



COMMISSION MEETING MINUTES
October 25, 2022

No. Topic

[Call to Order](#)

[Roll Call of HRSD Commission](#)

1. [Awards and Recognition](#)
2. [Consent Agenda](#)
3. [Diversity Procurement Report](#)
4. [Low Income Household Water Assistance Program \(LIHWAP\)
Vendor Agreement with Third Party \(previously Virginia Department of Social Services\)
Agreement – Updated Terms and Conditions](#)
5. [Regional Wet Weather Capacity
Commission Adopted Policy](#)
6. [Safety Program
Briefing](#)
7. [Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating
Improvements
New CIP, Initial Appropriation, Task Order \(>\\$200,000\)](#)
8. [Jefferson Avenue Interceptor Force Main Replacement Phase III
Additional Appropriation, Contract Award \(>\\$200,000\), Task Order](#)
9. [Regional Granular Activated Carbon \(GAC\) Reactivation Facility Study Phase I
New CIP, Initial Appropriation, and Task Order \(>\\$200,000\)](#)
10. [Disposition of Real Property
609 Canal Drive, Chesapeake, VA](#)
11. [West Point Operations Center Extensometer
Deed of Easement](#)
12. [Capital Improvement Program and Asset Management
Update](#)
13. [Unfinished Business](#)



COMMISSION MEETING MINUTES
October 25, 2022

No. Topic

14. [New Business](#)

15. [Commissioner Comments](#)

16. [Public Comments](#)

17. [Informational Items](#)

18. [Announcements](#)



COMMISSION MEETING MINUTES
October 25, 2022

The Chair called the meeting to order, and Ms. Cascio read the roll call of HRSD Commissioners.

Name	Title	Present for Item Nos.
Rodriguez, Stephen C.	Commission Chair	1-17
Elofson, Frederick N.	Commission Vice-Chair	absent
Glenn, Michael E.	Commissioner	5-17
Lakdawala, Vishnu K.	Commissioner	1-17
Levenston, Jr., Willie	Commissioner	1-17
Stern, Nancy J.	Commissioner	1-17
Taraski, Elizabeth	Commissioner	1-17
Templeman, Ann	Commissioner	1-17

In accordance with Virginia Code § 2.2-3708.3 (B) and the HRSD Remote Participation Commission Adopted Policy Commissioner Stern requested approval to participate in today’s meeting from Belle Haven, Virginia due to the Commissioner’s principal residence is more than 60 miles from the meeting location identified in the required notice for such meeting and Commissioner Glenn requested approval to participate in today’s meeting from Norfolk, Virginia due to traffic delays. Commissioner Glenn will log into the meeting at approximately 9:30 am.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 6

Nays: 0

1. **Awards And Recognition**

Action: No action required.

Brief: HRSD is pleased to announce the following:

- a. WEFTEC 2022 Master Lecturer

Each year, the Water Environment Federation (WEF) and the Association of Environmental Engineering and Science Professors (AEESP) select a prestigious researcher to deliver the Master Lecture at WEFTEC. This year, Dr. Charles Bott served as the WEFTEC 2022 Master Lecturer and presented the keynote speech, "Navigating the Entropy of Innovation." Dr. Bott discussed the innovation, treatment, and technology space in detail, and how managing innovation risk mitigates potential pitfalls.

COMMISSION MEETING MINUTES October 25, 2022



- b. The Providence Road Offline Storage Facility and Woodstock Park Improvements project was awarded the 2022 WEF Project Excellence Award during a ceremony at WEFTEC. The project video is available at the following link:
<https://www.youtube.com/watch?v=9TO22nmwNXQ&t=3s>



Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

2. **Consent Agenda**

Action: Approve the items listed in the Consent Agenda.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 6

Nays: 0

Brief:

a. Approval of minutes from previous meeting.

b. Contract Awards

1. [Fleet Management \(FY-2023\)](#) \$288,925

2. [Gravity Flow Monitoring Services](#) \$2,803,140

3. [Methanol,10 Percent Solution Blanket Purchase Agreement](#) \$642,000

c.. Task Orders

1. [Small Communities Rehabilitation Phase VI](#) \$221,620

d. Sole Source

1. [MiniLab 2000 Preventive Maintenance Agreement](#)

e. HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award

1. [Fire Suppression System Inspection, Maintenance and Repairs](#) \$286,150

2. [Fleet Management \(FY-2023\)](#) \$603,534

Item(s) Removed for Discussion: None

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

3. **Diversity Procurement Report**

Action: No action required.

Brief: The goal of HRSD’s Diversity Procurement Policy is to promote business opportunities for small businesses and businesses owned by women, minorities and service-disabled veterans (SWaM). The objectives of the policy are to identify goods and services provided by SWaM businesses; increase competition through a diverse source of contractors and suppliers; and maintain and strengthen the overall competitiveness of HRSD procurements.

A few of the higher value contracts for commodities and services awarded to SWaM businesses in the past fiscal year included engineering and construction services, bulk fuel, electrical services, coating services, lawn and grounds maintenance and technology services.

There was an increase in Operating SWaM spend due to increased participation from advertising solicitations through the eVa portal (Virginia online procurement system) and as a result of encouraging suppliers to register as a certified SWaM supplier (if applicable) through outreach efforts. Capital Improvement Projects (CIP) overall spend was down for FY 2022 due to completing several large projects and beginning new projects where payments have yet not been dispersed. Total spend was lower due to lower CIP spend.

The following is a comparison of fiscal years 2020 to 2022 on total spend for Operating Contracts, Corporate VISA Card Transactions, and Capital Improvement Program (CIP) Agreements and Contracts compared to total spend with SWaM businesses:

Three Year Comparison of Spend Activity with SWaM Contractors and Suppliers			
Payment Type	Percentage SWaM Spend of Total Spend		
	FY-2020	FY-2021	FY-2022
Operating	16%	18%	23%
Corporate VISA Card	7%	6%	6%
Capital Improvement Program	33%	40%	35%
<i>Total</i>	28%	35%	30%

A [summary](#) of activities and [transaction charts](#) for the period of July 1, 2021 through June 30, 2022 are attached.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

4. **Low Income Household Water Assistance Program (LIHWAP)
Vendor Agreement with Virginia Department of Social Services (VDSS)
Agreement – Updated Terms and Conditions**

Action: Approve the updated terms and conditions of the vendor agreement with VDSS and the third party designated for the provision of water bill payments to assist low-income residential households with water and wastewater arrearages, reconnections, and ongoing services and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved: Willie Levenston

Seconded: Elizabeth Taraski

Roll call vote: **Ayes:** 6 **Nays:** 0

Agreement Description: The previously signed agreement between HRSD and VDSS has been updated to include a contracted third party responsible for approval of eligibility and distribution of funds. The [agreement](#) is governed by and subject to federal and state laws and regulations and the Office of Community Services (OCS), U.S. Department of Health and Human Services. The LIHWAP Supplemental Terms and Conditions are attached as [Attachment A](#) and incorporated by reference.

VDSS was awarded a federal grant of \$22 million across the Commonwealth of Virginia to be used on a first-come, first-served basis for low-income residential household accounts involved in the interruption or on the verge of interruption of water service. VDSS set the LIHWAP maximum award at \$2,500 per household, and 90-days disconnection moratorium as of the date of the payment for all recipients.

The contracted third party will facilitate and expedite data exchange between Virginia water and wastewater service providers and VDSS, and as such HRSD must sign the vendor agreement affirming terms and conditions will be met with the required documentation via the third party to VDSS.

Staff anticipates severance activities for customers applying for LIHWAP relief funding will be suspended for 45 days to allow for processing.

Discussion Summary: Staff explained how arrearages will be reported based on the billing model. The vendor will determine eligibility and they will apply the award to the accounts for HRSD and localities in the Model 2 and Model 3 billing systems. Eligible services include water, sewer, wastewater and any fees required to maintain service. It will also include trash service in localities that include those fees in the combined bill. The third party was selected by the Department of Social Services.



COMMISSION MEETING MINUTES
October 25, 2022

5. **Regional Wet Weather Capacity
Commission Adopted Policy**

Action: No action required.

Brief: HRSD is responsible for regional wet weather capacity consistent with the 5th Amendment to the Consent Decree (CD) as agreed to in the Locality Memorandum of Agreement (MOA). Staff drafted the attached proposed [Regional Wet Weather Capacity Policy](#) which references critical obligations that HRSD and the Localities have agreed to in the CD, MOA, and State Order by Consent (CO). The MOA and CD work in conjunction with the CO to form a coordinated regional approach to providing and maintaining regional wet weather capacity.

The policy draws from these documents to define a consistent and defensible approach for evaluating and resolving future wet weather capacity issues regardless of asset ownership. It also defines the criteria and procedures that will be used to evaluate wet weather capacity deficiencies in the regional system and the process for resolving these deficiencies. The proposed policy has been reviewed with all Localities party to the MOA as well as DEQ staff and HRSD legal counsel; all of whom are in favor of the policy.

Staff provided a [briefing](#) during the meeting. The final policy will be presented to the Commission for formal action at the November Meeting.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

6. **Safety Program Briefing**

Action: No action required.

Brief: The Safety Manager presented details of the [rigging accident](#) that occurred on July 6, 2022 at the Williamsburg Treatment Plant, along with hazards identified by OSHA, and lessons learned from the accident. The Safety Manager also presented information on HRSD's Safety Program which helps ensure that HRSD operations are conducted in a safe manner to eliminate or reduce accidents, personal injuries, and/or property damage.

Discussion Summary: Staff explained the nature of OSHA citations which may include a monetary fine that can be appealed if necessary. Staff explained the roles of the five Safety Division staff members include safety inspections, safety training, contractor safety briefings, and construction inspections. The Safety Division also conducts employee safety training. A commissioner stated the diversity of safety includes chemical, electrical and construction safety as well. Another commissioner asked if there was annual training for employees. Staff explained employees receive training on a schedule based on topic. A listing of all safety activities will be forwarded to the Commissioners.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

7. **Atlantic Treatment Plant Digester and Nansemond Treatment Plant Clarifier Coating Improvements
New CIP, Initial Appropriation, Task Order (>\$200,000)**

Actions:

- a. **Approve a new CIP project.**
- b. **Approve total project funding in the amount of \$1,200,000.**
- c. **Approve a task order with Commonwealth Epoxy Coatings, Inc. in the amount of \$1,094,097.**

Moved: Ann Templeman
Seconded: Vishnu Lakdawala
Roll call vote:

Ayes: 7 **Nays:** 0

CIP Project: GN019200

Regulatory Requirement: None

Budget	\$1,200,000
Previous Expenditures and Encumbrances	(\$0)
Available Balance	\$1,200,000

Contract Status with Task Orders:	Amount
Original Contract with Commonwealth Epoxy Coatings, Inc.	\$0
Total Value of Previous Task Orders	\$8,826,734
Requested Task Orders	\$1,094,097
Total Value of All Task Orders	\$9,920,831
Revised Contract Value	\$9,920,831

Project Description: This project will provide services to coat the Clarifier Recycle Building at the Nansemond Treatment Plant and restoration of the #4 Digester at the Atlantic Treatment Plant.

Project Justification: Project will provide for application and installation of protective coating systems to enhance the useability and structural integrity of digester #4 at the Atlantic Treatment Plant and the Clarifier Recycling Building at the Nansemond Treatment Plant.



COMMISSION MEETING MINUTES
October 25, 2022

Task Order Description: This task order will provide services to coat the Clarifier Recycle Building at the Nansemond Treatment Plant. Services also include surface preparation of walls, metal ceilings, beams, and bar joists. In addition, this task order will provide services for interior steel restoration of digester #4 at the Atlantic Treatment Plant. Services also include preservation of immersion surface steel ceiling, support structure, and piping.

Analysis of Cost: The cost for these task orders is based on the pre-negotiated rates under the Annual Coating Services Agreement. Funds were previously approved under the operating budget.

This work is in accordance with the Asset Management and Procurement Commission Adopted Policies.

<u>Schedule:</u>	Construction	November 2022
	Project Completion	November 2023

Discussion Summary: Coatings work is now performed using an annual services contract which ensures quality contractors are performing the work. The contract is awarded on best value and quality and not necessarily the lowest cost. There are also two inspectors on staff that ensure work is performed correctly and to HRSD's satisfaction.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

8. **Jefferson Avenue Interceptor Force Main Replacement Phase III
Additional Appropriation, Contract Award (>\$200,000), Task Order**

Actions:

- a. **Appropriate additional funding in the amount of \$13,064,220.**
- b. **Award a contract to Bridgeman Civil, Inc. in the amount of \$17,870,132.**
- c. **Approve a task order with Rummel, Klepper & Kahl, LLP (RK&K) in the amount of \$1,699,096.**

Moved: Elizabeth Taraski

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: JR011730

Regulatory Requirement: None

Budget	\$11,039,588
Previous Expenditures and Encumbrances	(\$1,902,448)
Available Balance	\$9,137,140
Proposed Easement Cost	(\$932,132)
Proposed Construction Contract to Bridgeman Civil, Inc.	(\$17,870,132)
Proposed Task Order to RK&K	(\$1,699,096)
Proposed Contingency	(\$1,700,000)
Project Shortage/Requested Additional Funding	(\$13,064,220)
Revised Total Project Authorized Funding	\$24,103,808

Contract Status with Task Orders:	Amount
Original Contract with Engineer	\$59,220
Total Value of Previous Task Orders	\$1,183,097
Requested Task Order	\$1,699,096
Total Value of All Task Orders	\$2,882,193
Revised Contract Value	\$2,941,413
Engineering Services as % of Construction	16.5%

Type of Procurement: Competitive Bid



COMMISSION MEETING MINUTES
October 25, 2022

In accordance with HRSD’s competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on August 29, 2022, and two bids were received on September 28, 2022. The bids received are listed below:

Bidder	Bid Amount
Bridgeman Civil, Inc.	\$17,870,132
Garney Companies, Inc.	\$21,953,880

HRSD/Engineer Estimate: \$21,019,047

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 \$17,870,132.

Project Description: This project will replace approximately 11,000 linear feet of 12-inch, 14-inch and 16-inch HRSD force main from the intersection of Route 171 (Oyster Point Road) and Jefferson Avenue to the proposed Patrick Henry jumper. The proposed 30-inch force main sizing was performed during the City Center HART Analysis.

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

Project Justification: Preliminary hydraulic and capacity analysis show that pressures in the HRSD force main are hindering the City of Newport News’ pump stations from entering the HRSD system during high flow conditions. Future developments are planned for the service area which will exacerbate the current problem. This force main segment will also provide additional capacity and system flexibility when combined with other proposed improvements.

Contract Description: This contract is for construction phase services with Bridgeman Civil, Inc. in the amount of \$17,870,132. The original CIP budget was estimated back in 2017 and cost have escalated considerably since that time. During the PER phase of the design, the consultant conducted an alignment evaluation and found the best route for the force main which required an additional 2,000 linear feet of pipe installation due to the location of the interstate crossing for a total of 11,000 linear feet to be installed. In addition, this new alignment required the need to replace 1,070 linear feet of the City of Newport News’ force main to tie into the new alignment of the HRSD force main.

Task Order Description: This task order will provide construction administration and construction inspection services for the subject project. HRSD and the design engineer, RK&K, negotiated a fee in the amount of \$1,699,096. The fee proposal is comparable to other projects of similar size and complexity.



COMMISSION MEETING MINUTES
October 25, 2022

Analysis of Cost: The cost for the construction contract has been reviewed by RK&K and although substantially below the Engineer's Estimate has been found to be reasonable. The task order for RK&K has been reviewed and is reasonable. The fee for the contract administration is 5.2% of the construction cost and the construction inspection is 4.2% of the construction cost which agrees with similar efforts for comparable projects. The construction bid amount and the fee for the construction related engineering services exceeds the current balance available for this CIP project. The lowest responsive and responsible bid amount of \$17,870,132 exceeds the current balance available for this CIP project. A 10% construction contingency is also being requested. Therefore, the project requires \$13,064,220 in additional funding.

<u>Schedule:</u>	Construction	December 2022
	Project Completion	December 2024

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

9. **Regional Granular Activated Carbon (GAC) Reactivation Facility Study Phase I
New CIP, Initial Appropriation, and Task Order (>\$200,000)**

Actions:

- a. **Approve a new CIP project.**
- b. **Appropriate total project funding in the amount of \$410,000.**
- c. **Approve a task order with HDR Engineering, Inc. in the amount of \$338,633.**

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote: **Ayes:** 7 **Nays:** 0

CIP Project: GN019100

Regulatory Requirement: None

Contract Status with Task Orders:	Amount
Original Contract with HDR	\$0
Requested Task Order	\$338,633
Total Value of All Task Orders	\$338,633
Revised Contract Value	\$338,633

Project Description: This study will investigate the feasibility and practicality of developing a GAC reactivation facility that would accept and treat exhausted GAC for the Hampton Roads region.

Project Justification: With recent Per- and Polyfluoroalkyl Substances (PFAS) regulatory developments, the demand for GAC as a treatment option continues to grow. The U.S. Environmental Protection Agency released lifetime health advisories (LHAs) for four PFAS in June of 2022 and is expected to provide draft maximum contaminant levels (MCLs) for multiple PFAS by Fall of 2022. These regulatory developments will advance implementation of GAC for several Virginia drinking water utilities trying to manage PFAS in finished waters. HRSD will also have GAC reactivation demands from its planned SWIFT facilities at the James River and Nansemond Treatment Plants. HRSD is considering serving the region with a centralized GAC reactivation facility that could accept, process, and redistribute reactivated GAC to water utilities in the area.



COMMISSION MEETING MINUTES
October 25, 2022

Task Order Description: This task order will evaluate the feasibility of the following: converting an existing HRSD multiple hearth furnace or building site to a GAC reactivation site; installation of a new GAC reactivation process at an HRSD treatment plant; installation of a new GAC reactivation process at a new regional site; and contract GAC regeneration at a private facility.

Analysis of Cost: The cost for this task order is based on negotiated costs and is in agreement with other similar efforts from firms doing work for HRSD.

Schedule: Study Complete August 2023

Discussion Summary: In response to a Commissioner's question about what happens when carbon is reactivated, staff explained GAC is reactivated thermally without the presence of oxygen. The adsorbed organics are stripped off and degraded typically in a downstream thermal oxidizer. The GAC is then reactivated by controlled injection of air and/or steam.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

10. **Disposition of Real Property**
609 Canal Drive, Chesapeake, VA

Action: Deferred to a future meeting.

CIP Project: NP012600

Project Description: HRSD currently owns a 1.02-acre [vacant lot](#) located in the City of Chesapeake, Virginia that was purchased in 2017 in connection with HRSD's Deep Creek Interceptor Force Main project from the Perry family. The property was originally purchased for \$200,000. The existing home was demolished, and the site was used by the contractor to stage the construction in the area. At the time of purchase and as a part of negotiations, HRSD agreed to give the Perrys first right of refusal to purchase the property upon the completion of the project. HRSD staff have determined that there is no longer a need for this parcel, and a 7,088 square foot easement has been retained for the force main in place. The Perrys have agreed to pay HRSD \$50,000 for the property (subject to the easement), which reflects the 30-foot permanent utility easement that will be retained by HRSD.

Additionally, HRSD legal counsel have indicated that this parcel does not fall within the parameters of Virginia Code §25.1-108 governing the disposition of surplus property to the former owner if acquired through condemnation.

Agreement Description: The [Property Conveyance Agreement](#) is attached and upon approval, the conveyance Deed will be forthcoming. The final Deed will be reviewed by HRSD staff and legal counsel before execution. The 2017 [Purchase Agreement](#) between HRSD and Purchasers along with a [Facilities Orientation Map](#) is attached for clarification.

Discussion Summary: Responding to Commissioner questions, staff explained the price of the property is the City's assessed value. The Commission then requested action be deferred until an appraisal can be obtained.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

11. **West Point Operations Center Extensometer
Deed of Easement**

Action: Accept the terms and conditions of the Deed of Easement between HRSD and the Virginia Department of Environmental Quality (VDEQ) for a 9,000 square foot permanent utility easement on HRSD owned property located at its West Point Operations Center (Tax Map: 63A2-2-67) and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and as approved by counsel.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

Project Description: In cooperation with the United States Geological Survey (USGS), the VDEQ will construct, operate, and maintain an extensometer at HRSD's West Point Operations Center located in West Point, Virginia. The extensometer is used to monitor changes in land subsidence from water withdrawals and managed aquifer recharge. This project will be funded by the Commonwealth and HRSD will provide this easement at no cost to contribute towards this important effort. The information gained at this site will be utilized by HRSD staff as well. HRSD has agreed to provide a permanent utility easement to VDEQ to accomplish aforesaid access, construction, and maintenance.

Agreement Description: The attached [Deed of Easement](#) was reviewed by HRSD real estate legal counsel. A [plat](#) is provided for clarification.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

12. **Capital Improvement Program (CIP) and Asset Management Update**

Action: No action required.

Brief: Implementing the CIP continues to be a significant challenge as we address numerous regulatory requirements, SWIFT Program implementation and the need to replace aging infrastructure. The Director of Engineering provided a [briefing](#) describing the status of the CIP, financial projections, grant reimbursement expectations, projects of significance, and the use of proposal compensation (stipends) for design-build procurement. In addition, the Chief of Asset Management provided an update on the [asset management program](#) including condition assessment, example of projects, resiliency summary, and next steps.

Discussion Summary: Staff and Commission discussed the use of stipends in design-build procurement including the effect of supply chain issues, reevaluation of stipend percentages, economy and market volatility, size of the project as it relates to competitive bidding environment, and threshold of stipends per the Commission Governance Guidelines which is based on the VDOT cost reimbursement model equal to 0.1% of the estimated project cost. Staff also explained design-build procurement delivery method is typically used on larger projects and also when tight schedules are a factor. Stipends have been given on four projects to date.

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

13. **Unfinished Business – None**

14. **New Business – None**

15. **Commissioner Comments**

Commissioner Lakdawala commended Dr. Bott on his master lecture at the WEFTEC conference. He thoroughly enjoyed the session as well as seeing colleagues and supporters.

Chair Rodriguez also commented on the WEFTEC conference. He said it is always good to see peers throughout the nation and internationally, as well to see how well respected HRSD is in the community. He is very proud to be a part of this organization, what we do here and the employees who make it all happen. The intelligence level at HRSD is not restrained and there are no bounds. We have great people working at HRSD. He appreciates that we are able to find good people and are able to train them to work at HRSD. He is proud of what the HRSD family does and how they conduct themselves both inside and outside of HRSD. The presentations employees give on an international level is outstanding. On behalf of the Commission, Chair Rodriguez said they are very proud of the employees, the work they have done and continue to do.

16. **Public Comments Not Related to Agenda – None**

17. **Informational Items**

Action: No action required.

Brief: The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)

Public Comment: None



COMMISSION MEETING MINUTES
October 25, 2022

18. **Announcements**

The Finance Committee will meet at 10 am on November 10, 2022 in Virginia Beach.

Next Commission Meeting Date: November 22, 2022 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 11:15 am

SUBMITTED:



Jennifer L. Cascio
Secretary

APPROVED:



Frederick N. Elofson, CPA
Commission Vice-Chair

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #1

2. Consent Agenda

CONSENT AGENDA ITEM 2.b.1. – October 25, 2022

Subject: Fleet Management (FY-2023)
Contract Award (>\$200,000)

Recommended Action: Award a contract to THC Enterprises, Inc. dba Mid Atlantic Waste Systems, Inc. in the amount of \$288,925.

CIP Project: GN018500

Regulatory Requirement: None

Budget	\$2,867,920
Previous Expenditures and Encumbrances	(\$1,676,882)
Available Balance	\$1,191,038

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Procurement Division advertised and solicited bids directly from potential bidders. The project was advertised on August 17, 2022, and one bid was received on September 19, 2022 as listed below:

Bidder	Bid Amount
THC Enterprises, Inc. dba Mid Atlantic Waste Systems, Inc.	\$288,925

HRSD Estimate: \$234,000

Project Description: This project will provide for replacement of aging fleet vehicles and purchase of additional vehicles to meet the needs of the organization. An itemized list of vehicles to be replaced or added is maintained by the Support Systems Division.

Project Justification: Replacement of aging vehicles will result in lower repair costs and the purchase of additional vehicles will provide for increased staff efficiency. Vehicles with gasoline driven engines are evaluated for replacement when mileage meets or exceeds 100,000 miles and diesel driven engines are evaluated at 200,000. Vehicles are then compared to high maintenance cost and down time.

Contract Description and Analysis of Cost: This contract is for the purchase of a truck with a crew cab (4 doors), utility work body, and hydraulic tool circuits. Costs are determined to be fair and reasonable based on the competitive solicitation results and past purchase history of similar vehicles.

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

CONSENT AGENDA ITEM 2.b.2. – October 25, 2022

Subject: Gravity Flow Monitoring Services
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for Gravity Flow Monitoring Services to Hydrostructures, PA dba Hydrostructures LLC in the estimated amount of \$560,628 for year one with four annual renewal options and an estimated cumulative value in the amount of \$2,803,140.

Regulatory Requirement: None

Type of Procurement: Competitive Bid

In accordance with HRSD’s competitive sealed bidding procedures, the Procurement Division advertised and solicited bids directly from potential bidders. The project was advertised on August 15, 2022, and two bids were received on September 13, 2022, as listed below:

Bidder	Bid Amount
Hydrostructures, PA dba Hydrostructures LLC	\$560,628
McKim and Creed, Inc.	\$585,060

HRSD Estimate: \$754,063

Contract Description and Analysis of Cost: This contract is an agreement for gravity flow monitoring services of the HRSD gravity collection system. Services include placement of 16 gravity flow meters on HRSD assets at designated locations and 10 transient gravity flow meters for flow surveys. Services also include routine meter calibrations, flow monitoring, and data reporting into HRSD’s Telog server. Costs are determined to be fair and reasonable based on the competitive solicitation results and previous contract term pricing.

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

CONSENT AGENDA ITEM 2.b.3. – October 25, 2022

Subject: Methanol, 10 Percent Solution Blanket Purchase Agreement
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for Methanol, 10 percent solution to Univar USA Inc. in the estimated amount of \$214,000 for year one with two annual renewal options and an estimated cumulative value in the amount of \$642,000.

Regulatory Requirement: None

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Procurement Department advertised and solicited bids directly from potential bidders. The project was advertised on September 12, 2022, and one bid was received on September 27, 2022, as listed below:

Bidder	Bid Amount
Univar USA Inc.	\$214,000

HRSD Estimate: \$213,700

Contract Description and Analysis of Cost: This contract is an agreement for the supply and delivery of 10 percent solution of Methanol to the James River Treatment Plant (JRTP). The methanol is used as a supplemental carbon source for denitrification and is a critical aspect of meeting effluent total nitrogen requirements. JRTP is currently in design for a methanol facility that will be able to handle 100 percent methanol like the other HRSD facilities.

This is a fixed monthly unit price based on the Methanol Index posted rate plus adders such as a blending fee and truckload freight fee, both subject to quarterly adjustments based on market fluctuations. The HRSD estimate reflects the average monthly price of initial orders JRTP has placed to date for startup until a contract becomes available. Pricing is in line with the posted rate calculations noted above and found to be fair and reasonable.

CONSENT AGENDA ITEM 2.c.1. – October 25, 2022

Subject: Small Communities Rehabilitation Phase VI
Task Order (>\$200,000)

Recommended Action: Approve a task order with Rummel, Klepper and Kahl, LLC (RK&K) in the amount of \$221,620.

CIP Project: MP015500

Regulatory Requirement: None

Budget	\$1,395,700
Previous Expenditures and Encumbrances	(\$76,621)
Available Balance	\$1,319,079

Contract Status:	Amount
Original Contract with RK&K	\$76,621
Total Value of Previous Task Orders	\$0
Requested Task Order	\$221,620
Total Value of All Task Orders	\$221,620
Revised Contract Value	\$298,241
Engineering Services as % of Construction	10.3%

Project Description: This project addresses the rehabilitation and/or replacement of portions of the gravity sewer system located in the Town of West Point, Virginia. HRSD's Capital Improvement Plan (CIP) identifies approximately 6,750 linear feet of small diameter gravity sewer and associated laterals and manholes for rehabilitation and/or replacement. HRSD's CCTV condition assessment results indicate these assets are large contributors to inflow and infiltration (I&I) justifying rehabilitation/replacement.

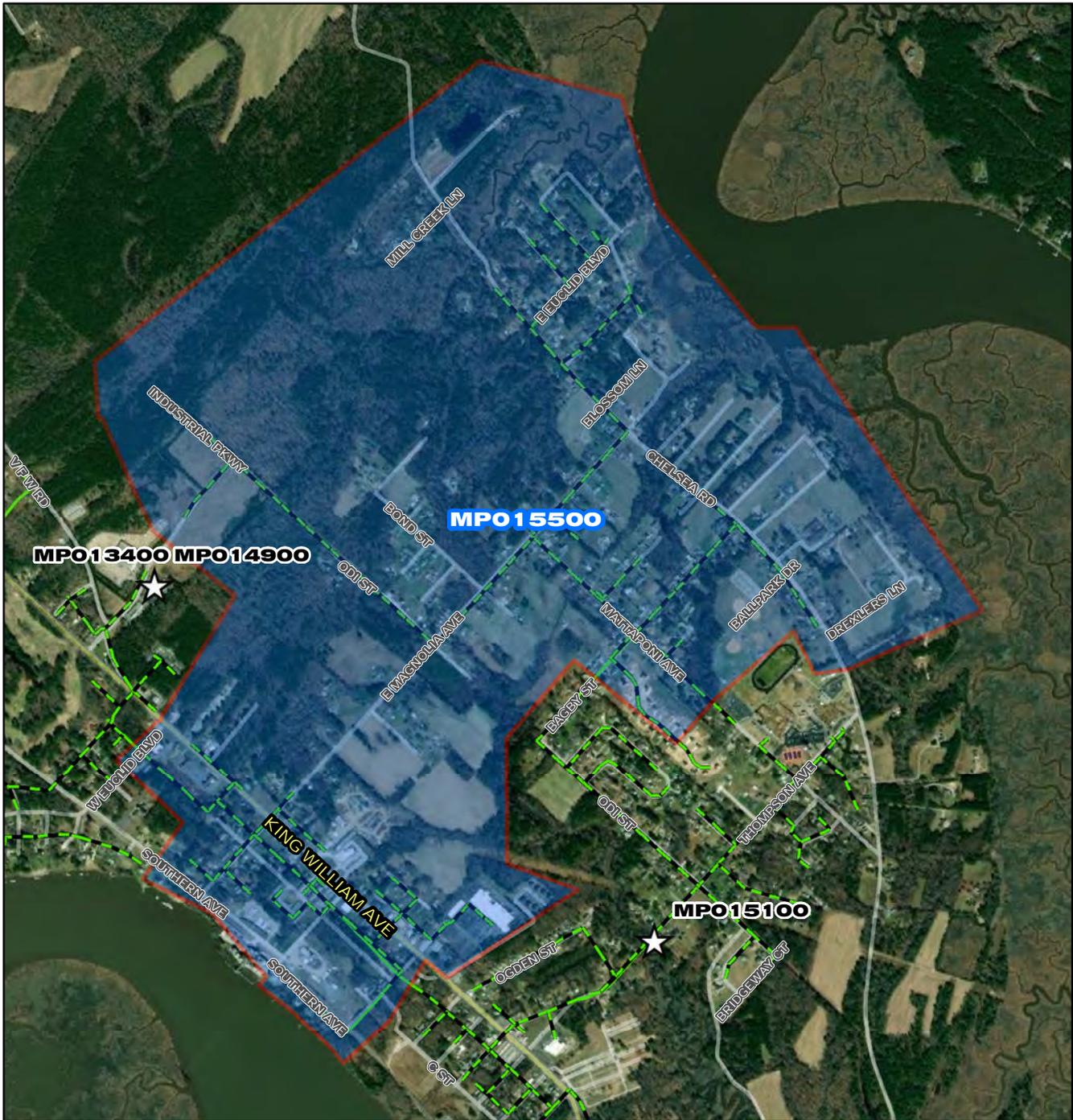
The attached [map](#) depicts the project location.

Project Justification: The West Point Treatment Plant (WPTP) experiences significant increased flows during wet weather events. Since January 2019, the effluent flow monthly average has exceeded the Permitted Design Capacity (0.6 MGD) ten times, to date, with 95% of capacity being exceeded for three consecutive months occurring twice in that timeframe. Each of the consecutive occurrences requires a written letter to the VDEQ outlining HRSD's plan of action to address these increased flows. This project will continue HRSD's commitment to reducing Inflow & Infiltration (I&I) into the collection system in accordance with that plan of action. Analysis of gravity flow meter data collected from the West Point system was evaluated and identified the pump station service areas as the highest contributors to I&I levels. Hazen and Sawyer completed a Sanitary Sewer Evaluation Survey (SSES) of these areas and identified multiple areas of rehabilitation and/or replacement of the collections system. This project will address the deficiencies identified in this SSES and generate a large reduction of I&I and provide for structural repairs on at-risk infrastructure.

Task Order Description: This task order will provide final design and preconstruction phase services.

Analysis of Cost: The cost for this task order is based on negotiated cost and is in agreement with other projects of comparable size and complexity.

<u>Schedule:</u>	Bid	November 2023
	Construction	February 2024
	Project Completion	February 2025



MPO 15500

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

Legend

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

Feet

0 500 1,000 2,000 3,000 4,000

MPO 15500

Small Communities Rehabilitation Phase VI

N
W E
S

CIP Location

CONSENT AGENDA ITEM 2.d.1. – October 25, 2022

Subject: MiniLab 2000 Preventive Maintenance Agreement
Sole Source (>\$10,000)

Recommended Action: Approve SEAL Analytical Inc. as the provider of MiniLab 2000 Preventive Maintenance for the Central Environmental Laboratory.

Regulatory Requirement: None

Sole Source Justification:

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

Details: Services include annual preventive maintenance for the MiniLab 2000 instruments. These instruments perform the biochemical oxygen demand analysis on the final effluent and raw influent from the treatment plants. The preventative maintenance includes software updates, replacement parts used to calibrate the instruments and on-site assistance.

The MiniLab 2000 was purchased via competitive Solicitation in 2019.

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

CONSENT AGENDA ITEM 2.e.1. – October 25, 2022

Subject: Fire Suppression System Inspection, Maintenance, Monitoring, and Repairs
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the County of Henrico Contract #2314B for Fire Suppression Systems Inspection, Maintenance & Repair Services.
- b. Award a blanket purchase contract to Fire Life and Safety America, Inc. in the estimated amount of \$57,230 for year one with four annual renewal options and an estimated cumulative value in the amount of \$286,150.

HRSD Estimate: \$105,000 (Annually)

Regulatory Requirement: None

Contract Description and Analysis of Cost: This contract is for fire suppression system inspection, maintenance, monitoring, and repair. Services include inspections of fire alarms, sprinkler systems, and alarm valves. All rates are consistent with the previously utilized cooperative contract under previous term agreement with Fire Life and Safety America.

CONSENT AGENDA ITEM 2.e.2. – October 25, 2022

Subject: Fleet Management (FY-2023)
 HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
 (>\$200,000)

Recommended Actions:

- a. Approve the use of the Virginia Sheriffs Association Contract #22-05-0917 for Vehicles and Motorcycle Procurement Program.
- b. Award a contract to Atlantic Machinery, Inc. for a Combination Sewer Flusher vehicle in the amount of \$603,534.

HRSD Estimate: \$603,534

CIP Project: GN018500

Regulatory Requirement: None

Budget	\$2,867,920
Previous Expenditures and Encumbrances	(\$1,794,572)
Available Balance	<u>\$1,073,348</u>

Project Description: This project will provide for replacement of aging fleet vehicles and purchase of additional vehicles to meet the needs of the organization. An itemized list of vehicles to be replaced or added is maintained by the Support Systems Division.

Project Justification: Replacement of aging vehicles will result in lower repair costs and the purchase of additional vehicles will provide for increased staff efficiency. Vehicles with gasoline driven engines are evaluated for replacement when mileage meets or exceeds 100,000 miles and diesel driven engines are evaluated at 200,000. Vehicles are then compared to high maintenance cost and down time.

Contract Description and Analysis of Cost: This contract is for the purchase of one combination sewer flusher vehicle with a 12-yard debris body and 1,500 gallons of freshwater capacity. By utilizing the cooperative contract through the Virginia Sheriffs Association, HRSD is receiving this vehicle at a fair and reasonable cost compared to past purchase history of similar vehicles.

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #2

3. Diversity Procurement Report

HRSD DIVERSITY PROCUREMENT REPORT FISCAL YEAR 2022

PAYMENT TYPE	TOTAL OF ALL PAYMENT TRANSACTIONS ¹				TOTAL PAYMENTS MADE TO SWaM CONTRACTORS COMPARED TO HRSD's TOTAL PAYMENTS	
	ALL BUSINESS TYPES		SMALL, WOMEN-OWNED AND MINORITY-OWNED BUSINESSES (SWaM)		NO.	SPEND
	NO.	SPEND	NO.	SPEND		
OPERATING	6,635	\$59,898,249	1,487	\$13,864,359	22%	23%
CORPORATE VISA CARD	27,074	\$15,182,436	951	\$964,739	4%	6%
CAPITAL IMPROVEMENT PROGRAM	2,107	\$165,889,264	471	\$58,125,760 ²	22%	35%
TOTAL	35,816	\$240,969,949	2,909	\$72,954,857	8%	30%

¹Excludes expenses for utilities, rent, easements, municipal expenditures, personal services, professional development, etc.

²Includes payments of \$6,962,729 made to SWaM subcontractors, as reported by HRSD's prime contractors.

DIVERSITY PROCUREMENT PROGRAM ACTIVITIES

HRSD participated in several outreach opportunities throughout the year including:

- The Institute for Public Procurement Virtual 2021 Forum
- SWIFT Industry Outreach Day 2022
- Virginia Association of Governmental Purchasing Spring Conference 2022
- Virginia Association of State College and University Purchasing Professionals (VASCUUP®) Virtual Fall SWaMfest

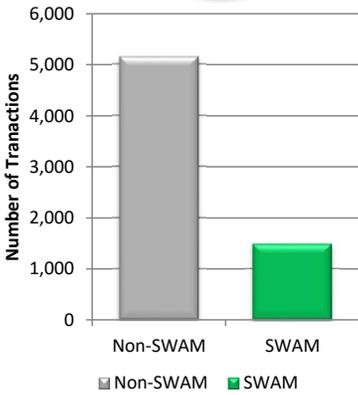
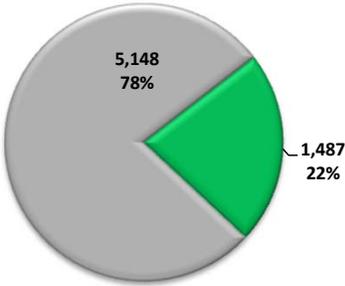
HRSD uses the Virginia Department of Purchases and Supply eProcurement Portal, eVA to advertise HRSD business opportunities to Suppliers, including SWaM businesses that have registered to do business with the Commonwealth of Virginia.

HRSD uses the Virginia Department of Small Business and Supplier Diversity (SBSD) as a resource to identify and locate SWaM businesses for HRSD bid opportunities. SBSB promotes access to the Commonwealth of Virginia's contracting opportunities by providing SWaM businesses a certification program, access to state-wide bid opportunities and other resources.

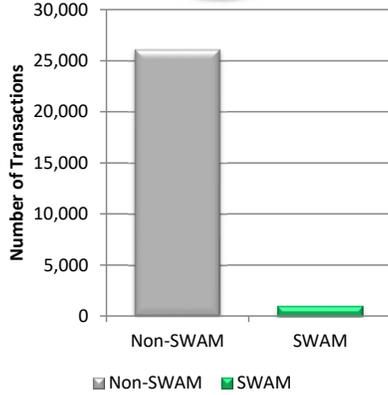
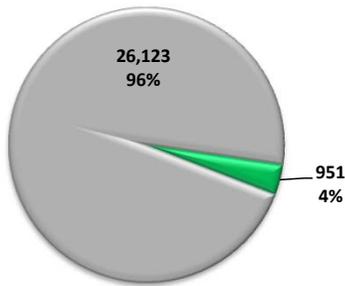
HRSD is a member of the Carolinas-Virginia Minority Supplier Development Council (CVMSDC). The CVMSDC certifies Minority Business Enterprises (MBEs), serves as a resource for corporations and government agencies searching for qualified suppliers, and sponsors networking and outreach events. The CVMSDC also offers training programs and business assistance for MBEs.

FY2022 Transaction Charts

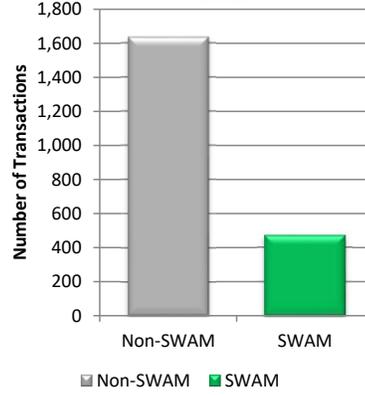
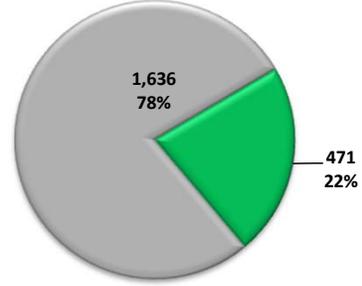
OPERATING



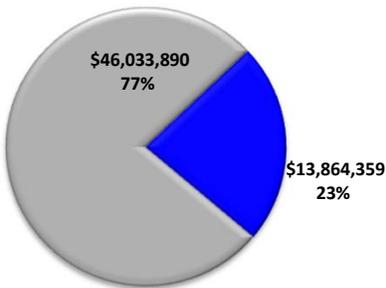
CORPORATE VISA CARD



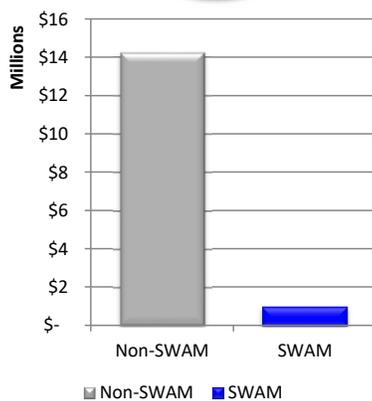
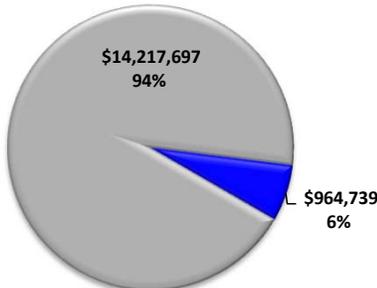
CAPITAL IMPROVEMENT PROGRAM



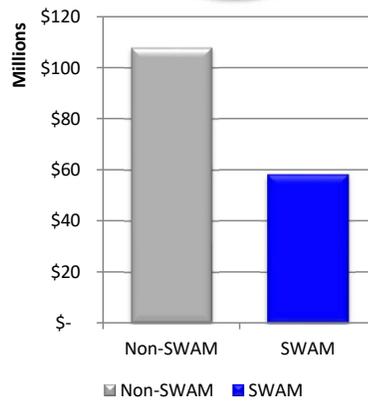
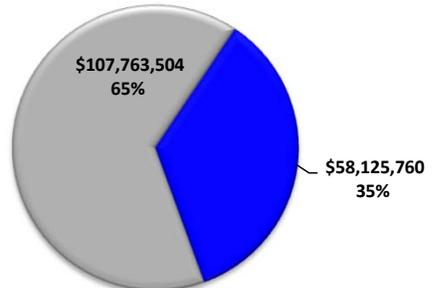
OPERATING



CORPORATE VISA CARD



CAPITAL IMPROVEMENT PROGRAM



HRSD Commission Meeting Minutes
October 25, 2022

Attachment #3

4. Low Income Household Water Assistance Program (LIHWAP)
Vendor Agreement with Third Party (previously Virginia Department of Social Services)
Agreement – Updated Terms and Conditions



WATER PROVIDER PARTICIPATION AGREEMENT
FOR THE VIRGINIA LOW INCOME HOUSEHOLD WATER ASSISTANCE PROGRAM

This Agreement is entered into effective the date of the last signature herein, by and between the Virginia Department of Social Services (“VDSS” or the “Agency”), Promise Network Inc. (“Promise”) and the Water Provider listed on the signature page (“Water Provider”) for the provision of water bill payments to assist low-income residential households with water and/or wastewater arrearages, reconnection, and ongoing services.

WHEREAS, the Virginia Department of Social Services (“Agency”) has been awarded a federal grant under the Low Income Household Water Assistance Program (“LIHWAP”); and

WHEREAS, federal funds awarded under the LIHWAP grant shall be used as part of an overall emergency effort to prevent, prepare for, and respond to the COVID-19 pandemic, with the public health focus of ensuring that low-income households have access to drinking water and wastewater services; and

WHEREAS, the Agency has contracted with Promise to administer LIHWAP on behalf of the Agency; and

WHEREAS, Promise’s administrative duties include distributing funds for water and/or wastewater bill payments to the Water Provider from the LIHWAP grant funds on behalf of households approved for LIHWAP assistance; and

WHEREAS, the funds provided under this Agreement will be used to cover and/or reduce arrearages, and pay rates and fees associated with reconnection or prevention of disconnection of service, for approved residential households; and

WHEREAS, LIHWAP payments may be used to pay past due balances for customers whose accounts are currently open/active and the household is approved for LIHWAP assistance; and

WHEREAS, this Agreement is governed by and subject to federal and state laws and regulations and the Office of Community Services (OCS), U.S. Department of Health and Human Services, and LIHWAP Supplemental Terms and Conditions (attached as Attachment A and incorporated by reference).

NOW, THEREFORE, in consideration of the mutual undertaking of the parties to this Agreement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, VDSS, Promise, and the Water Provider hereby agree as follows:

1. Term of Agreement

This Agreement shall be in effect from the date of the last signature herein and will remain in effect until December 31, 2023 or until all of the Virginia LIHWAP funds have been distributed, whichever is sooner. The Agreement shall not bind, nor purport to bind, VDSS or Promise for any commitment after the term of the Agreement.

2. Modifications of Agreement

Any and all modifications to this Agreement shall be in writing and agreed upon by both parties.

3. Termination of Agreement

This Agreement may be terminated effective immediately upon notice to the Water Provider in the event of a determination by Promise that the Water Provider is not in compliance with the terms of this Agreement.

Either VDSS or the Water Provider may terminate this Agreement with or without cause and without cost by giving the other party at least sixty (60) calendar days written notice. Termination under this provision shall not discharge any obligation owed by either party on behalf of households that have been awarded LIHWAP benefits prior to the effective date of termination.

4. Promise's Administrative Responsibilities

Promise shall:

- a. Conduct outreach activities to notify potentially eligible households of LIHWAP.
- b. Screen for low-income households according to the VA LIHWAP criteria.
- c. Determine household eligibility based on the VA LIHWAP criteria.
- d. Provide Water Provider with the necessary requirements for data and funding exchanges. All required information must be provided prior to any payment being issued.
- e. Make every effort to coordinate closely with the Water Provider to facilitate and expedite the exchange of data and/or funding.
- f. After receipt of all requested documentation and information, and upon full compliance by the Water Provider with the terms herein, Promise shall:
 - i. Schedule payments for approved households. Payments will be issued via ACH transfer by Promise to the Water Provider on behalf of the Water Provider's customer.
 - ii. For each scheduled payment, provide a report detailing the total award amount, each customer account receiving a payment, the amount per approved customer account, and any other necessary information to identify the customer account and amount to be credited. The report will be provided to Water Provider concurrently with the transfer of funds so that Water Provider may remove all customers from severance field activities or restore water service as appropriate. Such report is considered confidential and shall be handled as such by Water Provider.
- g. Comply with all relevant state and federal laws and regulations in its implementation of the LIHWAP. VDSS or Promise shall provide notice to the Water Provider of any changes or amendments to policies or guidelines for the LIHWAP. Such notice may be distributed by email.

- h. Collect and retain the following LIHWAP data indicators as needed from households receiving benefits as set forth in Terms 10 and 11 of the supplemental terms and conditions (Attachment A):
 - i. Number and income levels of households that received assistance;
 - ii. Number of households that received such assistance and include one or more individuals who are sixty (60) years or older, include a household member with a disability, or include children ages five (5) and younger;
 - iii. Gather administrative information regarding local providers (if applicable), agreements with water utilities, recommendations, accomplishments, unmet needs and lessons learned.

5. Water Provider Responsibilities to Participate in LIHWAP

The Water Provider shall:

- a. Execute a LIHWAP Water Provider Participation Agreement.
- b. Provide a completed W-9.
- c. Notify Promise immediately if the Water Provider's tax identification number changes by submitting a new W-9 form to Promise.
- d. Provide banking information necessary for the transfer of funds via ACH (Water Provider's account name, bank name, routing number, and account number).
- e. Provide Promise with at least one designated contact person who shall be available to respond by telephone and electronic mail within 24 business hours to all reasonable inquiries regarding customer accounts, including, but not limited to, inquiries on bills, payments, and services.
- f. Notify VDSS and Promise within five (5) business days if the Water Provider's ownership, contact person, contact/billing information, services provided, or service coverage area changes.
- g. Provide Promise with customer data relating to arrears and customer information relating to any income-based programs where data is known by the Water Provider in the required format (see **Data Collection** for details).

Financial Information/Billing/Services:

- h. Provide water and/or wastewater services to each eligible and approved residential household that has an account with the Water Provider for which payment is provided under LIHWAP as follows:
 - i. Restore water services to eligible and approved residential households upon full payment of arrearages. Full payment means the entire water and/or wastewater balance on the account including fees, interest, penalties, other charges billed related to disconnection or reconnection, and service transfer balances.
 - ii. After receiving full payment for restoration of water services, not terminate services due to arrearages for at least 90 days.
- i. Charge all LIHWAP-approved households the same price as that charged for drinking water and/or wastewater services to non-LIHWAP households, as determined by the approved rate

setting process and continue invoicing LIHWAP households using the Water Provider's normal billing process.

- j. Apply LIHWAP payments only to the approved open residential customer accounts authorized by the Agency or Promise.
- k. Not apply LIHWAP payments to account balances that have previously been written off or fully paid with other funds.
- l. Not discriminate against a LIHWAP-approved household with respect to terms, deferred payment plans, credit, conditions of sale, or discounts offered to other customers.
- m. Post all payments to customer accounts within five (5) business days from receipt of the funds. No late, interest, or other delinquent charges shall be added to the customer's account after the payment has been received and before the payment has posted.
- n. Inform each LIHWAP recipient that a payment has been applied to the account, including payment amount, in the manner normally used by the Water Provider to reflect payments.
- o. Provide Promise with confirmation of detailed customer account fund application within ten (10) business days of receipt of funds. If any funds were not fully applied to the intended customer account, provide Promise with the account information, amount not applied and the reason for the non-application of funds.
- p. Refund any unapplied funds to Promise within thirty (30) business days of receipt of funds. Payment may be made by check, ACH or wire. After September 30, 2023, all refunds of any unapplied funds shall be returned to Promise within ten (10) business days of receipt of funds.
- q. Continually maintain accurate records of LIHWAP credit balances and annually reconcile accounts.
- r. Not give any cash equivalent for excess credit.
- s. Cooperate with any Federal, State, or local investigation, audit, or program review as set forth in the Supplemental Terms and Conditions, Term 11.p. (Attachment A). The Water Provider shall allow Promise and Agency representatives access to all books and records relating to LIHWAP for the purpose of verification of compliance with this Agreement.
- t. Understand that failure to cooperate with any Federal, State, or local investigation, audit, or program review may result in the immediate disqualification from participation in the LIHWAP.
- u. Take corrective action in the timeframe specified by the Agency if violations of this Agreement are discovered. Corrective action may include, but is not limited to, providing detailed documentation of changes made and detailed plans for future changes that will bring the Water Provider into compliance.
- v. Understand that failure to implement corrective actions may result in the immediate disqualification from participation in the LIHWAP.

Data Collection:

- w. Provide, at no cost to Promise or the Agency or the household, the data requested below:
 - i. Contact information and service location address for and data on customers' household drinking water and/or wastewater costs, current balance, past due balance, service

status, bill payment history, and/or arrearage history. (Promise shall not require data for more than the previous twelve (12) monthly billing periods.)

- ii. Contact information for and data on customers who participate in any income-based programs where data is known by the Water Provider, including but not limited to the program name, criteria, and customer received funds.
- iii. The itemized amount, cost, and type of water assistance and services (e.g., drinking water, wastewater) provided for households approved for assistance under LIHWAP, including the costs of such services.
- iv. The amount of assistance provided to each household and whether the assistance restored water service or prevented shutoff).

The data must be provided within a timeframe and in a format as specified by VDSS or Promise. The data must be provided to Promise for the purposes of verification, research, evaluation, analysis, and reporting.

6. Joint Duties

VDSS, Water Provider, and Promise agree to meet at mutually agreed upon dates as necessary to review any recommendations, accomplishments, unmet needs and lessons learned.

7. General Conditions

- a. **AUTHORITY:** Nothing herein shall be construed as authority for either party to make commitments that will bind the other party beyond the scope of services contained herein.
- b. **DISCRIMINATION:** The Water Provider shall not discriminate against any household because of race, religion, color, sex, national origin, age, disability, political beliefs, sexual orientation, gender identity, or any other basis prohibited by state law relating to discrimination.
- c. **CONFIDENTIALITY:** The Water Provider and Promise agree that any information and data obtained as to personal facts and circumstances related to households as part of the performance of this Agreement shall be collected and held confidential, during and following the term of this Agreement, and shall not be disclosed without the individual's and VDSS's written consent except as required pursuant to order of a court of competent jurisdiction and as required by law, including the Virginia Freedom of Information Act.
- d. **FRAUD:** The Water Provider will be permanently disqualified from participating in the LIHWAP upon the first finding that the Water Provider has committed LIHWAP fraud. Fraud includes, but is not limited to, intentionally providing false information to Promise or knowingly allowing others to do so; intentionally failing to notify Promise of a change in circumstances that materially affects payments received by the Water Provider; intentionally accepting payments that the Water Provider knows, or by the exercise of reasonable diligence would know, the Water Provider is not entitled to by virtue of an overpayment or otherwise; or intentionally making a claim for a payment to which the Water Provider is not entitled pursuant to the terms of this Agreement and all applicable rules, regulations, laws and statutes. In the event the Water Provider receives payment from Promise that

the Water Provider is not entitled to as a result of the Water Provider's fraud, the Water Provider must repay the payment unless contrary to a court order.

e. NON-FRAUD OVERPAYMENTS: If the Water Provider receives an overpayment from Promise, the Water Provider shall repay the overpayment amount to Promise within ten (10) business days.

g. DUE AUTHORIZATION. The persons executing this Agreement represent and warrant to the other party that he or she has been duly authorized to so execute this Agreement.

h. SEVERABILITY. If any provision of this Agreement or the application thereof to any person or circumstance is held to be invalid, the invalidity shall not affect other provisions of this Agreement, which shall be given effect without regard to the invalid provision or application.

i. GOVERNING LAW. This Agreement shall be governed by the laws of the Commonwealth of Virginia, excepting its laws regarding the conflict of laws.

j. ENTIRE AGREEMENT. This Agreement contains all the terms and conditions agreed to by the parties. No other agreements, oral or written, are valid or bind the parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement. The parties to this agreement acknowledge the responsibilities, specified above, and will provide the accomplishment of this service in a mutually acceptable and efficient manner.

BY SIGNING BELOW, THE WATER PROVIDER INDICATES ITS DESIRE TO PARTICIPATE IN THE VA LIHWAP AND AGREES TO COMPLY WITH THE TERMS AND CONDITIONS CONTAINED IN THIS AGREEMENT.

VIRGINIA DEPARTMENT OF SOCIAL SERVICES

DocuSigned by:
Adrienne D. Childress
F28D8EDEAFB148F...

10/25/2022

Signatory Authority

DATE

PROMISE NETWORK INC.

DocuSigned by:
Diana Frappier
DC7734A03134478...

10/25/2022

By: Diana Frappier, CLO

DATE

Water Provider (Legal Name): Hampton Roads Sanitation District and Hampton Roads Utility Billing Se

Doing Business As Name (if applicable): HRSD and HRUBS

Signature of Authorized Representative: DocuSigned by:
Jay Bernas
16FF8AD4B1334E7...

Printed Name of Authorized Representative: Jay Bernas

Title of Authorized Representative: General Manager

Date: 10/25/2022



ADMINISTRATION FOR
CHILDREN & FAMILIES

330 C Street, S.W., Washington, DC 20201 | www.acf.hhs.gov

SUPPLEMENTAL TERMS and CONDITIONS

The **General Terms and Conditions** apply to all mandatory grant programs. These Supplemental Terms and Conditions are additional requirements applicable to the program named below.

By acceptance of awards for this program, the grantee agrees to comply with the requirements included in both the General and Supplemental Terms and Conditions for this program.

Office of Community Services (OCS)

LOW INCOME HOUSEHOLD WATER ASSISTANCE PROGRAM (LIHWAP)

Assistance Listing No. 93.568(B) (with modifications based on P.L. 116-260)

APPLICABLE LEGISLATION, STATUTE, REGULATIONS

1. The administration of this program is authorized under Section 533 Title V of Division H of the Consolidated Appropriations Act, 2021, Public Law No: 116-260. Consistent with legislative instructions, program requirements use existing processes, procedures, and policies currently in place to provide assistance to low-income households. In particular, OCS has closely modeled the Low Income Household Water Assistance Program's (LIHWAP) terms and conditions on assurances and requirements outlined in the Low Income Household Energy Assistance Act, 42 U.S.C. 8621 *et seq.*
2. The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for HHS Awards is located under [45 CFR Part 75](#). In accordance with 45 CFR 75.101 applicability, this program must comply with 45 CFR Part 75 in its entirety. No exceptions have been identified.
3. Additional applicable regulations and requirements can be found in the [General Terms and Conditions for Mandatory: Formula, Block and Entitlement Grants](#).

COST SHARING OR MATCHING (NON-FEDERAL SHARE) OF PROGRAM FUNDING

4. The federal financial participation rate (FFP) is 100 percent for this program. The federal award provides funds for 100 percent of allowable, legitimate program costs.
5. There is no non-federal cost share/matching required for this program. Program funds for this program are awarded with a 100 percent FFP rate for program costs.

FINANCIAL REPORTING AND REQUIREMENTS

6. The OMB approved Financial Reporting form for this program is the SF-425 Federal Financial Report [SF-425 Federal Financial Report](#). Grantees must track and report on LIHWAP funds separately from appropriated LIHEAP funds.

- a. This report is submitted annually and must be submitted no later than December 30, which is 90 days following the end of each federal fiscal year (FFY).
 - b. A first interim report is due 90 days following the end of FFY 2021.
 - c. A second interim report interim report is due 90 days following the end of FFY 2022.
 - d. A final report (cumulative, covering the entire project period) is due 3 months following the end of FFY 2023.
7. **Project Period.** The project period for this award is synonymous with the obligation period, as follows: from the date of the award through the end of FFY 2023 (September 30, 2023). Any federal funds not obligated by the end of the obligation period will be recouped by this Department.
8. **Liquidation Deadline.** All obligated federal funds awarded under this grant must be liquidated no later than 3 months after the end of the project period (i.e., December 31, 2023). Any funds from this award not liquidated by this date will be recouped by this Department.
9. The following are the grant/fiscal requirements based on modifications of existing LIHEAP policies and requirements:
- a. The grantees may use up to 15 percent of grant funds for planning and administering the funds under this award. The grantee will pay from non-federal sources the remaining costs of planning and administering the program under this award and will not use federal funds for such remaining cost. Administrative costs of the owners or operators of public water systems or treatment works that may be charged to this award, if any, are subject to this limitation and must be included together with the grantee's costs of planning and administration when calculating compliance.
 - b. The grantee will ensure that fiscal control and fund accounting procedures will be established as may be necessary to assure the proper disbursement of and accounting for federal funds paid to the state under this award, including procedures for monitoring the assistance provided under this award, and provide that the grantee will comply with the provisions of chapter 75 of title 31, United States Code (commonly known as the "[Single Audit Act](#)").
 - c. The grantee may expend funds for immediate expenses necessary for planning and administering the use of funds upon receipt of the award. However, prior to the expenditure of grant funds for any payments to owners or operators of public water systems or treatment works on behalf of low-income households, the grantee must submit an implementation plan for OCS review and acceptance in a format provided by OCS that will (a) include the eligibility requirements to be used by the state for each type of assistance to be provided under this grant, (2) describe the benefit levels to be used by the state, territory, or tribe for LIHWAP assistance, (3) describe any steps that will be taken to target assistance to households with high home water burdens, and (4) provide a plan of administration including a plan of oversight and monitoring of any subrecipient organizations comparable to the processes and procedures for comparable grant programs. Not later than May 30, 2021, OCS will make available a Model State and Tribal Implementation Plan format to be used in developing and submitting the implementation plan for review.

PROGRAM REPORTING AND REQUIREMENTS

10. Grantees must track and report on LIHWAP program activities under this award separately from LIHEAP. The grantee must report annually on the following data elements, using an OMB-approved reporting format to be provided by OCS:
- a. the amount, cost, and type of water assistance provided for households eligible for assistance under this award;
 - b. the type of water assistance used by various income groups;

- c. the number and income levels of households assisted by this award;
 - d. the number of households that received such assistance and include one or more individuals who are 60 years or older, include a household member with a disability, or include young children (ages 5 and younger);
 - e. the impact of each grantee's LIHWAP program on recipient and eligible households (e.g., amount of assistance to each household, and whether assistance restored water service or prevented shutoff); and
 - f. administrative information regarding local providers (if applicable), agreements with water utilities, recommendations, accomplishments, unmet needs and lessons learned.
11. The following are the program requirements, consistent with instructions in [P.L. 116-260, Section 533](#) and consistent with existing program requirements for Low-Income Home Energy Assistance Program (LIHEAP) and other closely related programs:
- a. Federal funds awarded under this grant shall be used as part of an overall emergency effort to prevent, prepare for, and respond to the coronavirus, with the public health focus of ensuring that low-income households have access to safe and clean drinking water and wastewater services.
 - b. Funds will be used to provide assistance to low-income households—particularly those with the lowest incomes—that pay a high proportion of household income for drinking water and wastewater services. Assistance to households will be accomplished by providing funds to owners or operators of public water systems or treatment works to reduce arrearages of and rates charged to such households for such services. Grantees may use LIHWAP funding to cover arrearages arising at any time, including prior to this award.
 - c. Grantees shall, in carrying out programs funded with this grant, as appropriate and to the extent practicable, use existing processes, procedures, policies, and systems in place to provide assistance to low-income households, including by using existing programs and program announcements, application and approval processes.
 - i. Grant resources may be used to make payments only with respect to households in which one or more individuals are receiving the following:
 1. assistance under the State program funded under part A of title IV of the Social Security Act;
 2. supplemental security income payments under title XVI of the Social Security Act;
 3. food stamps under the Food Stamp Act of 1977;
 4. payments under section 415, 521, 541, or 542 of title 38, United States Code, or under section 306 of the Veterans' and Survivors' Pension Improvement Act of 1978; or
 5. payments under the Low Income Home Energy Assistance Program (LIHEAP);
or
 - ii. households with incomes that do not exceed the greater of the following:
 1. an amount equal to 150 percent of the poverty level for such state; or
 2. an amount equal to 60 percent of the state median income;
 3. except that a state, territory, or tribe may not exclude a household from eligibility in a fiscal year solely on the basis of household income if such income is less than 110 percent of the poverty level for the state; but, the state, territory, or tribe may give priority to those households with the highest home water costs or needs in relation to household income.
 - d. The grantee will establish criteria and procedures for determining income eligibility comparable to established procedures and requirements for LIHEAP. The grantee will conduct outreach activities designed to ensure that eligible households, especially those with the lowest incomes,

- that pay a high proportion of household income for drinking water and wastewater services, are made aware of the assistance available under this title and any similar assistance available under the Community Services Block Grant program or through other emergency relief such as the [Pandemic Emergency Assistance Fund](#) and the U.S. Department of Treasury's [Emergency Rental Assistance Program](#).
- e. The grantee will coordinate its activities under this title with similar and related programs administered by the Federal Government and such state, territory, or tribe, particularly low-income utility support programs such as LIHEAP, the Community Services Block Grant (CSBG), Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), the Social Service Block Grant, and the [Emergency Rental Assistance Program](#).
 - f. The grantee will provide, in a timely manner, that the highest level of assistance will be furnished to those households that have the lowest incomes and the highest water costs or needs in relation to income, taking into account family size, except that the state, territory, or tribe may not differentiate in implementing this section between the households described in condition 11(c)(i) and 11(c)(ii) (above).
 - g. The grantee will establish policies, procedures, and benefit levels on behalf of households that prioritize continuity of water services, including prevention of disconnection and restoration water services to households for which water services were previously disconnected.
 - h. The grantee will provide funds to owners or operators of public water systems or treatment works ("owners or operators") to reduce arrearages of and rates charged to eligible households for such services. For all payments to owners or operators on behalf of individual households, the grantee must establish procedures to:
 - i. notify, or require the owner or operator to notify, each participating household of the amount of assistance paid on its behalf;
 - ii. ensure that the owner or operator will charge the eligible household, in the normal billing process, the difference between the actual amount due and the amount of the payment made by the LIHWAP grant;
 - iii. ensure that any agreement the grantee enters into with an owner or operator under this paragraph will contain provisions to ensure that no household receiving assistance under this grant will be treated adversely because of such assistance under applicable provisions of state, territorial or tribal law or public regulatory requirements;
 - iv. ensure that the provision of payments to the owner or operator remains at the option of the grantee, in consultation with local subgrantees; and
 - v. ensure that the owner or operator provides written reconciliation and confirmation on a regular basis that benefits have been credited appropriately to households and their services have been restored on a timely basis or disconnection status has been removed if applicable.
 - i. The amount of any home water assistance benefits provided under this program for the benefit of an eligible household shall not be considered income or resources of such household (or any member thereof) for any purpose under any State, Territorial, or Tribal law, including any law relating to taxation, public assistance, or welfare programs.
 - j. The grantee will not exclude income-eligible households (described above in condition 11(c)(ii)) from receiving home water assistance benefits.
 - k. The grantee will establish procedures to treat owners and renters equitably under the program assistance provided with these grant resources.

- l. The grantee will provide for timely and meaningful public participation in the development of a state, territory or tribe's LIHWAP implementation plan, such as publication and acceptance of comments via the grantee's website.
- m. The grantee will provide an opportunity for a fair administrative hearing to individuals whose claims for assistance under a LIHWAP plan are denied or are not acted upon with reasonable promptness. Administrative hearing opportunities will be comparable to and may utilize existing processes, procedures, and systems currently in place for the state, territory, or tribe's Low Income Home Energy Assistance grant.
- n. The grantee will be responsible for planning and prioritizing funds for households in communities throughout the state with the exception of households within tribal jurisdictions for which OCS has reserved a portion of LIHWAP funds. If the governing organization of any eligible tribal government or organization located within the state declines or is not able to successfully apply for available LIHWAP funds, the state grantee will then be responsible for including eligible households within the tribe's jurisdiction in its outreach and service coverage.
- o. LIHWAP grant funds may not be used by the grantee, or by any other person with which the grantee makes arrangements to carry out the purposes of this grant, for the purchase or improvement of land or the purchase, construction, or permanent improvement of any building or other facility.
- p. The grantee will permit and cooperate with federal investigations undertaken in accordance with the following procedures:
 - i. OCS shall, after adequate notice and an opportunity for a hearing conducted within the affected state, territory, or tribe, withhold funds from any grantee that does not utilize its allotment substantially in accordance with the terms and conditions.
 - ii. OCS shall review and respond in writing in no more than 60 days to matters raised in complaints of a substantial or serious nature that a grantee (or any person with which the grantee makes arrangements to carry out the purposes of the grant) has failed to use funds in accordance with these terms and conditions. Any violation of any one of the terms and conditions that constitutes a disregard of such assurance shall be considered a serious complaint.
 - iii. If OCS determines that there is a pattern of complaints from any state, territory, or tribe during the grant period, OCS shall conduct an investigation of the use of funds received under this award by the grantee in order to ensure compliance with terms and conditions.
 - iv. The HHS Office of the Inspector General (OIG) may conduct an investigation of the use of funds received under this title by a state, territory, or tribe in order to ensure compliance with the provisions of this title.
 - v. In the event of an investigation conducted by OCS, OIG, or another federal entity designated by OCS, the grantee shall make appropriate books, documents, papers, and records available to the Secretary or the Comptroller General of the United States, or any of their duly authorized representatives, for examination, copying, or mechanical reproduction on or off the premises of the appropriate entity upon a reasonable request thereof.
 - vi. In conducting any investigation under the procedures described above, OCS will not request any information not readily available to such state, territory, or tribe, or require that any information be compiled, collected, or transmitted in any new form not already available.

REAL PROPERTY REPORTING

12. Real Property Reports (SF-429s). The SF-429 Real Property forms are not applicable to this program. Purchase, construction, and major renovation are not an allowable activity or expenditure under this grant.

EFFECTIVE PERIOD

13. These program-specific Supplemental Terms and Conditions are effective on the date shown at the bottom of the pages of this document and will remain in effect until updated. They will be updated and reissued only as needed whenever a new program-specific statute, regulation, or other requirement is enacted or whenever any of the applicable existing federal statutes, regulations, policies, procedures, or restrictions are amended, revised, altered, or repealed.

Signature of Governor’s Authorized Official

Name of State/Territory: Virginia

LIHWAP State/Territory Lead Agency: Virginia Department of Social Services

I certify that the LIHWAP State/Territory Lead Agency has reviewed and will abide by the conditions outlined above.

<p>S. Duke Storen</p>	<p>Digitally signed by S. Duke Storen Date: 2021.04.27 13:54:59 -04'00'</p>
--	--

Governor's Authorized Official

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #4

5. Regional Wet Weather Capacity
Commission Adopted Policy

1.0 Purpose and Need

The Regional Wet Weather Capacity Policy supports the identification, understanding, and resolution of sanitary sewer overflows occurring within the Regional Sanitary Sewer System consistent with the Federal Consent Decree, State Consent Order, and Locality Memorandum of Agreement.

2.0 Definitions

Capacity Deficiency: SSO or surcharge condition within 18" of the manhole rim resulting from rainfall-driven wet weather inflow and infiltration and/or high tides and flooding.

Capacity-Weather Related SSO: Overflow caused by a lack of available capacity in the pipe, pump station or downstream infrastructure caused by infiltration and/or inflow due to rainfall, antecedent rainfall, and/or high tides and flooding.

Collection System: A network of pipes, manholes, and pumping stations to convey sewage from the point that individual properties connect to public sewer system. Sewer service laterals on private property are not included.

Flow Acceptance: The process for reviewing and approving proposed connections, or modifications to existing connections, to the sanitary sewer system.

High Priority Project (or HPP): Capital projects identified to satisfy the wet weather capacity requirements of the Federal Consent Decree.

HRSD Service Area: The area of sewer service that is defined through coordination with the localities that HRSD serves. The existing Service Area boundaries can be found on the HRSD website.

Localities: Cities, Counties, and Towns within the HRSD Service Area.

Metro Area: Area encompassing the following localities: Cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; the Counties of Gloucester, Isle of Wight, James City, and York; and the Town of Smithfield.

MOM Program: Management, operations, and maintenance program

Regional Interceptor System: A network of gravity and/or force main pipes owned and operated by HRSD which convey sanitary sewer flow received from locality or HRSD pump stations to the HRSD treatment works.

Regional Sanitary Sewer (SS) System: All the wastewater collection and transmission systems, including all pipes, force mains, gravity lines, pumping stations, pressure reducing stations, manholes and appurtenances thereto, which are owned or operated by the Localities as well as the HRSD SS System. Regional SS System therefore refers to all portions of the individual Locality and HRSD collection and transmission systems and appurtenances thereto. Sewer laterals from buildings are not considered part of the Regional Sanitary Sewer System.

Sanitary Sewer Overflow (or SSO): An overflow, spill, diversion, or release of wastewater from or caused by the Regional Sanitary Sewer System

Small Communities: Localities including but not limited to: the Counties of King William, King and Queen, Middlesex, Surry, Mathews, Northampton, and Accomack; the Towns located within these Counties; and the Lawnes Point development.

Terminal Pump Station: Any pump station that connects to; (1) the regional interceptor system or; (2) to a collection system force main that ties into the regional interceptor system.

3.0 Guiding Principles

HRSD is responsible for ensuring there is adequate capacity in the Regional Interceptor System and treatment works to support current and future development activity within the HRSD Service Area. HRSD is also responsible for adequate wet weather capacity consistent with the 5th Amendment to the Federal Consent Decree entered on February 8th, 2022 and the Locality Memorandum of Agreement (MOA) executed on February 26th, 2014, as amended. Localities in the Metro Area are responsible for implementing approved sanitary sewer MOM Programs consistent with the Locality MOA and in accordance with the State Order by Consent effective December 19th, 2014.

Localities are responsible for defining sewer collection service areas within their communities and for constructing collection systems to convey sanitary waste from individual properties to the Regional Interceptor System. Direct and effective communication and collaboration with the localities regarding development planning, land use, population estimates and other factors that have the potential

to impact regional wastewater infrastructure is required for HRSD to adequately plan and size the Regional Interceptor System and treatment works. HRSD does not subsidize development and growth driven capacity upgrades are independent from wet weather capacity.

To ensure adequate dry weather capacity, HRSD tracks new connections to the sanitary sewer system via the Flow Acceptance process consistent with the HRSD Capacity Assurance and Connection Commission Adopted Policy. The tracking of connections and other relevant data enables HRSD to anticipate and plan for future growth driven capacity upgrades in the HRSD system.

To ensure adequate wet weather capacity, HRSD uses a Regional Hydraulic Model (RHM), meter data, Sanitary Sewer Overflow Reporting System (SSORS), and other data sources to continuously monitor the performance of the regional sewer system. A series of High Priority Projects will be implemented to achieve the required wet weather capacity according to the Federal Consent Decree.

4.0 Level of Service

- 4.1 The Federal Consent Decree specifies a required level of service (LOS) expressed as a reduction in wet weather SSO volume from a baseline modeled 5-year peak flow event. HRSD designs new infrastructure and provides design guidance on Locality infrastructure consistent with achieving this LOS. A series of wet weather capacity projects have been identified to achieve the required reduction in SSO volume and are referred to as High Priority Projects. HRSD will assess the performance of the regional sanitary sewer system during actual wet weather events to inform the need for additional capacity improvements or changes to operational strategy.
- 4.2 The design storm used to generate the 5-year peak flow recurrence (0.80 spatial distribution factor) corresponds to a 5-year, 4-hour duration rainfall recurrence event when plotted against Norfolk Airport NOAA Atlas 14 rainfall recurrence interval (RRI) curves. Comparison of actual wet weather event flows to the model's generated 5-year peak flow is not practicable as flow meter data is not universally available throughout the system. Therefore, determination of capacity deficiencies will be measured by using a 5-year RRI as a logical surrogate for the 5-year peak flow recurrence.

4.3 The rainfall data will be evaluated from one or more appropriate gauges with valid data as determined by HRSD and consistent with HRSD Post-Storm Analyses methods. Additional data sources including but not limited to flow, tide, storm surge, and groundwater level may also be considered when evaluating individual events.

4.4 Locality infrastructure not identified for capacity enhancements as part of a High Priority Project (HPP) or other Capital Improvement Program (CIP) project that experiences verifiable wet weather capacity deficiencies during events up to a 5-year RRI will be evaluated for capacity enhancements according to this policy.

5.0 Area of Influence

5.1 HRSD will develop and maintain Area of Influence (AOI) maps to expedite the evaluation of reported SSOs. The AOI maps display the areas of the regional sanitary sewer system that are expected to benefit from enhanced wet weather capacity following implementation of HPPs or other CIP projects. The projects associated with these maps represent effective investments in regional wet weather capacity as they are informed by modeled and observed conditions. A wet weather capacity deficiency reported within an AOI does not require further evaluation. AOI maps are reviewed for concurrence with each impacted locality and will be updated periodically. Influenced areas will be removed from the AOI maps following completion of the corresponding project.

6.0 Procedures

6.1 The Locality shall promptly notify HRSD of any capacity concerns resulting from wet weather events. All available corroborating data including but not limited to high water alarms, pump operating data, and physical observations should be provided with the notification. SSO events must be reported in the Hampton Roads Planning District Commission's Sanitary Sewer Overflow Reporting System (SSORS) by the Locality.

6.2 HRSD maintains mapping of all Locality wet weather capacity related SSOs reported in SSORS.

6.3 Evaluation Criteria

All reported locality wet weather capacity deficiencies will be screened according to the following:

- Did the capacity deficiency occur during conditions greater than the 5-year RRI?
- Is the capacity deficiency within a designated HPP Area of Influence?
- Is the capacity deficiency within a designated CIP Area of Influence?

An affirmative answer to any one or more of these criteria will end the evaluation process and any SSO will be recorded in the HRSD Geographic Information System (GIS). A capacity deficiency without an affirmative answer to one of the three questions above will trigger additional evaluations and creation of an HRSD Action Plan.

6.4 HRSD will use Action Plans to track progress toward a resolution of Locality wet weather capacity related SSOs. Action Plans provide increased awareness of observed capacity deficiencies while allowing flexibility in determining the optimal solution. The Action Plan process will be styled on HRSD's SSO Response Plan approach which has successfully developed, tracked, and resolved Action Plans on HRSD's regional interceptor system assets. Action Plans will be developed in coordination with the Localities.

6.5 Prioritization of Action Plan resolution will be informed by, among other factors, frequency of capacity related SSO recurrences, proximity to drinking water supply, other sensitive areas, affordability, and complexity of remediation.

7.0 Locality Obligations

7.1 Localities shall maintain collection systems in good order through implementation of their approved MOM programs, including the repair of significant defects and elimination of excessive inflow/infiltration as required in the State Order by Consent.

7.2 Pumps, appurtenances, and pumping operations must be maintained in satisfactory condition capable of providing reliable capacity comparable to the information submitted for the RHM including any permanently mounted bypass pumps. SSOs stemming from inadequate maintenance exacerbated by wet weather will not be addressed under this policy.

7.3 Localities agree to provide regular RHM data updates in accordance with the MOA. Flow parameter and infrastructure updates are essential to maintain an accurate understanding of capacity in the regional sanitary sewer system and to develop cost effective solutions.

7.4 Localities are subject to the HRSD Capacity Assurance and Connection Commission Adopted Policy. The process allows HRSD to ensure adequate capacity in the regional interceptor system and treatment works to support current and future development activity within the HRSD Service Area. New development-driven flows must be discretely quantified to accurately differentiate from any wet weather capacity limitations. Localities which are penalized by regulatory authorities for wet weather capacity related SSOs up to the approved level of service may seek reimbursement from HRSD consistent with this policy.

8.0 Solutions

8.1 Solutions shall be developed to address the capacity deficiency with consideration of potential impacts both upstream and downstream. HRSD will be responsible to implement the solution which may include capital or operational improvements to the Regional Sanitary Sewer System.

8.2 HRSD is responsible for the implementation of the solutions and will coordinate as necessary when Locality assets are identified for improvements. Localities may elect to administer any improvements on their own infrastructure.

COMMISSION ADOPTED POLICY
Regional Wet Weather Capacity



Adopted: TBD

Revised: N/A

Page 7 of 7

9.0 Responsibility and Authority

The Planning and Analysis Division (PAD) of the Engineering Department shall review and evaluate claims applicable to this policy. Any Locality aggrieved by a finding of the PAD may appeal such findings to the General Manager within 30 days of receipt of the PAD's written determination.

The Planning and Analysis Division of the Engineering Department shall be responsible for regular reviews and recommended updates to this policy.

Approved:

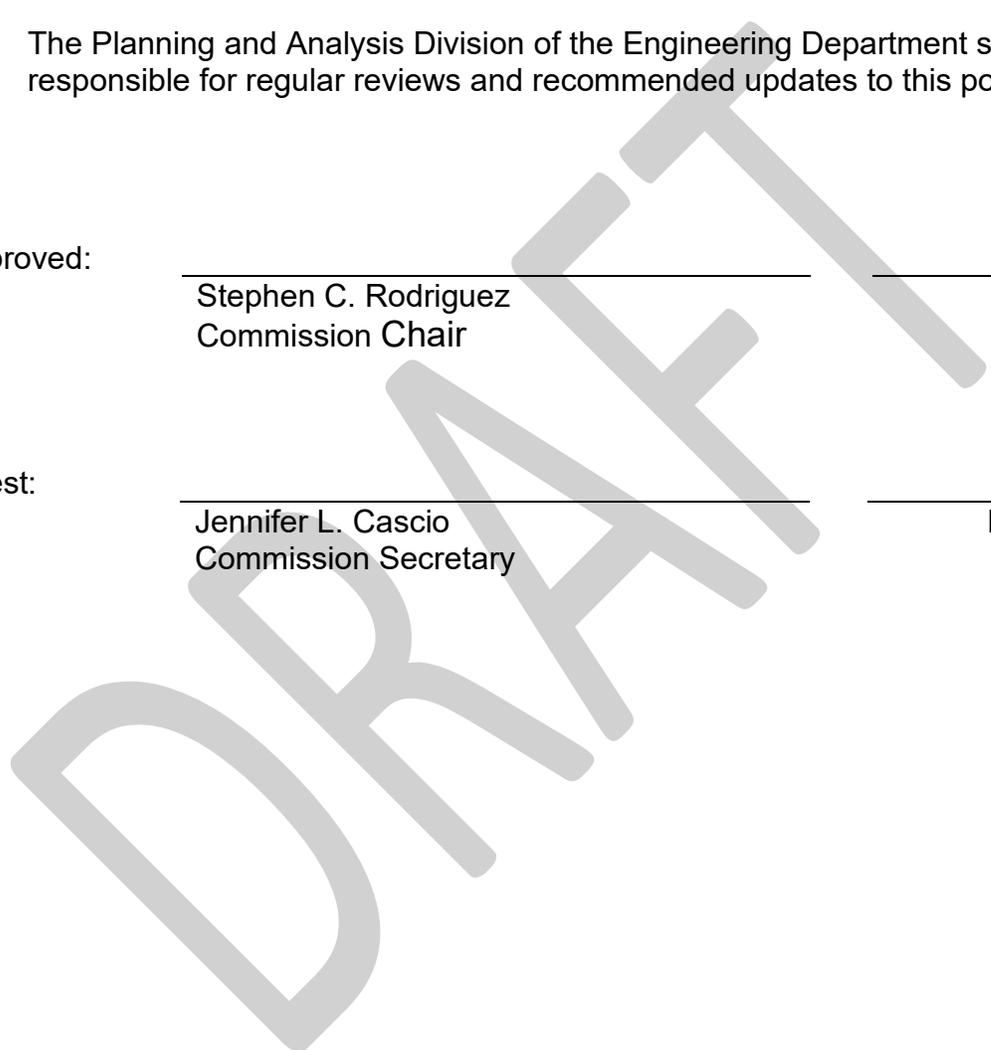
Stephen C. Rodriguez
Commission Chair

Date

Attest:

Jennifer L. Cascio
Commission Secretary

Date





Regional Wet Weather Capacity Commission Adopted Policy

October 25, 2022

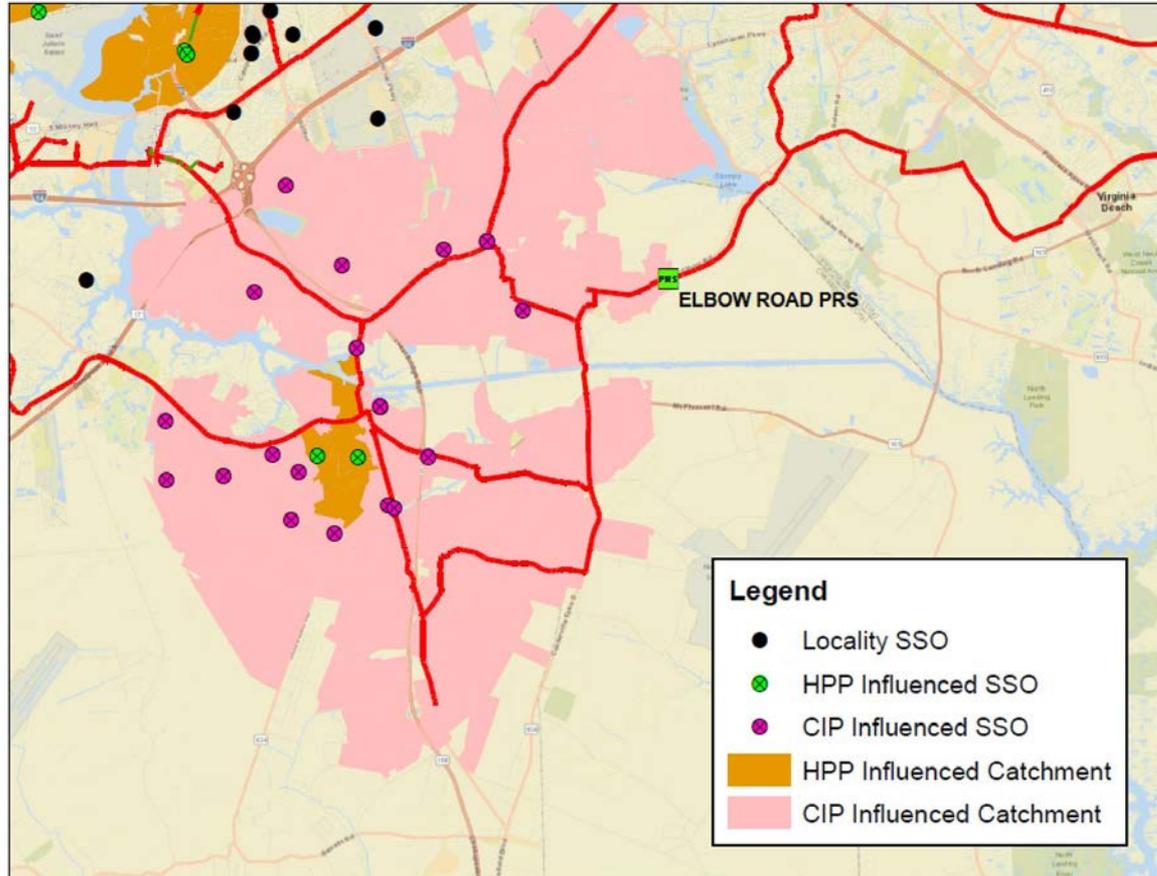
- *5th Modification to CD* *February 8, 2022*
- *Capacity Team* *April 28, 2022*
- *Director of Utilities* *May 4, 2022*
- *Locality Workshops* *Ongoing*
- *DEQ Briefing* *July 5, 2022*
- *HRSD QST** *August 25, 2022*
- *Director of Utilities* *October 5, 2022*
 - *Approved by Roll Call Vote*
- **HRSD Commission** **October 25, 2022**

- This policy supports the identification, understanding, and resolution of sanitary sewer overflows occurring within the regional sanitary sewer system consistent with the Federal Consent Decree (CD), State Consent Order (CO), and Locality Memorandum of Agreement (MOA).
- Develop a consistent **“coordinated regional approach to providing and maintaining regional wet weather capacity”**

- HRSD responsible for regional wet weather capacity (up to Level of Service (LOS)/consistent with Integrated Plan)
- Localities adhere to Consent Order Requirements
 - Maintenance, Operations and Management (MOM) programs, significant defects, blockages, etc.
- HRSD does not subsidize development. Ensuring adequate wet-weather capacity is separate from growth driven upgrades.

- Did the Sanitary Sewer Overflow (SSO) occur during conditions $>$ LOS?
 - If yes, then no further action.
- Will the capacity deficiency see improvement as the result of a planned project?
 - If yes, then wait until implementation.

Example Area of Influence



- HRSD will determine solution with Locality Input
- Range of Solutions
 - Operational Strategy
 - Inflow & Infiltration (I&I) Abatement
 - Pump Station Upgrade
 - Regional Upgrade

- Review proposed Regional Wet Weather Capacity Policy substantially as presented. Provide staff with any comments/changes by November 10.
- Policy to be presented at next Commission Meeting for approval.

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #5

6. Safety Program Briefing



Williamsburg Plant Accident – Summary and Lessons Learned

October 25, 2022

Williamsburg Accident - Summary

- Accident: July 6, 2022
 - The plant staff rigged the Genie Z30-N20 Articulated Boom Lift
 - All of the lifting straps were inspected as well as the overhead crane
 - Two straps were used to lift the boom lift
 - Third strap was attached to a come along to side lift the load
 - Strap w/come along was tethered to a concrete beam



- Lifting the Boom
 - Staff first tested the lifted load by lifting the boom lift off the ground a few feet
 - Test went well
 - Staff lifted the load to the second floor of the Dewatering Building and then stopped to get the lift in position and attach the come along.

Williamsburg Accident - Summary

- Incident:
 - While an employee was attaching the come along, one of the lifting straps broke, then the second strap broke which left the load on the come along. The boom fell to the first floor. The hook on the come along bent and ricocheted hitting an employee in their arm and another employee in their knee.



Williamsburg Accident – Cause

- Boom Lift = 14,169 lbs.
- Straps
 - Two straps used to lift the boom = 10,600 lbs. each
 - U-shaped basket configuration at 90 degrees = 10,600 lbs. each
 - But the configuration used when lifting the boom was not a U-shaped basket formation.
 - 45-degree basket formation = 7400 lbs. each



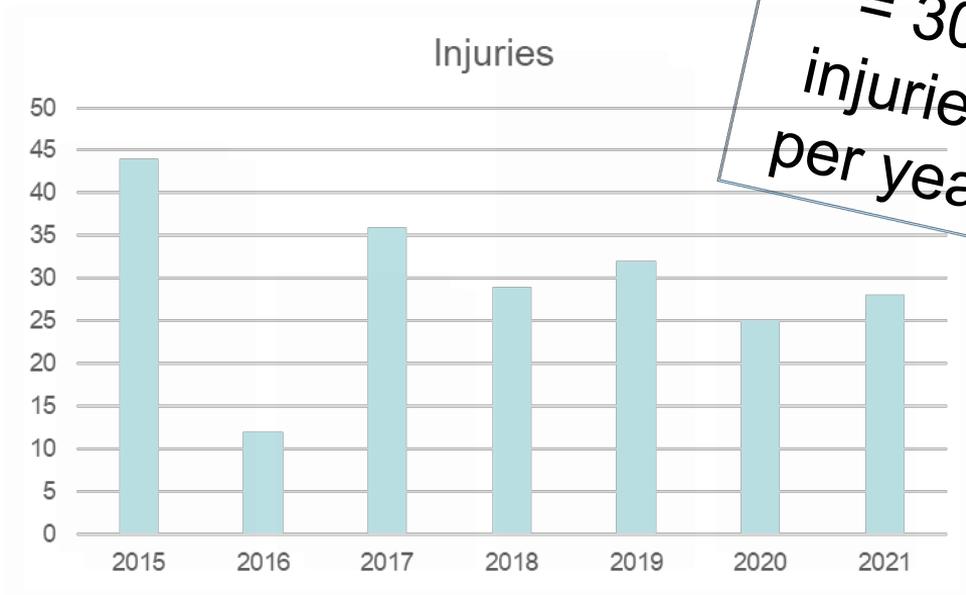
Virginia Occupational Safety and Health (VOSH) Findings

- HRSD received a preliminary report from VOSH identifying the hazards found during the investigation and plant staff has corrected the hazards.
- HRSD is currently waiting for the final citations to be issued.
- Safety will present to all work centers on the lessons learned and corrective actions of the accident. (ex. Rigging configuration of slings)

- Is this type of accident/injury normal at HRSD?
 - No
- Do we have accidents/injuries on a regular basis at HRSD?
 - Yes, but minor injuries (back/knee/shoulder strains, lacerations/contusions, insect bites, sewage exposure)

Summary of Accidents at HRSD

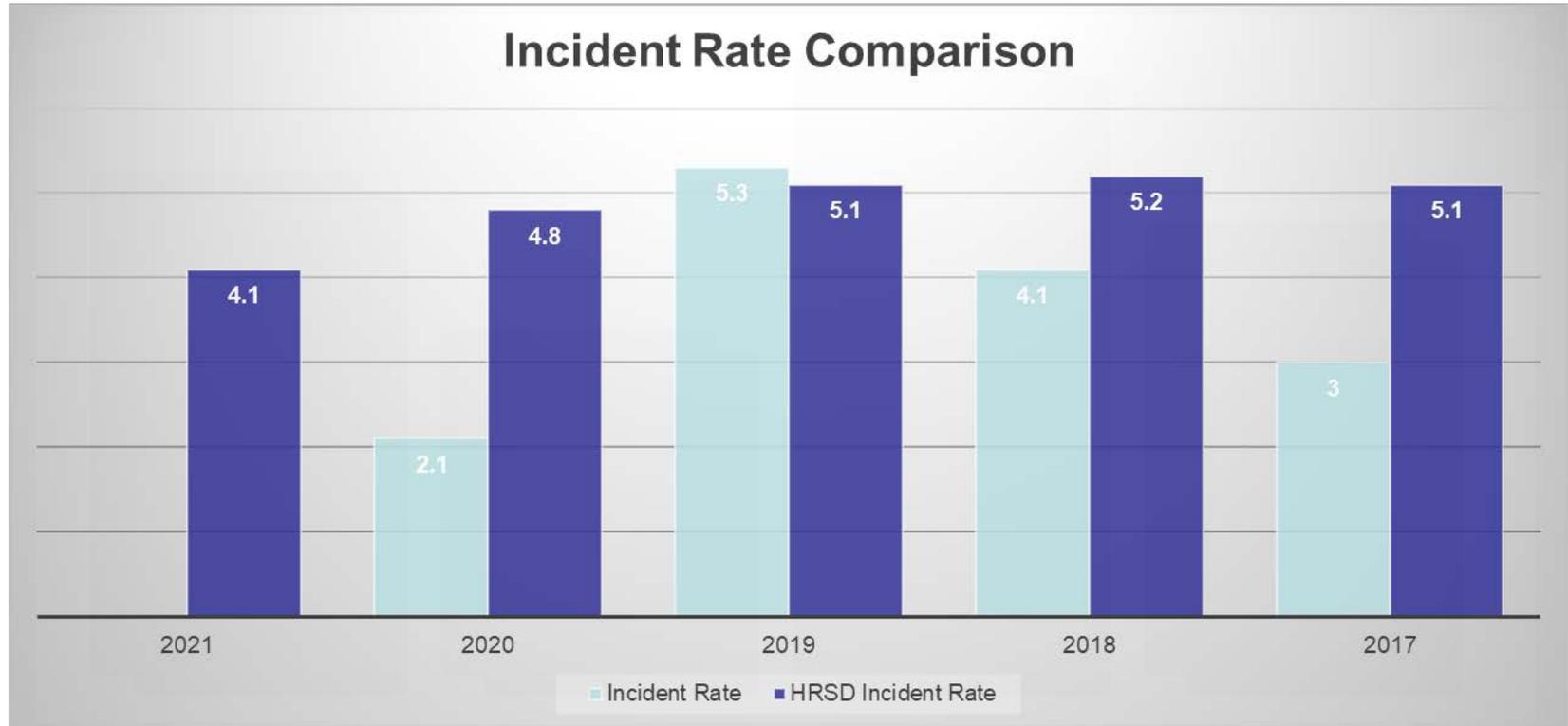
- HRSD injuries in the last seven years:
 - 2015: 44 injuries
 - 2016: 12 injuries
 - 2017: 36 injuries
 - 2018: 29 injuries
 - 2019: 32 injuries
 - 2020: 25 injuries
 - 2021: 28 injuries



Average
= 30
injuries
per year

- Incident Rate
 - Metric used to compare your company's safety performance against a national or state average for the same industry.
 - Incident Rate Formula:
 - $(\text{the number of incidents in a year} \times 200,000) / \text{the total number of hours worked by all team members in a year}$
 - *200,000 = 100 employees working 40 hours per week, 50 weeks per year

Summary of Accidents – Incident Rate



*Incident Rates provided by U.S. Bureau of Labor Statistics

- In the last seven years, HRSD has had two severe injuries:
 - November 2015
 - Employee's fingertip was amputated due to improper lockout/tagout procedures
 - June 2017
 - Compound fracture to employee's finger due to a 6" hose being dropped on their finger

- Yes, accidents/injuries do happen at HRSD, but -
 - HRSD has a:
 - Solid Safety Program: Safety training, Quarterly Safety Inspections, Safety Recognition Program
 - Strong Safety Culture: HRSD pushes safety, employees respect and share a sense of duty when it comes to safety
 - We will learn from this incident and make changes and improvements to strengthen our Safety Program even more!

-
-
- Questions?

Williamsburg Accident - Summary

- Problem:
 - The plant was having problems in the Dewatering Building
 - Problem: High H₂S (Hydrogen Sulfide) Levels – 30/40 ppm
 - Problem: Ventilation – fans not working
 - Cause: Fiberglass duct work was leaking due to Centrate
 - Centrate – Once the solids are removed from the sludge, the solids go to the Incinerator and the left-over water is called Centrate.
 - Williamsburg's centrate is very acidic.

Williamsburg Accident - Pictures

- Pictures of centrate leaking from duct work:



- Solution:
 - Due to the safety issue in the Dewatering Building, the duct work needed to be repaired.
 - The plant hired a contractor to seal up the leaks in the duct work.
 - Contractor: Corrosion Services of Virginia

- Contractor needed to work off the ground in order to perform the work.
 - Scaffold System was not the preferred method due to the contractor having to seal three different locations.
 - Plant decided to rent a boom lift for the contractor to use
 - Make the job easier
 - Faster

- Work was on the 2nd Floor of the Dewatering Building
 - Plant would need to rig and lift the articulating boom lift to the second floor of the Dewatering Building using the overhead crane on the 4th Floor.
 - Overhead crane is the only option to lift equipment in this building.

- Picture of Overhead Bridge Crane:



- The boom lift was being lifted to the second floor of the Dewatering Building.



Williamsburg Accident – VOSH Findings

- The following hazards were identified and documented during the VOSH investigation:
 - Fall protection not donned within the hoist area while the guard rail system was removed.
 - The uncovered floor holes in the stairwells.
 - The pendant control box for the overhead crane was found illegible at the time of the inspection.
 - Oil/grease was covering the operational words (ex. up, down)
 - Failure to provide protection from sharp edges for the slings during the rigging operations.

- The following hazards were identified and documented during the VOSH investigation (cont.):
 - Not having a competent person on site to inspect slings and fastenings and attachments before and during rigging/hoisting.

- Corrective Actions:
 - “Fall protection not donned within the hoist area while the guardrail system was removed.”
 - The plant has installed signage stating “Fall Protection is required when guardrails are removed”
 - HRSD’s Fall Protection Program to address fall protection requirements when guardrails are removed.

Williamsburg Accident - Pictures

- When guardrail system is removed, employees must be in fall protection and tied off to an approved anchor point.



- Corrective Actions:
 - “The uncovered floor holes in the stairwells”
 - The plant immediately installed a cover on the 2 in hole the day of the investigation.



- Corrective Actions:
 - “The pendent control box for the overhead crane was illegible at the time of the inspection.”
 - Plant staff immediately cleaned the oil and grease off the pendent control box during the investigation, so the operational words were legible.

Williamsburg Accident - Pictures

- Picture of the illegible pendent control box:



- Corrective Actions:
 - “Failure to provide protection from sharp edges for the slings during the rigging operations.”
 - The plant has replaced all the lifting straps on the plant site with new slings.
 - The plant has lifting pads to place around the lifting straps for protection from sharp edges.

Williamsburg Accident - Pictures

- The plant has purchased all new lifting straps and shackles. The plant also has lifting pads to be used to protect the straps from sharp edges.



- Corrective Actions:
 - “Not having a competent person on site to inspect slings and fastenings and attachments and during rigging/hoisting.”
 - The plant has scheduled Competent Rigging/Hoisting Training with J Henry Holland so all employees will be considered “trained and certified”.
 - Completed on October 14, 2022
 - HRSD Safety Division trains employees on HRSD Safe Work Practices on Rigging/Hoisting and Overhead Cranes

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #6

8. Jefferson Avenue Interceptor Force Main Replacement Phase III
Additional Appropriation, Contract Award (>\$200,000), Task Order

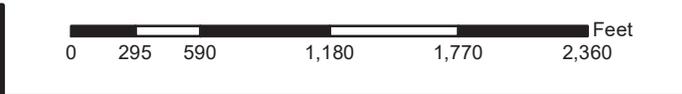


JRO11730

- 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



JRO 11730

Jefferson Avenue Interceptor Force Main Replacement Phase III

CIP Location

HRSD Commission Meeting Minutes
October 25, 2022

Attachment #7

10. Disposition of Real Property
609 Canal Drive, Chesapeake, VA

PROPERTY CONVEYANCE AGREEMENT

This Property Conveyance Agreement (hereinafter "*Agreement*") is made this day of October 2022, between **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, owner of record of the Property sold herein (the "*Seller*", whether one or more), and **PERRY, MARK ANTHONY and PERRY, REBECCA LEE**, whose address is 3329 Head River Road, Virginia Beach, VA 23457, (the "*Purchaser*", whether one or more).

WITNESSETH:

WHEREAS PURCHASER desires to exercise its option to repurchase certain property identified as 609 Canal Drive, Chesapeake, VA 23323 pursuant to item 13 on a certain Purchase and Sale Agreement dated September 6th, 2017, approximately 1.02 acres, the "Property" (attached as Exhibit "A").

The Purchaser and Seller agree to the following:

- A. Purchaser will pay Seller in the amount of **\$50,000.00 (fifty thousand dollars and)/100 cents**, for Seller owned property located at 609 Canal Drive, Chesapeake, Virginia.
- B. Seller will convey fee simple title to 609 Canal Drive, Chesapeake, Virginia to Purchaser (1.02 acres) and assign all its rights, title, and interest in their entirety.
- C. The following special provisions shall apply to this Contract:
The parties acknowledge that Seller has reserved unto itself that certain easement entitled "30' H.R.S.D. PERMANENT UTILITY EASEMENT, AREA 7,880 S.F. /0.181 ACRE" as shown on the attached plat entitled: "PLAT SHOWING 30' PERMANENT UTILITY EASEMENT TO BE RETAINED BY H.R.S.D. AND LOT 36 TO BE ACQUIRED BY REBECCA PERRY, CHESAPEAKE, VA". Said plat dated September 28, 2022, and made by Mark A. Haskett, L.S., copy of which Plat is attached hereto and made a part hereof (attached as Exhibit "B").
- D. **RISK OF LOSS**. All risk of loss or damage to the Property by fire, windstorm, casualty or other cause, or taking by eminent domain, is assumed by Seller until Settlement. In the event of substantial loss or damage to the Property before Settlement, Purchaser shall have the option of either (i) terminating this Contract, or (ii) affirming this Contract with appropriate arrangements being made by Seller to repair the damage, in a manner acceptable to Purchaser, or Seller shall assign to Purchaser all of Seller's rights under any applicable policy or policies of insurance and any condemnation awards and shall pay over to Purchaser any sums received as a result of such loss or damage.

- D. Seller shall pay all expenses of the grantor's tax and pro-rata taxes, if any. Seller shall pay all expenses for deed preparation, if any, for removal of title defects. Seller shall also pay all reasonable settlement expenses in connection with this purchase (but not including title insurance premiums, insurance premiums, discount points, and prepaids). Seller will not pay cost for Purchaser's attorney, if applicable.
- E. At Settlement, Seller shall convey to Purchaser good and marketable fee simple title to the Property by deed of Special Warranty containing English covenants of title, free of all liens, tenancies, defects and encumbrances, except as otherwise indicated herein, and subject only to such restrictions and easements as shall then be of record which do not affect the use of the Property for residential purposes or render the title unmarketable.
- F. Seller has prepared a survey and plat of the property to be recorded with the conveyance deed, attached hereto as Exhibit "B".
- G. The Agreement shall be deemed a Virginia Contract and shall be governed as to all matters whether of validity, interpretations, obligations, performance or otherwise exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws. Regardless of where actually delivered and accepted, this contract shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.
- H. Settlement shall be made at the offices of Jones, Blechman, Woltz & Kelly, P.C., ("Settlement Agent") located at 701 Town Center Drive, Suite 800, Newport News, Virginia 23606 on **November 30, 2022** ("Settlement Date"). The Settlement Date may only be changed with the written consent of the Buyer and the Seller. Possession shall be given on the Settlement Date unless otherwise agreed in writing by the parties.
- I. At Settlement, Seller shall convey to Purchaser good and marketable fee simple title to the Property by deed of General Warranty containing English covenants of title, free of all liens, tenancies, defects and encumbrances, except as otherwise indicated herein, and subject only to such restrictions and easements as shall then be of record which do not affect the use of the Property for residential purposes or render the title unmarketable.
- J. All notices required pursuant to the terms of this Agreement shall be deemed effective when delivered by certified mail, return receipt requested, postage prepaid, to Seller and the Purchaser at the respective addresses herein shown, unless this Agreement is modified in writing to reflect other addresses:

To Seller/HRSD:

Ayanna R. Williams, Real Estate Manager
2389 G Avenue
Newport News, VA 23606
Telephone: (757) 833-1708

With Copy to:

Conway Sheild, III
Jones, Blechman, Woltz & Kelly
701 Town Center Way, #800
Newport News, VA 23606
Telephone: (757) 873-8056

Purchaser:

Rebecca L. Perry
Mark A. Perry
3329 Head River Road
Virginia Beach, VA 23457
Phone:

- K. The parties to this Contract agree that it shall be binding upon them and their respective personal representatives, successors and assigns, and that its provisions shall not survive Settlement and shall be merged into the deed delivered at Settlement. This Contract contains the final agreement between the parties hereto, and they shall not be bound by any terms, conditions, oral statements, warranties, or representations not herein contained. This Contract shall be construed under the laws of the Commonwealth of Virginia. No presumption as to authorship shall apply to this Contract.
- L. GENERAL RELEASE. Seller hereby releases and forever discharges HRSD and HRSD's employees, officials, and agents from any and all claims of any type or nature, to include personal or property, growing out of the activity and property that is the subject of this Contract, for and from any and all past, present and future actions, causes of action, claims, liens, demands, damages (whether to person or to property), costs, expenses, third party actions, suits at law or in equity, and claims or suits for contribution and/or indemnity of whatsoever nature relating in any way to this construction activity. Without limitation, this release extends to any and all claims, known or unknown, arising from or in connection with the matters addressed herein.

WITNESS WHEREOF, the Hampton Roads Sanitation District has caused this AGREEMENT to be signed in its behalf by its General Manager in accordance with authorization granted at its regular meeting held on _____, 2022.

HAMPTON ROADS SANITATION DISTRICT

By _____
Jay Bernas, P.E., General Manager

STATE OF VIRGINIA
CITY OF VIRGINIA BEACH, to-wit:

The foregoing instrument was acknowledged before me this _____ day of _____, 2022, by Jay Bernas, P.E., General Manager, Hampton Roads Sanitation District.

Notary Public

My commission expires: _____
Registration No.: _____

PURCHASER:

Rebecca Lee Perry

STATE OF VIRGINIA
CITY//COUNTY OF _____, to-wit:

The foregoing Agreement was acknowledged before me this ____ day of _____, 2022, by
Rebecca Lee Perry.

Notary Public

My commission expires: _____
Registration No.: _____

PURCHASER:

Mark Anthony Perry

STATE OF VIRGINIA
CITY//COUNTY OF _____, to-wit:

The foregoing Agreement was acknowledged before me this ____ day of _____, 2022, by
Mark Anthony Perry.

Notary Public

My commission expires: _____
Registration No.: _____

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 6th day of September, 2017, by and between **REBECCA L. PERRY**, hereinafter referred to as Seller, and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("HRSD"), Purchaser.

RECITALS

- A. Seller is the owner in fee simple absolute of a certain parcel of property approximately 1.020 acres in area, located at 609 Canal Drive / 613 Canal Drive, in the City of Chesapeake, Virginia, such property being more particularly described in Exhibit A and shown on Exhibit B, both of which are attached to and made a part of this Agreement (the "Property").
- B. HRSD desires to purchase the Property from the Seller for the purpose of the installation of utilities in connection with their Deep Creek IFM Replacement Project.
- C. Seller is willing to sell the Property to HRSD subject to the terms and conditions set forth in this Agreement.
- D. These recitals are incorporated by this reference into this Agreement.

NOW, THEREFORE, in consideration of the purchase price and the mutual promises contained in this Agreement, the parties agree as follows:

- 1. SALE. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called "the Property".
- 2. PURCHASE PRICE. The purchase price (the Purchase Price) for the Property is Two Hundred Thousand Dollars (\$200,000.00), and the Purchase Price shall be paid to the Seller by certified check or wired funds at closing.

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

3. CONVEYANCE.

- a. At the Closing, Seller shall convey title to the Property in fee simple, by general warranty deed, free and clear of any and all liens, mortgages, deeds of trust, security interests, leases, covenants, conditions, restrictions, easements, rights-of-way, licenses, encroachments, judgments or encumbrances of any kind, except for the following permitted exceptions: (a) the lien of real estate taxes not yet due and payable; (b) zoning and building restrictions and other laws, ordinances, and regulations of governmental bodies having jurisdiction over the Property; and (c) matters of record affecting title to the property, as reviewed and approved (or deemed approved) by HRSD in accordance with this Agreement. Except as expressly stated in this Agreement, the Property shall be conveyed in "AS IS" condition.

- b. Title to the Property shall be good and marketable and, if HRSD chooses to obtain title insurance, insurable by a nationally recognized ALTA title insurance company of HRSD's choice at or below normal rates. In the event that a title examination discloses defects of title or other matters unsatisfactory to HRSD, HRSD shall notify Seller in writing (an "Objection Notice"), within 45 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller covenants that it shall cure all monetary encumbrances and all title objections which may be cured by execution of a document requiring the signature of no party other than Seller (including any affidavits which may reasonably be required by the title insurer). Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects, exceptions or other matters referenced in such Objection Response and proceed to Closing hereunder with no reduction of the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD.

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

- c. Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
 - d. Seller agrees to pay proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at settlement. HRSD will pay all other fees charged in connection with preparation and recordation of the deed, including grantor's tax.
 - e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
4. RIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including the cutting of survey lines and putting up markers and driving stubs and stakes, site analysis, engineering studies, core sampling for engineering reports, and locating existing rights of way, easements, and utilities. HRSD will exercise this right of entry in such a way so as to not cause unreasonable damage to the Property. HRSD agrees to indemnify and save harmless the Seller from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property before or after Closing.
5. CONDITIONS.
- a. HRSD's obligations are expressly conditioned upon the waiver or satisfaction of each of the following conditions in the sole determination of HRSD. If any one of the following conditions cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both HRSD and Seller), HRSD may unilaterally terminate this Agreement:
 - i. Receipt of a satisfactory title commitment with all unacceptable title exceptions, encumbrances, and conditions as deemed by HRSD removed or cured at Seller's cost; however, if Seller chooses not to remove or

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

cure any such title exception, HRSD's sole remedy shall be to terminate this Agreement;

- ii. Receipt of a Phase I Environmental Assessment and Report (Phase I Report) conducted and prepared by an environmental engineering and inspection company selected by HRSD at HRSD's expense and such other testing and reports as may be reasonably required by HRSD or recommended in the Phase I Report;
 - iii. Satisfaction by the Seller of all of its obligations under this Agreement.
- b. Seller's obligations are expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to HRSD within the 90 day period. In the event HRSD fails to notify the Seller in writing within such 90 day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and the Seller agrees that the same shall be removed and released as liens on the Property on or before Closing.

6. ENVIRONMENTAL AND RELATED MATTERS.

- a. As a condition precedent to HRSD's obligation to purchase, HRSD, at HRSD's expense, may have a Phase I Environmental Assessment of the Property performed by a qualified environmental consultant (the Consultant) selected by HRSD and reasonably acceptable to Seller, conducted in accordance with standard commercial practice at the time of the assessment. A copy of the Phase I Environmental Assessment will be made available to Seller, together with copies of any supplemental reports or assessments.
- b. If the Consultant recommends soil, water, or structural remediation or further assessment activity after or as a result of performing a Phase I Environmental Assessment or if HRSD otherwise determines, in its reasonable judgment, that further assessment activity (including, but not limited to, a Phase II Environmental Assessment) is desirable, HRSD may at its option:

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

- (i) Terminate this Agreement; or
- (ii) Extend the time for closing for an additional period of sixty (60) days in order to perform any such additional assessment at HRSD's expense; or
- (iii) Waive the environmental defect and proceed to Closing.

In the event HRSD chooses to perform any additional assessment, such as a Phase II, and determines that the results of such assessment are not satisfactory, HRSD may at its option:

- (i) Terminate this Agreement; or
- (ii) Waive the environmental defect and proceed to Closing.

7. REPRESENTATIONS AND WARRANTIES BY SELLER. Seller represents and warrants as of the date of this Agreement and as of the date of Closing that: Seller has the right, title, and authority to enter into this Agreement and to perform its obligations hereunder.

Seller further represents and warrants and shall deliver to HRSD at or prior to the Settlement, an Affidavit prepared by HRSD evidencing the following facts:

- (i) Other than this Agreement, there are no other contracts for sale or options involving the Property now in effect;
- (ii) To the best of Seller's knowledge, no other party has any right, title or interest in the Property;
- (iii) There are no unrecorded leases, options, licenses or easements existing in connection with the property to which the Seller has knowledge;
- (iv) There are no adverse government notifications or proceedings and there is no pending or threatened litigation or any other potentially adverse claims affecting the property to which the Seller has knowledge.
- (v) Foreign Status. Seller is not a foreign corporation, person or entity and is a "United States Corporations, Person or Entity" as such terms is defined in Section 1445 and in Section 7701 (a)(30) of the Internal Revenue Code of 1986, as amended (the "Code") and shall deliver to HRSD at or prior to the Settlement an Affidavit prepared by HRSD evidencing

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

such fact and such other documents as may be required under the Code.

- (vi) From and after the date of this Agreement, Seller shall not transfer any interest in, or grant any easements or enter into any contractual agreement or understanding, written or oral, with respect to the Property or any portion thereof or make any changes at all that require recordation and therefore modifications to title, without the prior written consent of HRSD.

8. **NOTICES.** All notices to the parties hereto will be delivered by hand, via certified mail return receipt requested, or via facsimile and all be deemed effective upon delivery if by hand and upon confirmation of receipt if by other means, to the following address until the address is changed by notice in writing to the other party:

HRSD: Edward G. Henifin, P.E.
General Manager
P.O. Box 5911
Virginia Beach, Virginia 23471-0911

Copy to: William A. Cox, III, Esq.
Janice Pickrell Anderson, Esq.
Kellam, Pickrell, Cox & Anderson, PC
403 Boush Street, Suite 300
Norfolk, VA 23510

Seller: Rebecca Perry
609 Canal Dr. Chesapeake,
VA, 23323

9. **CLOSING.** Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent within 120 days of the Effective Date, unless extended by mutual agreement of the parties. The anticipated date for closing is September 14, 2017.
10. **SURVIVAL.** The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
11. **PRORATIONS.** All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

12. **RISK OF LOSS.** All risk of loss or damage to the Property by fire, windstorm, casualty, or other cause is assumed by Seller until Closing. In the event of substantial loss or damage to the Property before Closing, HRSD will have the option of either:
 - a. Terminating this Agreement, or
 - b. Affirming this Agreement and proceeding to Closing.
13. **FUTURE SALE BY HRSD.** In the event that HRSD shall determine to sell all or a portion of the property for private development within two (2) years of the Settlement Date, it agrees to notify Seller and give Seller first opportunity to purchase the property on such terms as the parties shall mutually agree. Such notice shall be writing addressed in accordance with the provisions of Section 8 herein or such other address provided to HRSD by the Seller and shall provide Seller with at least thirty (30) calendar days to present HRSD with an offer to purchase the property.
14. **BROKERS.** Seller and HRSD both represent and warrant to the other that it has not hired, engaged, or consulted with any broker or agent in regard to this transaction.
15. **CONDEMNATION.** Seller covenants and warrants that Seller has not heretofore received any notice of any condemnation proceeding or other proceeding in the nature of eminent domain in connection with the Property. If prior to Settlement any such proceeding is commenced or any change is made, or proposed to be made, to the current means of ingress and egress to the Property or to the roads or driveways adjoining the Property, or to change such ingress or egress or to change the grade thereof, Seller agrees immediately to notify HRSD thereof. HRSD then shall have the right, at HRSD's option, to terminate this Agreement by giving written notice to Seller within thirty (30) days after receipt of such notice.
16. **DEFAULT AND REMEDIES.**
 - a. If the sale and purchase contemplated by this Agreement is not consummated because of Seller's or HRSD's default, the non-defaulting party may elect to:
 - i Terminate this Agreement;
 - ii Seek and obtain specific performance of this Agreement; or

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

- iii Pursue all other rights or remedies available at law or in equity, including an action for damages.
 - b. If either Seller or HRSD defaults under this Agreement, the defaulting party will be liable for any expenses incurred by the non-defaulting party in connection with the enforcement of its rights under this Agreement.
 - c. These remedies are cumulative and non-exclusive and may be pursued at the option of the non-defaulting party without a requirement of election of remedies.
- 17. **ENTIRE AGREEMENT.** This Agreement contains the entire agreement of the parties and will supersede the terms and conditions of all prior written and oral agreements, if any, concerning the matters it covers. The parties acknowledge there are no oral agreements, understandings, representations, or warranties that supplement or explain the terms and conditions contained in this Agreement. This Agreement may not be modified except by an agreement in writing signed by the parties.
- 18. **WAIVER.** Failure to insist upon strict compliance with any of the terms, covenants, or conditions hereof will not be deemed a waiver of the term, covenant, or condition, nor will any waiver or relinquishment of any right or power at any one time or more times be deemed a waiver or relinquishment of the right or power at any other time or times.
- 19. **SEVERABILITY.** This Agreement will be construed in its entirety and will not be divisible, except that the invalidity or unenforceability of any provision hereof will in no way affect the validity or enforceability of any other provision.
- 20. **CAPTIONS.** Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
- 21. **GOVERNING LAW.** This Agreement is to be construed in accordance with the laws of the Commonwealth of Virginia.
- 22. **CHOICE OF FORUM/JURISDICTION.** The parties hereby consent to the jurisdiction and venue of the courts of the Commonwealth of Virginia, specifically to the courts of the City of Chesapeake, Virginia, and to the jurisdiction and venue of the United States District Court for the Eastern District of Virginia in connection with any action, suit, or proceeding arising out of or relating to this Agreement and further waive and agree not to assert in any action, suit, or proceeding brought in the City of

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

Chesapeake, Virginia, or the Eastern District of Virginia that the parties are not personally subject to the jurisdiction of these courts, that the action, suit, or proceeding is brought in an inconvenient forum or that venue is improper.

23. WAIVER OF TRIAL BY JURY. THE PARTIES WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM BROUGHT BY EITHER PARTY AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ANY RELATED AGREEMENTS OR INSTRUMENTS AND THE ENFORCEMENT THEREOF, INCLUDING ANY CLAIM OF INJURY OR DAMAGE TO ANY PARTY OR THE PROPERTY OF ANY PARTY.
24. SUCCESSOR/ASSIGNMENT. This Agreement will be binding upon and the obligations and benefits hereof will accrue to the parties hereto, their heirs, personal representatives, successors, and assigns. This Agreement is assignable by HRSD only upon written consent of the Seller, which consent will not be unreasonably withheld. If this Agreement is assigned by HRSD with Seller's consent, HRSD will nevertheless remain fully liable for its performance.
25. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
26. FACSIMILE SIGNATURES. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.

**THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGES TO FOLLOW**

Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

SELLER:

Authentisign

Rebecca Perry

09/06/2017

Name: Rebecca L. Perry

COMMONWEALTH OF VIRGINIA

CITY OF Virginia Beach, to-wit:

I, Ayanna Williams, a Notary Public in and for the City of VA Beach, in the Commonwealth of Virginia, whose term of office expires on Jan. 31, 2021, do hereby certify that Rebecca L. Perry, Seller herein, whose name is signed to the foregoing Purchase and Sale Agreement, has acknowledged the same before me in my City and State aforesaid.

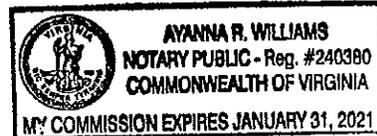
Given under my hand this 7th day of September, 2017.

Ayanna R. Williams

Notary Public

My Commission Expires: Jan. 31, 2021

Registration Number: 240380



Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

IN WITNESS WHEREOF, the Hampton Roads Sanitation District Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on 8-22-2017, 2017. This Agreement is expressly subject to approval by the HRSD Commission.

HAMPTON ROADS SANITATION DISTRICT

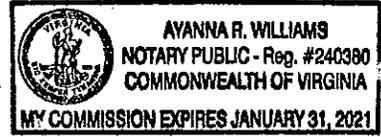
By: 
Edward G. Henifin, P.E.
General Manager

COMMONWEALTH OF VIRGINIA
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Purchase and Sale Agreement was acknowledged before me this 11 day of September, 2017, by Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District.


Notary Public

My Commission Expires: Jan 31, 2021
Registration No.: 4 240380



Purchase and Sale Agreement of 609 Canal Drive, Chesapeake, VA between HRSD and Perry

EXHIBIT A

LEGAL DESCRIPTION

ALL THAT certain lot, piece or parcel of land, with the buildings and improvements thereon, situate, lying and being in the Deep Creek Magisterial District located in Chesapeake, Virginia, known, numbered and designated as Lot No. 36 Southeast Broadmoor as shown on "A Map of Southeast and Southwest Broadmoor Property owned by Jesse J. Parkerson located South of N & W RR and East and West of Gilmerton Road", which is duly of record in the Clerk's Office of the Circuit Court of Chesapeake, Virginia in Map Book 26, at page 18, to which reference is hereby made for a more particular description of said property.

609 Canal Drive
Chesapeake, VA 23323
Parcel No. 0340000001840



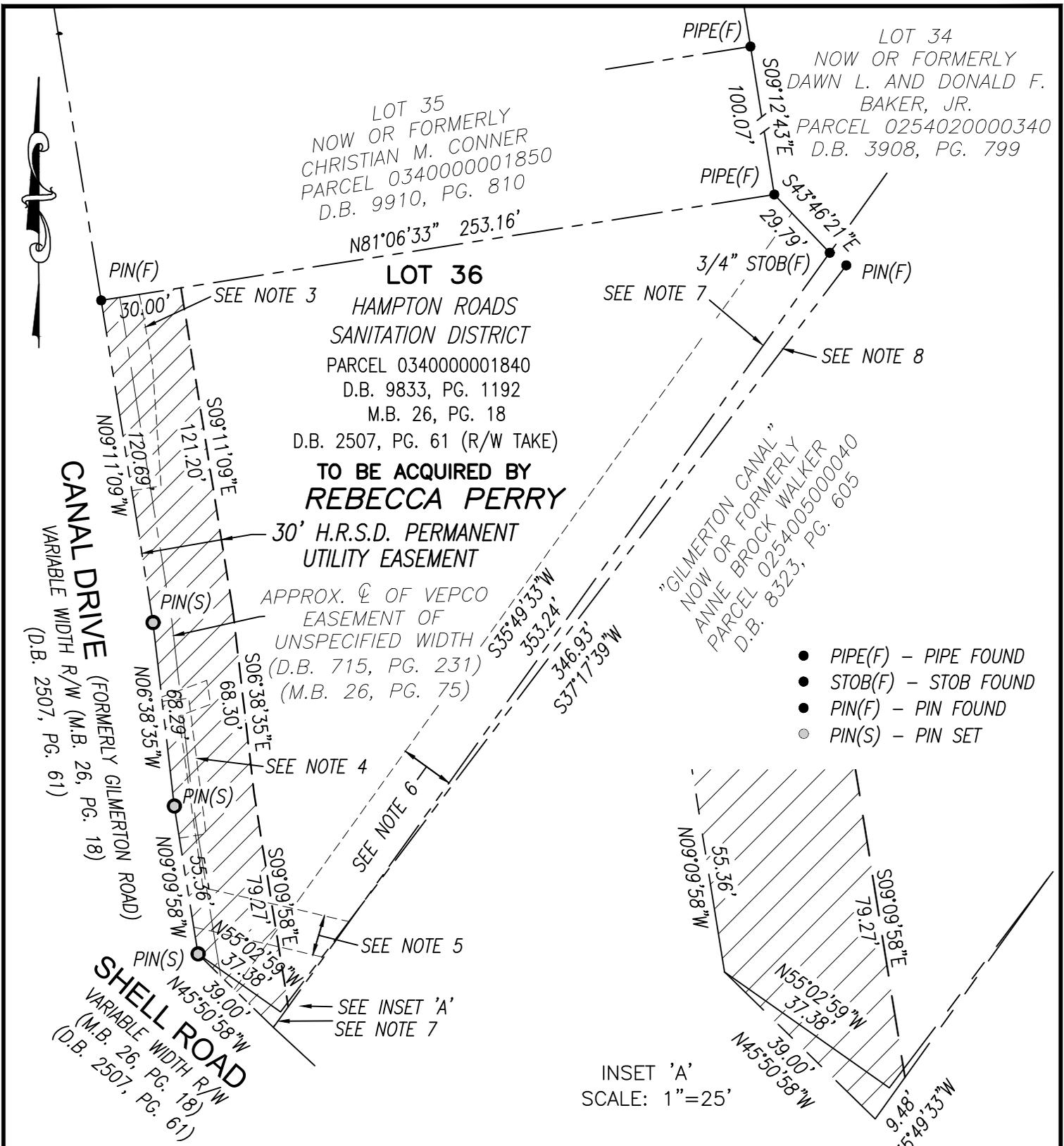
Property QuickSearch from the City of Chesapeake



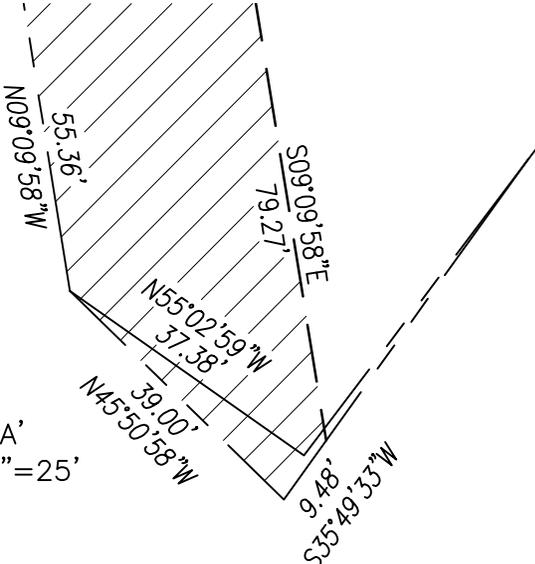
EXHIBIT B



LON: -76.321, LAT: 36.766 (DECIMAL_DEGREES)



- PIPE(F) – PIPE FOUND
- STOB(F) – STOB FOUND
- PIN(F) – PIN FOUND
- PIN(S) – PIN SET



INSET 'A'
SCALE: 1"=25'

DENOTES 30' H.R.S.D. PERMANENT UTILITY EASEMENT
AREA: 7,880 SQ.FT. / 0.181 ACRE

NOTES:

1. THE PURPOSE OF THIS PLAT IS TO SHOW THE LOCATION OF THE 30' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE RETAINED BY HAMPTON ROADS SANITATION DISTRICT AND TO SHOW LOT 36 TO BE ACQUIRED BY REBECCA PERRY.
2. THE MERIDIAN SOURCE OF THIS PLAT IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983 AND IS GPS DERIVED.
3. DRAINAGE EASEMENT PER M.B. 95, PG. 78
4. GUARD RAIL EASEMENT PER D.B. 2573, PG. 257
5. DRAINAGE EASEMENT PER D.B. 2507, PG. 61
6. 20' RIGHT OF WAY EASEMENT FOR BENEFIT OF LOT 34. PER D.B. 2196, PG. 266
7. PROPERTY LINE PER M.B. 26, PG. 18
8. PROPERTY LINE PER D.B. 2507, PG. 61
9. LOT 36 SHOWN IN M.B. 26, PG. 18 DOES NOT FORM A MATHEMATICALLY CLOSED FIGURE.



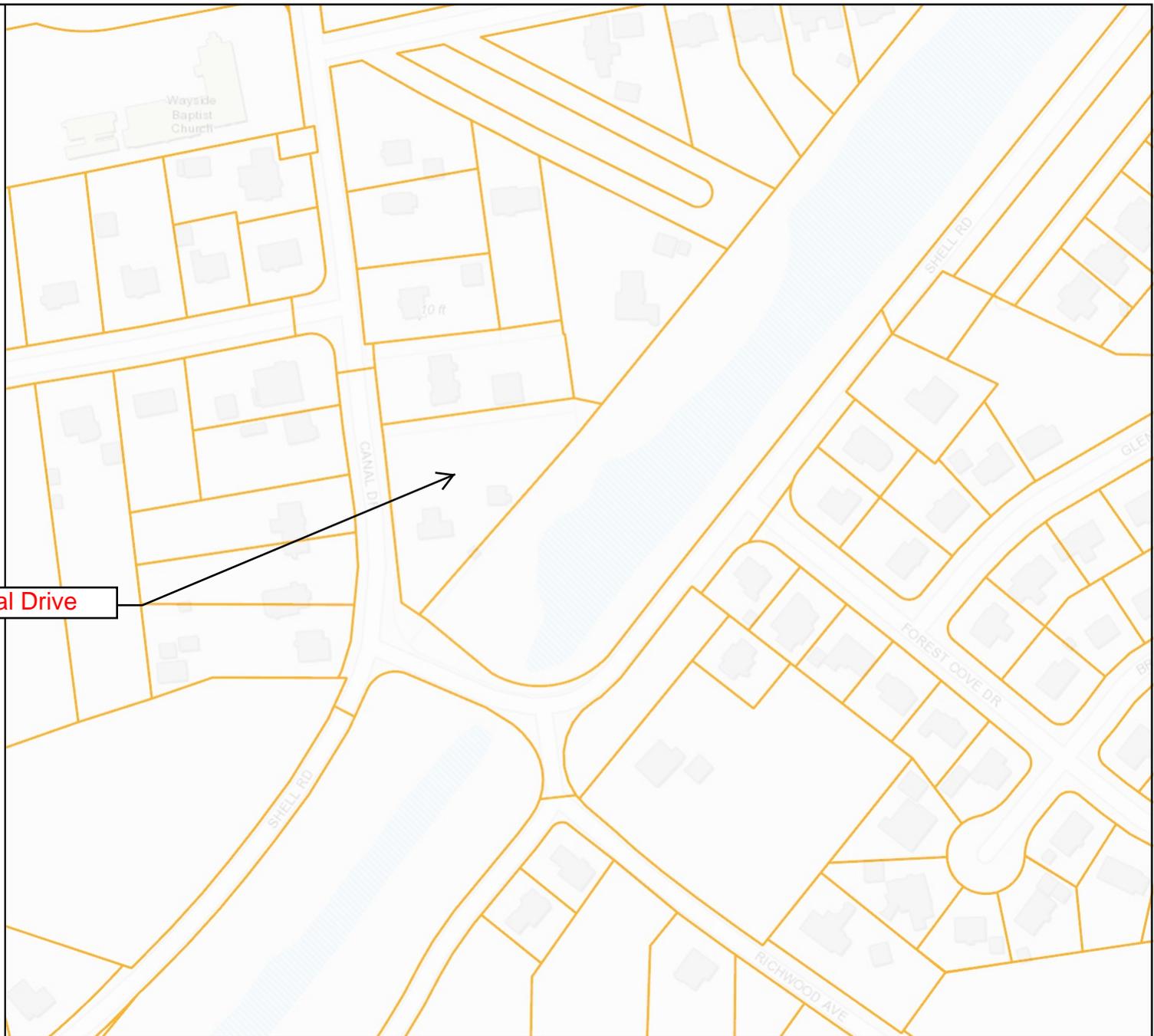
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future[®]
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA. 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)

PLAT SHOWING
30' H.R.S.D. PERMANENT UTILITY EASEMENT
TO BE RETAINED BY H.R.S.D. AND
LOT 36 TO BE ACQUIRED BY REBECCA PERRY
CHESAPEAKE, VA
SCALE: 1" = 50' – SEPTEMBER 28, 2022
JMT PROJ. #17-10162-041
SHEET 1 OF 1
DEEP CREEK INTERCEPTOR FORCE MAIN

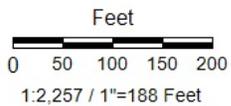
City of Chesapeake, Virginia

Legend

- Parcels
- City Boundary



609 Canal Drive



Title:

Date: 1/19/2022

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and City of Chesapeake is not responsible for its accuracy or how current it may be.

609 Canal Drive, Chesapeake, Virginia



HRSD Commission Meeting Minutes
October 25, 2022

Attachment #8

11. West Point Operations Center Extensometer
Deed of Easement

This Deed is exempt from (i) recordation taxes pursuant to § 58.1-811.A.3. of the Code of Virginia (1950), as amended, and (ii) the payment of Clerk's fees pursuant to §§17.1-266 and 17.1-279(E) of said Code.

Tax Parcel No. 63A2-3-6

Consideration: \$10.00

Actual Value: \$10.00

Prepared by: Office of the Attorney General

DEED OF EASEMENT

This DEED OF EASEMENT (this “**Deed of Easement**”) is made and entered into this 13th day of March 2023, by and between HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia (“**Grantor**”), and the COMMONWEALTH OF VIRGINIA, DEPARTMENT OF ENVIRONMENTAL QUALITY (“**Grantee**”), whose address is 4949-A Cox Road, Glen Allen, VA 23060.

WITNESSETH

That for the sum of Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor grants unto Grantee, its successors and assigns, the (i) temporary, non-exclusive right, privilege, and easement, (the “**Temporary Construction Easement**”) on, over, and under the real property shown as “VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT AREA= 32,538 SQ. FT. OR 0.747 AC.” (the “**Temporary Construction Easement Area**”); and (ii) perpetual, non-exclusive right, privilege, and easement (the “**Facilities Easement**”) on, over, and under the real property shown as “20’ X 20’ PERMANENT EASEMENT TO BE ESTABLISHED AREA= 400 SQ. FT. OR 0.00918 AC.” (the “**Facilities Easement Area**”) (the Temporary Construction Easement and the Facilities Easement are collectively, the “**Easements**”; and the Temporary Construction Easement Area and the Facilities Easement Area are collectively, the “**Easement Areas**”), all as shown and designated on that plat entitled “EXHIBIT SHOWING LOCATION OF 20’ X 20’ PERMANENT EASEMENT & VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ESTABLISHED ON PROPERTY OF HAMPTON ROADS SANITATION DISTRICT FOR COMMONWEALTH OF VIRGINIA, DEPARTMENT OF ENVIRONMENTAL QUALITY,” dated November 30, 2022, prepared by Johnson, Mirmiran & Thompson, and attached hereto as **Exhibit A**. The Easement Areas are part of the same real estate acquired by Grantor by deed dated February 3, 2015, recorded in the Clerk’s Office of the Circuit Court of King William County, Virginia, as Instrument No. 001500401 (the “**Grantor’s Property**”).

1. The Easements are subject to all existing easements, rights-of-way, covenants, encumbrances and restrictions of record.

2. Grantee, its successors and assigns, agents, contractors and employees shall have such rights and privileges as may be necessary for the full enjoyment and use, and for any of the purposes, of the Easements. Without limiting the foregoing:

- A. At no time shall Grantor charge Grantee for the use of the lands of the Grantor or for the privilege of exercising the rights granted herein.
- B. Grantee shall have the right to lay, erect, construct, install, use, operate, inspect, maintain, repair, replace, rebuild, remove, improve, and make such other changes, alterations, additions to or extensions of the extensometer and all equipment, accessories, and appurtenances necessary in connection therewith (the “**Facilities**”) within the Easement Areas as are consistent with the purposes expressed herein. The Temporary Construction Easement shall expire upon completion of the installation of the Facilities and the completion of all of Grantee’s obligations to restore the Temporary Construction Easement Area pursuant to Paragraph 2(C) herein, as determined by Grantor. Upon expiration of the Temporary Construction Easement, Grantee shall restore the Temporary Construction Easement Area nearly to its original condition as practicable. Additionally, upon expiration of the Temporary Construction Easement, all of Grantee’s right, title, and interest shall automatically revert back to Grantor. The Facilities constructed or placed within the Facilities Easement Area shall remain the property of the Grantee.
- C. Grantee shall have the right of ingress to and egress from the Easement Areas over Grantor’s Property as may be necessary to exercise Grantee’s rights herein. To the extent not inconsistent with the construction, maintenance, or operation of the Facilities or the exercise of any right expressed herein, following Grantee’s exercise of such right of ingress and egress over Grantor’s Property and upon completion of any activity by Grantee upon the Easement Areas, Grantee shall restore Grantor’s Property and the Easement Areas as nearly to their original condition as practicable, including, but not limited to, backfilling of trenches, repaving, reseeding or resodding of lands, replacement of Grantor’s property, removal of trash and debris, and removal of any of Grantee’s equipment, accessories or appurtenances not consistent with the construction, maintenance or operation of the Facilities or the exercise of any right expressed herein. Grantee shall maintain the Facilities in such repair as not to endanger or otherwise limit the enjoyment or use of Grantor’s Property.
- D. Grantee shall have the right to alter or remove any structures or obstructions, natural or artificial, and to trim, cut and remove trees, shrubbery or other natural obstructions, on, under, or over the Easement Areas which Grantee deems interferes with or threatens the efficient and safe operation, construction or maintenance of the Facilities. All trees cut by Grantee shall

remain the property of Grantor. All brush, branches, and other debris resulting from any cutting, trimming, or clearing of the Easement Areas shall be removed from Grantor's Property and disposed of by Grantee.

- E. The Facilities Easement shall be perpetual in nature, shall run with the land, and shall be binding upon the parties and their respective successors and permitted assignees.
- F. If Grantee at any time discontinues use of all of the Facilities Easement Area for a period of one (1) year, all of Grantee's rights and interest in the Facilities Easement Area or portion thereof shall immediately terminate and automatically revert to Grantor, its successors and assigns, and Grantee shall at its expense remove the Facilities and restore the Property as quickly and as nearly to its original condition as practicable and in a manner satisfactory to Grantor. In addition, promptly upon written request by Grantor, Grantee shall execute and deliver to Grantor appropriate recordable documentation whereby Grantee quitclaims and releases the Facilities Easement Area to Grantor. This Section shall survive the expiration or termination of this Deed of Easement.
- G. This Deed of Easement shall be governed by, and construed according to, the laws of the Commonwealth, and any legal action against the Commonwealth shall be instituted and maintained only in the state courts of the Commonwealth.

3. Grantor, and its successors and assigns, may use the Easement Areas for any purpose not inconsistent with the rights hereby granted, provided such use does not interfere with the safe and efficient construction, operation or maintenance of the Facilities, and further provided that such use is not inconsistent with any laws, ordinances or codes pertaining to the construction, operation or maintenance of the Facilities or to which Grantor is subject.

4. The parties hereto acknowledge and agree that notwithstanding anything contained in this Deed of Easement to the contrary, so long as the Commonwealth of Virginia (the "**Commonwealth**") is a beneficiary of the Easements, the following provisions shall control over any conflicting provisions hereof:

- A. With respect to tort liability for acts or occurrences with respect to this Deed of Easement, including product liability, the Commonwealth is either: (i) constitutionally immune (or partially immune) from suit, judgment, or liability; (ii) insured; or (iii) covered by a financial plan of risk management that is in the nature of self-insurance, all as determined by applicable laws, government policies and practices.
- B. No equitable, quasi-contractual, or injunctive remedies, other than those specifically authorized by law, may be used or are effective against the

Commonwealth.

- C. Grantor acknowledges that neither Grantee nor the Commonwealth have agreed to provide any indemnification or save harmless agreements running to Grantor. No provision, covenant, or agreement contained in this Deed of Easement shall be deemed, in any manner, to be a waiver of the sovereign immunity of the Commonwealth, or any of its boards, agencies.

5. Grantor represents that it is the fee simple owner of the lands made subject to the Easements. Grantor shall cooperate with Grantee in securing consent of lien holders or partial releases/subordination of liens, if any. Grantor represents and warrants that the interest hereby conveyed and the rights granted herein are not subject to grants of mineral rights to any third party by Grantor. Grantor further represents and warrants that it has no knowledge of any mineral rights granted by any other person or entity that affect the Easement Areas or Facilities. Grantor covenants and agrees for itself, its assigns and successors, that the consideration herein mentioned and shown above shall be in lieu of any and all claims to compensation and damages by reason of the location of the Easement Areas or the laying, erecting, constructing, installing, using, operating, inspecting, maintaining, repairing, replacing, rebuilding, removing, improving, or making such other changes, alterations, additions to or extensions of the Facilities, and that Grantee shall have the right to enter upon and take possession of the Easement Areas upon acceptance of this Deed of Easement.

[Signature page to follow]

WITNESS the following signatures and seals.

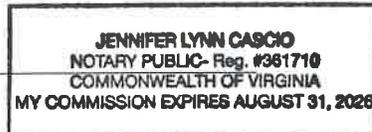
Grantor: HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia

By: [Signature]
Jay A. Bernas, General Manager

COMMONWEALTH OF VIRGINIA,
CITY/COUNTY OF Virginia Beach, to-wit:

The foregoing Deed of Easement was acknowledged before me this 13th day of March 2023, by Jay A. Bernas, as General Manager of Hampton Roads Sanitation District, on behalf of the District.

My commission expires: _____



Notary registration no.: _____

[Signature]
Notary Public

Grantee: COMMONWEALTH OF VIRGINIA,
DEPARTMENT OF ENVIRONMENTAL
QUALITY

By: 
Michael Rolband, Director

COMMONWEALTH OF VIRGINIA,
CITY/COUNTY OF Richmond, to-wit:

The foregoing Deed of Easement was acknowledged before me this 3rd day of April 2023, by Michael Rolband, as Director of the Commonwealth of Virginia, Department of Environmental Quality on behalf of the agency.

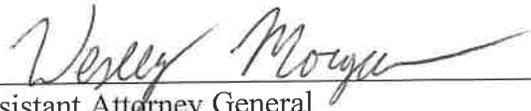
My commission expires: June 30, 2024

Notary registration no.: 7869749


Notary Public

AUSTEN T. STEVENS
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #7869749
My Commission Expires: 6/30/24

OFFICE OF THE ATTORNEY GENERAL
Approved as to form:

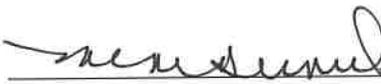
By: 
Assistant Attorney General

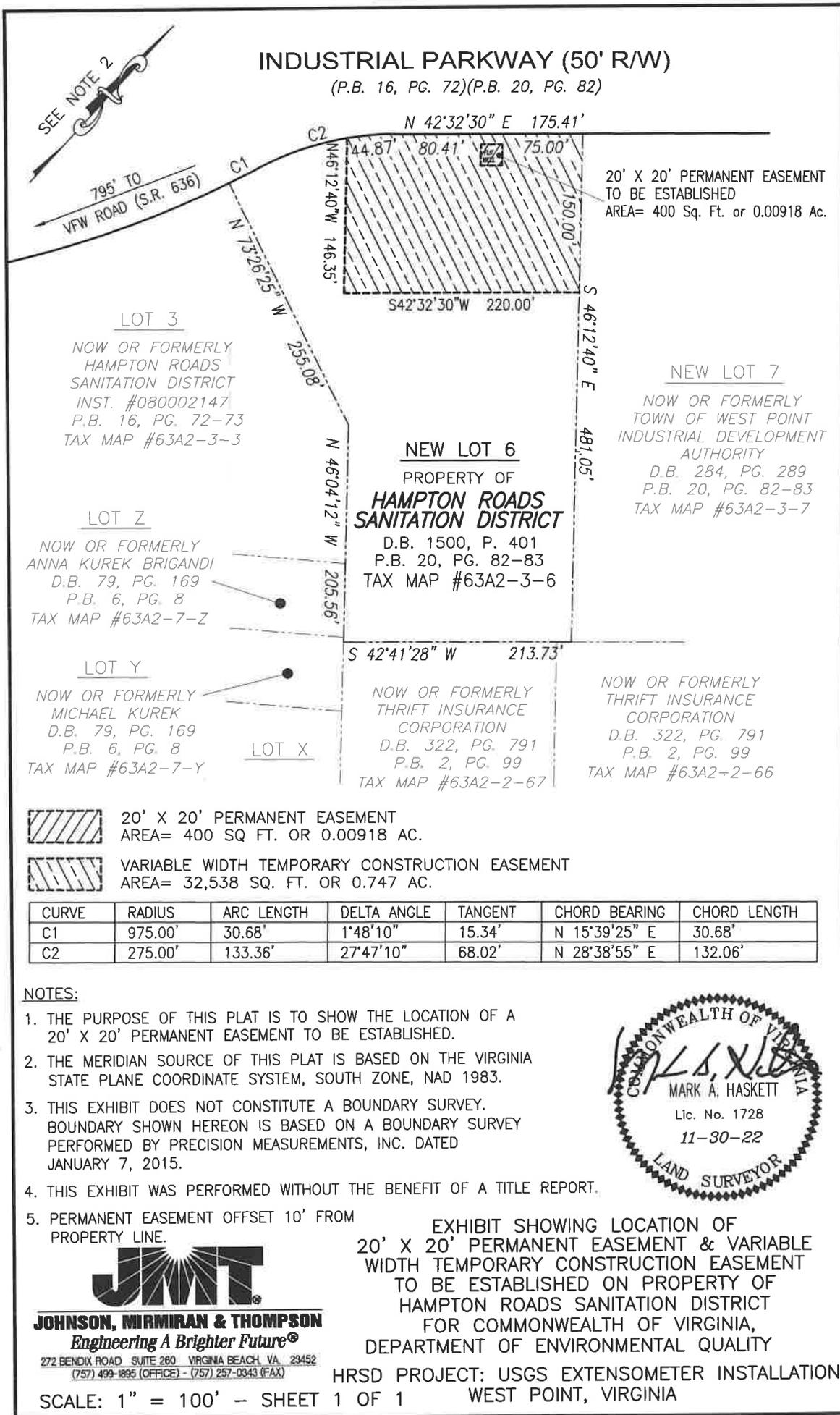
RECOMMEND APPROVAL:
DEPARTMENT OF GENERAL SERVICES

By: 
Director

APPROVED BY THE GOVERNOR:

Pursuant to §2.2-1149 of the Code of Virginia (1950), as amended, and by the authority vested in me to act for and on behalf of the Governor of Virginia under Executive Order 88 (01) dated December 21, 2001, I hereby approve the acquisition of this Easement and the execution of this instrument.

 3/23/2023
Secretary of Administration Date



JMT
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
272 BENDIX ROAD SUITE 260 VIRGINIA BEACH, VA 23452
(757) 499-1895 (OFFICE) - (757) 257-0343 (FAX)



HRSD Commission Meeting Minutes
October 25, 2022

Attachment #9

12. Capital Improvement Program and Asset Management Update



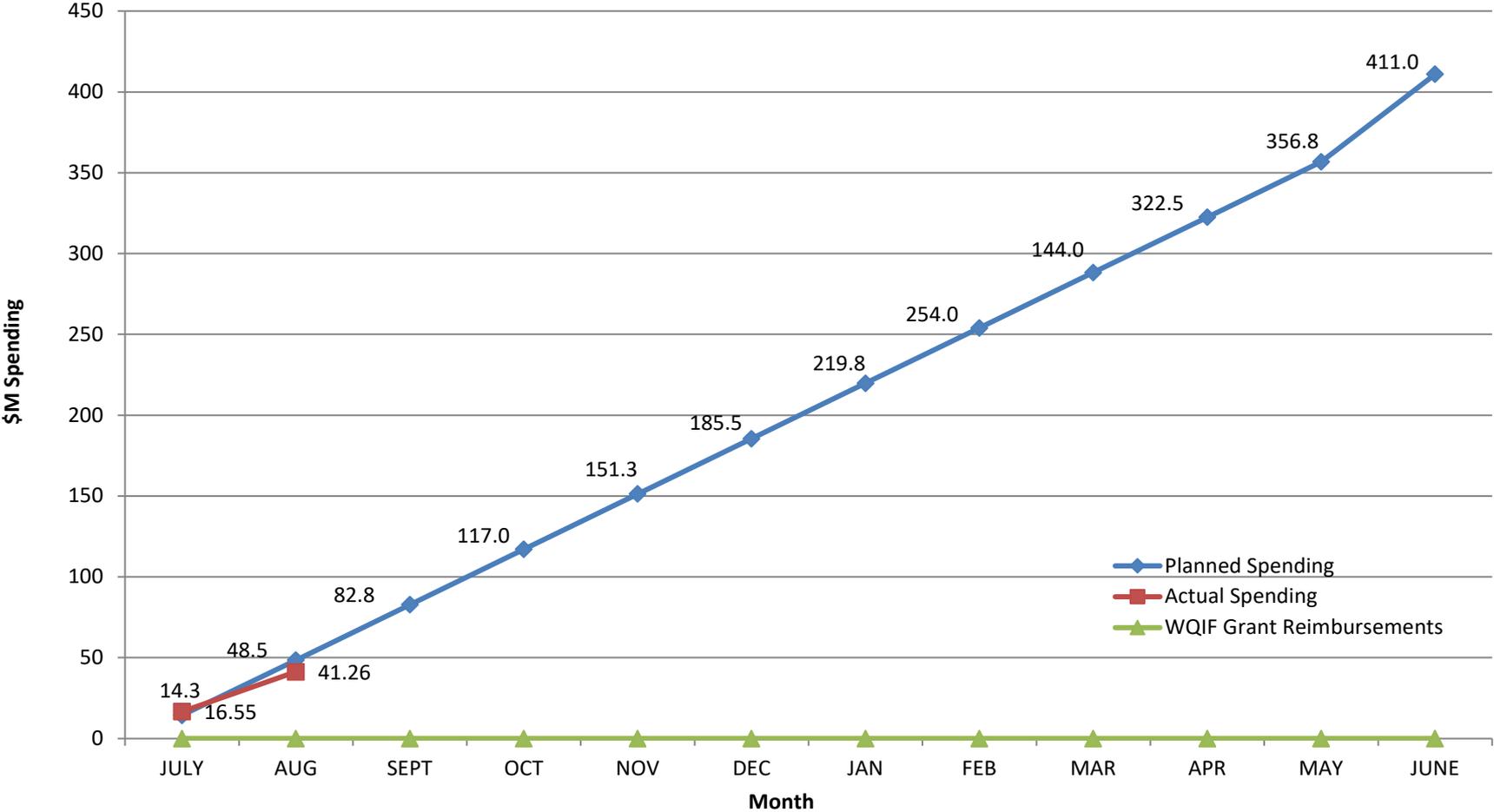
Capital Improvement Program Commission Briefing October 25, 2022

Bruce Husselbee - Director of Engineering
Anas Malkawi - Chief of Asset Management

- CIP Expenditures for FY-2023
- Consent Decree/Sewer Rehabilitation Plan – Project Status
- Significant Project Updates
- Use of Proposal Compensation(Stipends) for Design-Build Procurement
- Focus – Asset Management Program Update

CIP Expenditures for FY-2023

FY2023 Capital Improvement Program Cumulative Monthly Expenditures & Reimbursements



Consent Decree/Sewer Rehabilitation Plan – Project Updates

- Consent Decree Condition Assessment Program (CAP) identified condition defects in the regional sanitary sewer system.
- EPA/VDEQ approved the Rehabilitation Action Plan (RAP) in May 2015.
- RAP addresses improvements to gravity mains, force mains, pump stations and associated system compounds.
- RAP will be implemented in three phases:
 - Phase 0 (June 2017)
 - Phase 1 (May 2021)
 - Phase 2 (May 2025)

Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

CIP	Project Name	Project Status	Total CIP Cost
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	Design	\$27,343,000
AT011510	Shippo Corner Interim Pressure Reducing Station	Complete	\$3,691,148
AT011520	Shippo Corner Pressure Reducing Station Modifications	Design	\$1,826,426
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	Design	\$11,915,000
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	Design	\$2,496,266
AT013100	South Norfolk Area Gravity Sewer Improvements Phase 1	Complete	\$1,013,961
AT013110	South Norfolk Area Gravity Sewer Improvements Phase 2	Design	\$10,566,000
AT013010	Washington District Pump Station Replacement	Design	\$9,400,000
AT015400	Dozier's Corner Pump Station Replacement*	Design	\$17,121,868
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	Construction	\$4,404,011
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	Design	\$2,243,200
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	Construction	\$12,178,333
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	Construction	\$4,644,400
BH015900	Bloxoms Corner Force Main Replacement	Construction	\$6,038,563
CE011300	Birchwood Trunk 24-Inch 30-Inch Force Main at Independence Boulevard Replacement Phase II	Design	\$1,702,700
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	Design	\$2,262,394
CE012000	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements (I-264 VDOT Betterment)	Complete	\$111,320
GN010730	Horizontal Valve Replacement Phase III	Complete	\$0

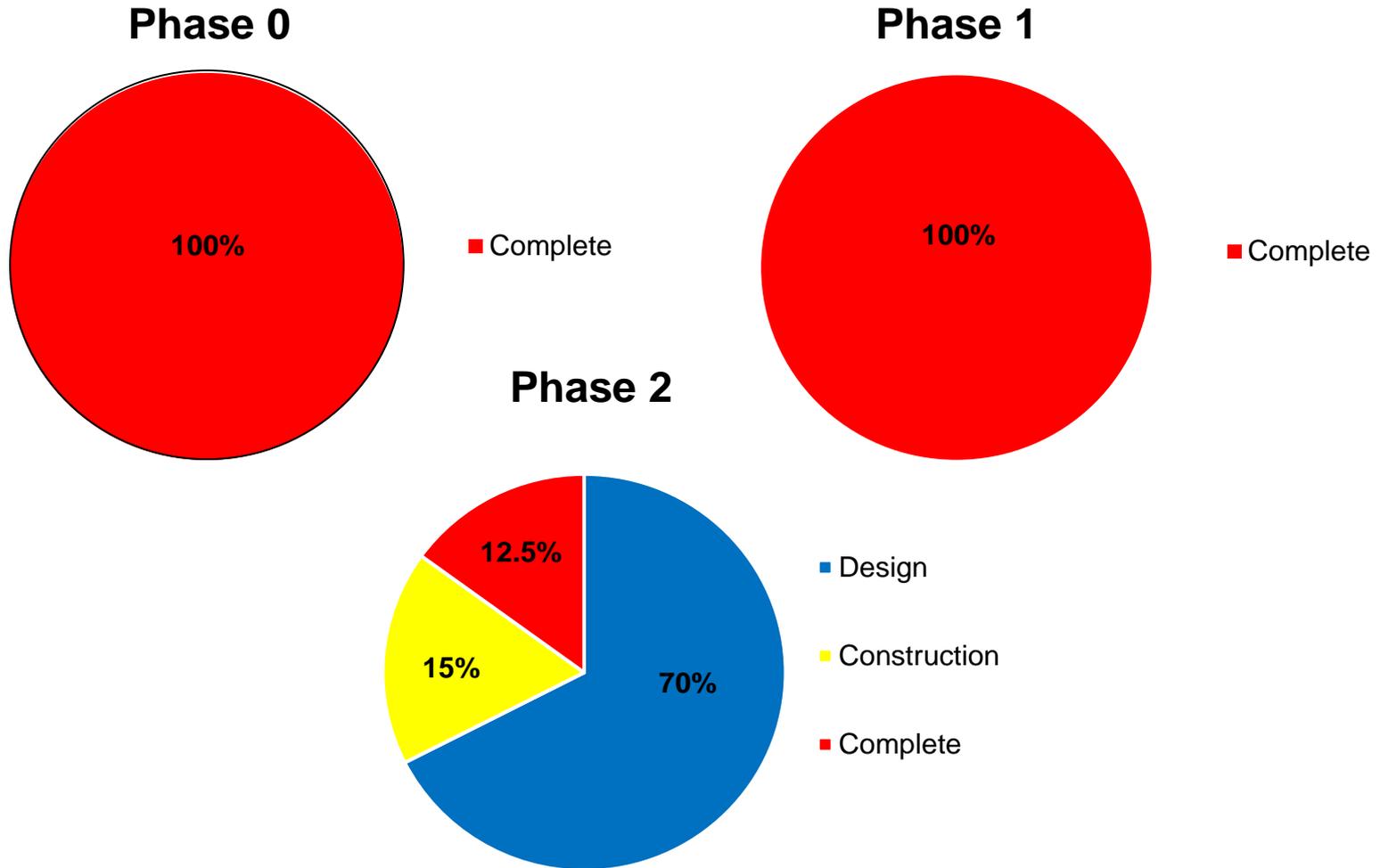
Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

CIP	Project Name	Project Status	Total CIP Cost
GN014900	North Shore Gravity Sewer Improvements Phase I	Design	\$5,639,906
GN015000	South Shore Gravity Sewer Improvements Phase I	Design	\$942,804
GN015300	Interceptor System Valve Improvements Phase I	Design	\$3,259,305
GN015400	South Shore Aerial Crossing Improvements	Design	\$290,758
JR010600	Lucas Creek Pump Station Upgrade	Construction	\$22,324,564
NP010620	Suffolk Pump Station Replacement*	Design	\$12,049,000
NP012400	Western Branch Sewer System Gravity Improvements	Design	\$5,100,000
NP012500	Shingle Creek and Hickman's Branch Gravity Sewer Improvements	Complete	\$1,230,006
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	Design	\$1,988,585
VP014010	Ferebee Avenue Pump Station Replacement	Design	\$5,852,747
VP014020	Sanitary Sewer Project 1950 12 Inch Force Main and 24 and 18 Inch Gravity Replacement	Design	\$7,179,000
VP014021	Sanitary Sewer Project 1950 FM Replacement Part 1	Construction	\$4,232,935
VP014700	Ingleside Road Pump Station Replacement*	Design	\$3,810,449
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	Design	\$4,081,470
VP015320	Larchmont Area Sanitary Sewer Improvements*	Design	\$38,734,000
VP015400	Lafayette Norview-Estabrook Pump Station Replacements	Design	\$18,495,895
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	Design	\$1,973,163
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	Design	\$3,116,334
VP017110	Central Norfolk Area Gravity Sewer Improvements Phase I	Complete	\$320,000
VP017120	Central Norfolk Area Gravity Sewer Improvements Phase II	Design	\$7,160,000
VP018000	Park Avenue Pump Station Replacement	Construction	\$15,366,578
YR010300	Foxridge Sanitary Sewer System Sections 1, 4 & 5 Gravity and Woodland Road Fox Hill Road Gravity Sewer Rehabilitation	Design	\$3,962,504

\$337,346,224

* Projects with likely schedule delays

Consent Decree / Sewer Rehabilitation Plan – Project Updates



James River SWIFT and Advanced Nutrient Reduction Improvements

Owner's Consultant:

AECOM with Hazen and Sawyer

Design-Build Team:

Ulliman & Schutte-Alberici with
HDR and Black & Veatch

Schedule Completion:

April 2026 (substantial)
October 2026 (final)

Project Value: \$579M

Funding: WIFIA, VRLF, WQIF



Nansemond Advanced Nutrient Reduction Improvements Phase II

Owner's Consultant:

AECOM with Hazen and Sawyer

Design-Build Team:

Garney with Tetra Tech

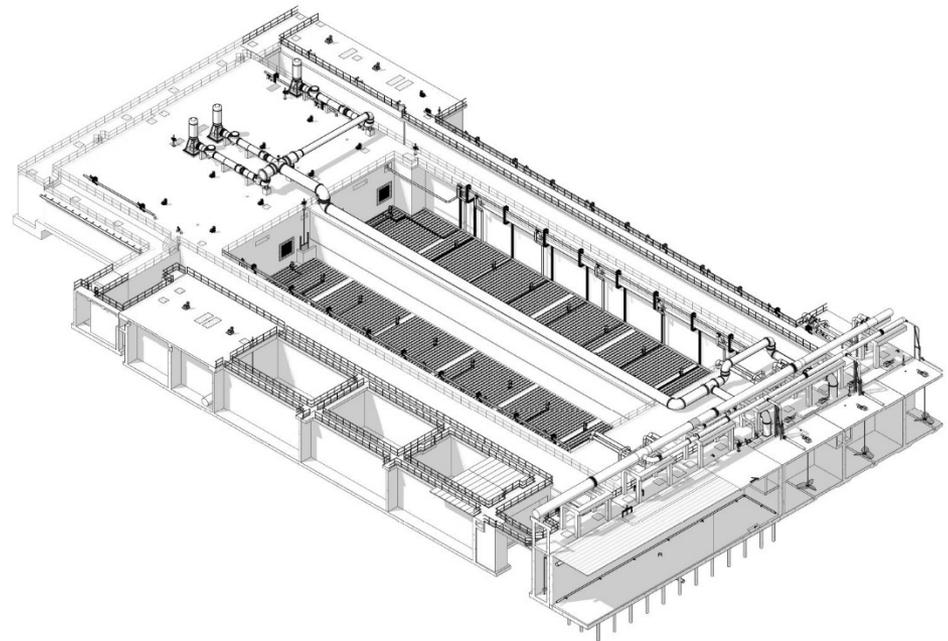
Schedule Completion:

Dec. 2025 (Substantial)

April 2026 (Final)

Project Value: \$293M

Funding: WIFIA, VRLF, WQIF



Proposed Aeration Tanks 8 and 9

Nansemond Struvite Recovery & Digester Upgrades

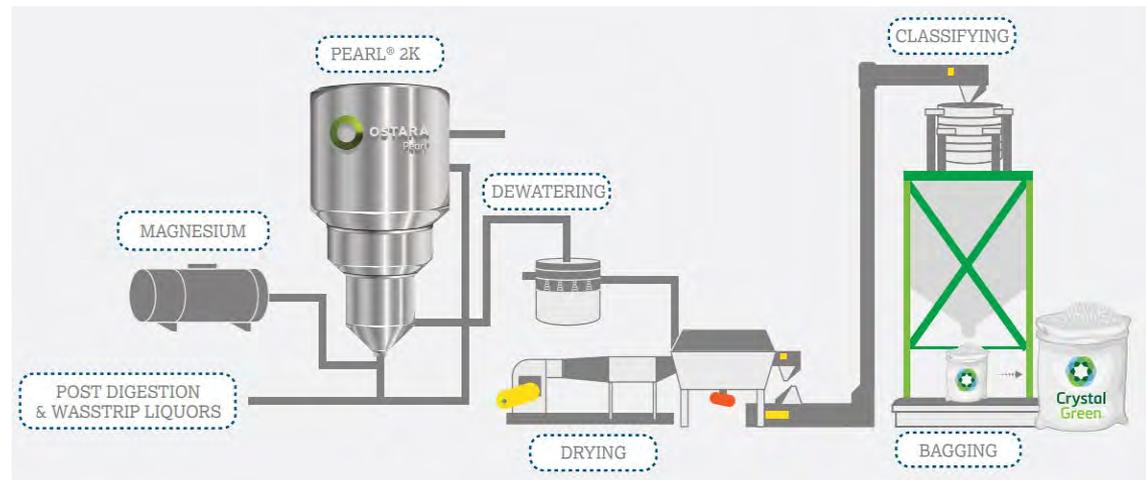
Engineers: Hazen and Sawyer/HDR

Contractor: MEB General Contractors

Schedule Completion: October 2024

Project Value: \$60M

Funding: VRLF &
HRSD Revenue Bond



Use of Stipends for Design-Build Procurement

Virginia Public Procurement Act Excerpts:

“...the Commonwealth may enter into contracts on a fixed price design-build basis or construction management basis ...”

“Price is a critical basis for award of the contract.”

“The agency shall award the contract to the offeror who is fully qualified and has been determined to have provided the best value in response to the RFP.”

Use of Stipends for Design-Build Procurement (cont.)

For Design-Build project procurements, HRSD uses a best value approach with a typical selection weighting criteria as follows:

Qualifications = 30%

Technical Proposal = 30%

Price Proposal = 40%

The price proposal is based on the conceptual design provided by HRSD and further efforts performed by the Engineer on the Design-Build Team.

What is proposal compensation or a stipend?

A financial reimbursement to cover a portion of the cost of the effort to compete for a specific Design-Build project. This compensation is offered to only the firms that were short-listed, followed all of the procurement requirements and were not selected. HRSD typically short-lists three firms, so this compensation would be provided to the two firms not selected.

Use of Stipends for Design-Build Procurement (cont.)

Why provide a stipend to non-selected Design-Build Teams?

1. Level of effort to prepare design and fixed price cost at 30% conceptual design stage is significant.
2. Provides a financial incentive to increase competition from the best firms in the industry.
3. Encourages proposers to explore innovative ideas during the proposal stage.
4. Follows an industry standard and process used by other large public sector organizations like VDOT.
5. Allows HRSD to retain the rights to use innovative ideas from unsuccessful proposers.

Use of Stipends for Design-Build Procurement (cont.)

HRSD uses the VDOT cost reimbursement model:

Stipend = 0.1% of estimated project cost

Typical level of effort to pursue projects by Design-Build Teams = 1% of estimated project cost



HRSD reimburses each unsuccessful team 10% of their cost to pursue the project.

Use of Stipends for Design-Build Procurement (cont.)

Data from Past Procurement Efforts:

Example 1:

Stipend Provided = \$310,000

Design-Builders Price = \$468,073,039

Stipend Compared to Bid Price = 0.066% (target 0.1%)

Actual Cost to Compete for Project = \$2,951,031

Example 2:

Stipend Provided = \$295,000

Design-Builders Price = \$262,102,000

Stipend Compared to Bid Price = 0.11% (target 0.1%)

Actual Cost to Compete for Project = \$1,021,000

Asset Management Plan

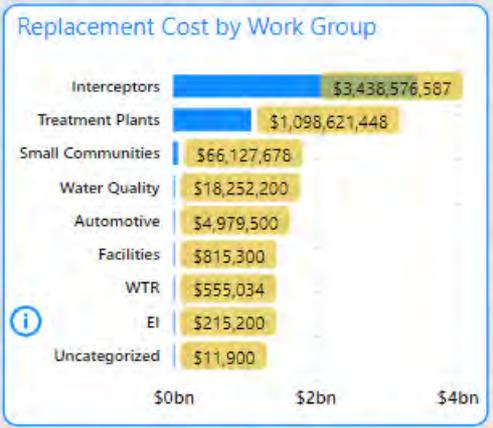
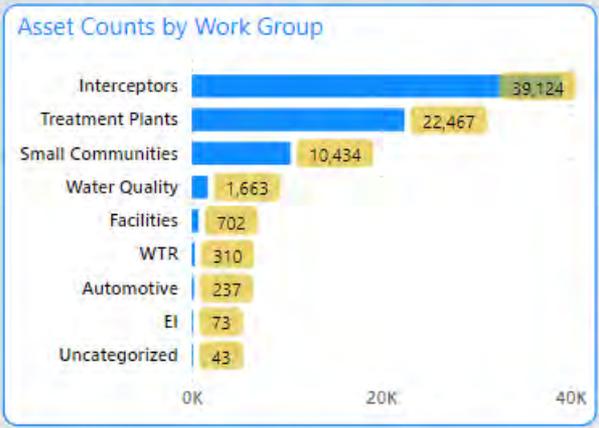


Asset Management Plan

"Making the Right Investment at the Right Time"

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

- HRSD
- Treatment Plants
- Small Communities
- Automotive
- Facilities
- Interceptors



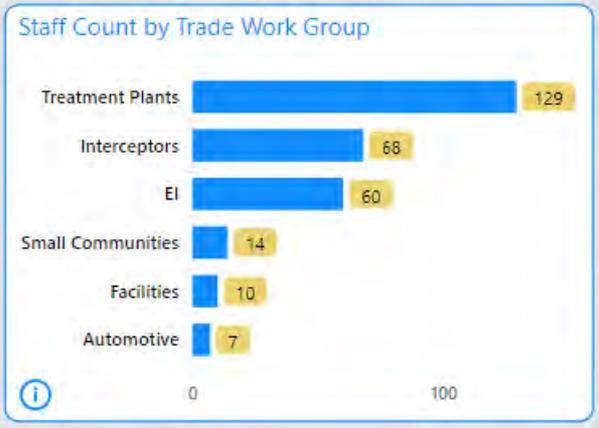
75,053
Asset Count

\$4,628,154,846
Replacement Value

288
Maintenance Staff Count

Risk Profile

Risk Level	Replacement Value	Asset Count
Low	\$1,234,897,556	13,128
Medium	\$2,635,039,125	11,642
High	\$39,918,644	147
Severe	\$441,108	1
Total	\$3,910,296,433	24,918

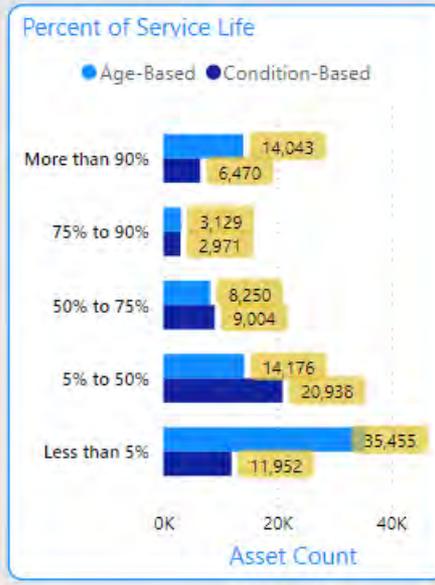
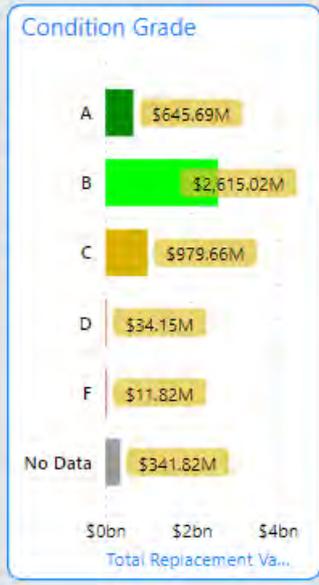


National Condition Score: **D+**

HRSD Condition Score: **B-**

Average Condition Score by Work Group

Work Group	Grade	Score
Treatment Plants	B	1.78
Small Communities	B	1.79
Interceptors	B-	2.25
HRSD Avg Condition Score	B-	2.02



Asset Management Plan



Asset Management Plan

"Making the Right Investment at the Right Time"

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

HRSD

Treatment Plants

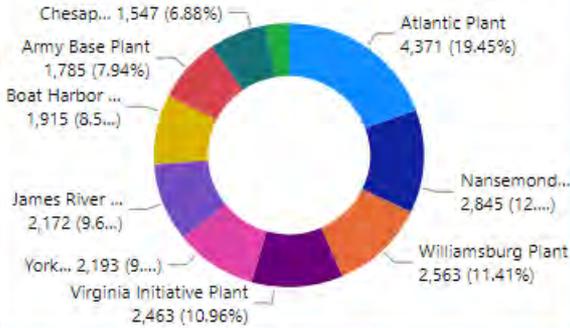
Small Communities

Automotive

Facilities

Interceptors

Asset Counts by Work Center



Replacement Cost by Work Center



22,471
Asset Count

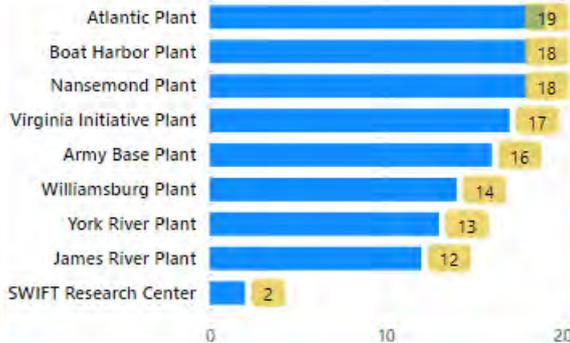
\$1,098,640,248
Replacement Value

129
Maintenance Staff Count

Risk Profile

Risk Level	Replacement Value	Asset Count
Low	\$395,355,140	7,740
Medium	\$81,014,900	334
High	\$1,014,900	14
Severe	\$0	0
Total	\$477,384,940	8,088

Staff Count by Work Center



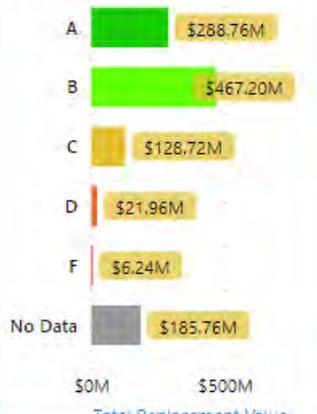
National Condition Score: **D+**

HRSD Condition Score: **B**

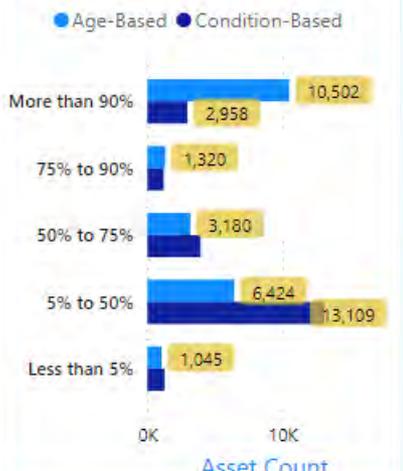
Average Condition Score by Work Center

Work Center	Grade	Score
York River Plant	A	1.39
James River Plant	B	1.52
Boat Harbor Plant	B	1.54
Army Base Plant	B	1.83
Williamsburg Plant	B	1.83
Nansemond Plant	B	1.88
Atlantic Plant	B-	2.07
HRSD Avg Condition Score	B	1.75

Physical Condition Score by Replacement Value



Percent of Service Life by Asset Count



Asset Management Plan

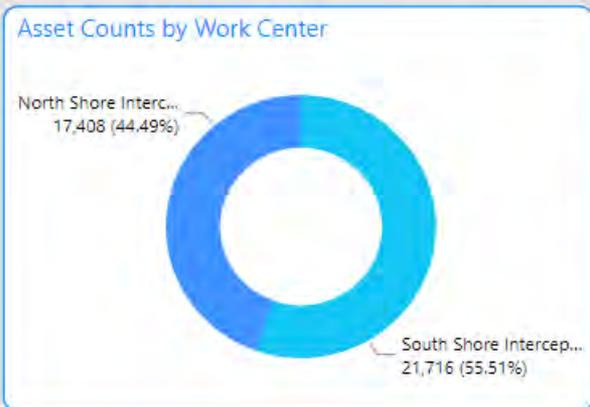


Asset Management Plan

"Making the Right Investment at the Right Time"

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

- HRSD
- Treatment Plants
- Small Communities
- Automotive
- Facilities
- Interceptors**



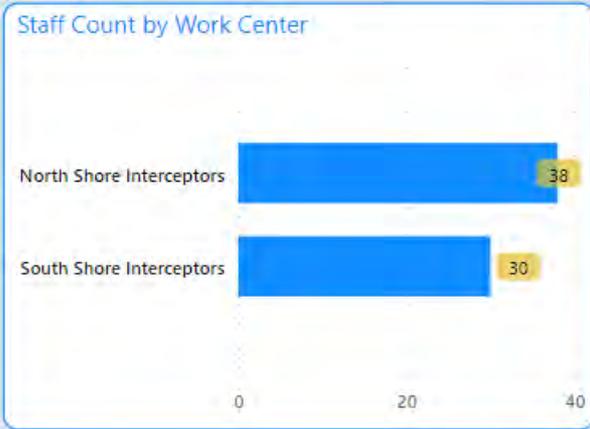
39,124
Asset Count

\$3,438,618,887
Replacement Value

68
Maintenance Staff Count

Risk Profile

Risk Level	Replacement Value	Asset Count
Low	\$782,423,650	5,141
Medium	\$2,551,459,213	11,098
High	\$38,903,744	133
Severe	\$441,108	1
Total	\$3,373,227,711	16,373

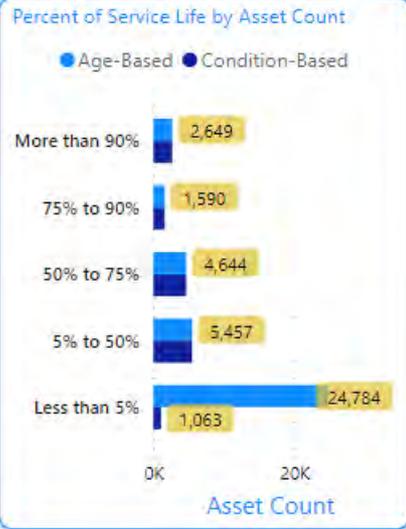
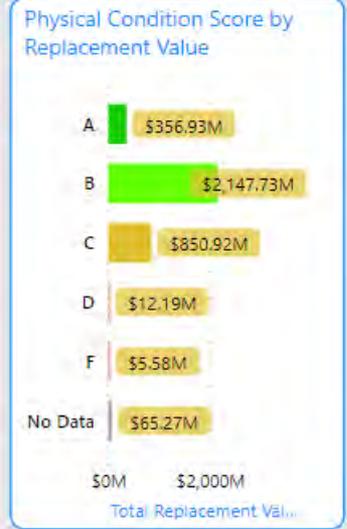


National Condition Score: **D+**

HRSD Condition Score: **B-**

Average Condition Score by Work Center

Work Center	Grade	Score
South Shore Interceptors	B-	2.24
North Shore Interceptors	B-	2.28
HRSD Avg Condition Score	B-	2.25



Renewal Planning Model



Renewal Planning Model

RPM Procedure Manual

If you have any questions, please contact

Condition Assessment Manual

[Power BI Support](#) or [AMP Support](#)

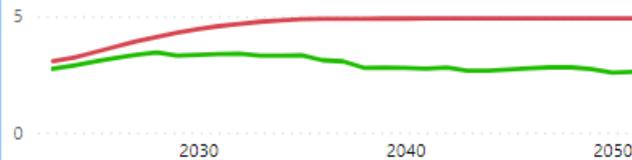
Asset Count by % of Service Life

● Less than 5% ● 5% to 50% ● 50% to 75% ● 75% to 90% ● More than 90%



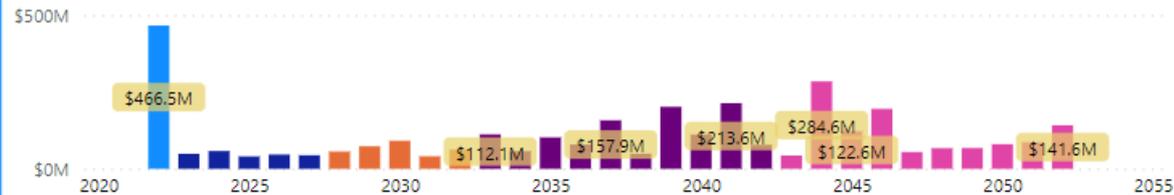
Projected LoF Scores

● Proactive ● Reactive

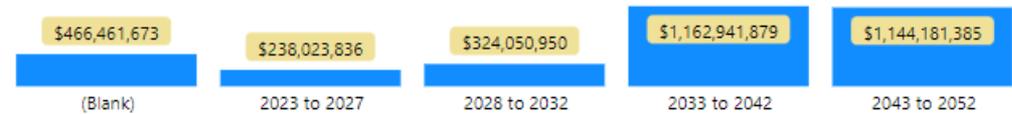


Renewal Planning Model Cashflow Summary

Planning Period ● (Blank) ● 2023 to 2027 ● 2028 to 2032 ● 2033 to 2042 ● 2043 to 2052



Total Replacement Cost by Planning Period



Right Click in the table to drill to Asset Explorer report

Replacement Year	Asset Code	Description	Class	Manufacturer	Work Center	CoF Score	LoF Score	Risk Level	Asset Age	Effective Age	Service Life	Maintenance / Replacement	Replacement Cost
2053	131677	SF-268-6980 / 306 LF / 30"DIP / Elizabeth River Crossing - Land Portion (Water*)	MAIN		South Shore Interceptors	4	4	Severe	19	19	50	0.04%	
2034	109152	Pump - 02, Raw Influent	PUMP	Landustrie	Boat Harbor Plant	4	3	High	18	4	16	1239.44%	\$11,900
2023	109271	Radiator and Fan - 01, Emergency Generator	HEATEXCH	Young Radiator Company	Boat Harbor Plant	4	3	High	18	11	12	116.36%	\$7,100
2036	118855	Motor - 01, Pump, IPS, Primary Effluent	MOTOR	Siemens	Boat Harbor Plant	4	3	High	24	4	18	71.03%	\$28,500
2020	110856	Motor - 02, Pump, IPS, Primary Effluent	MOTOR	Manitowoc	Boat Harbor Plant	4	3	High	24	4	12	7.15%	\$20,500



Asset Explorer



Asset Explorer

[Additional Information](#)

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

Asset Code 131677 Service Life (Years) 50	Work Center South Shore Interceptors Asset Description SF-268-6980 / 306 LF / 30" DIP / Elizabeth River Crossing	Asset Class MAIN Diameter 30 inch	Asset Class SF-268 Line Length (LF) 927	Material Ductile Iron Segment Length (LF) 306.32
--	---	--	--	---

LoF Score
3.80

CoF Score
3.50

M_LoF
LoF Source
6/25/2012
CA Date
UST
CA Type

C
Compliance Grade
C
Environment Grade
C
Safety Hazard Grade
D
Public Health Grade
A
Financial Grade

2.60
InfoAsset LoF Score
4.00
Env. LoF Grade
3.22
Ops LoF Grade
1.00
Failure History LoF



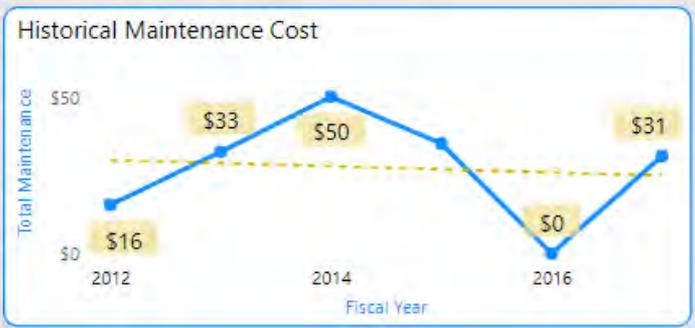
Age (Chronological vs Effective)

Installation Date 1/1/2003	CPR Age Multiplier 0.05
Chronological Age (Years) 19	Effective Age (Years) 68
Chronological % of Service Life 25.33%	Effective % of Service Life 91.16%

Renewal Planning Model

Replacement Year (Risk Based) 2053	Replacement Year (Effective) 2029	Replacement Year (Chronological) 2078
Remaining Life (Years) 7	Risk Score 13.30	

Asset Total Replacement Value
\$441,108



System Maintenance (Line Number)

Failures by Line (Blank)	Replacement Costs by Line \$1,335,246
Total Maintenance \$165	Maintenance / Replacement 0.15%



Data Gaps



Comparisons

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

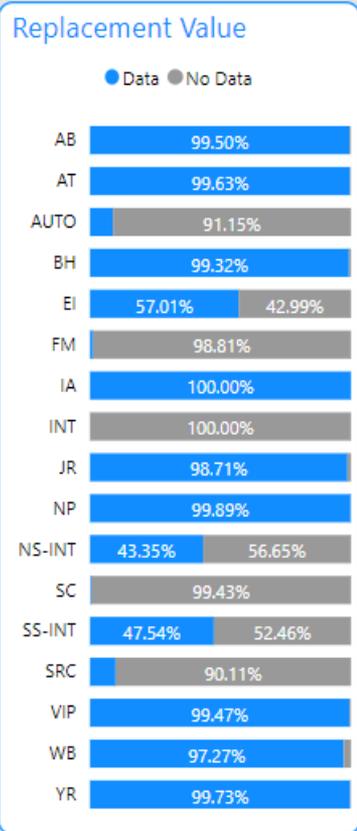
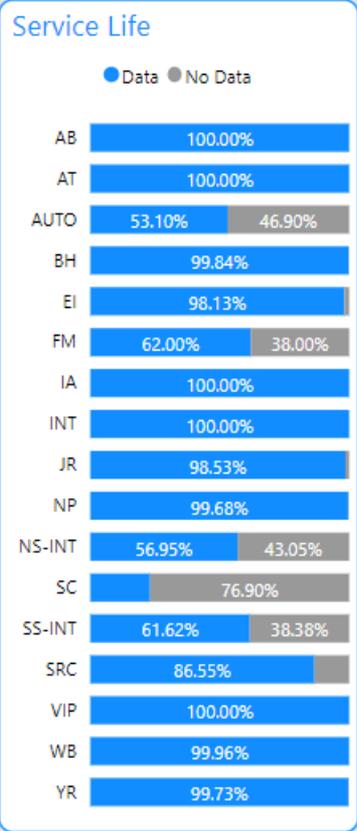
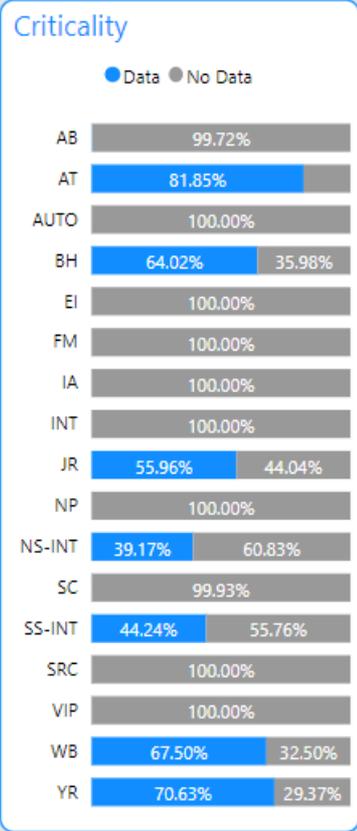
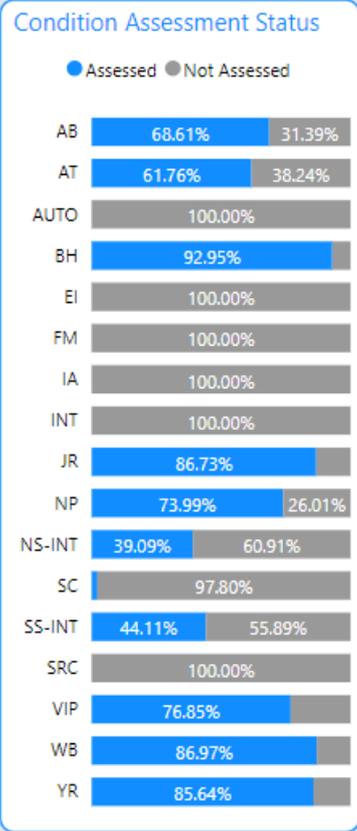
Risk Assessment

KPIs

Financial

Expected Service Life

Data Gaps



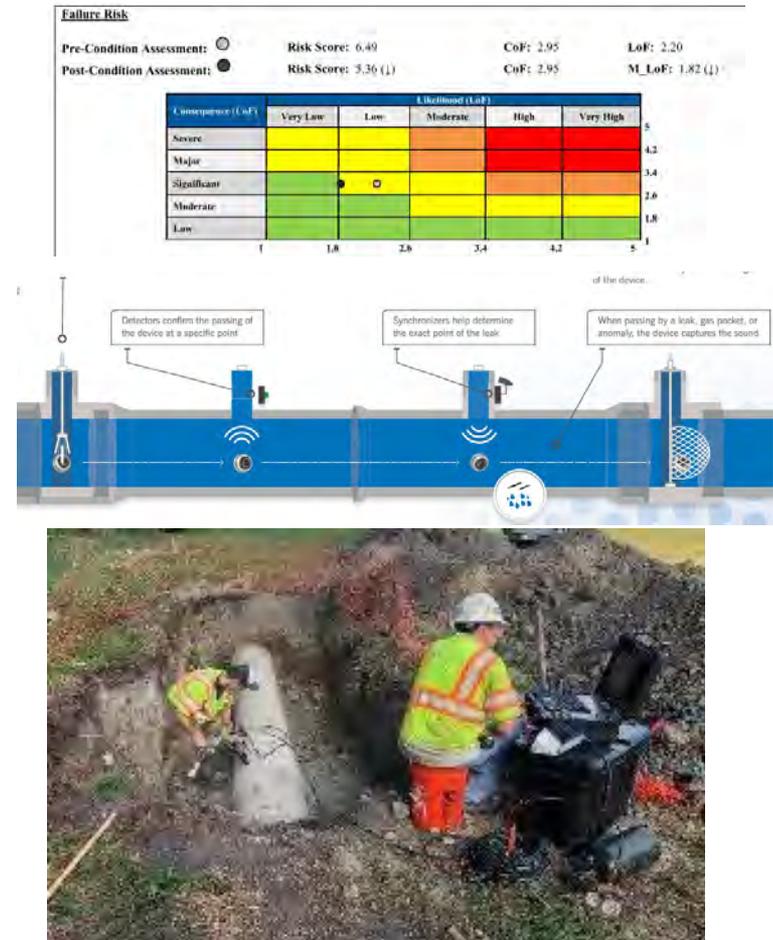
Condition Assessment Program

- Value:
 - Refine scope of CIP projects
 - Identify material risk of failure
 - Propose CIP projects based on actual conditions not assumptions
- Challenges:
 - Manifolded system with many connections and high flows
 - Bypass needs / isolation
 - Low velocity/pressures (Augmented flows)
 - Inconclusive results



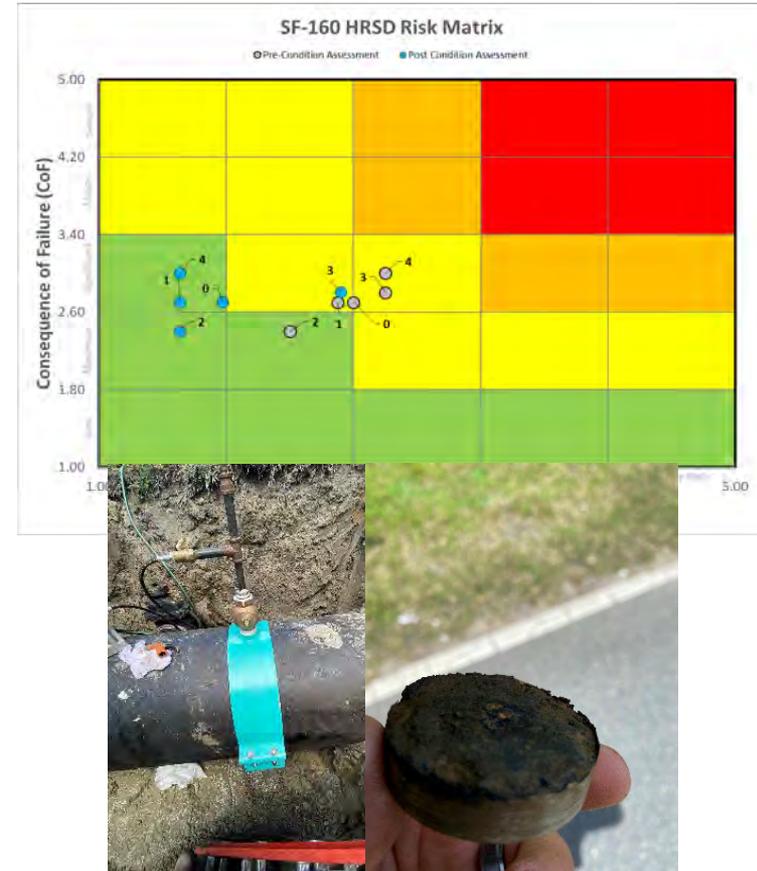
Army Base Interceptor Force Main (IFM)

- Existing CIP (AB010000) – RAP2
- Leak and Gas Pocket Detection
- External wall thickness
 - Ultrasonic thickness testing on ferrous pipe
 - Impact echo on concrete pipe
 - Soil analysis
- Reduced CIP scope by 7,600 LF

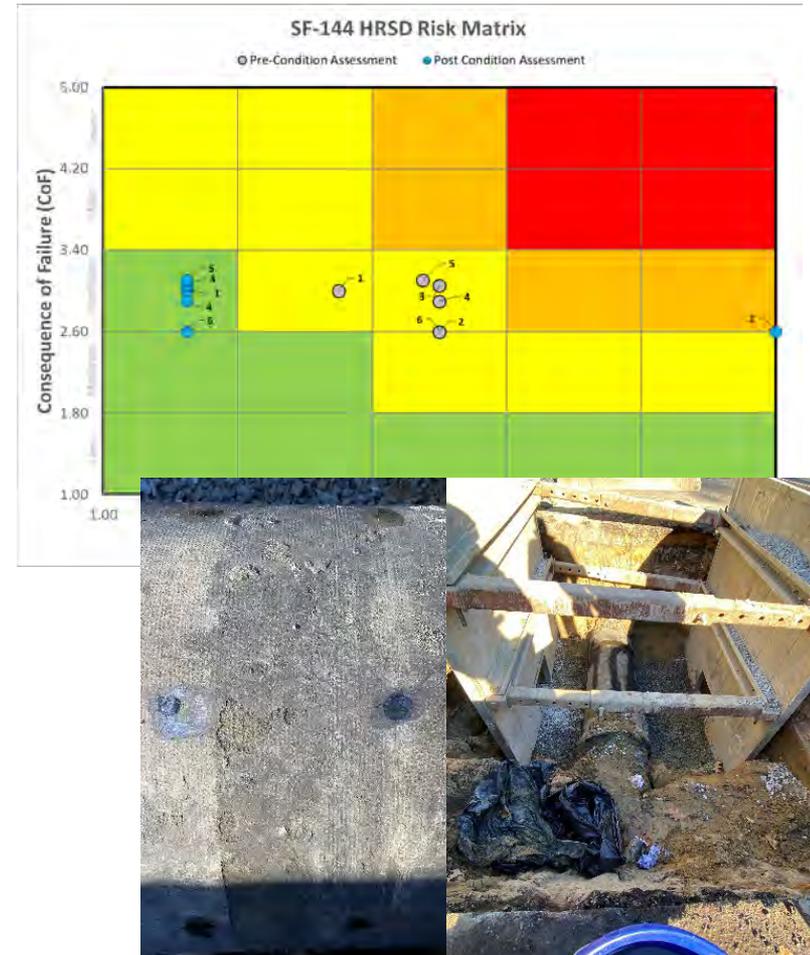


Military Highway IFM

- Subsurface Utility Engineering to confirm elevations
- Identified high points and installed 2 Air Vents. Released over 10 minutes of air on both sites



- 24" ductile iron pipe
- Failure History (internal/external corrosion)
- Ultrasonic Thickness Testing
- Site 2 was worse than anticipated and recommended for replacement



Resiliency Summary

If you have any questions, please contact [Power BI Support](#) or [AMP Support](#)

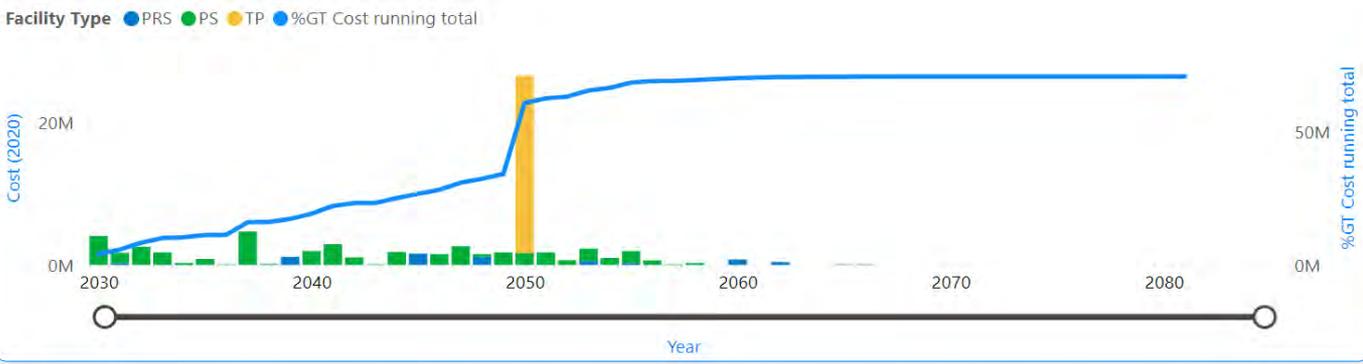


Resiliency Summary

66 Projects
70790000 Cost (2020)

Mitigation Category	Count of Facility ID	Cost (2020)
Berm and Floodwall with Gates	1	25000000
Dry Floodproofing	60	36870000
Elevation	4	4210000
Floodwall	1	4710000
Total	66	70790000

Cost by Year and Facility Type



Facility ID	Facility Name	Mitigation Category	Mitigation Start Year	Dominant Flooding Source	Mitigation Measure Description	Mitigation Construction
AT	Atlantic TP	Berm and Floodwall with Gates	2050	Coastal	Facility-wide berm and floodwall with six gates up to an elevation of 13.4 ft NAVD88 together with two stormwater pump stations with storage at the northwest and southwest corners of the side discharging to the public stormwater system and the Back Bay.	25000000
MT-PS-04	Buckley Hall	Dry Floodproofing	2081	Coastal	None: Accept Risk	0
MT-PS-07	Court House Pump Station	Dry Floodproofing	2057	Coastal	For building: Wet Well Wall with Waterproof Hatch for Submersible PS [6].	80000
MT-PS-08	Hudgins	Dry Floodproofing	2030	Coastal	For building: Wet Well Wall with Waterproof Hatch for Submersible PS [6].	80000
MT-PS-09	Main St	Dry Floodproofing	2055	Coastal	For building: DFP w/ Wall Plates or Concrete Extensions for Stop Logs and Flood Gates [2]. For outside emergency equipment: Perimeter	700000
Total						70790000



- Complete Baseline Condition Assessment
- Treatment Plant Yard Piping mapping and Condition Assessment
- Business Case Evaluation process for other drivers
 - AMP mainly addresses aging infrastructure driver
 - Incorporated flooding recently
 - Other drivers need to be factored
 - Process Efficiency
 - Regulatory Projects (i.e., nutrient reduction, air permit, etc.)
 - Energy Efficiency / Carbon Footprint Reduction

Questions?

Attachment #10

17. Informational Items

a. Management Reports

- (1) [General Manager](#)
- (2) [Communications](#)
- (3) [Engineering](#)
- (4) [Finance](#)
- (5) [Information Technology](#)
- (6) [Operations](#)
- (7) [Talent Management](#)
- (8) [Water Quality](#)
- (9) [Wastewater Surveillance Data](#)
- (10) [Report of Internal Audit Activities](#)

b. [Strategic Planning Metrics Summary](#)



October 18, 2022

Re: General Manager's Report

Dear Commissioners:

HRSD is in the midst of obtaining an updated State Operating Permit (SOP) for the Atlantic Treatment plant for air emissions. In DEQ's initial review, they included a permit condition requiring a State-Only Enforceable Odor Control Management Plan. Staff objected to this condition as the Commission recently approved the \$75 million Atlantic Reliability and Odor Control Improvement (ROCI) program to address this issue proactively. We were unsuccessful in removing the condition but modified it to be an annual report after submitting an initial Odor Management Plan, which HRSD can comply with. The Atlantic ROCI program will now be a regulatory required project because of this permit condition.

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

- A. **Treatment Compliance and System Operations:** On September 30, Tropical Storm Ian brought significant rainfall and high storm surge. The only overflow in the HRSD system was at the Suffolk pump station where 8,000 gallons spilled into Shingle Creek.

At James River, the first signs of Anammox bacteria were detected on the media. This is great news as it aligns with our research on how long it takes for Anammox to appear naturally if the right conditions are provided. This is part of the Partial Denitrification Anammox (PdNA) patent we branded as DETOUR. James River will be the second plant in the world with this process.

Atlantic Treatment Plant and Water Quality staff made a site visit to DC Water's biosolids facility, which has the largest CAMBI facility in the world. The trip was insightful as staff were able to see how they manage their biosolids and control odors.

- B. **Water Quality:** No civil penalties were issued by the Pretreatment and Pollution (P3) Division in September.

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

1. General Manager briefing to the Williamsburg Treatment Plant staff
2. General Manager briefing to the York River Treatment Plant staff
3. Toured the Eastern Shore facilities and met with Operations staff
4. Met with Architectural Guidelines team
5. Attended a master planning charette for the Atlantic Treatment Plant

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

6. Performed a hurricane drill, which yielded a number of lessons learned
7. Strategic Plan Workshop #3 was held

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

1. Provided a tour of the proposed James River SWIFT trail and shoreline improvements for Delegate Shelly Simonds.
2. Met with Thomas Shepperd, Vice Chairman of the York County Board of Supervisors, and the County Administrator to review the Tabb Pressure Reducing Station and Storage Tank project.
3. Attended the Virginia Investment Pool's Annual Investment meeting and Board meeting.
4. Attended the Potomac Aquifer Recharge Oversight Committee meeting.
5. Attended WaterJAM – a combined Virginia conference for the water and sewer sector.

Strategic Plan: On September 20, the third Strategic Planning workshop was held to develop the adaptive strategies (see below). At the next workshop on October 20, we will develop Goals and Objectives.



Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you in person in Newport News at 9 am on Tuesday, October 25, 2022.**

Respectfully submitted,

Jay Bernas, P.E.
General Manager

TO: General Manager
FROM: Director of Communications
SUBJECT: Monthly Report for September 2022
DATE: October 11, 2022

A. Publicity and Promotion

1. HRSD and/or SWIFT were mentioned or featured in eight news stories or media/social media mentions on topics that included:
 - a. HRSD-funded research dock at new ERP research facility
 - b. Governor’s announcement of key administration appointments (September 7)
 - c. Water Environment Federation Awards for Operational Excellence
 - d. Upgrades planned for Nansemond Treatment Plant
 - e. Cybersecurity in State and Local Government references HRSD ransomware attack
2. Analysis of media coverage:

What are the key results for the timeframe?

Mentions

Compared to last period

158

↑ 445%

Total Potential News Reach

Compared to last period

226M

↑ 5265%

Sentiment

Compared to last period

1

↓ 90%

What is the top performing news content?

Top Article by Reach



Highest reach

T The Washington Post • The Virginian-Pilot, ...
US | Sep 11, 2022, 1:01 PM

New research facility shows how to live with rising tides

A kayak launch will be just off the boardwalk. The **Hampton Roads Sanitation District** already built a dock on the property and the Virginia ...

67.1M Reach

Social Echo

Neutral ○

Top Article by Reach and Volume



Most syndicated

T The Washington Post • The Virginian-Pilot, ...
US | Sep 11, 2022, 1:01 PM

New research facility shows how to live with rising tides

A kayak launch will be just off the boardwalk. The **Hampton Roads Sanitation District** already built a dock on the property and the Virginia ...

67.1M Reach

Social Echo

Neutral ○

Top Article by Social Echo



Top social echo

N New York Post
US | Sep 11, 2022, 6:51 PM

New Virginia research facility shows how to live with rising tides

A kayak launch will be just off the boardwalk. The **Hampton Roads Sanitation District** already built a dock on the property and the Virginia ...

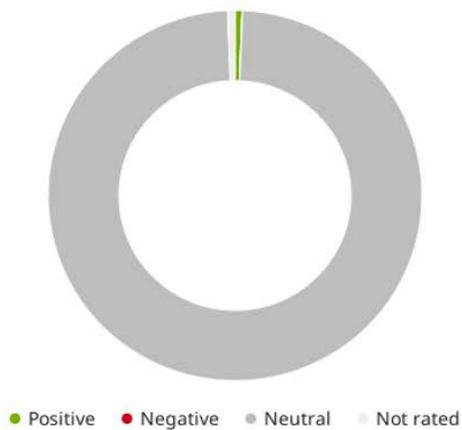
62.8M Reach

Social Echo

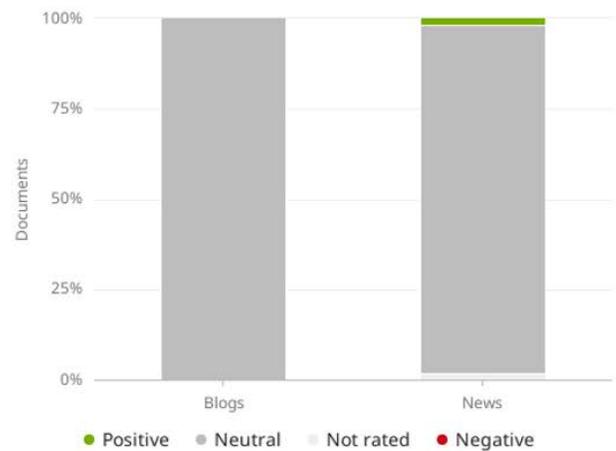
Neutral ○

How favorable is the content?

Sentiment Share of Voice

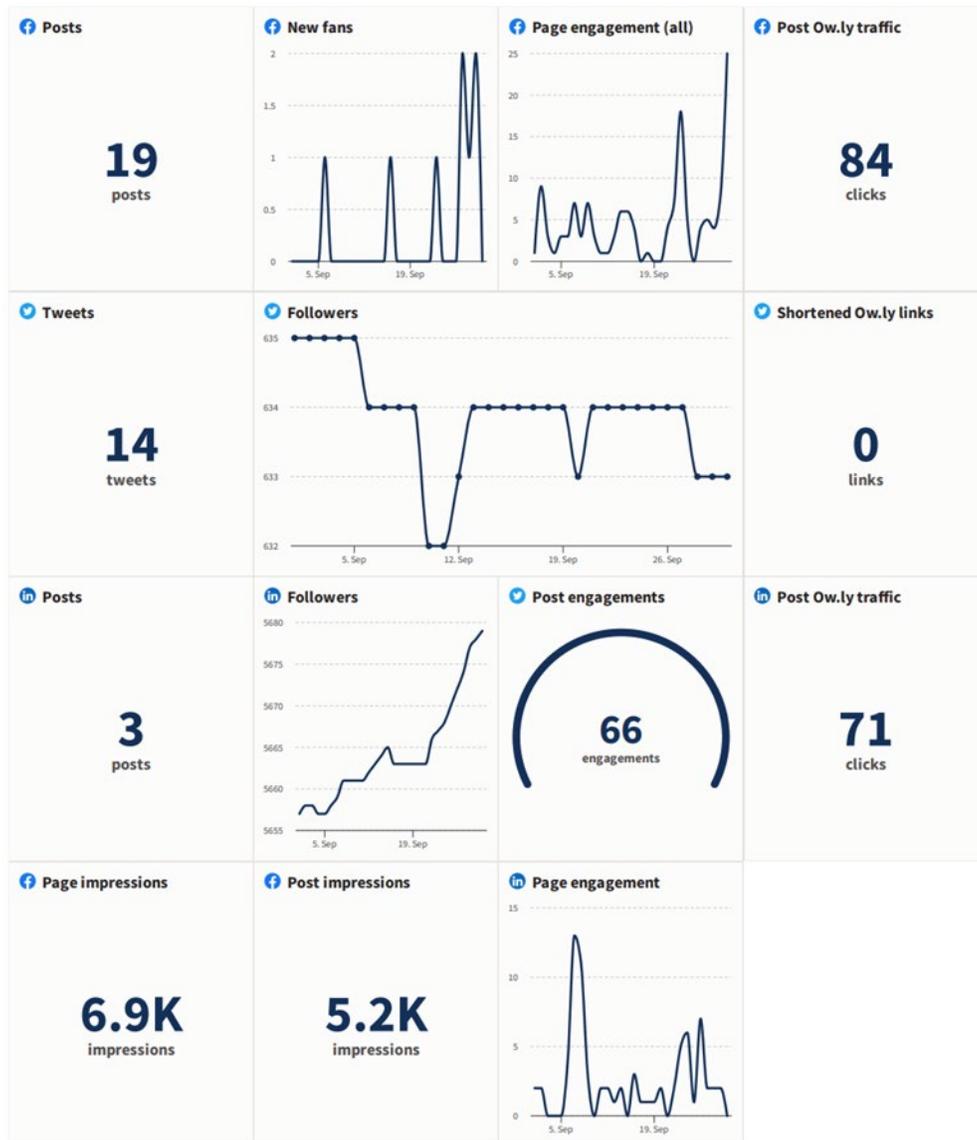


Sentiment by Source Type



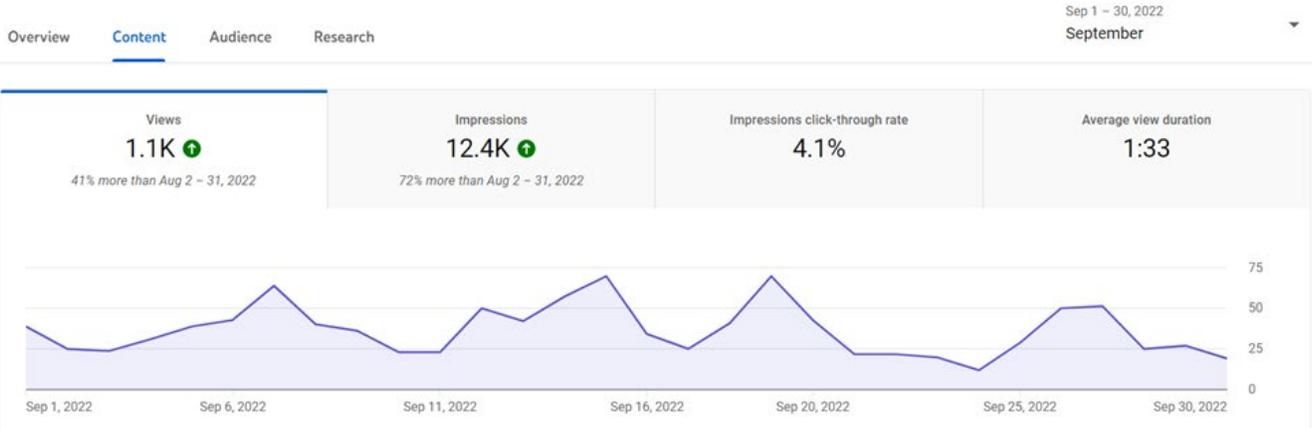
B. Social Media and Online Engagement

1. Metrics – Facebook, Twitter and LinkedIn



2. YouTube

Channel analytics



3. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post

HRSD
Published by Hootsuite · September 30 at 10:49 AM · 🌐

Happy Friday!
credit: Changes City Spa, Norfolk

Please don't flush...
Dreams, wipes, or feminine products.
Only flush...
Negativity, doubts, and toilet paper.

Reach more people with this post
People are boosting posts like "Wastewater treatment..." to reach more people. Try boosting this post.

Insights unavailable for this post **Boost a post**

19 2 Shares

Like Comment Share

b. Top Tweet



c. Top YouTube Videos

- [The Wastewater Treatment Process](#) (645 views)
- [SWIFT Research Center: What is the Potomac Aquifer](#) (80 views)
- [What is Asset Management? Celebrating Infrastructure Week at HRSD](#) (61 views)
- [HRSD Employee Testimonials - Robert](#) (54 views)
- [SWIFT Research Center Ribbon Cutting Ceremony](#) (45 views)
- [What's the impact of stormwater on wastewater systems?](#) (38 views)

4. Website and Social Media Impressions and Visits

a. Facebook:

- 6,890 page impressions
- 5,169 post impressions reaching 10,617 users
- Facebook Engagement of 142 (119 reactions, 16 shares, and 7 comments)

b. Twitter:

- 2,129 tweet impressions
- 1,503 profile visits
- 4 mentions

c. HRSD.com/SWIFTVA.com: 859 page visits

d. LinkedIn Impressions:

- 2,683 page impressions
- 1,876 post impressions

e. YouTube: 1,096 views

f. Next Door unique impressions: 15,873 post impressions from 14 targeted neighborhood posting shared with 537,704 residents

g. Blog Posts: (1)

[3 Sustainable Shopping Food Tips to Make Your Kitchen More Eco Friendly](#)

h. Construction Project Page Visits – 1,970 total visits (not including direct visits from home page, broken down as follows:

(1) 1,539 visits to individual pages

(2) 431 to the status page

C. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Web Postings: 33

1. News Releases: 0

2. Traffic Advisories: 2

3. Construction Notices and/or notices to neighbors: 14

4. Advertisements: none

5. Project Notices: 15 (via door hangings, reaching 830 residents)

6. Project/Community Meetings: 0

7. New Project Web Pages: 2

- [Washington and West Avenues Area Sanitary Sewer Improvements](#)
- [Nansemond Treatment Plant SWIFT Improvements](#)

8. New Project Videos: 0

D. Special Projects and Highlights

1. Planning is underway to produce HRSD's first Annual Report which will highlight HRSD accomplishments and provide financial information within more of a Popular Annual Financial Report (PAFR) format to better inform and educate customers of how HRSD protects public health and the environment and the financial details that support that endeavor.

2. Director attended the first Hampton Roads Media Council Meeting held since 2019; it was well-attended by media representatives from all outlets as well as locality, military and other public information and media relations staff. VDOT representatives gave an update to the group on the Hampton Roads Bridge Tunnel Expansion Project.

3. Director coordinated interviews with HRSD SWIFT subject matter experts and the New York Times for an earned media opportunity about SWIFT.

E. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. HRSD Internal Conference planning meetings
 - b. Atlantic Treatment Plant Land Conversion Charette meeting 1
 - c. Strategic planning workshop #3
 - d. Operations Job Fair planning meeting
 - e. Hurricane drill virtual EOC meetings
 - f. UNIFIED Council meetings
 - g. Open house planning meetings for Tabb Pressure Reducing Station
 - h. Meeting to discuss web updates for Customer Care
 - i. Potomac Aquifer Recharge Oversight Committee (PAROC) meeting
 - j. SWIFT Industry Day planning check-in meeting
 - k. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
2. Director also conducted biweekly Communications department status meetings and weekly team and one-on-one check-in meetings.
3. Staff attended project progress and outreach development meetings with various project managers.
4. Staff attended askHRGreen Water Awareness and Chesapeake Environmental Improvement Council meetings.

F. Metrics

1. Educational and Outreach Activities: 22 virtual, 6 in-person
 - a. Self-guided SWIFT Virtual Tours – 22 views (analytics specify number of times “Take a Tour” button was selected)
 - b. 09/01/2022 – SWIFT Tour, Retired HRSD employee | 1 participant
 - c. 09/07/2022 – Newport News Master Gardeners Presentation| 30 participants
 - d. 09/08/2022 – SWIFT Tour, HRSD Employee | 8 participants
 - e. 09/14/2022 – SWIFT Tour, Harbourview Community | 15 participants
 - f. 09/22/2022 – SWIFT Tour, Harbourview Community | 18 participants
 - g. 09/30/2022 – Newport News Schools presentation to 3rd graders | 85 participants
2. Number of Community Partners: 3
 - a. Newport News Master Gardeners
 - b. Harbourview Homeowners Association
 - c. Newport News Public Schools
3. Additional Activities Coordinated by Communications Department: 3

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Total Training Hours per Full Time Employee (4) - Current Month	Hours / #FTE	0.875
M-1.4b	Total Training Hours per Full Time Employee (4) - Cumulative Fiscal Year-to-Date	Hours / #FTE	3.935
M-5.2	Educational and Outreach Events	Number	28
M-5.3	Number of Community Partners	Number	3

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for September 2022
DATE: October 14, 2022

A. General

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

CIP Spending (\$M):

	Current Period	FYTD
Actual	24.71	41.26
Plan	34.25	48.50

2. Staff retention and recruitment continue to be a significant focus for the Engineering Department. A total of 11 positions are needed to bring the Engineering Department to a fully staffed level. Two new employees have joined the Engineering Department this month:
 - Jonathan Depaz – Data Analyst
 - Lilly Moon – Data Analyst

We continue to recruit and interview candidates for the many open positions and are working closely with the Talent Management Department to find new ways to reach out to potential recruits. We will be attending the WEFTEC Career Fair to talk with potential candidates and hold on-site interviews.

B. Asset Management Division

1. HRSD conducted a Hurricane Drill in September. It has been a few years since we conducted the last drill and there were several lessons learned as part of the exercise. Items that are obvious improvements to HRSD's Hurricane Readiness and Recovery Plan will be included immediately. Several issues were raised that will be reviewed with the HRSD Leadership in October. These items will be either included into the plan in the coming month and larger/more complex issues will be considered for next year's update to the plan.
2. The SWIFT Program will involve significant efforts at several treatment plants. Some of this work will involve the connection to, or replacement of, certain existing pipelines. This work will be used as an opportunity for the inspection and condition assessment of existing pipeline assets. This is a unique opportunity to verify our assumptions on the condition of numerous buried assets. This data will inform our asset management planning for buried assets at our treatment plants and is a positive side benefit of the SWIFT Program.

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

1. The design for the Tabb Pressure Reducing Station and Offline Storage Facility continues. The project has reached the 90% design milestone. Internal and external discussions have been held in recent months and a Community Open House is scheduled for November 1. Input from this meeting will be used to finalize the design of this project with the bidding for the construction phase slated for early 2023.
2. Construction for the Eastern Shore Transmission Force Main Phase I project continues. Approximately 50,000 linear feet of pipe have been installed to date. Construction efforts should begin soon on the proposed pump stations. Property acquisitions continue. Coordination with VDOT and other stakeholders continue as we work to construct this fast-paced project.
3. An effort is planned to study the possibility of constructing a regional Granular Activated Carbon (GAC) Reactivation Facility. GAC will be used as part of the SWIFT treatment process at HRSD and could be used by others in the region as part of future enhanced water quality objectives. This study will consider the feasibility of building and operating a facility to reactivate GAC and will attempt to estimate the future needs of the region. This concept has been shared with the other water purveyors in the region, as the results of the study will be reviewed by all interested parties before a decision is made about the viability of this future facility.
4. Construction efforts are underway for the James River Treatment Plant Advanced Nutrient Removal and SWIFT Improvements. These efforts include site clearing, grading, and sediment control. Installation of the proposed building foundations will begin soon. Installation of mechanical piping systems has begun and will continue in the coming months. Work is also underway to finalize the remaining design efforts and to acquire the related permits. Close coordination continues with the City of Newport News on several issues including site access, adjacent public uses and placement of extra soil from the site.

D. Planning & Analysis Division

1. Staff continue coordination with the various communities on the Eastern Shore to provide future sewer service. Outreach efforts are ongoing with the communities of Chincoteague, Wachapreague, and Accomack County. This effort includes discussions around property acquisition, service to various customers and formal agreements with each community.
2. Staff are working with the City of Chesapeake to discuss future service to the Coastal Virginia Commerce Park located along US Route 17 near the North Carolina state line. A rezoning request is under review by HRSD. The sewer flow and wastewater characteristics for the development are still to be determined. Staff are modeling various flow and pressure scenarios to understand the improvements needed to HRSD's infrastructure in the region. The planned schedule for development of this large parcel of land is another critical factor. Meetings with the City and developer are anticipated to better understand this proposed development and the subsequent infrastructure improvements required by HRSD.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 11

- a. 09/01/2022 – Staff made a presentation to the Hampton Roads Planning District Commission’s Regional Environmental Committee Meeting.
- b. 09/12/2022 – Staff presenter at the Virginia Water Environment Association (VWEA) WaterJAM Conference workshop entitled, *Modelpalooza*.
- c. 09/13/2022 – Staff made a presentation at the VWEA WaterJAM Conference entitled, *Structuring a Fixed-Price Design Build Procurement that Encourages Progressive Collaboration*.
- d. 09/14/2022 – Staff made a presentation at the VWEA WaterJAM Conference entitled, *Use of Business Intelligence Tools to Implement an Asset Management Plan*.
- e. 09/14/2022 – Staff co-presented at the VWEA WaterJAM Conference entitled, *Study on the Accuracy of Ultrasonic Thickness Testing and Calibration Methods to Ensure Accuracy*.
- f. 09/14/2022 – Staff made a presentation at the VWEA WaterJAM Conference entitled, *Clear Water Should Not Flow-Through the Sanitary Sewer System*.
- g. 09/14/2022 - Staff co- presentation at the VWEA WaterJAM Conference entitled, *Dash Across the Interstate; Rehabilitating a Gravity Sewer Just in Time*.
- h. 09/15/2022 – Staff provided a tour at WaterJAM of the Providence Road Off-Line Storage Facility and Woodstock Park Improvements.
- i. 09/15/2022 – Staff made a presentation at the VWEA WaterJAM Conference entitled, *Major 36-Inch Force Main Break Requires Carefully Planned and Coordinated Response*.
- j. 09/15/2022 – Staff was a presenter at the VWEA WaterJAM Conference workshop entitled, *Design with the End in Mind*.
- k. 09/20/2022 – Staff made a presentation to the Hampton Roads Utility and Heavy Construction Association (HRUHCA) Engineer’s Night on HRSD’s Capital Improvement Program.

2. Number of Community Partners: 3

- a. HRPDC
- b. HRUHCA
- c. VWEA

3. Number of Research Partners: 0

4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Total Training Hours per Full Time Employee (53) - Current Month	Hours / #FTE	3.77
M-1.4b	Total Training Hours per Full Time Employee (53) - Cumulative Fiscal Year-to-Date	Hours / #FTE	5.99
M-5.2	Educational and Outreach Events	Number	11
M-5.3	Number of Community Partners	Number	3
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee

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

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for September 2022
DATE: October 12, 2022

A. General

1. Staff are preparing an application for up to \$100 million in American Rescue Plan Act grant funds for the James River and Nansemond nutrient improvement projects. The application deadline is October 15. An award will be made by December 1.
2. Staff received notification of approval of the 2023 Virginia State Revolving Loan program allocation. Unfortunately, the award was \$50 million rather than the \$100 million requested. This will have little impact to the overall financial plan as the planned five-year funding amount from the clean water program remains unchanged.
3. Staff submitted the first invoice for reimbursement from the Water Infrastructure Finance and Innovation Act (WIFIA) loan. This funding source was locked in at an interest rate of 1.42% and will provide substantial savings in comparison to the current treasury rate of approximately 3.5%.
4. Arrearages remained steady for September. Staff are working with the Virginia Department of Social Services on the Low-Income Household Water Assistance Program (LIHWAP) to further assist with residential unpaid balances. Staff are also contacting large commercial past due accounts for payment.
5. During September, the department saw a daily average of 40% staffing shortages created by planned leave, unexpected leave, technical issues, employee transfers and extended vacancies due a tight labor market; this continues to contribute significantly to staff challenges in meeting internal benchmarks. Only 23 percent of calls were answered within three minutes.

B. Interim Financial Report

1. Operating Budget for the Period Ended September 30, 2022

	Amended Budget	Current YTD	Current YTD as % of Budget (25% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 366,882,000	\$ 98,786,398	27%	27%
Surcharge	1,755,000	411,522	23%	24%
Indirect Discharge	3,200,000	1,116,877	35%	25%
Fees	2,910,000	884,691	30%	1%
Municipal Assistance	800,000	172,923	22%	27%
Miscellaneous	1,254,000	170,186	14%	7%
Total Operating Revenue	<u>376,801,000</u>	<u>101,542,597</u>	27%	27%
Non Operating Revenues				
Facility Charge	7,150,000	1,648,495	23%	22%
Interest Income	1,570,000	(127,784)	-8%	6%
Build America Bond Subsidy	2,026,000	-	0%	0%
Other	302,000	284,295	94%	63%
Total Non Operating Revenue	<u>11,048,000</u>	<u>1,805,006</u>	16%	18%
Total Revenues	387,849,000	103,347,603	27%	27%
Transfers from Reserves	18,868,701	4,717,175	25%	25%
Total Revenues and Transfers	<u>\$ 406,717,701</u>	<u>\$ 108,064,778</u>	27%	26%
Operating Expenses				
Personal Services	\$ 63,288,297	\$ 16,800,551	27%	26%
Fringe Benefits	26,520,561	5,953,663	22%	25%
Materials & Supplies	13,385,885	2,368,361	18%	18%
Transportation	1,797,226	347,189	19%	23%
Utilities	15,055,652	3,209,340	21%	22%
Chemical Purchases	13,026,120	2,658,385	20%	21%
Contractual Services	57,808,888	9,220,403	16%	15%
Major Repairs	12,409,035	2,062,584	17%	11%
Capital Assets	625,737	11,397	2%	31%
Miscellaneous Expense	3,594,334	743,294	21%	23%
Total Operating Expenses	<u>207,511,735</u>	<u>43,375,167</u>	21%	21%
Debt Service and Transfers				
Debt Service	69,533,000	28,089,746	40%	40%
Transfer to CIP	129,412,966	32,353,242	25%	29%
Transfer to Risk management	260,000	65,001	25%	25%
Total Debt Service and Transfers	<u>199,205,966</u>	<u>60,507,989</u>	30%	33%
Total Expenses and Transfers	<u>\$ 406,717,701</u>	<u>\$ 103,883,156</u>	26%	27%

2. Notes to Interim Financial Report

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

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

Transfers represent certain budgetary policy designations as follows:

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

3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended September 30, 2022

HRSD - RESERVE AND CAPITAL ACTIVITY September 30, 2022

	General Reserve				Capital	
	General	CARES - ARPA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
Beginning - July 1, 2021	\$ 189,168,885	\$ 420	\$ 33,134,065	\$ 4,279,547	\$ 32,535,033	\$ -
Current Year Sources of Funds						
Current Receipts	105,342,090					
Line of Credit						
VRA Draws					23,755,278	
CARES Transfer In	730,692					
Days Cash on Hand Transfer In						
Transfers In	-			65,001	32,353,242	
Sources of Funds	106,072,782	-	-	65,001	56,108,520	-
Total Funds Available	\$ 295,241,667	\$ 420	\$ 33,134,065	\$ 4,344,548	\$ 88,643,553	\$ -
Current Year Uses of Funds						
Cash Disbursements	82,349,789				80,663,572	-
CARES Transfer Out		(891)				
Days Cash on Hand Transfer Out	-					
Transfers Out	32,418,243					
Uses of Funds	114,768,032	(891)	-	-	80,663,572	-
End of Period - September 30, 2022	\$ 180,473,635	\$ 1,311	\$ 33,134,065	\$ 4,344,548	\$ 7,979,981	\$ -
Unrestricted Funds	\$ 192,798,164					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended September 30, 2022

HRSD - PROJECT ANALYSIS September 30, 2022

Classification/ Treatment Service Area	Appropriated Funds	Expenditures		Total		Available Funds
		prior to 7/1/2022	Year to Date FY2023	Project Expenditures	Encumbrances	
Administration	\$ 73,738,240	\$ 24,017,666	\$ 995,814	\$ 25,013,480	\$ 2,631,694	\$ 46,093,066
Army Base	163,448,800	124,990,776	96,476	125,087,252	1,336,545	37,025,003
Atlantic	223,483,198	79,968,839	1,065,808	81,034,647	2,898,458	139,550,093
Boat Harbor	390,656,520	56,493,327	6,625,181	63,118,508	194,321,015	133,216,997
Ches-Eliz	183,285,621	118,083,285	988,190	119,071,475	5,821,760	58,392,386
Eastern Shore	28,167,651	3,409,844	8,061,473	11,471,317	14,467,339	2,228,995
James River	336,623,584	41,947,605	16,657,507	58,605,112	238,385,627	39,632,845
Middle Peninsula	101,335,187	20,701,425	1,811,997	22,513,422	10,702,337	68,119,428
Nansemond	465,790,657	42,047,584	6,463,518	48,511,102	319,810,973	97,468,582
Surry	57,612,528	38,362,111	1,405,275	39,767,386	4,246,111	13,599,031
VIP	165,969,940	17,792,976	1,327,276	19,120,252	31,742,937	115,106,751
Williamsburg	28,356,619	20,951,191	1,594,744	22,545,935	3,027,803	2,782,881
York River	77,255,863	13,910,493	336,285	14,246,778	10,402,682	52,606,403
General	1,196,691,469	212,260,993	20,291,530	232,552,523	355,067,423	609,071,523
	<u>\$ 3,492,415,877</u>	<u>\$ 814,938,115</u>	<u>\$ 67,721,074</u>	<u>\$ 882,659,189</u>	<u>\$ 1,194,862,704</u>	<u>\$ 1,414,893,984</u>

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's) September 30, 2022

	Principal Aug 2022	Principal Payments	Principal Draws	Principal Sept 2022	Interest Payments
Fixed Rate					
Senior	172,074	(1,332)	-	170,742	(233)
Subordinate	617,485	(3,272)	20,582	634,795	(2,027)
Variable Rate					
Subordinate	50,000	-	-	50,000	(71)
Line of Credit	33,721			33,721	(68)
Total	<u>\$ 873,280</u>	<u>\$ (4,604)</u>	<u>\$ 20,582</u>	<u>\$ 889,258</u>	<u>\$ (2,399)</u>

HRSD- Series 2016VR Bond Analysis October 7, 2022

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.43%	0.51%	0.08%
Minimum	0.01%	0.01%	0.00%
As of 10/07/22	2.45%	2.40%	-0.05%

* Since October 20, 2011 HRSD has averaged 51 basis points on Variable Rate Debt

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

HRSD - UNRESTRICTED CASH

September 30, 2022

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

		Days Cash on Hand	Adjusted Days Cash on Hand
Total Unrestricted Cash	\$ 192,798,164		339
Risk Management Reserve	\$ (4,344,548)	(8)	331
Capital (PAYGO only)	\$ (7,979,981)	(14)	317
Adjusted Days Cash on Hand	\$ 180,473,635		317

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

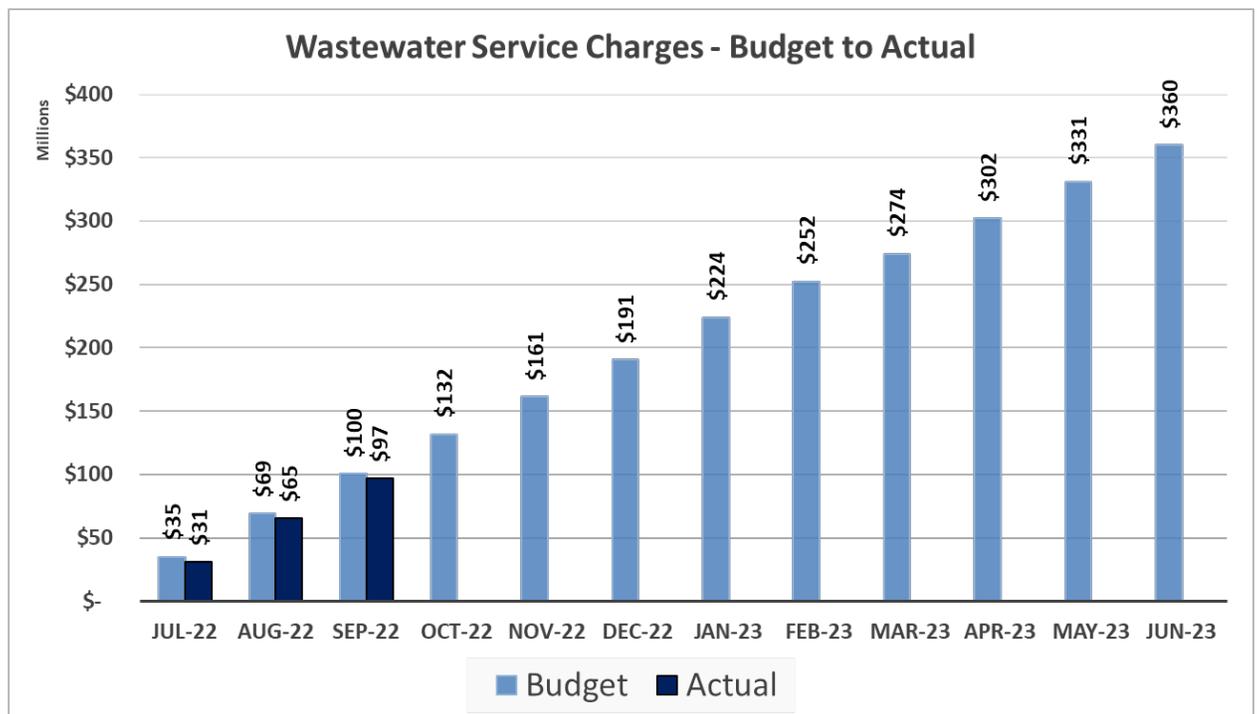
September 30, 2022

Primary Source	Beginning Market Value July 1, 2022	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value September 30,	Allocation of Funds	Credit	Current Mo Avg Yield
BAML Corp Disbursement Account	25,498,734	138,296,104	145,261,979	32,162	18,565,021	12.1%	N/A	0.55%
VIP Stable NAV Liquidity Pool	144,268,153	-	10,000,000	733,165	135,001,318	87.9%	AAAm	2.56%
Total Primary Source	\$ 169,766,887	\$ 138,296,104	\$ 155,261,979	\$ 765,327	\$ 153,566,339	100.0%		

Secondary Source	Beginning Market Value July 1, 2022	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value September 30,	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	62,932,017	-	3,172	168,614	62,017,749	63,909,459	(1,891,710)	
Total Secondary Source	\$ 62,932,017	\$ -	\$ 3,172	\$ 168,614	\$ 62,017,749	\$ 63,909,459	\$ (1,891,710)	

	Total	Fund Alloc
Total Primary Source	\$ 153,566,339	71.2%
Total Secondary Source	\$ 62,017,749	28.8%
TOTAL SOURCES	\$ 215,584,088	100.0%

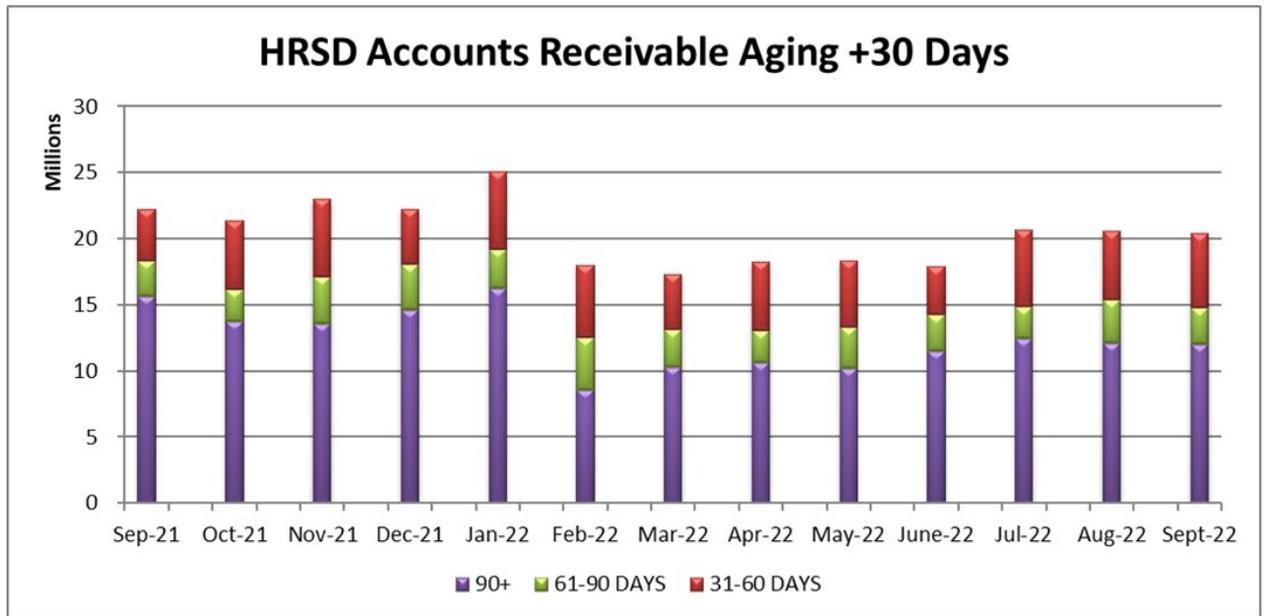
7. Summary of Billed Consumption

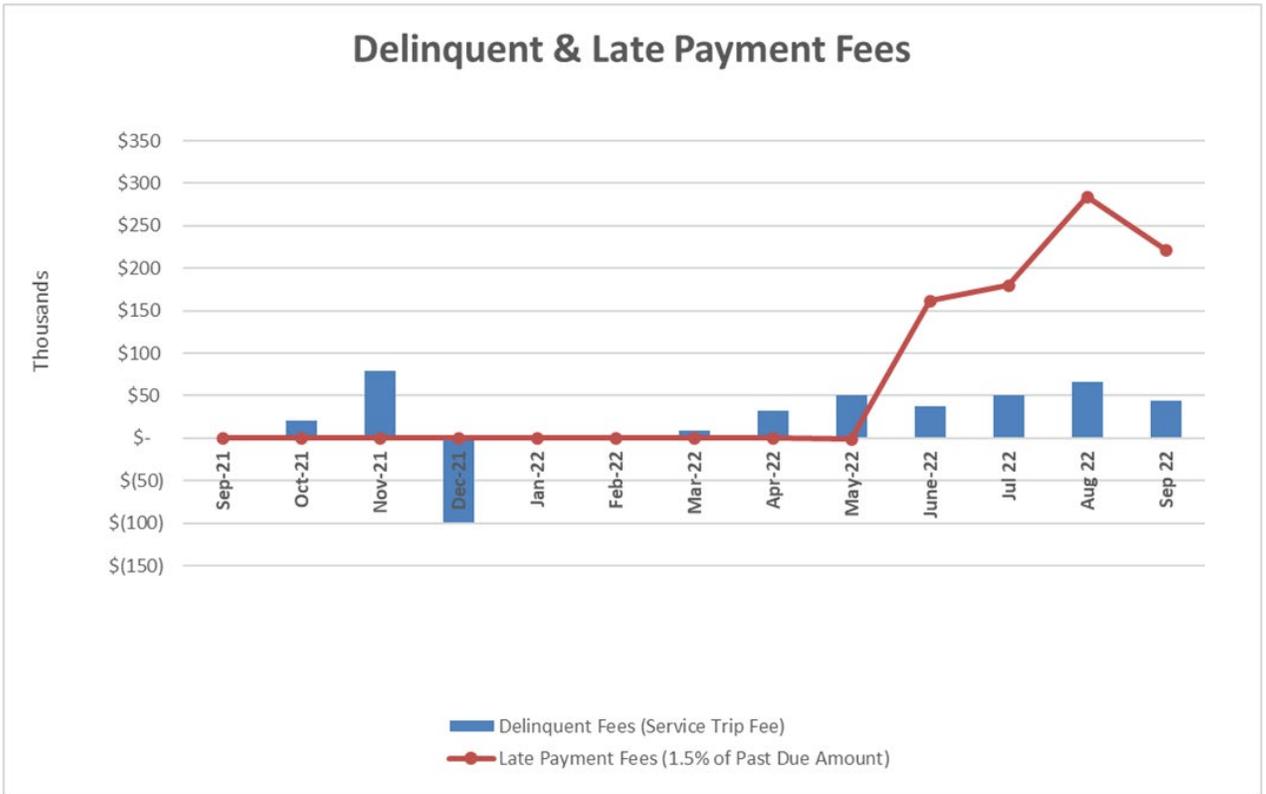


Summary of Billed Consumption (,000s ccf)							
Month	FY2023 Cumulative Budget Estimate	% Difference		% Difference		% Difference	
		FY2023 Cumulative Actual	From Budget	Cumulative FY2022 Actual	From FY2022	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,682	-6.6%	4,976	-5.9%	4,947	-5.4%
Aug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

C. Customer Care Center

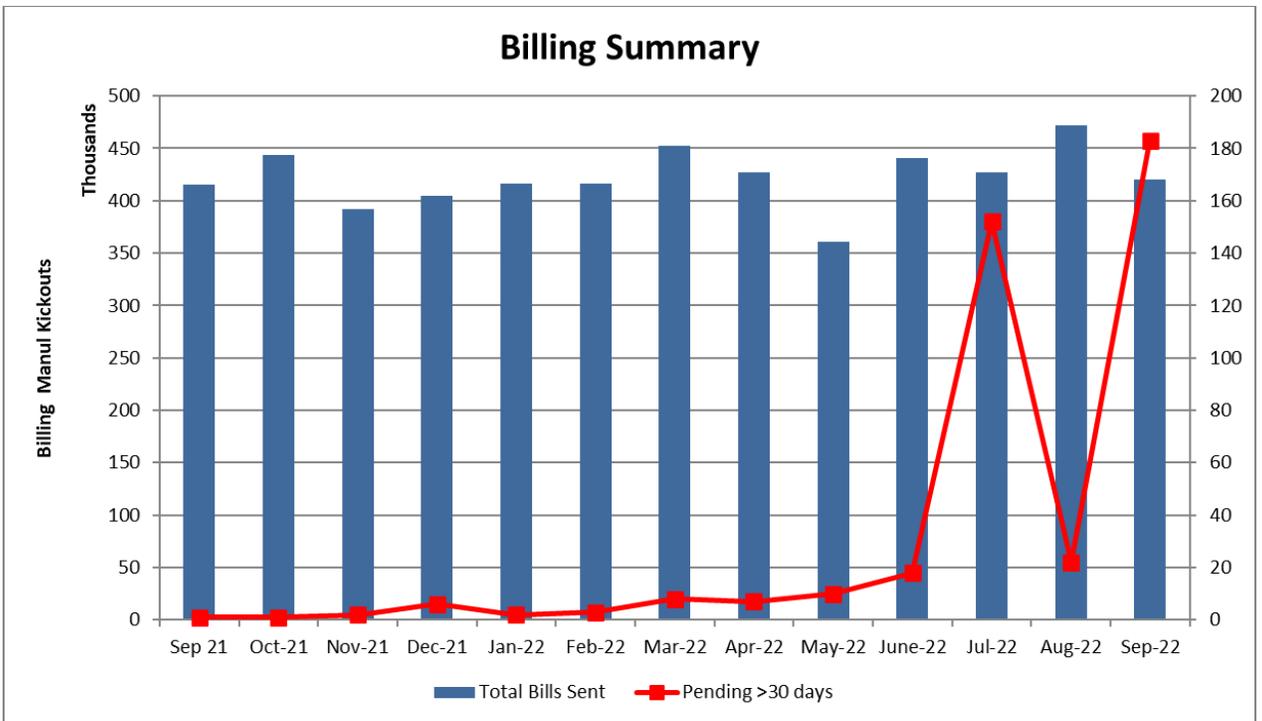
1. Accounts Receivable Overview

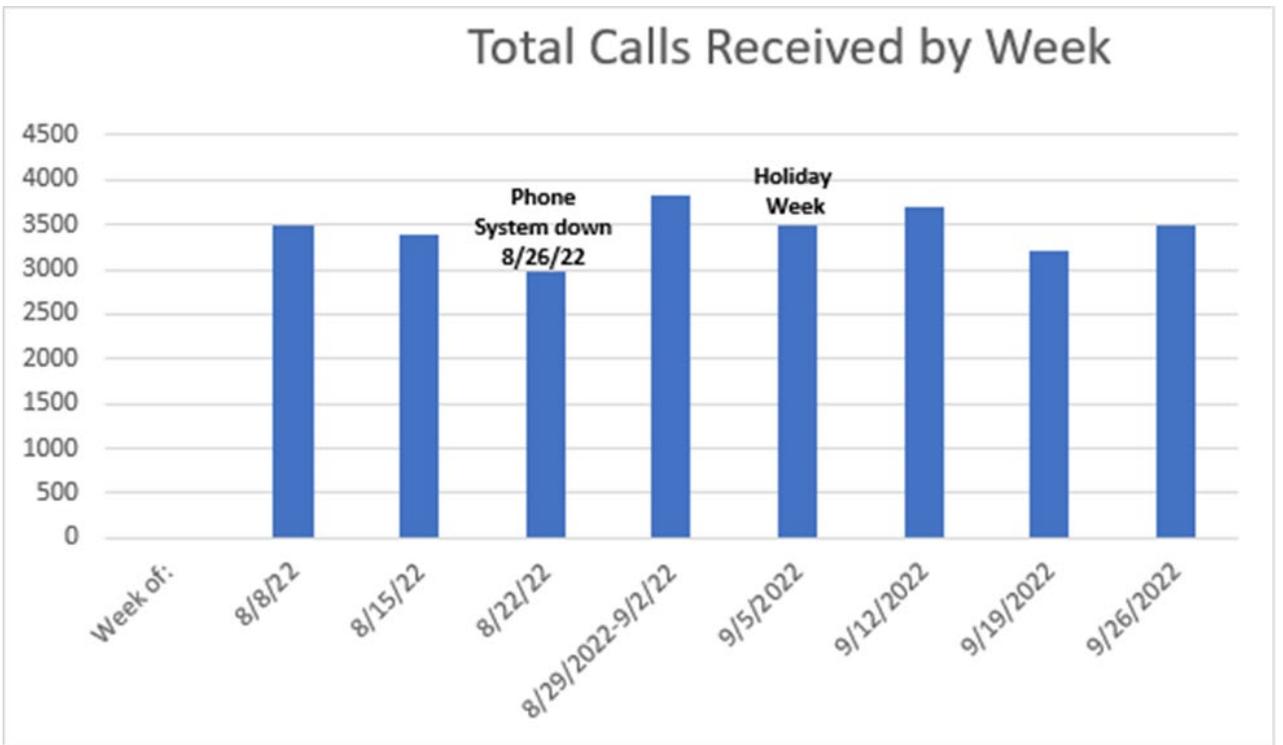
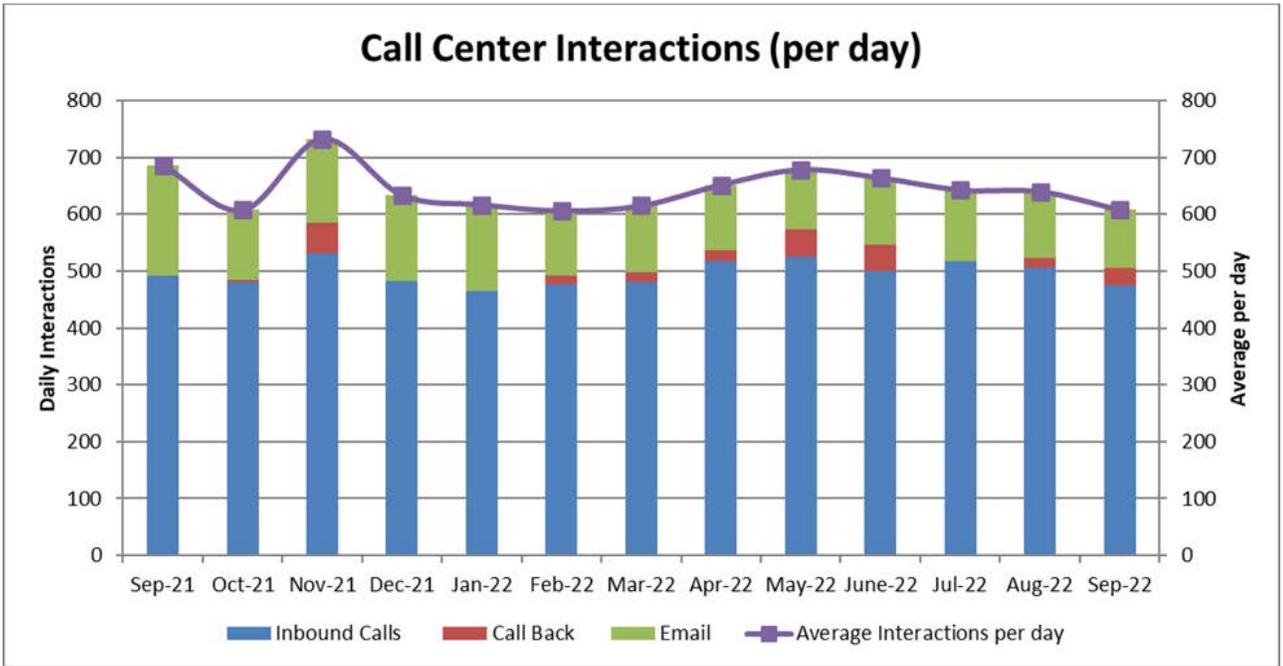


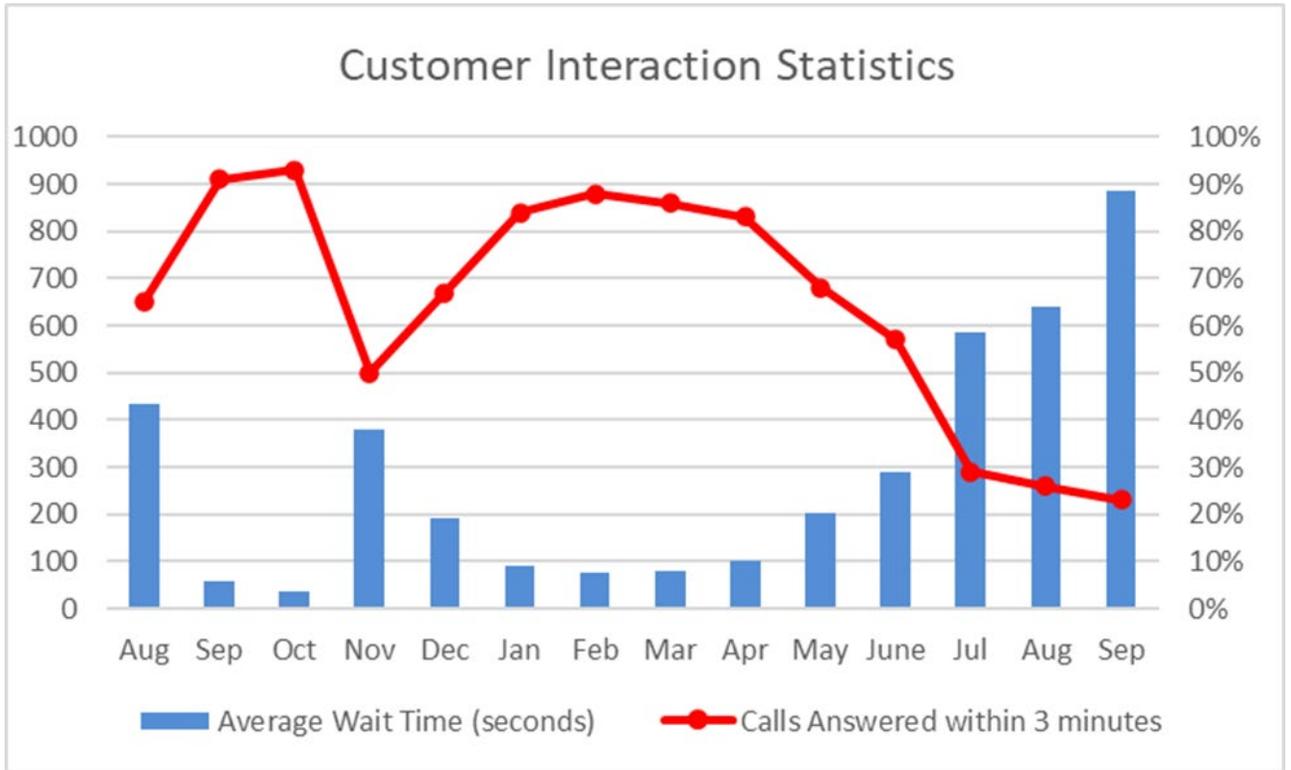


Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19.

2. Customer Care Center Statistics





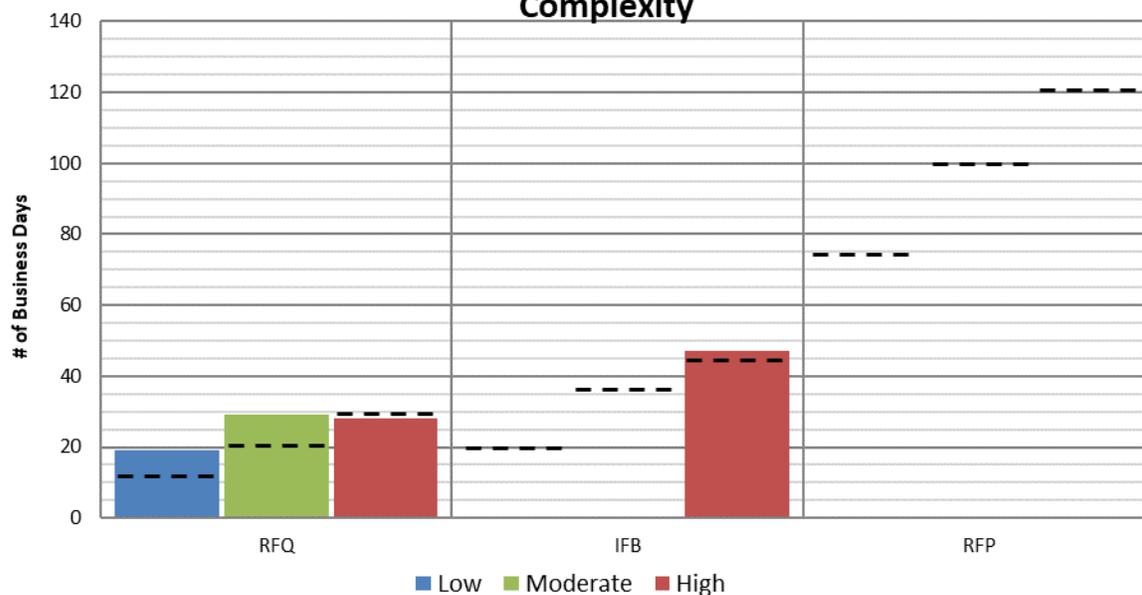


D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	6	Caught by Cardholder.
September	2	Caught by Cardholder.
Total	8	

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

September Cycle Time Per Method of Procurement and Complexity



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

E. Strategic Planning Metrics Summary

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

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Training During Work Hours Per Full Time Employee (103) – Current Month	Hours / #FTE	0.64
M-1.4b	Total Training During Work Hours Per Full Time Employee (103) – Cumulative Fiscal Year-to-Date	Hours / #FTE	1.87
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	108%
	General Reserves	Percentage of Operating Budget less Depreciation	103%
	Liquidity	Days Cash on Hand	339 Days
	Accounts Receivable (HRSD)	Dollars	\$41,007,932
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	29%

4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2022
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	*
M-4.3	Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow	*
M-4.4	Affordability	6.5 CCF Monthly Charge/Median Household Income ^[1]	*
M-4.5	Operating Cost/MGD	Total Operating Expense /365/5-Year Average Daily Flow	*
	Billed Flow	Percentage of Total Treated	*
	Senior Debt Coverage	Cash Reserves/ Senior Annual Debt Service	*
	Total Debt Coverage		*

* These metrics will be reported upon completion of the annual financial statements.

Respectfully,

Steven G. de Mik

Steven G. de Mik, CPA

Deputy General Manager/CFO

TO: General Manager
FROM: Director of Information Technology
SUBJECT: Information Technology Department Report for September 2022
DATE: October 12, 2022

A. General

1. Staff continue their work with Oracle and its business partners to complete the initial configuration and testing of the recently delivered high density computing platform. Following successful completion of this testing, applications and databases will be migrated and further tested to ensure system stability and data integrity. Each phase of this project incorporates industry best practices to ensure a smooth transition from the old, to the new, minimizing risk of service disruption. Although not the fastest approach, it is certainly worth the extra time.
2. Supply chain issues continue to hinder timely delivery of the equipment necessary to upgrade numerous conference rooms across the organization. While efforts to identify alternate components have been somewhat successful, several necessary components are still being sourced.
3. The IT Help Desk processed 432 work orders in September, ensuring availability of computing resources to those working locally and remotely.
4. A new cybersecurity test environment is being created to accommodate offline testing of new software applications, upgrades, cross-platform interfaces, and other code modifications, prior to pre-deployment testing by end users.
5. Several remote access solutions are being deployed which will provide controlled secure access to portions of the Operational Technology Network (OTN). This will reduce travel time for authorized users requiring remote access to the OTN, and further enhance operational readiness during inclement weather events, line breaks, and other instances requiring remote connectivity to the OTN.
6. Migration and testing of the new backup and restoration platform is progressing according to schedule, as non-Oracle databases are migrated from their existing repositories.

B. Strategic Planning Metrics Summary

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

C. Metrics Summary

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Training During Work Hours Per Full-Time Employee (54) – Current Month	Total Training Hours / # FTE	2.65
M-1.4b	Total Training During Work Hours Per Full-Time Employee (54) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	8.98
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,

Don Corrado

TO: General Manager
FROM: Director of Operations
SUBJECT: Operations Report for September 2022
DATE: October 18, 2022

A. Interceptor Systems

1. North Shore (NS) Interceptors

- a. The SCADA project faced some difficulties on NS as Rt. 199 Interim Pressure Reducing Station (PRS) cutover was unsuccessful due to older cards, and delays to Coliseum PRS and OLST factory acceptance testing. Other sites throughout HRSD were cut-over and global changes completed. Hardy Elementary School PS came on-line this month, extending the HRSD sewer system further west beyond Smithfield into Isle of Wight County as part of the Surry project. XONA and Dispell access systems were piloted and tested to get into the SCADA Ovation top end via the HRSD business network and outside HRSD's network completely. Information Technology (IT) will implement the full-scale access over the next few months, and these will provide true remote access to the Operations Network for operations and vendor access. Emerson provided Ovation training for over 35 staff in remotely led, full-day training sessions. This included staff from multiple divisions and departments within HRSD. The vendor notified HRSD of supply chain issues and is now anticipating delivery of the 100 Cisco switches ordered last winter for January 2023.
- b. Staffing remains challenging as we currently have six vacant Interceptor Technician positions and one vacant Interceptor Engineer position.
- c. There were no Sanitary Sewer Overflows (SSO).
- d. There were no odor complaints, three interceptor complaints, and 10 system alarms during the month. These complaints and system alarms were fully resolved by NS Operations staff.
- e. There were no Miss Utility 'No Show' incidents and 10 after-hour emergency tickets reported for the month.
- f. NS operations and engineering staff continue to support the numerous capital project under design and construction.
- g. Staff performed a caustic injection at Beaver Dam PS for the Gloucester Interceptor Force Main (IFM) and at the Smithfield Interim PRS to alleviate venting concerns and significant off-gassing in our Smithfield/Nansemond system. Due to a change in production at Smithfield Foods, the discharge traversing within this force main has significantly changed. There is little nitrogen content and the flows have subsided such that travel time to the Nansemond Treatment Plant is much longer. The net result is a change in gas production and location. The caustic injection is to kill the slime layer inside the force main and

thus thwart the production of methane and H₂S.

2. South Shore (SS) Interceptor Systems

- a. There was one SSO reported this month. On September 30, Tropical Storm Ian rainfall caused an overflow at the Suffolk Pump Station (PS). High downstream pressures locked out the pump station pumps and the emergency bypass pump. The overflow resulted in approximately 8,000 gallons spilled into Shingle Creek.
- b. There were no odor complaints reported this month.
- c. There were no Miss Utility no shows reported this month.
- d. There were eight interceptor complaints reported this month: one with the City of Virginia Beach Public Utilities Department, one with Norfolk Department of Utilities, and multiple with the City of Chesapeake Public Utilities regarding the same issue.
 - (1) On September 4, a Chesapeake resident reported pooling water near a valve at the intersection of Mt. Pleasant Road and Hillwell Road. Staff exercised the branch valve which stopped the small leak. Subsequent calls by City of Chesapeake staff on September 7 and September 9 reported that the issue remained. Staff excavated and found a circumferential crack on the 12-inch asbestos cement pipe near the valve. Staff installed a full circle clamp stopping the leak. No SSO reported since the leak was confined to the excavation and was recovered.
 - (2) On September 6, a Chesapeake resident reported a sewage back-up in his house that was purportedly caused by a nearby HRSD construction project on Hull Street. Staff contacted the project manager about the issue which was referred to the project contractor.
 - (3) On September 13, City of Chesapeake staff reported a sink hole at the intersection of Canal Drive and S. Military Highway that was purportedly caused by a nearby HRSD construction project. Staff contacted the project manager about the issue which was referred to the project contractor.
 - (4) On September 16, a Virginia Beach resident reported people trespassing at the Atlantic PRS. Staff responded and checked the fence, the locked gate, the "No Trespassing" signs, and the chained driveway; all were in good working order. Staff spoke to the resident and asked that they contact the police if it happened again.
- e. Staff responded to and resolved 19 system alarms this month.
- f. On September 29, staff spent a considerable amount of time preparing for Tropical Storm Ian. Staff de-ragged pumps in critical pump stations, operated mainline valves to ready the system for increased flows and pressures, and checked fuel levels at bypass pumps and generators.

- g. Staffing remains a challenge as we currently have 10 vacant Interceptor Technician positions.

B. Major Treatment Plant Operations

- 1. Army Base (ABTP) Treatment Plant and Virginia Initiative Treatment Plant (VIP) (ACV Group)
 - a. VIP and ABTP complied with all VPDES permit requirements with no odor complaints.
 - b. There were two MACT 129 deviations for use of the bypass stack at VIP.
 - c. There was one reportable event at VIP for an overflow into the storm drain system while draining a process tank.
 - d. There was one reportable event at ABTP for a Non-Potable Water (NPW) leak into the storm drain system.
 - e. ABTP
 - (1) Staff completed routine preventive maintenance and repairs.
 - (2) Staff installed new upper and lower seals along with the rubber skirting in secondary clarifier 1 and 3.
 - (3) Staff completed installation of a new air diffuser pattern and air bleed off piping on cell A in aeration tank #3 and returned it to service. The new bleed-off piping will allow for removal of moisture from the main trunk line. The new diffuser pattern will maximize efficiency of the aeration blowers and move the plant process closer to utilization of Ammonia-Based Aeration Controls (ABAC).
 - (4) Electrical and Instrumentation (E&I) staff installed a new Programmable Logic Control (PLC) for centrifuge #3.
 - (5) The plant process was changed from dosage mode to residual mode with hypo dosing. This will allow the plant to be more efficient with chemical dosing.
 - (6) Plant staff de-slagged incinerator #1. The large amount of slag was causing the center shaft to trip our repeatedly.
 - (7) Staff, assisted by a contractor, oversaw the NPW repair which included installation of a new isolation valve.
 - (8) ABTP, TSD, and P3 continued investigating possible sources of the May and August process upsets. Concerning levels of Quality Assurance Controls (QAC) were detected in Raw Influent (RWI) sample from August. TSD is conducting inhibition testing for the three permitted industrial

dischargers and additional samples are being sent to a contract lab for QAC analysis.

f. VIP

- (1) There were two reportable air permit events in September. There was an NPW low pressure alarm on September 20 that caused the induced draft fan to shut down, opening the bypass damper for seven minutes. There was a utility power loss on September 30 that caused the ID fan to shut down, opening the bypass damper for 30 minutes.
- (2) There was one reportable event on September 13 for a 200-gallon overflow from the plant drain system into a storm drain that occurred while taking a Versatile Biological Reactor (VBR) out of service for annual inspection.
- (3) The Nitrification Enhancement Facility (NEF) was returned to service and nitrification has improved.
- (4) Higher than normal conductivity levels in the plant influent due to collection system tidal infiltration has hampered disinfection and phosphorus uptake.
- (5) One Versatile Biological Reactor (VBR) and one aeration tank were placed in service and another VBR and aeration tank were taken out of service for annual maintenance. Maintenance staff performed the annual inspection on one anaerobic/anoxic tank.
- (6) Ammonia-Based Aeration Control (ABAC) is operating at a dissolved oxygen low-end setpoint of 1.0 mg/L, ortho-phosphate setpoint of 2.5 mg/L and ammonia setpoint of 2.2 mg/L. The average Dissolved Oxygen (DO) level in the aeration tanks was 1.5 mg/L for September. No supplemental carbon chemical addition was used for denitrification.
- (7) Maintenance staff replaced rabble teeth and natural gas supply valves to prepare the standby furnace for service in October. Electrical and mechanical issues with the gas Maxon valves and burners prevented the furnace turnover from occurring and it has been rescheduled for November.
- (8) Maintenance staff installed a new gearbox for the rebuilt biosolids receiving pump and rebuilt one grit slurry pump.
- (9) Rehabilitation work on one primary clarifier has been completed and is awaiting inspection by the Original Equipment Manufacturer (OEM) vendor.
- (10) Plant maintenance staff received confined space entry and retrieval system safety training.

2. Atlantic (ATP), Boat Harbor (BHTP), and Nansemond (NTP) Treatment Plant (ABN Group)
 - a. ATP
 - (1) The plant met all Virginia Pollution Discharge Elimination System (VPDES) permit requirements.
 - (2) Plant staff and TSD continue working to minimize off-site odors. Two odor complaints were received on Labor Day weekend.
 - (3) The plant sent 16 employees to the WaterJAM conference at the Virginia Beach Convention Center on September 14.
 - (4) Representatives from Varec Biogas came to the plant site to walk through the biogas system to answer questions, make recommendations, and provide training.
 - (5) The plant had an inspection with the Virginia Beach Fire Marshal on September 9. The inspection went well with only a few minor discrepancies. The plant staff corrected the issues, and a reinspection is scheduled for October 7.
 - (6) A pre-proposal conference was held for the ROCI (Reliability and Odor Capital Improvement Program) on September 23.
 - (7) Plant superintendents along with other HRSD personnel visited the Biosolids Curing Facility at DC Water. The trip was very insightful and has helped with some ideas moving forward.
 - (8) Two staff members traveled to Jackson, Mississippi on September 25 to assist with the ongoing efforts related to drinking water availability. Their mission was to find and inventory parts in support of the treatment plant's maintenance efforts.
 - (9) A contractor replaced the impeller for Odor B fan #1, which required a short duration of taking Odor B out of service for the repair.
 - (10) Staff replaced the inlet valves to the waste gas burners for #2 and #3 to allow for service to the gas pressure regulators for the flares. Staff also rebuilt both gas regulators and adjusted the operating pressures to both flares to help reduce digester Pressure Relief Valve (PRV) from venting.
 - (11) Staff re-piped the deaerator pumps per recommendation from boiler rep.
 - (12) Staff performed the annual Preventative Maintenance (PM) on pre-dewatering centrifuge #2.
 - (13) Staff installed railing in front of influent hatches for primary clarifiers 5 and 6.

- (14) Staff replaced mixer 1C on digester #1, which was causing noticeable noise.

b. BHTP

- (1) Two odor exceptions occurred in September. No odor complaints were reported.
- (2) Three MACT 129 deviations occurred this month.
- (3) The plant met all Virginia Pollution Discharge Elimination System (VPDES) permit requirements.
- (4) On September 22, a contractor performed an internal inspection on Hypo Tank #2. The inspection revealed some areas that needed repair due to cracking. The repairs have been made and the tank is now back in service.
- (5) On Thursday, August 25 plant staff noticed a higher-than-normal hypochlorite (hypo) demand and an increased Dissolved Oxygen (DO) demand. Internal plant processes remained normal with only the increase in hypo and DO. On August 26, the demand seemed to return to normal throughout the day, but the demand jumped up again that evening and was nearly six times the normal usage of hypo. Since then, there have been five more occurrences of extreme hypo demand upward of 100 gallons per hour when normal flow rate is less than 20 gallons per hour. Despite this extreme hypo demand, plant operators continue to be diligent in maintaining a residual to meet permit requirements.

Plant staff and the Treatment Process Engineer (TPE) continue working through internal causes, but no cause has been found. Pretreatment and Pollution Prevention (P3) will be setting up a sequential sampler to help track down a potential offsite cause. Central Environmental Laboratory (CEL) will do additional sample testing to determine if the cause is internal or not. More to come in the October report.

- (6) On September 28, staff noticed that the chlorine Total Residual Chlorine (TRC) meter had not been calibrated in two days. The meter was immediately calibrated, and plant leadership reviewed the importance of calibration of all equipment especially permit equipment with staff.
- (7) Three MACT 129 deviations occurred during the month of September. The first occurred on September 6 for use of the bypass stack due to a Non-Potable Water (NPW) line break. The second deviation occurred on September 7 for a low venturi pressure after the NPW line was fixed. The third deviation occurred on September 30 due to the use of the bypass stack when hurricane Ian came through and caused a large power outage.
- (8) Two Regulatory Reporting Forms (RRF) for the odor control system happened during the month. A NPW line broke on September 6, causing the odor scrubber system to lose NPW flow. The scrubber system was

shut down until NPW was restored. On September 22, the plant staff attempted to switch scrubber systems resulting in an exception due to unforeseen leaks and the system not being charged long enough with caustic.

c. NTP

- (1) Contractors continue construction of the Fats, Oils, and Grease (FOG) handling facility. The FOG facility's estimated completion date is March 2023.
- (2) On September 16, contractors digging behind the digester building broke a 2-inch NPW line. Plant staff were able to get the valve closed and recovered all spilled contents using the plant vac trailer. Nine hundred gallons of water were recovered making the spill a non-reportable event.
- (3) On September 21, contractors relocated the propane tank that provides pilot gas to the boilers and waste gas burner. Pilot gas was restarted after just a few hours with the help of plant staff.
- (4) SWIFT Research Center (RC) contractors continued working on the installation of the new Managed Aquifer Recharge (MAR) well. The plan so far is to start operations in mid-October.
- (5) Biofilters (BAFs) started to remove 1,4 dioxane biologically, which indicates that the use of propane gas as a co-substrate is working as hoped by the research team.
- (6) Plant staff continues optimizing the reduction of Aluminum Chlorohydrate (ACH) by recycling solids from the sedimentation basin to rapid mix. This research helps guide full scale design optimization and implementation.

2. James River (JRTP), Williamsburg (WTP), and York River (YRTP) Treatment Plant (JWY Group)

a. JRTP

- (1) The plant met all Virginia Pollution Discharge Elimination System (VPDES) permit requirements.
- (2) There were no reportable wastewater events or odor scrubber deviations and one odor complaint. The odor complaint was a fuel type odor noticed by a resident in the Denbigh Plantation neighborhood. The odor was believed to be from a fuel leak in the digester building. The resident was informed of the potential source and cleanup efforts.
- (3) Staff performed routine maintenance and repairs.
- (4) Staff installed actuators on each of four grit tank influent gates in support of the automation project.

- (5) Staff completed installation of two final effluent autosamplers to their new location. The autosamplers needed to be relocated so contractors can move materials to the river for the shoreline restoration project.
- (6) Staff cleaned vegetation from the effluent weirs on secondary clarifiers #3, #4, and #5.
- (7) The contractor completed replacement of the outside scum raceway on #4 primary clarifier with new skirting, extended from four feet to eight feet. Staff completed modifications to the scum trough on the same primary clarifier. The modifications prevented scum from building up across the surface of the clarifier.
- (8) The contractor modifying the #5 reactor of the Integrated Fixed Film Activated Solids (IFAS) tanks for improved nutrient removal completed work on all tanks except tank #8. The #5 reactor on IFAS tank #8 is the only reactor with a fixed media instead of moving media for testing purposes. The fixed media towers were lowered by crane into the tank and the contractor is working on installation. Anammox bacteria, which is essential for oxidizing ammonia and reducing nitrite, has been detected on the media in the #5 reactor on IFAS tank #6.
- (9) The well drilling contractor continued work on the well adjacent to secondary clarifier #4.
- (10) The Advanced Nutrient Removal Improvements (ANRI)/SWIFT project contractor removed a major portion of the earth berm to the west of the ferric sulfate tanks; continued with tree clearing; laid piping for stormwater ponds; constructed a temporary entrance for receiving disinfection and dechlorination chemicals; started work on a temporary construction entrance across the dog park, and worked on the pipe connector between the IFAS effluent pipe and secondary clarifiers influent distribution pipe.

b. WTP

- (1) The plant met all Virginia Pollution Discharge Elimination System (VPDES) permit requirements.
- (2) There were no reportable wastewater events, two reportable air events, eight incinerator air deviations, and three odor scrubber deviations. The reportable air events were a use of the incinerator emergency bypass stack due to the induced draft fan tripping out from a power blip. Seven incinerator air deviations were a failure of the total hydrocarbon monitor to record two valid readings per hour due to failures of the equipment to properly calibrate. One incinerator air deviation was a failure to maintain the minimum scrubber water flow over a 12-hour period caused by an obstruction in the venturi flow tube. One odor scrubber exhaust deviation of 2.5 ppm was due to high influent hydrogen sulfide levels for chemical amounts being fed. The other two odor scrubber exhaust deviations were due to clogged lines impacting odor scrubber control.

- (3) Staff performed routine maintenance and repair.
- (4) Staff completed detaching the floor coating from the bottom of primary clarifier #2. The floor coating buckled, preventing the rake arm from properly moving. The coating will need to be reapplied by a contractor.
- (5) Staff removed a failed mixer from one of the solids holding tanks. Repairs need to be completed and the mixer reinstalled.
- (6) Staff started two studies with our engineering annual services consultant. One study is to evaluate the current FOG system at the plant and provide recommendations for much needed improvements. The second study is to determine the best method for feeding intermediate clarifier effluent into the first anoxic zone of the aeration tanks for improved nutrient removal.
- (7) A contractor worked on coating of steel structures on the FOG water tank.
- (8) FOG receiving was suspended the last week of the month due to needed repairs on the FOG receiving tank.
- (9) Work on the administration building renovation project continued. The contractor completed installing and drywalling internal walls on the east end of the building which includes supervisor offices and the conference room. The contractor installed electrical cable in the building's east end and installed metal steps leading to the mezzanine in the shop.

c. YRTP

- (1) The plant met all Virginia Pollution Discharge Elimination System (VPDES) permit requirements.
- (2) There were no reportable wastewater events and one odor scrubber deviation. The odor scrubber deviation was due to having the odor scrubbers down for more than one hour for planned electrical maintenance. There was an odor complaint from a resident in the Seaford area. Treatment plant operations were normal at the time of the complaint and a cause for the odor has not yet been identified.
- (3) Staff performed routine maintenance and repairs.
- (4) Staff overhauled the #2 digester heat exchanger. Work included replacing piping and repairs to the heat exchanger frame.
- (5) Staff completed work on a new Deammonification (DEMON) micronutrient feed system. The previous system required hauling totes of ferric sulfate and inserting a mixer into the tote to mix added micronutrients. The new system uses a spare conical bottom tank near the DEMON system with ferric sulfate piped in directly from the ferric sulfate storage tanks, eliminating the need to haul totes. The conical tank helps mix in micronutrients, eliminating the need for a mixer.

- (6) A contractor continued work on repairing and sealing expansion joints in aeration tanks #5 and #6.
- (7) The administration building renovation project contractor worked with staff to move existing electrical conduits and chemical lines located in the building expansion area. The contractor also installed additional sediment control, removed vegetation where needed, and stacked out the building expansion area.
- (8) Contract work to control heat impacting the headworks motor control center is complete. Work included adding two mini split heating ventilation and air conditioning units and an air purifier and wrapping heat producing, blower piping.

3. Multiple Hearth Incinerator (MHI) Operations Events Summary

- a. Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 86%.
- b. The MHIs had two deviations from the required 129 SSI rule minimum operating parameters and seven minor bypass events (<60 minute). Stack test protocols were submitted to DEQ for Army Base and VIP's MHIs September 23. The MACT 129 emission limits testing for both facilities are to take place in November.

C. Small Communities (SC)

Surry and Eastern Shore were relatively quiet with few alarms or issues. West Point Treatment Plant (WPTP) trickling filter issues led to high Biochemical Oxygen Demand (BOD) levels at the beginning of the month and the average weekly permitted value was exceeded for the first week of September.

1. Middle Peninsula

- a. There were no SSOs in the Middle Peninsula System and one permit exceedance for the month of August.
- b. The weekly average BOD permit level for the WPTP was exceeded the week of August 4. The permitted level is 45mg/L and the weekly value was 52mg/L. During August, there were multiple instances of the Variable Frequency Drives (VFD) for both the trickling filter distributor arms and trickling filter recirculation pumps tripping. Dominion Energy (DE) confirmed electrical service issues on several of the VFD trips and on September 6 it was discovered that the mounting bolts for the trickling filter #2 distributor arms had all been sheared. Staff were able to replace the mounting bolts on the trickling arm by September 8 and get it back in service. While trickling filter #2 was down, staff also replaced both the rotating arm and filter pump VFDs. Once the repairs were made, BOD levels dropped off significantly for the remainder of the month.

- c. There were no odor complaints, and no collection system complaints.
- d. There were no Miss Utility 'No Show' incidents and five after-hour emergency tickets reported for the month.

e. West Point Treatment Plant (WPTP)

Staff made repairs to trickling arm #2 and installed a new automatic valve between the tertiary filter pump station and the effluent channel. This automated valve will open when the tertiary filter pump station wet well levels are elevated and activate a float switch.

f. Central Middlesex Treatment Plant (CMTP)

Staff installed a mechanical barscreen at the headworks.

2. Surry Systems

- (1) The Town of Surry PS and the Mount Ray PS were both activated this month. Only the Industrial Park PS will be cutover in October and then the Surry to Smithfield FM will be complete.
- (2) Staff are wrapping up inspection work for the new Surry to Smithfield FM and is updating the valve guide and as-built edits for the SU010200 CIP.
- (3) A new Dollar General has been tied into the Town of Surry Collection System.

3. Lawnes Point (LP)

- a. There were no SSOs.
- b. Pump and Haul operations continue at Lawnes Point. Atlantic Heating and Cooling performed six days of pump and haul of the SBR tank this month.

4. Eastern Shore (ES)

a. Onancock Collection System

- (1) Membrane # 2 went out of service.
- (2) A Quonset hut was relocated from the decommissioned Chesapeake-Elizabeth Treatment Plant (CETP) to Onancock Treatment Plant to replace the old dewatering building that was torn down due to dilapidation.
- (3) Plant and E&I staff finalized locating SCADA points after the server crashed and all the SCADA data points were lost. Graphics and control points will be sent to Emerson to start the process of switching everything over to ovation.

D. Electrical & Instrumentation (E&I)

1. Staff worked with contractor E.G. Middleton, to complete the Preliminary Treatment Facility (PTF) Bar Screens at ATP. Final punch list items are being evaluated for resolution.
2. Staff worked with contractors Crowder, Mid-Eastern Builders (MEB), and HDR to upgrade the Dystor #6 Gas Storage controls at ATP. The existing system is obsolete and spare parts can no longer be acquired.
3. Staff assisted thermographer contractor Infralogix with performing re-inspections to determine if initial thermographic inspection findings have been resolved at ABTP, SS Operations Center, and JRTP.
4. Staff installed a Telog Data Recorder and worked with the Data Analysis Section (DAS) to set up alarms to notify staff in the event of a power fail at Chesapeake Elizabeth Plant (CETP).
5. Staff worked with Electric Power Systems (EPS), and the Medium Voltage (MV) preventative maintenance contractor, to performed preventative maintenance on the MV switchgear, switches, and relays at YRTP. In addition, oil samples were collected from the MV transformers for gas particulate analysis.
6. Industrial Automation Programmers (IAP) completed the Graphics and Control programming in the Distributive Control System (DCS) system for the Intermittent mixing on aeration tank valve 1 at YRTP.
7. The Electrical Manager, E&I Superintendent, and E&I staff met with Electrical Equipment Company (EECO) to discuss the purchase and installation of an Igrid module due to unexpected power issues experienced at WPTP. The power quality issues resulted in treatment process interruptions. The Igrid module will capture the power anomaly from the incoming utility service in real time and send event notifications to HRSD staff.
8. Staff worked with the contactors, to cutover the new SCADA Remote Terminal Unit (RTU) controls at Virginia Beach Boulevard, Seay Avenue, Hardy Elementary School, Plume Street, and Mount Ray pump stations (PSs).
9. Staff worked with the contractors to complete pre-site inspection, loop checks, and functional testing at Mount Ray PS.
10. IAP amended the Programmable Logic Control (PLC) program to allow DERAG to operate the LEAD pump at a specified start time and frequency sequence at Claremont PS.
11. Staff discovered during the completion of the SCADA upgrade at Virginia Beach Boulevard PS that the rain gauge was no longer operational. Staff found the wires disconnected and not long enough to connect inside the new control panel. When attempting to pull new wire staff discovered that the conduits to the rain gauge were crushed. Staff trenched, installed new conduit, and pulled wire to get the rain gauge operational. The rain gauge is back in operation.

12. The WQ Building was originally designed to house eight operational Sequencing Batch Reactors (SBR). The first four were designed, constructed, and placed into operation by E&I staff. The equipment for the remaining four SBRs has arrived, and E&I staff are in the process of adding these to the existing arrangement. Redesign, construction, wiring, and programming are currently being performed. These should be fully operational by the end of October.
13. Staff assisted automotive with diesel generator load bank testing at Gum Road, Atlantic, Kempsville, Shipps Corner PRS, Newtown Road, North Avenue, and Woodland Road PSs. The generators operated as designed and were returned to service.
14. The Electrical Manager and staff continue to coordinate utility relocations with Dominion Energy, Verizon, and Cox for the Lucas Creek PS Replacement Project (JR013500) to avoid project schedule delays.
15. Staff responded to nine SCADA communication failures, and nine Telog communication failures. A communication failure is defined as a total loss of communication at a site that may require staff to respond to the site location during and/or after normal working hours.

E. Support Systems (SS)

- a. The Automotive and Electrical personnel performed routine load bank and generator tests at Kempsville PS, 337 Pump Station, Shipps Corner PS, Atlantic PS, Bainbridge Blvd. PS, Newtown Rd. PS, North Ave. PS, and Woodland Rd. PS. A monthly generator test was completed at NS and SS main complexes, all generators operated as designed and were returned to service.
- b. Facilities Maintenance (FM)
 - (1) Staff continues to work on repairs to the ABTP incinerator building elevator. Renovation of the Electrical Shop at ATP continues with the electrical contractor completing the rough-in of conduit, receptacles, and network hook-ups.
 - (2) All work has been completed at the Water Research intern house in Hampton after it was struck by lightning, causing electrical issues with the HVAC and damage to the chimney.
 - (3) Staff completed carpet cleaning in 1460 Water Quality building.
 - (4) The carpentry shop completed a 150-gallon aquarium stand for the new Water Quality (WQ) building and five office wall repairs and paint in 1434 Main Office.
 - (5) The Machine Shop completed 15 projects with four of the projects being total pump rebuilds for NS and SS Interceptors. There was one notable project in which the staff disassembled the scrubber fan that caught fire at ATP to help better understand why and how this happened.

c. Infrastructure Assessment (IA)

- (1) Staff has issued requisitions for work orders for the Closed-Circuit Television (CCTV) inspection of 42,544 Linear Feet (LF) for NS and SS Interceptors for FY23. The staff has issued requisitions for Small Communities CCTV totaling 31,440 LF for FY23. Staff completed inspection of #1 centrifuge at NTP and prepared requisition for repairs.
- (2) The Concrete Coatings staff oversaw several coating, concrete, and roof projects.
- (3) Staff continue coating work at the JRTP Phase V, VI, and VII odor pipe system.
- (4) Staff worked on coating projects for the chemical building, primaries #1 and #2, and rake arm assemblies for clarifiers #1 and #2 at NTP.
- (5) Staff completed the replacement of leaking expansion joints on aeration tank #6 and started ferric building secondary containment at YRTP.
- (6) Staff started coating project for the Fats, Oils, and Grease (FOG) thickener tank at WTP.

F. Resource Recovery (RR)

1. Staff are currently evaluating / developing several initiatives and projects. The focus is to develop a scope of work and cost for each initiative and/or project, such as for the methane reduction in the force main system, and the cost, benefits, and return on investment for solar installations.
2. Air quality and the environment benefit from reducing methane released into the atmosphere. Staff members are currently releasing air into the atmosphere from the force mains. The air contains methane and hydrogen sulfides and removing methane reduces the carbon footprint. Currently, there is no correlation or methodology between the mass of methane removed and carbon footprint reduction. It is necessary to establish a quantitative method that is commonly employed in the wastewater industry. Staff are involved in a WRF study that is attempting to generate such a methodology or correlation.
3. Staff are exploring two technologies that reduce methane and are capable of handling hydrogen sulfide. They are flares and regenerative thermal oxidizer. Flares are widely utilized in the wastewater industry and consist of an enclosed flame that burns the methane. A Regenerative Thermal Oxidizer does not have a flame but oxidizes the methane. Both reduce methane safely and have been proven to handle hydrogen sulfides. They are also rated at or above 95% methane removal. Both manufacturers have been contacted and staff are analyzing their costs and advantages and disadvantages. The previously submitted August monthly report contains additional details about both technologies.
4. Another initiative in the preliminary stages involves finding ways to generate electricity with hydro power. Staff are exploring the possibility of installing vortex hydropower at the plants. The concept is to utilize water that has already been pumped upward and utilize its fall to produce electricity. Tanks that are no longer in use can be repurposed.

5. Staff signed up with two WRF projects: one related to estimating methane in force mains and the other related to Bio recovery of Nutrients in wastewater.
6. A cost estimate was requested for the installation of solar panels at the Atlantic Plant and at the South Shore Interceptor Center. Staff will present the information to Operations Department Leadership once costs associated with each site and the advantages and disadvantages of each installation are determined.
7. The Chief of Resource Recovery is supporting both Chiefs of Treatment (COT) and Small Communities (SC) in their new roles. In addition to their new positions, they are performing their old ones. The Chief of Resource Recovery's involvement is very time-consuming but does provide assistance as needed.

G. Water Technology and Research

Anammox activity has been detected in the mainstream process at JRTP. This is a tremendous development, confirming previous pilot work, and further moving partial denitrification-anammox (PdNA) into the realm of established treatment technology. In March 2022, the first demonstration tank for PdNA in a moving Media Integrated Fixed Film Activated Sludge (MIFAS) configuration was placed in service at JRTP. After a few weeks of biofilm carrier wetting and other construction, methanol addition was initiated in June 2022. Based on pilot testing results, we expect to continue to observe increases in anammox activity over the next 12 months. The Fixed Media IFAS (FIFAS) upgrade tank 8 is approaching startup, and the conversion of the remaining seven tanks to FIFAS is nearly complete.

I. Strategic Measurement Data

1. Education and Outreach Events: 12

- a. 09/12/2022 – VIP tour for a consulting engineer during WaterJAM – Kelly Lamp
- b. 09/13/2022 – WaterJAM Podium Presentation Success at Pilot Scale leads to the Full-Scale Application of PdNA in MBBR and IFAS and the Inadvertent Development of Mainstream PNA Along the Way – Megan Bachmann
- c. 09/13/2022 - WaterJAM, Podium Presentation, Pilot-scale evaluation of direct filtration for indirect potable reuse - Savannah Moretz
- d. 09/14/2022 - IWA World Water Congress, Podium Presentation, Developing and deploying the next generation of mainstream nitrogen removal technology through Partial Denitrification-Anammox (PdNA) - Stephanie Klaus and Charles Bott
- e. 09/14/2022 - WaterJAM, Podium Presentation, Electron Beam Treatment for the Removal of 1,4-dioxane and PFAS - Mack Pearce
- f. 09/15/2022 – WaterJAM tour of Providence Road Offline Storage Facility for 25 registrants
- g. 09/15/2022 - WaterJAM, Podium Presentation, Partial Denitrification/Anammox for Infrastructure and Operational Savings - Kester McCullough
- h. 09/15/2022 - WaterJAM, Podium Presentation, Evaluation of pathogen removal in carbon-based water reuse applications - Samantha Hogard
- i. 09/15/2022 - WaterJAM, Podium Presentation, Major 36-inch Force Main break requires carefully planned and coordinated response – Eddie Abisaab
- j. 09/27/2022 – ABTP tour for ODU Aquatic Pollution class – Scott Whidbey and Josh Coyle
- k. 09/28/2022 – WEF InFLOW program on career paths in water panel discussion – German Salazar-Benites
- l. 09/29/2022 – Carollo SWIFT Tour – German Salazar-Benites

2. Community Partners: 4

- a. Chesapeake Bay Foundation-Oyster Cage Maintenance at BHTP for Oyster Garden Project
- b. DOE Jefferson Lab
- c. Middle Peninsula Planning District Committee
- d. Old Dominion University (ODU)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (524) – Current Month	Hours / FTE	3.02
M-1.4b	Total Training During Work Hours per FTE (524) – Cumulative Year-to-Date	Hours / FTE	6.45
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	26,562
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	62.84%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	14.80%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	22.37%
M- 4.1a	Energy Use: Treatment	kWh/MG	4,068
M-4.1b	Energy Use: Pump Stations	kWh/MG	199
M-4.1c	Energy Use: Office Building	kWh/MG	134
M-5.2	Educational and Outreach Events	Number	12
M-5.3	Number of Community Partners	Number	4

3. Annual Metrics

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

* To be provided once data is reported

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

TO: General Manager
FROM: Director of Talent Management (TM)
SUBJECT: Monthly Report for September 2022
DATE: October 12, 2022

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	10
Job Offers Accepted – Internal Selections	9
Job Offers Accepted – External Selections	11
Internal Applications	52
External Applications	153
Average Days to Fill Position	87.54

2. Employee Separation Summary

	September 2022	Total (April 2022-September 2022)
Career/Better Opportunity	2	7
Content of work	0	2
Family circumstances	0	2
Dismissal	1	5
Going to school	0	1
Lack of Opportunity for Advancement	0	1
Moving from the area	2	4
Salary	0	4
Retirement	2	8
End of Assignment (PT)	6	16
Unknown	0	1

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

Description	September 2022	Total (March 2020 – September 2022)
Quarantines due to illness or direct exposure (household or external)	0	452
Work Related Quarantines	0	106
Personal Travel Quarantines	0	61
Confirmed Employee COVID-19 Cases	6	296
Work Related Confirmed COVID-19 Cases	0	13
Contractor COVID-19 Cases on HRSD Sites*	0	12
Work Related exposure no quarantine required*	0	63
Vaccine Acknowledgements	4	879
Booster Acknowledgements	4	415
Vaccination Rate	94%	
Boosted*	44%	

*Added May 2022

4. Human Resources continued work with the consultant on system changes to benefit interfaces and benefit plan changes.
5. Benefits and Compensation
- The Compensation and Classification (C&C) team evaluated and reclassified one existing position.
 - CIGNA is updating the summaries and preparing them for our review of the Medicare Surround. Their open enrollment periods are November-December with the changes being effective on January 1, 2023.
6. Wellness Program
- Participation

Year Ten Participation Activities	Unit	September 2022	Year to Date (March 2022– February 2023)
Biometric Screenings	Number	0	66
Preventive Health Exams	Number	0	58
Preventive Health Assessments	Number	0	73
Online Health Improvement Programs	Number	0	35
Web-MD Online Health Tracking*	Number	0	621
New Challenges “Team to Team”	Number	0	97
Fit-Bit Promotion	Number	0	34

*Please note, due to new Wellness Provider, Web-MD Online Health Tracking will no longer be provided as of September 1, 2022.

- b. WellSpark provided communications to send to employees for the flu and tetanus clinics.
- c. Final touches were put in place for wellness platform MySpark Central, and HRSD was given a demo on the final product for an October launch.
- d. WellSpark provided the point system plan that will be used to qualify wellness participants for the lower deductible and silver, bronze, and gold levels.
- e. WellSpark continues to search for an onsite wellness specialist. To widen the pool of qualified candidates, HRSD will consider candidates without a Master's degree who possess the appropriate hands-on experience in implementing wellness programs for large groups.
- f. Wellness activities numbers are not available this month due to the transition in wellness programming.

7. Organizational Development and Training

- a. Worked with consultant Hicks-Carter-Hicks (H-C-H) and the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) initiatives.
- b. Worked with consultant H-C-H on the Leadership Ethical Accountability Program (LEAP) supervisor training program. The topic was *Developing Others and Coaching*.
- c. Continued working on the LAMA Cohort 2022-2023 program. The topic was Emotional Intelligence and Leadership.
- d. Facilitated the half-day Your Role in Quality workshop.
- e. Continued work with the Customer Care Division curating online learning paths and integrating available Corporate Training courses.
- f. Continued work with the Water Quality Department to increase quality assurance training courses.
- g. Continued work on the Corporate Training software, successfully creating badges for courses.
- h. Coordinated a cross-departmental team to advance the functionality of Canvas and held the kick-off meeting.

8. Apprenticeship Program

- a. Concluded the *Youth Summer Intensive (YSI) Program*. ODT staff held a graduation and are currently writing up a summary of the program and recommending future changes based on this year's program.
- b. ODT staff participated in the Apprenticeship Graduation.
- c. Continued developing the new math instructor, Gina Foote.
- d. Work continued on the following:

(1) Apprenticeship Mentoring Program

- (2) Request for Proposals for a Student Information System and Attendance and Assessment applications
- (3) Developing Standard Operating Procedures for ODT responsibilities
- (4) Trade curricula revisions and course development to update and enhance course offerings

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

	<u>2021</u>	<u>2022</u>
Mishaps	33	32
Lost Time Mishaps	12	3
<i>Numbers subject to change pending HR review of each case.</i>		

11. Safety Division Monthly Activities

Safety Training Classes	8
Work Center Safety Inspections	15
Reported Accident Investigations	5
Construction Site Safety Evaluations	8
Contractor Safety Briefings	7
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	238
Industrial Hygiene Monitoring Events	1

B. Monthly Strategic Planning Metrics Summary

- 1. Education and Outreach Events: (0)
- 2. Community Partners: (1)
 - a. United Way

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2022
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.76
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.25
M-1.4a	Total Training Hours Per Full Time Employee (18)	Total Training Hours/ FTE	3.72
M-1.4b	Total Training During Work Hours Per Full Time Employee (18) – Cumulative Fiscal Year-to-Date	Hours / FTE	4.79
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	1

Respectfully submitted,

Dorissa Pitts-Paige
Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (DWQ)
SUBJECT: Monthly Report for September 2022
DATE: October 12, 2022

A. General

1. No civil penalties were issued by the Pretreatment and Pollution (P3) Division in September.
2. WQ continued work with the General Manager, Operations, and Communications staff to address ongoing odor issues at the Atlantic Treatment Plant (ATP).
 - a. Technical Services Division (TSD) maintained increased odor surveillance and their work with ATP staff to identify and mitigate odor sources and immediate response to odor complaints.
 - b. Staff participated in the monthly ATP Odor status meeting.
3. Last month, WQ provided comment to the Department of Environmental Quality (DEQ) on a draft State Operating Permit (SOP) for ATP air emissions requesting removal of a permit condition requiring a State-Only Enforceable Odor Management Plan. While HRSD is committed to employing the Best Available Control Technology to control odors and to maintaining good relationships with our neighboring communities, HRSD objected to the potential precedent the condition was setting for its other SOPs. While HRSD was unsuccessful at getting the condition removed, HRSD was able to modify the associated language to support annual reporting. The permit is anticipated to go to public notice in October.
4. WQ finalized Emergency Response Procedures and a policy regarding the use of earbuds to incorporate into Chemical Hygiene Plan updates.
5. WQ Director and TSD staff held a preliminary discussion with a consultant to discuss data management needs for the Land Application Program.
6. Advocacy and External Activities:
 - a. DWQ and other staff attended the Virginia Association of Municipal Wastewater Agencies (VAMWA) quarterly meeting.
 - b. WQ staff attended WaterJAM, presented in technical sessions and workshops and volunteered in various conference support roles, including moderating the Laboratory Practices Workshop, moderating technical sessions, coordinating conference moderators, and serving as Virginia Water Environment Association (VWEA) Membership table host.

7. Several meetings were held with the Study Consultant, Project Manager and Chief of the Laboratory Division to discuss recommendations and to develop an HRSD Commission briefing on the status of the Central Environmental Laboratory (CEL) Expansion Project.
8. CEL and TSD representatives worked with Nansemond Treatment Plant to complete preparations for online Total Residual Chlorine instrumentation and data management testing in preparation for full scale implementation for regulatory monitoring at the beginning of 2023.
9. The P3 Division investigated three operational upsets during the month.
 - a. Army Base Treatment Plant (ABTP) – On September 6, P3 was notified of treatment issues that occurred between August 21-31 that caused the plant to experience small peaks in aeration effluent ammonia and Nitrate/Nitrite and an increase in effluent turbidity. P3 staff contacted the permitted facilities in the ABTP service area seeking any potential changes to operations or wastewater discharge, to include maintenance activities. Nothing abnormal was noted. P3 staff also collected samples for TSD to conduct nitrification inhibition testing. No industry was identified as having wastewater to cause inhibition at the dilution rate of their actual flow contribution. Other samples have been collected for quaternary ammonium compounds and sent out for analysis. While treatment was affected, permit requirements were still met.
 - b. Boat Harbor Treatment Plant – On September 2, P3 was notified that the plant was experiencing spikes of increased hypochlorite use. P3 staff contacted industries in the service area, and none reported any unusual activity. P3 staff sampled at the raw influent of the treatment plant and results showed nothing unusual. To date, the plant continues to see occasional spikes of hypochlorite use but is running tests internally for a possible cause. P3 staff continues to remain apprised of the situation.
 - c. Williamsburg Treatment Plant – On September 9, P3 was notified that floating scum was coming into the headworks of the treatment plant and inundating the bar screen. P3 staff contacted and sampled all major industries in the service area and sampled all gravity HRSD Pump Stations. P3 staff also contacted James City Service Authority (JCSA) and York County for them to check their pump stations. P3 staff also sampled at two industrial JCSA Pump Stations. P3 staff remains in constant communication with North Shore Interceptors staff and plant staff on updates. TSD has also performed air relief valve (ARV) sampling in the service area with North Shore Interceptors. A source has not been located to date and this issue is still ongoing. The treatment plant can remove the heavy scum and solids and it is not adversely affecting treatment. P3 staff continues to search for a source.

10. DWQ participated in the following HRSD Activities:

- a. ATP Land Conversion Charette
- b. Cybersecurity Awareness training
- c. HRSD Apprenticeship Graduation
- d. HRSD Quality Steering Team (QST)
- e. Hurricane Maverick Drill
- f. Integrated Plan Microbial Source Tracking Funding meeting
- g. Strategic Planning Workshops
- h. SWIFT QST
- i. SWIFT Strategy meeting

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group performed the following:
 - a. Provided an update to the HRSD QST that included revised mission and vision statements, an overview of current initiatives, and priorities for the coming year.
 - b. Sponsored work center cleanup events in honor of World Cleanup Day. Four work centers participated, collecting 11 bags of trash and several large items adding up to approximately 150 pounds of trash collected.
2. The WQ Communication team evaluated and compiled survey results to assess ways to facilitate communication and collaboration within WQ and began planning WQ focus group meetings. The team leaders met with DWQ to review results and next steps.

C. Municipal Assistance Program (MAP)

1. HRSD provided sampling and analytical services to the following to support monitoring required for their respective VPDES permits:
 - a. Appomattox Regional Water Authority
 - b. Northumberland County
 - c. Spotsylvania County
 - d. Town of Lawrenceville
 - e. Westmoreland County
2. [MAP Billed Reimbursements](#) for service provided from July 1 to September 30, 2022.
3. [MAP Invoice Summary](#) for the third Quarter 2022 calendar year.

D. Microbial Source Tracking (MST)

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

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: (0)
2. Community Partners: (6)
 - a. American Red Cross Blood Drive
 - b. City of Chesapeake, Chesapeake Local Health District
 - c. City of Virginia Beach
 - d. Hampton Roads Planning District
 - e. Lynnhaven Now Citizen Monitoring project
 - f. Virginia Department of Health

3. Odor Complaints:

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

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2022
M-1.4a	Training During Work Hours Per Full Time Employee (120) (Current Month)	Total Hours / # FTE	5.37
M-1.4b	Total Training During Work Hours Per Full Time Employee (120) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	15.52
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	1
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	4:16,059
M-3.2	Odor Complaints	#	8
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	68,389,850
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	14%
M-5.2	Educational and Outreach Events	#	0
M-5.3	Community Partners	#	6
	Average Daily Flow	Total MGD for all Treatment Plants	126.17
	Pretreatment Related System Issues	#	3

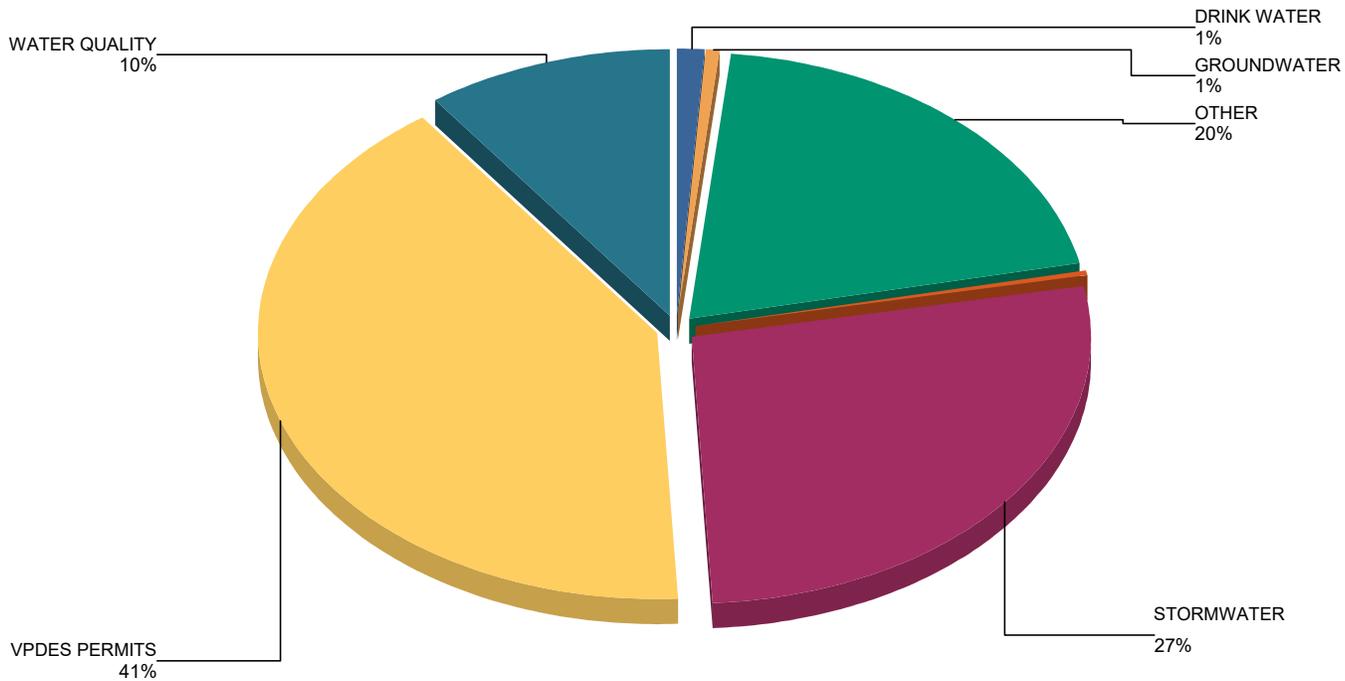
5. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2022
M-3.3	Carbon Footprint	Tons per MG	1.89
M-4.2	R & D Budget	Percentage of Total Revenue	1.4%
M-5.4	Value of Research	Number	128%
M-5.5	Number of Research Partners	Number	39
	Rolling 5 Year Average Daily Flow	MGD	145.75
	Rainfall reported at Norfolk International Airport	Inches	38.18"

Respectfully submitted,
Paula A Hogg
Director of Water Quality

Municipal Assistance Billed Reimbursements per Service From 07/01/2022 to 09/30/2022

Attachment 1



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

Municipal Assistance Invoice Summary

From 7/1/2022 - 9/30/2022

Municipality

Accomack County	\$693.84
Appomattox River Water Authority	\$14,957.15
Buckingham County	\$1,439.64
Chesapeake Public Works	\$489.22
City of Boise	\$2,284.53
City of Chesapeake	\$2,358.24
City of Emporia	\$223.38
City of Franklin	\$1,691.68
City of Hampton	\$7,017.51
City of Norfolk	\$5,421.85
City of Portsmouth	\$5,650.58
City of Suffolk	\$5,584.33
City of Virginia Beach	\$8,426.74
Exmore WWTP	\$1,411.86
HRPDC	\$47,219.29
Henrico County	\$2,241.51
James City County Service Authority	\$1,219.80
Lynnhaven River NOW	\$981.53
New Kent County	\$12,491.11
Northampton County WWTP	\$1,405.12
Northumberland Co. - Callao WWTP	\$2,152.43
Prince William County	\$6,642.66
Rivanna Water and Sewer Authority	\$449.39
St Brides Corr Ctr WWTP	\$3,585.26
Stafford County	\$93.60
Town of Cape Charles	\$9,034.36
Town of Lawrenceville	\$1,688.83
Town of Round Hill	\$136.63
Virginia Department of Health	\$15,929.53
Western VA Water Authority	\$7,814.60
Westmoreland County	\$1,625.72

Totals: \$173,186.92

EFFLUENT SUMMARY FOR SEPTEMBER 2022

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	7.38	41%	0	1.1	4	3	1.3	0.77	3.5	4.4	3
ATLANTIC	43.20	80%	11	9.8	6	2	NA	NA	NA	NA	11
BOAT HARBOR	9.63	39%	9	7.8	24	2	1.1	0.72	33	26	27
CENT. MIDDLESEX	0.013	50%	<2	1.6	1	1	NA	NA	NA	NA	NA
JAMES RIVER	11.65	58%	4	3.8	3	1	0.24	0.63	8.3	9.4	17
KING WILLIAM	0.074	74%	<2	<1.0	NA	1	0.25	0.19	1.1	2.4	NA
NANSEMOND	14.42	48%	3	3.8	2	1	0.86	0.67	3.5	3.8	0
NASSAWADOX	0.013	13%	0	6.6	1	2	0.28	0.70	19	16	NA
ONANCOCK	0.143	19%	<2	<1.0	1	1	0.26	0.26	1.7	1.5	NA
SURRY, COUNTY	0.037	56%	9	1.6	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.024	40%	4	8.4	NA	13	NA	NA	NA	NA	NA
URBANNA	0.061	61%	4	11	5	3	6.1	2.7	20	13	NA
VIP	19.82	50%	6	1.9	2	1	1.8	0.64	5.6	4.0	6
WEST POINT	0.286	48%	28	8.1	2	3	3.0	2.7	20	18	0
WILLIAMSBURG	9.64	43%	6	3.3	44	12	1.1	0.95	2.3	2.9	3
YORK RIVER	9.80	65%	3	1.0	<1	5	0.22	0.28	5.3	5.0	3
	<u>126.17</u>										

	% of
	Capacity
North Shore	49%
South Shore	51%
Small Communities*	35%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection	CY22	YTD	Projection	CY22
	%	Lbs	%	%	Lbs	%
James River	40%	2,170,853	61%	40%	220,916	70%
York River	54%	219,486	76%	52%	15,245	79%
Rappahannock	52%	NA	NA	45%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY23 to Date: 4:16,059
Pounds of Pollutants Removed in FY23 to Date: 68,389,850
Pollutant Lbs Discharged/Permitted Discharge FY23 to Date: 14%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	4.83"	3.78"	2.60"
Normal for Month	5.36"	5.83"	4.34"
Year to Date Total	38.46"	31.04"	31.39"
Normal for YTD	40.73"	39.33"	38.13"

*Small Communities includes Eastern Shore

AIR EMISSIONS SUMMARY FOR SEPTEMBER 2022

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
MHI PLANT											
ARMY BASE	0	0	0	0	0	0	0	1	42	100	0
BOAT HARBOR	0	0	0	n/a	1	0	0	2	34	100	0
VIP	0	0	0	n/a	0	0	0	2	21	97	0
WILLIAMSBURG	0	0	0	n/a	1	0	0	2	27	86	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action:	0
DEQ Warning Letter:	0
DEQ Notice of Violation:	0
Other Air Permit Deviations:	0
Odor Complaints Received:	8
HRSD Odor Scrubber H2S Exceptions:	8

Items of Interest – September 2022

MULTIPLE HEARTH INCINERATION (MHI)

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 86%.

The MHIs had 2 deviations from the required 129 SSI rule minimum operating parameters and 7 minor bypass events (<60 minute).

Submitted stack test protocols to DEQ for Army Base and VIP's MHIs to DEQ September 23. The MACT 129 emission limits testing for both facilities are to take place in November.

AIR PERMITS and ODOR CONTROL

On September 30 DEQ re-issued the draft air permit for Atlantic plant. HRSD has agreed to the draft permit that now goes to thirty-day public notice. After public notice and final approval, HRSD will have an increased digester gas flare limit that provides greater operational flexibility. HRSD will also be submitting an odor management plan to DEQ within sixty days of issuance of the permit to ensure DEQ that Atlantic Plant will make any needed improvements to control odors and continue to comply with the State odor rule.

A total of eight (8) odor complaints were received during September as follows:

Atlantic Plant received three odor complaints over Labor Day weekend. On September 2, 4, and 5 Ocean Lakes neighbors contacted HRSD about plant odors. Plant staff and TSD responded to all three complaints. Complaint response determined for Friday the 2nd and Monday the 5th that digester gas from a failed/malfunction flare was the primary source of odor while the digesters annular space and PRVs could have been contributing offsite also. The flare has since been repaired and operating normally. On Sunday the 4th our neighbor who has been to the plant before identified the odor as being from the biosolids and as it turned out Salmons was working the solids pad that very morning at the time of their complaint under the worst case meteorological conditions.

On September 7 and 12, HRSD received odor complaints from residents on Bennis Church Blvd in Smithfield and Bridge Rd in North Suffolk, both along the Smithfield force main line. The Smithfield line has required frequent gas venting due to excessive gas generation in the system. North Shore Operations commenced caustic shocking of the system to reduce gas generation and in turn the frequent venting. NS Ops was also piloting various mobile odor control devices. No further complaints received.

On September 19, HRSD received an odor complaint from a Norfolk resident about odors from the Park Ave Pump Station's system bypass pumping project on Perry Street. TSD responded along with Gannett-Fleming who originally identified the source of odors as the bypass pumping manhole that was right in front of the resident's house. We further determined that the corrective action taken to cover and seal the manhole as much as possible was working well enough to control the odors such that no further complaints should be or have been received to date.

On September 20, HRSD received an odor complaint about odors at our York River plant from a neighbor on Back Creek Road. Plant Staff and TSD responded. The determination was made that the primary clarifiers were the most likely source of offsite odors. Iron feed to the primary junction box was increased to reduce wastewater odors from the primaries. No further complaints have been received.

On September 27, HRSD received a complaint of strong diesel fuel odors from our James River Plant. Plant staff responded and identified the source as a fuel leak on one of our boilers inside the digester building which is close to the back of the plant and near our neighbor on Horse Pen Rd. The small leak was inside, but during cleanup the smell was so strong that building doors had to be opened. The clean-up took place around the time of the complaint, given that and the type of odor reported, along with the wind direction, points directly to this event as being the source of the offsite odor complaint. P3 Chief Martin, who received the original call, called our neighbor back and stated that she was very satisfied with the response and amazed at the amount of construction going on for SWIFT at the plant.

Eight odor control scrubber system hydrogen sulfide exceptions were measured in September.

TREATMENT

DEQ was notified of the following reportable events:

Virginia-Initiative

On September 13 the #2 versatile bioreactor drain was opened after it was taken out of service. The Scum Room drain has a valve that is to remain closed; during this time the valve was open causing the South Scum Room floor drain to overflow. Approximately 200 gallons of mixed liquor overflowed from the floor drain and out of the room to a storm catch basin draining to the Elizabeth River. A procedure will be written and a lock installed on the Scum Room floor drain valve to ensure it stays closed until it is needed.

Army Base

On September 19 a leak was discovered next to Non-Potable Water (NPW) building 01. An isolation valve was secured and the leak was contained. Contractors excavated the leak site and repaired the damaged line under the roadway. Approximately 40 gallons of NPW entered a storm drain leading to the Elizabeth River.

Boat Harbor

On September 27 the Lead Operator (LO) found the total residual chlorine colorimeter was not verified daily using the method required standards check on 9/26/22 or 9/27/22. The LO confirmed on 9/28/22 at 06:15 that the meter had not been verified and immediately performed standards check. The meter was within range.

West Point

During the month of September 2022, one weekly average BOD concentration exceedance was reported. The permitted weekly average concentration limit is 45 mg/L, with a reported value of 52 mg/L during the week of September 4. The mechanical and electrical issues that occurred during the month of August, as described in the August Items of interest submitted on September 9, remained a concern until the damaged trickling filter was repaired and returned to service on September 8. The weekly exceedance reported on this DMR occurred during the week of September 4 prior to the repairs being completed. Afterward BOD levels normalized; no further weekly exceedances occurred and the monthly average concentration limit was met.

System

Suffolk Pump Station

On September 30 heavy rain associated with Tropical Storm Ian caused higher than normal flows and pressures. Suffolk PS saw a maximum rainfall of 0.28" in 15 minutes with a total of 4.30" during the storm event. As a result, the duty pumps and standby pump were unable to keep up with the flows entering the wet well. By the time staff arrived onsite the overflow alarm had cleared. Staff observed that the water levels within the creek had submerged the manhole where the overflow had occurred. Approximately 8,000 gallons of raw wastewater entered Shingle Creek during this event.

2022 Metals, Ammonia, and TKN

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

*No limit. Treatment objective 53 ug/L

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

^ NR monthly average 2.2, weekly Jan 23 3.4

^ KW monthly average 2.6, weekly Feb 6 9.95

^ CSY monthly average 5.5, weekly June 5 7.0

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

^ CSY monthly average 1.9, weekly July 3 7.7

2022 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	8.38	8.29	9.12	8.56	8.56	8.05	8.01	7.53	7.38				8.21	7.64
Atlantic	42.47	42.46	42.81	40.26	42.88	43.58	46.32	46.01	43.20				43.33	45.18
Boat Harbor	15.64	13.78	13.31	12.04	11.66	10.17	10.10	9.51	9.63				11.76	9.74
C.Middlesex	0.005	0.006	0.006	0.010	0.011	0.011	0.011	0.012	0.013				0.009	0.012
Ches-Eliz	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00
James River	14.47	13.70	14.65	13.10	12.12	11.39	11.97	11.95	11.65				12.78	11.85
King William	0.064	0.050	0.066	0.070	0.069	0.073	0.071	0.073	0.074				0.068	0.073
Lawnes Point	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				0.000	0.000
Nansemond	16.32	15.78	16.16	15.46	15.54	14.53	14.64	14.99	14.42				15.31	14.68
Nassawadox	0.020	0.013	0.022	0.023	0.017	0.016	0.016	0.013	0.013				0.017	0.014
Onancock	0.177	0.160	0.208	0.174	0.171	0.175	0.174	0.155	0.143				0.17	0.157
Surry, County	0.047	0.043	0.057	0.046	0.040	0.036	0.039	0.039	0.037				0.043	0.038
Surry, Town	0.043	0.044	0.057	0.047	0.039	0.032	0.041	0.035	0.024				0.040	0.033
Urbanna	0.041	0.034	0.038	0.059	0.068	0.074	0.075	0.068	0.061				0.058	0.068
VIP	25.64	26.17	27.83	23.85	23.53	20.25	20.27	20.39	19.82				23.08	20.16
West Point	0.433	0.385	0.429	0.415	0.345	0.312	0.297	0.300	0.286				0.356	0.294
Williamsburg	8.25	7.59	8.41	8.51	8.64	8.49	9.36	9.72	9.64				8.73	9.57
York River	14.08	12.97	13.66	12.81	12.35	11.02	10.87	10.43	9.80				12.00	10.36
North Shore	52.45	48.03	50.03	46.45	44.76	41.07	42.30	41.60	40.71				45.27	41.53
South Shore	92.81	92.70	95.92	88.13	90.52	86.40	89.24	88.93	84.81				89.94	87.66
Small Communities	0.83	0.73	0.88	0.84	0.76	0.73	0.72	0.70	0.65				0.76	0.69
TOTAL	146.09	141.47	146.84	135.42	136.04	128.20	132.26	131.22	126.17				135.97	129.88

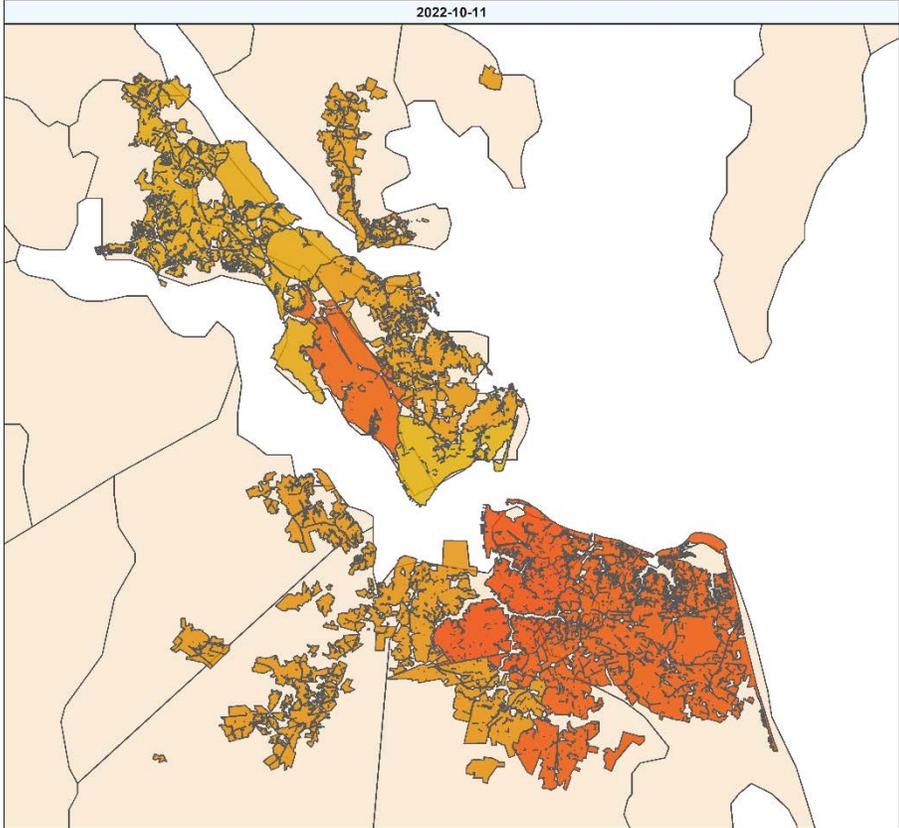
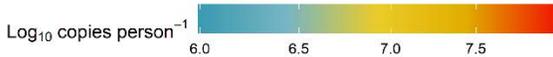
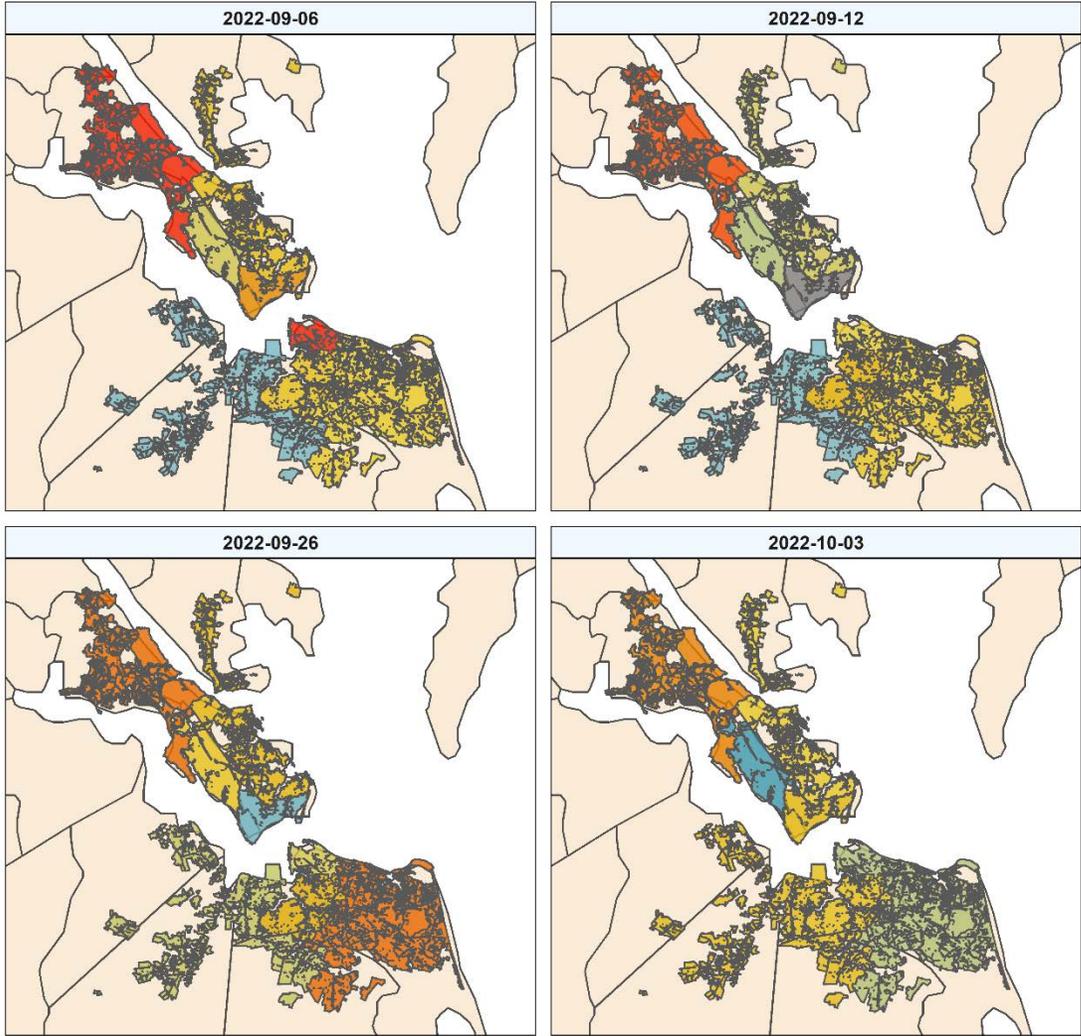
Bold values indicate monthly plant flow average >95% of permitted design flow



Wastewater Surveillance Commission Report

October 18, 2022

SARS-CoV-2 Most Recent 5 Weeks



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

SARS-CoV-2 Regional Viral Load, Hospitalizations, and Deaths

Aggregate Viral Load for HRSD Treatment Facilities



Most Recent 8 Weeks



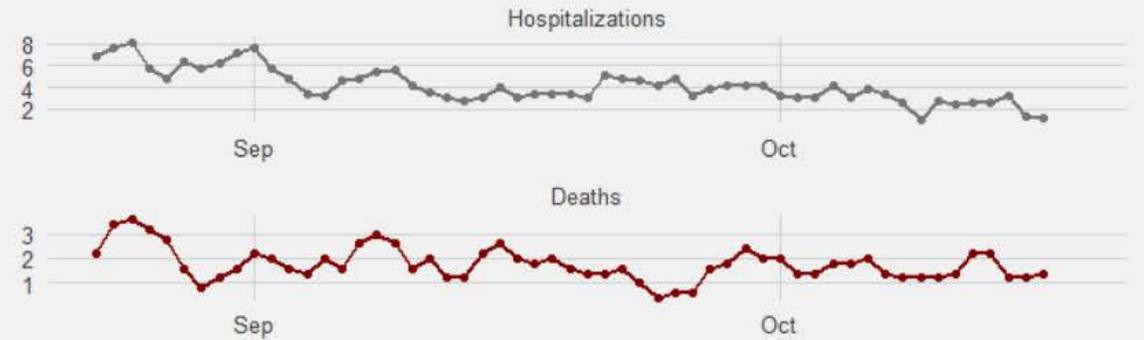
COVID-19 Hospitalizations and Deaths

Hampton Roads 5 Day Rolling Mean



COVID-19 Hospitalizations and Deaths

Most Recent 8 Weeks



**untransformed data*

- Influenza A and B

- Beginning to see more widespread detections in latest data (samples collected 10/11)
 - Influenza A detected at JR, NP, VIP, AB
 - Influenza B detected at BH

- Monkeypox

- Monkeypox detections remain limited and sporadic around the region



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

I. Projects in Process

Family Medical Leave Act (FMLA)

- **Task Completed (September 2022)**
 - Continued fieldwork procedures
 - Drafted front end of report
- **Upcoming Tasks (October 2022)**
 - Continue fieldwork procedures: Awaiting fieldwork documentation from HRSD
 - Commence reporting procedures as information is received

Freedom of Information Act (FOIA)

- **Task Completed (September 2022)**
 - Continued review of federal, state, and regional compliance and regulations
 - Continued benchmarking research
 - Summarized results and analysis
- **Upcoming Tasks (October 2022)**
 - Develop and issue report

Grants Management

- **Upcoming Tasks (October 2022)**
 - Commence planning procedures

Personally Identifiable Information

- **Upcoming Tasks (October 2022)**
 - Commence planning procedures



II. Management Action Plan Monitoring

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

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

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

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
Treatment Plant Operations	10/15/18	October 2022	8	1	9
Safety Division	9/12/19	October 2022	2	1	3
SWIFT Program	2/24/2021	October 2022	9	3	12
Succession Planning	6/4/2021	October 2022	0	4	4
Emergency Repairs	1/18/2022	February 2023	0	3	3
Unifier/ERP Integration	6/27/2022	June 2023	0	4	4
D&C: CIP Project Management	5/11/16	Closed	13	0	13
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
Customer Care Division	7/26/19	Closed	4	0	4
Pollution Source Control	6/2/20	Closed	8	0	8
Fleet Services	2/24/2021	Closed	17	0	17
Biosolids Recycling	10/8/16	Closed	8	0	8
Totals			118	16	134

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

*to be reported

Monthly Updated Metrics																	FY-23	FY-23
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22	Aug-22	Sep-22
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	131.3	131.2	126.2
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	4	0	3
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	106%	106%	106%	105%	108%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	106%	102%	103%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,900,803	\$27,335,100	\$34,060,154	\$39,539,639	\$42,978,332	\$41,007,932
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	28%	29%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	0	1
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	9:60879	23:60879	9:60879	3:10,706	4:16059
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	51	3	8
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	182,759,003	183,123,855	177,322,331	34,084,601	68,389,850
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	18%	14%	14%	14%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	687	53	51
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	125	18	17