Publishing open Commission meeting materials
3. Complying with state training requirements

HRSD's FOIA policy includes information regarding the rights of individual requestors and HRSD's responsibility to respond to a request. The policy is utilized by the FOIA Officer and departments when completing requests. The policy is reviewed and approved by the Commission when updates are made.

FOIA Request

Members of the public may submit FOIA requests via email, phone call, fax, mail, or in-person. The FOIA Officer evaluates requests and forwards them to the pertinent department, General Manager, and back-up FOIA Officer, as necessary. Typically, the public submits requests directly to the FOIA Officer, but requests may also be submitted to individual departments. In those instances, the department will notify the FOIA Officer of the request and may attempt to respond to the request. If the individual department provides a response, they may consult the FOIA Officer to ensure they are meeting all of the requestors needs prior to submitting a response. When applicable, the FOIA Officer consults the Virginia Freedom of Information Advisory Council and/or HRSD's General Counsel to ensure applicable records are provided.

Once a request has been reviewed, the FOIA Officer and/or a department liaison aggregates the requested records and provides the response to the requestor. Responses are primarily provided via email, but must be returned to the requestor in the format requested (i.e., email, mail, USB, paper copies, etc.). The FOIA Officer, or department, responds to the requestor in one of the following ways:

1. Fulfilling the request and providing the requested records to the requestor.
2. Withholding requested records and citing a specific statutory exemption. Accompanying this response is a written explanation identifying the volume and subject matter of the records

¹ Full text of the federal statute can be accessed at the following website: <https://www.foia.gov/foia-statute.html>

² Full text of the state regulations can be accessed at the following website: <https://law.lis.virginia.gov/vacodepopularnames/virginia-freedom-of-information-act/>

withheld and stating the specific section of the Code of Virginia that allows HRSD to withhold them.

3. Providing only a portion of the requested records. HRSD cannot withhold an entire record if only a portion of the record is subject to an exemption. In this case, the exempted portion is redacted and a written explanation 1) identifying the volume and subject matter of the records withheld and 2) stating the specific section of the Code of Virginia that allows HRSD to withhold them.
4. The requested records could not be found or do not exist. If HRSD knows of another public body that has the requested records, the response shall include contact information for the other public body.

By law, a response to FOIA requests is required within five business days. However, the FOIA Officer may notify the requestor of the need for an extension of seven additional business days if the request cannot be fulfilled in the allotted time. The need for an extension exceeding seven days must be discussed with the requestor and justification documented.

FOIA allows organizations to charge requestors for the time and materials required to aggregate documentation related to individual FOIA requests. Further, HRSD's FOIA policy includes information to address this information.

Based on the information requested and the level of effort required to aggregate documentation and respond to a request, HRSD may require payment for the costs associated with completing a FOIA request. Should the cost of completing a request exceed \$200, HRSD communicates the estimated cost to the requestor. A deposit or payment in advance of receipt of records may be required.

Open Commission Meetings

Commission meetings are required by FOIA to be open unless considered exempt under the law due to the sensitive nature of information discussed. Open meetings are Commission meetings that guarantee access by the public to attend and engage with the Commission regarding the topics discussed. In instances where an exemption occurs, the meeting and/or meeting components will be conducted in closed sessions. Relevant reasons for HRSD to conduct closed Commission meetings include, but are not limited to, personnel matters (reviews and compensation discussions), acquisition or disposition of real property for a public purpose, investment of public funds, discussion of cybersecurity and business continuity and disaster recovery, consultation with legal counsel regarding specific legal matters, and discussion of the award of a public contract.

HRSD posts a schedule of all Commission meetings on its website as well as the vestibule in HRSD's lobby. The agenda of each meeting is posted on HRSD's website at least three business days before the scheduled meeting. Members of the public are able to submit feedback via a public comment form posted on the FOIA webpage on the main HRSD site.

FOIA Training

HRSD Commissioners and the FOIA Officer receive in-house FOIA training, provided by HRSD's General Counsel, on an annual basis. This consists of a presentation detailing pertinent information related to receiving and responding to FOIA requests and what constitutes a public meeting. Commissioners are provided a copy of the FOIA Policy for reference.

Similarly, the FOIA Officer is required to complete state FOIA training on a bi-annual basis. Training is administered by the Virginia Freedom of Information Advisory Council and can be accessed at its

website. The FOIA Officer must take a quiz following the training to confirm their understanding of the material discussed.

During new employee orientation, all new HRSD employees are provided with a brief overview of FOIA and the expectations of individuals receiving and responding to FOIA requests. The overview includes details pertaining to the types of requests received, the timing required to respond, and provides instructions to inform the FOIA Officer upon receipt of a FOIA request.

Objectives and Scope

Objectives

The following objectives were established based on the internal audit planning procedures:

- A. Evaluate current HRSD policies and procedures to ensure compliance with applicable FOIA laws, rules, and regulations.
- B. Perform benchmarking procedures to compare the FOIA procedures performed at HRSD with those performed by similarly sized organizations and determine areas for enhancement of procedures.
- C. Perform analytical procedures to calculate and aggregate costs associated with FOIA requests to determine potential cost recovery for HRSD.

Scope

The internal audit initiated in March 2022. Fieldwork procedures began in July 2022 and were completed in September 2022. The internal audit focused on the policies, procedures, and controls in place at the time of the internal audit. Documentation and samples selected were examined for the period of January 1, 2022 to July 31, 2022.

Methodology and Approach

Process Walkthrough and Narrative Creation

SC&H obtained and reviewed FOIA policy and procedural documentation, examples of FOIA deliverables, and management documentation. SC&H also met with the FOIA Officer and members of the Communications department to conduct detailed process understanding discussions of in-scope FOIA functions. Based on the discussions and review of the procedural documentation, SC&H created a process narrative to document the following functions within the FOIA process:

1. FOIA information requests
2. Open Commission meetings
3. FOIA training
4. Annual FOIA policy updates

Risk Ranking and Audit Program Creation

Following the documentation of process steps, SC&H developed a FOIA procedure risk and control matrix (RCM). The RCM aligns risks with controls to analyze the control environment and ranks the risks on perceived likelihood and impact. Based on the understanding of the processes, risks, and related controls, SC&H developed an audit program to achieve the objectives described above. The audit program included detailed steps to address each objective with the goal of verifying the existence of sound internal controls and identifying opportunities for improvement.

Audit Program Execution

1. Evaluated current HRSD policies and procedures for compliance with applicable FOIA laws, rules, and regulations.
 - a. Obtained and examined the VA FOIA to determine if HRSD policies and procedures align with the requirements set forth in the state policy.
 - b. Reviewed a sample of FOIA requests to verify compliance with the HRSD FOIA policy.
2. Performed benchmarking procedures to compare the FOIA procedures performed at HRSD with those performed by similar organizations to determine areas for operational enhancements.
3. Performed analytical procedures to calculate and aggregate costs associated with FOIA requests to determine potential cost recovery for HRSD.
 - a. Reviewed a sample of FOIA requests to determine the potential cost recovery based on the level of effort to complete the request and the cost of materials/resources expended in completing the request.

Summary of Work

HRSD's overall FOIA program appears to incorporate organized and effectively operating procedures that align with its policy. The FOIA Officer drives the program by administering a variety of functions to help provide the public with organizational transparency and access to requested information.

One observation is provided that identifies opportunities for risk mitigation and program enhancements.

We appreciate the assistance and cooperation of the management and staff involved in HRSD's FOIA procedures. Please contact us if you have any questions or comments regarding any of the information contained in the internal audit report.

SC&H Group, Inc.



Matthew Simons, CPA, CIA, CGAP
Principal

Observations and Recommendations

Observation 1

Summary

Opportunities exist to mitigate risks and enhance operational activities associated with HRSD's FOIA operations.

Detail

SC&H obtained and reviewed policy and procedural documentation, reviewed FY22 FOIA requests and responses, and performed jurisdictional benchmarking. Based on the procedures, performed, HRSD appears to have functional FOIA operations, managed by the FOIA Officer. However, there are opportunities to:

1. Address current risks within the operations.
2. Modify and enhance tasks to streamline and organize operations.

The following categories include summaries of the current state of certain operations and conditions that can be considered for risk mitigation and process enhancements.

Request Tracking and Response

HRSD has a FOIA policy and resulting procedures that appear to align with VA FOIA.

The process for maintaining FOIA requests is manual, and requests and responses are stored via email by the FOIA Officer. Presently, there is no systematic mechanism outside email to receive, maintain, track, and monitor requests.

HRSD is required to respond to FOIA requests within five business days of receipt. If the response will take longer than the prescribed timeline, the FOIA Officer can notify the requestor, in writing, that an additional seven business days will be required to complete the request.

SC&H reviewed 24 FY22 FOIA requests. One request extended beyond the five business days, but the extension was not formally communicated to the requestor. This request was completed within seven business days.

Cost Aggregation

VA FOIA and HRSD policy allow HRSD to request reimbursement of the cost to complete a request response. Within HRSD's timekeeping system, a project code has been established to track time associated with the completion of FOIA requests.

Per HRSD, employees do not consistently enter time attributed to the completion of FOIA requests within the system and time is not tracked based on a specific request. Additionally, if a response takes fewer than 15 minutes to compile, time is not reported. As a result, the complete amount of time and expenses attributable to FOIA requests was not confirmed.

FOIA Training

The FOIA Officer is required to complete training administered by the VA FOIA Advisory Council on a bi-annual basis. Annual FOIA training is also administered to the Commissioners by HRSD's General Counsel on an annual basis.

Periodic training is not required for other departmental employees within HRSD who may be presented with and assist with FOIA requests.

Risks

1. Risk of noncompliance exists based on the following:
 - a. FOIA requests may not be addressed and/or consistently follow the necessary protocol completely, adequately, and in a timely manner.
 - b. Untrained and uninformed personnel may inappropriately handle, manage, and communicate FOIA requests and responses.
2. HRSD may not be realizing the full cost recovery potential for time and expenses consumed to address FOIA requests.

Recommendation 1

The following are intended to assist HRSD in its consideration to mitigate risks, enhance operational efficiencies, and offer cost recovery throughout the FOIA administration function.

1. Evaluate the cost and benefits of a tool/mechanism to centralize FOIA administration. This could include, but may not be limited to the following:
 - a. Implement a tool/application to intake FOIA requests from HRSD's website and operate as an automated workflow to route the request to HRSD stakeholders. The tool can be further applied to organize and maintain FOIA related requests and data/information.
 - b. Establish a restricted, centralized tracking tool/document housed in a secure location (e.g., SharePoint) to be utilized by all individuals in receipt of a FOIA request. The tracking tool could include:
 - i. Name of the requestor
 - ii. Date of the request
 - iii. Required response date
 - iv. Determination/communication of the need for an extension
 - v. Information requested
 - vi. Responsible department/individual
 - vii. Estimated/actual cost
2. Implement a periodic organizational (or departmental leadership/management, including employees who may handle FOIA requests) FOIA training to help ensure proactive and consistent response to and management of FOIA requests across the organization.
3. Update the FOIA policy and procedures related to the estimation and aggregation of costs, and communicate the updates to HRSD stakeholders. Updates to the policy and consistent enforcement of cost recovery could lead to the following:
 - a. Aggregated data related of past costs to help HRSD understand level of effort and cost involved to address requests.
 - b. Enhancements to the HRSD website and FOIA landing page, which could include a detailed fee structure, providing transparency and guidance to requestors.
 - c. Development of a process for estimating the costs necessary to complete a request, communication to requestors regarding the estimated costs, and instructions to requestors (e.g., deposit, acceptable payment methods, etc.).

At the time of this audit, we were informed that the FOIA Officer was in the process of updating the FOIA policy to accommodate new guidelines set forth by the Commonwealth of Virginia. Information from the above recommendation was anticipated to be included.

Management Action Plan 1

1. HRSD will continue to track FOIA requests via Outlook. If the number of requests increase in the future, we will consider implementing a tracking software system to assist with the

management of requests. On an annual basis, the need for updated tracking will be evaluated and procedures will be amended as necessary.

2. HRSD will implement periodic FOIA training for staff.
3. HRSD will update the FOIA policy related to estimation and aggregation of costs and communicate the update to stakeholders.

Implementation Date/Period 1

1. Going forward, HRSD will evaluate the need for a tracking software system annually.
2. Periodic FOIA training for staff will be implemented by 7/1/2023.
3. Updates to the FOIA policy will be made by 4/1/2023.

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%	78%	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	1.45	1.58	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	Sep-22	Oct-22
	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	126.2	128.6
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	4	3	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	106%	106%	106%	108%	109%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	106%	103%	104%
	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	\$41,007,932	\$42,098,005
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	29%	31%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	1	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	4:16,059	4:21,411
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	51	8	12
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	68,389,850	86,621,880
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	22%	22%	17%	17%	17%	18%	14%	14%	14%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	687	51	95
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	125	17	25

AGENDA ITEM 15. – January 24, 2023

Subject: Closed Meeting

Recommended Action: In accordance with Section 2.2-3712A of the Code of Virginia, a motion is needed that we go into a closed meeting for discussion of the performance of a specific employee of a public body as provided for in Section 2.2-3711A1.

Brief: Discussion of performance of specific public officers, appointees or employees of any public body; and evaluation of performance where such evaluation will necessarily involve discussion of the performance of specific individuals.

AGENDA ITEM 16. – January 24, 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.