

Revised 11/15/2024*
HRSD Commission Meeting Agenda
9:00 a.m. – November 19, 2024

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

Reservations are required to receive a link to the virtual meeting, address the Commission, submit written comments to be read into the minutes or to request accommodations to attend the meeting in-person.

Reservations must be submitted by noon one business day prior to the meeting. Instructions to submit your reservation request are available on the website: <https://www.hrsd.com/meeting-minutes>

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
	Call to Order	Chair
1.	Awards and Recognition	Bernas
2.	Public Comments Not Related to the Agenda	Secretary
3.	Consent Agenda	Bernas
4.	Great Bridge Boulevard & I-64 Interchange Interceptor Force Main Emergency Repair (SF-164) New CIP and Initial Appropriation – Non-Regulatory	Husselbee
5.	Conceptual Project Development (FY 2025) Initial Appropriation – Non-Regulatory	Husselbee
6.	North Churchill Interceptor Force Main (SF-206) Segmental Replacement at Swannanoa Drive Initial Appropriation – Non-Regulatory	Husselbee
7.	Central Environmental Laboratory Expansion and Rehabilitation Approval of Guaranteed Maximum Price, Task Order (>\$200,000), and Additional Appropriation – Non-Regulatory (>\$1,000,000)	Husselbee
8.	Biosolids Class A Marketing Program Contract Award (>\$200,000)	Mitchell
9.	Town of Wachapreague, Single Family Homes Service Area Service Area Expansion Agreement	Dano
10.	New Business	Bernas
11.	Unfinished Business	Bernas
12.	Commissioner Comments	Chair
13.	Informational Items	Bernas

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
14.	Closed Meeting	Bernas
15.	Reconvened Meeting	Bernas

Next Regular Commission Meeting: December 17, 2024 in Virginia Beach

AGENDA ITEM 1. – November 19, 2024

Subject: Awards and Recognition

Recommended Action: No action is required.

Brief: HRSD is pleased to announce the following:

a. Promotion Announcements

- (1) Ms. Mary Corby was recently promoted to Chief Information Officer (CIO) in the Information Technology Department (ITD). She holds a Bachelor of Science degree in Computer Information Systems from High Point University. Mary was hired in 1996 as a Programmer Analyst in the Data Processing work center for Finance and Administration. She's held a variety of roles over the years at HRSD with her last position being the Director of Enterprise Application Services. Mary has over 34 years of professional experience in the technology and utility industry. She has a proven ability to leverage innovative solutions to improve enterprise software systems, boost operational efficiency and enhance customer experience. She is also skilled in building and leading high-performing teams and managing large-scale IT projects.
- (2) Mr. Mike Hess was recently promoted to Senior Project Manager within Design & Construction - SWIFT. Mike was hired in 2018 as the South Shore Interceptor Systems Manager prior to being promoted to his current position. Mike is a licensed professional engineer and an associate Design-Build Institute of America professional. He has 15 years of experience as a design engineer and project manager for engineering consulting firms prior to joining HRSD. Mike holds a bachelor's degree in civil engineering from Youngstown State University. Mike is an active participant in the Virginia Water Environment Association (VWEA) and a regular volunteer at school outreach events. Mike will be the internal SWIFT Deputy Program Manager and will provide direction and leadership to our external SWIFT program management consultants. Additionally, Mike will manage the drilling and integration of the "off-site" recharge wells associated with Nansemond Treatment Plant (NTP).
- (3) Ms. Katie Markle was recently promoted to Enterprise Resources Planning (ERP) Business Manager in the Financial Analysis and Data Systems (FADS) Department. Katie was hired in 2017 as the Procurement Coordinator and has steadily been promoted within the Finance Division, her last position being a Senior Business Analyst. Katie holds a Bachelor's degree in Business Administration with a minor in Finance from Old Dominion University (ODU). Katie will be leading all ERP initiatives and improvements, in close collaboration with IT, ensuring our ERP system continues to meet the organization's needs as HRSD continues to evolve. Katie is an active participant in facilitation, primarily with the Your Role in Quality (YRIQ) group, and takes pride in assisting new HRSD staff with meeting their potential.
- (4) Mr. Robert (Mack) Pearce was recently promoted to Treatment Process Engineer (TPE) in the Water Technology and Research (WT&R) Department. Mack holds a Master's Degree in Environmental Engineering and is close to completing his Ph.D. in Civil Engineering, both from Virginia Tech. Mack has been with HRSD as a Research Intern within the Sustainable Water Initiative For Tomorrow (SWIFT) program since 2016 and has been integral in developing some of the treatment concepts that are part of the full-scale James River and Nansemond SWIFT facilities.

Mack has published research related to SWIFT and presented work at numerous conferences. As TPE, Mack will lead the process startup and commissioning efforts at James River Treatment Plant (JRTP) and staff training on the SWIFT process in advance of operation in 2026.

Beyond startup, Mack will stay involved in research related to potable reuse and pursue process and efficiency optimization at HRSD's SWIFT facilities.

b. New Employee Introductions

- (1) Mr. Delane Carty was recently hired as a Project Manager in Engineering's Design and Construction, Special Projects Department. Delane has nearly 30 years of experience and holds a Bachelor's Degree in Civil Engineering from Old Dominion University (ODU). He is joining us from the City of Hampton, where he held various roles in the Public Works Department, which gave him experience in construction, engineering design, project management, and construction inspection. As a Project Manager at HRSD, Delane will be responsible for the successful management and delivery of capital improvement projects assigned to the Special Projects Department.
- (2) Ms. Kayla Rutherford was recently hired as a Project Manager of the South Shore Design and Construction Department in the Engineering Division. Kayla is a licensed engineer with 4.5 years of experience in design. She holds a Bachelor's Degree in Integrated Science and Technology from James Madison University (JMU) and a Master's Degree in Environmental Engineering from Old Dominion University (ODU). She recently worked for Hazen and Sawyer, a consultant engineering firm. She has experience in condition assessment and design of pump stations, sewer mains, water mains, treatment, and stormwater. She will be working closely with the Operations Department to deliver HRSD projects. Kayla is an active participant in the VWEA.

c. Other Awards

(1) HRSD's Speak Easy Toastmasters Club

HRSD's Speak Easy Toastmasters club was recently honored with several prestigious awards, underscoring its commitment to excellence in public speaking, communication, and leadership development. Toastmasters International, a nonprofit organization, provides a platform for members to hone these essential skills, and Speak Easy has proudly upheld Distinguished Club status almost every year since its founding. The Speak Easy club is currently ranked the number one club in our district of 70+ clubs and is a supportive space where all HRSD employees can develop their communication and leadership skills.

Speak Easy has earned **Perfect 10 Status for the past three years**, recognizing its achievement of all 10 goals in the Distinguished Club Program. Two members also received the esteemed **Distinguished Toastmasters (DTM) Award**, the highest individual honor in Toastmasters, achieved by only three percent of members. Michelle Willke and Jacquie Harrison (a second-time recipient) earned this award, reflecting their exceptional leadership and communication achievements.

Speak Easy's President, Michelle Willke, earned the **Director's Cup** as an Area Director. This award acknowledges her area as one of the top-performing areas in the district, showcasing her impactful leadership.

Several members—Amanda Albright, Jacquie Harrison, Dylan Caverly, Kim Fielder, and Michelle Willke—received the **Triple Crown Award**, which recognize members who complete three or more educational awards within a Toastmasters year, highlighting their commitment to personal growth.

The club was further honored with the following awards:

Excellence in Leadership – Honors clubs that have maintained Distinguished status for three or more consecutive years.

Superior Membership Growth – Celebrates clubs that have sustained or surpassed charter membership strength for at least three consecutive years.

Super Seven 2023-2024 – Awarded to clubs where all seven officers were trained in both spring and fall, showcasing dedication to club leadership development.

Half by Half – Recognizes clubs that achieved at least five Distinguished Club Program goals by December 31, 2023.

Early Achievers – Given to clubs that reached Distinguished status by March 1, 2024.

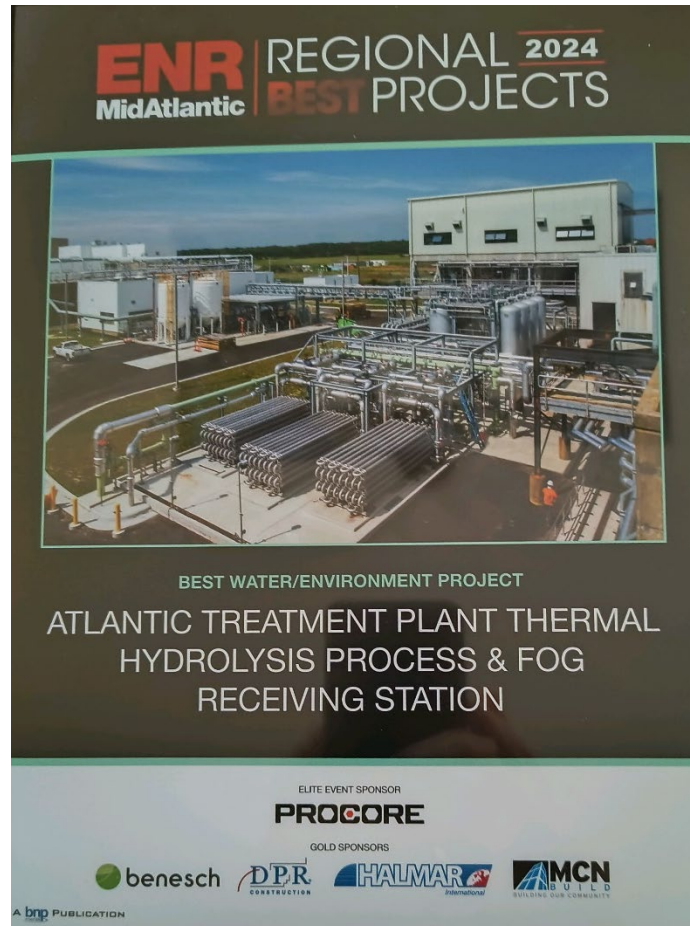
Select Distinguished Area 46 Division D – This award signifies that Area 46, which includes HRSD's club, met its goals for paid memberships and Distinguished Clubs.

These awards are a testament to the Speak Easy club members who are working diligently to grow as communicators and leaders.



(2) **Mid-Atlantic Best Project Award for ATP THP by ENR**

Engineering News and Record (ENR) selected the Atlantic Treatment Plant (ATP) Thermal Hydrolysis Process (THP) and Fats, Oils, and Grease (FOG) Receiving Station project as the best Water/Environment project in the Mid-Atlantic region. This project was important to HRSD since it doubled the digester capacity at the ATP and the plant is now able to produce Class A Biosolids. The project was designed by HDR and Brown & Caldwell. Crowder was the Construction Manager at Risk (CMAR) for construction.



d. **Other Recognition**

VIRGINIAforever Bridge Builder Celebration

The 2024 Bridge Builder Celebration was held on October 23, at the Boathouse, Rockett's Landing. Each fall, VIRGINIAforever hosts the signature event – the Bridge Builder Celebration – in Central Virginia. The event honors elected officials and others who have championed efforts to protect Virginia's land and water.

This year Dennis Treacy was honored, formerly with Smithfield Foods, as Chief Sustainability Officer, for his service in the protection of Virginia's natural resources.



AGENDA ITEM 2. – November 19, 2024

Subject: Public Comments Not Related to Agenda

AGENDA ITEM 3. – November 19, 2024

Subject: Consent Agenda**Recommended Action:** Approve the Consent Agenda.**Brief:** The items listed below are presented on the following pages for Commission action.

- a. Approval of Minutes - The draft minutes of the previous Commission Meeting were distributed electronically prior to the meeting.
- b. Contract Awards (>\$200,000)
 1. [Cybersecurity Practice and Procedure Initiative](#) \$1,870,501
 2. [Microsoft Enterprise Licensing Agreement and Power BI Suite](#) \$4,137,275
 3. [Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements](#)

Contract Award	\$4,276,630
Task Order	\$340,584
Additional Funding	\$3,180,916
 4. [SWIFT Laboratory Analysis and Testing Services](#) \$3,879,475
- c. Task Orders (>\$200,000)
 1. [iPacs and Biosolids System Upgrades & Hosting Costs](#) \$561,910
- d. Non-Regulatory Capital Improvement Project – Additional Appropriation <\$1,000,000
 1. [Great Bridge Interceptor Force Main Emergency Replacement \(SF-180\)](#)

Additional Funding	\$732,548
Task Order	\$497,977
 2. [West Point Pump Station No. 4 \(Thompson Avenue\)](#) \$230,625
- e. Regulatory Capital Improvement Project – Additional Appropriation <\$10,000,000
 1. [Interceptor System Improvements - Phase I](#) \$350,000

CONSENT AGENDA ITEM 3.b.1. – November 19, 2024

Subject: Cybersecurity Practice and Procedure Initiative
Contract Award (>\$200,000)

Recommended Action: Award a contract to Jacobs Engineering Group, Inc. in the amount of \$1,631,087 for one year with four renewal options and an estimated cumulative value of \$1,870,501.

CIP Project: AD012500

Regulatory Requirement: None

Budget	\$15,500,000
Previous Expenditures and Encumbrances	(\$9,962,579)
Available Balance	<u>\$5,537,421</u>

Type of Procurement: Competitive Negotiation

A Public Notice was issued on September 6, 2024. Seven firms submitted proposals on September 27, 2024, and six 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 (RFP). Four firms were short-listed, interviewed, and technically ranked as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Jacobs Engineering Group, Inc.	93	1
ABSG Consulting, Inc.	86	2
E Merge Systems LLC	85	3
Gannett Fleming, Inc.	82	4

HRSD Estimate: \$1,000,000/yr

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

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

Project Justification: IT staff have coordinated a vulnerability assessment in which HRSD's Industrial Control Systems (ICS) and Operational Technology (OT) environments were identified as a vulnerability to a growing range of cyber threats to those environments and an advanced need for a solution to address and minimize the risk exposure.

Contract Description: This contract is for Operational Technology Cybersecurity Support Services to minimize vulnerability to the Industrial Control Systems (ICS) and Operational Technology (OT) environments that are vital to the wastewater treatment process. These services will enhance the cyber-resiliency of HRSD critical infrastructure, while simultaneously ensuring the continued operational efficiency of these environments.

Services include conducting a baseline assessment to evaluate the current cybersecurity investments, solutions, and controls within ICS and OT environments and performing a range of tasks based on those assessments. This includes, but is not limited to designing, recommending and architecting enhancements, implementing and managing the ongoing operations to ensure continuous protection, and providing network engineering to support implementation. The contract will also include annual assessments of the ICS and OT environments that follow industry-recognized cybersecurity framework practices.

Analysis of Cost: The cost is based on direct negotiations with the Offerors as part of the competitive negotiation process. Additional services identified through the baseline or annual assessments will be issued as task orders using negotiated rates on an as needed basis. Jacobs Engineering's labor rates are found to be fair and reasonable according to cybersecurity consulting, implementation and management industry standards. In addition, Jacobs Engineering is providing firm fixed costs for the annual assessments for contract years two through five, showing a cap of approximately three percent.

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

CONSENT AGENDA ITEM 3.b.2. – November 19, 2024

Subject: Microsoft Enterprise Licensing Agreement and Power BI Suite
Contract Award (>\$200,000)

Recommended Action: Award a contract to SHI International Corp in the amount of \$827,455 for one year with four renewal options and an estimated cumulative value of \$4,137,275.

Regulatory Requirement: None

Type of Procurement: Use of Existing Contract Vehicle

Contract Description: This contract is an agreement for Microsoft Enterprise Licensing that includes all Microsoft products and licensing using the Virginia Information Technologies Agency (VITA)-VA-200114-SHI cooperative contract. HRSD has switched to a Microsoft 365 E5 plan which has advanced threat protection, security compliance, voice and analytical capabilities, among other security features.

Analysis of Cost: Upon evaluation of the Virginia Information Technology Agency agreement VITA-VA-200114-SHI terms and conditions, as a public agency, HRSD is eligible to use the contract awarded to SHI International Corp.

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

CONSENT AGENDA ITEM 3.b.3. – November 19, 2024

Subject: Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements
Contract Award (>\$200,000), Task Order (>\$200,000), Additional Appropriation –
Regulatory Required Capital Improvement Project (<\$10,000,000)

Recommended Actions:

- a. Award a contract to Bridgeman Civil, Inc., in the amount of \$4,276,630.
- b. Approve a task order with Rummel, Klepper & Kahl, LLP (RK&K) in the amount of \$340,584.
- c. Appropriate additional funding in the amount of \$3,180,916.

CIP Project: CE011600

Regulatory Requirement: Rehab Plan Phase 2 (5/5/2025 Completion)

Budget	\$2,262,394
Previous Expenditures and Encumbrances	(\$398,433)
Available Balance	<u>\$1,863,961</u>
Proposed Construction Contract to Bridgeman Civil, Inc.	(\$4,276,630)
Proposed Task Order to RK&K	(\$340,584)
Proposed Contingency (10% of Construction)	(\$427,663)
Project Shortage/Requested Additional Funding	(\$3,180,916)
Revised Total Project Authorized Funding	<u><u>\$5,443,310</u></u>

Contract Status with Task Orders:	Amount
Original Contract with RK&K	\$72,200
Total Value of Previous Task Orders	\$318,297
Requested Task Order	\$340,584
Total Value of All Task Orders	\$658,881
Revised Contract Value	\$731,081
Engineering Services as % of Construction	17%

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Division advertised and solicited bids directly from potential bidders. The project was advertised on September 30, 2024, and two bids were received on October 29, 2024. The bids received are listed below:

Bidder	Bid Amount
Bridgeman Civil, Inc.	\$4,276,630
Tidewater Utility Construction, Inc.	\$15,535,500

Engineer Estimate: \$2,731,323

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, Bridgeman Civil, Inc., in the amount of \$4,276,630.

Project Description: This project is to rehabilitate approximately 1,662 linear feet of 24-inch diameter sanitary sewer gravity main by means of cured-in-place pipe liner and nine associated manholes. The project is in both the cities of Virginia Beach and Norfolk. The attached [map](#) depicts the project location.

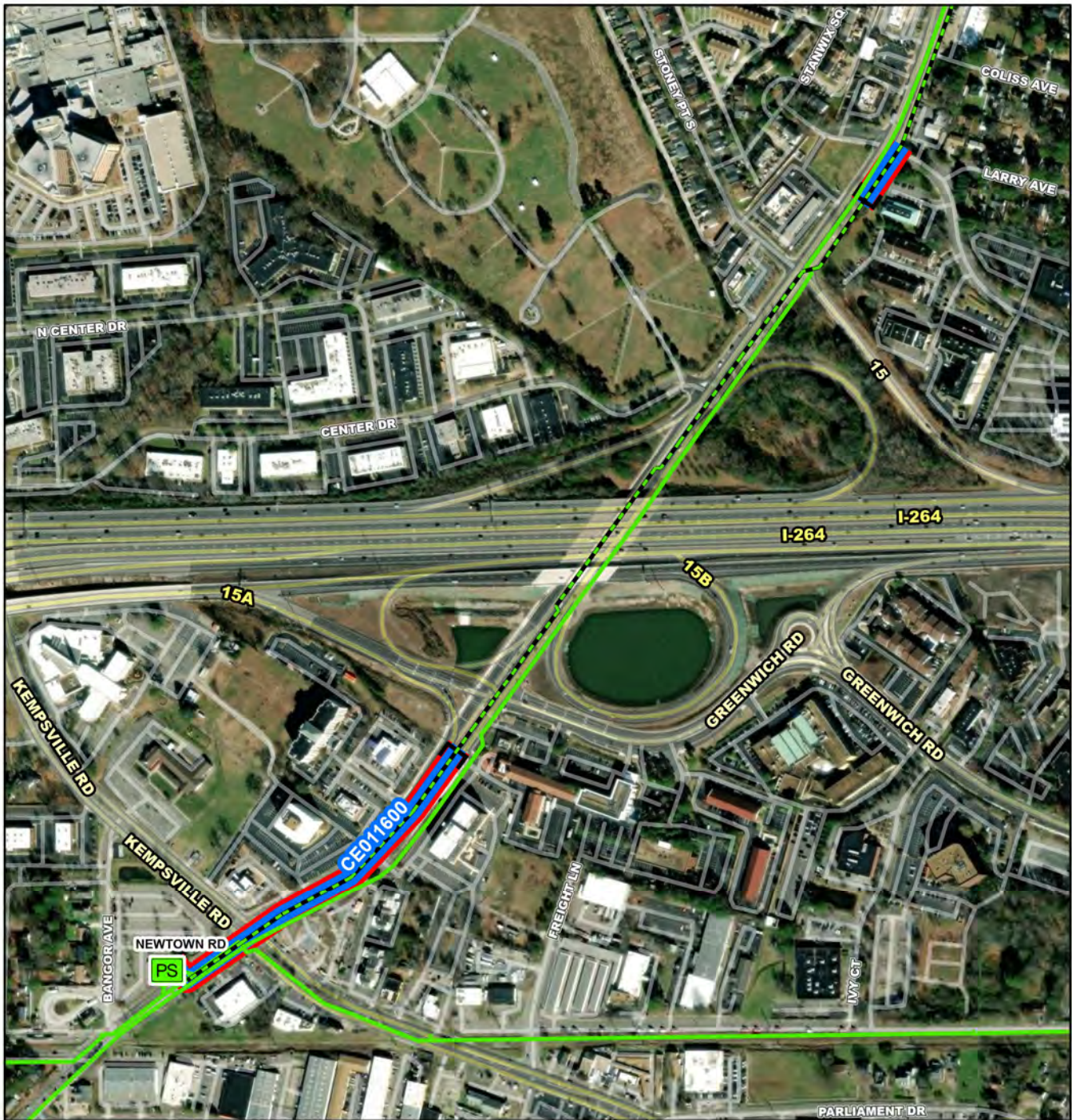
Project Justification: Condition assessment activities indicate that these assets, late 1960's era, present a material risk of failure due to physical condition defects.

Contract Description and Analysis of Cost: This contract is for construction phase services with Bridgeman Civil, Inc. Inc., in the amount of \$4,276,630. The original Capital Improvement Project (CIP) budget was established in 2021, and costs have escalated considerably since that time. The cost for the construction contract has been reviewed by RK&K and is 56% over the Engineer's Estimate. The Engineer has identified several factors that contributed to the difference including saturated infrastructure market conditions for this specialized work, limited contractors willing to attempt the work, labor pool limitations and the regulatory completion date. In addition, working in multiple jurisdictions, setting up bypass operations in the narrow median of one of the busiest roads in Virginia Beach and Norfolk, and the requirement for night work contributed to the increased cost.

Task Order Description and Analysis of Cost: This task order will provide services during construction including contract administration and field engineering and inspection services. HRSD and the design engineer, RK&K, negotiated a fee in the amount of \$340,584 based on hourly rates in RK&K's annual services contract for Linear Infrastructure Projects and an estimation of hours required for this effort. The fee proposal is comparable to other projects of similar size and complexity. The fee for the contract administration is 4.9% of the construction cost and the field engineering and inspection is 2.5% of the construction cost, which is lower than similar efforts for comparable projects.

Funding Description: The construction bid amount of \$4,276,630 and the fee for the construction related engineering services exceeds the current balance available for this CIP project. A 10% construction contingency is also being requested to accommodate any unforeseen conditions. Therefore, the project requires \$3,180,916 in additional funding.

<u>Schedule:</u>	Construction	November 2024
	Substantial Completion	May 2025
	Final Completion	August 2025



CE011600

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

Legend

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

0 180 360 720 1,080 1,440 Feet

CE011600

Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements



CIP Location



CONSENT AGENDA ITEM 3.b.4. – November 19, 2024

Subject: SWIFT Laboratory Analysis and Testing Services
Contract Award (>\$200,000)

Recommended Action: Award a contract to Eurofins Eaton Analytical Inc. in the estimated amount of \$775,895 for one year with four renewal options and an estimated cumulative value of \$3,879,475

Regulatory Requirement: VPDES or Other Regulatory Sampling Requirement (CEL projects)

Type of Procurement: Competitive Bid

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

Bidder	Bid Amount
Eurofins Eaton Analytical Inc.	\$775,895
Montrose Environmental Group	Deemed non-responsive

HRSD Estimate: \$800,000

Contract Description: This contract is an agreement for Laboratory Analysis and Testing Services in support of SWIFT. Analytical support for the SWIFT program provides the necessary data to demonstrate regulatory compliance, refine the groundwater modeling, and ensure protection of the region's groundwater supply. The service contract covers all analyses that are beyond the analytical scope of the Central Environmental Lab (CEL). Once the CEL expansion is completed, staff will work to transition nearly all of these contracted analyses to our laboratory.

Analysis of Cost: Cost is based on several testing and analysis parameters and the associated methods required to conduct analyses. Costs were determined to be fair and reasonable based on past contract pricing.

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

CONSENT AGENDA ITEM 3.c.1. – November 19, 2024

Subject: iPacs and Biosolids System Upgrades & Hosting Costs
Task Order (>\$200,000)

Recommended Action: Approve a task order with Enfotech and Consulting, Inc. in the amount of \$561,910.

Regulatory Requirement: None

Contract Status with Task Orders:	Amount
Original Contract with Contractor	\$140,990
Total Value of Previous Task Orders	\$354,612
Requested Task Order	\$561,910
Total Value of All Task Orders	\$916,522
Revised Contract Value	\$1,057,512
Engineering Services as % of Construction	N/A

Type of Procurement: Task Order

Task Order Description: This task order will provide database migration from Oracle 12.c to MS SQL Server to minimize operational and security risks since Oracle 12.c has reached its end of life and is no longer supported by Oracle. Additionally, iPacs 2, Gov Online 2, and Biosolid 2 will be upgraded to iPacs 5, Gov Online 5, and Biosolid 5 respectively and includes the migration necessary to accommodate this upgrade.

Analysis of Cost: The cost is based on existing contract pricing.

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

CONSENT AGENDA ITEM 3.d.1. – November 19, 2024

Subject: Great Bridge Interceptor Force Main Emergency Replacement (SF-180)
Additional Appropriation - Non-Regulatory Capital Improvement Project (<\$1,000,000)
and Task Order (>\$200,000)

Recommended Actions:

- a. Appropriate additional funding in the amount of \$732,548.
- b. Approve a task order with Rummel, Klepper & Kahl, LLP (RK&K) in the amount of \$497,977.

CIP Project: AT016400**Regulatory Requirement:** None

Budget	\$6,000,000
Previous Expenditures and Encumbrances	(\$5,730,358)
Available Balance	\$269,642
Proposed Task Order to RK&K	(\$497,977)
Proposed Contingency	(\$504,213)
Project Shortage/Requested Additional Funding	(\$732,548)
Revised Total Project Authorized Funding	\$6,732,548

Contract Status with Task Orders:	Amount
Original Contract with RK&K	\$180,000
Total Value of Previous Task Orders	\$325,690
Requested Task Order	\$497,977
Total Value of All Task Orders	\$823,667
Revised Contract Value	\$1,003,667
Engineering Services as % of Construction	20%

Project Description: This project will replace the damaged 20-inch diameter, 1960s vintage ductile iron force main located within the Intracoastal Waterway via Horizontal Direction Drill (HDD) parallel to the existing in-service City of Chesapeake water main and remove the failed abandoned water main and force main underneath the Waterway.

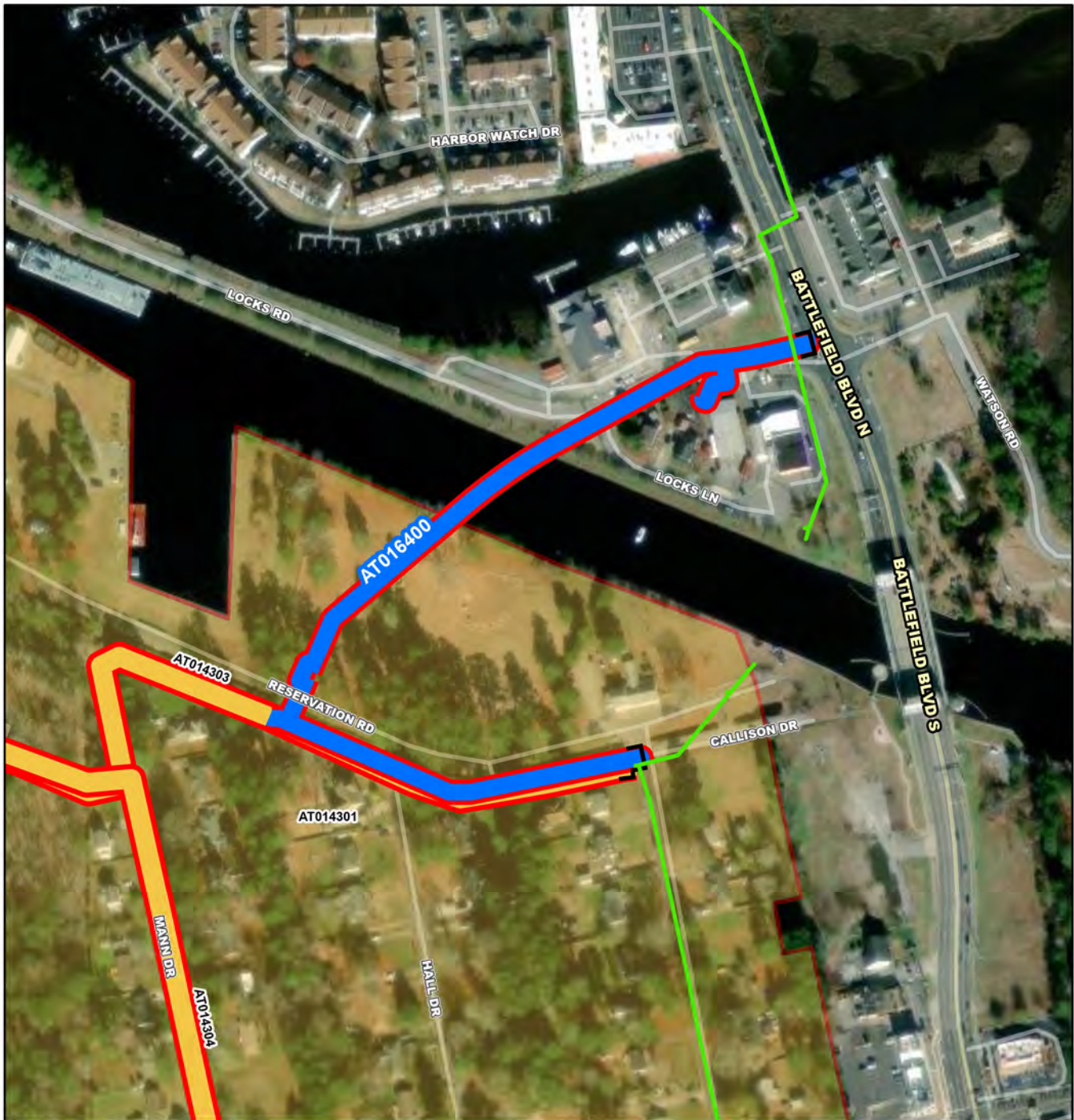
The attached [map](#) depicts the project location.

Project Justification: The failure occurred on a 20-inch diameter 1960's vintage ductile iron force main and was caused by a dredge vessel spud. An emergency declaration was authorized on March 13, 2023. Although the failure was isolated, the project remains under an emergency declaration due to Elbow Road Pressure Reducing Station (PRS) operating continuously and the Great Bridge Interceptor Extension 16-inch Replacement (CIP Project No. AT011900), a Rehabilitation Action Plan Phase 2 project, requiring this section of pipeline in service for construction.

Task Order Description: This task order will provide construction administration and construction inspection from RK&K.

Analysis of Cost: The proposed time-and-materials task order for the design engineer (RK&K) has been reviewed and is reasonable. The fee for construction administration is 4.7% of the construction cost, and the construction inspection is 3.6% of the construction cost which agrees with similar efforts for comparable projects. The fee for the construction-related engineering services of \$497,977 exceeds the current balance available for this CIP project. A 10% construction contingency is also being requested. Therefore, the project requires \$732,548 in additional funding.

<u>Schedule:</u>	Emergency Declaration	March 2023
	PER	March 2023
	Design	May 2023
	Construction	March 2025
	Project Completion	Unknown at this time



AT016400

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

Legend

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

0 95 190 380 570 760 Feet

AT016400

Great Bridge Interceptor Force Main Emergency Replacement (SF-180)

N
W E
S

CIP Location

CONSENT AGENDA ITEM 3.d.2. – November 19, 2024

Subject: West Point Pump Station No. 4 (Thompson Avenue)
Additional Appropriation - Non-Regulatory Capital Improvement Project (<\$1,000,000)

Recommended Action: Appropriate additional funding in the amount of \$230,625.

CIP Project: MP015100

Regulatory Requirement: None

Budget	\$1,971,629
Previous Expenditures and Encumbrances	(\$1,971,628)
Available Balance	\$1
Proposed Task Order Amendment to Engineer	(\$95,626)
Proposed Contingency	(\$135,000)
Project Shortage/Requested Additional Funding	(\$230,625)
Revised Total Project Authorized Funding	\$2,202,254

Project Description: This project consists of a new, large wet well, influent saddle manhole and rehabilitation of the pump station to include new pumps, controls and metering as well as site beautification.

Project Justification: This project is required to replace pump station controls and associated appurtenances that are beyond the end of their useful life as well as to eliminate surcharging conditions in the upstream collection system.

Analysis of Cost: The cost is based on known changes to the Engineering scope and resulting fee due to delays in the construction schedule. Delays to the schedule occurred due to changed or delayed electrical equipment and unforeseen manhole adjustments and pipe replacement. This cost is based on a scope and fee provided by the Engineer for the extension of construction administration and inspection services necessary to complete the project.

Funding Description: This request includes \$95,626 for an amendment to the Engineer for construction administration and inspection services and a \$135,000 contingency that includes \$30,000 for additional construction administration and inspection services if construction is further delayed. The remaining contingency is to account for potential unforeseen conditions associated with the construction. The amount for this work exceeds the available project balance by \$230,625.

Schedule: Project Completion January 2025

CONSENT AGENDA ITEM 3.e.1. – November 19, 2024

Subject: Interceptor System Improvements - Phase I
Regulatory Required Capital Improvement Project - Additional Appropriation
(<\$10,000,000)

Recommended Action: Appropriate additional funding in the amount of \$350,000.

CIP Project: GN015300

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

Budget	\$4,968,888
Previous Expenditures and Encumbrances	(\$4,783,015)
Available Balance	\$185,873
Proposed Estimated Change Order No. 5 to Contractor	(\$457,873)
Proposed Contingency	(\$78,000)
Project Shortage/Requested Additional Funding	(\$350,000)
Revised Total Project Authorized Funding	\$5,318,888

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract with Contractor	\$3,780,000	
Total Value of Previous Change Orders	0	
Requested Change Order	\$535,892	
Total Value of All Change Orders	\$535,892	14.2%
Revised Contract Value	\$4,315,892	
Time (Additional Calendar Days)		10*

*10 additional days Contract Time for offset

Project Description: HRSD awarded to Bridgeman on October 24, 2023, in the amount of \$3,780,000 for six replacement valve locations.

Project Justification: A conflict with a Newport News Water Works (NNWW) waterline was discovered during exploratory digging/site prep for our Dare Road location. At that time, the contractor found the waterline was closer to the sewer main to allow the bypass operation/valve installation to take place. Site grading commenced, and a stormwater bypass was provided for adequate site drainage. The contractor was required to move to another location once the waterline conflict was discovered at Dare Road.

Analysis of Cost: The cost is based on the contractor and engineer estimates for unforeseen conditions and necessary changes. Additional appropriation prior to negotiated, final costs is necessary to prevent further schedule delay by allowing for the issuance of scope changes to the contractor prior to having an agreed upon to price for the work.

Funding Description: This request includes estimated costs for NNWW Agreement, additional bypass rental time, and a 5% contingency for the College Creek valve location based on the proposed change order to the Contractor. The estimated amount for this work exceeds the available project balance by \$350,000.

Schedule: Project Completion May 2025

AGENDA ITEM 4. – November 19, 2024

Subject: Great Bridge Boulevard & I-64 Interchange Interceptor Force Main Emergency Repair (SF-164)
New CIP and Initial Appropriation – Non-Regulatory

Recommended Actions:

- a. Approve a new CIP project.
- b. Appropriate total project funding in the amount of \$1,150,000.

CIP Project: AT016900

Regulatory Requirement: None

Project Description: This project will repair a leak found on the Great Bridge Interceptor Force Main (Line SF-164) underneath the I-64 West exit ramp to Great Bridge Boulevard. Repair consists of sliplining a new 24-inch HDPE pipe inside of the existing 30-inch ductile iron force main. In addition to the pipe repair, project activities also include emergency response, pump and haul of several City of Chesapeake pump stations, exploratory construction, as well as site restoration.

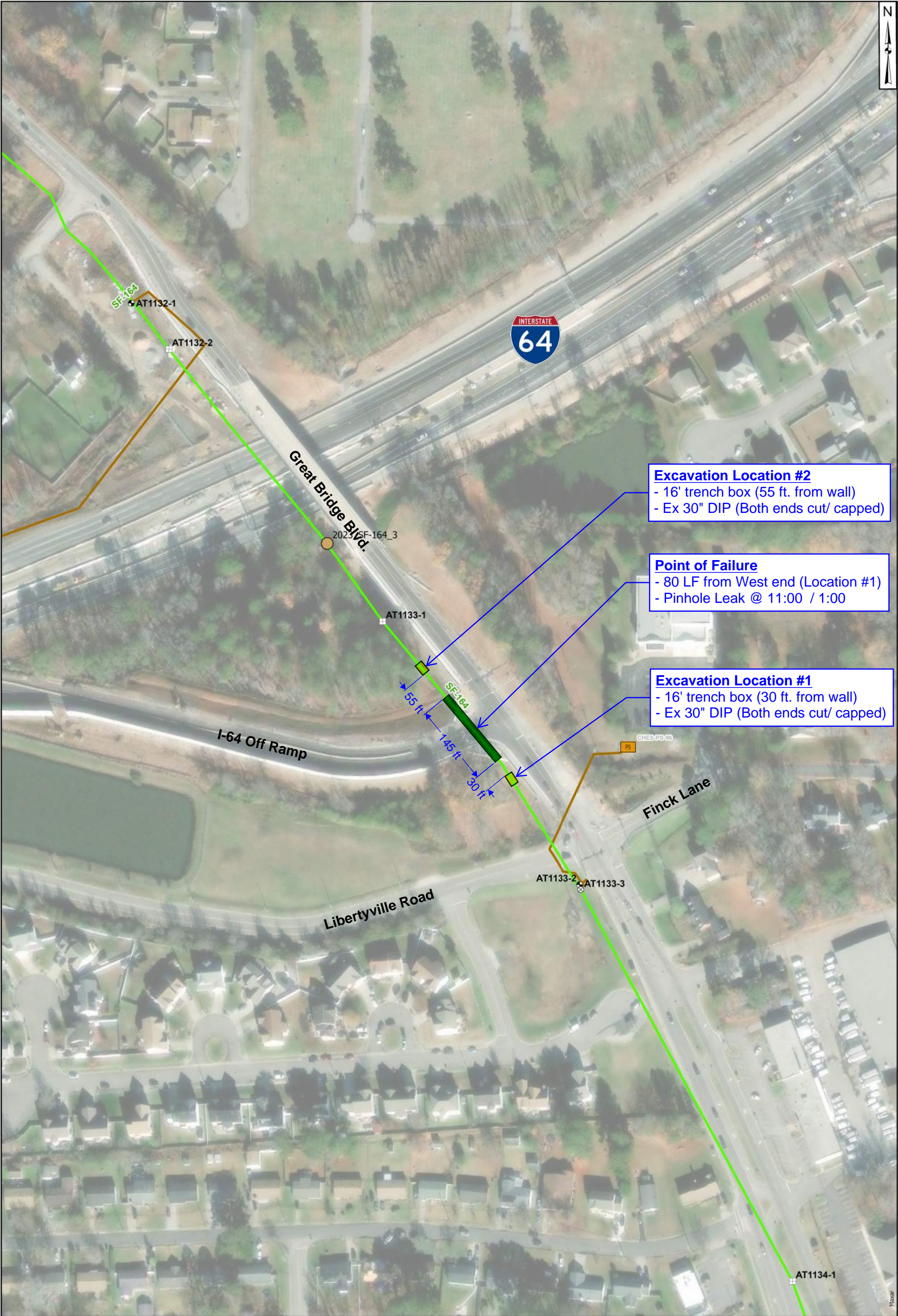
The attached [map](#) depicts the project location.

Project Justification: On the morning of October 17, a contractor notified HRSD about a potential force main failure near the intersection of Great Bridge Boulevard and Libertyville Road in Chesapeake. HRSD staff responded to the spill site and observed flow discharging at about 30 gallons per minute from a leak detector that is attached to a 60-inch casing pipe. The casing pipe is approximately 120 feet long and contains a 30-inch ductile iron force main carrier pipe. Upon further investigation, a leak was found on the 30-inch ductile iron force main carrier pipe that was installed in 1976. After the initial spill response and isolation of the force main failure location, HRSD staff issued an emergency declaration dated October 18, 2024.

HRSD staff utilized Hazen and Sawyer (Hazen) and Bridgeman Civil, Inc. (BCI) to perform condition assessment activities and the initial emergency response; thus, these same firms will be utilized for the emergency repair work.

Analysis of Cost: The cost is based on the construction work order and engineering task orders that have been developed as the emergency has progressed. These estimated costs include the emergency response, pump and haul of several pump stations, cut and cap of the force main at each end of the casing pipe, force main condition assessment, emergency engineering design services, repair work, construction administration, construction inspection, as well as contingency. The cost estimate differs from the \$500,000 indicated in the emergency designation due to new and updated information provided by Hazen and BCI as the work continued after the emergency designation was executed.

<u>Schedule:</u>	Emergency Declaration	October 2024
	Construction	October 2024
	Project Completion	February 2025



Recommended Action: Appropriate total project funding in the amount of \$500,000.

CIP Project: GN021200

Regulatory Requirement: None

Project Justification: New project budgets and schedules are typically estimated by the requesting Operations work center and programmed into the Capital Improvement Program (CIP) program by Finance using these projections. The scopes and estimates for these projects are challenging for in-house staff to fully explore and accurately develop under typical market conditions. Recent bidding conditions have presented challenges even for experienced consultants estimating fully designed projects. Early conceptual project development of select projects will help to identify key elements of projects that could lead to dramatic changes in cost or schedule allowing for better confidence in CIP programming. This first study will improve the following aspects of steam generation for the ATP THP system. Firstly, reliable steam generation is needed to operate the ATP THP process, which is a critical system to process wastewater residual solids at the plant. The plant currently operates two dissimilar systems (i.e. the permanently installed dual-fuel boiler and the rental steam boiler) which results in undue downtime, operator attention, and reliance on external contractors to service the rental system. The existing hybrid system is not reliably redundant, and this project will improve that aspect of the treatment system. Secondly, the containerized rental steam boiler has been an occasional source of noise complaints from nearby neighbors, and a permanently installed system would be provided with sound attenuation in accordance with suitable design standards. Thirdly, the rental steam boiler requires a recurring rental payment of approximately \$10,000/month; this project presents a return-on-investment by eliminating operational and recurring costs associated with the rental system.

Schedule: PrePlanning Unknown at this time

AGENDA ITEM 6. – November 19, 2024

Subject: North Churchill Interceptor Force Main (SF-206) Segmental Replacement at Swannanoa Drive
Initial Appropriation – Non-Regulatory

Recommended Action: Appropriate total project funding in the amount of \$1,091,748.

CIP Project: NP015800

Regulatory Requirement: None

Project Description: This project will replace up to 600 feet of 16-inch diameter ductile iron interceptor force main (SF-164) along Swannanoa Drive in the City of Portsmouth.

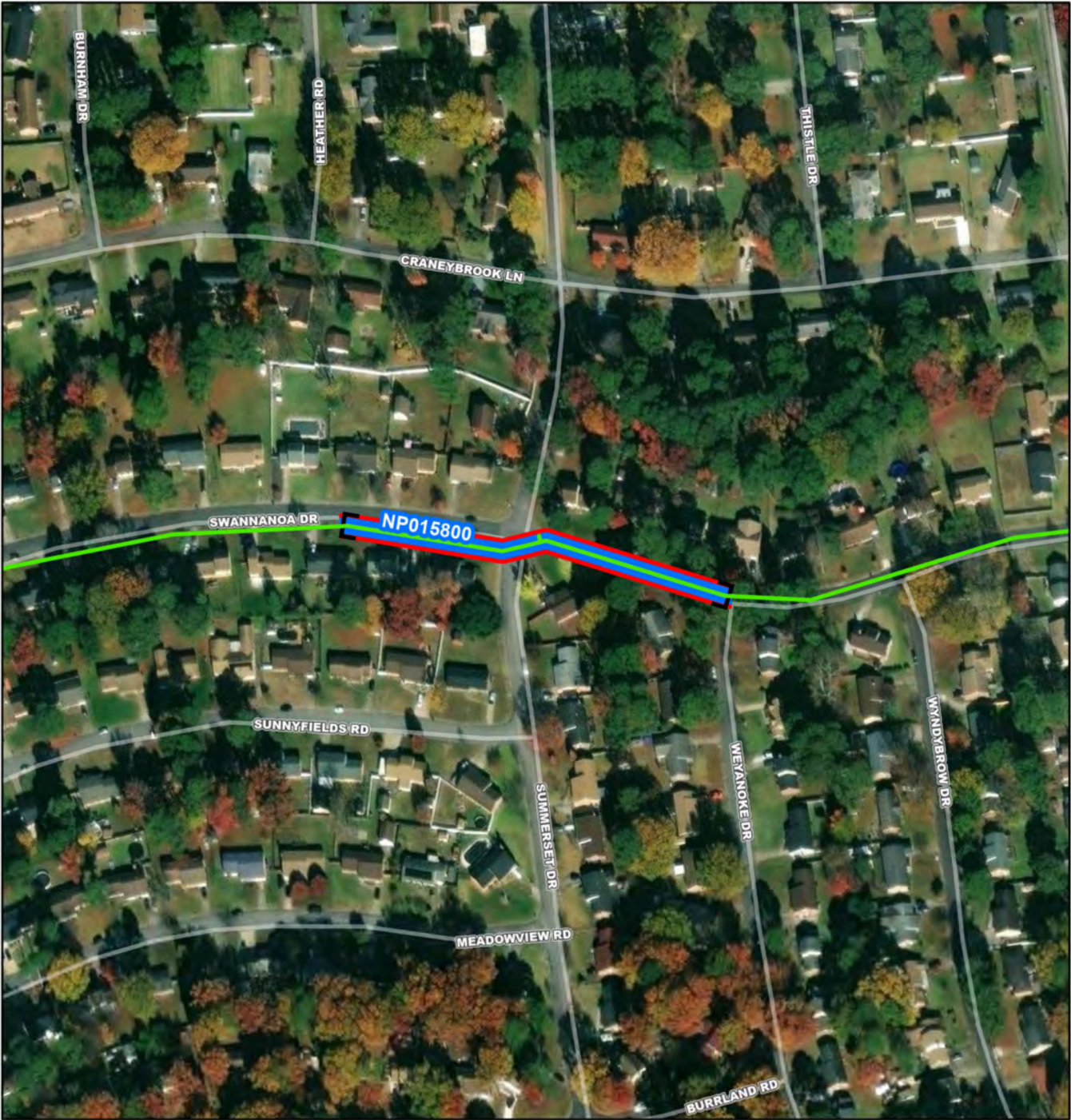
The attached [map](#) depicts the project location.

Project Justification: This project will provide for segmental replacement of interceptor force main on Swannanoa Drive resulting from three previous failures (2009, 2014, 2023) and an assessment that found extensive pipe wall loss due to interior and exterior corrosion. The most recent failure at the intersection of Swannanoa Drive and Summerset Drive (June 2023) required the pipe to be encased in concrete as a temporary repair. The remaining ductile iron pipe in this location was determined to have similar pipe wall thickness and a very high likelihood of failure (LoF = 5.0). Additional investigation is currently underway to investigate the condition of the upstream and downstream segments to confirm replacement extents. A follow-up condition assessment is scheduled to be completed by March 2024 and may result in additional scope.

Task Order Description: This task order will provide necessary preliminary engineering phase services (PER) for the subject project.

Analysis of Cost: The estimated total project cost is based on \$104,804 for PER, \$91,296 for design, \$760,800 for construction and \$190,200 for contingency. Engineering services will be provided by Rummel Klepper and Kahl LLP (RK&K) under the Linear Infrastructure Projects Annual Services Contract. The preliminary work and associated task order with RK&K is projected to be less than the \$200,000 required for Commission action.

<u>Schedule:</u>	PER	December 2024
	Design	July 2025
	Bid	April 2026
	Construction	July 2026
	Project Completion	July 2027



NP015800

 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

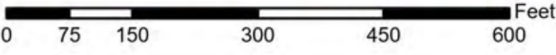
 HRSD Interceptor Force Main

 HRSD Interceptor Gravity Main

 HRSD Treatment Plant

 HRSD Pressure Reducing Station


 HRSD Pump Station



075150300450600Feet

NP015800

North Church Hill Interceptor Force Main (SF-206) Segmental Replacement at Swannanoa Drive





W N E S

CIP Location



AGENDA ITEM 7. – November 19, 2024

Subject: Central Environmental Laboratory Expansion and Rehabilitation
 Additional Appropriation – Non-Regulatory (>\$1,000,000), Approval of Guaranteed
 Maximum Price, and Task Order (>\$200,000)

Recommended Actions:

- a. Approve additional funding in the amount of \$52,738,789.
- b. Approve a Guaranteed Maximum Price (GMP) of \$67,858,148 to the Agreement with PC Construction Company.
- c. Approve a task order with CDM Smith in the amount of \$3,547,357.

CIP Project: AD012600**Regulatory Requirement:** None

Budget	\$30,000,000
Previous Expenditures and Encumbrances	(\$4,863,195)
Available Balance	\$25,136,805
Proposed Guaranteed Maximum Price to PC Construction	(\$67,858,148)
Proposed Task Order to CDM Smith	(\$3,547,357)
Proposed Construction Contingency (5%)	(\$3,392,907)
Proposed Furniture, Fixtures and Equipment (FFE)	(\$3,077,182)
Project Shortage/Requested Additional Funding	(\$52,738,789)
Revised Total Project Authorized Funding	\$82,738,789

Contract Status with Change Orders:	Amount
Original CM Contract with PC Construction	\$257,000
Total Value of Previous Change Orders	\$0
Revised Contract Value	\$257,000

Contract Status with Task Orders:	Amount
Original Contract with CDM Smith	\$400,000
Total Value of Previous Task Orders	\$4,602,644
Requested Task Order	\$3,547,357
Total Value of All Task Orders	\$8,150,001
Revised Contract Value	\$8,550,001

Project Description: This project involves the expansion and renovation of the existing Central Environmental Laboratory (CEL). The project will include demolition of the empty, former Technical Services Division (TSD) and Pretreatment and Pollution Prevention (P3) spaces and expansion of the CEL on the site through construction of a multi-story mixed laboratory and administrative wing to the existing CEL. The project also includes renovating a significant portion of the existing CEL wing for administrative uses. The total area for all space is 58,616 GSF.

Project Justification: In January 2021, HRSD commissioned the firm of CDM Smith to perform a needs assessment and feasibility assessment of the existing CEL.

The study considered laboratory space, facilities, space utilization, laboratory functions and equipment, current and future analytical needs to consider long-term staffing, new laboratory technologies and the ability to support the SWIFT initiative, future regulatory compliance and research initiatives projected through year 2045. The study concluded the existing CEL cannot accommodate future space needs through 2045 and, at a minimum, an additional 18,000 square feet of space was needed to meet all studied 2045 scenarios.

Guaranteed Maximum Price: The project was procured through the Construction Management (CM) delivery process. On July 25, 2023, the Commission approved an Agreement with PC Construction Company that included \$257,000 for preconstruction phase services. The Construction Manager has completed competitive bidding for the construction of the project. The negotiated GMP is \$67,858,148 and includes work bid under multiple work packages, along with miscellaneous costs. Miscellaneous costs include general conditions during construction, permits, insurance, CMAR contingency, bonds, taxes and insurance, CMAR fee and allowances. Of note is a \$4,000,000 owner’s allowance to account for design of major systems still being finalized at the 100% design and a \$500,000 moving allowance. The moving allowance includes securing a contractor specializing in the relocation, recalibration and recertification of sensitive laboratory equipment.

GMP Analysis of Cost: Independent cost estimates were prepared by both PC Construction and CDM Smith at 50% design in August 2024. The estimates were reconciled to resolve omissions, differences or inconsistencies. At the 50% design, the engineer estimated a construction cost (GMP) of \$69,900,000 with an estimated total program cost of \$81,000,000. This information was presented to HRSD management in September 2024 and is consistent with the proposed GMP of \$67,858,148 and total program estimate of \$82,738,791. It is recommended the Agreement with PC Construction be amended to include the proposed GMP.

Task Order Description: The task order for CDM Smith will provide contract administration, special inspection services and building commissioning. Discussions occurred between CDM Smith and HRSD staff to develop and review the scope of services. To ensure adequacy of the task order request, CDM Smith provided proposals from specialty firms to include special inspections, materials testing, building commissioning, surveying and building envelope testing. A fee of \$3,547,357, of which \$2,688,000 is for construction administration, was negotiated which will provide the required services. In comparison to another completed CMAR delivery building project, the CDM Smith fee for construction administration only is \$2,688,000 and 11,752 labor hours. The approved construction administration fee for Atlantic Treatment Plant (ATP) Thermal Hydrolysis Process (THP) and Fats, Oils, and Grease (FOG) Receiving Station was \$2,591,409 and 10,092 labor hours. The CDM Smith fee as a percentage of estimated construction cost is 4.0% while the ATP THP and FOG project was 5.3%. The overall percentage of the CDM fee of \$3,547,357 to estimated construction is 5.3%. By comparison, the ATP THP and FOG project was 10.8%. The large percentage difference is due to the requirement for special inspections only on the CEL project and full-time resident inspection on the ATP project.

Funding Description: The negotiated GMP and construction phase engineering services exceed the current balance available for this project. A 5% construction contingency is also being requested to accommodate any unforeseen conditions as well as \$3,077,182 for Furniture, Fixtures and Equipment (FFE) being procured outside the PC Construction contract.

Staff will provide a briefing during the meeting.

<u>Schedule:</u>	Construction	December 2024
	Project Completion	March 2028

AGENDA ITEM 8. – November 19, 2024

Subject: Biosolids Class A Marketing Program
Contract Award (>\$200,000)

Recommended Action: Award a contract to Material Matters Inc. in the amount of \$488,300 for one year with four renewal options and an estimated cumulative value of \$1,047,080.

Regulatory Requirement: None

Type of Procurement: Competitive Negotiation

A Public Notice was issued on August 5, 2024. Only one firm submitted proposals on September 12, 2024, and the firm was 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. The proposal submitted by Material Matters Inc. was ranked to be the highest qualified as listed below:

Proposers	Technical Points	Recommended Selection Ranking
Material Matters Inc.	92	1

The Committee recommends an award to Material Matters Inc., whose professional qualifications and proposed services best serve the interest of HRSD.

Contract Description: This contract is for Class A Biosolids Marketing Services. The services include identifying reliable and diversified end uses for the Class A biosolid product generated at the Atlantic Treatment Plant (ATP) and to establish a marketing program for the biosolids based on the marketing evaluation, reducing the overall costs for biosolids management at ATP. The goal is to expand the NutriGreen™ market base beyond the agricultural market.

Analysis of Cost: Rates and associated fees were compared to past contracts for similar services and cost was determined to be fair and reasonable.

Staff will provide a briefing during the meeting.

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

AGENDA ITEM 9. – November 19, 2024

Subject: Town of Wachapreague, Single Family Homes Service Area
Service Area Expansion Agreement

Recommended Action: Approve the modification to the existing HRSD Service Area as requested by the Town of Wachapreague and authorize the General Manager to execute by letter the same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Project Description: The Town of Wachapreague has requested an expansion of HRSD's Service Area to include 29 single-family home properties; most are located along Brooklyn Avenue and Main Street. HRSD understands that the properties to be served are listed in the attached [table](#) and shown in the attached [maps](#). The expanded service area will connect to the existing HRSD low-pressure force main system recently constructed as part of the Eastern Shore Capital Improvement Project. The estimated average daily flow from the proposed added service area is 8,990 gallons per day (6.2 gpm) with a peak flow estimated at 15.6 gpm. HRSD has the capacity to accommodate the proposed development within the amended service area. All costs associated with connection to the HRSD system would be the Town's responsibility.

This work is in accordance with the Service Area Expansion Commission Adopted Policy.

Parcel	Physical Address
113A-A-194	22 Atlantic Ave
113A-A-212	23 Atlantic Ave
113A-A-191	1 Brooklyn Ave
113A-A-192	3 Brooklyn Ave
113-A-A160	4 Brooklyn Ave
113A-A-193	5 Brooklyn Ave
113A-A-159	6 Brooklyn Ave
113A-A-158	8 Brooklyn Ave
113A-A-194	9 Brooklyn Ave
113A-A-156	10 Brooklyne Ave
113A-A195	11 Brooklyn Ave
113A-A-155	12 Brooklyn Ave
113A-A-197	13 Brooklyn Ave
113A-A-154	14 Brooklyn Ave
113A-A-153	16 Brooklyn Ave
113A-A216	17 Brooklyn Ave
113A-A-152	18 Brooklyn Ave
113A-A-149	20 Brooklyn Ave
113A-3-D-6	21 Brooklyn Ave
113A-3-G-4	22 Brooklyn Ave
113A-A-G-3	24 Brooklyn Ave
113A-3-G-2	26 Brooklyn Ave
113A-A-150	1 Custis St
113A-A-131	10 Main St
113A-A-130	12 Main St
113A-A-129	14 Main St
113A-A-164	15 Main St
113A-A-132	17 Main St
113A-A-134	21 Main St

**Town of Wachapreague
SA Expansion Request Map
October 2, 2024**

- Existing Service Area
- SA Expansion Request



**Town of Wachapreague
SA Expansion Request Map
October 2, 2024**

- Existing Service Area
- SA Expansion Request



AGENDA ITEM 10. – November 19, 2024

Subject: New Business

AGENDA ITEM 11. – November 19, 2024

Subject: Unfinished Business

AGENDA ITEM 12. – November 19, 2024

Subject: Commissioner Comments

AGENDA ITEM 13. – November 19, 2024

Subject: Informational Items

Recommended Action: No action is required.

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

- a. Management Reports
 - (1) [General Manager](#)
 - (2) [Communications](#)
 - (3) [Engineering](#)
 - (4) [Finance](#)
 - (5) [Information Technology](#)
 - (6) [Operations](#)
 - (7) [Talent Management](#)
 - (8) [Water Quality](#)
 - (9) [Report of Internal Audit Activities](#)
- b. [Strategic Measures Summary](#)
- c. [Emergency Declaration](#)
 - (1) [Great Bridge Boulevard & I-64 Interchange Interceptor Force Main
Emergency Repair \(SF-164\)](#)

November 8, 2024

Re: General Manager's Report



Environmental Responsibility

Staff declared an emergency for a force main failure near the intersection of Great Bridge Boulevard and Boxer Drive. The force main was quickly isolated, and 30,000 gallons were recovered before reaching the stormwater system. Investigations revealed a point failure, which staff are working to fix.

Staff continue to discuss ways to reduce odors from the Atlantic Treatment Plant (ATP). A new misting system was installed around the drying pads to help reduce off-site odors and staff have begun reducing the biosolids storage volume by hauling to McGill before sunrise. In addition, Harvest Technologies, a company we saw at the Water Environment Federation Technical Exhibition and Conference (WEFTEC), visited the ATP on October 30 and presented their solar dryer. They are proposing to enclose the existing drying pads, utilize their automated tiller, and add odor control. We will evaluate this technology along with other options.

Staff met with James City Service Authority to discuss wet weather capacity-related overflows in the northern portion of their service area. Staff organized a small technical group to assess the root causes and develop solutions.

Staff held a decentralized wastewater treatment workshop on October 3 to discuss options for small communities. Small communities present unique challenges in eastern Virginia with sea-level rise, failing septic tanks and the lack of low-cost wastewater treatment options.

Staff met with Waste Management to discuss a Per- and polyfluoroalkyl substances (PFAS) removal and destruction pilot for their Bethel landfill leachate. By removing PFAS at the source, the James River Sustainable Water Initiative For Tomorrow (SWIFT) Granular Activated Carbon (GAC) could be used for a longer period, which would save a significant amount of money.

Treatment Compliance and System Operations: Multiple events were reported this month. Additional details are available in the Air and Effluent Summary in the Water Quality monthly report.

- From Fiscal Year (FY) 2025 to date, there has been one Permit Exceedance out of 18,842 Total Possible Exceedances.
- Pounds of Pollutants Removed in FY 2025 to date: 77.4 million pounds.

Water Quality: One \$1,000 civil penalty was issued to Total Fiber Recovery for failing to retain original certification statement/signatures for a three-year period. This was paid in full on October 25.



Financial Stewardship

Wastewater revenues are above budget as cumulative water consumption remains above target. Interest Income remains strong. Expenses are below budget and remain under control.

Staff submitted a \$78 million invoice to the Department of Environmental Quality (DEQ) for the Chesapeake-Elizabeth Treatment Plant (CETP) Offline Program Water Quality Improvement Fund (WQIF).

The new Customer Portal will be delayed to January 2025. Staff determined that it made sense to launch the full portal in January as opposed to a limited version in November and upgrade in January. This will also provide more time for additional testing.



Talent

Operations held their first retreat with their Superintendents on October 23. This is a critical group of leaders and it's important they can collaborate and share ideas.

At WEFTEC, Alexandria Gagnon, Treatment Process Engineer (TPE), received the Morgan Operational Solutions Award. Jeff Sparks took 2nd place out of 60 submissions for the Intelligent Water Systems Challenge and our Operations Challenge Team placed 8th overall and 3rd in the Laboratory event.



Community Engagement

I attended the 2024 Convergence Conference in Williamsburg. This was organized by a relatively new group called RVA757 that combines the Richmond Chamber and Hampton Roads Chamber to help develop the Megaregion corridor, "The World's Next Global Internet Hub." One of the key takeaways was from the luncheon speaker that runs the Raleigh Chamber. She said one of their secrets to success was engaging with the water/wastewater organizations. Interestingly, I was the only one at the conference from this sector.



With Congress in recess, Congresswoman Kiggans' staff held a stakeholder event. I had the opportunity to have a productive discussion with her Legislative Director who highlighted the importance of writing succinct one-pagers and having a lobbyist.

I presented SWIFT and HRSD's Water Technology Innovations to the Hampton Roads Chamber on October 16. The presentation was well received, and I was able to network with key regional stakeholders.

Staff and two Commissioners attended the VIRGINIAforever Bridge Builders event on October 23. The Secretary of Natural Resources was seated at our table, which gave us an opportunity to discuss ongoing efforts.

I presented SWIFT and HRSD's Water Technology innovations to the Peninsula Economic Resource Team. A National Aeronautics and Space Administration (NASA) representative was there and I'm hoping to do a similar presentation for them in the hopes of developing a partnership.

I met with Jefferson Labs (JLAB) on the potential partnership to destroy PFAS concentrate.

I walked them through HRSD's Water Technology Innovations and learned that their electron beam could potentially regenerate Granular Activated Carbon (GAC). This highlights the importance of building partnerships to find intersections where we can collaborate. In fact, HRSD already has an International Water Association (IWA) published paper with JLAB on using their electron beam to eliminate 1,4-Dioxane from water and wastewater.

I met with regional leaders from the Hampton Roads Alliance, Hampton Roads Executive Roundtable, 757 Collab, and Virginia Tech to discuss our Water Tech Innovation Ecosystem concept. During the meeting, we had a Churchill Fellow visiting from Australia, which is a prestigious fellowship that allows the Fellow to travel the world to look for unique solutions to the world's problems and bring them back home. I asked her why she chose to come to HRSD and she said it's because HRSD is world-renowned!

On October 31, Lauren Zuravnsky and I were interviewed by WHRO news for a print and radio story on the third Water Infrastructure Finance and Innovation Act (WIFIA) tranche closing and an update on SWIFT.



Innovation

HRSD received the Mid-Atlantic Best Project award for the ATP Thermal Hydrolysis Project (THP) by the Engineering News Record (ENR).

Staff are working with Surry County on a proposed data center adjacent to the Surry Nuclear Power plant.

Staff are working with two different Marine Carbon Dioxide Removal studies. With alkaline addition at our treatment plants, carbon dioxane can be removed which will help combat climate change.

I look forward to seeing you in Virginia Beach at 9:00 a.m. on Tuesday, November 19, 2024.

Respectfully submitted,

Jay Bernas, P.E.
General Manager

TO: General Manager

FROM: Chief Communications Officer

SUBJECT: Monthly Report for October 2024

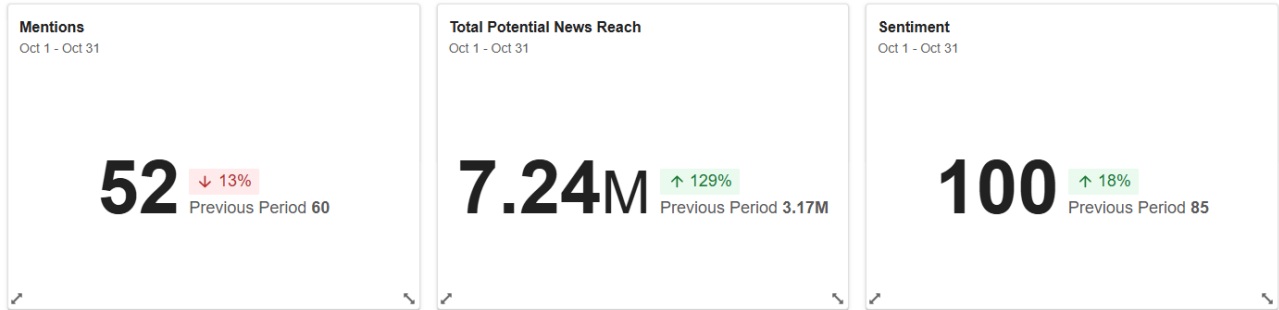
DATE: November 7, 2024

A. Publicity and Promotion

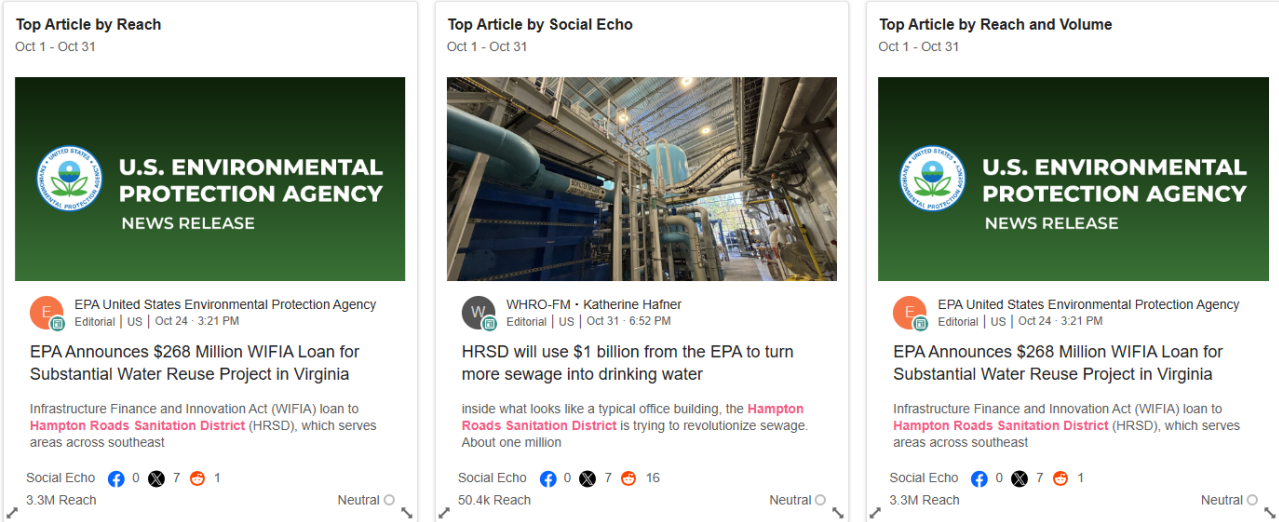
- 1. HRSD and Sustainable Water Initiative For Tomorrow (SWIFT) were mentioned or featured in six stories this month. Topics included:
 - a. EPA announcement of HRSD’s \$268 million WIFIA loan award
 - b. Engineering News-Record, Best Project, Water/Environment: Atlantic Treatment Plant Thermal Hydrolysis Process & FOG Receiving Station.
 - c. USGS Science is supporting efforts to Reduce Vulnerability to Sea-Level Rise in Virginia

2. Analysis of Media Coverage

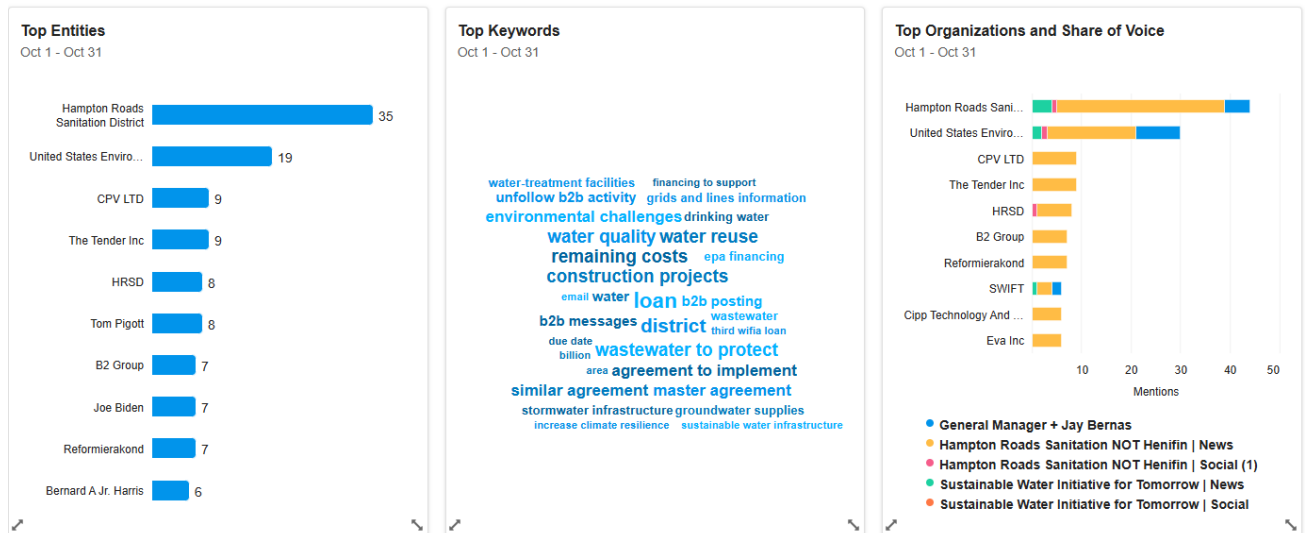
a. Key results for October



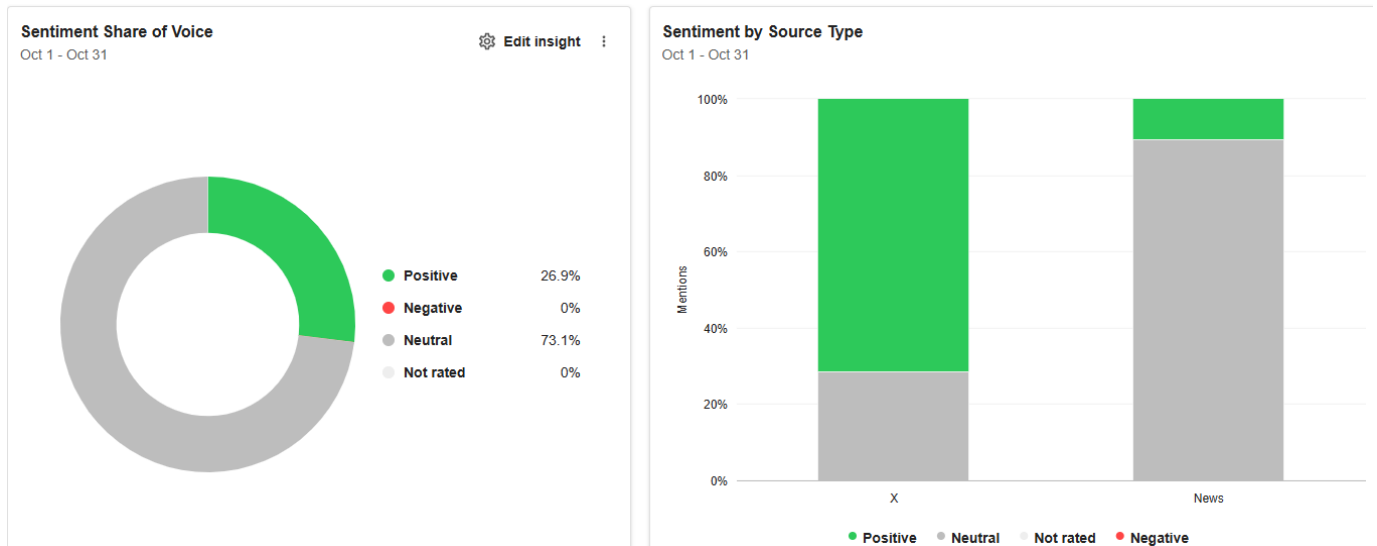
b. Top performing news content



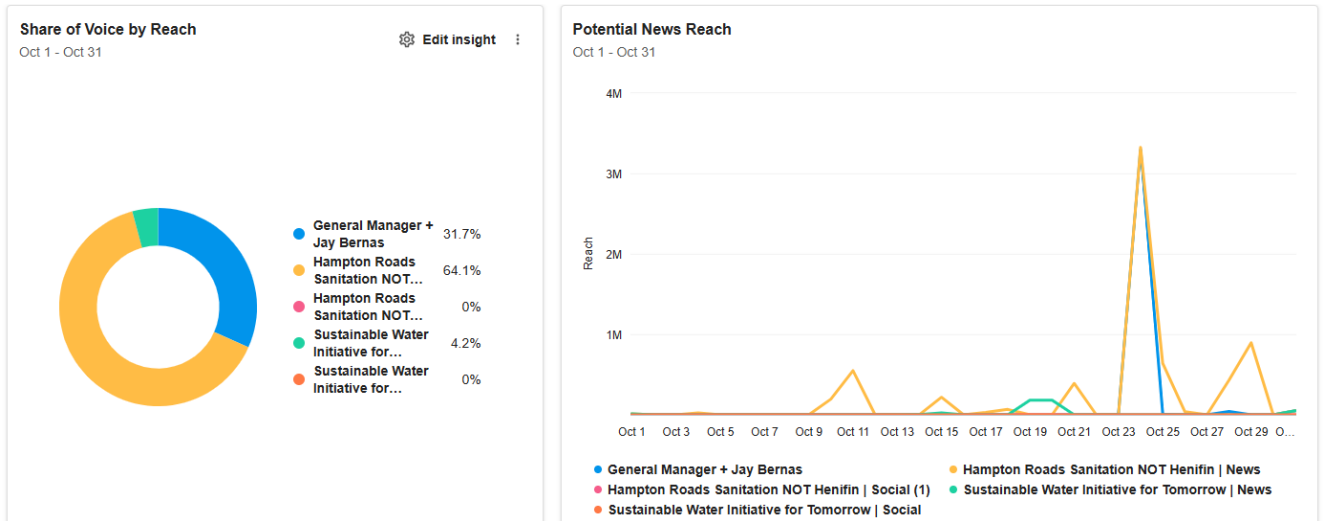
c. Top entities and keywords



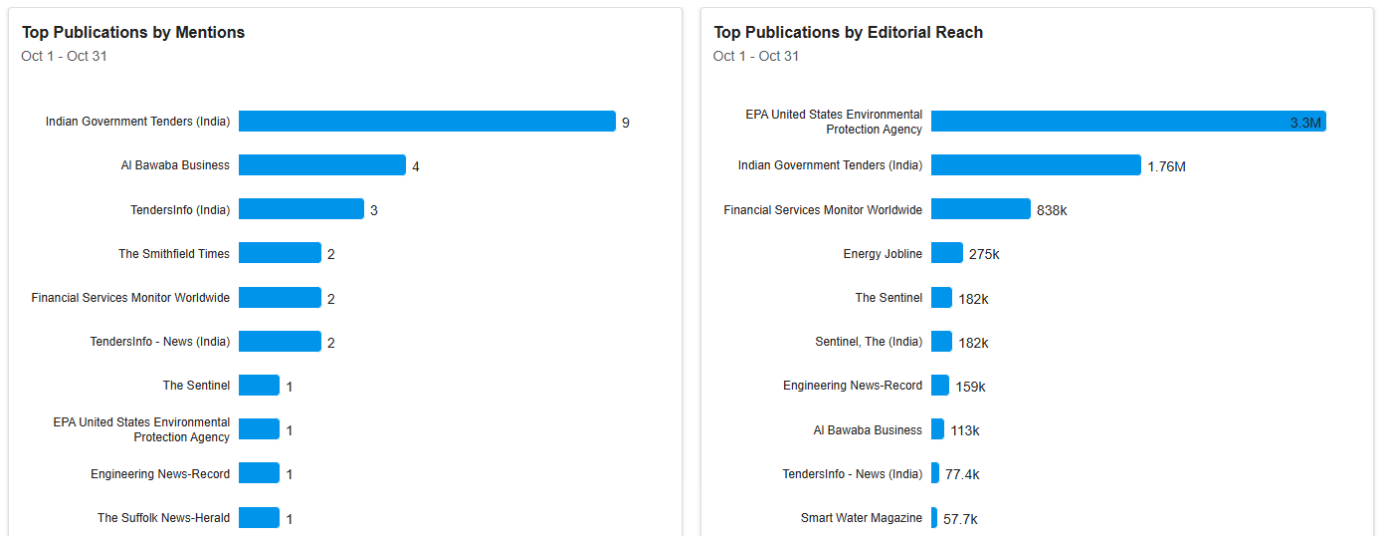
d. How favorable is the content?



e. What is the potential reach?



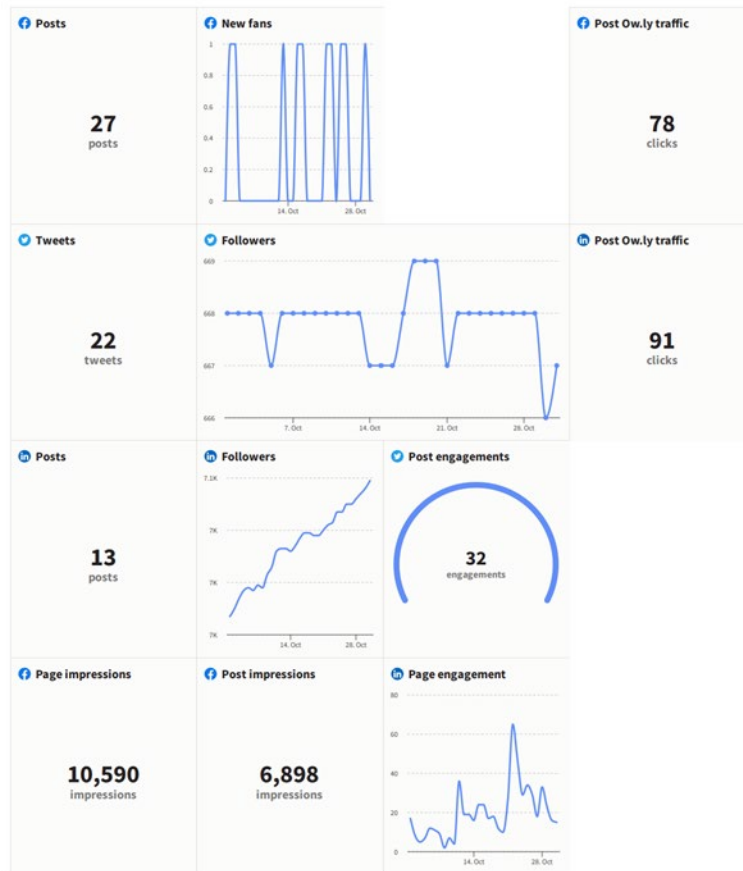
f. Top publishers



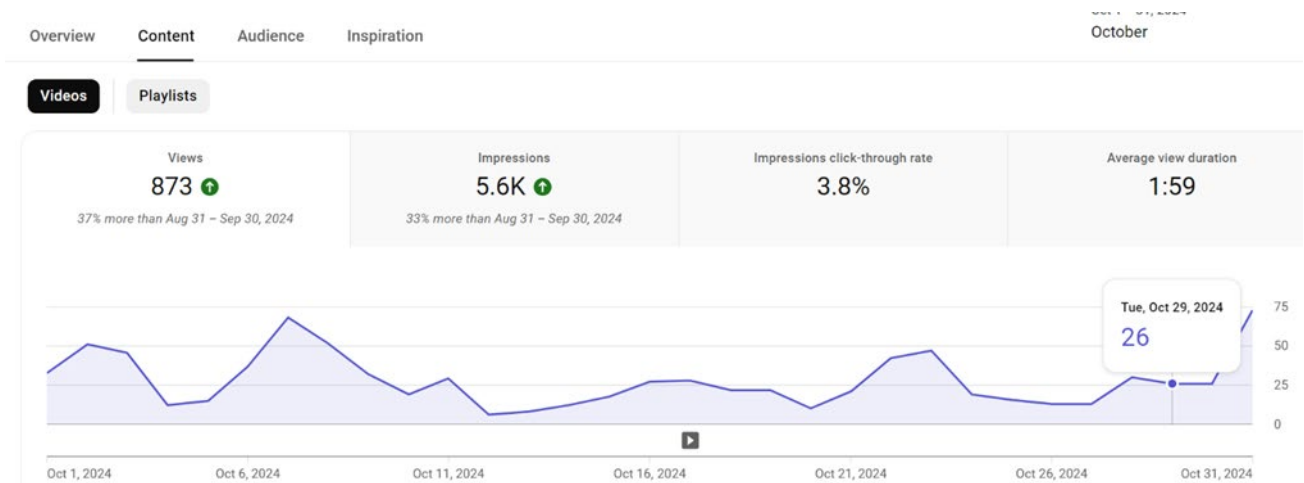
Community Engagement

B. Social Media and Online Engagement

1. Metrics – Facebook, X and LinkedIn



2. YouTube



3. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post



b. Top X Post



c. Top YouTube Videos (based on views in the month)

(1) [The Wastewater Treatment Process](#)

- (2) [Horizontal Directional Drilling Under the James River](#)
- (3) [Why SWIFT Matters](#)
- (4) [SWIFT Research Center: What Is the Potomac Aquifer](#)
- (5) [HRSD Atlantic Treatment Plant Cambi THP Tour](#)

4. Website and Social Media Impressions and Visits

a. Facebook:

- (1) 10,590 page impressions
- (2) 6,898 post impressions reaching 6,507 users.
- (3) Facebook Engagement of 216 (180 reactions, 25 shares, and 11 comments)

b. X: 4.42% engagement rate

c. HRSD.com/SWIFTVA.com: 992 page visits

d. LinkedIn Impressions:

- (1) 18,896 page impressions
- (2) 15,199 post impressions

e. YouTube: 873 views

f. Next Door unique impressions: 3,673 post impressions from 17 targeted neighborhood postings shared with 13,172 neighbors

g. Blog Posts: (0)

h. Construction Project Page Visits – 1555 total visits (not including direct visits from home page, broken down as follows:

- (1) 1,200 visits to individual pages
- (2) 355 to the status page

C. Education and Outreach Activity Highlights

Community Outreach and Education Specialists coordinated and participated in seven different outreach events this month. Community partners included the City of Newport News, Hampton City Schools, LEAD Peninsula, and VA Challenge Academy

South Shore Public Information Specialist coordinated and prepared materials for a presentation to the Larchmont Civic League.

Chief Communications Officer (CCO) coordinated media interview between WHRO environmental reporter and HRSD General Manager related to WIFIA funding of SWIFT.

Project notices were distributed to 508 customers for 10 different projects across the service area this month. The department distributed and posted eight construction or work notices to the HRSD.com Newsroom.

D. Internal Communications:

CCO participated in the following internal meetings and events:

1. Decentralized Systems Workshop
2. ROCI Design Phase kick-off
3. HRSD Security Team meeting
4. Focus group debrief related to HRSD brand refresh
5. Atlantic Treatment Plant monthly communications check-in meeting
6. SWIFT Strategic Communications monthly meeting
7. SWIFT Industry Day 2025 planning meetings
8. Atlantic Treatment Plant Odor taskforce check-in meeting
9. Bi-weekly General Manager (GM) briefings
10. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST), and HRSD QST meetings
11. Check-in meetings with Deputy General Manager (DGM)
12. CCO conducted biweekly Communications department status meetings and weekly one-on-one check-in meetings.
13. Staff participated in 18 project progress and/or construction meetings along with additional communication planning meetings with various project managers, plant staff and external stakeholders.



Talent

Professional development activities and pursuits for October included the following:

- CCO and staff participated in the Visual Communications Visual.
- Public Information Specialist completed Basic Incident Command System for Initial Response training.
- Public Information Specialist completed Integrated Public Alert System Warning (IPAWS) for Alert Originators training.
- Community educator attended Environmental Literacy training.

Respectfully,

Leila Rice, APR

Chief Communications Officer

TO: General Manager

FROM: Chief Engineer

SUBJECT: Monthly Engineering Report for October 2024

DATE: November 7, 2024



Environmental Responsibility

HRSD is working closely with the U.S. Fish and Wildlife Service (US F&WS) to replace a weir that is located on Lake Tecumseh at the Atlantic Treatment Plant in Virginia Beach. The weir was originally installed to control water levels in the lake. The existing weir is no longer functional, and the replacement weir will be designed and installed by the US F&WS. The new weir will stabilize water levels, improve water quality, improve habitat for submerged aquatic vegetation (SAV), and result in an improved environment for waterfowl and other bird species. The necessary environmental permitting efforts are underway with an expected construction start in 2025.

The coordination effort with the U.S. Navy continues on the new access road to the Atlantic Treatment Plant. The necessary property acquisition and environmental approvals are underway to move the design efforts forward. Numerous environmental issues are being carefully considered including historical, wetlands, endangered species and cultural impacts of the work. The U.S. Navy requires numerous issues to be considered before the land can be transferred and the construction can begin. This has been a long and involved process, but we hope to complete this phase of the project in the next few months.



Financial Stewardship

Capital Improvement Program (CIP) spending for the third month of FY2025 was slightly below the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	67.86	150.41
Plan	69.70	172.30

SC&H is nearing the completion of the internal audit of HRSD's construction cost estimating procedures. HRSD typically uses the consulting engineering firm conducting the project design to provide a cost estimate at the time of the construction bid. These estimates have often been problematic since they are not always aligned with the prices provided by the various contractors doing work for HRSD. SC&H has reviewed the cost estimates provided in recent years, reached out to the firms to better understand the methods they use to estimate costs, and discussed these issues with other public utilities that are faced with similar challenges. The audit and suggested remedies will be provided to HRSD in the coming months and the recommendations will be shared with the Commission.



Talent

We have recently added two additional project managers to the Engineering Division. Mr. Delane Carty will be joining the Special Projects D&C Department and Ms. Kayla Rutherford will be joining the South Shore D&C Department. Addition of these new project managers will allow HRSD to better deliver the numerous CIP projects that are needed to fulfill the needs of the organization. Both individuals bring valuable skills to the Engineering Division and should be able to quickly begin managing projects that have been delayed in recent months.

To keep the skills and knowledge of staff at a high level, the Engineering Division sent individuals to this year's Water and Environment Federation Technical Exposition & Conference (WEFTEC). Staff gained new knowledge, shared HRSD's experiences with others and networked with the many consultants and contractors that do work with HRSD. Staff also spent valuable time on the WEFTEC trade floor, learning about new equipment to be used on HRSD CIP projects. This event continues to be a valuable resource and an important part of staff training and improvement.



Community Engagement

HRSD continues our professional relationship with the National Association of Black Women in Construction (NABWIC). This organization focuses on the advancement of black women in the construction industry through outreach, training, and networking. HRSD presented our CIP at a recent webinar and discussed the many opportunities to engage on our many projects. Methods to learn more about HRSD's CIP and how to successfully compete for work were reviewed. This is HRSD's third year to participate in this event and is one step to ensure that all groups are able to fairly engage and assist in the infrastructure needs of the region.

The construction of Data Centers has become a common occurrence across the country. Hampton Roads is a hotbed for this industry. One aspect needed for the siting of new Data Centers is the availability of water to cool their servers and other equipment. On average, a Data Center will use 300,000 gallons of water per day which is comparable to the water used by 100,000 homes. Large Data Centers can have huge water demands. This water must be ultimately sent somewhere for treatment, so HRSD has been involved in the potential siting of these facilities in the region. Staff is working with Surry County on a potential Data Center project. Representatives for the Data Center project have discussed the viability of a site for up to 1-gigawatt of Data Center capacity. If the site was selected by this developer, it would represent \$4 to \$10 billion investment, with the \$6 billion being the targeted outcome. The developer has an aggressive schedule for the project, trying to complete the work in 24 to 36 months. The site will only require domestic sewage for a limited number of employees (max estimate of 10,000 gpd). Other discussions have been held in recent months about other potential Data Center projects. The feasibility of these projects is a function of many factors with water and sewer needs just one of many issues.



Innovation

A challenge faced by HRSD and many of our peers is to find willing and able contractors to build needed infrastructure. The limited pool of qualified contractors has challenged HRSD to look at new ways to design and build CIP projects. For small and often complex projects, HRSD has decided to construct these projects with in-house resources. An example of this initiative is the King William

Central Crossing Pump Station Rehabilitation project. We have created an in-house team to manage this effort including individuals from both Engineering and Operations. Certain aspects of the project will still be constructed by outside contractors but most of the work will be coordinated by in-house staff. It is hoped that this approach will result in a lower overall project price to complete the work and allow for the bidding of other projects that cannot be handled by in-house resources

HRSD was recently recognized by the Engineering News Record (ENR) for the Atlantic Treatment Plant Thermal Hydrolysis Process (Cambi) project. This was an innovative and challenging project for many reasons and ENR acknowledged this project for the Mid-Atlantic Best Project Award in the Water-Wastewater Category. Representatives from HRSD, the consultant and the contractor accepted the award in Baltimore, Maryland on October 25th.

Bruce W. Husselbee

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

TO: General Manager

FROM: Deputy General Manager and Chief Financial Officer

SUBJECT: Monthly Report for October 2024

DATE: November 8, 2024



Financial Stewardship

Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. HRSD is also required by its Trust Agreement to prepare and distribute its financial statements within 150 days following the close of the fiscal year. Staff from the Finance Division prepared the financial statements in accordance with accounting principles generally accepted in the United States and received an unmodified (clean) opinion from Cherry Bekaert LLP. Staff reported the financial results of the 2024 fiscal year to both the Finance Committee and the full Commission this month.

The Government Finance Officers Association of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to HRSD for its Annual Comprehensive Financial Report for the fiscal year ended June 30, 2023. This was the 41st consecutive year that HRSD received this prestigious award and reflects the commitment and dedication of the Accounting Department.

Past due accounts receivable increased slightly during October 2024.

The Debt Solutions team continues to conduct its outbound call program, advising customers of pending disconnection, promoting available financial assistance, and reviewing pay plan options. Staff estimates outbound calling generated approximately \$493 thousand in payments following contact.

Field staff delivered 3,319 warning door tags and disconnected water service to 1,868 accounts during October 2024. This activity resumed in September following a temporary self-imposed moratorium during July and August due to the 2024 legislative requirement effective July 1 suspending disconnection activities when the forecasted temperature is 92 degrees or higher within a 24-hour period of scheduled disconnection.

A. Interim Financial Report

1. Operating Budget for the Period Ended October 31, 2024.

	Amended Budget	Current YTD	Current YTD as % of Budget (33% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 442,031,000	\$ 156,919,741	35%	35%
Surcharge	1,400,000	605,665	43%	30%
Indirect Discharge	3,970,000	1,428,714	36%	35%
Fees	3,172,000	1,247,008	39%	41%
Municipal Assistance	837,000	256,647	31%	53%
Miscellaneous	1,982,000	654,054	33%	56%
Total Operating Revenue	453,392,000	161,111,829	36%	36%
Non Operating Revenues				
Facility Charge	6,170,000	2,635,545	43%	42%
Interest Income	7,300,000	8,741,908	120%	132%
Build America Bond Subsidy	-	-	0%	51%
Other	330,000	137,236	42%	19%
Total Non Operating Revenue	13,800,000	11,514,689	83%	65%
Total Revenues	467,192,000	172,626,518	37%	36%
Transfers from Reserves	19,475,990	6,491,997	33%	33%
Total Revenues and Transfers	<u>\$ 486,667,990</u>	<u>\$ 179,118,515</u>	37%	36%
Operating Expenses				
Personal Services	\$ 80,140,274	\$ 23,433,500	29%	30%
Fringe Benefits	30,767,169	8,736,757	28%	31%
Materials & Supplies	15,245,514	3,955,856	26%	21%
Transportation	2,382,779	608,108	26%	27%
Utilities	16,643,039	4,811,945	29%	31%
Chemical Purchases	16,974,110	4,381,688	26%	30%
Contractual Services	57,868,703	12,707,161	22%	21%
Major Repairs	16,778,801	2,179,857	13%	14%
Capital Assets	2,361,019	189,657	8%	15%
Miscellaneous Expense	4,171,177	2,134,319	51%	29%
Total Operating Expenses	243,332,585	63,138,848	26%	26%
Debt Service and Transfers				
Debt Service	87,700,000	24,640,720	28%	47%
Transfer to CIP	155,635,405	51,878,468	33%	33%
Transfer to Risk management	-	-	0%	33%
Total Debt Service and Transfers	243,335,405	76,519,188	31%	38%
Total Expenses and Transfers	<u>\$ 486,667,990</u>	<u>\$ 139,658,036</u>	29%	32%

2. Notes to Interim Financial Report

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

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

Transfers represent certain budgetary policy designations as follows:

- a. Transfer to CIP: represents the 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 October 31, 2024.

HRSD - RESERVE AND CAPITAL ACTIVITY

October 31, 2024

	General Reserve		Capital			
	General	Debt Service	Risk Mgmt Reserve	Paygo	SNAP	CIP Proceeds
	Unrestricted	Restricted	Unrestricted	Unrestricted	Restricted	Restricted
Beginning - July 1, 2024	\$ 240,258,497	\$ 22,307,000	\$ 4,799,555	\$ 37,468,922	\$ -	\$ -
Current Year Sources of Funds						
Current Receipts	170,243,537					
Line of Credit						-
VRA Draws						18,881,137
WIFIA Draws						109,886,949
Grants						14,887,693
Series 2024B					268,087,870	
Series 2024B Interest					3,225,602	
Transfers In			-	51,878,468		
Sources of Funds	170,243,537	-	-	51,878,468	271,313,472	143,655,779
Total Funds Available	\$ 410,502,034	\$ 22,307,000	\$ 4,799,555	\$ 89,347,390	\$ 271,313,472	\$ 143,655,779
Current Year Uses of Funds						
Cash Disbursements	90,839,869			23,946,416	17,973,931	143,655,779
Transfers Out	51,878,468					
Uses of Funds	142,718,337	-	-	23,946,416	17,973,931	143,655,779
End of Period - October 31, 2024	\$ 267,783,697	\$ 22,307,000	\$ 4,799,555	\$ 65,400,974	\$ 253,339,541	\$ -
Unrestricted Funds	\$ 337,984,226					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended October 31, 2024.

HRSD - PROJECT ANALYSIS

October 31, 2024

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2024	Expenditures Year to Date FY2025	Total Project Expenditures	Encumbrances	Available Funds
Administration	76,193,950	32,801,479	2,257,861	35,059,340	3,426,382	37,708,228
Army Base	176,442,597	126,238,488	135,350	126,373,838	9,795,167	40,273,592
Atlantic	262,672,364	89,606,122	3,989,782	93,595,904	32,073,539	137,002,921
Boat Harbor	526,086,433	195,525,030	23,995,103	219,520,133	248,009,361	58,556,939
Ches-Eliz	60,564,467	20,454,851	306,095	20,760,946	5,079,773	34,723,748
Eastern Shore	63,812,749	41,487,070	1,394,462	42,881,532	3,042,332	17,888,885
James River	374,571,240	196,624,027	27,303,483	223,927,510	110,087,087	40,556,643
Middle Peninsula	92,488,041	26,445,704	848,636	27,294,340	4,457,018	60,736,683
Nansemond	485,050,400	210,474,584	34,781,249	245,255,833	174,897,770	64,896,797
Surry	60,391,465	45,528,213	222,059	45,750,272	7,040,970	7,600,223
VIP	274,947,838	68,101,536	14,167,834	82,269,370	100,436,772	92,241,696
Williamsburg	87,324,019	22,399,476	312,551	22,712,027	6,318,869	58,293,123
York River	112,670,612	43,280,559	4,540,623	47,821,182	36,624,131	28,225,299
General	1,644,211,174	347,184,688	51,987,259	399,171,947	824,155,139	420,884,088
	\$ 4,297,427,349	\$ 1,466,151,827	\$ 166,242,347	\$ 1,632,394,174	\$ 1,565,444,310	\$ 1,099,588,865

5. Active Capital Grants

Active Capital Grants Activities

Grant Name	Funder	Project	CIP#	Application Submitted	Amount Requested	HRSD Award Amount
American Rescue Plan Act	VDEQ	Eastern Shore Infrastructure Improvements - TFM Phase I (Accomac)	ES010100	11/28/2022	\$ 8,367,000	\$ 4,183,500
American Rescue Plan Act	VDEQ	James River Treatment Plant Advanced Nutrient Reduction Improvements	JR013400	10/7/2022	\$ 50,000,000	\$ 36,124,859
American Rescue Plan Act	VDEQ	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II	NP013820	10/7/2022	\$ 50,000,000	\$ 31,693,207
FY2024 Congressionally Directed Funding, Warner/Kaine, Kiggans	CDF FY24	Eastern Shore Wastewater Improvements, Chincoteague	ES010500	3/7/2023	\$ 9,677,112	\$ 1,250,000
Water Quality Improvement Fund, Conveyance	VDEQ	Chesapeake-Elizabeth Treatment Plant Conveyance	Multiple	2/7/2023	\$ 100,647,746	\$ 78,276,470
Water Quality Improvement Fund, Conveyance	VDEQ	Eastern Shore TFM Phase 1 and Nassawadox Treatment Plant Conveyance	ES010100, ES010900	5/2/2022	\$ 4,900,000	\$ 4,936,538
Water Quality Improvement Fund, Nutrient Reduction	VDEQ	James River SWIFT - Advanced Nutrient Reduction Improvements	JR013400	3/23/2023	\$ 344,741,547	\$ -
Water Quality Improvement Fund, Nutrient Reduction	VDEQ	Boat Harbor Pump Station and Conveyance	Multiple	3/4/2024	\$ 311,286,392	\$ -
Water Quality Improvement Fund, Nutrient Reduction	VDEQ	Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II	NP013820, GN016380	3/4/2024	\$ 127,657,505	\$ -
Building Resilient Infrastructure and Communities (BRIC)	VDEM-FEM	Dozier's Corner Pump Station and Washington District Pump Station Resiliency Improvements	AT013000, AT015400	2/6/2024	\$ 18,988,629	\$ -
FY2024 Congressionally Directed Funding, Warner/Kaine, Kiggans	CDF FY24	Onancock Treatment Plant Solids Handling Improvements	ES010800	3/21/2024	\$ 6,624,248	\$ -
Climate Pollution Reduction Grant - Implementation	EPA	PdNA Implementation to Reduce GHG	AB011800	4/1/2024	\$ 59,540,142	\$ -
					\$ 1,092,430,321	\$ 156,464,574

6. Debt Management Overview

HRSD - Debt Outstanding (\$000's)

October 31, 2024

	Sept 2024	Oct 2024				
	Principal Balance	Payments	Draws	Capitalized Interest	Principal Balance	Interest Payments
Fixed Rate	\$ 1,560,946	\$ (2,047)	\$ 42,870	\$ 397	\$ 1,602,166	\$ (3,585)
Variable Rate	50,000	-	-	-	50,000	(126)
Line of Credit	100,000	-	-	-	100,000	(354)
Total	\$ 1,710,946	\$ (2,047)	\$ 42,870	\$ 397	\$ 1,752,166	\$ (4,065)

HRSD- Series 2016VR Bond Analysis

November 01, 2024

	SIFMA Index	HRSD Series 2016VR	Deviation to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	1.38%	0.93%	-0.45%
Minimum	0.01%	0.01%	0.00%
As of 11/01/24	3.24%	3.00%	-0.24%

Since October 20, 2011 HRSD has averaged 93 basis points on Variable Rate Debt

Subsidised Debt Activity

Source	Funder	Loan Amount	Current Drawn Total	% Remain	Initial Draw Date - Projected
WIFIA Tranche 1	EPA	\$225,865,648	\$225,865,648	0%	Closed Out
WIFIA Tranche 2	EPA	\$476,581,587	\$308,989,775	35%	Ongoing
WIFIA Tranche 3	EPA	\$268,087,870	\$ -	100%	July 2025
Clean Water Program 2024	DEQ	\$ 80,000,000	\$ 18,723,744	77%	Ongoing

7. Financial Performance Metrics for the Period Ended October 31, 2024.

HRSD - UNRESTRICTED CASH

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

		Days Cash on Hand	Adjusted Days Cash on Hand
Total Unrestricted Cash	\$ 337,984,226		507
Risk Management Reserve	(4,799,555)	(7)	500
Capital (PAYGO only)	(65,400,974)	(98)	402
Adjusted Days Cash on Hand	\$ 267,783,697		402

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

October 31, 2024

Primary Source	Beginning Market Value July 1, 2024	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value October 31, 2024	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BOA Corp Disbursement Account	31,786,393	370,707,339	349,988,348	425,438	52,930,822	21.6%	N/A	0.55%
VIP Stable NAV Liquidity Pool	178,789,050	40,000,000	30,000,000	3,572,691	192,361,741	78.4%	AAAm	5.04%
Total Primary Source	\$ 210,575,443	\$ 410,707,339	\$ 379,988,348	\$ 3,998,129	\$ 245,292,563	100.0%		

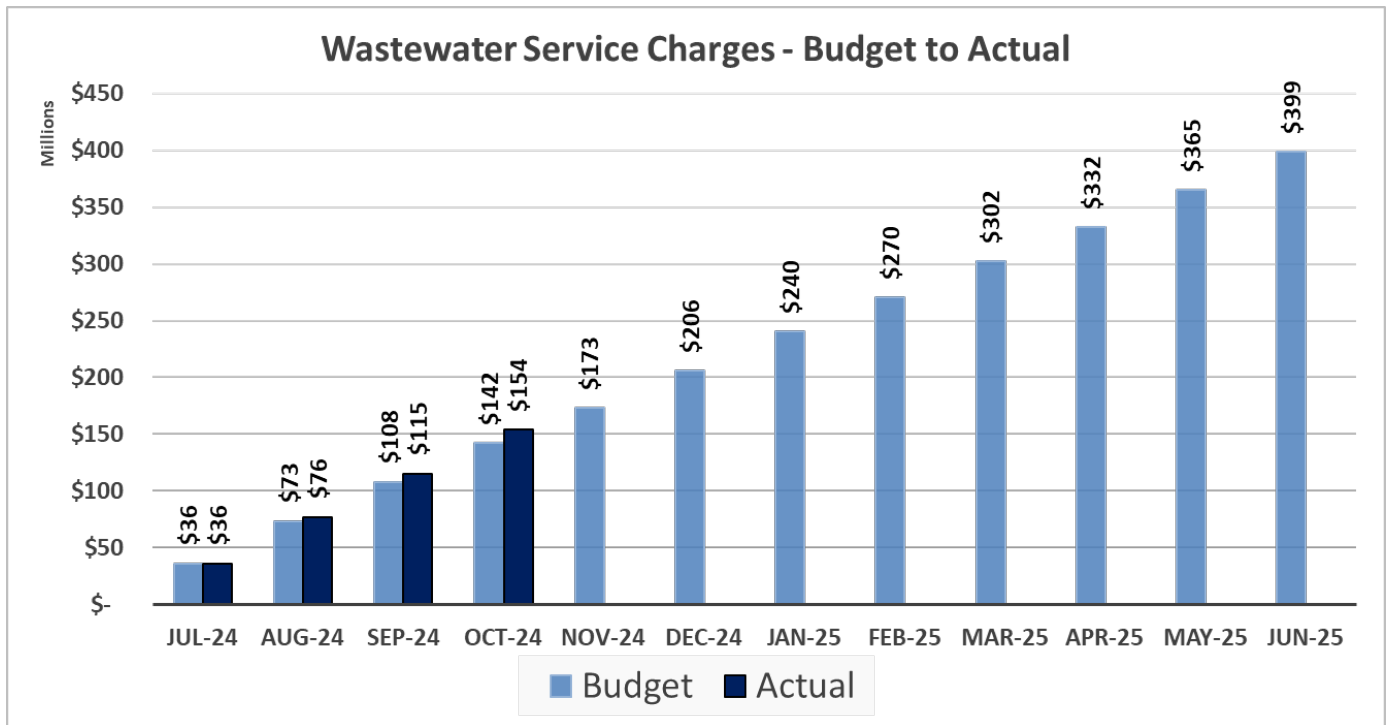
VIP Stable NAV Liquidity Pool performed 0.02% above to the Va Local Government Investment Pool's (the market benchmark) in the month of October 2024.

Secondary Source	Beginning Market Value July 1, 2024	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value October 31, 2024	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	65,915,924	-	4,441	956,105	67,368,068	68,257,790	(889,722)	4.20%
Total Secondary Source	\$ 65,915,924	\$ -	\$ 4,441	\$ 956,105	\$ 67,368,068	\$ 68,257,790	\$ (889,722)	

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

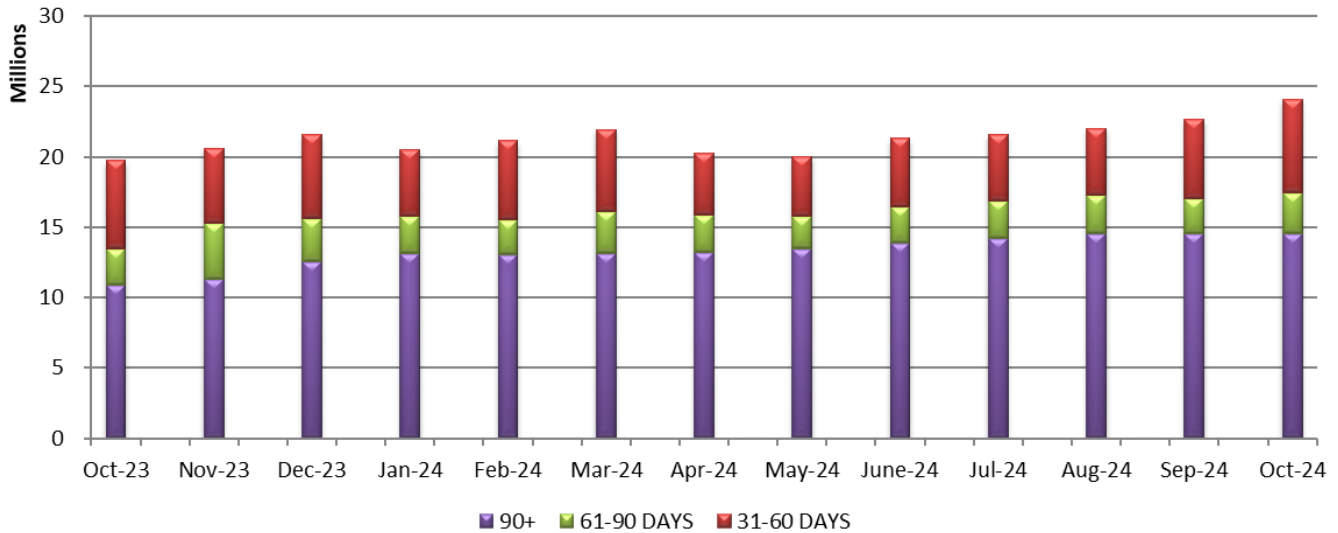
	Total	Fund Alloc
Total Primary Source	\$ 245,292,563	78.5%
Total Secondary Source	67,368,068	21.5%
TOTAL SOURCES	\$ 312,660,631	100.0%

8. Summary of Billed Consumption



Summary of Billed Consumption (,000s ccf)							
			<u>% Difference</u>		<u>% Difference</u>		<u>% Difference</u>
	FY2025 Cumulative Budget Estimate	FY2025 Cumulative Actual	From Budget	Cumulative FY2024 Actual	From FY2024	Cumulative 3 Year Average	From 3 Year Average
Month							
July	4,678	4,630	-1.0%	4,504	2.8%	4,721	-1.9%
Aug	9,644	9,518	-1.3%	9,432	0.9%	9,534	-0.2%
Sept	14,196	14,223	0.2%	13,965	1.9%	14,173	0.4%
Oct	18,663	18,870	1.1%	18,854	0.1%	18,861	0.0%
Nov	22,756	-	N/A	23,004	N/A	22,911	N/A
Dec	27,109	-	N/A	27,127	N/A	27,267	N/A
Jan	31,641	-	N/A	31,819	N/A	31,784	N/A
Feb	35,568	-	N/A	36,182	N/A	35,990	N/A
March	39,770	-	N/A	39,826	N/A	39,954	N/A
Apr	43,694	-	N/A	44,054	N/A	44,119	N/A
May	48,027	-	N/A	48,760	N/A	48,383	N/A
June	52,500	-	N/A	53,206	N/A	52,999	N/A

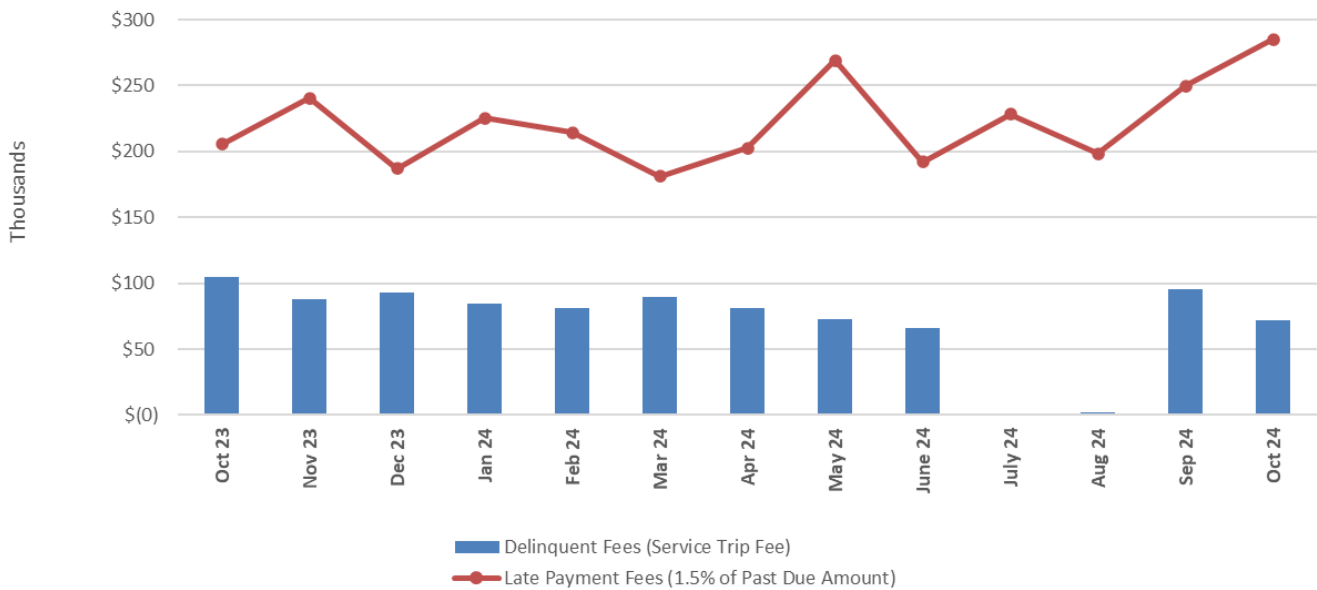
HRSD Accounts Receivable Aging +30 Days



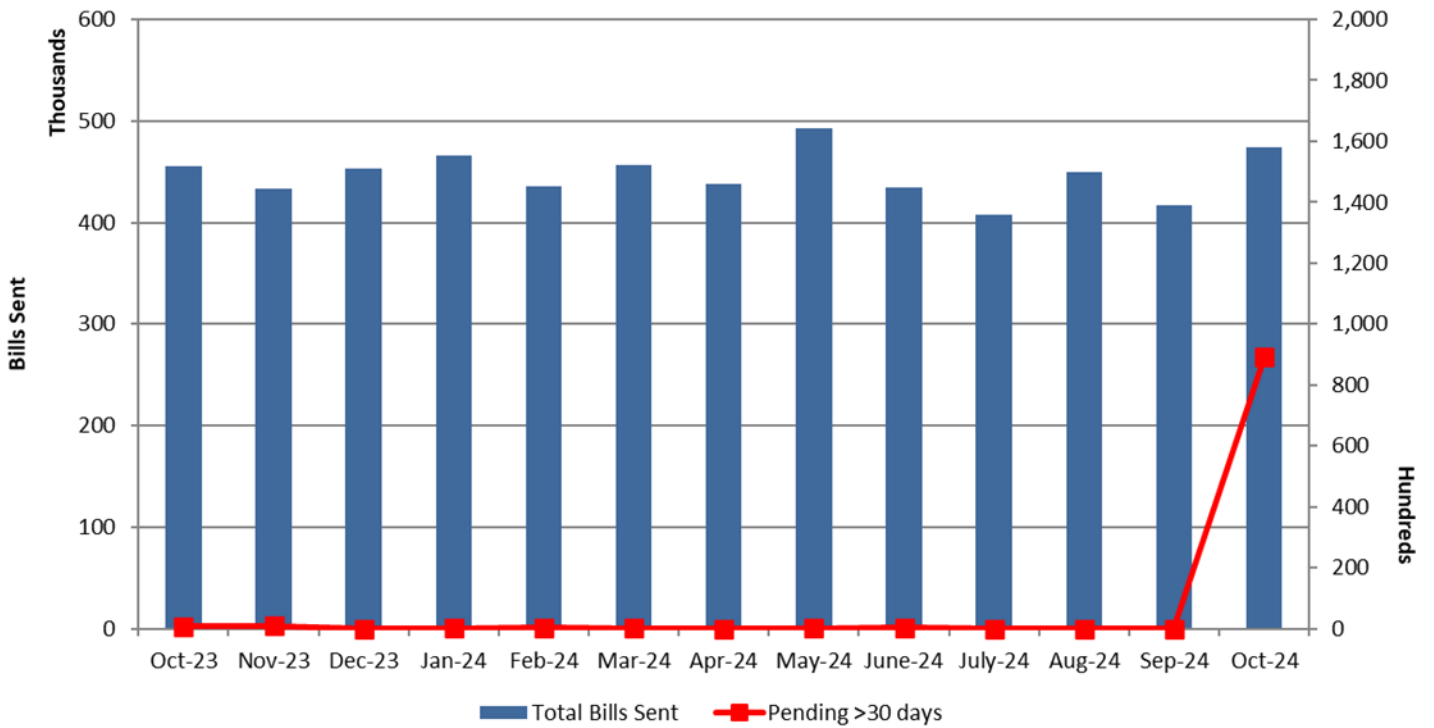
B. Customer Care Center

1. Accounts Receivable Overview

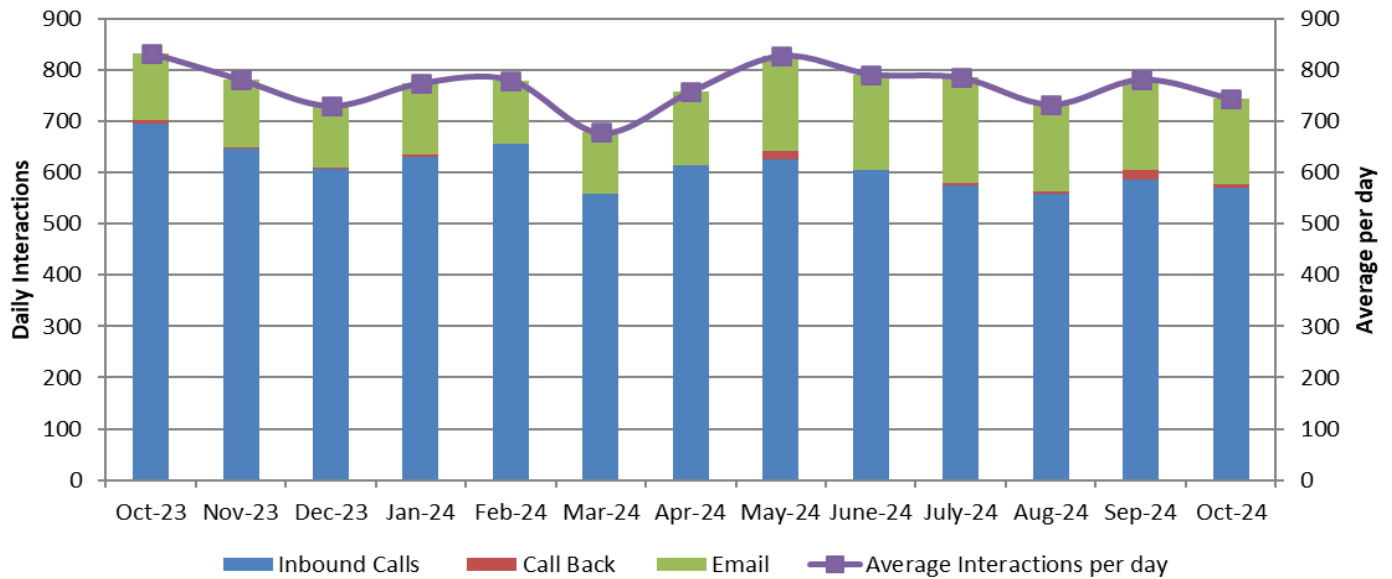
Delinquent & Late Payment Fees



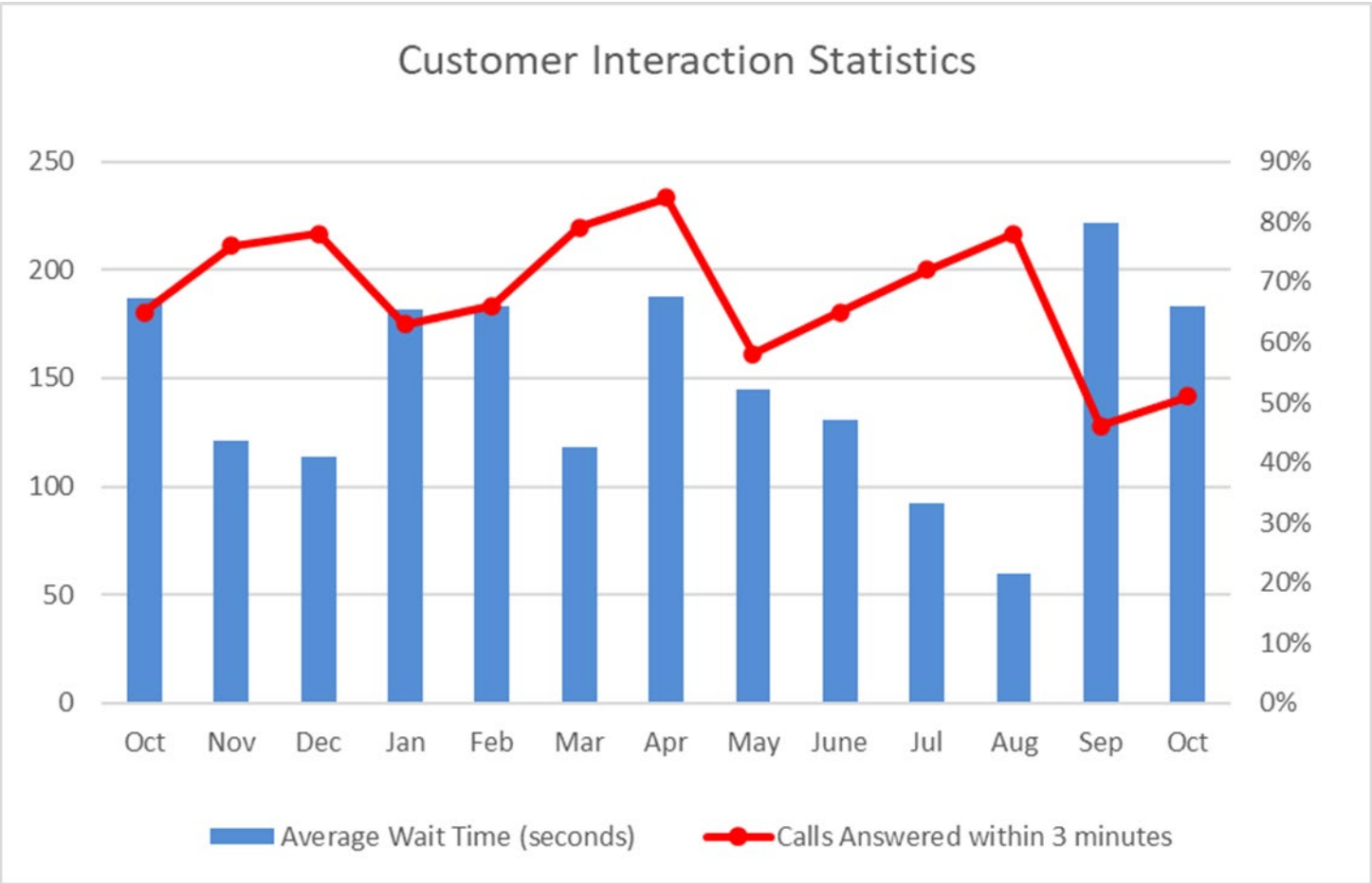
Billing Summary



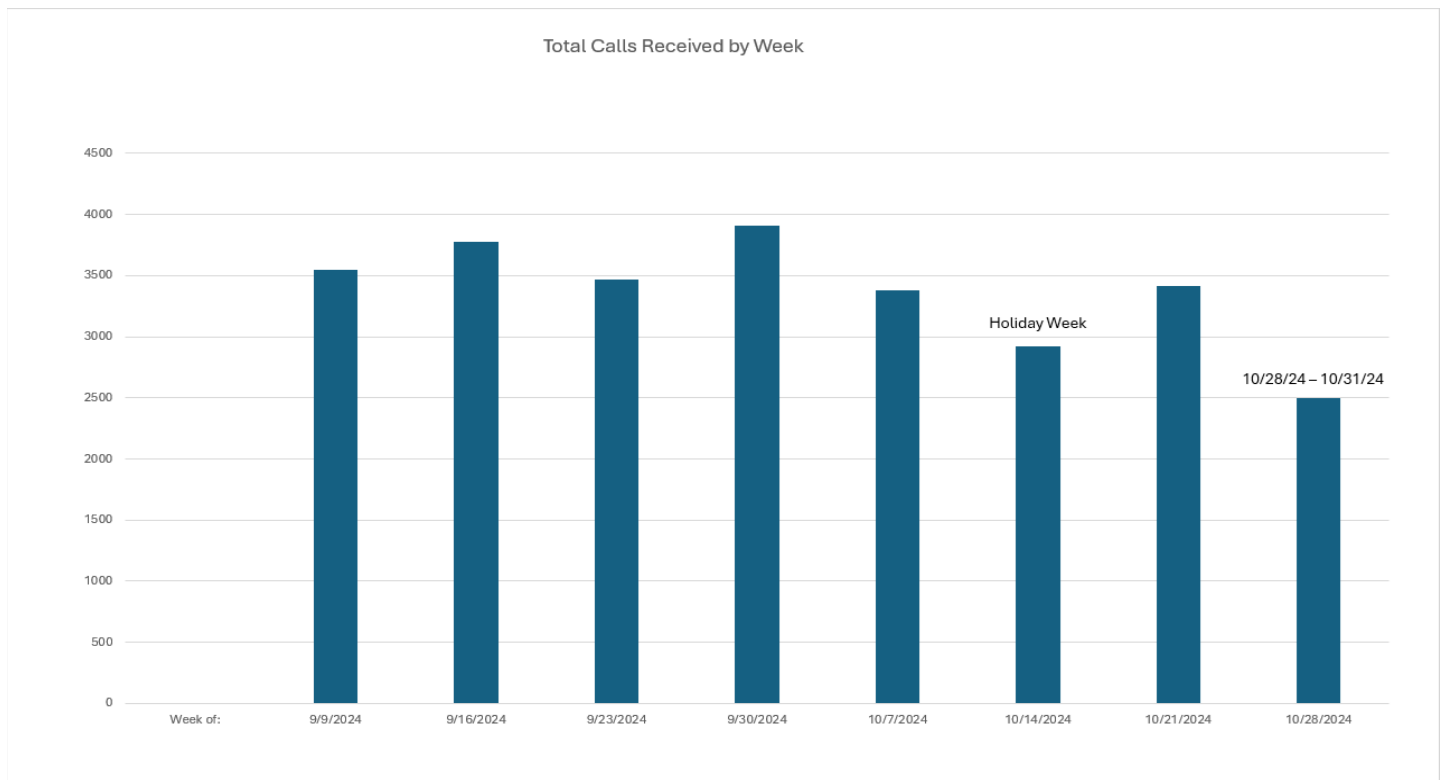
Call Center Interactions (per day)



2. Customer Care Center Statistics



Customer Interaction Statistics	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct
Calls Answered within 3 minutes	65%	76%	78%	63%	66%	79%	84%	58%	65%	72%	78%	46%	51%
Average Wait Time (seconds)	187	121	114	182	183	118	188	145	131	92	60	222	183
Calls Abandoned	12%	10%	9%	13%	12%	10%	8%	15%	11%	9%	6%	18%	16%



C. Procurement Statistics

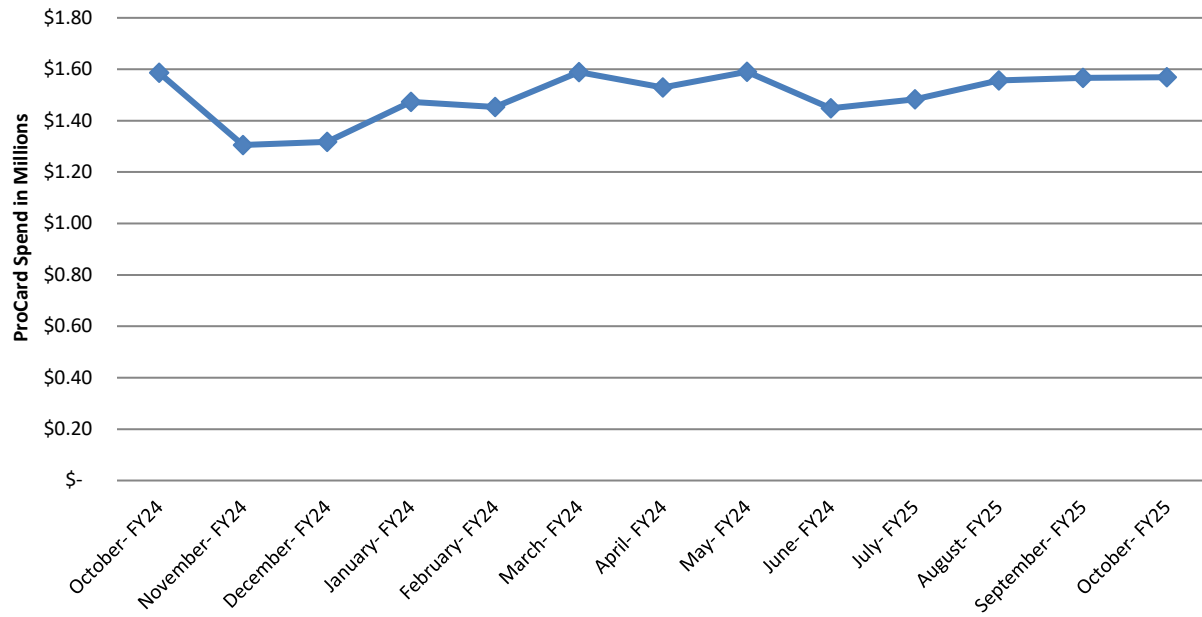
Savings	Current Period	FYTD
Competitive Savings ¹	\$118,575	\$845,035
Negotiated Savings ²	\$1,154	\$6,451
*Salvage Revenues	\$52,309	\$168,126
Corporate VISA Card - Estimated Rebate	\$23,378	\$92,013

*Salvage Revenues - FYTD total has been increased by \$51,204 due to an error on the October 2024 report.

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.

ProCard Spend FY25



Respectfully,

Steven G. de Mik

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

Attachment: [Quarterly Performance Report, 1st Quarter FY 2025](#)
[Retiree Health Plan Investment Performance Review](#)

Hampton Roads Sanitation District
Qtrly Performance Report
For the Quarter Ending September 30, 2024

Total Portfolio Summary

Operating Strategies	September 30, 2024	June 30, 2024
Primary Source	\$ 238,278,041	\$ 210,575,443
Secondary Source	67,753,845	65,915,924
	\$ 306,031,886	\$ 276,491,367

Primary Source Summary

The Primary Source Portfolio consists of BAML Corp Disbursement Account \$16.85m and VaCo/VML VIP Stable NAV Liquidity Pool \$221.42m. BAML Corp Disbursement Account returned 0.55% for the quarter ending September 30, 2024. VIP LIQ Pool Fund 30 Day Avg Net Yield was 5.29% as of September 30, 2024. VIP Stable NAV Liquidity Pool performed equal to the Va Local Government Investment Pool's (the market benchmark) in the month of September 2024. VaCo/VML VIP Stable NAV Liquidity Pool's weighted average credit rating was A-1 for the quarter.

Secondary Source Summary

The Secondary Source Portfolio consists of VaCo/VML VIP 1-3 Year High Quality Bond Fund. VIP 1-3 Year High Quality Bond Fund's Yield to Maturity at Market was 3.74% in September, which was 0.01% above the ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) performance. The weighted average credit rating for VaCo/VML VIP 1-3 Year High Quality Bond Fund's portfolio was AA for the quarter.

Retirement Health Plan Trust	September 30, 2024	June 30, 2024
Investment Assets	79,999,099	75,795,995
Liquidity Assets	50,180	49,541
Combined Assets	\$ 80,049,279	\$ 75,845,536

Retiree Health Plan Trust Summary

The Retiree Health Plan Trust portfolio returned 5.6% (investment assets) for the quarter ended September 30, 2024, below the 6.20% return of the Blended Benchmark. Fixed-income markets traded higher during the quarter on the back of the Fed's policy shift as Treasury yields fell. The US Federal Reserve (the Fed) shifted its policy stance during the quarter and cut the fed funds rate by 0.50% for the first time in four years to a range of 4.75%-5.00%. US equity results were sharply higher for the quarter, which also saw a significant broadening of returns. The S&P 500 Index rose a solid 5.9% for the quarter and the small-cap Russell 2000 Index posted a higher gain of 9.3%. International stocks continued delivering positive results during the third quarter and US Dollar (USD) denominated results were further helped by a weakening USD.

Hampton Roads Sanitation District Retiree Health Plan

Investment Performance Review
Period Ending September 30, 2024

MARINER

The Economy

- The US Federal Reserve (the Fed) shifted its policy stance during the quarter and cut the fed funds rate by 0.50% for the first time in four years to a range of 4.75%-5.00%. Capital markets celebrated the move after struggling to predict the pace and timing of future Fed actions earlier in the year. In its press release for the September meeting, the Fed continued to assert its stance on fighting inflation, while also inserting that the committee is strongly committed to “supporting maximum employment.” Fed Chairman Jerome Powell signaled to the markets that the expectation is for the committee to shift to a more expansionary policy moving forward.
- The Fed’s September “Dot Plot” showed revised expectations from a single 0.25% rate cut for the remainder of 2024 to a low-end estimate of a 4.25%-4.50% range. The dots also showed the target rate range decreasing below 4.00% in 2025.
- Growth in the US labor market continued in the third quarter, albeit at a slower pace than previous quarters with growth coming in at 527,000 new jobs. However, the strength of the labor market during the previous year was undermined by the large downward revision (818,000) on the trailing one-year statistic.

Equity (Domestic and International)

- US equity results were sharply higher for the quarter, which also saw a significant broadening of returns across both the style and capitalization spectrum. The S&P 500 Index rose a solid 5.9% for the quarter and the small-cap Russell 2000 Index posted a higher gain of 9.3%. This quarter not only saw a significant rotation from large-cap to small-cap stocks but also from growth stocks to value stocks as value indexes outpaced their growth counterparts.
- Large-cap equity benchmarks continue to represent top-heavy concentration among a limited number of stocks. As of quarter end, the top 10 stocks in the S&P 500 Index made up nearly 35% of the index.
- International stocks continued delivering positive results during the third quarter and US Dollar (USD) denominated results were further helped by a weakening USD. USD performance of international stocks surged past local currency (LCL) returns in most regions for the quarter, albeit to varying degrees.

Fixed Income

- Fixed-income markets traded higher during the quarter on the back of the Fed’s policy shift as Treasury yields fell. The inverse relationship between prices and yields resulted in the Bloomberg US Aggregate Bond Index advancing 5.2%. The yield on the bellwether 10-year Treasury declined by 0.55% during the quarter.
- High-yield bonds slightly outperformed the Bloomberg US Aggregate Bond Index for the quarter, largely due to higher coupons and partly due to narrowing option-adjusted spreads (OAS) for the Bloomberg US High-Yield index.
- Global bonds outpaced the domestic benchmarks, with the Bloomberg Global Aggregate ex-US returning 8.5% for the quarter in USD terms. Global bond performance was boosted by a weakening USD during the quarter.

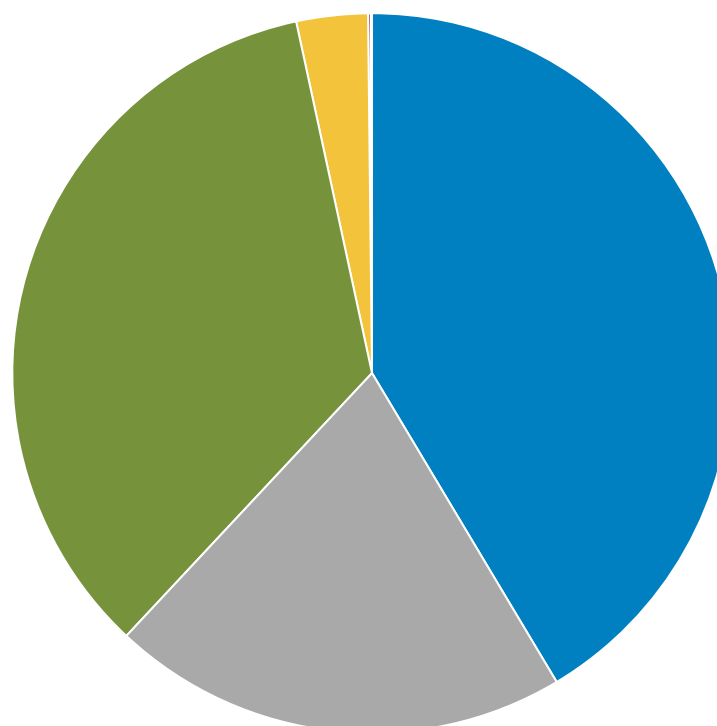
Market Themes

- Divergent monetary policies across regions led to increased volatility during the quarter. Most developed markets across the world kept rates at elevated levels as central banks continued their tight monetary stances. However, the Japanese Central Bank chose to raise its policy rates at the end of July, shortly before the Fed cut its policy rate in September. This divergence led to an unwinding of the systematic Yen carry trade, where investors quickly took action to cover short yen positions by taking down positions in various higher growth investments, including US equities. This subsequently led to a sharp decline in equity markets around the world in early August.
- Ongoing military conflicts in Ukraine and the Middle East, coupled with global economic uncertainty, continue to act as headwinds for international market results but they received a boost from the weakening USD. New escalations to existing conflicts have resulted in anticipated and unanticipated consequences. Domestic Defense companies have tended to trade higher on the news of developing escalations abroad while similarly putting upward pressure on oil prices and downward pressure on energy stocks as a result.

Financial Reconciliation
Total Fund - Combined Assets
Year To Date Ending September 30, 2024

Financial Reconciliation Year to Date								
	Market Value 01/01/2024	Net Transfers	Contributions	Distributions	Management Fees	Other Expenses	Return On Investment	Market Value 09/30/2024
Total Fund - Combined Assets	71,304,208	-	-	-	-24,783	-13,931	8,783,785	80,049,279
Total Fund - Investment Assets	71,255,923	-	-	-	-24,783	-13,921	8,781,881	79,999,099

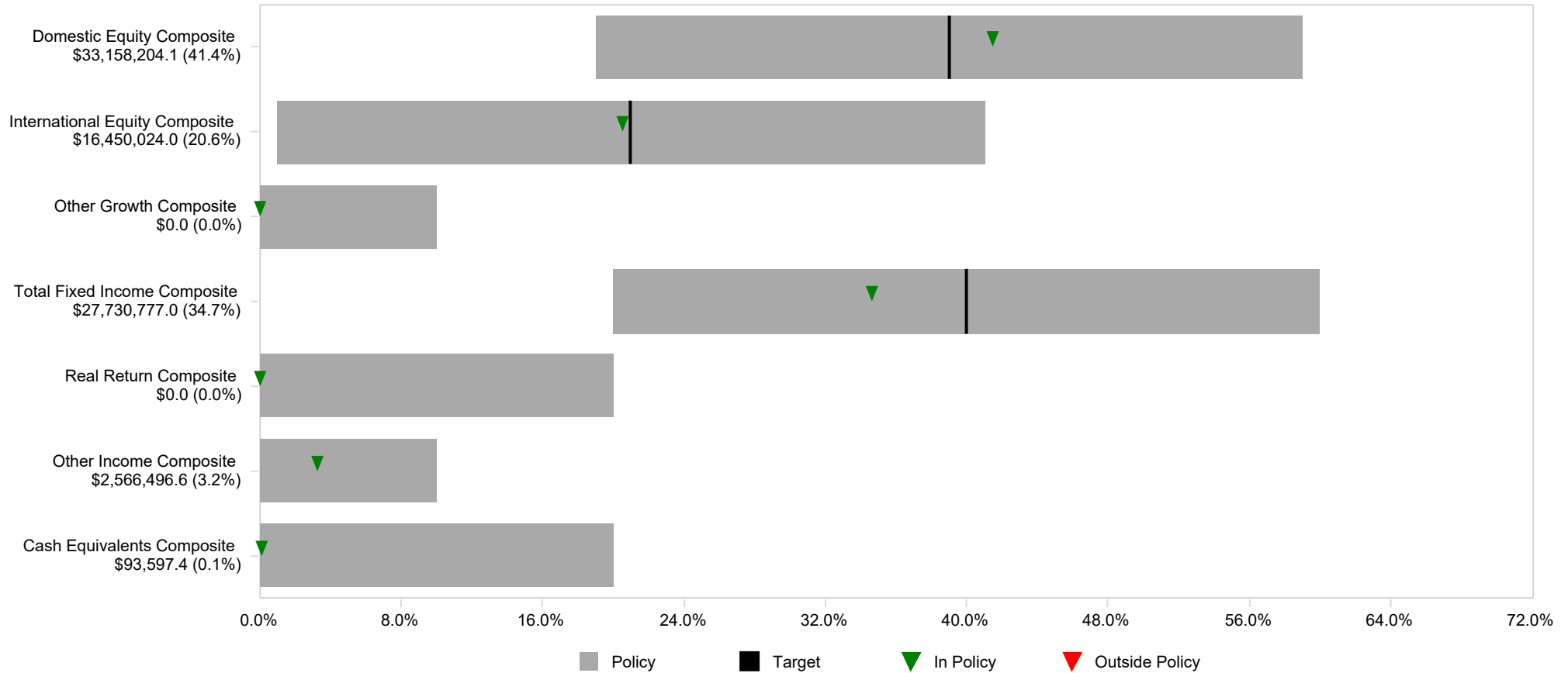
Sep-2024 : \$80,049,279



Allocation

	Market Value	Allocation
Domestic Equity Composite	33,158,204	41.4
International Equity Composite	16,450,024	20.5
Total Fixed Income Composite	27,730,777	34.6
Other Income Composite	2,566,497	3.2
Cash Equivalents Composite	93,597	0.1
Total Fund - Liquidity Assets	50,180	0.1

Executive Summary



Asset Allocation Compliance

	Asset Allocation \$	Current Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total Fund - Investment Assets	79,999,099	100.0	100.0	N/A	N/A
Domestic Equity Composite	33,158,204	41.4	39.0	19.0	59.0
International Equity Composite	16,450,024	20.6	21.0	1.0	41.0
Other Growth Composite	-	0.0	0.0	0.0	10.0
Total Fixed Income Composite	27,730,777	34.7	40.0	20.0	60.0
Real Return Composite	-	0.0	0.0	0.0	20.0
Other Income Composite	2,566,497	3.2	0.0	0.0	10.0
Cash Equivalents Composite	93,597	0.1	0.0	0.0	20.0

Asset Allocation & Performance

Total Fund

As of September 30, 2024

	Allocation		Performance(%)										
	Market Value \$	%	MTH	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date	
Total Fund - Combined Assets	80,049,279	100.0											
Total Fund - Investment Assets (Net of Fees)	79,999,099	99.9	1.57	5.59	12.29	22.64	3.87	8.08	7.47	7.27	8.03	Sep-2009	
Blended Benchmark			1.91	6.20	12.67	23.36	4.44	7.83	7.29	6.84	7.80		
Total Equity Composite	49,608,228	62.0	1.93	6.36	17.69	31.22	-	-	-	-	31.22	Oct-2023	
Vanguard Total Stock Market ETF (VTI)	31,554,391	39.4	2.03 (31)	6.18 (56)	20.58 (31)	35.24 (28)	10.11 (38)	15.18 (25)	13.68 (21)	12.78 (18)	20.92 (30)	Apr-2020	
Russell 3000 Index			2.07	6.23	20.63	35.19	10.29	15.26	13.74	12.83	21.00		
All Cap Blend Median			1.58	6.55	17.14	30.88	8.78	12.76	11.49	10.78	19.90		
Jensen Quality Growth Fund (JENYX)	1,603,814	2.0	0.74 (94)	6.86 (20)	12.96 (95)	23.91 (96)	8.39 (84)	13.16 (76)	13.66 (37)	13.32 (9)	12.77 (80)	Apr-2019	
S&P 500 Index			2.14	5.89	22.08	36.35	11.91	15.98	14.50	13.38	15.66		
Large Blend Median			1.90	5.79	20.58	34.79	10.73	14.87	13.16	12.11	14.44		
International Equity Composite	16,450,024	20.5	1.87	6.67	12.96	24.77	-	-	-	-	24.77	Oct-2023	
Vanguard Total International Stock ETF (VXUS)	8,990,832	11.2	2.59 (11)	7.82 (41)	13.49 (37)	24.73 (43)	3.99 (48)	7.76 (48)	5.49 (45)	5.43 (51)	13.38 (47)	Apr-2020	
MSCI AC World ex USA (Net)			2.69	8.06	14.21	25.35	4.14	7.59	5.44	5.22	12.90		
Foreign Median			1.00	7.25	12.65	24.09	3.85	7.68	5.35	5.45	13.20		
J. O. Hambro International Select (JOHIX)	1,101,777	1.4	-0.40 (92)	4.79 (88)	8.58 (90)	20.10 (87)	-2.66 (90)	5.74 (88)	4.88 (66)	5.29 (57)	6.49 (59)	Jan-2016	
MSCI EAFE IMI			1.20	7.79	13.24	25.21	5.13	8.44	6.23	6.26	7.49		
Foreign Median			1.00	7.25	12.65	24.09	3.85	7.68	5.35	5.45	6.72		
Harding Loevner International Equity (HLMIX)	1,100,555	1.4	2.60 (11)	9.45 (15)	11.18 (74)	24.67 (44)	2.19 (68)	7.96 (42)	5.97 (30)	6.66 (19)	8.18 (70)	Jul-2020	
MSCI AC World ex USA (Net)			2.69	8.06	14.21	25.35	4.14	7.59	5.44	5.22	9.78		
Foreign Median			1.00	7.25	12.65	24.09	3.85	7.68	5.35	5.45	9.84		
Goldman Sachs GQG Ptnrs Intl Opportunities (GSIMX)	1,283,759	1.6	-1.86 (100)	0.26 (100)	17.31 (6)	32.01 (2)	9.20 (2)	12.20 (1)	11.01 (1)	-	26.51 (1)	Sep-2023	
MSCI AC World ex USA (Net)			2.69	8.06	14.21	25.35	4.14	7.59	5.44	5.22	19.60		
Foreign Large Blend Median			0.95	7.12	12.96	24.46	4.25	7.78	5.45	5.40	18.23		
Vanguard FTSE Developed Markets ETF (VEA)	1,656,755	2.1	1.08 (46)	7.15 (49)	12.22 (67)	24.54 (49)	4.78 (41)	8.27 (35)	5.94 (29)	5.92 (26)	7.06 (42)	Mar-2022	
MSCI EAFE (Net) Index			0.92	7.26	12.99	24.77	5.48	8.20	6.00	5.71	8.09		
Foreign Large Blend Median			0.95	7.12	12.96	24.46	4.25	7.78	5.45	5.40	6.63		
Vanguard FTSE All-World ex-US Small-Cap ETF (VSS)	765,837	1.0	2.81 (13)	7.69 (68)	10.78 (55)	22.17 (59)	0.84 (45)	7.08 (60)	4.17 (62)	4.97 (78)	15.58 (55)	Sep-2023	
MSCI AC World ex USA Small Cap (Net)			3.01	8.90	11.93	23.25	1.39	8.21	5.20	6.08	17.07		
IM International Small Cap Equity (SA+CF) Median			1.98	8.56	11.31	23.56	-0.62	7.58	4.70	6.29	16.40		

See the disclosure page at the end of the report.

Asset Allocation & Performance

Total Fund

As of September 30, 2024

	Allocation		Performance(%)									
	Market Value \$	%	MTH	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Hartford Schroders Emerging Markets (SEMTX)	753,756	0.9	4.23 (62)	5.21 (63)	14.90 (39)	24.37 (38)	-1.82 (60)	5.02 (53)	3.47 (44)	4.45 (32)	2.18 (46)	Mar-2018
MSCI Emerging Markets (Net) Index			6.68	8.72	16.86	26.05	0.40	5.75	3.65	4.02	2.25	
Diversified Emerging Mkts Median			5.01	6.35	14.13	23.46	-0.88	5.25	3.16	3.57	1.95	
iShares MSCI Emerging Markets ex China ETF (EMXC)	796,752	1.0	0.74 (93)	3.23 (84)	11.22 (75)	25.11 (30)	2.66 (18)	7.60 (21)	5.07 (21)	-	20.08 (31)	Sep-2023
MSCI Emerging Markets (Net) Index			6.68	8.72	16.86	26.05	0.40	5.75	3.65	4.02	20.83	
Diversified Emerging Mkts Median			5.01	6.35	14.13	23.46	-0.88	5.25	3.16	3.57	17.98	
Domestic Fixed Income Composite	27,730,777	34.6	1.40	5.22	5.48	12.83	-	-	-	-	12.83	Oct-2023
Baird Core Plus (BCOIX)	7,020,147	8.8	1.39 (22)	5.22 (32)	5.35 (11)	12.85 (6)	-0.67 (10)	1.21 (8)	2.19 (4)	2.58 (2)	2.64 (3)	May-2014
Blmbg. U.S. Aggregate Index			1.34	5.20	4.45	11.57	-1.39	0.33	1.47	1.84	1.90	
Intermediate Core Bond Median			1.33	5.13	4.64	11.69	-1.51	0.38	1.43	1.78	1.83	
DoubleLine Core Fixed Income (DBLFX)	3,896,056	4.9	1.49 (13)	5.64 (15)	5.73 (25)	12.60 (51)	-0.69 (19)	0.72 (52)	1.64 (52)	2.17 (38)	1.57 (53)	Sep-2017
Blmbg. U.S. Aggregate Index			1.34	5.20	4.45	11.57	-1.39	0.33	1.47	1.84	1.39	
Intermediate Core-Plus Bond Median			1.36	5.22	5.25	12.61	-1.38	0.74	1.68	2.02	1.63	
PGIM Total Return Bond (PTRQX)	5,731,714	7.2	1.46 (18)	5.21 (52)	5.85 (20)	13.43 (20)	-0.87 (25)	0.82 (47)	2.13 (22)	2.72 (10)	2.05 (23)	Sep-2017
Blmbg. U.S. Aggregate Index			1.34	5.20	4.45	11.57	-1.39	0.33	1.47	1.84	1.39	
Intermediate Core-Plus Bond Median			1.36	5.22	5.25	12.61	-1.38	0.74	1.68	2.02	1.63	
Voya Intermediate Bond (IIBZX)	3,068,114	3.8	1.33 (62)	5.25 (47)	5.87 (19)	13.40 (20)	-0.94 (29)	0.88 (42)	2.02 (29)	2.47 (19)	0.88 (41)	Jan-2020
Blmbg. U.S. Aggregate Index			1.34	5.20	4.45	11.57	-1.39	0.33	1.47	1.84	0.31	
Intermediate Core-Plus Bond Median			1.36	5.22	5.25	12.61	-1.38	0.74	1.68	2.02	0.72	
iShares Core US Aggregate Bond ETF (AGG)	5,486,201	6.9	1.33 (50)	5.30 (21)	4.56 (58)	11.54 (60)	-1.39 (38)	0.31 (58)	1.44 (49)	1.81 (46)	4.09 (55)	Feb-2023
Blmbg. U.S. Aggregate Index			1.34	5.20	4.45	11.57	-1.39	0.33	1.47	1.84	4.10	
Intermediate Core Bond Median			1.33	5.13	4.64	11.69	-1.51	0.38	1.43	1.78	4.13	
iShares Intermediate-Term Corporate Bond ETF (IGIB)	1,302,012	1.6	1.61 (56)	5.96 (10)	6.33 (10)	15.24 (10)	-0.19 (9)	1.78 (15)	2.97 (5)	2.90 (51)	1.78 (15)	Oct-2019
ICE BofAML U.S. Corporate 5-10 Year Index			1.64	5.89	6.50	15.08	-0.28	1.80	2.87	3.32	1.80	
Corporate Bond Median			1.62	5.67	5.68	14.25	-1.18	1.27	2.37	2.90	1.27	
BBH Limited Duration (BBBIX)	213	0.0	0.70 (95)	2.39 (97)	5.32 (28)	8.27 (51)	3.92 (2)	3.36 (4)	3.28 (4)	2.79 (5)	7.01 (4)	Feb-2023
Blmbg. U.S. Treasury: 1-3 Year			0.81	2.91	4.13	6.79	1.27	1.49	1.68	1.41	4.61	
Short-Term Bond Median			0.89	3.07	4.95	8.27	1.52	1.93	2.09	1.88	5.46	
MainStay MacKay High Yield Corp Bond Fund (MHYSX)	1,226,321	1.5	1.07 (78)	3.70 (83)	6.94 (65)	13.16 (79)	3.45 (25)	4.67 (23)	4.67 (18)	5.13 (9)	3.76 (25)	Jun-2021
ICE BofA U.S. High Yield Index			1.63	5.28	8.03	15.66	3.08	4.55	4.56	4.95	3.48	
High Yield Bond Median			1.28	4.51	7.29	14.29	2.73	4.03	3.99	4.23	3.01	
Other Income Composite	2,566,497	3.2	-3.37	-3.37	-6.10	-8.17	-	-	-	-	-8.17	Oct-2023

See the disclosure page at the end of the report.

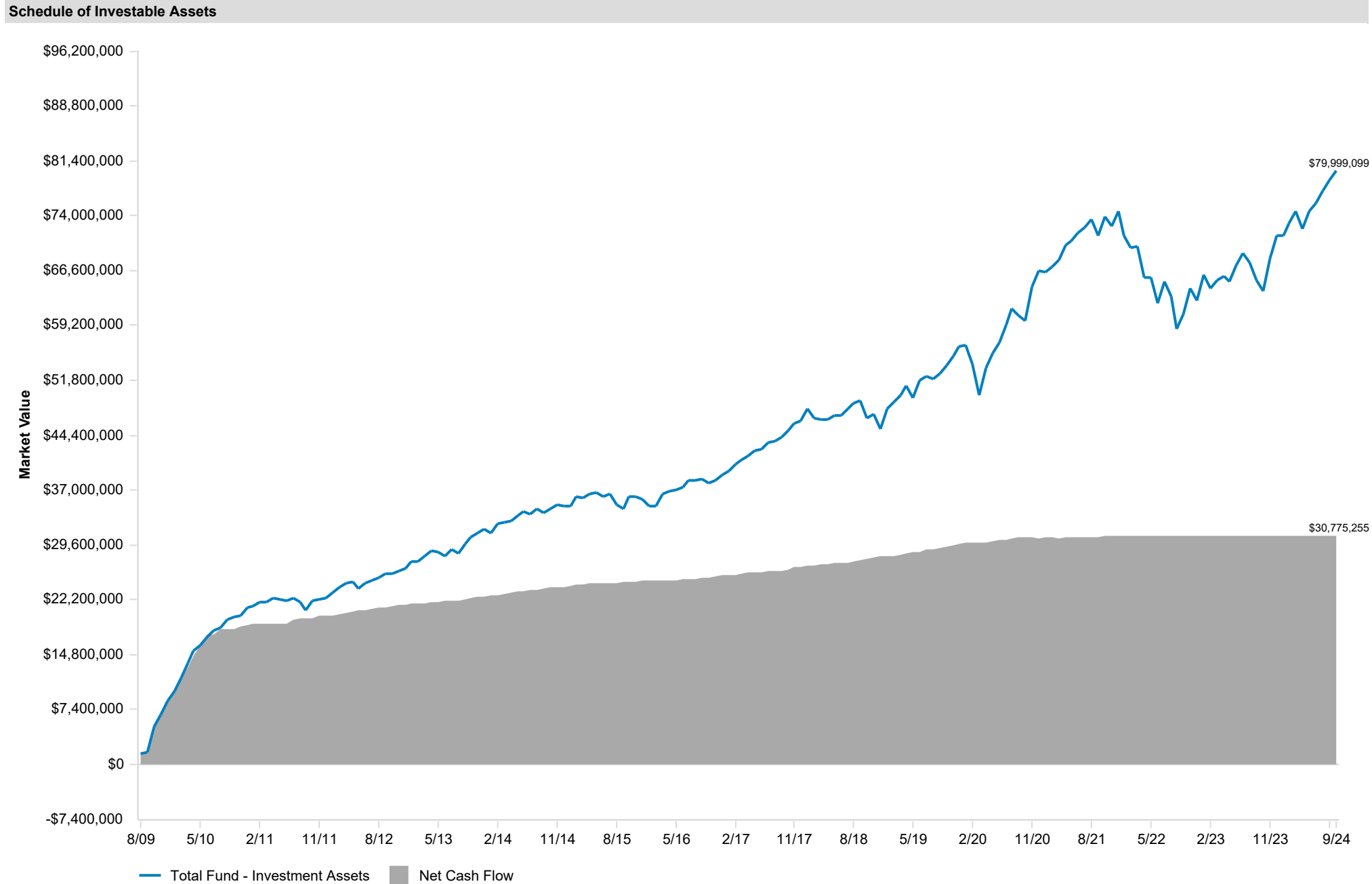
Asset Allocation & Performance

Total Fund

As of September 30, 2024

	Allocation		Performance(%)									
	Market Value \$	%	MTH	QTR	YTD	1 YR	3 YR	5 YR	7 YR	10 YR	Inception	Inception Date
Boyd Watterson GSA Fund	2,566,497	3.2	-3.07 (-)	-3.07 (99)	-5.22 (92)	-7.01 (52)	-0.71 (55)	2.24 (71)	-	-	2.68 (68)	Jul-2019
NCREIF Office Total Return			-	-1.07	-7.07	-12.09	-9.06	-4.11	-1.14	1.72	-3.65	
IM U.S. Open End Private Real Estate (SA+CF) Median			-	0.25	-2.54	-6.78	0.17	3.03	4.46	6.57	3.20	
Cash Equivalents Composite	93,597	0.1	0.42	1.29	4.02	5.40	-	-	-	-	5.40	Oct-2023
First American Government Obligation - Z- (FGZXX)	93,597	0.1	0.42 (1)	1.29 (27)	4.02 (2)	5.40 (4)	3.49 (15)	2.24 (15)	2.12 (13)	1.55 (11)	1.55 (7)	Jan-2004
ICE BofAML 3 Month U.S. T-Bill			0.43	1.37	4.03	5.46	3.49	2.32	2.22	1.65	1.60	
Money Market-Taxable Median			0.39	1.26	3.82	5.15	3.32	2.11	1.95	1.39	1.38	
Total Fund - Liquidity Assets	50,180	0.1	0.41	1.30	3.94	5.32	3.46	2.22	2.10	1.54	1.02	Sep-2009
First American Government Obligation - Z (FGZXX)	50,180	0.1	0.41 (17)	1.30 (21)	3.94 (21)	5.32 (22)	3.46 (22)	2.22 (20)	2.10 (16)	1.54 (13)	1.55 (8)	Jan-2004
ICE BofAML 3 Month U.S. T-Bill			0.43	1.37	4.03	5.46	3.49	2.32	2.22	1.65	1.60	
Money Market-Taxable Median			0.39	1.26	3.82	5.15	3.32	2.11	1.95	1.39	1.38	

See the disclosure page at the end of the report.



Data prior to 10/1/2023 was provided by the prior consultant.

As of 10/1/2023, AndCo began calculating client level returns for the underlying strategies and the asset class composites. Prior to this date, product returns are shown where possible. This data was not provided by the prior consultant.

Returns for periods greater than one year are annualized.

Active Return	- Arithmetic difference between the manager's performance and the designated benchmark return over a specified time period.
Alpha	- A measure of the difference between a portfolio's actual performance and its expected return based on its level of risk as determined by beta. It determines the portfolio's non-systemic return, or its historical performance not explained by movements of the market.
Beta	- A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.
Consistency	- The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. Higher consistency indicates the manager has contributed more to the product's performance.
Distributed to Paid In (DPI)	- The ratio of money distributed to Limited Partners by the fund, relative to contributions. It is calculated by dividing cumulative distributions by paid in capital. This multiple shows the investor how much money they got back. It is a good measure for evaluating a fund later in its life because there are more distributions to measure against.
Down Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance
Downside Risk	- A measure similar to standard deviation that utilizes only the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. A higher factor is indicative of a riskier product.
Excess Return	- Arithmetic difference between the manager's performance and the risk-free return over a specified time period.
Excess Risk	- A measure of the standard deviation of a portfolio's performance relative to the risk free return.
Information Ratio	- This calculates the value-added contribution of the manager and is derived by dividing the active rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.
Public Market Equivalent (PME)	- Designs a set of analyses used in the Private Equity Industry to evaluate the performance of a Private Equity Fund against a public benchmark or index.
R-Squared	- The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.
Return	- Compounded rate of return for the period.
Sharpe Ratio	- Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.
Standard Deviation	- A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.
Total Value to Paid In (TVPI)	- The ratio of the current value of remaining investments within a fund, plus the total value of all distributions to date, relative to the total amount of capital paid into the fund to date. It is a good measure of performance before the end of a fund's life
Tracking Error	- This is a measure of the standard deviation of a portfolio's returns in relation to the performance of its designated market benchmark.
Treynor Ratio	- Similar to Sharpe ratio but utilizes beta rather than excess risk as determined by standard deviation. It is calculated by taking the excess rate of return above the risk free rate divided by beta to derive the absolute rate of return per unit of risk. A higher value indicates a product has achieved better historical risk-adjusted performance.
Up Market Capture	- The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

Mariner Institutional compiled this report for the sole use of the client for which it was prepared. Mariner Institutional is responsible for evaluating the performance results of the Total Fund along with the investment advisors by comparing their performance with indices and other related peer universe data that is deemed appropriate. Mariner Institutional uses the results from this evaluation to make observations and recommendations to the client.

Mariner Institutional uses time-weighted calculations which are founded on standards recommended by the CFA Institute. The calculations and values shown are based on information that is received from custodians. Mariner Institutional analyzes transactions as indicated on the custodian statements and reviews the custodial market values of the portfolio. As a result, this provides Mariner Institutional with a reasonable basis that the investment information presented is free from material misstatement. This methodology of evaluating and measuring performance provides Mariner Institutional with a practical foundation for our observations and recommendations. Nothing came to our attention that would cause Mariner Institutional to believe that the information presented is significantly misstated.

This performance report is based on data obtained by the client's custodian(s), investment fund administrator, or other sources believed to be reliable. While these sources are believed to be reliable, the data providers are responsible for the accuracy and completeness of their statements. Clients are encouraged to compare the records of their custodian(s) to ensure this report fairly and accurately reflects their various asset positions.

The strategies listed may not be suitable for all investors. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. Past performance is not an indication of future performance. Any information contained in this report is for informational purposes only and should not be construed to be an offer to buy or sell any securities, investment consulting, or investment management services.

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Methodology for this Award: For the 2022 Greenwich Quality Award for Overall U.S. Investment Consulting – Midsize Consultants – Between February and November 2022, Coalition Greenwich conducted interviews with 727 individuals from 590 of the largest tax-exempt funds in the United States. These U.S.-based institutional investors are corporate and union funds, public funds, and endowment and foundation funds, with either pension or investment pool assets greater than \$150 million. Study participants were asked to provide quantitative and qualitative evaluations of their asset management and investment consulting providers, including qualitative assessments of those firms soliciting their business and detailed information on important market trends.

TO: General Manager

FROM: Chief Information Officer

SUBJECT: Information Technology Department (ITD) Report for October 2024

DATE: November 6, 2024



Innovation

Staff is upgrading the operating systems for mid-tier computing platforms within the data center. Instances of incompatibility or anomalous performance associated with the upgrade are being addressed as part of the process to ensure data and systems integrity.

Programming staff continues working on requisite changes within eBusiness Suite and other relevant systems to accommodate end-of-year and new year data processing and reporting changes (e.g. tax code changes, benefit changes, payroll, etc.). Testing the changes within the ERP (eBusiness Suite) will begin next month.

Preparations for the upgrade of the Pre-treatment Information Management System (PIMS) are underway and include installation of the test and development database platforms.

The IT Help Desk processed 366 work orders and requests for assistance in October, ensuring availability of computing resources to those working locally and remotely.



Community Engagement

Work is progressing nicely on the new Customer Portal. Following discussions with senior leadership, the decision was made to push go-live from November 2024 to January 2025. Rather than go-live with a "Customer Portal Lite," and then release an update adding features to new functions a few weeks later, the January 2025 Customer Portal will include new features, functions, and HRSD's new logo.

Respectfully,

Don Corrado

Chief Information Officer

TO: General Manager/Chief Executive Officer

FROM: Acting Chief Operating Officer

SUBJECT: Operations Monthly Report for October 2024

DATE: November 06, 2024



Community Engagement

Staff participated in several community events as follows:

1. Opening of the Riverview Farm Park trail along Flax Mill Creek past the James River Treatment Plant (JRTP) to the Marina is delayed until November. The contractor worked on multiple items that are not yet complete. These items include fence installation, grading alongside the trail, and debris removal.
2. On October 30, Mr. Jesse Crowell, Maintenance Lead Operator at York River Treatment Plant gave a plant tour, for five students and an instructor from the Virginia Institute of Marine Science Environmental Pollution class.
3. Mr. Germano Salazar-Benites, provided SWIFT tours for members of the American Society of Civil Engineers Middle Peninsula Branch and staff from Wintec Glovis, a company from South Korea exploring granular activated carbon regeneration using superheated steam.
4. Mr. Charles Bott, Chief Technology Officer, and SWIFT RC staff provided a tour to Christie Cole, a Process Engineer and Churchill Fellow from Australia.
5. Small Communities Division (SCD) staff, Mathews County staff, and Town of Westpoint staff met to discuss upcoming developments and operational issues within their jurisdictions.



Environmental Responsibility

Treatment and Interceptor System Reportable Items:

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

Internal Air and Odor Compliance:

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

1. North Shore (NS) Interceptor Operations received one odor complaint. The complaint was received when an auto vent at WB-1004G-1 broke through its odor control device along Carter Grove Country Road in Williamsburg (near Bush Gardens). NS Ops staff promptly added an additional deodorant block to the odor control device and the issue was resolved. TSD was

requested to install an Odalog at this site to determine the need for additional protection and/or how extensive and pervasive the issue may be at this remote location.

2. South Shore (SS) Interceptor Operations received one odor complaint. On October 30, a Chesapeake resident called about odors near a home on Neal Street. Staff investigated and identified the odors were associated with the Washington District Pump Station Area Sanitary Sewer Improvements construction project where the new force main discharges in a manhole near the resident's house. Staff are working with Engineering and Water Quality to address the issue.
3. Army Base Treatment Plant (ABTP) had one reportable event in October for a shutdown of odor control scrubber for more than one hour. The issue was caused by the air damper setpoint. E&I staff adjusted the air flow damper setpoint to achieve in-range pressure differential values.
4. HRSD's Materials Transportation & Logistics team began hauling biosolids from Atlantic Treatment Plant to our compost contractor, McGill, to provide adequate space on the storage pads for proper curing. To prevent odor complaints and public impacts, solids are loaded a day prior, covered with tarp material, and depart the plant site around 5:00 am. To date, no odor complaints have been received.
5. Boat Harbor Treatment Plant (BHTP) had three reportable total hydrocarbons (THC) events. The CEMS unit failed during the autocalibration on October 4, 19, and 29. E&I staff were able to manually calibrate the unit all three times.
6. JRTP had an odor scrubber, hydrogen sulfide exhaust concentration over five parts per million while switching odor scrubbers during acid wash cleaning operations. Also, the odor scrubbers were offline for more than one hour during two planned shutdowns. The shutdowns were to accommodate the installation of new fan gates and dampers as part of the JRTP Automation Project.
7. The Williamsburg Treatment Plant (WBTP) had one reportable use of the incinerator emergency bypass stack and one "less than the minimum twelve-hour pressure drops" due to the induced draft (ID) fan tripping out multiple times. The issue was resolved after replacement of ID fan bearings. WBTP had six incidents where odor scrubber hydrogen sulfide exhaust concentrations were over two parts per million. Three were due to chemical feed points being too low for the level of hydrogen sulfide entering the scrubber influent while optimizing chemical usage. The other three were due to high hydrogen sulfide levels coming from the headworks due to a large amount of scum entering the plant influent. The failure of a cake solids screw conveyor shut down incinerator operations and required hauling of cake solids to our composting contractor. Cake solids in a trailer waiting to be hauled resulted in offsite odors and an odor complaint. The incinerator total hydrocarbon analyzer had a low total data capture percentage due to calibration issues.

Additional Topics of Interest:

1. On October 3, SS Interceptor Operations staff worked with the City of Chesapeake Public Utilities Department to replace a broken HRSD branch valve and install a city isolation valve near the intersection of South Battlefield Boulevard and Tilden Avenue.
2. On October 7, SS Interceptor Operations helped the City of Chesapeake Public Utilities Department with the repair of force main on Bowden Avenue.

3. On October 10, SS Interceptor Operations assisted the City of Chesapeake Public Utilities Department with the commissioning of a new city force main and pump station near intersection of South Battlefield Boulevard and Sandy Road.
4. On October 17, a contractor notified HRSD about a potential force main failure near the intersection of Great Bridge Boulevard and Boxer Drive in Chesapeake. The flow came from a leak detector that is attached to the 60-inch casing that houses a 1976-vintage 30-inch ductile iron force main. The casing is approximately 120 feet long and is under the Great Bridge Boulevard exit from Interstate 64. An Emergency Declaration was signed on October 17. Staff isolated the force main and Bridgeman Civil (BC) was called to investigate the issue. Utilizing closed-circuit television (CCTV), BC found a point failure in the force main. Staff were able to recover the 30,000 gallons that were spilled before reaching the surrounding stormwater system. Plans are currently being developed to rehabilitate the force main.
5. On October 24, SS Interceptor Operations helped the City of Chesapeake Public Utilities Department with the repair of force main near Allison Drive.
6. On October 28, SS Interceptor Operations helped the City of Portsmouth Public Utilities Department with the repair of force main at Swannanoa Drive and Summerset Road.
7. On October 31, SS Interceptor Operations helped the City of Virginia Beach Public Utilities Department with the repair of force main on Amberly Forrest Road.
8. ABTP had one odor complaint from a resident in the Lochhaven neighborhood. Staff are working with TSD to investigate and document the cause of the offsite odor. In addition, staff are exploring solutions to mitigate odors from the loading operations and the uncovered TWAS tank.
9. Virginia Initiative Plant (VIP) had a reportable event for loss of dechlorination that occurred on October 7 from 13:14 to 13:27 due to a faulty unit heater tripping at the chemical feed building and staff are ordering a replacement.
10. The Industrial Automation Programmers (IAP's) participated in the successful completion of cutover testing for the new Ovation Supervisory Control and Data Acquisition (SCADA) System at Ashland Circle, and Central Crossing Pump Station's (PS's). The final site testing was completed, and these sites are now active on the new Ovation SCADA systems.



Financial Stewardship

1. HRSD Project Team is working on various projects at the West Point and King William Treatment Plants. At West Point Treatment Plant, they are installing a new pump, piping, and valves on the wasting well. At King William Treatment Plant, they are working on installing hydro-cyclones on both membrane reactor trains. Both projects will yield operational and financial benefits for HRSD, due to not having to hire contractors to perform these tasks.
2. The Machine Shop had 16 projects during the month of October. Some of the more notable projects included four pump rebuilds, removal of corroded steel and stainless-steel parts from the TSD clean room, and re-sleeving a centrifuge pedestal for Nansemond Treatment Plant.



Innovation

1. The SCADA program continues to make significant progress as more sites were finalized. The final kernel issue at the OCC controller at Coliseum PRS was resolved by Emerson, completing this installation. Kick-off of the SCADA Phase III project occurred this month with all stakeholders and our trusted integrators in attendance. Hazen and Sawyer will be the design engineers leading us through this effort. The SCADA system continues to be an invaluable tool for helping system performance during emergency operations and during wet-weather events.
2. On October 4, Mr. Dave Matos, Heavy Equipment Operator, was awarded the HRSD Safety Innovation and Improvement Award for fabricating a fold-down traffic control cone stand. The stand improves cone access on the interceptor valve trucks and creates a safer work environment along busy roadways.
3. VIP and Water Technology and Research (WT&R) staff continues to operate and monitor a ballasted sedimentation and a cloth media filtration pilot for tertiary phosphorus removal. During the month of October, the cloth media was changed back to 5 micron after finding the 10 micron would not be effective in achieving future TP removal goals.
4. VIP and WT&R staff began supporting a Marine Carbon Dioxide Removal study, which will advance research on safe and effective carbon dioxide removal from the ocean to help combat climate change and protect marine ecosystems, specifically using Water Resource Recovery Facilities as a point source for alkaline addition. The study is led by partners from the University of Maryland, University of Delaware and Planetary Technologies Incorporated and will provide an understanding of potential full scale implementation benefits.
5. The total volume of SWIFT Research Center recharge into the Potomac aquifer for the month of October was 9.7 million gallons (MG) (36.5% Recharge Time based on 660 gallons per minute). Several factors interfered with recharge operations this month to include process configuration and maintenance related efforts.
6. A full nonprovisional patent application was submitted for the MINION big bubble mixing line of technologies. This is the culmination of several years of research, development and collaboration with our licensing and commercial partners. The HRSD Commission approved and executed the MINION license agreement in September and the technology has rapidly transitioned to full scale commercial development and sales.



Talent

1. Mr. Shawn Heselton, Director of South Shore Interceptor Operations, attended the Water Environment Federation Technical Exhibition and Conference (WEFTEC) to facilitate the 2024 Water Leadership Institute (WLI) workshop and cohort graduation. He was also inducted into the Water Environment Federation (WEF) Board of Trustees Diversity, Equity, and Inclusion Committee.
2. Mr. Germano Salazar-Benites, SWIFT Treatment Process Engineer, provided two presentations at WEFTEC workshops. The presentations were titled "Operation and

Maintenance from Water Reuse to Advanced Water Purification” and “The Future of Water Reuse Using Carbon-Based Advanced Treatment (CBAT) to Implement ‘One Water’ Initiatives”.

3. Mr. Shane Dearborn and Mr. Dylan Woolard, Maintenance Operators at Atlantic Treatment Plant and HDR staff provided a presentation titled “A Week becomes a Day” at WEFTEC.
4. SS Interceptor Operations staff conducted semi-annual training at the Chesapeake-Elizabeth Treatment Plant. Staff completed eight training stations, demonstrating the fundamentals of trenching and shoring, dresser installation, full circle clamp installation, corporation stop replacement, pipe cutting, pipe restraint installation, safety tripod use, and bypass pump installation. 43 SS Interceptor Operations and three Eastern Shore staff attended the full day training.
5. Mr. Erik Hamilton and Mr. Cory Mangus joined SS Interceptor Operations as a Heavy Equipment Operator and a Utility Locator, respectively.
6. Eastern Shore Interviews, and a selection of a candidate was accomplished for the Maintenance Operator Assistant vacancy. Once this position is filled, there will be no more vacancies for the Eastern Shore.
7. Mr. Matthew Kuhn joined Middle Peninsula as a System Operator.

Respectfully submitted,

Charles Wright, Jr.
South Shore Director of Electrical and Instrumentation

[Attachment: MOM Reporting](#)

MOM Reporting Numbers

MOM #	Measure Name	Measure Target	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	37	3	2	5	3								
2.7	# of PS Annual PMs Performed (SS)	53	2	3	5	3								
2.7	# of Backup Generator PMs Performed	4.6	6	10	5	8								
2.8	# of FM Air Release Valve PMs Performed (NS)	234	397	483	515	539								
2.8	# of FM Air Release Valve PMs Performed (SS)	1,550	208	164	64	83								
2.9	# of Linear Feet of Gravity Clean (NS)	2,417	1,614	2,402	3,996	5,300								
2.9	# of Linear Feet of Gravity Clean (SS)	2,417	730	810	2,370	3,087								
2.9	# of Linear Feet of Gravity CCTV Inspection	3,300	0	0	0	0								

TO: General Manager

FROM: Director of Talent Management

SUBJECT: Talent Management Monthly Report for October 2024

DATE: November 6, 2024



Talent

Staff retention and recruitment remain significant priorities for the Talent Management (TM) Department. Human Resources continues to recruit for the Talent Acquisition Specialist and HR Business Partner positions. Interviews took place for the HR Business Partner position.

Human Resources (HR): Two new HR positions began the C&C process. Once the final determination is made on job architecture and grade, the two positions will begin the recruitment process.

Several HR Policies were presented and approved by the QST. The changes will be distributed to all HRSD in the next month.

Participation in HRSD's Wellness Program continues to grow. Plan education, wellness-related presentations, individual and group coaching, and virtual guided meditation sessions continue.

Additionally, Talent Management successfully hosted its 2nd Annual Health, Wellness, and Safety Fair, attracting a strong turnout and positive engagement across the organization. The event, designed to promote employee well-being, included a variety of booths and activities focused on mental health, physical fitness, nutrition, and workplace safety. Participation was high, with employees expressing appreciation for the range of resources and support available, from on-site health screenings and fitness demonstrations to stress management workshops and safety awareness training. Feedback highlighted the event's effectiveness in enhancing awareness and access to wellness resources. This year's fair not only exceeded attendance expectations but also reinforced Talent Management's commitment to fostering a supportive and safe work environment. Overall, the fair demonstrated the organization's dedication to employee well-being and provided valuable tools to help staff maintain a balanced and healthy lifestyle.

Learning and Development (L&D): In recognition of National Learning & Development Month, L&D organized a range of activities, workshops, and discussions throughout October. Other key initiatives included the renewal of the Organizational Development &

Training contract, progress on the Apprenticeship Building America, Round 2 grant subaward, and facilitation of numerous departmental activities across the organization.

National Learning & Development Month: To celebrate National Learning & Development Month, the L&D team provided employees with diverse, engaging learning opportunities. Highlights included the launch of the Career Pathways Program, a leadership panel discussion, and “Spooky Skills” workshops, all designed to make learning accessible, relevant, and engaging for employees.

Organizational Development & Training Contract Renewal: The L&D department completed the request for proposal process for the Organizational Development & Training contract renewal, awarding the contract to Hicks-Carter-Hicks, who has been the training consultant for the past five years. With Hicks-Carter-Hicks' expertise in public service, L&D looks forward to strengthening and reimagining current training programs.

Regional Apprenticeship Hub Collaboration: The Hampton Rounds Workforce Council (HRWC) was awarded \$6 million for a new regional apprenticeship hub program, in which HRSD's Apprenticeship Program will play a foundational role. L&D staff met with HRWC to finalize the grant sub-award agreement and plan for key implementation steps in the program's first year.

Ongoing Programs and Initiatives: Throughout October, L&D facilitators continued scheduled training for the LAMA cohort, organized several workgroup SPARC Sessions, and led team-building activities such as Real Colors.

In summary, October was a productive month for L&D, focused on fostering growth, strengthening collaborations, and enhancing training opportunities for all employees.

Safety: The Safety Department recently conducted mandatory safety training for work centers on topics including Asbestos Operations & Maintenance, Forklift Operation, Chemical Hygiene, Stop the Bleed, and New Employee Safety Orientation. Additionally, safety inspections were completed at 10 work centers. Seven contractor safety briefings were held for contractors working at HRSD plants or pump stations.

Audiometric testing was conducted with Concentra, with arrangements underway for testing remaining employees. The Safety Department also participated in the annual HRSD Wellness & Safety Fair, providing information on Halloween Safety and Hearing Conservation. Lastly, an asbestos inspection was completed for a property designated for the new Chesapeake Blvd. Pump Station.

The Safety Team selected the 2024 Safety Innovation Award winners: David Matos from SS Interceptors and the Williamsburg Treatment Plant team.

The Williamsburg Plant staff recognized the need for fall protection systems at distribution boxes across the site. The aeration influent box was prioritized, as it

requires monthly removal of the aluminum sulfate mixer. Maintenance staff must remove metal deck plates to use a davit crane to lift the mixer, creating a fall hazard once the plates are removed. This project addressed the need for appropriate fall protection in these high-risk areas.

David Matos introduced several impactful innovations, including fold-down traffic cone stands on the valve truck, making cones more accessible without requiring staff to climb over other tools. This solution keeps cones out of the way of frequently used items. Additionally, he fabricated protective cages for air cylinder valves on bag stop and auto bleed applications to reduce the risk of tampering and sewage spills. Matos also created an auto bleed training station rack and secure holders for hoses, buckets, and other equipment, ensuring items stay organized and safe during transport. These projects not only improve traffic safety in work zones but also help reduce work center injuries and incidents by keeping tools and equipment securely organized on the trucks.

For the month of October, there were three reported work-related injuries requiring medical attention and three auto/property damage incidents.



Community Engagement

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

Respectfully submitted,

Dorissa Pitts-Paige

Chief People Officer

TO: General Manager/ Chief Executive Officer

FROM: Chief of Water Quality (CWQ)

SUBJECT: Monthly Report for October 2024

DATE: November 6, 2024



Environmental Responsibility

1. HRSD's Regulatory Activities:

- a. Monthly Discharge Monitoring Report (DMR) Summary and Items of Interest: [Effluent and Air Emissions Summary](#).
- b. From Fiscal Year (FY) 2025 to date, there have been one Permit Exceedances out of 18,842 Total Possible Exceedances.
- c. Pounds of Pollutants Removed in FY 2025 to date: 77.4 million pounds.

2. Pretreatment and Pollution Prevention (P3) Program Highlights:

One civil penalty was issued in October to Total Fiber Recovery at Chesapeake LLC – Chesapeake.

An Enforcement Order was issued to Total Fiber Recovery in September 2024 for an administrative violation. During the July 2024 facility inspection, it was found that the Permittee failed to retain original certification statements/signatures for a three-year period. A Notice of Violation (NOV), Enforcement Order and an invoice with a Civil Penalty of \$1,000 were issued. The Enforcement Order was accepted and the Civil Penalty was paid in full on October 25, 2024.

3. Environmental and Regulatory Advocacy

Chief participated in the following advocacy and external activities:

- a. Worked with the Virginia Association of Municipal Wastewater Agencies (VAMWA) and the Department of Environmental Quality on approaches to managing flagged data (data generated through an analysis that has failed Quality Control (QC) requirements) in regulatory reporting.
- b. Attended a meeting of the Water Agency Leaders Alliance (WALA) to discuss opportunities for implementing affordability programs.
- c. Participated in the VAMWA quarterly biosolids committee call.
- d. Attended the Virginia Forever Bridge Builders event.
- e. Attended the Norfolk Innovation Corridor's (NIC) tour of the Virginia Institute of Marine Science (VIMS) Eastern Shore Marine Laboratory on Wachapreague.

- f. Attended the NIC Environmental Subcommittee meeting to discuss opportunities to leverage Norfolk's Resiliency Plan to support other innovative resiliency efforts in the area.
- g. Co-chaired the Chesapeake Bay Program's Wastewater Treatment Workgroup to discuss on-going topics related to updating the Phase 7 Watershed Model.
- h. Attended a Chesapeake Bay Foundation Hampton Roads Conservation and Climate Partners event.



Financial Stewardship

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

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

- 1. New Kent County
- 2. Northumberland County
- 3. Westmoreland County



Talent

- 1. Interviews were conducted for the vacant P3 Technician position at the North Shore Field Office. An external candidate was selected and accepted the position. Their start date is scheduled for late November.
- 2. The Water Quality Leadership team developed a plan to improve both communications and knowledge transfer throughout the Division. Quarterly information sharing and leadership Q&A sessions and semiannual tours of Water Quality divisions, a wastewater treatment facility, and the SWIFT Research Center will begin in 2025.
- 3. The employee celebration and engagement committees for the CEL and for the Water Quality Services Building held an annual appreciation event for Water Quality employees to connect with one another.
- 4. The CEL Leadership team attended a one-day workshop on building trust and collaboration within teams.



Community Engagement

1. Staff supported Microbial Source Tracking (MST) investigations in partnership with Hampton Roads localities. This work is required as part of HRSD's Integrated Plan. Sampling and analytical services were provided for the localities and projects identified below:
 - a. City of Chesapeake (Southern Branch)
 - b. City of Newport News (Southeast Newport News)
 - c. City of Norfolk (Pretty Lake)
 - d. City of Suffolk (downtown)
 - e. City of Virginia Beach (Thalia Creek)
 - f. James City County
2. Technical Services Division (TSD) staff supported Virginia Biosolids Council outreach at the Virginia State Fair. Staff were on-hand to speak about sustainable and beneficial reuse of biosolids.
3. TSD staff provided an overview of HRSD's environmental initiatives to a new cohort of the Chesapeake Bay Foundation's Volunteers as Chesapeake Stewards (VoiCeS) program.



Innovation

P3 staff kicked off the upgrade of the Pretreatment Information Management System (brand name iPACS). The upgrade is scheduled to go live in calendar year 2025. The kickoff included a two-day workshop, focusing on system configurations and how HRSD business processes would function in the upgraded version of the software.

Respectfully submitted,

Jamie Heisig-Mitchell
Chief of Water Quality

EFFLUENT SUMMARY FOR OCTOBER 2024

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	7.71	43%	2	2.8	2	1	0.44	0.62	5.8	4.5	22
ATLANTIC	39.81	74%	20	10	3	1	NA	NA	NA	NA	7
BOAT HARBOR	9.37	37%	14	7.9	41	4	1.7	0.87	31	25	13
CENT. MIDDLESEX	0.014	56%	<2	2.7	1	<1	NA	NA	NA	NA	NA
JAMES RIVER	10.20	51%	8	5.7	3	2	0.37	0.55	13	11	10
KING WILLIAM	0.090	90%	0	1.2	NA	1	0.064	0.14	2.2	2.1	NA
NANSEMOND	14.98	50%	5	5.9	3	2	1.8	1.4	8.3	4.6	1
ONANCOCK	0.165	22%	<2	<1.0	1	2	0.25	0.23	3.9	3.3	NA
SUNSET BAY	0.013	33%	<2	1.1	10	1	NA	NA	NA	NA	0
URBANNA	0.050	50%	2	7.9	3	4	5.1	3.8	15	16	NA
VIP	24.24	61%	2	2.5	2	2	1.4	0.64	4.2	3.9	6
WEST POINT	0.310	52%	20	5.6	5	3	4.0	2.9	21	16	2
WILLIAMSBURG	7.54	34%	4	4.4	3	4	1.2	0.99	4.4	3.0	13
YORK RIVER	9.94	66%	3	0.71	1	1	0.32	0.25	5.5	5.1	3
	124.45										

% of
Capacity

North Shore
South Shore
Small Communities

45%
61%
36%

AIR EMISSIONS SUMMARY FOR OCTOBER 2024

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters							Part 503e Limits		
	Temp	Venturi(s) PD	Precooler Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	pH	Bypass	Mo. Ave	DC	Daily Ave
MHI PLANT	(F)	(in. WC)	(GPM)	(GPM)	(GPM)	3 hr ave	Stack Use	(PPM)	(%)	Days >Max
ARMY BASE	*	*	*	*	*	*	*	*	*	*
BOAT HARBOR	0	0	0	0	0	0	0	13	92	0
VIP	0	0	0	0	0	0	0	37	100	0
WILLIAMSBURG	0	1	0	0	0	0	1	22	33	0

* ABTP MHIs shuttered 9/27/24

Items of Interest – October 2024

MULTIPLE HEARTH INCINERATION (MHI)

Army Base's MHIs were taken offline and shuttered September 27, 2024.

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all three MHI plants (Boat Harbor, Virginia Initiative, and Williamsburg). The THC continuous emissions monitoring (CEM) valid data capture was 33% or greater.

The MHIs had one deviation from the required 129 SSI rule minimum operating parameters and one reportable bypass event (> 60 minutes).

AIR PERMITS and ODOR CONTROL

There was a total of nine (9) odor control complaints this month.

Army Base received two (2) complaints (October 14th and 23rd) from a neighbor located near the plant on North Shore Road. Plant staff and TSD investigated and determined that post MHI shutdown, the new onsite storage, pumping, and trucking operation is emitting excess H₂S and odors. Operations' current plan is to tie this odorous discharge into the plant's existing odor control system. No additional complaints have been received to date.

Atlantic Plant received three (3) complaints from Ocean Lakes and Lago Mar neighbors. Plant Staff responded to all complaints. Communications continues to provide responses to the neighbors as needed. TSD recorded all complaints in the air permit required complaint log.

Nansemond received a complaint through DEQ regarding plant odors from the neighboring DoD Suffolk complex next to the plant. Plant staff responded and determined the cleaning and maintenance of a primary clarifier was the source of odors. Any future required maintenance work will be performed "buttoned up" as much as possible to minimize odors. No further complaints have been received.

Williamsburg received a complaint from a next-door neighbor at 300 Ron Springs Road. Plant staff responded and determined a solids trailer had been left onsite for an extended period and was the source of odors. The solids trailer was needed during the temporary MHI shutdown that took place from October 12-16. The solids trailer was hauled off and MHI operations restored ending any further complaints.

North Shore Operations received a complaint through James City County of odors in the Kingsmill area of the collection system. In a somewhat remote area of our forcemain, a manhole with an auto air relief vent was determined to be the source of odors. The manhole historically has successfully used a deodorant block to mitigate odors in this area. The odors have increased to a point that the deodorant block is no longer sufficient. It is possible that the current drought (30 plus days of no rain) may be the cause for the increased odors and this is potentially a temporary issue. NS Ops and TSD are working together to determine if this is the case or if we will need to improve the odor control at this location. Monitoring is ongoing. No further complaints have been received to date.

South Shore Operations received a complaint of odors at 5004 Neal St. Chesapeake. The source of odors is a result of a new section of pipe going into this area of the system. Post pipeline installation, odorous system gases are being conveyed to, and building up in, a new area in the system close to residential areas. Engineering, SS Ops, and TSD are working together to select and install the best odor control alternative to resolve the issue.

TREATMENT

DEQ was notified of the following reportable events:

Nansemond

On October 25, the SWIFT sanitary well overflowed due to a submersible pump not being properly sealed against the well discharge line. The wet well was pumped down and the discharge line cleaned out while an O-ring for the pump was replaced. Approximately 100 gallons of wastewater were released.

On October 26, a 4-inch PVC line slipped out of a PVC coupling that was found to be cracked, resulting in non-potable water (NPW) filling an excavation site. Staff secured the NPW line and recovered 10,000 gallons from the excavation site, approximately 1,000 gallons of NPW were unrecoverable from the ground.

On October 31, an SRF feed pump line broke resulting in centrate to leak from the PVC piping. The Operator responded quickly securing the leak with most of the spill being contained in the building. Approximately 50 gallons of centrate were released to the ground/storm drain.

Virginia Initiative

On October 7, while performing preventative maintenance, a heater short-circuited causing the chemical building main breaker to trip resulting in a temporary loss of dechlorination for 13 minutes. Staff reset the breaker to restore bisulfite chemical feed.

Williamsburg

On October 30, improper sample procedures resulted in three invalid chlorine samples. Additionally, another sample was missed for a total of four between 00:00 and 06:00. Supervisory staff took corrective disciplinary action and verified that the plant was operating normally during this time.

SYSTEM/TREATMENT, SMALL COMMUNITIES, AND EASTERN SHORE

Dendron

On October 1, heavy rain associated with a seasonal storm delivering 1.00" of rainfall inundated the Dendron PS service area resulting in a wet well overflow. Pump stations were observed to be operating properly. Following the event, solids were removed, and lime was spread on affected areas. Approximately 120 gallons of raw wastewater were released to Cypress Swamp.

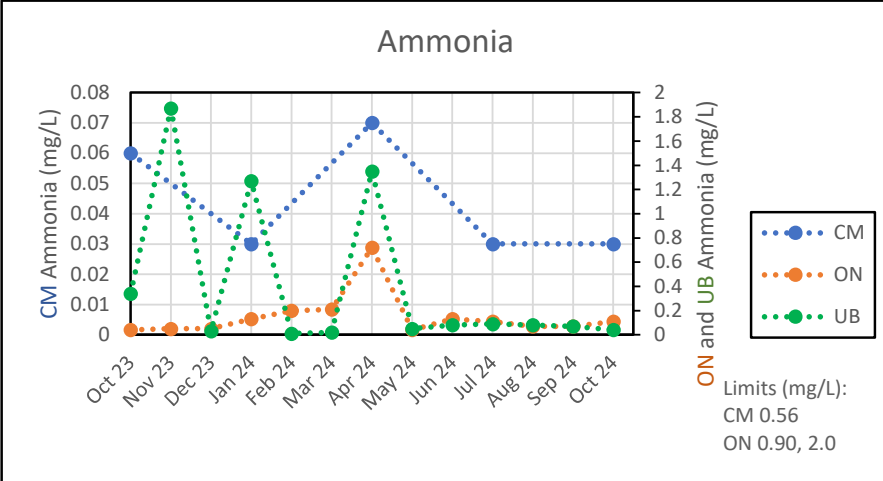
King William

On October 2, staff found the UV system channel overflowing potentially due to high flows in both membrane bioreactor (MBR) treatment trains, at 92 gpm combined. At the same time, the effluent wet well level was creating a head loss condition that raised the water surface in the UV channel. Staff reduced flow output to a combined 84 gpm and observed the UV channel to assure levels did not elevate again. Approximately 50 gallons of MBR filtrate and partial UV effluent were released to the ground. Plant modifications are being made to fix this hydraulic issue and remove this bottleneck.

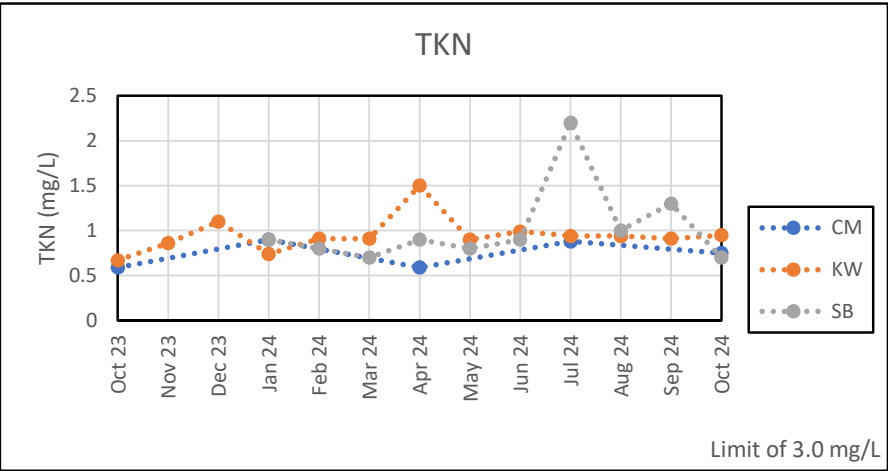
West Point

On October 9, while pressure washing around the bisulfite pump skid, water entered the cover on the chemical pumps activating the leak detection interlock resulting in a loss of dechlorination for 22 minutes. Staff dried the water from the pump head, cleared the leak detection alarm and restarted the pumps. During this event, an effluent chlorine residual of 3.14mg/L was recorded. This resulted in a weekly average of 0.16mg/L, which exceeded the permit limit of 0.093mg/L.

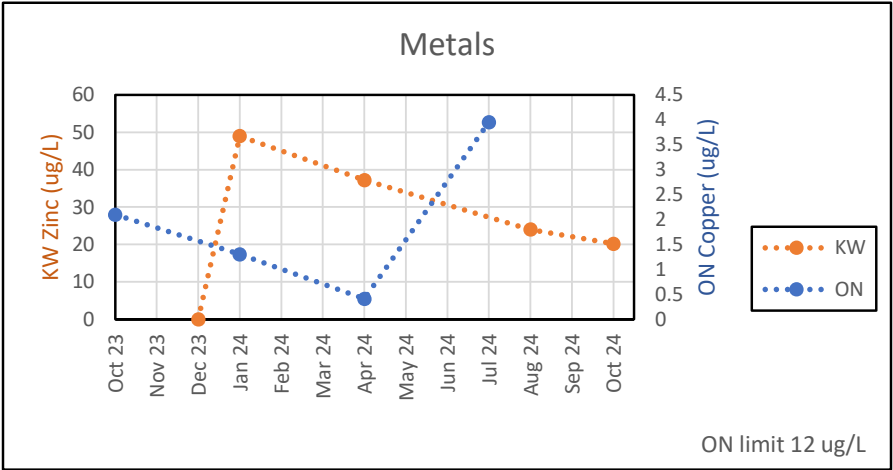
	Ammonia		
	CM	ON	UB
Oct 23	0.06	0.04	0.34
Nov 23		0.05	1.87
Dec 23		0.05	0.03
Jan 24	0.03	0.13	1.27
Feb 24		0.2	0.01
Mar 24		0.21	0.02
Apr 24	0.07	0.72	1.35
May 24		0.04	0.05
Jun 24		0.13	0.08
Jul 24	0.03	0.11	0.09
Aug 24		0.07	0.08
Sep 24		0.07	0.07
Oct 24	0.03	0.11	0.04



	TKN		
	CM	KW	SB
Oct 23	0.59	0.67	
Nov 23		0.86	
Dec 23		1.1	
Jan 24	0.90	0.74	0.90
Feb 24		0.91	0.80
Mar 24		0.91	0.70
Apr 24	0.59	1.5	0.90
May 24		0.90	0.80
Jun 24		0.99	0.90
Jul 24	0.88	0.94	2.2
Aug 24		0.94	1.0
Sep 24		0.91	1.3
Oct 24	0.75	0.95	0.70



	Zinc	Copper
	KW	ON
Oct 23		2.1
Nov 23		
Dec 23	<5.0	
Jan 24	49	1.3
Feb 24		
Mar 24		
Apr 24	37	0.41
May 24		
Jun 24		4.0
Jul 24		
Aug 24	24	
Sep 24		
Oct 24	20	





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

I. Projects in Process

Operational Technology Security and Resilience

- **Completed Tasks (October 2024)**
 - Conducted internal report reviews.
- **Upcoming Tasks (November 2024)**
 - Issue draft and final report.

Design and Construction Estimating

- **Completed Tasks (October 2024)**
 - Issued draft report to POC (10/31).
- **Upcoming Tasks (November 2024)**
 - Issue final report.
 - Determine Commission presentation date and details.

IT Governance

- **Completed Tasks (October 2024)**
 - Conducted walkthrough meetings for each in-scope domain.
 - Initiated the audit program and test procedures.
- **Upcoming Tasks (November 2024)**
 - Continue testing.
 - Send updated request list.
 - Identify the need for additional meetings based on audit program updates.

Talent Management Investigations

- **Completed Task (October 2024)**
 - Met with POC and agreed upon approach.
 - Prepared planning documentation.
- **Upcoming Tasks (November 2024)**
 - Conduct Kickoff call (11/12).

Model 3

- **Upcoming Tasks (November 2024)**
 - Commence project.

Risk Assessment Refresh

- **Upcoming Tasks (November 2024)**
 - Commence risk assessment refresh.



II. Management Action Plan Status

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

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

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

Audit / Project	Next Follow-up	Recommendations		
		Closed	Open	Total
Safety Division	November 2024	2	1	3
Freedom of Information Act (FOIA)	January 2025	0	1	1
Personally Identifiable Information (PII)	November 2024	0	3	3
AP, ProCard	July 2025	1	2	3
Closed Audit/Projects (x21)	Closed	135	0	135
Totals		138	7	145

Strategic Measures
October 2024

Strategic Planning Measure	Department	Sep-24	Oct-24	FY-25
Educational and Outreach Events	Communications	6	13	41
Number of Community Partners	Communications	2	4	29
Number of Technical Presentations	All	9	11	32
Revenue vs. Budget	Finance	28%	37%	37%
Wastewater Expenses vs. Budget	Finance	19%	26%	26%
Accounts Receivable (HRSD)	Finance	\$48,645,481	\$48,291,106	\$189,883,085
Aging Accounts Receivable	Finance	30.10%	31%	31%
Billed Water Consumption	Finance	14,223	18,870	47,241
Turnover Rate wo Retirements	Talent Management	0.80%	0.11%	2.18%
Turnover Rate w Retirements	Talent Management	0.92%	0.11%	2.29%
Avg Time to Hire	Talent Management	2 months 29 days	1 month 28 days	3 months 1 day
Number of Vacancies	Talent Management	79	71	79.50
Average number of applicants per position	Talent Management	19.2	5.8	11.83
Percentage of positions filled with internal applicants	Talent Management	45.8%	18.2	0.29
Recruitment source Return on Investment	Talent Management	*	*	*
Average time required (days) to onboard new employees, including from initial posting of position to candidates' first day	Talent Management	*	*	*
Customer Call Wait Time (mins)	Finance	3.42	3.8	2.4
Capacity Related Overflows with Stipulated Penalties (Reported Quarterly)	Water Quality / ENG	*	*	*
Non-Capacity Related Overflows with Stipulated Penalties (Reported Quarterly)	Water Quality / ENG	*	*	*
TONS OF CARBON: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	Operations	*	*	*
GAS CONSUMPTION: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	Operations	*	*	*
ELECTRICITY CONSUMPTION: Tons of carbon produced per million gallons of wastewater treated Energy consumed (gas (scfm) and electricity (kWh)) per million gallons of wastewater treated.	Operations	*	*	*
Monthly CIP Spending	Engineering	*	*	\$41,275,000

*Not currently tracking due to constraints collecting the data.

** Updated after EPA Quarterly Report submittal.

***Billing is one month behind

Strategic Measures

October 2024

Education Outreach and Community Partners			
Date	Event	Community Partner	Departments
10/01/2024		ODU	Operations
10/01/2024		Waste Management	Operations
10/01/2024	River Star business evaluation for compliance with HRSD requirements	Elizabeth River Project	Water Quality
10/01/2024		Virginia Institute of Marine Science, Marina Technical & Environmental Planning Committee	Water Quality
10/02/2024	SWIFT Research Center Amazing Aquifer activity	Home School Group	Communications
10/02/2024	SWIFT Tour - HRSD Employees/friends & family	HRSD Employees	Communications
10/05/2024 10/06/2024	Fall-O-Ween Festival	Newport News City	Communications, Operations, Water Quality
10/09/2024	SWIFT Tour – LEAD Peninsula	LEAD Peninsula	Communications
10/10/2024	SWIFT Tour - Wintec Glovis – a company from South Korea looking at GAC regeneration using superheated steam	Wintec Glovis	Operations
10/16/2024	SWIFT Tour - ASCE Middle Peninsula section	ASCE Middle Peninsula section	Operations
10/16/2024	Imagine A Day Without Water SWIFT tour and activity - Aberdeen Elementary School	Hampton City Schools	Communications
10/17/2024	Imagine A Day Without Water SWIFT tour and activity - Aberdeen Elementary School	Hampton City Schools	Communications
10/22/2024	pH Classroom activity - VA Challenge Academy	VA Challenge Academy	Communications
10/26/2024	STEM Exploration Community Event Newport News	City of Newport News	Communications
10/31/2024	SWIFT RC Tour - Christie Cole, a process engineer from Australia, who was visiting for a fellowship program		Operations

Strategic Measures

October 2024

Technical Presentations			
Date	Presentation	Presenter	Department
10/05/2024	"Operation and Maintenance from Water Reuse to Advanced Water Purification"	Germano Salazar-Benites	Operations
10/06/2024	"Defining the Problem" for Implementing Machine Learning Process Controls at WRRFs	Jeff Sparks	Operations
10/06/2024	"The Future of Water Reuse Using Carbon-Based Advanced Treatment (CBAT) to Implement 'One Water' Initiatives"	Germano Salazar-Benites	Operations
10/07/2024	"Case Study - Highlighting the Benefits of Machine Learning Process Controls: BNR at HRSD"	Jeff Sparks	Operations
10/07/2024	"Optimization of EBPR at Full-Scale: Lowering Costs and Improving Effluent Quality"	Riley Doyle	Operations
10/08/2024	"Microbial Adaptation to Low DO Biological Nutrient Removal"	Lily McIntosh	Operations
10/08/2024	"Benefits and Approaches to Moving Dewatering into the Modeling Realm"	Jeff Nicholson	Operations
10/08/2024	"Benefits and Approaches to Moving Dewatering into the Modeling Realm"	Jeff Sparks	Operations
10/08/2024	"Comparing Modeling Tools Visual MINTEQ and OLI Studio to Evaluate Scaling Tendency of Aerated Anaerobically Digested Solids: A Pilot Study"	Caitlyn Harris	Operations
10/08/2024	"Phosphorus Sequestration in Biosolids, Nuisance Struvite Control via PAD and Chemical Addition to TH-AD Digestate"	Caitlyn Harris	Operations

INFORMATIONAL AGENDA ITEM 13.c.1. – November 19, 2024

Subject: Great Bridge Boulevard & I-64 Interchange Interceptor Force Main Emergency Repair (SF-164)
Emergency Declaration

Recommended Action: No action is required.

CIP Project: AT016900

Regulatory Requirement: None

Brief: On the morning of October 17, a contractor notified HRSD about a potential force main failure near the intersection of Great Bridge Boulevard and Libertyville Road in Chesapeake. HRSD staff responded to the spill site and observed flow discharging at about 30 gallons per minute from a leak detector that is attached to a 60-inch casing pipe. The spill was contained to a low-lying area and did not drain to the adjacent ditch system or downstream to Mains Creek. The spill site was cleaned up using a Vactor truck to remove the sewage and debris and applying an application of lime. After the initial spill response and isolation of the force main failure location, HRSD staff issued an emergency declaration dated October 18, 2024.

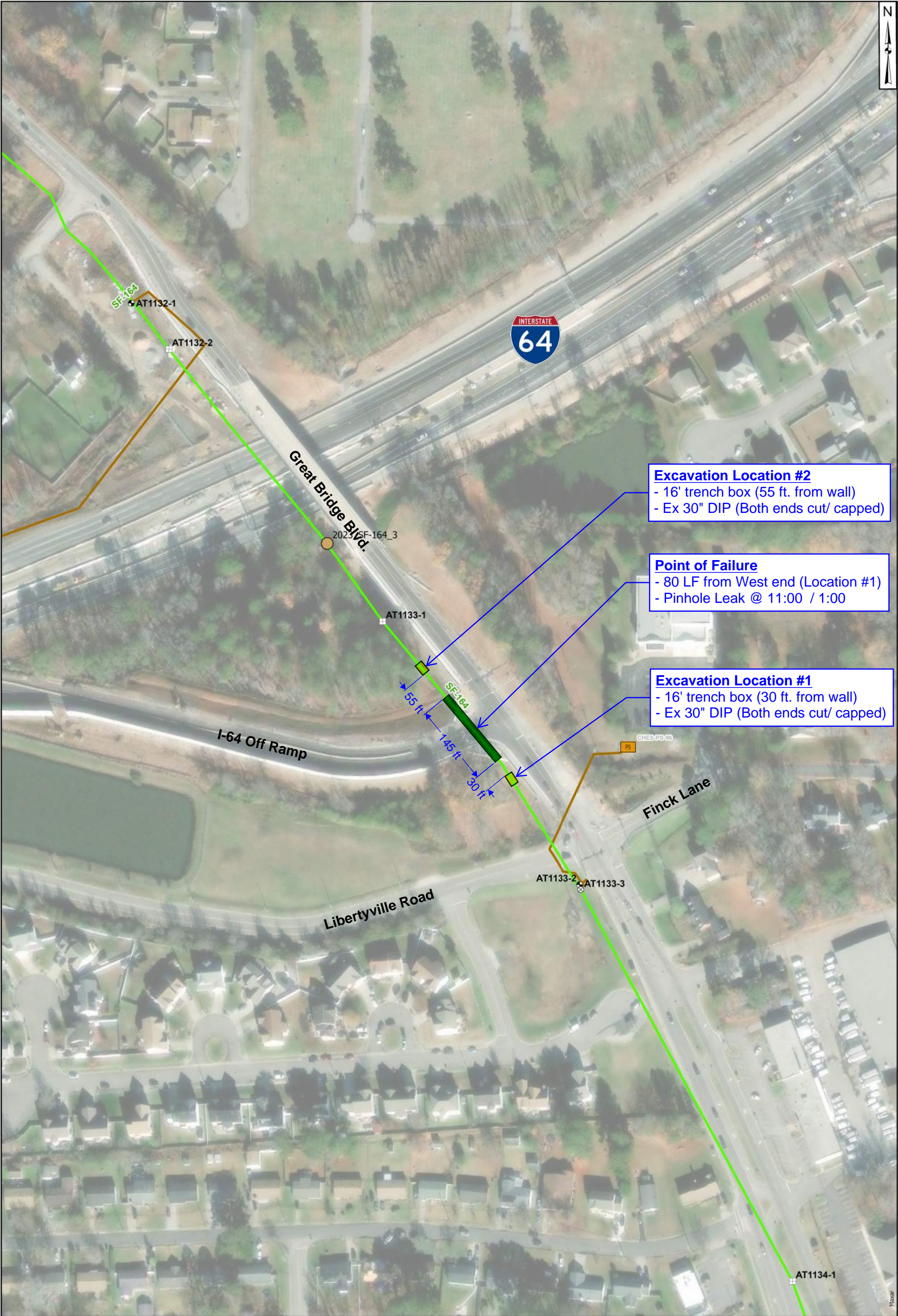
The casing pipe is approximately 120 feet long and contains a 30-inch ductile iron force main carrier pipe. Upon further investigation, a leak was found on the 30-inch ductile iron force main carrier pipe that was installed in 1976.

HRSD staff utilized Hazen and Sawyer (Hazen) and Bridgeman Civil, Inc. (BCI) to perform condition assessment activities and the initial emergency response; thus these same firms will be utilized for the emergency repair work. Repair of the line will be accomplished by slip lining a new 24-inch HDPE pipe inside of the existing 30-inch ductile iron force main.

The attached [map](#) depicts the break and Capital Improvement Project (CIP) project location.

Analysis of Cost: The estimated cost of this work is \$1,150,000 and will be funded by the Great Bridge Boulevard and I-64 Interchange Interceptor Force Main Emergency Repair (SF-164), CIP AT016900. The cost estimate includes the emergency response, pump and haul of several pump stations, cut and cap of the force main at each end of the casing pipe, force main condition assessment, emergency engineering design services, repair work, construction administration, construction inspection, as well as contingency. These estimates have been reviewed by staff and are considered reasonable.

<u>Schedule:</u>	Emergency Declaration	October 2024
	Construction	October 2024
	Project Completion	February 2025



Excavation Location #2
- 16' trench box (55 ft. from wall)
- Ex 30" DIP (Both ends cut/ capped)

Point of Failure
- 80 LF from West end (Location #1)
- Pinhole Leak @ 11:00 / 1:00

Excavation Location #1
- 16' trench box (30 ft. from wall)
- Ex 30" DIP (Both ends cut/ capped)

AGENDA ITEM 14. – November 19, 2024

Subject: Closed Meeting

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

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

AGENDA ITEM 15. – November 19, 2024

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.