



COMMISSION MEETING MINUTES
February 28, 2023

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 7. [Middlesex Interceptor System Program Phase II – Hartfield Pump Station
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 9. [Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II and
SWIFT Program Management \(Nansemond Treatment Plant Advanced Nutrient
Reduction Improvements Phase II\)
Additional Appropriation, Approval of Stipulated Price, and Task Order \(>\\$200,000\)](#)
 10. [Jefferson Avenue Interceptor Force Main Replacement Phase III
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 12. [Wilroy Pressure Reducing Station and Off-line Storage Facility
Real Estate Acquisition – Fee Simple Interest
1941 Wilroy Road, 1949 Wilroy Road, and Tax Map No. 26*22C, Suffolk](#)
 13. [Capital Improvement Program Quarterly Update](#)
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The Chair called the meeting to order, and the Commission Secretary read the roll call of HRSD Commissioners.

Name	Title	Present for Item Nos.
Rodriguez, Stephen C.	Commission Chair	1-21
Elofson, Frederick N.	Commission Vice-Chair	1-21
Glenn, Michael E.	Commissioner	1-21
Lakdawala, Vishnu K.	Commissioner	1-21
Levenston, Jr., Willie	Commissioner	1-21
Stern, Nancy J.	Commissioner	1-21
Taraski, Elizabeth	Commissioner	1-21
Templeman, Ann	Commissioner	1-21

1. **Awards And Recognition**

Action: Approve commending resolution.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 8

Nays: 0

Brief: HRSD is pleased to announce the following:

a. New Employee Introduction

Mrs. Shirley Smith, Project Manager, was recently hired in the Design & Construction Special Projects Division in the Engineering Department. She is an engineer-in-training with 10 years of experience in risk modeling, force main design, and gravity sewer rehabilitation. Shirley graduated with a Bachelor of Science in Civil Engineering from Old Dominion University with a minor in Music Performance. She was an intern in the Planning and Analysis Division during her senior year at ODU and most recently worked for a consulting firm. Shirley will work closely with the Operations Department to deliver HRSD projects.

b. Promotion Announcement

Mr. Bruce Weckworth was recently promoted to Environmental Scientist in the Technical Services Division (TSD) within the Water Quality Department. He will be primarily responsible for managing HRSD’s Municipal Assistance Program. Bruce started in 2006 as an Assistant in the Pretreatment and Pollution Prevention (P3) Division and then was promoted to a Specialist in TSD later that year. In 2014, he



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was promoted to a supervisory role where he was responsible for managing the field activities associated with permit sampling and surface water sampling. Bruce holds a Bachelor's in Biology from Christopher Newport University, a Master of Science from Old Dominion University, and a Master of Business Administration from the College of William and Mary. Bruce is a 2019 graduate of the Water Environment Federation (WEF) Water and Leadership Institute and is an active participant in the HRSD Business Case Evaluation Team. The Business Case Evaluation Team utilizes in-house expertise to lead financial evaluations of proposed projects, constructs a standard methodology for evaluating financial impacts of proposed projects, and supplies HRSD Leadership with trusted information in order to make the best decision for HRSD.

c. Awards

(1) National Association of Clean Water Agencies (NACWA) Peak Performance Awards

NACWA's Peak Performance Awards recognize member facilities for outstanding compliance with their National Pollutant Discharge Elimination System (NPDES) permits. *Silver Awards* recognize facilities that have received no more than five permit violations per calendar year. *Gold Awards* honor those who have achieved perfect permit compliance for an entire calendar year, while *Platinum Awards* recognize 100 percent compliance for at least five consecutive years.

The following treatment plants were recognized for outstanding compliance during calendar year 2021, a remarkable accomplishment:

Award	Plant
Silver	Army Base Treatment Plant
Silver	King William Treatment Plant
Silver	Surry County Treatment Plant
Silver	Urbanna Treatment Plant
Silver	West Point Treatment Plant
Gold	Chesapeake-Elizabeth Treatment Plant
Gold	Central Middlesex Treatment
Platinum 7	Atlantic Treatment Plant
Platinum 8	James River Treatment Plant



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Award	Plant
Platinum 14	York River Treatment Plant
Platinum 20	Boat Harbor Treatment Plant
Platinum 20	Nansemond Treatment Plant
Platinum 26	Virginia Initiative Plant
Platinum 27	Williamsburg Treatment Plant

(2) NACWA's National Environmental Achievement Awards (NEAA) recognize individuals and NACWA member agencies that have made outstanding contributions to environmental protection and the clean water community. HRSD earned NEAA awards in three categories this year:

- Research and Technology, HRSD, in partnership with DC Water, was recognized for their work in nitrogen removal, "Taking a DETOUR for Shortcut Nitrogen Removal: Partial Denitrification-Annamox (PdNA)"
- Public Information and Education for the Providence Road Offline Storage Facility and Woodstock Park Improvements Video,
- And, Workforce Development, in partnership with the Hampton Roads Workforce Council for the HRSD Youth Summer Intensive (YSI) Program

HRSD General Manager Jay Bernas received the awards presented during the NACWA Winter Conference Award Ceremony and Reception held on February 14.





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- (3) HRSD and design engineering firm Kimley-Horn were pleased to receive the 2023 Grand and Pinnacle awards from the American Council of Engineering Companies (ACEC) of Virginia for the Chesapeake-Elizabeth Interceptor Diversion Improvements Program.

Kimley-Horn was the program manager for the project and led a team responsible for planning and designing more than \$100M of sanitary sewer system improvements to allow HRSD to decommission its 24-million gallon per day Chesapeake-Elizabeth Treatment Plant (CETP) by the end of 2021. To successfully achieve this commitment while addressing current and projected service demands, a variety of interceptor system projects were identified to divert flow from CETP to other HRSD treatment plants. The program included improvements to locality force mains and federal facility pump stations, as well as HRSD pressure reducing stations and interceptor force mains. In addition, a new offline storage tank and a pressure reducing station were constructed.

The Pinnacle Award is given to the engineering firm that has demonstrated innovation, commitment to improving the community, and dedication to the engineering profession's principles. This award is the highest honor of engineering excellence and is selected from the Grand Award winners.

The Grand Award recognizes projects showcasing engineering excellence through innovation and creativity and exceptional social, economic, and environmental benefits.





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d. Commending Resolution

Upon approval, the Commission Chair presented a commending [resolution](#) to Ms. Paula A. Hogg in recognition of her dedicated service.

Public Comment: None



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2. **Consent Agenda**

Action: Approve the items listed in the Consent Agenda.

Moved: Michael Glenn

Seconded: Ann Templeman

Roll call vote: **Ayes: 8** **Nays: 0**

Brief:

- a. Approval of minutes from previous meeting.
- b. Appropriation or Additional Appropriation (≤5% original appropriation and <\$200,000)
 - 1. [Williamsburg Treatment Plant Administration Building Renovation Additional Appropriation \(<5% of Original Appropriation and <\\$200,000\)](#) \$91,348
- c. Contract Awards
 - 1. [Caterpillar Emergency Generator Preventive Maintenance](#) \$336,770
 - 2. [Fleet Management \(FY-2023\)](#) \$341,550
 - 3. [Right of Way Maintenance Services](#) \$830,000
- d. Task Orders
 - 1. [Ivy Home-Shell Road Sewer Extension Division I Replacement](#) \$351,569
- e. Sole Source
 - 1. [Viking Flights and Chains](#)
 - 2. [ZeeWeed® Membranes, Parts and Services](#)
- f. HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
 - 1. [Multifunction Device Rental, Consumables and Services](#) \$272,966

Item(s) Removed for Discussion: None

Public Comment: None

3. HRSD's Strategic Plan

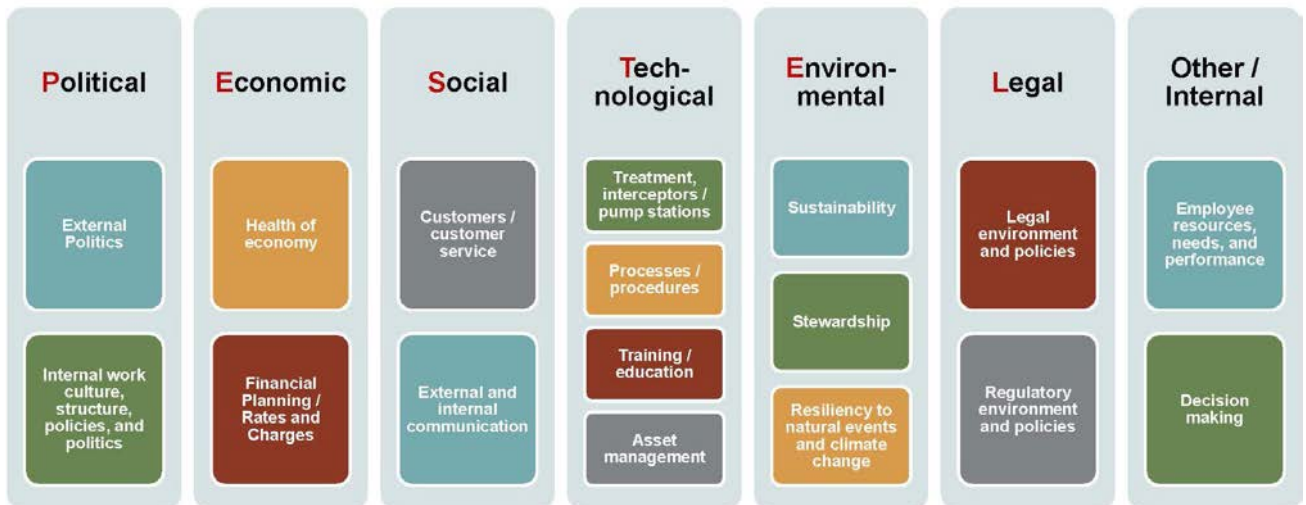
Action: No action is required.

Brief: HRSD embarked on our Strategic Plan update in June 2022 and this briefing provided an [overview](#) of the plan. In developing the plan, staff performed a PESTELO Assessment examining all the different forces impacting our organization, utilized scenario planning to find strategies that work in multiple scenarios and developed goals, objectives and action items that will help us accomplish our vision.

Components of Strategic Planning



PESTELO Assessment



Public Comment: None



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4. **HRSD Brand Perception Study Findings**

Action: No action is required.

Brief: SIR provided a [presentation](#) of the findings from its recent HRSD Brand Perception Survey which was conducted in December 2022. The survey will provide a baseline for HRSD to show current knowledge, satisfaction and perceived value of HRSD and the services it provides its customers in southeastern Virginia. This survey will also help determine areas of focus for future outreach, education and branding efforts.

Discussion Summary: The Commission and staff discussed the confusion and misperception surrounding HRUBS (Hampton Roads Utility Billing Service) bills which include both HRSD and locality fees for services. These fees often fluctuate each month because they are based on the number of days of service and could include estimated readings. Meter readings are conducted by localities and are outside of HRSD's control. They also discussed different ways to explain the rate increases to customers including social media posts, direct fliers, annual reports.

Staff will review the survey findings and determine a path forward which may include rebranding of HRUBS.

Public Comment: None



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5. **Post-Issuance Tax Compliance Policy Revisions
Commission Adopted Policy**

Action: No action is required.

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

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

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

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

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

The attached [policy](#) was reviewed by staff and HRSD’s bond counsel. Staff is providing the proposed changes for the Commission’s review and will present the final policy for approval at the March Commission meeting.

Discussion Summary: Responding to a Commissioner’s question, staff stated the bonds are mostly fixed rate and they are generally unaware of how they are trading on the secondary market. Staff believes the variable rate bond is currently trading at 3.6 percent.

Public Comment: None



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6. **Kingsmill Pump Station Piping Replacement and Wet Well Rehabilitation
Additional Appropriation and Task Order (>\$200,000)**

Actions:

- a. **Appropriate additional funding in the amount of \$537,791.**
- b. **Approve a task order with Rummel, Klepper & Kahl in the amount of \$211,490.**

Moved: Vishnu Lakdawala

Seconded: Nancy Stern

Roll call vote: **Ayes: 8** **Nays: 0**

CIP Project: WB012600

Regulatory Requirement: None

Budget	\$4,781,318
Previous Expenditures and Encumbrances	(\$4,634,721)
Available Balance	\$146,597
Proposed Change Order Basic Construction Company	(\$326,898)
Proposed Task Order to Rummel, Klepper & Kahl	(\$211,490)
Proposed Contingency	(\$146,000)
Project Shortage/Requested Additional Funding	(\$537,791)
Revised Total Project Authorized Funding	\$5,319,109

Contract Status with Task Orders:	Amount
Original Contract with Engineer	\$99,400
Total Value of Previous Task Orders	\$660,334
Requested Task Order	\$211,490
Total Value of All Task Orders	\$871,824
Revised Contract Value	\$971,224
Engineering Services as % of Construction	26.8%

Project Description: This project involves the rehabilitation of the Kingsmill Pump Station wet well and will require a complete bypass of the pump station. Additionally, yard piping, interior and exterior/buried valves, and a portion of the interceptor force main upstream and downstream of the pump station will be replaced as part of this project. The attached [map](#) depicts the project location.

Project Justification: The existing wet well at the Kingsmill Pump Station is showing signs of significant deterioration, evident by the exposed aggregate documented during wet well inspections. The wet well is also not configured to easily allow for bypass pumping, as there



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is no slide gate or permanently mounted suction line currently installed. In the dry well, pump suction valves have been showing signs of significant wear. Recently, one of these valves was replaced because it was determined to be inoperable. Outside the pump station, valves, and force main piping need replacement. Three of the eight diversion/isolation valves are inoperable, and another three valves are horizontally installed gate valves that have proven to fail prematurely. The reinforced concrete force main in the area where the pump station connects is unnecessarily deep, adding safety risk and the potential for delayed repairs in the event of a pipe failure. Since the early 1970's when this pipe was originally installed, 15 to 20 feet of fill has been placed on top of this line, adding a static load onto the pipeline that has already resulted in one failure.

Task Order Description: This task order will provide additional construction administration and inspection services to Rummel, Klepper & Kahl to complete this project. The cost for this task order is based on an estimate of labor hours and direct costs required to complete the work. The project has been substantially delayed due to multiple work stoppages and slower-than-anticipated construction progress.

Analysis of Cost: The engineering fee of \$211,490 for the additional effort is reasonable. A change order of \$326,898 is based on both Engineer's opinions of probable construction cost as well as negotiated change order proposals. This request includes a 5% contingency based on the construction cost to account for potential changes in the final and negotiated cost.

<u>Schedule:</u>	Construction	June 2020
	Project Completion	June 2023

Public Comment: None



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7. **Middlesex Interceptor System Program Phase II – Hartfield Pump Station
Cost Sharing Agreement**

Action: Approve the terms and conditions of the cost sharing agreement with the County of Middlesex for the design and construction of, reimbursement of construction costs 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: Ann Templeman

Seconded: Nancy Stern

Roll call vote: **Ayes:** 8 **Nays:** 0

CIP Project: MP013720

Regulatory Requirement: None

Budget	\$5,211,000
Previous Expenditures and Encumbrances	(\$447,177)
Available Balance	\$4,763,823

Project Description: This project generally consists of the construction of a new sanitary sewer pump station in the Hartfield area and approximately 1,500 linear feet of sewer force main along Wood Brothers Road to convey flow between the pump station and the Middlesex Transmission Force Main in General Puller Highway. This project will be funded through the Virginia Clean Water Revolving Loan Fund program.

Project Justification: Middlesex County is developing sewer service areas. To provide wastewater treatment, HRSD must expand existing Middlesex treatment plants, install decentralized treatment systems, and/or install conveyance from these service areas to existing wastewater treatment facilities. HRSD has two minor (100,000 gallons per day (GPD) or less) wastewater treatment facilities in Middlesex County that are near capacity. In addition, the Town of Urbanna has requested HRSD to eliminate surface water discharges. Currently, HRSD must purchase nutrient credits to discharge into the Rappahannock River basin. HRSD has wastewater treatment capacity at the York River Treatment Plant (YRTP). The life cycle cost of conveying sewage to the YRTP is less than the cost of constructing and operating multiple minor wastewater treatment plants in Middlesex County. A conveyance system to the YRTP service area mitigates the risk and expense of incremental expansions to existing treatment facilities and of more stringent permitting requirements associated with future development in Middlesex County. Consequently, HRSD's strategy is to convey flows from Middlesex to the YRTP.



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Agreement Description: The [Cost Sharing Agreement](#) between HRSD and the County of Middlesex is for the expanded capacity of the proposed Hartfield Pump Station in Middlesex County. The current estimated Improvement Costs of the construction is \$5,000,000. The estimated construction costs of the HRSD facilities is \$4,850,000. The estimated construction cost of the COUNTY facilities is \$150,000. The agreement has been reviewed by HRSD legal counsel.

Analysis of Cost: The reimbursable cost for this agreement is estimated on a construction cost estimate and will be based on actual bids received.

<u>Schedule:</u>	Design	January	2021
	Bid	April	2023
	Construction	August	2023
	Project Completion	August	2025

Public Comment: None



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8. **Middlesex Interceptor System Program Phase II – Saluda Pump Station
Cost Sharing Agreement**

Action: Approve the terms and conditions of the cost sharing agreement with the County of Middlesex for the design and construction of, reimbursement of construction costs 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: Nancy Stern

Seconded: Elizabeth Taraski

Roll call vote: **Ayes:** 8 **Nays:** 0

CIP Project: MP013710

Regulatory Requirement: None

Budget	\$2,244,000
Previous Expenditures and Encumbrances	(\$346,929)
Available Balance	<u>\$1,897,071</u>

Project Description: This project will consist of the construction of a new sanitary sewer pump station in Saluda, Virginia, and approximately 1,700 linear feet of 3-inch sewer force main between the proposed Central Middlesex Treatment Plant pump station and the termination point of the Middlesex Interceptor Force Main (IFM) Phase I project and the decommissioning of HRSD's existing Central Middlesex Treatment Plant. The recommended alternative is to construct the new pump station within the limits of an existing parking area adjacent to the treatment plant. After the new pump station is placed into service, the existing treatment plant will be demolished and converted into a parking lot. The scope of work generally includes the design and permitting of the new pump station, force main, and new parking lot, and developing demolition/decommissioning plans for the existing treatment plant. This project will be funded through the Virginia Clean Water Revolving Loan Fund program. The [map](#) included in the attached agreement depicts the project location.

Project Justification: Middlesex County is developing sewer service areas. To provide wastewater treatment, HRSD must expand existing Middlesex treatment plants, install decentralized treatment systems, and/or install conveyance from these service areas to existing wastewater treatment facilities. HRSD has two minor (100,000 gallons per day (GPD) or less) wastewater treatment facilities in Middlesex County that are near capacity. In addition, the Town of Urbanna has requested HRSD to eliminate surface water discharges. Currently, HRSD must purchase nutrient credits to discharge into the Rappahannock River basin. HRSD has wastewater treatment capacity at the York River Treatment Plant (YRTP). The life cycle cost of conveying sewage to the YRTP is less than the cost of constructing and operating multiple minor wastewater treatment plants in Middlesex County. A conveyance



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system to the YRTP service area mitigates the risk and expense of incremental expansions to existing treatment facilities and of more stringent permitting requirements associated with future development in Middlesex County. Consequently, HRSD's strategy is to convey flows from Middlesex to the YRTP from CIP write-up (update if necessary)

Agreement Description: The [Cost Sharing Agreement](#) between HRSD and the County of Middlesex is for the expanded capacity of the proposed Saluda Pump Station in Middlesex County. The current estimated Improvement Costs of the construction of the HRSD Facilities is \$946,520, approximately fifty-one percent (51%) of the total estimated Improvement Costs. The estimated Improvement Costs of the construction of the COUNTY facilities is \$891,480, approximately forty-nine percent (49%) of the total estimated Improvement Costs. The agreement has been reviewed by HRSD legal counsel.

Analysis of Cost: The reimbursable cost for this agreement is estimated on a construction cost estimate and will be based on actual bids received.

<u>Schedule:</u>	Design	January	2021
	Bid	April	2023
	Construction	August	2023
	Project Completion	August	2025

Discussion Summary: Staff explained the size of the pipeline is directly related to velocity to optimize this pump station which serves smaller communities.

Public Comment: None



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9. **Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II and SWIFT Program Management (Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II) Additional Appropriation, Approval of Stipulated Price, and Task Order (>\$200,000)**

Actions:

- a. Appropriate additional funding in the amount of \$28,226,466.
- b. Approve a Stipulated Price of \$299,233,922 to the Comprehensive Agreement with Garney Companies, Inc (Garney).
- c. Approve a task order with AECOM in the amount of \$4,618,755.

Moved: Willie Levenston
Seconded: Frederick Elofson
Roll call vote:

Ayes: 8 **Nays:** 0

CIP Project: NP013820

Regulatory Requirement: Integrated Plan - SWIFT

Budget	\$292,916,665
Previous Expenditures and Encumbrances	(\$265,511,209)
Available Balance	\$27,405,456
Proposed Change Order No. 1 to Garney for the Stipulated Price	(\$37,131,922)
Proposed Contingency	(\$18,500,000)
Project Shortage / Requested Additional Funding	(\$28,226,466)
Revised Total Project Authorized Funding	\$321,143,131

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for Garney Companies, Inc.	\$262,102,000	
Total Value of Previous Change Orders	\$0	0%
Requested Change Order	\$37,131,922	
Total Value of All Change Orders	\$37,131,922	14%
Revised Contract Value	\$299,233,922	

Time (Additional Calendar Days)		0 days
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CIP Project: GN016320

Regulatory Requirement: Integrated Plan – SWIFT



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Budget	\$80,000,000
Previous Expenditures and Encumbrances	(\$43,454,854)
Available Balance	\$36,545,146

Contract Status:	Amount
Original Contract with AECOM	\$5,264,440
Total Value of Previous Task Orders	\$37,859,170
Requested Task Order	\$4,618,755
Total Value of All Task Orders	\$42,477,925
Revised Contract Value	\$47,742,365
Engineering Services as % of Construction	1.6%

Project Description: The NP013820 project will include the design, construction, and commissioning of improvements to the primary and secondary treatment process at the Nansemond Treatment Plant (NTP). As part of a regional solution, the NTP will expand capacity, treating up to 50 million gallons of wastewater per day (MGD), and will increase effluent quality. The treatment process improvements include new primary and secondary clarifiers, new primary gravity thickeners, new aeration and equalization tanks, additional sludge dewatering infrastructure, new switchgear and cabling, and upgrades to the effluent pump station. A connection between the Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land Portion) termination to the influent distribution box is also included. These improvements are required to provide stable source water quality that meets the influent requirements of the future NTP SWIFT facility.

The GN016320 project is for the SWIFT Full Scale Implementation Program (FSIP) Management team will manage the delivery of the advanced water treatment facilities to take HRSD’s already highly treated wastewater and produce SWIFT water. The Program Management team may also deliver conveyance, wastewater treatment plant improvements, and other such projects to support full scale SWIFT implementation. The Program Management team will implement the processes, procedures, and systems needed to design, procure, construct, permit, manage, and integrate the new SWIFT related assets.

Project Justification: The NP013820 project will implement advanced secondary treatment improvements and provide hydraulic capacity to process the flow being conveyed from the Boat Harbor treatment basin and growth within the Nansemond treatment basin. These improvements will provide stable source water quality that meets the influent requirements of the future full scale Nansemond SWIFT Facility (GN016380) at NTP.

The GN016320 project is for the Nansemond Treatment Plant (NTP) Advanced Nutrient Reduction Improvements Phase II (NP013820) project will implement advanced secondary treatment improvements and provide hydraulic capacity to process the flow being conveyed from the Boat Harbor treatment basin and growth within the Nansemond treatment basin. These improvements will provide stable source water quality that meets the influent requirements of the future full scale Nansemond SWIFT Facility (GN016380) at NTP.



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Stipulated Price Description and Analysis of Cost: This project is being procured through the Design-Build delivery method. On February 22, 2022, Commission approved a Comprehensive Agreement with Garney with a Contract Cost Limit (CCL) of \$262,102,000. The CCL was based on the Basis of Design Report (BODR), Garney's Technical Proposal, and alternates accepted by HRSD via a Proposal Amendment. Over the last year, Garney and HRSD has worked together to advance to 60 percent design completion and finalize requirements with the relevant regulatory agencies. Changes to the project have resulted in approximately \$37.1M of impacts and include:

1. Acceptance of Value Engineering proposals that reduced project cost.
2. Modifications to the treatment process, include Partial Denitrification Anammox (PdNA).
3. Early installation of SWIFT infrastructure to mitigate future disruptions.
4. Relocation of Primary Treatment facilities to reduce conflict with adjacent projects.
5. Mitigation of unknown and unforeseen site conditions.
6. New electrical equipment for reliability and support of future SWIFT infrastructure.
7. Modified allowances to accommodate specific coordination items.

The Stipulated Price reflects the CCL plus the sum of the changes captured as a change order. The costs were prepared by Garney, and a breakdown of the costs was provided to HRSD. This documentation was reviewed by HRSD and HRSD's Owner's Consultant, AECOM, the proposed costs were found to be reasonable for the associated changes. Staff recommends that the change order be issued to modify the Comprehensive Agreement to reflect the new Stipulated Price.

Task Order Description and Analysis of Cost: This task order will provide Owner's Consultant Services During Construction (OCSDC) of the NP013820 design-build project. Owner's consultant services are intended to provide support to HRSD by engaging a variety of field and office professionals to be a key part of the Owner's team. Due to the complexity and size of the project, the OCSDC team will provide on-site observation, frequent review of the design-builder's quality plans, safety plans, schedule updates, and progress documentation. The OCSDC team will also provide technical and Subject Matter Expert support for HRSD's review of specific submittals, payment applications, claims, change management discussions, and support of start-up, as needed. As the design-builder submits Operations & Maintenance Manuals and equipment data, the OCSDC team will support HRSD maintenance staff by providing initial completeness reviews. The expected duration of this project phase and task order is 35 months, which aligns with the project schedule.

The cost for this task order is based on detailed negotiated scope of work for OCSDC services and will be billed on a Time & Materials basis. The budget estimate for the total



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scope of work was developed on an annual basis in relationship to the expected construction activities for each year. The description of tasks and associated effort (staff hours) per year are reasonable considering the size and complexity of the project and the support requested by HRSD. The budget rates used to develop the estimate align with the rate structure within the Professional Services Agreement with AECOM for SWIFT FSIP, as approved for FY2023. The budget rates were escalated annually to reflect the nearly three-year duration of the scope of services. Actual rates will be subject to approval under the Agreement annually. The ratio of OCSDC fees to the contract cost limit (1.6 percent) compares well with other Owner Consultant support fees approved for HRSD design build projects at this stage (approval of Stipulated Price). Previous HRSD design build projects had Owner Consultant services fees for construction ranging from 0.7 percent to 1.8 percent of the contract value.

Funding Description: The additional appropriations requested include the funds required to issue the proposed change order and maintain a five percent Owner contingency to accommodate any additional unforeseen conditions. The contingency requested includes an estimate for coordination with Dominion Energy. The Program Manager, AECOM, will provide Owner’s Consultant Services during construction under the SWIFT Program Management (GN016320) project during the construction phase of this project.

This project is currently included in the Water Infrastructure Finance and Innovation Act (WIFIA) programmatic loan and American Rescue Plan Act (ARPA) Wastewater Funds Enhanced Nutrient Removal Certainty, Pound, Petersburg (ENRCPP) Program. Additionally, the project team will submit an application for grant funding under the Water Quality Improvement Fund (WQIF) program.

Staff provided a [briefing](#) during the meeting.

Schedule:	Stipulated Price	February 2023
	Substantial Completion	September 2025
	Project Completion	January 2026

Discussion Summary: Commissioner Glenn expressed concern that the stipulated price is based on 60% design and there is a higher probability for change orders as the remainder of design is completed. The Commission and staff discussed the commitment from Garney to complete the project at this stipulated price based on the current 60% design. Commissioner Rodriguez expressed concern over the growing number of projects, additional costs, the number of years to recoup the costs and how to balance those costs for the benefit of the ratepayers and the environment.

Public Comment: None



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10. **Jefferson Avenue Interceptor Force Main Replacement Phase III
Easement Acquisition – 711 Brick Kiln Boulevard, Newport News, Virginia 23602**

Action: Approve the purchase of a 9,531 square foot permanent easement for \$121,300 in accordance with the terms and conditions of the Agreement with 711 Brick Kiln, LLC, (Grantor) 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:** 8 **Nays:** 0

CIP Project: JR011730

Regulatory Requirement: None

Budget	\$24,103,808
Previous Expenditures and Encumbrances	(\$21,484,746)
Available Balance	<u>\$2,619,062</u>

Project Description: This project will replace approximately 9,000 linear feet of 12-inch, 14-inch, and 16-inch HRSD force main (FM) from the intersection of Route 171 (Oyster Point Road) and Jefferson Avenue to the proposed Patrick Henry jumper. A preliminary hydraulic and capacity analysis revealed 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 development is planned for the service area, which will exacerbate the current problem. Construction of this project will also provide additional capacity and system flexibility when combined with other proposed improvements.

As part of the project, HRSD will require 15 temporary and permanent easements. The subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD's Policy Guidelines and will require Commission approval.

The attached [Agreement](#) was reviewed by HRSD staff and real estate legal counsel. The [map](#) and [plat](#) depict the project and easement location.

Analysis of Cost: The cost for the easement is based upon an appraisal by Dove Valuations, Inc. as well as a negotiated settlement with the property owner.

Public Comment: None



COMMISSION MEETING MINUTES
February 28, 2023

11. **Jefferson Avenue Interceptor Force Main Replacement Phase III
Easement Acquisition – 638 River Bend Court, Newport News, Virginia 23602**

Action: Approve the purchase of a 7,551 square foot permanent easement for \$50,000 in accordance with the terms and conditions of the Deed of Easement with RP Waterman’s Crossing, LLC, (Grantor) 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: Frederick Elofson

Seconded: Michael Glenn

Roll call vote: **Ayes:** 8 **Nays:** 0

CIP Project: JR011730

Regulatory Requirement: None

Budget	\$24,103,808
Previous Expenditures and Encumbrances	(\$21,484,746)
Available Balance	\$2,619,062

Project Description: This project will replace approximately 9,000 linear feet of 12-inch, 14-inch, and 16-inch HRSD force main (FM) from the intersection of Route 171 (Oyster Point Road) and Jefferson Avenue to the proposed Patrick Henry jumper. A preliminary hydraulic and capacity analysis revealed 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 development is planned for the service area, which will exacerbate the current problem. Construction of this project will also provide additional capacity and system flexibility when combined with other proposed improvements.

As part of the project, HRSD will require 15 temporary and permanent easements. The subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD’s Policy Guidelines and will require Commission approval. The attached [Deed of Easement](#) was reviewed by HRSD staff and real estate legal counsel. The [map](#) and [plat](#) depict the project and easement location.

Analysis of Cost: The cost for the easement(s) is based upon an appraisal by Dove Valuations, Inc. as well as a negotiated settlement with the property owner.

Public Comment: None



COMMISSION MEETING MINUTES
February 28, 2023

12. **Wilroy Pressure Reducing Station and Off-line Storage Facility
Real Estate Acquisition – Fee Simple Interest
1941 Wilroy Road, 1949 Wilroy Road, and Tax Map No. 26*22C, Suffolk**

Action: Approve the acquisition of three abutting parcels (5.374 acres) located at 1941 Wilroy Road, 1949 Wilroy Road and Tax Map No. 26*22C in Suffolk and associated acquisition costs of \$638,000 in accordance with the terms and conditions of the Purchase Agreement with JTF Properties, LLC., (Seller) and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved: Vishnu Lakdawala

Seconded: Elizabeth Taraski

Roll call vote:

Ayes: 8

Nays: 0

CIP Project: NP014000

Regulatory Requirement: Integrated Plan – HPP1 (2030 Completion)

Budget	\$34,302,000
Previous Expenditures and Encumbrances	(\$3,597,747)
Available Balance	\$30,704,253

Project Description: This project will design and construct a new pressure reducing station and a 3-million-gallon storage tank in Suffolk along the Wilroy Road corridor. This project is one of the High Priority Wet Weather Management Plan projects, is needed to reduce the likelihood of sanitary sewer overflows (SSO) in the Cities of Chesapeake and Suffolk and must be constructed by the end of 2030. The project completion date should also coincide closely with the completion of the proposed Suffolk Pump Station project.

Project Justification: As part of HRSD's Integrated Plan, a program of High Priority RWWMP Projects (HPP) will be constructed through 2030. These projects were selected based on their ability to provide the greatest environmental and human health benefits. Further, this HPP investment of \$200+ million will reduce Sanitary Sewer Overflow (SSO) volume at the 5-year level of service by 47%.

Acquisition/Disposition Details: As part of the project, HRSD will acquire three abutting parcels, large enough (5.374 AC) for the construction of the tank and pressure reducing station, retaining a tree-lined buffer area. These parcels are strategically located near the confluence of multiple force mains in an area of limited parcels meeting the required acquisition size and location to provide pressure relief to the system. This acquisition of fee simple property requires Commission approval per HRSD's Policy and Guidelines.



COMMISSION MEETING MINUTES
February 28, 2023

Agreement Description: The [Purchase Agreement](#) between HRSD and JTF Properties, LLC, was reviewed by HRSD staff and real estate legal counsel. The [map](#) depicts the project and acquisition locations.

Analysis of Cost: The acquisition cost is based on an MAI appraisal by Dove Valuation Services, LLC. The total cost is the result of a negotiated settlement with the property owner and anticipated closing within 30 days.

Public Comment: None



COMMISSION MEETING MINUTES
February 28, 2023

13. **Capital Improvement Program (CIP) 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. Staff will provide a briefing describing the status of the CIP, financial projections, projects of significance and other issues affecting the program.

Discussion Summary: During the review of the Consent Decree/Sewer Rehabilitation Plan Project updates (slide 14), staff explained there are stipulated penalties that will be assessed by the EPA for not meeting these deadlines. Staff sent EPA proposed changes to the deadlines and scope modifications due to historic inflation, pandemic and staffing shortages. Attorneys on both sides are working to codify the proposed minor modifications.

During the review of the proposed consultant construction cost estimating selection language (slide 26), staff believes the new criteria will reinforce the need for our consultants to more accurately estimate construction costs and schedules. Staff stated the consultants are aware they need to prepare better estimates. Commissioner Glenn believes with the new criteria we will be heading in a good direction and these new criteria will help the Commission with their fiduciary responsibility.

Public Comment: None



COMMISSION MEETING MINUTES
February 28, 2023

14. **Unfinished Business** – None

15. **New Business** – None

16. **Commissioner Comments** – None

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

18. **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
February 28, 2023

19. **Closed Meeting**

Actions: Motion to go into Closed Meeting for discussion with legal counsel and staff regarding:

- a. Actual litigation (Specific Exemption: Va. Code §2.2-3711.A7)
- b. Personnel matter (Specific Exemption: Va. Code §2.2-3711.A1)

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 8

Nays: 0

Exemption Descriptions:

A7. Consultation with legal counsel and briefings by staff members or consultants pertaining to actual or probable litigation, where such consultation or briefing in open meeting would adversely affect the negotiating or litigating posture of the public body. For the purposes of this subdivision, "probable litigation" means litigation that has been specifically threatened or on which the public body or its legal counsel has a reasonable basis to believe will be commenced by or against a known party. Nothing in this subdivision shall be construed to permit the closure of a meeting merely because an attorney representing the public body is in attendance or is consulted on a matter.

A1. Discussion, consideration, or interviews of prospective candidates for employment; assignment, appointment, promotion, performance, demotion, salaries, disciplining, or resignation of specific public officers, appointees, or employees of any public body.



COMMISSION MEETING MINUTES
February 28, 2023

20. **Reconvened Meeting**

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

Roll call vote: **Ayes:** 8 **Nays:** 0

Action: Commissioner Glenn made the following motion:

At last Commission Meeting on January 24, 2023, the Commission voted to amend Section 3(A) of the General Manager's Employment agreement, and now desires to additionally amend Sections 3(B) and (D) to correct a typographical error and to modify the exercise date for the paid leave cash out option to the General Manager's anniversary date and to include the amendments to Sections 3(A), (B) and (D) by the adoption of this Amendment to Employment Agreement.

Moved: Michael
Seconded: Vishnu Lakdawala
Roll call vote:

Ayes: 8 **Nays:** 0

Public Comment: None

21. **Announcements**

The Finance Committee will meet on March 2, 2023 to review the Capital Improvement Program for Fiscal Years 2024-2033.

Next Commission Meeting Date: **March 28, 2023** at 1434 Air Rail Avenue, Virginia Beach, VA 23455.

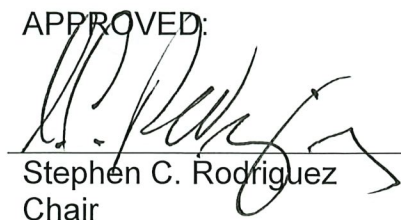
Meeting Adjourned: 12:02 pm

SUBMITTED:

APPROVED:



Jennifer L. Cascio
Commission Secretary



Stephen C. Rodriguez
Chair

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #1

1. Awards and Recognition

[NACWA Awards](#)

[Resolution](#)

2021 Peak Performance Awards – Army Base Treatment Plant - Silver



2021 Peak Performance Awards - Small Communities



- King William (Silver)
- Surry County (Silver)
- Urbanna (Silver)
- West Point (Silver)
- Central Middlesex (Gold)

2021 Peak Performance Awards – Chesapeake-Elizabeth Treatment Plant



Gold Award

Plant closed December 2021

2021 Peak Performance Awards – Atlantic Treatment Plant – Platinum 7



2021 Peak Performance Awards – James River Treatment Plant – Platinum 8



2021 Peak Performance Awards – York River Treatment Plant – Platinum 14



2021 Peak Performance Awards – Boat Harbor Treatment Plant – Platinum 20



2021 Peak Performance Awards – Nansemond Treatment Plant – Platinum 20



2021 Peak Performance Awards – VIP Treatment Plant – Platinum 26



2021 Peak Performance Awards – Williamsburg Treatment Plant – Platinum 27





RESOLUTION

Commending 39 Years of Dedicated Service of Paula A. Hogg November 21, 1983 – March 1, 2023

WHEREAS, Paula A. Hogg was first employed by HRSD as a part-time Laboratory Helper in 1983, was subsequently promoted to Technician in 1984, Chemist in 1989, Laboratory Manager in 1991, Chief of the Laboratory in 2005, Director of Talent Management in 2014, and ultimately to Director of Water Quality in December 2021; and

WHEREAS, she represented HRSD on numerous committees, (WEF's Lab Practices and Utility Management Committees), as well as various panels, and work groups at the local, state, and national level on a wide range of water quality technical and regulatory issues; including providing comments and working with stakeholders on the implementation of state laboratory accreditation regulations and meeting program requirements; and

WHEREAS, she was instrumental in the development of the Municipal Assistance Program to provide regulatory support and analytical services throughout the commonwealth to further HRSD's role as environmental stewards; and

WHEREAS, she was instrumental in the development of HRSD's quality program and served as one of the first facilitators; and

WHEREAS, she provided development opportunities for those that have worked for her, headed a service-oriented work center that understands how to meet the needs of both internal and external customers, and understands the need for reliable environmental laboratory data in decision making and how to gather and interpret them; and

WHEREAS, she has been a tireless supporter of staff development to ensure HRSD's analytical capabilities and reputation are second to none while emphasizing efficiency and cost-effective operations; and

WHEREAS, as a member of the HRSD Senior Leadership, worked to ensure HRSD maintained the highest standards for education and credentials in all positions, kept the team focused on the organization's commitment to honesty and integrity, and promoted fairness and equity in all decision making; and

WHEREAS, she led HRSD through unprecedented times and circumstances associated with the COVID-19 pandemic, working quickly to implement measures and protocols to ensure employees could safely provide essential services to the residents of Hampton Roads; now therefore, be it

RESOLVED by the HRSD Commission that it hereby commend Paula A. Hogg for her outstanding service to HRSD, to the Hampton Roads Region, and the environment; and, be it

RESOLVED FURTHER, that the Secretary of the HRSD Commission prepare a copy of this resolution for presentation to Paula A. Hogg as an expression of the Commission's deepest appreciation, esteem and best wishes.

Adopted by the HRSD Commission on the
twenty-eighth day of February 2023.

Stephen C. Rodriguez
HRSD Commission Chair

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #2

2. [Consent Agenda](#)

CONSENT AGENDA ITEM 2.b.1. – February 28, 2023

Subject: Williamsburg Treatment Plant Administration Building Renovation
Additional Appropriation (<5% of Original Appropriation and <\$200,000)

Recommended Action: Appropriate additional funding in the amount of \$91,348.

CIP Project: WB012900

Regulatory Requirement: None

Budget	\$3,676,879
Previous Expenditures and Encumbrances	(\$3,637,825)
Available Balance	\$39,054
Proposed, Estimated Change Order No. 4 to Contractor	(\$42,596)
Owner Furnished Air Compressor and Furniture	(\$20,000)
Task Order to Guernsey Tingle, Inc.	(\$61,606)
Proposed Contingency	(\$6,200)
Project Shortage/Requested Additional Funding	(\$91,348)
Revised Total Project Authorized Funding	\$3,768,227

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for E.T. Gresham Company, Inc.	\$2,792,475	
Total Value of Previous Change Orders	\$146,231	5.2%
Estimated Change Order No. 4	\$42,596	
Total Value of All Change Orders	\$188,827	6.8%
Revised Contract Value	\$2,981,302	

Time (Additional Calendar Days)	78 (previously issued)
---------------------------------	------------------------

Project Description and Justification: The project is to renovate the existing 1960's Administration Building at the Williamsburg Treatment Plant. This project will replace the toilets, sinks, showers and lockers and allow for more space in both the men's and women's restrooms. The project will provide much needed office space for plant staff; refurbish the conference room and create additional workshop space to include a new space for Electrical and Instrumentation staff who are currently located in a different building. This effort will also provide for an operations control room in the hurricane category 2 rated administration building. The existing operations control room is in the incinerator building which must be abandoned during tropical storm force winds.

Change Order Description: This change order includes multiple changes related to unforeseen conditions discovered during the demolition of the administration building. Also, included in this change order is extended overhead for a time extension previously issued to the Contractor. Further, additional engineer Construction Administration and Construction Inspection budget, owner furnished items, including an air compressor, are required to complete the rehabilitation.

Analysis of Cost: The cost for this estimated Change Order No. 4 is based on both Engineer's opinions of probable construction cost as well as negotiated change order proposals. The request includes a 5% contingency based on the proposed Change Order No. 4 value and other requested items to account for potential changes in the final, negotiated cost.

Schedule: Construction September 2021
Project Completion March 2023

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

Subject: Caterpillar Emergency Generator Preventive Maintenance
Contract Award (>\$200,000)

Recommended Action: Award a contract to Carter Machinery Company, Inc. in the estimated amount of \$67,354 for year one with four annual renewal options and an estimated cumulative value in the amount of \$336,770.

Regulatory Requirement: None

Type of Procurement: Sole Source

All parts and services were previously approved as a sole source with Carter Machinery Company, Inc. in August 2015.

HRSD Estimate: \$39,886

Contract Description and Analysis of Cost: This contract is an agreement for Caterpillar emergency generator preventative maintenance at York River, Nansemond, James River, Boat Harbor, and Williamsburg. All rates are consistent with the previous term contract with Carter Machinery Company, Inc.

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

CONSENT AGENDA ITEM 2.c.2. – February 28, 2023

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 \$341,550.

CIP Project: GN018500

Regulatory Requirement: None

Budget	\$2,867,920
Previous Expenditures and Encumbrances	(\$2,422,442)
Available Balance	\$445,478

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 December 27, 2022 and two bids were received on January 12, 2023 as listed below:

Bidder	Bid Amount
THC Enterprises, Inc. dba Mid Atlantic Waste Systems, Inc.	\$341,550
Ecology Mir Group	Non-Responsive

HRSD Estimate: \$270,000

Project Description: This project will provide funding for the scheduled replacement of fleet assets.

Project Justification: Fleet assets are on a scheduled replacement plan. This program will ensure there is funding in each fiscal year to meet the replacement schedule.

Contract Description and Analysis of Cost: This contract is for the purchase of a crew cab truck with an eleven-foot hydraulic tool body and crane. Costs are determined to be fair and reasonable based on past purchase history of similar vehicles. The apparent low responsive, responsible bidder, Ecology Mir Group, was deemed non-responsive for not meeting the minimum specifications requirements.

This work is in accordance with Commission Adopted Procurement Policy.

CONSENT AGENDA ITEM 2.c.3. – February 28, 2023

Subject: Right of Way Maintenance Services
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for Right of Way Maintenance Services to Green Alt LLC DBA Green Alternatives LLC in the estimated amount of \$166,000 for year one with four annual renewal options and an estimated cumulative value in the amount of \$830,000.

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Procurement Department advertised and solicited bids directly from potential bidders. The project was advertised on January 19, 2023, and four bids were received on February 9, 2023, as listed below:

Bidder	Bid Amount
Green Alt LLC DBA Green Alternatives LLC	\$166,000
Hardcore Land Development LLC	\$230,500
Parking Lot Maintenance, Inc.	\$299,800
Tri Nguyen DBA United Development and Hauling	\$444,500

HRSD Estimate: \$251,462

Contract Description and Analysis of Cost: This contract is an agreement for clearing and maintenance of HRSD Right of Ways (bush hogging). The easements will be cleared and maintained over time to prevent overgrowth to the easement and safe access to HRSD lines. The cost has been determined to be fair and reasonable based on a competitive bid results and direct negotiations, with cost in agreement with previous contracts for similar efforts from firms.

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

CONSENT AGENDA ITEM 2.d.1. – February 28, 2023

Subject: Ivy Home-Shell Road Sewer Extension Division I Replacement
Task Order (>\$200,000)

Recommended Action: Approve a task order with Commonwealth Epoxy Coatings, Inc. in the amount of \$351,569.

CIP Project: BH014500

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

Budget	\$2,243,200
Previous Expenditures and Encumbrances	(\$102,075)
Available Balance	2,141,126

Contract Status:	Amount
Original Contract with Commonwealth Epoxy Coatings, Inc.	\$0
Total Value of Previous Task Orders	\$12,349,429
Requested Task Order	\$351,569
Total Value of All Task Orders	\$12,700,998
Revised Contract Value	\$12,700,998

Project Description: This project will involve diversion of the LaSalle Avenue Sanitary Sewer Force Main (NF-085) in the City of Hampton from the current discharge manhole at the intersection of LaSalle Avenue to Shell Road to an alternative downstream manhole at the intersection of Victoria Boulevard and Ivy Home Road, and the rehabilitation or replacement of all manholes identified in the Rehabilitation Action Plan Phase 2. The diversion would significantly reduce the hydraulic grade line (HGL) in the HRSD gravity sewer and address the capacity concern identified in the regional hydraulic model. The Preliminary Engineering Report (PER) for this project found that abandonment and replacement of the existing HRSD gravity sewer was not feasible due to conflicts with storm sewers and other utilities along the replacement corridor.

Project Justification: This project will address critical areas within the City of Hampton with significant wet weather capacity issues as identified in the Hampton Study completed by Brown and Caldwell (BC). This project should be coordinated with the Regional Wet Weather Master Plan. The Hampton Study was a collaborative effort between BC, the City of Hampton and HRSD to identify, evaluate and select the preferred alternatives to address the identified capacity issues. The gravity reroute to 001-PS was identified as the preferred alternative (Alternative 1B) for the Ivy Home Road/Chesapeake Avenue area. This alternative includes increasing the size of the main gravity pipe discharging into the Victoria Boulevard Pump Station (PS), thus, increasing sewer capacity for that service area. The increased capacity of this line, combined with the modifications rerouting flow from the Ivy Home Road sewer to the Victoria Boulevard PS, will facilitate capacity improvements to the Chesapeake Avenue gravity sewer (Alternative 2A - Pump Station and Force Main).

Task Order Description: This task order will provide services for the rehabilitation of manholes in Hampton VA. Services include surface preparation, power washing, mortar repairs, epoxy coating, and chimney seal installation.

Analysis of Cost: The cost for this task order is in accordance with the pre-negotiated rates under the Annual Coating Services Agreement.

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

<u>Schedule:</u>	PER	May 2014
	Design	May 2015
	Bid	April 2023
	Construction	August 2023
	Project Completion	May 2024

CONSENT AGENDA ITEM 2.e.1. – February 28, 2023

Subject: Viking Flights and Chains
Sole Source (>\$10,000)

Recommended Action: Approve the use of Viking Flights and Chains by Connexus Industries, Inc. at all HRSD facilities.

Regulatory Requirement: None

Sole Source Justification:

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

Details: Product includes the purchase of Viking brand flights and chains. The flights and chains are installed at the bottom of the primary clarifier to move the solids through the clarifier. These parts are for replacement of existing and act as a drop-in replacement.

The original purchase was completed under a previous competitive solicitation in 2017.

The Commission previously approved limited sole source authority for Viking brand flights and chains for the Army Base Treatment Plant. This action supersedes previous actions and expands the scope to cover all HRSD locations.

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

CONSENT AGENDA ITEM 2.e.2. – February 28, 2023

Subject: ZeeWeed® Membranes, Parts and Services
Sole Source (>\$10,000)

Recommended Action: Approve the use of ZeeWeed® Membranes, Parts and Services by Veolia Water Technologies and Solutions at Onancock Treatment Plant.

Regulatory Requirement: None

Sole Source Justification:

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

Details: Product includes the purchase of ZeeWeed® membranes, parts and services. This media is used for ultrafiltration of wastewater in the filtration portion of treatment. Veolia will provide installation of the membranes at Onancock Treatment Plant.

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

CONSENT AGENDA ITEM 2.f.1. – February 28, 2023

Subject: Multifunction Device Rental, Consumables and Services
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the Omnia Partners contract no. 2021002788 for Print Goods and Services.
- b. Award a contract to Ricoh USA, Inc. in the amount of \$272,966 for a 48-month term lease.

HRSD Estimate: \$272,966

Regulatory Requirement: None

Contract Description and Analysis of Cost: This contract is for the rental of 15 multifunction devices, purchase of consumables and preventive maintenance for the South Shore Main Office Complex, North Shore Automotive, Army Base, Atlantic, and James River Treatment Plants. By utilizing the cooperative contract through Omnia Partners, HRSD is receiving 60 percent cost savings.

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #3

3. [HRSD's Strategic Plan](#)



HRS&D

2030 VISION

A STRATEGIC PLAN

- Forward focused vision
- Actionable way to reach our goals
- Provides direction
- Limited resources
- Prioritized approach

Components of Strategic Planning

Purpose

Why an organization exists



Vision

Where the organization wants to be in the future



~~Mission~~ Promise

How to achieve the purpose of the organization



~~Goals~~ Priorities

Organization-wide desires that support the achievement of the vision



Objectives

What an organization needs to fulfill its goals



Action Items / Performance Measures

The activities, plans or programs an organization develops to achieve objectives



~~Values~~ Principles

“Our communities will have clean waterways and reliable water resources for generations to come.”

“Future generations will inherit clean waterways and be able to keep them clean.”

- Answers the big question – WHY are you doing what you are doing?

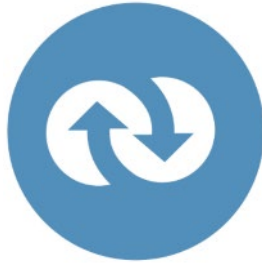
“We promise to treat wastewater and recover natural resources to protect public health and the environment”

“We protect public health and the waters of Hampton Roads by treating wastewater effectively.”

Principles (Fundamental Truths)



EMPOWERED
EMPLOYEES



CONTINUOUS
LEARNING/
INNOVATION



COMMITMENT
TO
EXCELLENCE



INCLUSIVE
WORKPLACE



DATA
DRIVEN

The background of the slide is a solid blue color with a pattern of numerous water droplets of various sizes. The droplets are rendered with soft shadows and highlights, giving them a three-dimensional appearance. The text 'Our Priorities' is centered horizontally and vertically on the slide.

Our Priorities



ENVIRONMENTAL RESPONSIBILITY

We protect public health and preserve natural resources to ensure a sustainable future.

HRSD Priorities



TALENT

We attract, develop, and retain an exceptional and diverse workforce that reflects our principles.



HRSD Priorities



INNOVATION

We lead the industry by boldly innovating in every aspect of our business to enable continuous improvement.



HRSD Priorities



FINANCIAL STEWARDSHIP

We preserve financial integrity and sustainability through sound planning to help ensure long-term affordability.

HRSD Priorities



COMMUNITY ENGAGEMENT

We engage and partner with the communities we serve to enhance relationships, provide value, and foster trust.

HRSD Priorities



Questions?

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #4

4. [Brand Perception Survey Results](#)



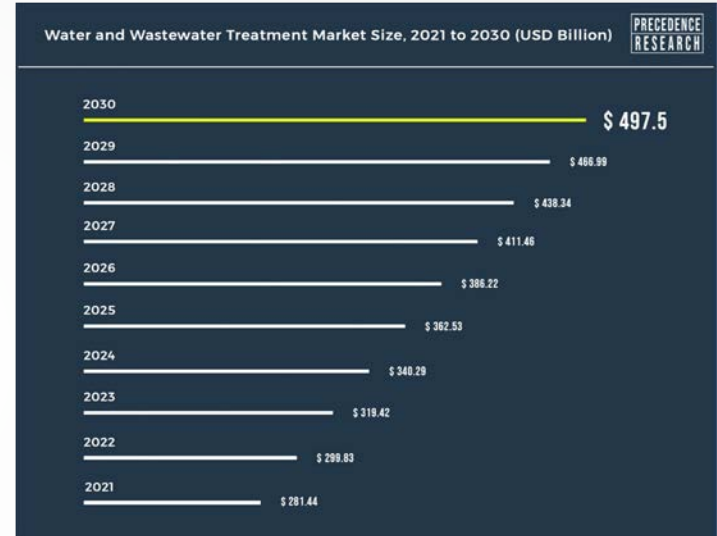
Hampton Roads Sanitation District Brand Perception Study

Commission Meeting
February 28, 2023

AROUND THE WORLD

Rising Costs

- **Utility costs have been rising around the world.**
 - U.S. Municipal Water & Wastewater Utility Bill Index: Up 65% since 2012 (two times the rate of inflation)
 - Issues driving up wastewater costs:
 - Process costs, rising volumes, cost of energy, cost of treatment chemicals, maintenance & repair costs, and more
- **Costs will keep rising.** Inflation is a driver, of course, but so is infrastructure. It costs money to upgrade aging and corroded water infrastructure, especially to address extreme weather.
- Global water and wastewater treatment will increase nearly \$200 billion by 2030.



AROUND THE U.S.

Satisfaction is Down

Satisfaction is down across every factor examined.

- Reason #1: **PRICE**
 - Decline in satisfaction corresponds to prices increasing — even when water usage stays flat.
- Reason #2: **COMMUNICATIONS**
 - Only 35% recall being informed of a rate increase

HERE AT HOME

Understanding Perceptions in Hampton Roads

WHAT WE DID:

- 12-minute survey in December 2022
- Reached +1,900 adults who pay utility bills
- Across 18 localities

WHO WE LISTENED TO:

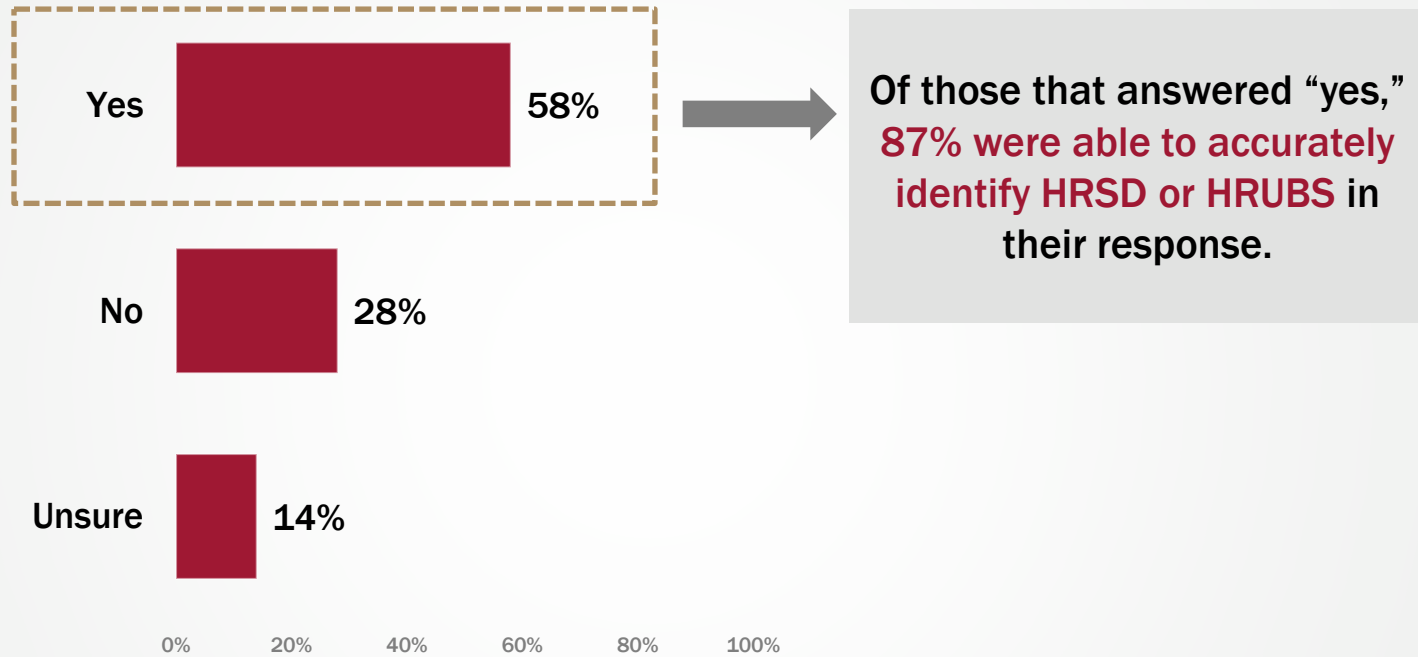
- Audience reflects HRSD's customer base
 - Locality, age, gender, race, income



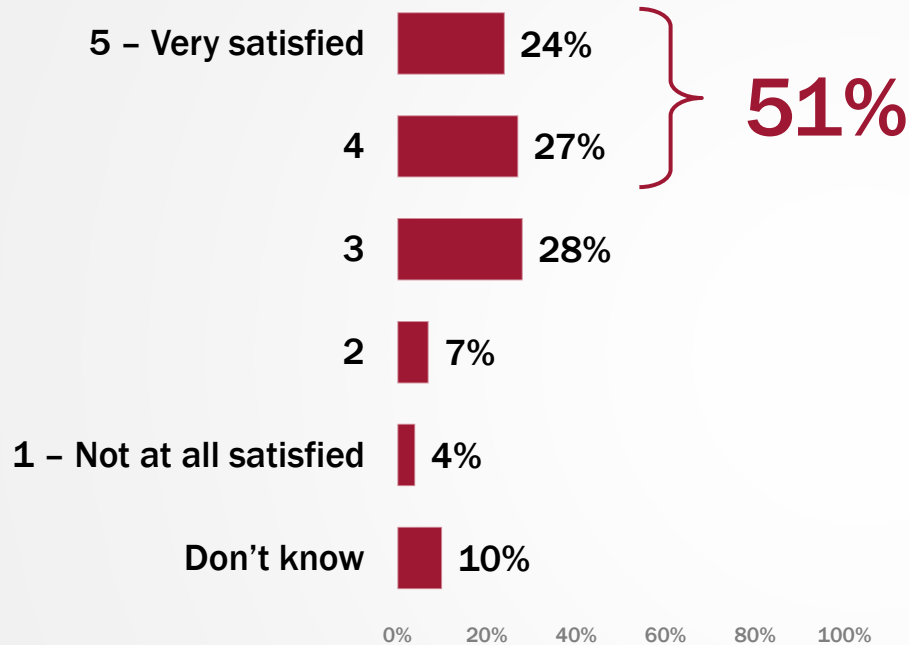
OVERALL TAKEAWAYS

PEOPLE GENERALLY KNOW HRSD

More than half correctly identify HRSD/HRUBS as their wastewater treatment provider.



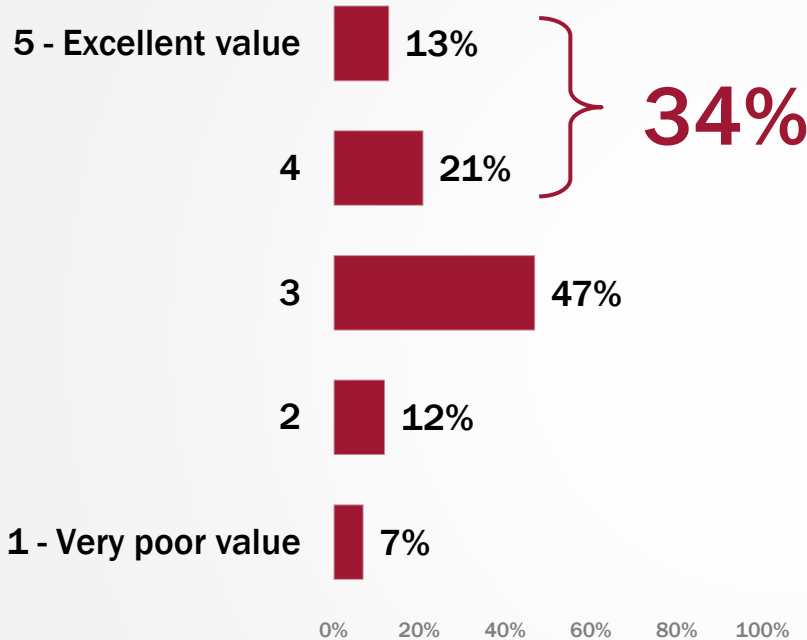
Satisfaction is relatively high — over 50%.



Generation	Top 2 Score
Millennial	44%
Gen X	48%
Boomer	59%
Silent Generation	71%

*Gen Z not represented due to insufficient sample size; n = 9

Value receives high ratings from roughly 1 in 3 respondents.



Generation	Top 2 Score
Millennial	31%
Gen X	29%
Boomer	41%
Silent Generation	52%

*Gen Z not represented due to insufficient sample size; n = 9

HRSD respondents indicate higher levels of satisfaction and perceived value as compared to HRUBS respondents

Overall Satisfaction
(Top Two Box Rating)



0% 20% 40% 60% 80% 100%

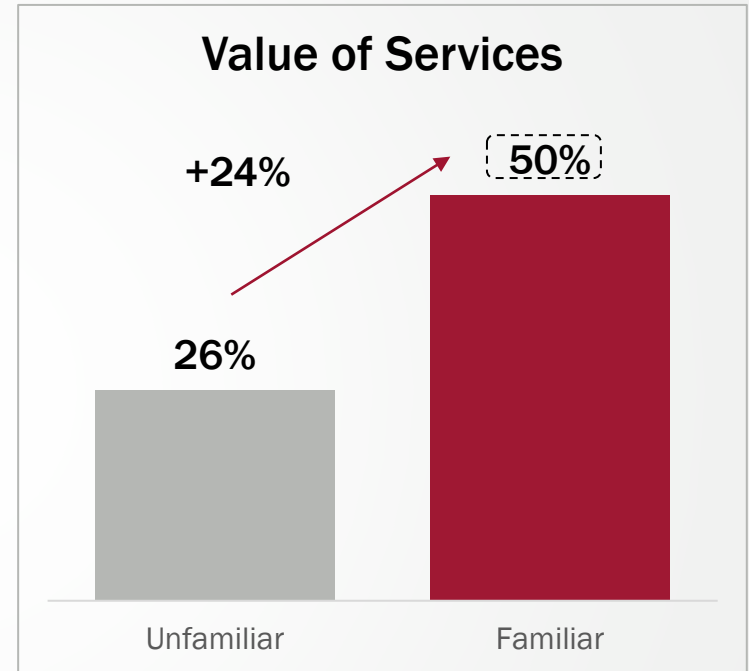
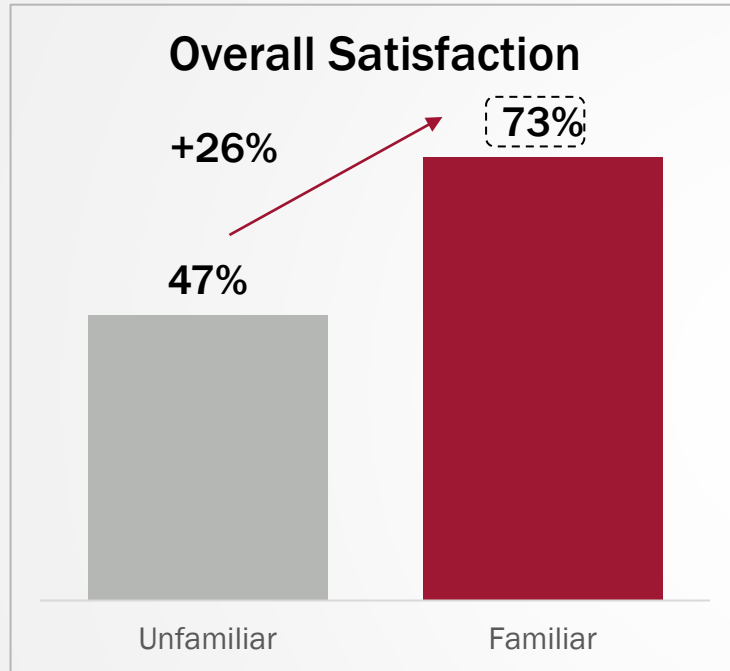
Perceived Value
(Top Two Box Rating)



0% 20% 40% 60% 80% 100%

**Significantly higher,
99% confidence*

Familiarity significantly lifts ratings of overall satisfaction and value for services.



**Significantly higher, 99% confidence*

Q10. How would you rate the overall value of services for the fees paid to HRSD/HRUBS?
Q11. Based on what you may know about HRSD/HRUBS, how satisfied are you with their services overall?
Note: "Don't know" responses were removed

Familiar avg n = 601
Unfamiliar avg n = 1,215



Customers' interest is both personal (lower *my* bills) and for the greater good (protect *our* region).

HRSD is constantly researching new ways to treat wastewater better, at a lower cost.

HRSD plays an essential role in keeping waterways, such as the Chesapeake Bay, clean...

Most responses are financially driven, but improving water quality and new research piques the interest of many.

Most acknowledge the importance of ecological preservation on public health, recreation, and our future.

"As the goal of your organization, this marries most to what we as customers want: robust treatment at the best price."

"The Chesapeake Bay is at the highest level of what must be preserved. All other waterways depend on the Bay."

"Clean, healthier water, at affordable costs."

"It is important that all life has the opportunity to grow healthy, prosper, and be allowed leisure activities."

"Clean water = better future. Cheaper costs = happy customers."

"Keeping cost down while protecting humans, wildlife, and waterways is the way towards a better future for all."

"Preserving our natural wildlife is the most important thing for me, as I want my kids and their kids to be able to experience it like I have."

"Water is the source of life, and the lifeblood of this area."

Opportunities for HRSD

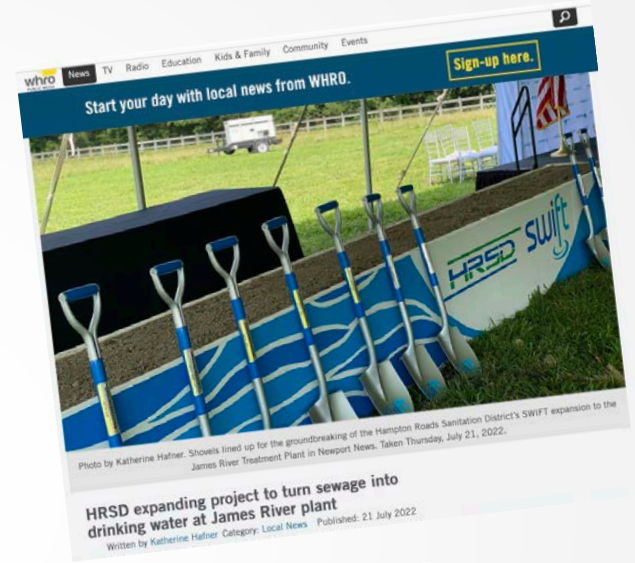
- Some people think HRSD collects **trash or recycling**.
- Some people think HRSD **cleans drinking water**.
- **HRUBS** customers sometimes blame HRSD for **perceptions of poor utility service** — even when HRSD simply provides the billing service.
 - Don't shoot the messenger

How to Address It

COMMUNICATE MORE:

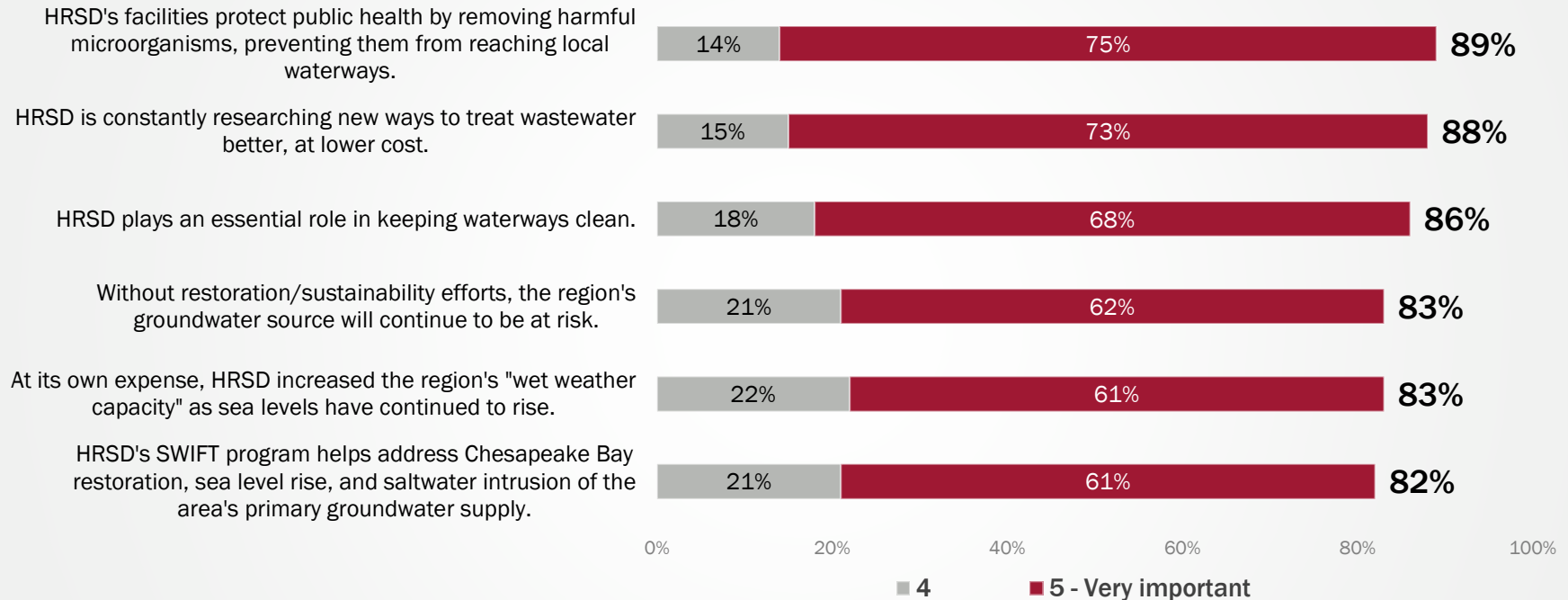
HRSD has earned outstanding media coverage. The focus now should be on sustained communications that HRSD leads.

- Range of options: Annual report, social media, etc.
- Explore re-branding HRUBS

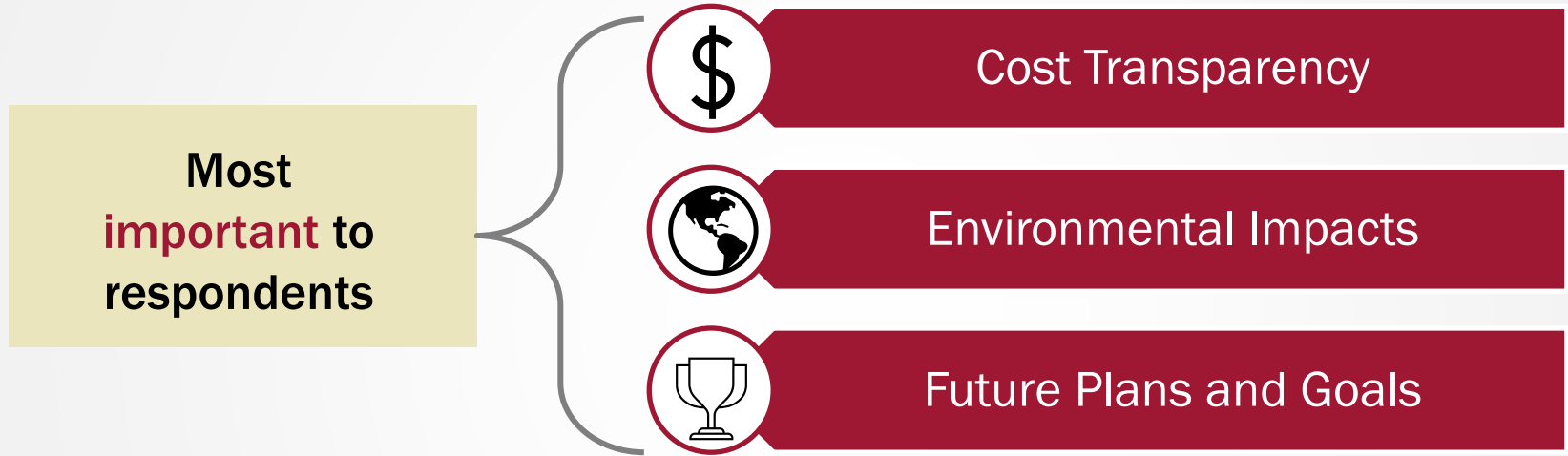


The New York Times
There's Something in the Water in Virginia. Before You Say 'Yuck,' Wait.
A crucial aquifer is running low, so officials are pumping in treated sewage. It's an increasingly common strategy as heavy demand and climate change strain water supplies.

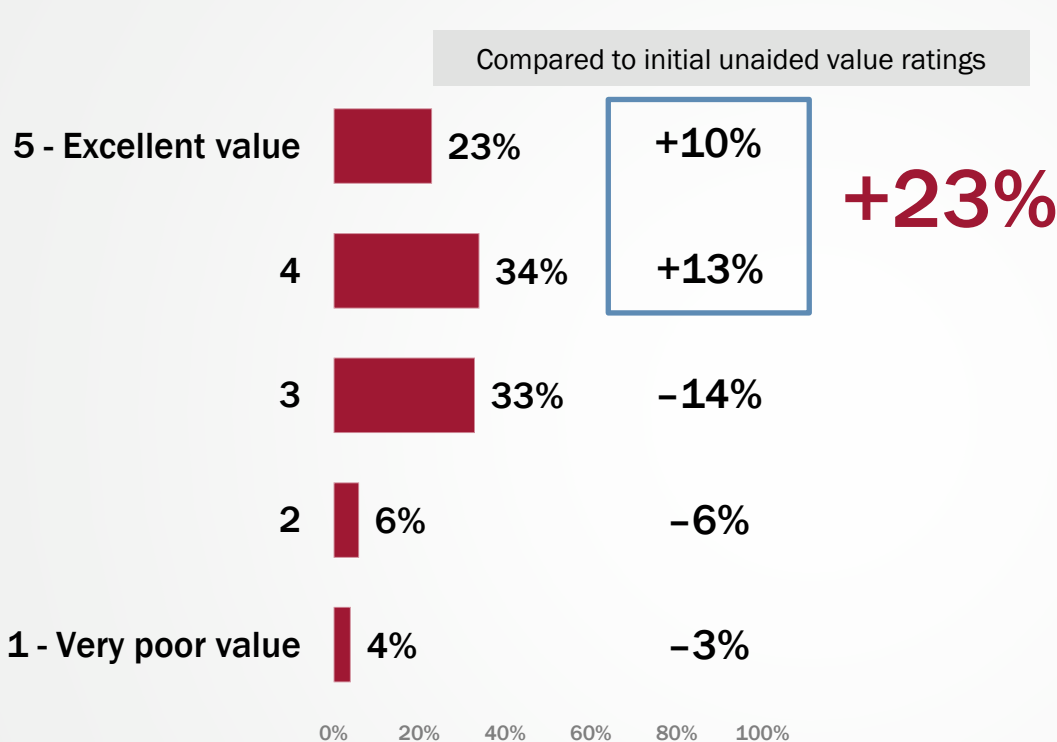
Customers indicate what is most important to them.



Focus on topics that are the most important and those that have the strongest correlation with perceived value.



When customers know more, perceived value rises.



*Significantly higher, 99% confidence

Provider	Top 2 Score
HRSD	60% (+23%)
HRUBS	53% (+23%)

Generation	Top 2 Score
Millennial	57% (+26%)
Gen X	51% (+22%)
Boomer	66% (+25%)
Silent Generation	77% (+25%)

*Gen Z not represented due to insufficient sample size; n = 9





Questions?

Appendix

Respondent Demographic Information

DEMOGRAPHIC	GROUP	SAMPLE PROPORTION
GENDER	Male	38%
	Female	56%
GENERATION	Gen Z (2000–2012)	1%
	Millennials (1983–1999)	21%
	Gen X (1965–1982)	29%
	Boomers (1946–1964)	30%
	Silent Generation (prior to 1945)	6%

Respondent Demographic Information (cont'd)

DEMOGRAPHIC	GROUP	SAMPLE PROPORTION
HISPANIC ETHNICITY	Hispanic or Latino	5%
	Not Hispanic or Latino	83%
RACE	White	66%
	Black or African American	15%
	Asian	3%
	American Indian or Alaska Native	2%
	Native Hawaiian or Pacific Islander	1%
	Other	3%

Q24. Are you of Hispanic or Latino origin?

Q25. Which of these do you consider yourself to be? Select all that apply.

Note: Nearly all questions included a “prefer not to answer” option. The proportion selecting “prefer not to answer” is not presented above, so percentages may not sum to 100 percent.

Respondent Income and Home Ownership

DEMOGRAPHIC	GROUP	SAMPLE PROPORTION
LIVING STATUS	Own	86%
	Rent	13%
	Other	1%
HOUSEHOLD INCOME	Less than \$25,000	3%
	\$25,000 - \$35,999	5%
	\$36,000 - \$49,999	6%
	\$50,000 - \$74,999	16%
	\$75,000 - \$99,999	14%
	\$100,000 - \$124,999	13%
	\$125,000 - \$149,999	7%
	\$150,000 - \$199,999	7%
	\$200,000 or more	6%

Q22. Do you own or rent your home?

21 Q26. Which of the following best represents your total combined annual household income?

Note: Nearly all questions included a “prefer not to answer” option. The proportion selecting “prefer not to answer” is not presented above, so percentages may not sum to 100 percent.



Respondent Tenure

NUMBER OF YEARS	HRSD BILLING RESPONDENTS (n = 1,092)	HRUBS BILLING RESPONDENTS (n = 819)
Up to 1 year	5%	7%
1 to 5 years	25%	25%
6 to 10	14%	16%
11 to 20	20%	24%
21 or more	36%	28%
AVERAGE YEARS	17 years	15 years

Respondent Location

LOCATION	SAMPLE PROPORTION
Virginia Beach	30%
Norfolk	14%
Chesapeake	13%
Williamsburg	10%
Newport News	8%
Hampton	8%
Suffolk	6%
Portsmouth	4%
Yorktown	3%
Other areas	4%



HRSD Commission Meeting Minutes
February 28, 2023
Attachment #5

5. [Post-Issuance Tax Compliance Policy Revisions](#)

1.0 Purpose and Need

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

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

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

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

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

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

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

2.0 Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.0 Procedures

3.1 Guiding Principles

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

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

3.2 Private Use, Change in Use and Remedial Action

1. Private Use Generally

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

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

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

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

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

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

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

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

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

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

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

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

- ~~a.~~ *b. Structuring of Arrangements to Avoid Private Loans. It is the policy of HRSD that, to the extent consistent with the business objectives of HRSD, any potential arrangement with respect to bond financed property that might result in a direct or indirect loan of bond proceeds to a Nongovernmental Person shall be structured so as to avoid or minimize the amount of such loan.*

- ~~b.~~ *c. Allocating Equity or Taxable Debt to Capital Improvement Program Components with Private Use or Private Payments. If an arrangement cannot be structured so as to avoid Private Use, Private Payments or Private Loan, it is the general policy of HRSD that to the extent an arrangement that might result in Private Use cannot be structured so as to avoid Private Use or Private Payments, HRSD will to use its equity, or proceeds of debt that is not tax-advantaged, to finance the subject property.*

- ~~c.~~ *d. Allocation of Bond Proceeds to Assets Financed. For each issue of Tax-Advantaged Bonds, HRSD shall maintain records establishing costs financed. In addition, to the extent any improvements are financed with taxable debt that HRSD anticipates to be refinanced with the proceeds of Tax-Advantaged Bonds, HRSD shall maintain records establishing the costs of the capital improvements financed by such taxable debt. Guidelines for allocating proceeds to expenditures/costs are set forth in Treasury Regulations Sections 1.141-6 and 1.148-6.*

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

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

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

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

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

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

2. Remedial Action and Voluntary Compliance Agreement Program

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

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

3.3 Arbitrage and Rebate

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

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

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

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

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

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

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

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

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

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

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

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

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- ~~8-5.~~ Monitoring the expenditure of Bond Proceeds *of each issue of Tax-Advantaged Bonds* and any investment earnings *thereon*, ~~which monitoring shall include obtaining and reviewing monthly reports of the expenditure and investment of proceeds of each issue of Tax-Advantaged Bonds.~~
- 9-6. Maintain a procedure for the allocation of proceeds of each issue of Tax-Advantaged Bonds and investment earnings to expenditures, including the reimbursement of pre-issuance expenditures.
- ~~10-7.~~ Consult with and seek the assistance of HRSD's financial advisor as needed to comply with and memorialize compliance with the requirements set forth in these Post-Issuance Compliance Procedures.
- ~~11-8.~~ Engage a firm with expertise in the area of arbitrage rebate compliance (the "Rebate Consultant") with respect Tax-Advantaged Bonds to arrange, as necessary, for the monitoring of Bond Proceeds expenditure for compliance with various expenditure exceptions (~~described in Appendix A~~) and timely computation of arbitrage rebate or arbitrage yield reduction liability.
- ~~12-9.~~ If rebate or a yield reduction payment is due to the IRS, arrange for the timely filing of Form 8038-T and the payment of such rebate liability.
- ~~13-10.~~ Prior to engaging in any post-issuance credit enhancement transactions (e.g., bond insurance, letter of credit) or hedging transactions (e.g., interest rate swaps, caps), the Tax Compliance Designee is to consult with bond counsel.
- ~~14-11.~~ In the case of refunding bonds, the Tax Compliance Designee should *consult with bond counsel and* coordinate with HRSD's financial advisor, the bond trustee or escrow agent to arrange for the purchase of the refunding escrow securities, and should obtain a computation of the yield on such escrow securities from HRSD's outside arbitrage rebate specialist.

3.4 Reissuance

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

The Tax Compliance Designee is to:

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

3.5 Records Retention

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

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

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

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

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

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

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

3.6 Training and Periodic Review of Post-Issuance Compliance Procedures

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

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

3.7—Additional Resources

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

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

Approved:

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

Date

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Attest:

Jennifer L. ~~Heilman~~ Cascio
Commission Secretary

Date

~~APPENDIX A~~

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

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

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

~~2. EXPENDITURE EXCEPTIONS~~

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

~~a. Six-Month Exception~~

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

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

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

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

~~b. Eighteen-Month Exception~~

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

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

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

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

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

~~e. Two-Year Exception~~

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

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

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

~~d. Available Construction Proceeds~~

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

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

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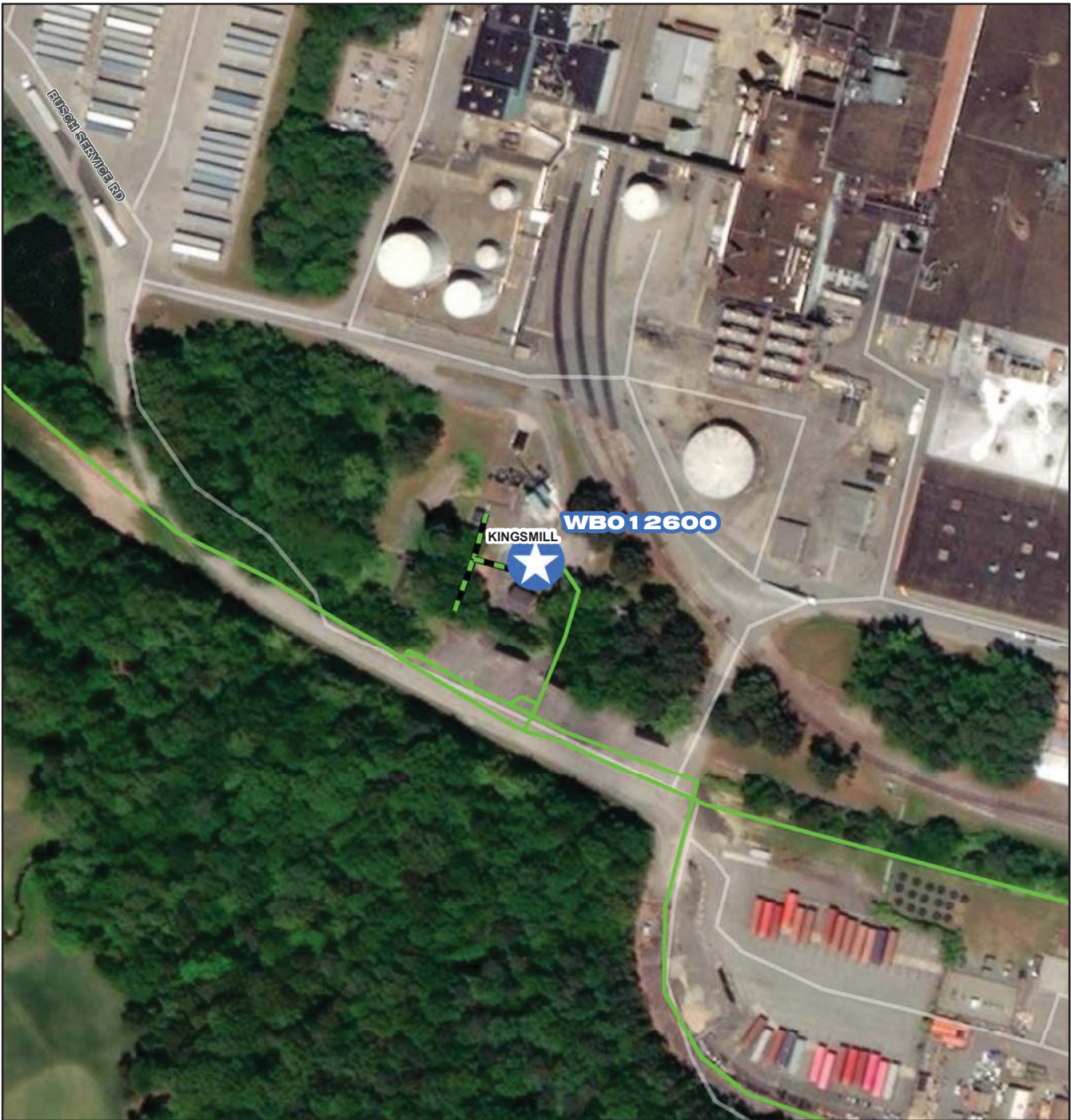
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~~expended for such purposes within two (2) years from the date of issuance of the Tax-Advantaged Bonds but for an amount that is retained for reasonable business purposes relating to property financed with the proceeds of the Tax-Advantaged Bonds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

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

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #6

6. [Kingsmill Pump Station Piping Replacement and Wet Well Rehabilitation Additional Appropriation and Task Order \(>\\$200,000\)](#)



- WBO 12600**
- 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



WBO 12600

Kingsmill Pump Station Piping Replacement and Wet Well Rehabilitation



HRSD Commission Meeting Minutes
February 28, 2023
Attachment #7

7. [Middlesex Interceptor System Program Phase II – Hartfield Pump Station Cost Sharing Agreement](#)

AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
MIDDLESEX INTERCEPTOR SYSTEM PROGRAM PHASE II – HARTFIELD PUMP
STATION (MP013720)
AND
COUNTY OF MIDDLESEX

THIS AGREEMENT FOR COST SHARING (the “Agreement”), between the COUNTY OF MIDDLESEX (“COUNTY”) and the HAMPTON ROADS SANITATION DISTRICT (“HRSD”), is entered into this ^{28th} day of February, 2023 (the “Effective Date”).

RECITALS

R:1. HRSD has plans to construct the MIDDLESEX INTERCEPTOR SYSTEM PROGRAM PHASE II – HARTFIELD PUMP STATION as shown on **Exhibit 1** (the “HRSD Facilities”); and

R:2. The COUNTY has proposed to construct its own Pump Station within the same service area of the HRSD Facilities as shown on **Exhibit 2** (the “COUNTY Facilities”); and

R:3. The design and construction of the HRSD Facilities and the COUNTY Facilities (collectively referred to as the “Improvements”) will benefit from the construction of a single sanitary sewer pump station and discharge force main within the Village of Hartfield; and

R:4. HRSD and the COUNTY agree that it is in the best interest of the parties to have the Improvements designed and constructed together (the “Project”); and

R:5. HRSD agrees to include the design and construction of the COUNTY Facilities as part of the design and construction of the HRSD Facilities, in accordance with the approved plans and specifications; and

R:6. The COUNTY agrees to reimburse HRSD for that portion of the costs of the design and construction of the Improvements attributable to the COUNTY Facilities under the terms and conditions set forth herein.

TERMS

NOW THEREFORE, in consideration of the above provisions and agreements set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

1. HRSD will employ KIMLEY-HORN AND ASSOCIATES (“ENGINEER”), to prepare plans and specifications for the design of the HRSD Facilities and the COUNTY Facilities. A location map of the HRSD Facilities is shown on Exhibit 1. A location map of the COUNTY Facilities is shown on Exhibit 2.
2. HRSD and the County, along with the ENGINEER, will meet to coordinate, review, and mutually approve a set of final plans and specifications for the Improvements (the “Final Plans and Specifications”).

B. Payment of the Design Costs

1. HRSD will compensate the ENGINEER for all engineering design costs, including but not limited to the costs of preparing the Final Plans and Specifications and any amendments thereto, (the “Design Costs”) for both the HRSD Facilities and on the COUNTY’s behalf, the COUNTY Facilities.
2. The COUNTY shall reimburse HRSD for the Design Costs attributable to the COUNTY Facilities in one lump sum payment due once HRSD notifies the County that the design of the Improvements is complete and the Project is bid ready. HRSD shall provide the COUNTY with an invoice detailing the COUNTY’s share of the Design Costs. Within sixty (60) days or as funds are disbursed by VA Clean Water Revolving Loans of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY’s share of the Design Costs as detailed in the invoice. Pursuant to HRSD’s agreement with ENGINEER, the current estimated Design Cost for the COUNTY Facilities is \$10,000. The estimated Design Costs of the COUNTY Facilities are approximately three percent (3%) of the estimated Design Costs for the Improvements. The current estimated Design

Costs for the Improvements is \$330,000.

C. Compliance

All design work shall comply with HRSD's Design and Construction Standards, latest edition, and the Hampton Roads Planning District Commission Regional Construction Standards, latest edition. Any changes to the Final Plans and Specifications shall be approved by HRSD and the COUNTY.

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Improvements (the Improvement Costs), as more particularly defined by the Final Plans and Specifications and Project Documents (as hereinafter defined) shall include:
 - a. Cost of construction of the Improvements;
 - b. Cost of advertising for bids;
 - c. Cost of approvals and permits required for the construction of the Improvements;
 - d. Costs for construction contract administration and inspection (CA/CI);
 - e. Costs of services rendered by ENGINEER other than Design Costs;
 - f. Costs for all temporary or permanent easements and fee simple land acquisitions; and
 - g. Any related miscellaneous essential expenses.
2. The current estimated Improvement Costs of the construction is \$5,000,000. The estimated construction costs of the HRSD Facilities is \$4,850,000. The estimated construction cost of the COUNTY Facilities is \$150,000.

B. Approval of Construction Contract Documents; Contractors; Change Orders

1. Except as otherwise provided in this Agreement, HRSD shall be responsible for preparing, finalizing, and executing any and all front end documents, construction contracts, architectural contracts, engineering contracts, drawings, surveys, bidding documents, bonds, insurance documents, and all amendments, revisions and modifications thereto, relating to the construction of the Project (collectively, the "Project Documents").
2. HRSD and the COUNTY agree that before any construction work is to begin under this Agreement on the Improvements, HRSD and the COUNTY will jointly review and approve the proposed construction contract and its associated agreements (the "Construction Contract"). This approval shall be in writing. If the County does not approve the Construction Contract, the County Facilities will not be included in the Project and this Agreement shall terminate.
3. HRSD shall acquire all necessary plan approvals and property acquisitions related to Improvements prior to the award of the Construction Contract.
4. HRSD and the COUNTY shall review and agree upon the necessary qualifications for the contractors and any subcontractors prior to HRSD bidding the Project and confirm that the construction contract is awarded to a firm that meets the stated requirements.
5. The contractors and subcontractors awarded the Construction Contract (the "Contractors") shall be responsible for all necessary permits and approvals necessary for the Improvements.
6. HRSD will review and approve shop drawings related to the Improvements.
7. HRSD will review and approve scope of work and fee for the construction contract administration and inspections related to the Improvements.
8. HRSD will review and approve change orders related to the Improvements.

C. Payment of Improvement Costs

1. The Improvement Costs shall be apportioned among the parties as follows:
 - a. HRSD will administer and be responsible for bearing ninety-seven percent (97%) of the cost of the Improvements.
 - b. The COUNTY will be responsible for bearing three percent (3%) of the cost of the Improvements.
 - c. Costs associated with any change to the estimated costs or scope of the Improvements or construction cost ("Change Order") shall be as follows:
 - (1) HRSD shall be solely responsible for costs due to a Change Order requested by HRSD; and
 - (2) The COUNTY shall be solely responsible for costs due to a Change Order requested by the COUNTY.
 - (3) Change Orders related to design errors, omissions or changed field conditions shall be the responsibility of the entity impacted by the change. If the Change Order impacts the work of both HRSD and the COUNTY, the responsibility shall be proportionately as defined in paragraphs (a) and (b).
2. During the course of construction, HRSD shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Improvements for all Improvement Costs, including those for which the COUNTY is responsible. The COUNTY shall reimburse HRSD for all such payments made on its behalf. The COUNTY shall pay its share of the Improvements Costs to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). HRSD shall provide the COUNTY with an invoice detailing the COUNTY's share of the Improvement Costs. Within sixty (60) days of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY's share of the Improvement Costs as detailed in the invoice.

3. In conjunction with the above, and for additional clarity, it is agreed that the COUNTY shall pay its share of the construction administration and construction inspection costs (the "CA and CI Costs") to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). Should the COUNTY request inspections beyond those recommended by the ENGINEER for the Project, it is agreed the COUNTY shall pay for any such additional inspections. HRSD shall provide the COUNTY with an invoice detailing the COUNTY's share of the CA and CI Costs. Within sixty (60) days of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY's share of the CA and CI Costs as detailed in the invoice.

D. Operation and Maintenance of the Improvements during and after Construction

1. HRSD shall be responsible for operation and maintenance of the HRSD Facilities during and after construction.
2. COUNTY shall be responsible for operation and maintenance of the COUNTY Facilities during and after construction.
3. HRSD and the COUNTY agree to cooperate and coordinate for the operations and maintenance of any interconnections between the HRSD Facilities and COUNTY Facilities.

III. SCHEDULE

The construction is anticipated to begin by February 2023 and be complete by December 2024. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE COUNTY

A. Public Meetings

HRSD and the COUNTY will each be responsible for holding any public hearings or other open meetings required under applicable law. The parties agree to cooperate reasonably and assist each other in the conduct of such meetings.

B. Bidding of the Improvements

1. HRSD will issue bidding documents for construction of the Improvements. The COUNTY agrees to provide administrative support during the bidding phase. In particular the COUNTY shall:
 - a. Attend the preconstruction meeting
 - b. Provide timely responses to the ENGINEER for any questions, requests for clarification, or addenda during the bidding phase. Provide miscellaneous support to HRSD as required during the bidding phase.
2. HRSD will receive bids for construction of the Improvements. All bids received will be reviewed and approved by the HRSD prior to award of the Construction Contract. The bidding procedure shall be conducted in accordance with the Virginia Public Procurement Act and the HRSD Procurement Policy and Middlesex County's Purchasing Policies and Procedures manual.

C. Administration

HRSD shall provide contract administration of the Improvements. The COUNTY shall reimburse HRSD for the contract administration cost of the COUNTY Facilities as provided herein.

D. Inspection

HRSD shall provide full-time inspection for the Improvements. The COUNTY shall reimburse HRSD for the inspection costs of the COUNTY Facilities as provided herein. The inspector(s) shall have the authority to assure the Improvements are constructed in accordance with the Project Documents.

E. Progress Meetings

Engineer shall arrange and conduct monthly progress meetings. HRSD and COUNTY shall attend and participate in these meetings.

F. Deeds and Easements

HRSD shall obtain any and all necessary fee simple deeds and/or deeds of easement needed for the Improvements.

G. Correction of Construction Defects in the Improvements

1. HRSD shall require the Contractors to provide a performance and payment bond for the full amount of the construction of the Improvements. The construction contract shall also provide for a warranty of the Contractor's work against construction defects in the Improvements and shall require the Contractor to correct such defects that are reported by HRSD or the COUNTY within one (1) year of the final acceptance of the Improvements.

2. The Parties understand that pursuant to this Agreement, HRSD may enter into Project Documents with Contractors or other third parties who will perform work for the benefit of the COUNTY, and conversely the COUNTY may enter into Project Documents with Contractors or other third parties who will perform work for the benefit of the HRSD. In the event of the threatened or actual breach of any such Project Document by any such Contractor or third party, the Parties agree that at the request of the Party benefited by the Project Document, the Parties will work together to exercise any and all of the rights, powers and privileges conferred by the Project Documents to remedy such breach in as full and ample manner as is permitted thereunder; provided, however, nothing herein contained shall be deemed to impose upon the Party who is benefited by the Project Document any liability for the performance of any obligation of the Project Document to which they are not a party. To the extent the exercises of any such rights, powers, or privileges shall generate costs or expenses, including but not limited to attorney's fees, those costs shall be borne by the Party requesting the enforcement or other action under the Project Document. If both Parties wish to initiate enforcement or other action, the costs thereof shall be shared equally, or as otherwise agreed by the Parties.

G. Construction Record Drawings

ENGINEER shall provide HRSD and the COUNTY approved construction record drawings in accordance with HRSD's Design and Construction Standards, latest edition, Hampton Roads Planning District Commission Regional Construction Standards, latest edition, and COUNTY's Utility Policy and Design and Construction Standards, latest edition.

V. GENERAL PROVISIONS

A. Governing Law. This Agreement 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 Agreement shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.

- B. Termination. This Agreement may be terminated by the COUNTY or HRSD (i) without cause upon written notice to the other party; (ii) with cause in the event that the other party materially breaches this Agreement and such breach is not cured within sixty (60) days of the defaulting party's receipt of written notice of such breach from the non-defaulting party; or (iii) by mutual agreement of the COUNTY and HRSD. Anything herein or elsewhere to the contrary notwithstanding, any such termination of this Agreement shall not relieve the parties of their obligation to pay all of the Improvement Costs incurred prior to termination, whether or not those amounts are due and payable as of the termination date. Furthermore, in the event of termination without cause, the terminating party shall reimburse the non-terminating party for its reasonable, out-of-pocket costs incurred with regard to the Project through the date of termination.
- C. Notice. Any notice, communication or request under this Agreement shall be provided in writing by either (a) a nationally recognized overnight delivery service (next business day service), (b) electronic mail with confirmation of receipt, or (c) hand-delivery, if the receipt of the same is evidenced by the signature of the addressee or authorized agent, to COUNTY and to HRSD at the respective addresses herein shown, unless this Agreement is modified in writing to reflect other addresses:

For: HRSD
General Manager
1434 Air Rail Avenue
Virginia Beach, VA 23455
Telephone: (757) 318-4335
Email: generalmanager@hrsd.com

With Copy to:
Robyn H. Hansen, Esquire
Sands Anderson PC
4801 Courthouse Street, Suite 203
Williamsburg, VA 23188
Telephone: (757) 276-8243
Email: rhansen@sandsanderson.com

For: County of Middlesex
Matthew Walker, County Administrator
County of Middlesex, Virginia
877 General Puller Highway
Saluda, VA 23149
Telephone: (804)-758-4330
Email: M.walker@co.middlesex.va.us

With Copy to:
Heather W. Lewis, Esq.
County Attorney
877 General Puller Highway
Saluda, VA 23149
Email: h.lewis@co.middlesex.va.us

D. ASSIGNMENT

No party may assign its rights under this Agreement without the prior written consent of the other party.

E. AMENDMENT

This Agreement may be amended only by a written instrument duly executed by the parties.

F. SEVERABILITY

If any provision of this Agreement or the application thereof to any circumstance shall be determined to be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and shall continue to be valid, in effect and enforceable to the fullest extent permitted by law.

G. I. INSURANCE

HRSD and the COUNTY have the right to review and approve insurance coverage in the various insurance categories that HRSD and the COUNTY deem necessary

to be carried by the Contractor or any other parties to this Agreement. Proof of insurance shall be provided at the request of HRSD or the COUNTY and the insurance coverage shall be maintained during the term of this Agreement.

H. . TERM OF AGREEMENT

The term of the Agreement will commence on the date the Agreement is entered into and be completed when each party has completely performed its obligations hereunder.

I. . FORCE MAJEURE

No Party shall be responsible for its failure to fulfill an obligation pursuant to this Agreement to the extent that such failure is due to acts of God; labor strikes; war or terrorism; epidemics/pandemics; fires; floods; the actions of a third party; lockouts; strikes, freight embargos, and unusually severe weather or delays of subcontractors due to such causes. A Party experiencing a force majeure event that prevents fulfillment of a material obligation hereunder shall (a) give the other Party prompt written notice describing the particulars of the event; (b) suspend performance only to the extent and for the duration that is reasonably required by the force majeure event; (c) use reasonable efforts to overcome or mitigate the effects of such occurrence; and (d) promptly resume performance of the affected obligation if and when such Party is able to do so.

J. . WAIVER

No waiver of breach of any term or provision of this Agreement shall be construed to be, or shall constitute, a waiver of any other breach of this Agreement. No waiver shall be binding unless in writing and signed by the parties waiving the breach.

The failure of any party to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this Agreement shall not prevent a subsequent act, which would have originally constituted a violation, from having the effect of an original violation.

The rights and remedies provided by this Agreement are cumulative and the use of any one right or remedy by any party shall not preclude or waive the right to use any or all other remedies. Such rights and remedies are given in addition to any other rights the parties may have by law, statute, ordinance or otherwise.

K. . INTEGRATION

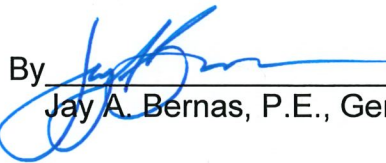
This Agreement constitutes the entire understanding among the parties. No provision of this Agreement may be waived, modified or amended except by an instrument signed by the party against whom the enforcement of such waiver, modification or amendment is sought. No waiver by either party of any failure or refusal by the other party to comply with its obligations hereunder shall be deemed a waiver of any other or subsequent failure or refusal to comply.

- L. Authority. COUNTY and HRSD both warrant that they have permission and authority derived under their respective corporate Charters and Enabling Acts to execute and undertake this Agreement. This Agreement shall apply to, and be binding upon both Parties, their elected officials, officers, agents, employees, successors, and assigns, to the maximum extent permitted by law.
- M. Compliance with Law. Each Party warrants that it has complied with all aspects of applicable federal, state, and local law in entering this Agreement and further warrants that it shall comply with all applicable federal, state, and local laws in the performance of this Agreement.
- N. Binding Effect. This Agreement shall inure to the benefit of the Parties and shall, to the maximum extent permitted by law, be binding on the Parties and their successors and assigns.
- O. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any Party whose signature appears thereon, and all of which shall together constitute one and the same instrument. A signature affixed or delivered electronically will be considered an original.
- P. Recitals. The Recitals above are incorporated into this Agreement as if fully set forth therein.

Signature pages follow


IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on February 28, 2023.

HAMPTON ROADS SANITATION DISTRICT

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

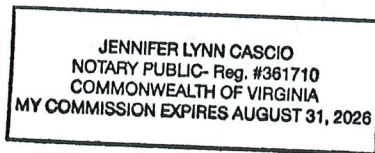
COMMONWEALTH OF VIRGINIA,
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Agreement was acknowledged before me this 27th day of March, 2023, by Jay A. Bernas, P.E., HRSD General Manager.


Notary Public

My commission expires:

Registration No.:



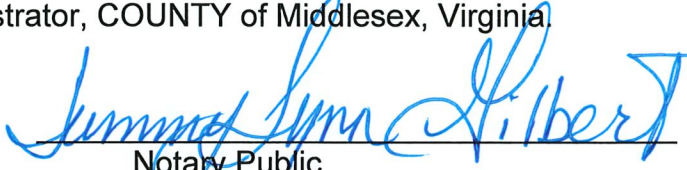
IN WITNESS WHEREOF, the County of Middlesex (COUNTY) has caused this Agreement to be signed by the County Administrator on its behalf pursuant to Resolution adopted by the County Board of Supervisor on February 7, 2023.

COUNTY OF MIDDLESEX

By: 
Name: Matt Walker
Title: County Administrator

COMMONWEALTH OF VIRGINIA,
COUNTY OF MIDDLESEX, to-wit:

The foregoing Agreement was acknowledged before me this 24th day of February, 2023, by Matt Walker, County Administrator, COUNTY of Middlesex, Virginia.


Notary Public

My commission expires:

Registration No.:

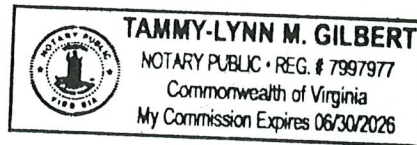
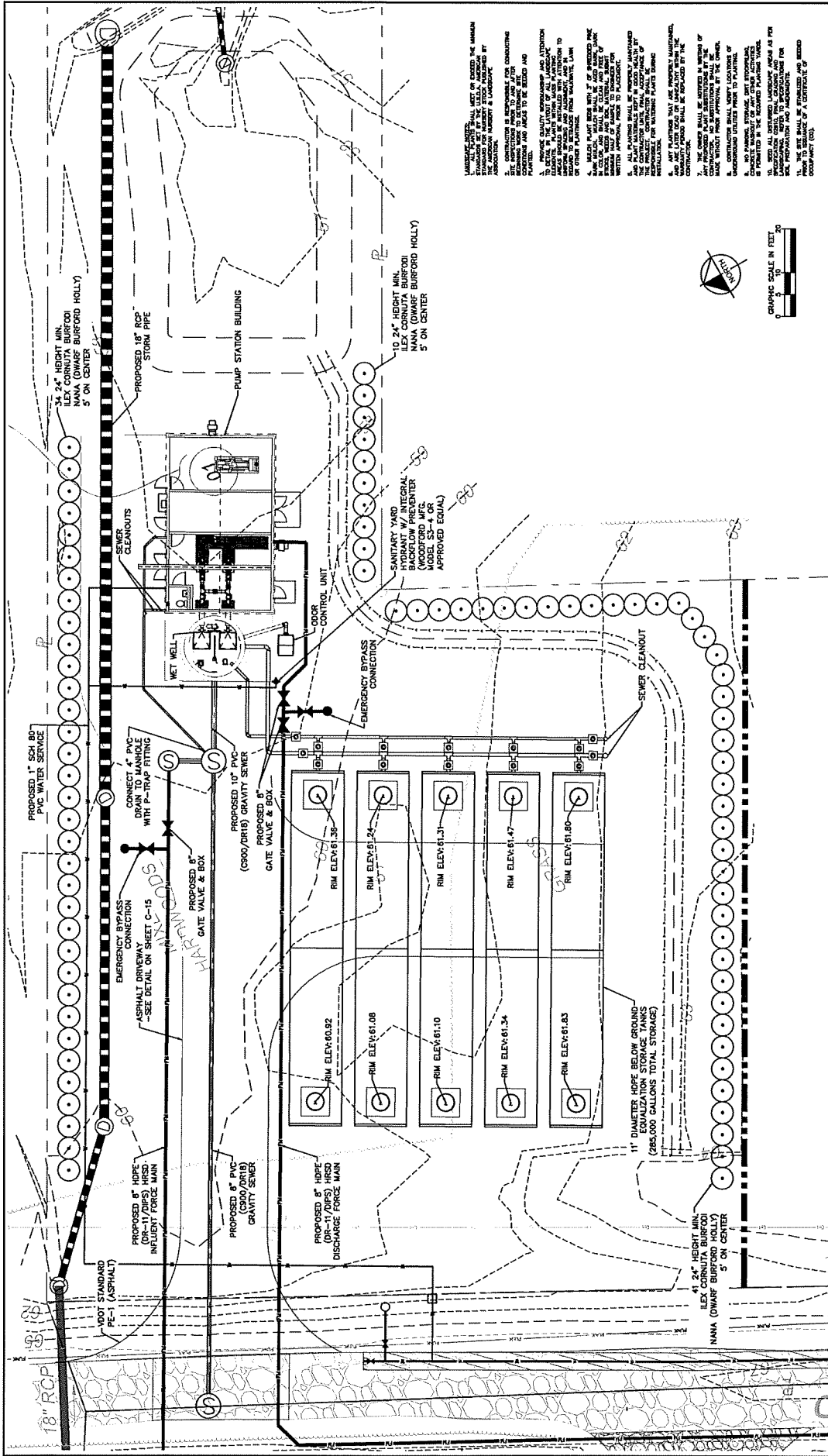
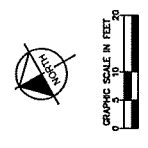


Exhibit 1 - HRSD Facilities Location Map



1. CONTRACTOR SHALL NOT EXCEED THE MAXIMUM ALLOWABLE SPEEDS AS SET FORTH IN THE SPECIFICATIONS AND SHALL MAINTAIN ADEQUATE SAFETY DISTANCES FROM ALL EXISTING AND PROPOSED UTILITY LOCATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING ALL NECESSARY SURVEYS AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL AFFECTED AGENCIES.
3. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
4. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
5. ALL MATERIALS SHALL BE PROPERLY MAINTAINED AND STORED TO PREVENT DAMAGE TO THE PROJECT. ALL MATERIALS SHALL BE PROPERLY MAINTAINED AND STORED TO PREVENT DAMAGE TO THE PROJECT.
6. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
7. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
8. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
9. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.
10. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES TO REMAIN. ALL UTILITIES SHALL BE MARKED AND DEPTH SHALL BE VERIFIED PRIOR TO ANY EXCAVATION.



HAMPTON ROADS SANITATION DISTRICT	
Midlatch Interceptor System Phase II - Fairfield Pump Station	
DESIGNED BY:	KCN DATE: OCTOBER 2012
DRAWN BY:	JIM FILE NO.: 11032007
CHECKED BY:	CSF DRAWING NO.: C-2
SCALE:	AS NOTED SHEET NO.: 6 of 09

SITE PLAN



Kimley-Horn
 4522 W. 232nd Street, Suite 200, Norfolk, VA 23462
 PHONE: 757-233-8800 FAX: 757-233-8801
 WWW.KIMLEY-HORN.COM

100% SUBMITTAL CONSTRUCTION
 CONTRACT NO. #4444-44

Exhibit 2 - COUNTY Facilities Location Map

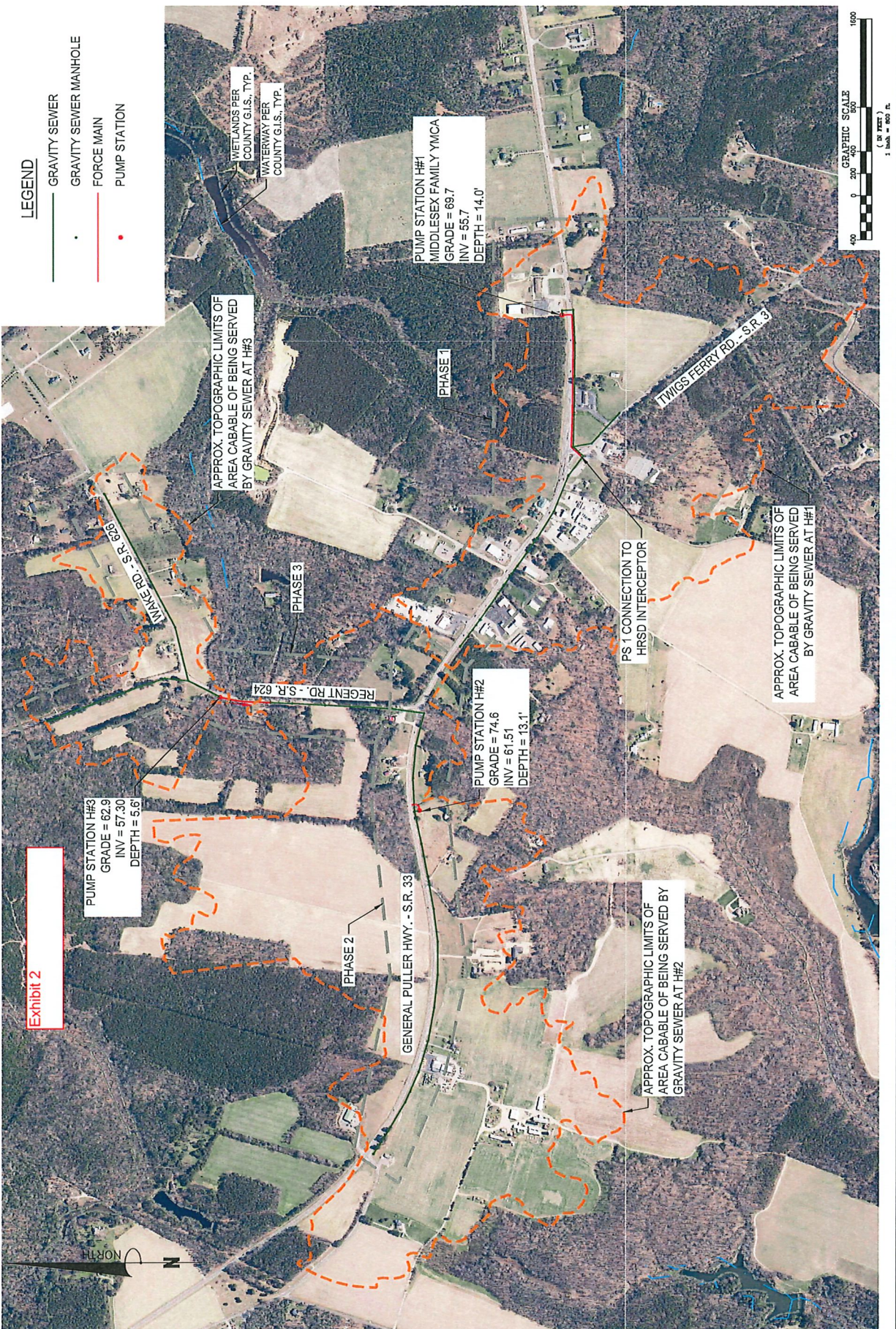


Exhibit 2

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #8

8. [Middlesex Interceptor System Program Phase II – Saluda Pump Station Cost Sharing Agreement](#)

AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
MIDDLESEX INTERCEPTOR SYSTEM PROGRAM PHASE II – SALUDA PUMP
STATION
MP013710

AND
COUNTY OF MIDDLESEX
PUMP STATION PROJECT

THIS AGREEMENT FOR COST SHARING (the "Agreement"), between the COUNTY OF MIDDLESEX, VIRGINIA ("COUNTY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this 7th day of February, 2023 (the "Effective Date").

28th fe

RECITALS

R:1. HRSD is constructing its MIDDLESEX INTERCEPTOR SYSTEM PROGRAM PHASE II – SALUDA PUMP STATION as shown on Exhibit 1 (the "HRSD Facilities"); and

R:2. The COUNTY has proposed to construct its own pump station within the same service area of the HRSD Facilities as shown on Exhibit 2 (the "COUNTY Facilities"); and

R:3. The design and construction of the HRSD Facilities and the COUNTY Facilities (collectively referred to as the "Improvements") will benefit from the construction of a single sanitary sewer pump station and discharge force main within the Village of Saluda; and

R:4. HRSD and the COUNTY agree that it is in the best interest of the parties to have the Improvements designed and constructed together (the "Project"); and

R:5. HRSD agrees to include the design and construction of the COUNTY Facilities as part of the design and construction of the HRSD Facilities, in accordance with the approved plans and specifications; and

R:6. The COUNTY agrees to reimburse HRSD for that portion of the costs of the design and construction of the Improvements attributable to the COUNTY Facilities under the terms and conditions set forth herein.

AGREEMENT

NOW THEREFORE, in consideration of the above provisions and agreements set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

1. HRSD will employ KIMLEY-HORN AND ASSOCIATES ("ENGINEER") to prepare plans and specifications for the design of the HRSD Facilities and the COUNTY Facilities. A location map of the HRSD Facilities is shown on Exhibit 1. A location map of the COUNTY Facilities is shown on Exhibit 2.
2. HRSD and the COUNTY, in coordination with the ENGINEER, will review and approve a set of final plans and specifications for the Improvements (the "Final Plans and Specifications").

B. Payment of the Design Costs

1. HRSD will compensate the ENGINEER for all engineering design costs, including but not limited to the cost of preparing the Final Plans and Specifications, and any amendments thereto, (the "Design Costs") for both the HRSD Facilities and, on the COUNTY's behalf, the COUNTY Facilities.
2. The COUNTY shall reimburse HRSD for the Design Costs attributable to the COUNTY Facilities in one lump sum payment due once HRSD notifies the COUNTY that the design of the Improvements is complete and the Project is bid-ready. HRSD shall provide the COUNTY with an invoice detailing the COUNTY's share of the Design Costs. Within sixty (60) days of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY's share of the Design Costs as detailed in the invoice. Pursuant to HRSD's agreement with ENGINEER, the current estimated Design Costs attributable to the COUNTY Facilities is \$122,647, which is approximately forty-nine percent (49%) of the estimated total Design Costs for the Improvements of \$250,300.

C. Compliance

All design work shall comply with HRSD's Design and Construction Standards, latest edition, and the Hampton Roads Planning District Commission Regional Construction Standards, latest edition. Any changes to the Final Plans and Specifications shall be approved by HRSD and the COUNTY.

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Improvements (the "Improvement Costs"), as more particularly defined by the Final Plans and Specifications and Project Documents (as hereinafter defined) shall include:
 - a. Cost of construction of the Improvements;
 - b. Cost of advertising for bids;
 - c. Cost of approvals and permits required for the construction of the Improvements;
 - d. Costs for construction contract administration and inspection;
 - e. Costs of services rendered by ENGINEER other than Design Costs;
 - f. Costs for all temporary or permanent easements and fee simple land acquisitions; and
 - g. Any related miscellaneous essential expenses.
2. The current estimated Improvement Costs of the construction of the HRSD Facilities is \$946,520, approximately fifty-one percent (51%) of the total estimated Improvement Costs. The estimated Improvement Costs of the construction of the COUNTY Facilities is \$891,480, approximately forty-nine percent (49%) of the total estimated Improvement Costs.

B. Approval of Construction Contract Documents; Contractors; Change Orders

1. Except as otherwise provided in this Agreement, HRSD shall be responsible for preparing, finalizing, and executing any and all front end documents, construction contracts, architectural contracts, engineering contracts, drawings, surveys, bidding documents, bonds, insurance documents, and all amendments, revisions and modifications thereto, relating to the construction of the project (collectively, the "Project Documents").
2. HRSD and the COUNTY agree that before any construction work is to begin under this Agreement on the Improvements, HRSD and the COUNTY will jointly review and approve the proposed construction

contract and its associated agreements (the "Construction Contract"). This approval shall be in writing. If the COUNTY does not approve the Construction Contract, the COUNTY Facilities will not be included in the Project and this Agreement shall terminate.

3. HRSD and the COUNTY shall review and agree upon the necessary qualifications for the contractors and any subcontractors prior to HRSD bidding the Project and confirm that the Construction Contract is awarded to a firm that meets the stated requirements.
4. The contractors and any subcontractors awarded the Construction Contract by HRSD (the "Contractors") shall be responsible for all necessary permits and approvals necessary for the Improvements
5. HRSD shall acquire all necessary plan approvals and property acquisitions related to Improvements prior to the award of the Construction Contract.
6. ENGINEER, in coordination with HRSD and COUNTY, will review and approve shop drawings related to the Improvements.
7. HRSD will review and approve the scope of work and fee for the construction administration and inspections related to the Improvements.
8. HRSD will review and approve change orders related to the Improvements.

C. Payment of Cost of Improvements

1. The Improvement Costs shall be apportioned among the parties as follows:
 - a. HRSD will administer and be responsible for bearing fifty-one percent (51%) of the Improvement Costs.
 - b. The COUNTY will be responsible for bearing the remaining forty-nine percent (49%) of the Improvement Costs.
 - c. Costs associated with any change to the estimated costs or scope of the Improvements or other change order shall be paid as follows:
 - (1) HRSD shall be solely responsible for costs due to a change order requested by HRSD; and

- (2) The COUNTY shall be solely responsible for costs due to a change order requested by the COUNTY.
 - (3) Change orders related to design errors, omissions or changed field conditions shall be the responsibility of the entity impacted by the change. If the change order impacts the work of both HRSD and the COUNTY, the responsibility shall be proportionately as defined in the above paragraphs (a) and (b).
2. During the course of construction, HRSD shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Improvements for all Improvement Costs, including those for which the COUNTY is responsible. The COUNTY shall reimburse HRSD for all such payments made on its behalf. The COUNTY shall pay its share of the Improvement Costs to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). HRSD shall provide the COUNTY with an invoice detailing the COUNTY's share of the Improvement Costs. Within sixty (60) days of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY's share of the Improvement Costs as detailed in the invoice.
3. In conjunction with the above, and for additional clarity, it is agreed that the COUNTY shall pay its share of the construction administration and construction inspection costs (the "CA and CI Costs") to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). Should the COUNTY request inspections beyond those recommended by the ENGINEER for the Project, it is agreed the COUNTY shall pay for any such additional inspection. HRSD shall provide the COUNTY with an invoice detailing the COUNTY's share of the CA and CI Costs. Within sixty (60) days of its receipt of such invoice, the COUNTY shall reimburse HRSD for the COUNTY's share of the CA and CI Costs as detailed in the invoice.

D. Operation and Maintenance of the Improvements during and after Construction

1. HRSD shall be responsible for operation and maintenance of the Improvements during and after construction.
2. HRSD and the COUNTY agree to cooperate and coordinate for the operations and maintenance of any interconnections between the Improvements.

III. SCHEDULE

The construction is anticipated to begin by April 2023 and be complete by January 2025. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE COUNTY

A. Public Meetings

HRSD and the COUNTY will each be responsible for noticing and holding any public hearings or other open meetings required under applicable law. The parties agree to cooperate reasonably and assist each other in the conduct of such meetings.

B. Bidding of the Improvements

1. HRSD will issue bidding documents for construction of the Improvements. The COUNTY agrees to provide administrative support during the bidding phase. In particular the COUNTY shall:
 - a. Attend the preconstruction meeting.
 - b. Provide timely responses to the ENGINEER for any questions, requests for clarification, or addenda during the bidding phase.
 - c. Provide miscellaneous support to HRSD as required during the bidding phase.
2. HRSD will receive bids for construction of the Improvements. All bids received will be reviewed and approved by the COUNTY and HRSD prior to award of the Construction Contract. The COUNTY and HRSD shall negotiate in good faith to resolve financial matters with regards to bidding the Improvements. The bidding procedure shall be conducted in accordance with the Virginia Public Procurement Act and the HRSD Procurement Policy and Middlesex County's Purchasing Policies and Procedures manual.

C. Administration

HRSD shall provide contract administration of the Improvements. The COUNTY shall reimburse HRSD for forty-nine percent (49%) of the contract administration cost, in proportion with its share of the Improvements as provided herein.

D. Inspection

HRSD shall provide full-time inspection for the Improvements. The COUNTY shall reimburse HRSD for forty-nine percent (49%) of the inspection costs, in proportion with its share of the Improvements as provided herein. The inspector shall have the authority to assure the Improvements are constructed in accordance with the Project Documents.

E. Progress Meetings

ENGINEER shall arrange and conduct monthly progress meetings. HRSD and COUNTY shall attend and participate in these meetings.

F. Deeds and Easements

1. HRSD shall obtain any and all necessary fee simple deeds and/or deeds of easement needed for the Improvements.

G. Correction of Construction Defects in the Improvements or Breach

1. HRSD shall require the Contractors to provide a performance and payment bond for the full amount of the construction of the Improvements. The Construction Contract shall also provide for a warranty of the Contractor's work against construction defects in the Improvements and shall require the Contractor to correct such defects that are reported by HRSD or the COUNTY within one (1) year of the final acceptance of the Improvements.
2. The Parties understand that pursuant to this Agreement, HRSD may enter into Project Documents with Contractors or other third parties who will perform work for the benefit of the COUNTY, and conversely the COUNTY may enter into Project Documents with Contractors or other third parties who will perform work for the benefit of the HRSD. In the event of the threatened or actual breach of any such Project Document by any such Contractor or third party, the Parties agree that at the request of the Party benefited by the Project Document, the Parties will work together to exercise any and all of the rights, powers and privileges conferred by the Project Documents to remedy such breach in as full and ample manner as is permitted thereunder; provided, however, nothing herein contained shall be deemed to impose upon the Party who is benefited by the Project Document any liability for the performance of any obligation of the Project Document to which they are not a party. To the extent the exercises of any such rights, powers, or privileges shall generate costs or expenses, including but not limited to attorney's fees, those costs shall be borne

by the Party requesting the enforcement or other action under the Project Document. If both Parties wish to initiate enforcement or other action, the costs thereof shall be shared equally, or as otherwise agreed by the Parties.

H. Construction Record Drawings

ENGINEER shall provide HRSD and the COUNTY approved construction record drawings in accordance with HRSD's Design and Construction Standards, latest edition, Hampton Roads Planning District Commission Regional Construction Standards, latest edition, and COUNTY's Utility Policy and Design and Construction Standards, latest edition.

V. GENERAL PROVISIONS

- A. Governing Law. This Agreement 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 Agreement shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.
- B. Termination. This Agreement may be terminated by the COUNTY or HRSD (i) without cause upon written notice to the other party; (ii) with cause in the event that the other party materially breaches this Agreement and such breach is not cured within sixty (60) days of the defaulting party's receipt of written notice of such breach from the non-defaulting party; or (iii) by mutual agreement of the COUNTY and HRSD. Anything herein or elsewhere to the contrary notwithstanding, any such termination of this Agreement shall not relieve the parties of their obligation to pay all of the Improvement Costs incurred prior to termination, whether or not those amounts are due and payable as of the termination date. Furthermore, in the event of termination without cause, the terminating party shall reimburse the non-terminating party for its reasonable, out-of-pocket costs incurred with regard to the Project through the date of termination.
- C. Notice. Any notice, communication or request under this Agreement shall be provided in writing by either (a) a nationally recognized overnight delivery service (next business day service), (b) electronic mail with confirmation of receipt, or (c) hand-delivery, if the receipt of the same is evidenced by the signature of the addressee or authorized agent, to COUNTY and to HRSD at the respective addresses herein shown, unless this Agreement is modified in writing to reflect other addresses:

For: HRSD
General Manager
1434 Air Rail Avenue
Virginia Beach, VA 23455
Telephone: (757) 318-4335
Email: generalmanager@hrsdc.com

With Copy to:
Robyn H. Hansen, Esquire
Sands Anderson PC
4801 Courthouse Street, Suite 203
Williamsburg, VA 23188
Telephone: (757) 276-8243
Email: rhansen@sandsanderson.com

For: County of Middlesex
Matthew Walker, County Administrator
COUNTY of Middlesex, Virginia
877 General Puller Highway
PO Box 428
Saluda, VA 23149
Telephone: (804)-758-4330
Email: M.walker@co.middlesex.va.us

With Copy to:
Heather Lewis, County Attorney
877 General Puller Highway
PO Box 428
Saluda, VA 23149
Email: H.lewis@co.middlesex.va.us

- D. Assignment. No party may assign its rights under this Agreement without the prior written consent of the other party.
- E. Amendment. This Agreement may be amended only by a written instrument duly executed by the parties.
- F. Severability. If any provision of this Agreement or the application thereof to any circumstance shall be determined to be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and shall continue to be valid, in effect and enforceable to the fullest extent permitted by law.
- G. Insurance. HRSD and the COUNTY have the right to review and approve insurance coverage in the various insurance categories that HRSD and the

COUNTY deem necessary to be carried by the Contractor or any other parties to this Agreement. Proof of insurance shall be provided at the request of HRSD or the COUNTY and the insurance coverage shall be maintained during the term of this Agreement.

- H. Term of Agreement. The term of the Agreement will commence on the date the Agreement is entered into and be completed when each party has completely performed its obligations hereunder.
- I. Force Majeure. No Party shall be responsible for its failure to fulfill an obligation pursuant to this Agreement to the extent that such failure is due to acts of God; labor strikes; war or terrorism; epidemics/pandemics; fires; floods; the actions of a third party; lockouts; strikes, freight embargos, and unusually severe weather or delays of subcontractors due to such causes. A Party experiencing a force majeure event that prevents fulfillment of a material obligation hereunder shall (a) give the other Party prompt written notice describing the particulars of the event; (b) suspend performance only to the extent and for the duration that is reasonably required by the force majeure event; (c) use reasonable efforts to overcome or mitigate the effects of such occurrence; and (d) promptly resume performance of the affected obligation if and when such Party is able to do so.
- J. Waiver. No waiver of breach of any term or provision of this Agreement shall be construed to be, or shall constitute, a waiver of any other breach of this Agreement. No waiver shall be binding unless in writing and signed by the parties waiving the breach. The failure of any party to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this Agreement shall not prevent a subsequent act, which would have originally constituted a violation, from having the effect of an original violation. The rights and remedies provided by this Agreement are cumulative and the use of any one right or remedy by any party shall not preclude or waive the right to use any or all other remedies. Such rights and remedies are given in addition to any other rights the parties may have by law, statute, ordinance or otherwise.
- K. Integration. This Agreement constitutes the entire understanding among the parties. No provision of this Agreement may be waived, modified or amended except by an instrument signed by the party against whom the enforcement of such waiver, modification or amendment is sought.
- L. Authority. COUNTY and HRSD both warrant that they have permission and authority derived under their respective corporate Charters and Enabling Acts to execute and undertake this Agreement. This Agreement shall apply to, and be binding upon both Parties, their elected officials, officers, agents, employees, successors, and assigns, to the maximum extent permitted by law.

- M. Compliance with Law. Each Party warrants that it has complied with all aspects of applicable federal, state, and local law in entering this Agreement and further warrants that it shall comply with all applicable federal, state, and local laws in the performance of this Agreement.
- N. Binding Effect. This Agreement shall inure to the benefit of the Parties and shall, to the maximum extent permitted by law, be binding on the Parties and their successors and assigns.
- O. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any Party whose signature appears thereon, and all of which shall together constitute one and the same instrument. A signature affixed or delivered electronically will be considered an original.
- P. Recitals. The Recitals above are incorporated into this Agreement as if fully set forth therein.

Signature pages follow

IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on February 28, 2023.

HAMPTON ROADS SANITATION DISTRICT

By Jay A. Bernas
Jay A. Bernas, PE, General Manager

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

The foregoing Agreement was acknowledged before me this 27th day of March, 2023, by Jay A. Bernas, PE, HRSD General Manager.

Jennifer Lynn Cascio
Notary Public

My commission expires:

Registration No.:

JENNIFER LYNN CASCIO
NOTARY PUBLIC- Reg. #361710
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES AUGUST 31, 2026

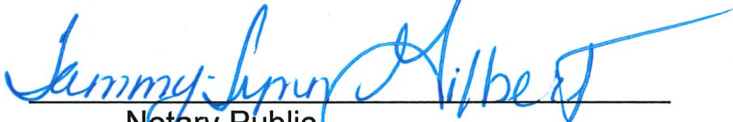
IN WITNESS WHEREOF, the County of Middlesex, Virginia (COUNTY) has caused this Agreement to be signed by the County Manager on its behalf pursuant to Resolution adopted by the COUNTY's Board of Supervisors on February 7, 2023.

COUNTY OF MIDDLESEX

By: 
Name: Matt Walker
Title: County Administrator

COMMONWEALTH OF VIRGINIA,
COUNTY or COUNTY OF MIDDLESEX, to-wit:

The foregoing Agreement was acknowledged before me this 24th day of February, 2023, by Matt Walker, County Administrator, COUNTY of Middlesex, Virginia.


Notary Public

My commission expires:

Registration No.:

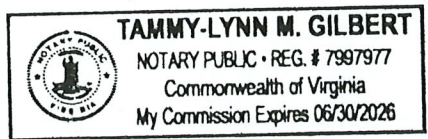


Exhibit 1 - HRSD Facilities Detailed Description / Location Map

Exhibit 1 - HRSD Facilities Detailed Description / Location Map

NOTES:
1. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION



HAMPTON ROADS SANITATION DISTRICT
MIDDLESEX INTERCEPTOR SYSTEM PROGRAM PHASE II
SALUDA PUMP STATION
 DESIGNED BY: GT | DATE: DECEMBER 2020
 DRAWN BY: BT | FILE NO.: 11820064-000
 CHECKED BY: MS | DRAWING NO.: C-5
 SCALE: AS NOTED | SHEET NO.: 9 of 81

OVERALL FM LAYOUT

NO.	DATE	BY	REVISION

HRSD
 Cleaning wastewater every day for a better Bay

443 CORPORATE BLVD, STE. 300
 VIRGINIA BEACH, VA 23462
 P: (757) 461-4148

TETRA TECH
 www.tetra-tech.com

100% SUBMITTAL NOT FOR CONSTRUCTION
 COMM. NO. #####

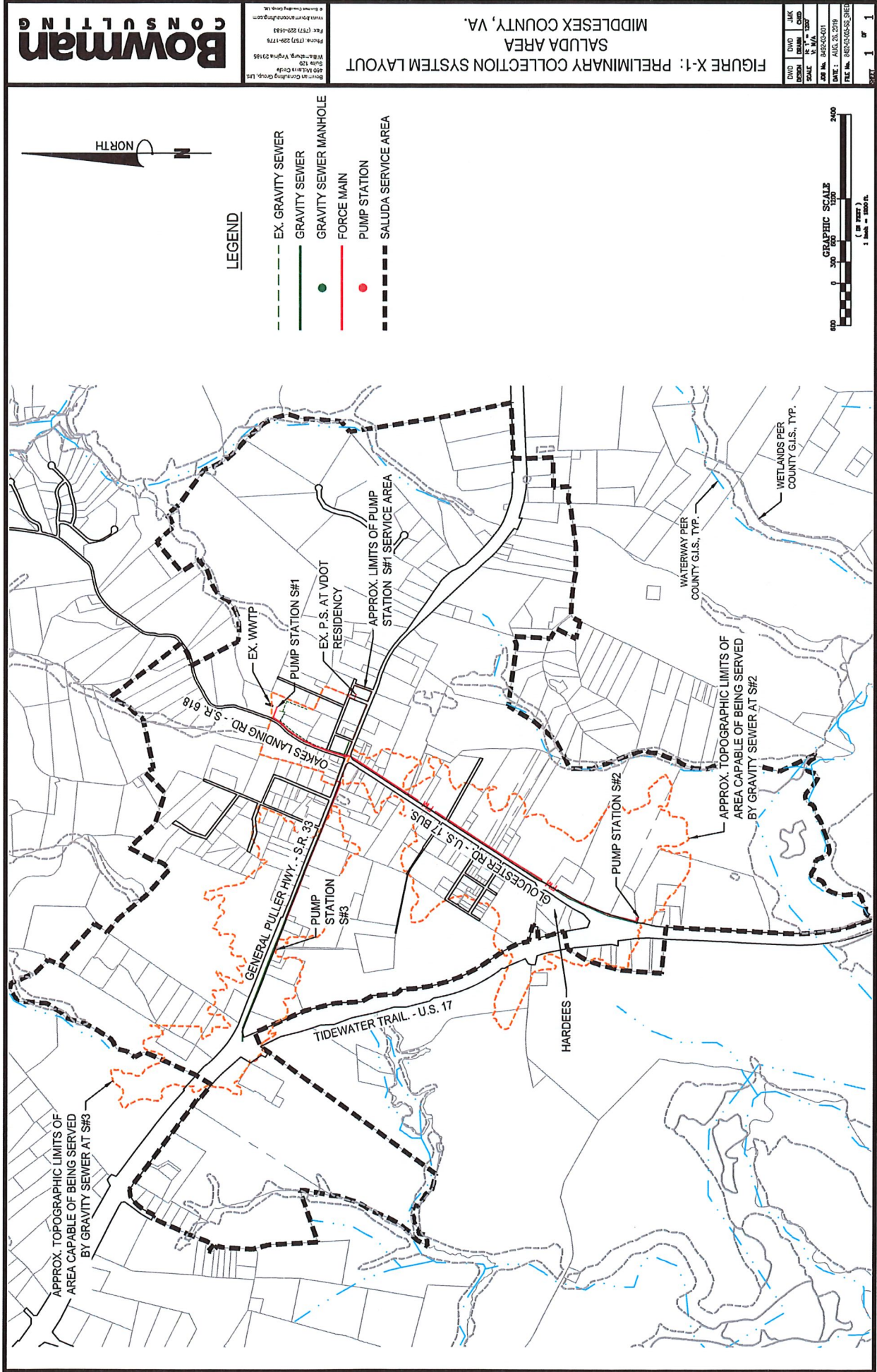


FIGURE X-1: PRELIMINARY COLLECTION SYSTEM LAYOUT
SALUDA AREA
MIDDLESEX COUNTY, VA.

Exhibit 2 - COUNTY Facilities Detailed Description / Location Map

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #9

9. [Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II and SWIFT Program Management \(Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II\) Additional Appropriation, Approval of Stipulated Price, and Task Order \(>\\$200,000\)](#)



Nansemond TP Advanced Nutrient Reduction Improvements (ANRI)

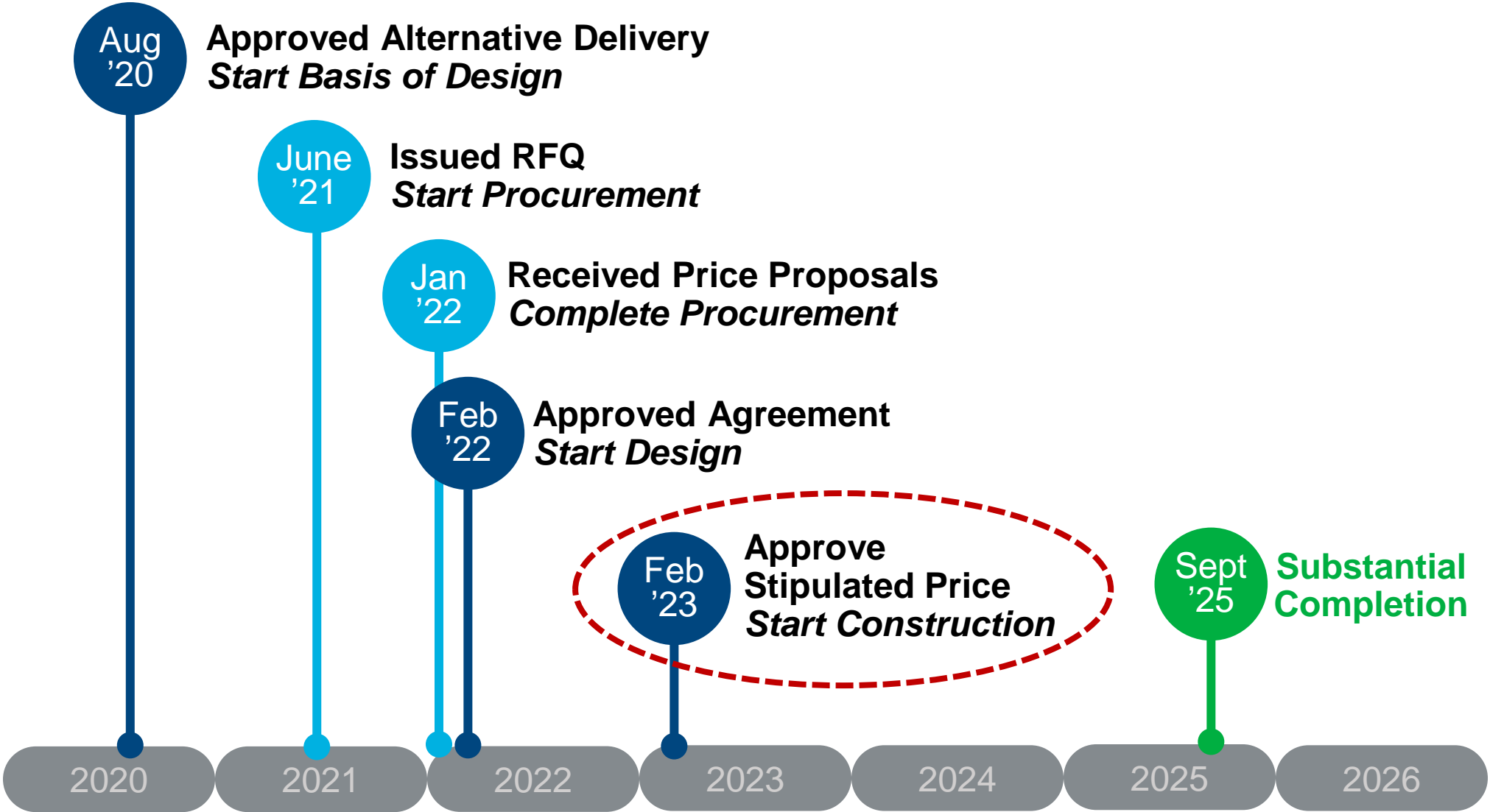
**Phase II
(NP013820)**

**HRSD Commission
February 28, 2023**

Today's presentation

- **Design Build Delivery**
- **Stipulated Price**
- **Inclusion of Partial Denitrification Anammox (PdNA)**
- **Nansemond ANRI Project**
 - **Scope (video)**
 - **Goals**
 - **Funding**
- **Staff Recommendation**

Commission approval of Stipulated Price is required to start construction



HRSD uses design build delivery for projects with specific characteristics and requirements

- ✓ **Time sensitive constraints**
(e.g., regulatory deadlines)
- ✓ **Early price understanding**
(increased cost certainty)
- ✓ **Highly qualified designer/builder teams**
due to project complexity
- ✓ **Collaborative environment to evolve**
designs and address challenges



Team has fostered a collaborative environment to evolve designs and address challenges throughout delivery



**Basis of Design
Development**



Procurement



**Comprehensive
Agreement**

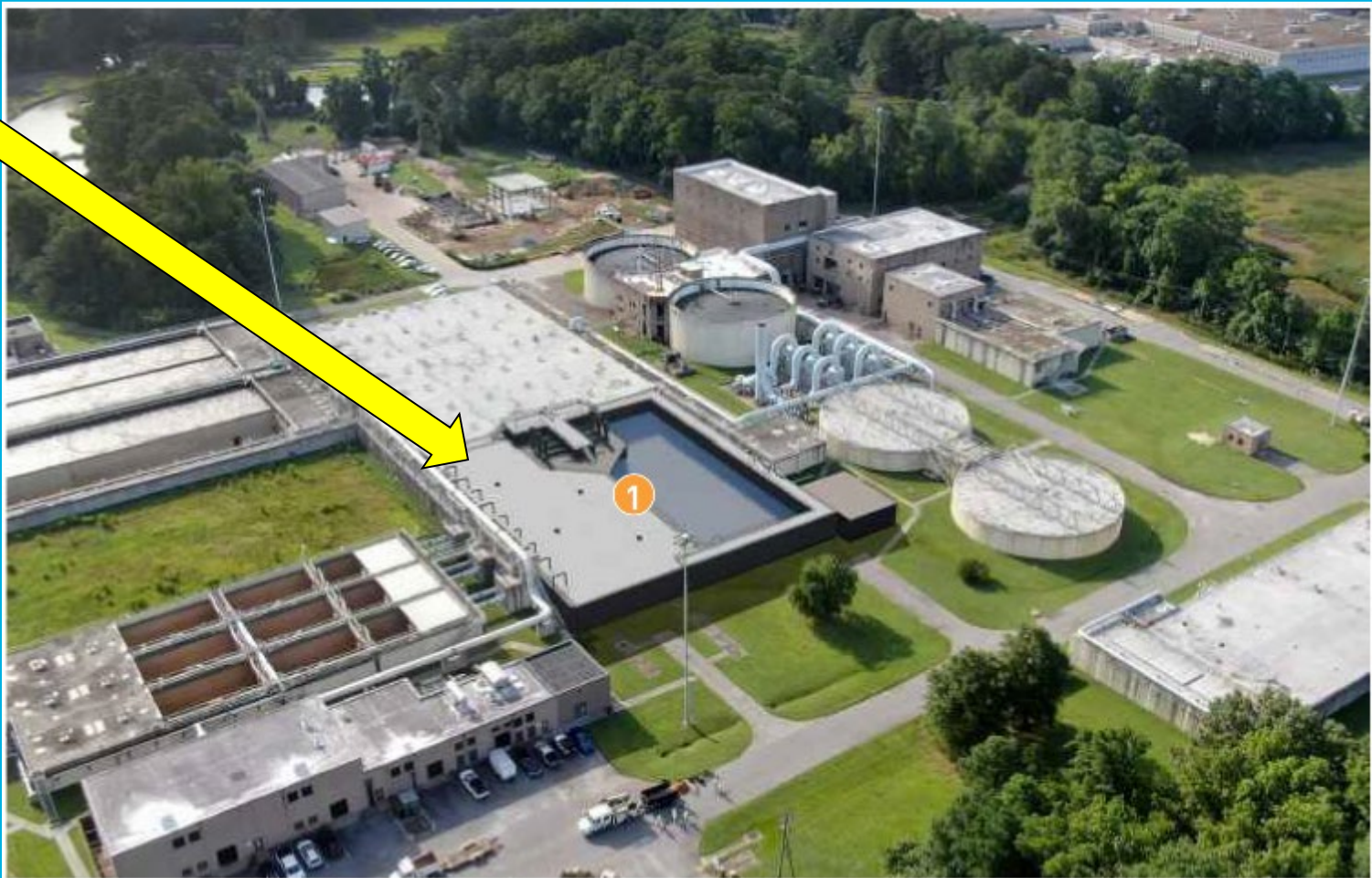
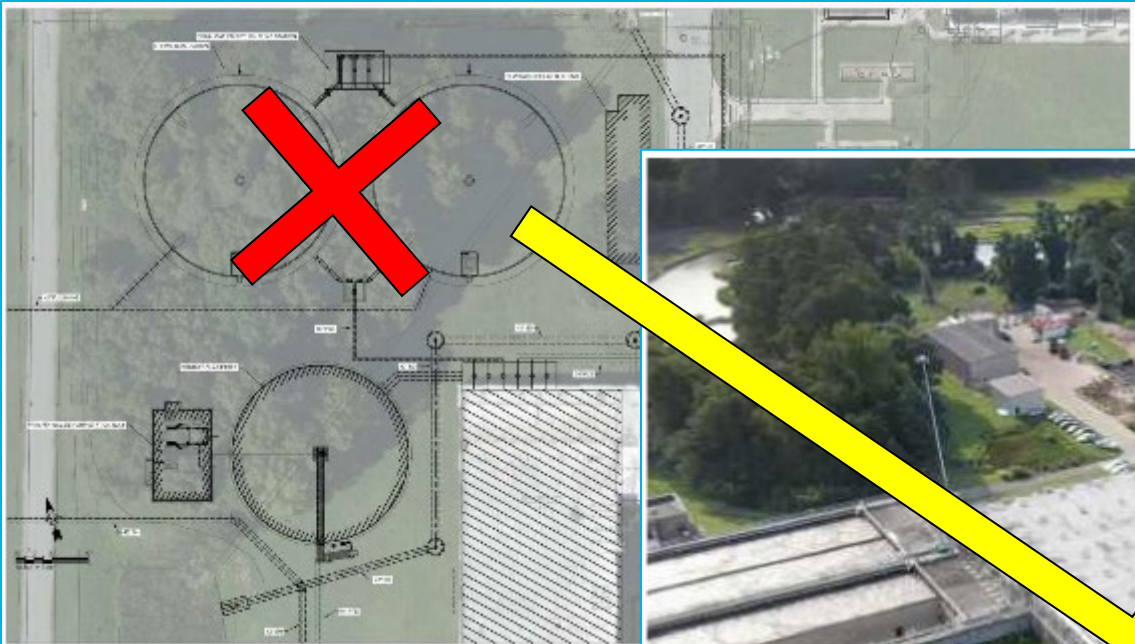


Design

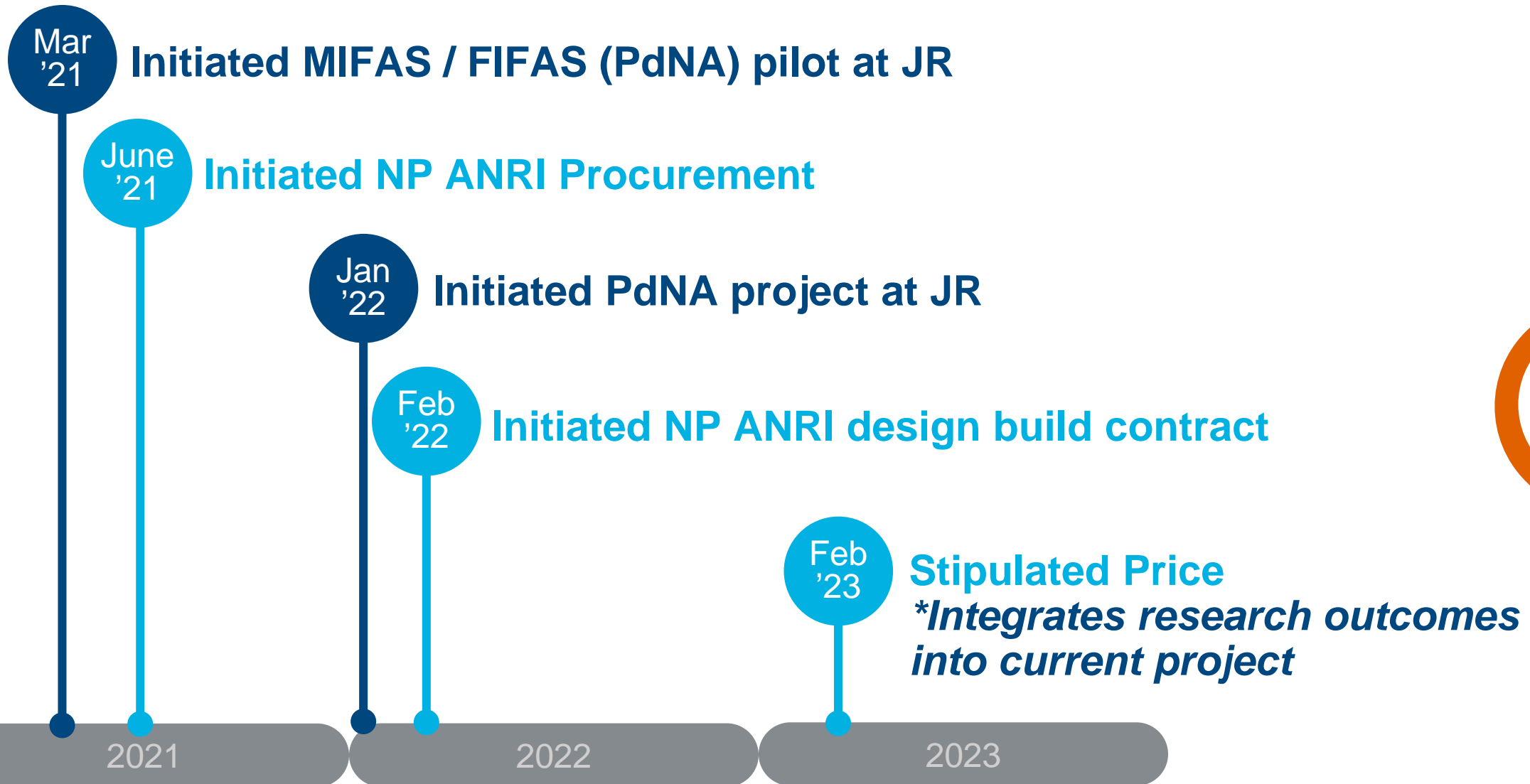


Construction

Accepted alternative equalization approach that transformed wet weather flow management and conserved space



Through coordinated design development, team able to integrate concurrent research outcomes into final project



Project has benefitted from the use of design build delivery



**Basis of Design
Development**



Procurement



**Comprehensive
Agreement**

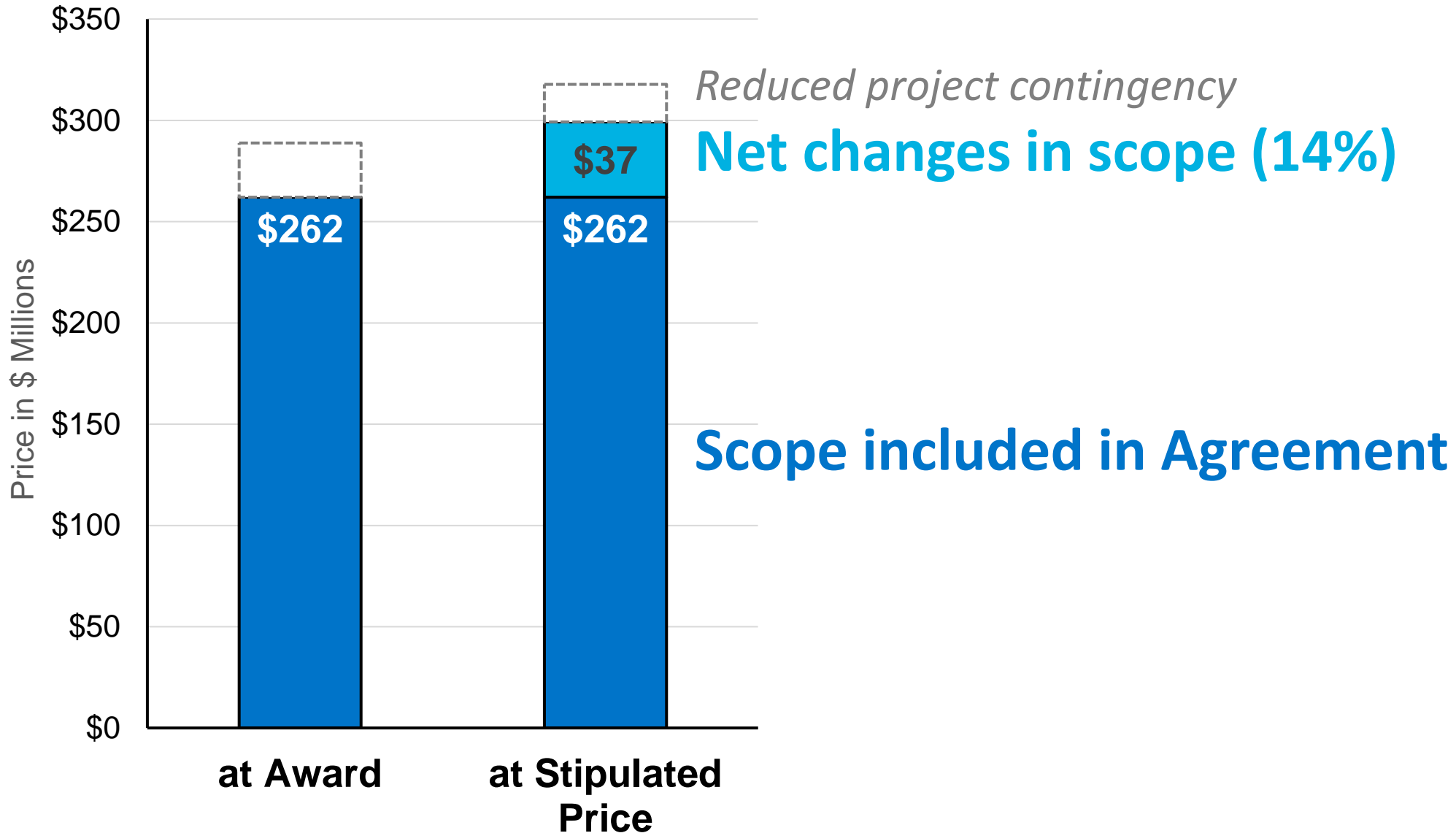


Design

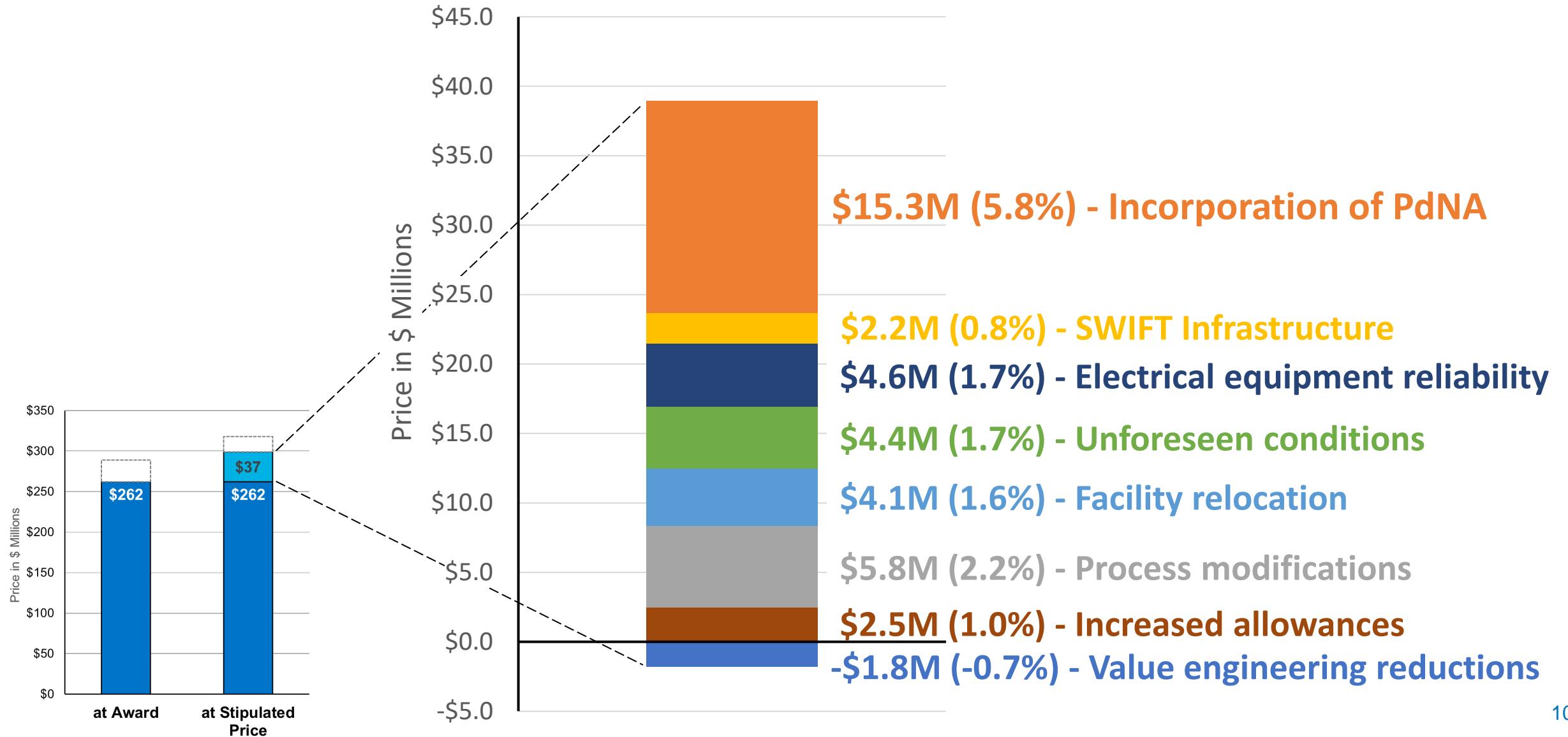


Construction

Stipulated Price is the fixed price that reflects the fully integrated project design



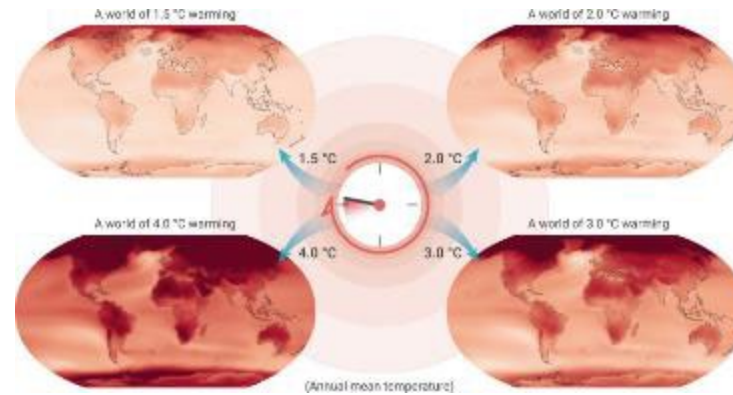
Design has evolved to include multiple areas of overall project improvements



Including AvN-PdNA in ANRI provides tangible benefits to HRSD, its rate-payers, and the environment.



Easy to quantify resource reduction benefits that reduce operational cost



Harder to quantify/monetize, yet very real, environmental and ecological benefits



Features that result in a better overall final product with the inclusion of AvN-PdNA

Including AvN-PdNA in ANRI provides tangible benefits to HRSD, its rate-payers, and the environment.



Easy to quantify resource reduction benefits that reduce operational cost



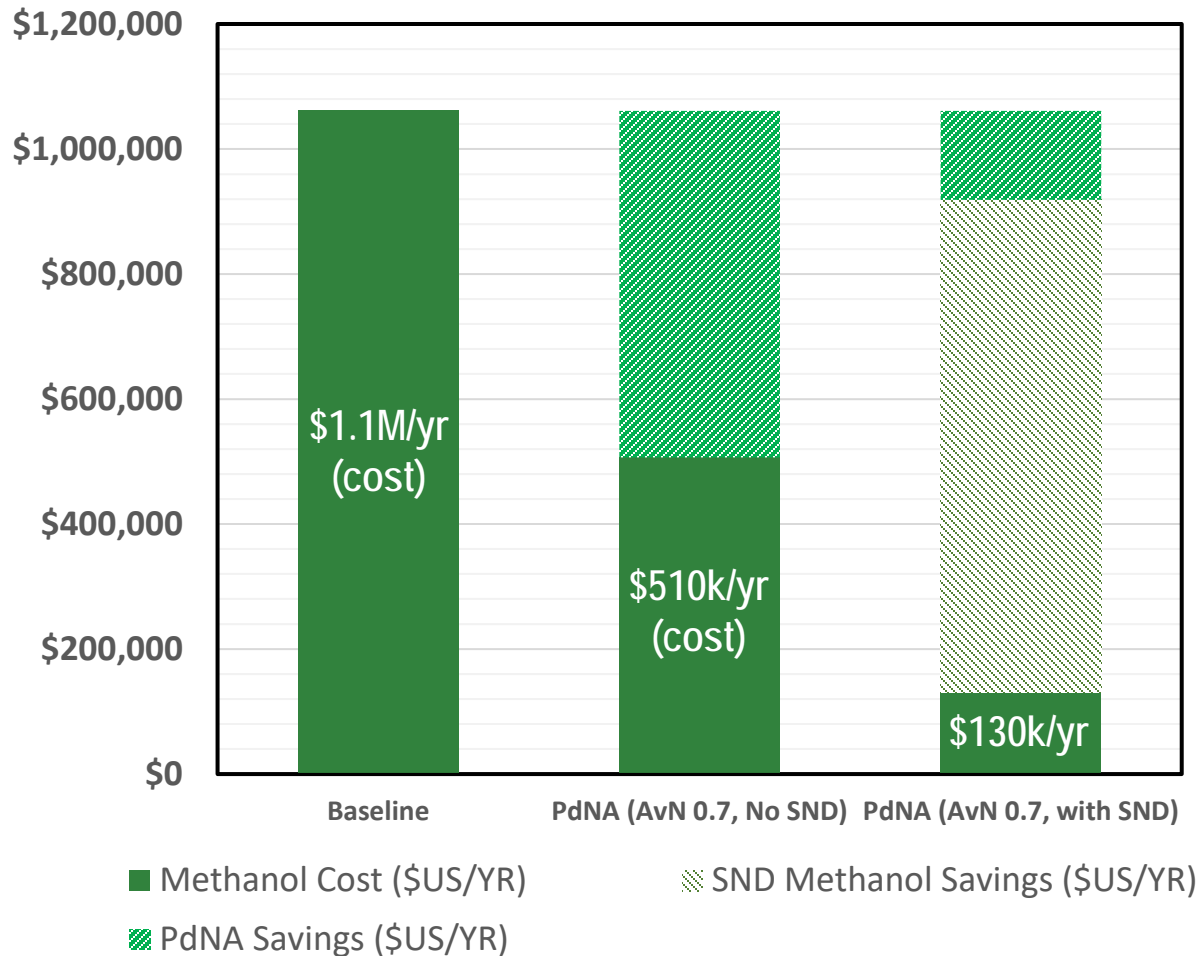
Harder to quantify/monetize, yet very real, environmental and ecological benefits



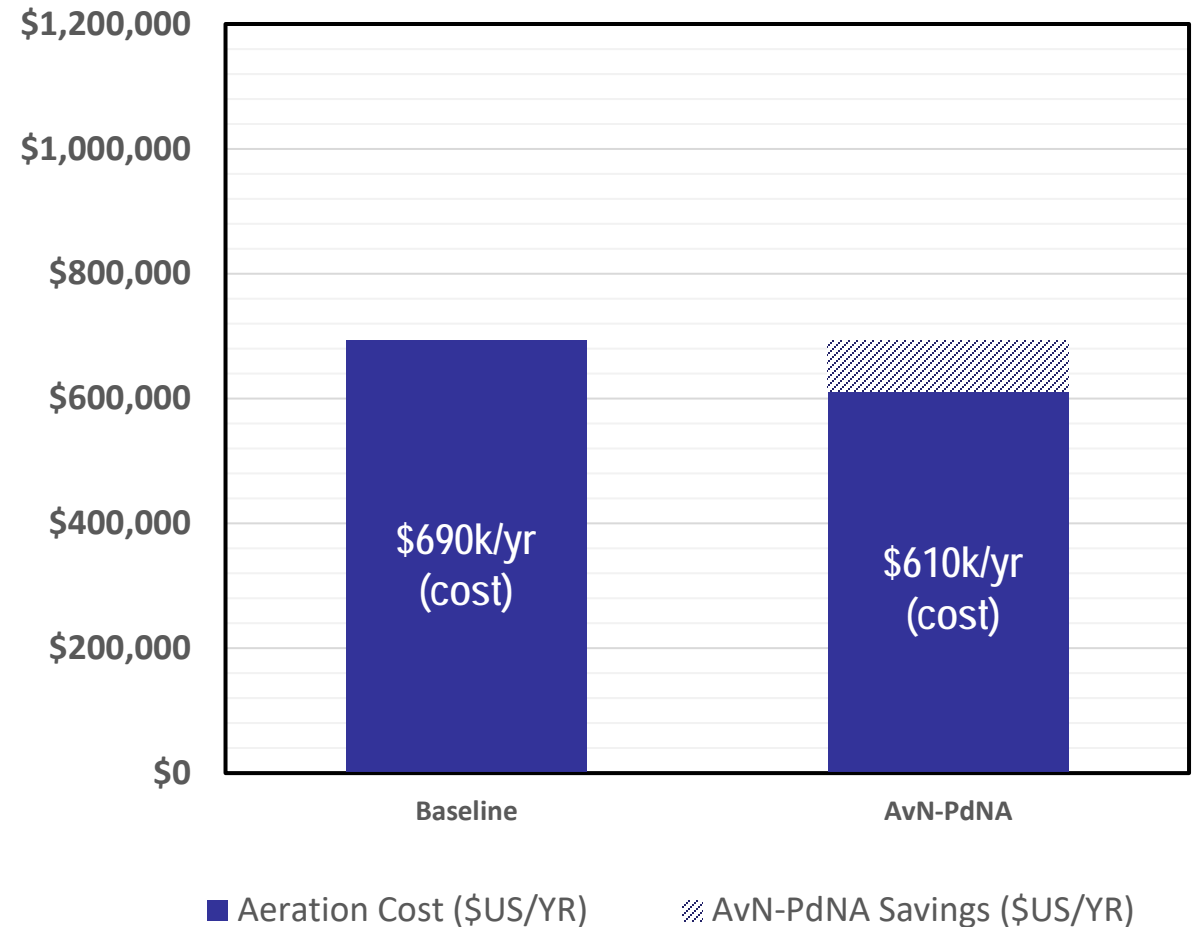
Features that result in a better overall final product with the inclusion of AvN-PdNA

Expected methanol use and process air demand reductions are straight-forward operational cost reductions with AvN-PdNA.

Methanol use savings: about \$550k-930k/yr



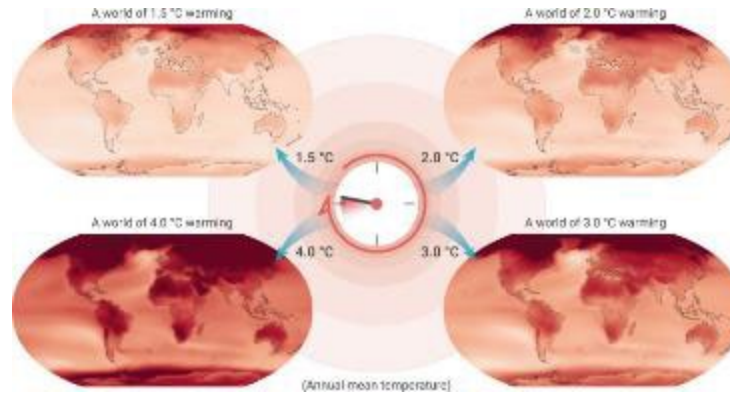
Potential Aeration Savings: about \$80k/yr



Including AvN-PdNA in ANRI provides tangible benefits to HRSD, its rate-payers, and the environment.



Easy to quantify resource reduction benefits that reduce operational cost

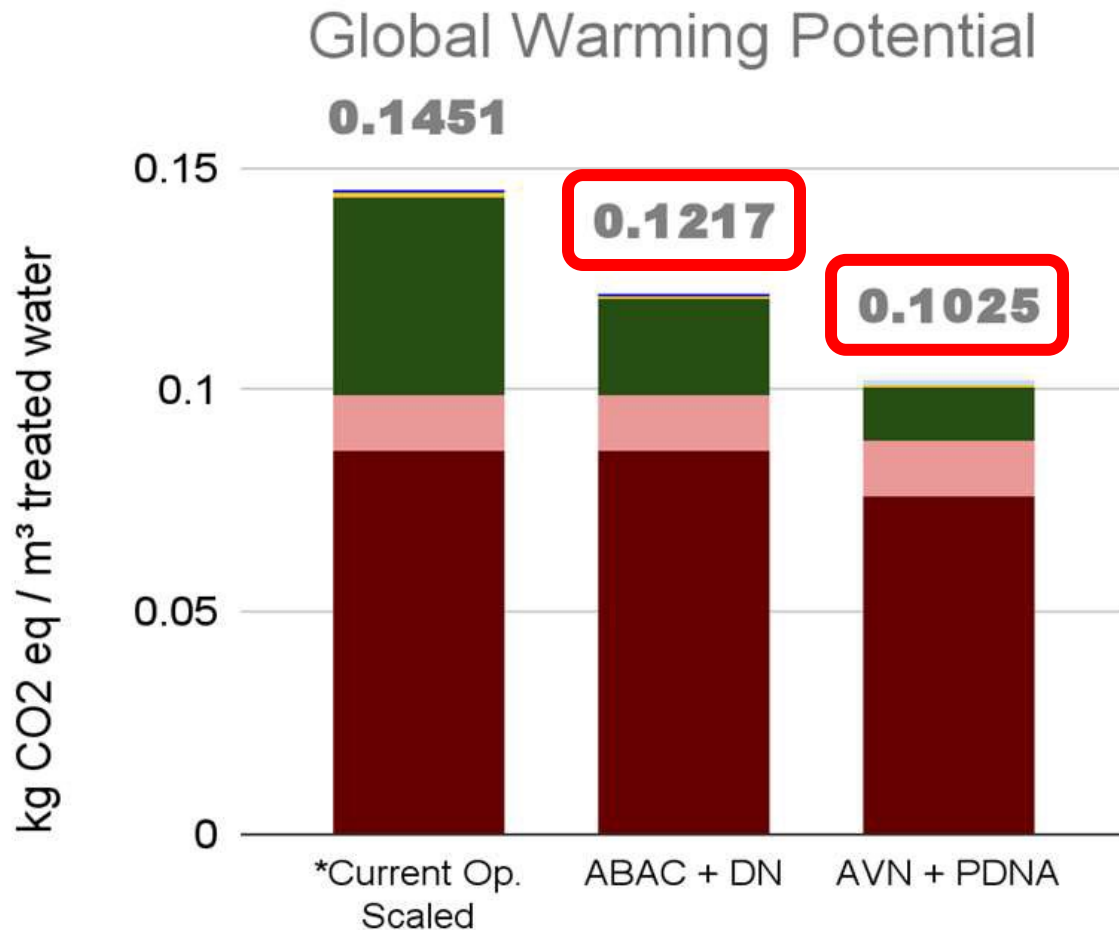


Harder to quantify/monetize, yet very real, environmental and ecological benefits



Features that result in a better overall final product with the inclusion of AvN-PdNA

Life-cycle assessment (LCA) of various treatment strategies for Nansmond TP show the environmental benefit of AvN-PdNA



What does this mean in aggregate?:

Reduction of 936 tons CO₂e/year

What other things represent 936 tons CO₂e?

- 187 standard passenger vehicles at 12,000 annual miles (source: EPA), or...
- A commercial airline flight 1.4 times around the circumference of Earth, or...
- \$13,600 of green energy purchased at a premium of \$0.00595/kWh.

Including AvN-PdNA in ANRI provides tangible benefits to HRSD, its rate-payers, and the environment.



Easy to quantify resource reduction benefits that reduce operational cost

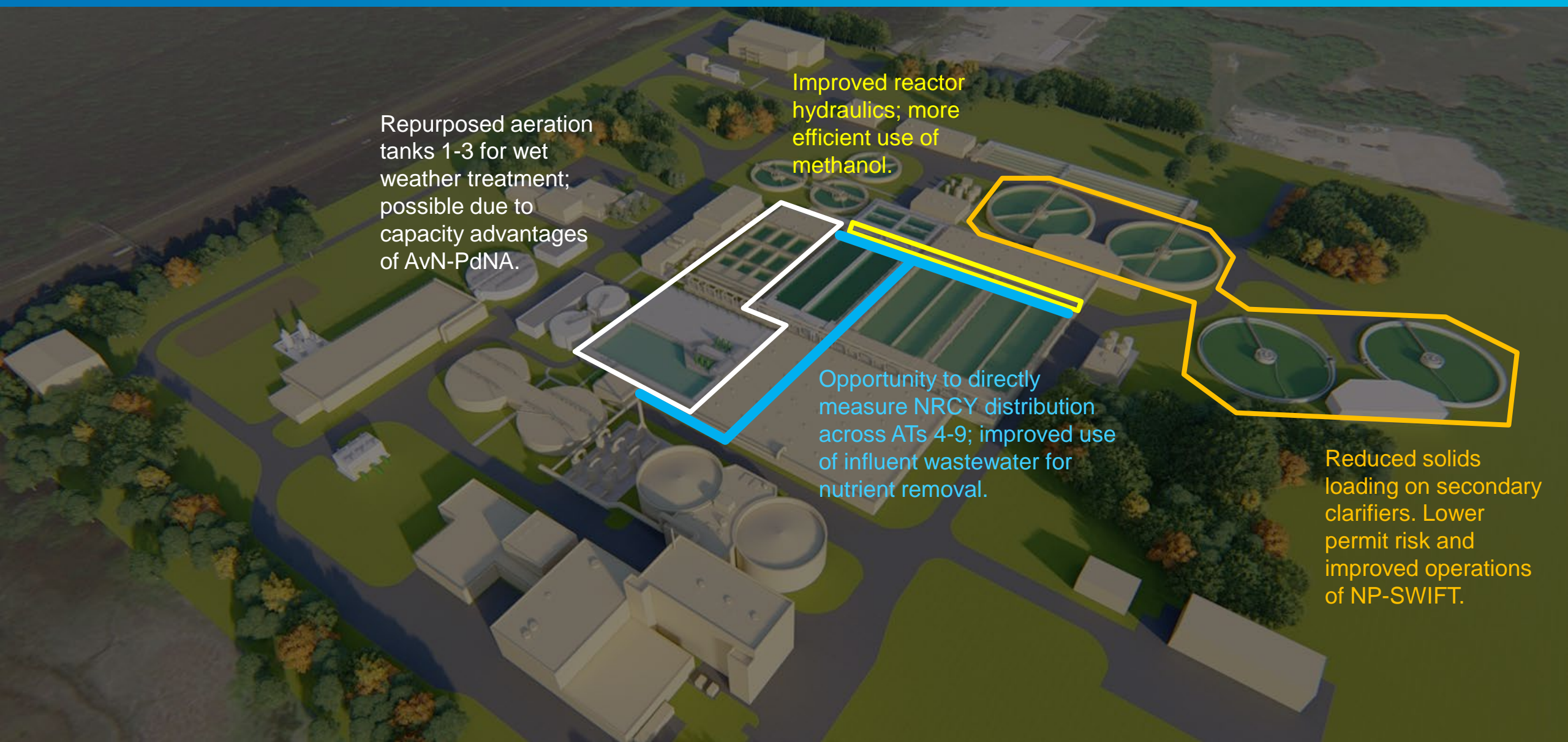


Harder to quantify/monetize, yet very real, environmental and ecological benefits



Features that result in a better overall final product with the inclusion of AvN-PdNA

Including the facilities for AvN-PdNA in NP ANRI results in a better final product that is more robust to operate.



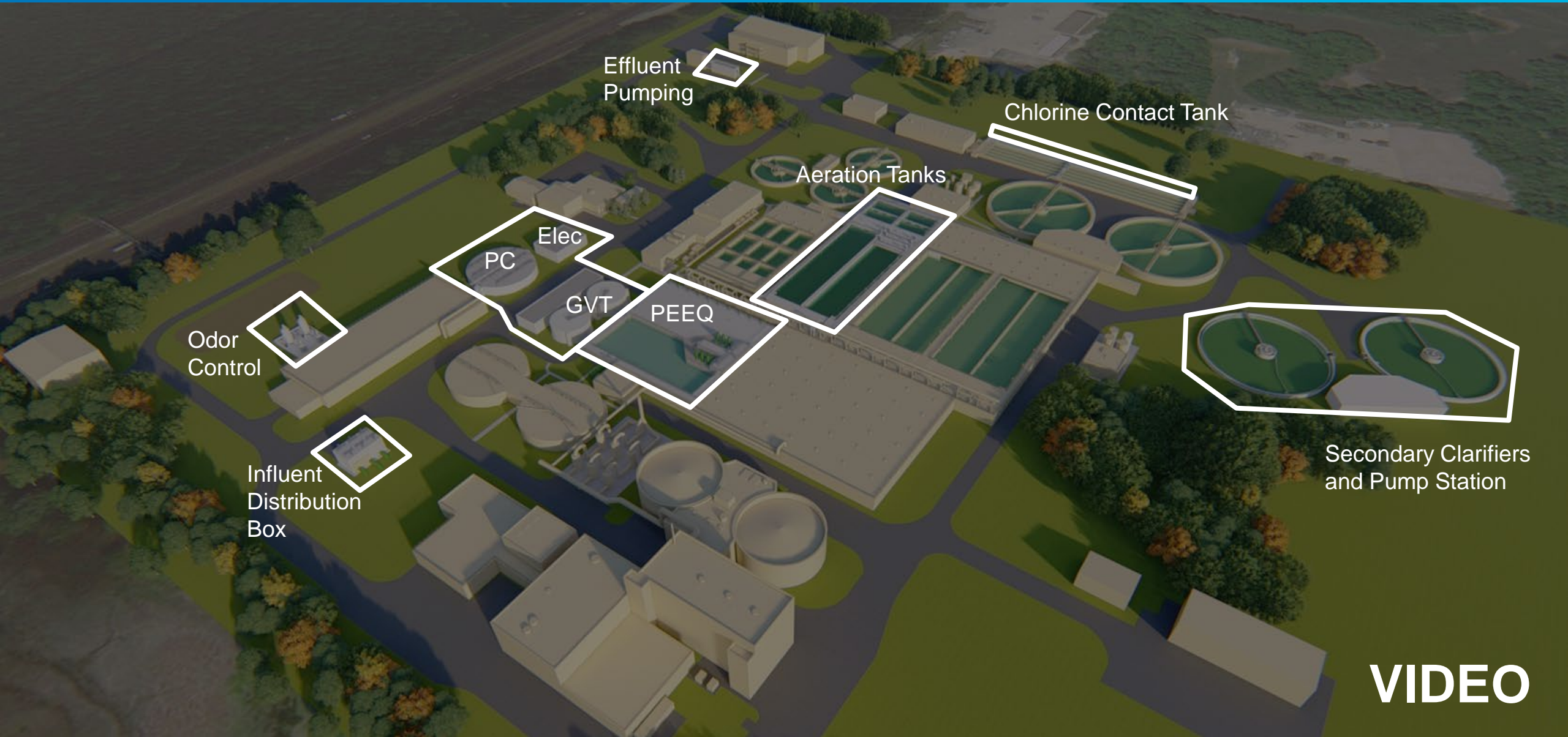
Repurposed aeration tanks 1-3 for wet weather treatment; possible due to capacity advantages of AvN-PdNA.

Improved reactor hydraulics; more efficient use of methanol.

Opportunity to directly measure NRCY distribution across ATs 4-9; improved use of influent wastewater for nutrient removal.

Reduced solids loading on secondary clarifiers. Lower permit risk and improved operations of NP-SWIFT.

Project achieves hydraulic and treatment capacity expansion for Boat Harbor flow, preparation for SWIFT



Odor Control

Influent Distribution Box

Effluent Pumping

PC

Elec

GVT

PEEQ

Aeration Tanks

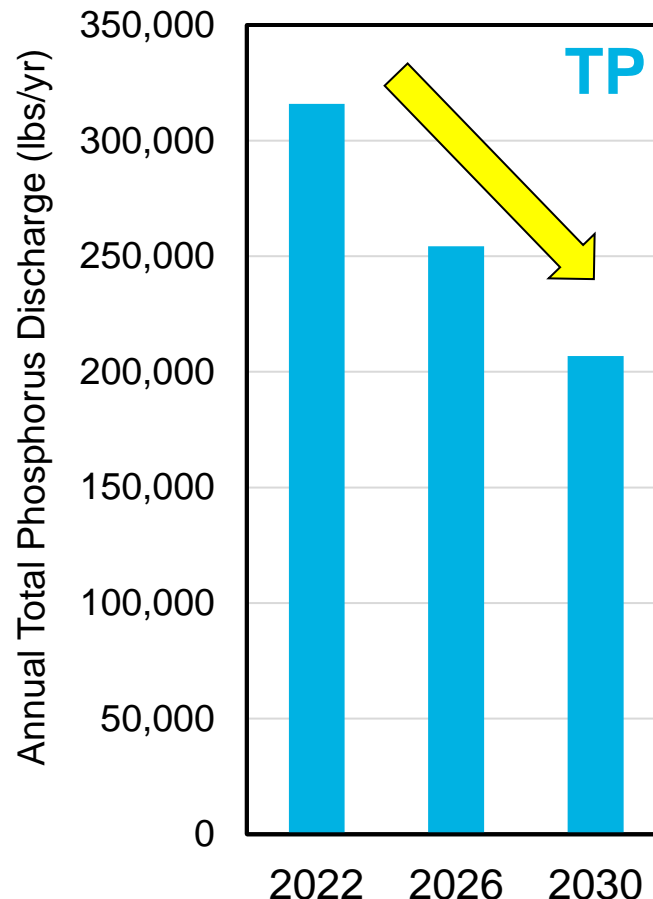
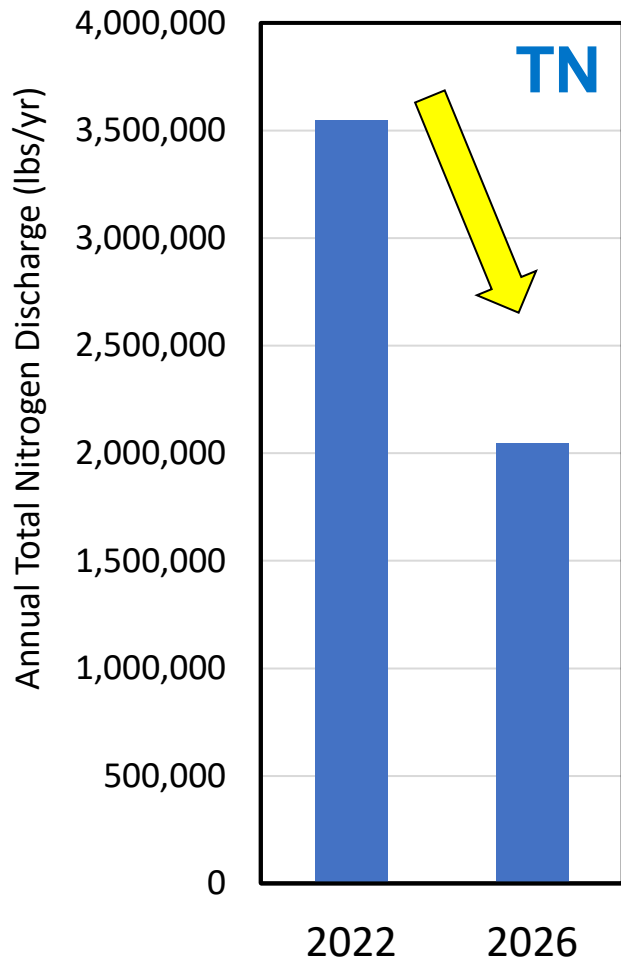
Chlorine Contact Tank

Secondary Clarifiers and Pump Station

VIDEO

Treatment upgrades are required at Nansemond to meet upcoming ENRCP requirements for TN and TP

HRSD Annual Discharge Limits Lower James River Basin



*Enhanced Nutrient Removal
Certainty Program (ENRCP) -
HB 2129*

*Chesapeake Bay Phase III –
Watershed Implementation
Program (WIP)*

Project funding sources include WIFIA loan and ARPA grant; team will apply for WQIF grant funding.



**Programmatic loan at
1.98% for 34 years**



**Project specific grant
for \$15M**



**Grant request estimated
at \$80M; will apply in
Spring 2023**

Staff recommendation

- **Appropriate additional funding in the amount of \$28,226,466**
- **Approve a Stipulated Price of \$299,233,922 to the Comprehensive Agreement with Garney Companies, Inc**
- **Approve a task order with AECOM in the amount of \$4,618,755 (GN016320)**

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #10

10. [Jefferson Avenue Interceptor Force Main Replacement Phase III Easement Acquisition – 711 Brick Kiln Boulevard, Newport News, Virginia 23602](#)

AGREEMENT

THIS AGREEMENT, made this 11th day of November 2022, by and between **711 BRICK KILN, LLC**, a Virginia limited liability company, whose mailing address is 1336 Nelsons Way, Sunnyvale, California 94087 (“Landowner”), and **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 (the “Grantee”), and Collectively, Landowner and HRSD shall be referred to as the “Parties.”

WITNESSETH: That for and in consideration of one dollar and other valuable consideration, receipt of which is hereby acknowledged, Landowner agrees to convey to HRSD a Permanent Utility Easement (as shown on the Deed of Easement attached hereto as “Exhibit A”) over, across and through the following described property of the Landowner, by Deed of Easement, properly executed, acknowledged, and delivered.

The land and improvements subject to the Permanent Utility Easement (hereinafter referred to as the “Easement”) is described as follows:

All that certain Permanent Utility Easement located in the City of Newport News, Virginia, and shown and designated as a “30’ SANITARY SEWER EASEMENT HEREBY DEDICATED 9,531 S.F. OR 0.21880 AC.”, as shown on the attached plat prepared by Paul W. Michael, Jr., Surveyor, Michael Surveying & Mapping, P.C., 41 Old Oyster Point Road, Suite B, Newport News, Virginia 23602 entitled, “EASEMENT PLAT FROM: 711 BRICK KILN LLC TO: HAMPTON ROADS SANITATION DISTRICT”, and dated March 20, 2020; and being part of the same property containing 2.05 acres as shown on Plat of Subdivision of Kiln Creek Commercial 1, City of Newport News, Virginia dated January 6, 2005, made by VHB Vanasse Hangen Brustlin, Inc., Transportation Land Development Environmental Services, and recorded on June 21, 2005, in Deed Book 2033, Page 1362, Instrument No.: 57248.

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

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

CONSIDERATION: ONE HUNDRED TWENTY ONE THOUSAND THREE HUNDRED DOLLARS AND 00/100 CENTS (\$121,300.00) in full for the easement described herein before and for all damages, if any.

The consideration hereinabove mentioned represents the value of all estates or interests in such land, and the damages to remaining lands of the Landowner which may result by reason of the use to which HRSD will put the land to be conveyed.

It is understood and agreed that the consideration paid to the Landowner in connection herewith constitutes payment in full for the Easement hereby conveyed. Damages, if any, to the residue or other property of the Landowner resulting from the project and use made of the Easement conveyed for the installation of the facilities shall be covered by the HRSD.

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

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

HRSD or its contractor will restore Landowner's land and Parcel affected as a result of construction of the project as closely as is reasonably possible to its pre-construction condition (or better) upon completion of the Project including replacing with acceptable landscaping. Any disturbance of the premises during the life of this Agreement by the GRANTEE or its contractor will be restored by the GRANTEE as nearly as practicable. This includes paving, fences, backfilling of trenches, grass, reseeding, replacing or replanting landscaping, addressing ground sink issues, and removal of trash or debris. Landscaping will be replaced with immature trees, shrubs, and ground cover.

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

RIGHT TO ENTER: The HRSD, or its agents, may exercise the right to enter upon so much of the parcel or Land needed for such purposes as may be necessary for the construction of this project with at least 48-hour notice to the Landowner, unless in cases of emergency repair of HRSD facilities.

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

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

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

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

WITNESS the following signatures and seals:

LANDOWNER:

711 Brick Kiln, LLC
a Virginia limited liability company

By: KShuf (SEAL)

Name: Shyam kOTHA (Signature)

Title: Member

STATE/Commonwealth of _____

City/County of _____ to-wit:

The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by _____, on behalf 711 Brick Kiln, LLC, a Virginia limited liability company.

Notary Public

Notary Public Registration No. _____

My commission expires: _____

See Attached California Acknowledgment

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of SANTA CLARA)

On November 11th, 2022 before me, P.SINGH (NOTARY PUBLIC)
(insert name and title of the officer)

personally appeared, SHYAM PRASAD KOTHA
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature P. Singh (Seal)



Document Attached:- AGREEMENT

EXHIBIT A

Deed of Easement between 711 Brick Kiln, LLC and HRSD Tax ID: 132-000-203

PREPARED BY AND RETURN TO:
Conway H. Shield, III (VSB # 06893)
Jones, Blechman, Woltz & Kelly, P.C.
701 Town Center Drive, Suite 800
Newport News, Va. 23606

Tax ID: 132-000-203

EXEMPTION CLAIMED PURSUANT TO VA CODE SECTION 58.1-611(A)(3)

DEED OF EASEMENT

THIS DEED OF EASEMENT, made this 11th day of November, 2022, by and between 711 BRICK KILN, LLC, a Virginia limited liability company, GRANTOR, (whether one or more) and HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, GRANTEE, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

WITNESSETH:

That for and in consideration of the sum of TEN AND 00/100 (\$10.00) DOLLARS and other good and valuable consideration, receipt of which is hereby acknowledged, GRANTOR does hereby grant and convey with GENERAL WARRANTY OF TITLE, unto GRANTEE, its successors and assigns, forever, the perpetual right, privilege, easement and right-of-way, hereinafter described, for the purpose of laying, erecting, constructing, operating, and maintaining underground wastewater and/or water reuse force mains and/or gravity mains together with above ~~and/or below ground equipment, structures, and appurtenances thereto, hereinafter~~ called "facilities," on the lands of the GRANTOR, said Easement (the "Easement") being further described as follows:

ALL THAT certain lot, tract or parcel of land lying situate and being in the City of Newport News, Virginia designated and described as: "PROP.30' HRSD UTILITY EASEMENT" as shown on that certain plat entitled "EASEMENT PLAT FROM: 711 BRICK KILN LLC TO: HAMPTON ROADS SANITATION DISTRICT PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III" made by Michael Surveying & Mapping, P.C., dated March 20, 2020, revised September 13, 2022, a copy of which plat is attached hereto, made a part hereof, and to be recorded herewith, to which reference is hereby made.

This easement is subject to the following conditions and provisions:

A. The facilities existing or constructed on or under the Easement shall remain the property of GRANTEE. GRANTEE shall have the right to inspect, rebuild,

Deed of Easement between 711 Brick Kiln, LLC and HRSD Tax ID: 132-000-203

remove, repair, improve, and make such changes, alterations, additions to or extensions of its facilities within the boundaries of said right of way as are consistent with the purpose expressed herein. All construction, maintenance, equipment and facilities shall comply with all applicable laws, ordinances, codes and regulations.

B. Any disturbance of the premises by the GRANTEE or its contractor will be restored by the GRANTEE as nearly as practicable. This includes paving, fences, ~~weeding of trenches, grass, reseeding, replacing or topsoiling landscaping, and~~ removal of trash or debris. Landscaping will be replaced with immature trees, shrubs, and ground cover.

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

D. GRANTEE shall have the right of ingress to and egress from said right of way over the lands of GRANTOR. GRANTEE shall exercise such right in such manner as shall not occasion injury and inconvenience to GRANTOR. GRANTEE shall at GRANTEE'S election pay for or repair any injury to any of GRANTOR'S land, structures, roads, fences and other improvements caused by GRANTEE, its employees, agents or contractors.

E. GRANTOR, its successors and assigns, may use said right of way 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 said facilities, and further provided that such use is not inconsistent with any laws, ordinances or codes pertaining to the construction, operation or maintenance of said facilities. GRANTOR shall not place any permanent improvements within the easement without permission of GRANTEE, or its successors, including but not limited to houses, buildings, pools, sheds, signs, or similar permanent structures. GRANTOR may install fences, driveways, pavement and landscaping (trees and shrubs shall be varieties that will not exceed 20 feet tall at maturity).

F. It is understood and agreed that the consideration paid to the GRANTOR in connection herewith constitutes payment in full for the property hereby conveyed and for damages, if any, to the residue or other property of the GRANTOR resulting from the project and use made of the property conveyed.

G. Notwithstanding the above, should the property on which the aforesaid perpetual easement lies be subdivided, then the access rights to the easement as above enumerated shall be along the publicly dedicated streets within the said

Deed of Easement between 711 Brick Kiln, LLC and HRSD Tax ID: 132-000-203

subdivision as far as practical, and then the access shall be on subdivided lots within the subdivision which shall efficiently provide access for the purposes of the GRANTEE as herein enumerated.

H. The Easement and use thereunder may not be assigned or conveyed, in whole or part, to a third party absent GRANTOR'S express written consent.

I. *ישראל, GRANTEE* shall not construct any structures or structures that materially interfere with GRANTOR'S use of the Easement.

WITNESS the following signature and seal all as of the day and year first above written.

711 BRICK KILN, LLC

By: *K. Kotha* (SEAL)
Name: SHYAM KOTHA
Title: MEMBER

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

The foregoing instrument was acknowledged before me this ___ day of _____, 2022 by _____ (Name), _____ (Title) of 711 BRICK KILN, LLC.

My commission expires: _____

Notary Public Registration No: _____

06340043 (10/29/2022)

See Attached California Acknowledgment

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of SANTA CLARA)

On November 11th, 2022 before me, P.SINGH (NOTARY PUBLIC)
(insert name and title of the officer)

personally appeared SHYAM PRASAD KOTHA _____
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

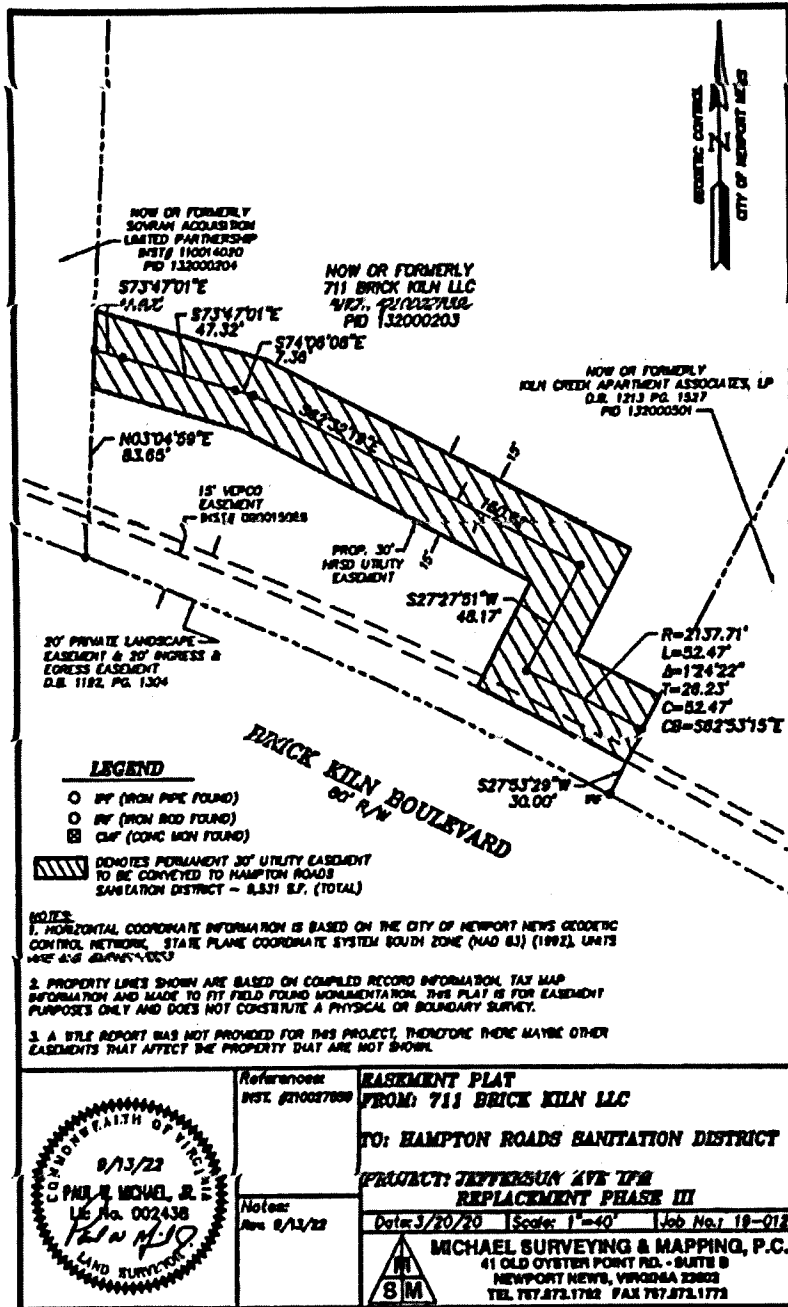
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

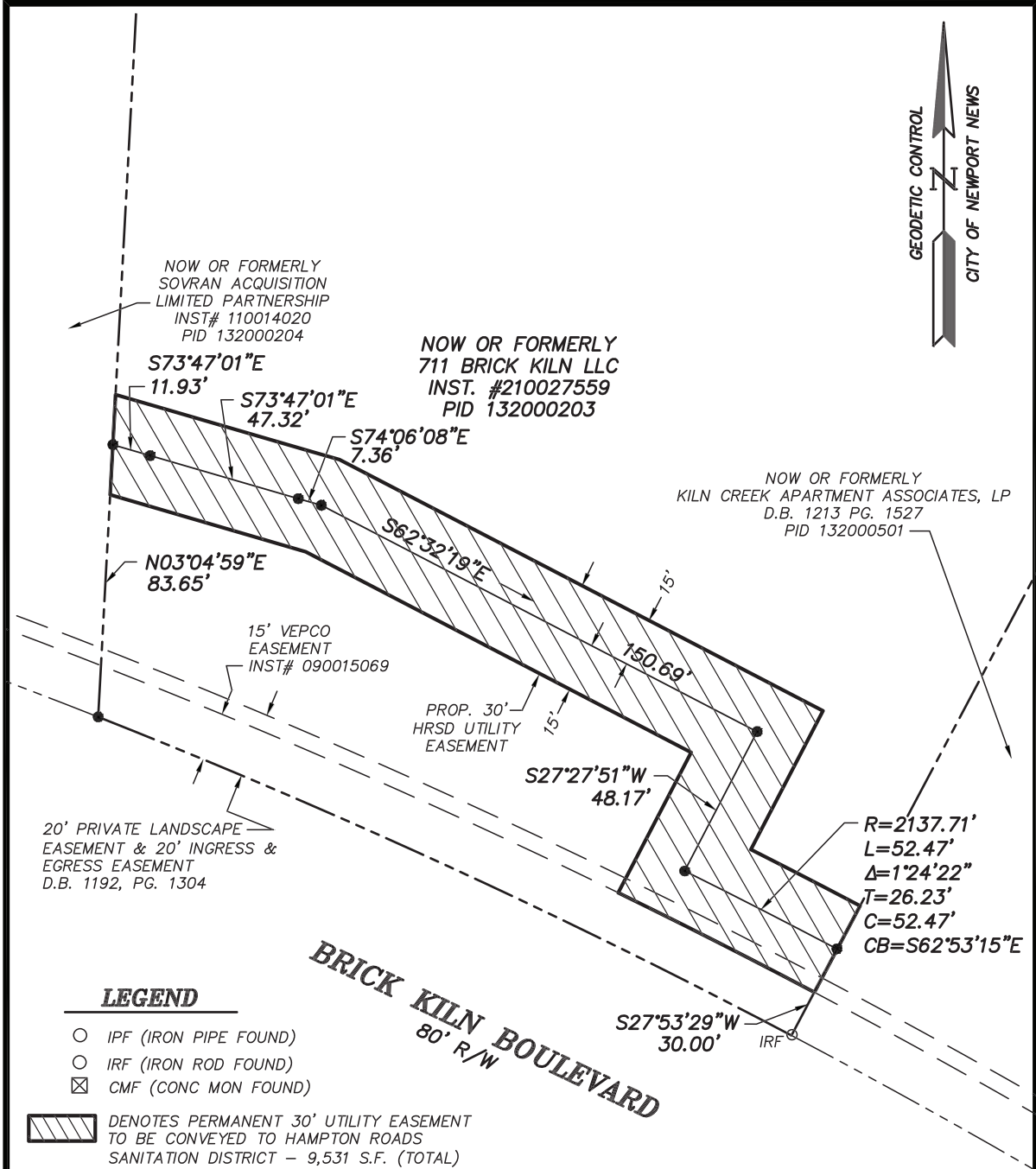
WITNESS my hand and official seal.



Signature P. Singh (Seal)

Document Attached :- DEED OF EASEMENT





NOW OR FORMERLY
SOVRAN ACQUISITION
LIMITED PARTNERSHIP
INST# 110014020
PID 132000204

NOW OR FORMERLY
711 BRICK KILN LLC
INST. #210027559
PID 132000203

NOW OR FORMERLY
KILN CREEK APARTMENT ASSOCIATES, LP
D.B. 1213 PG. 1527
PID 132000501

N03°04'59"E
83.65'

S73°47'01"E
47.32'

S74°06'08"E
7.36'

S62°32'19"E

150.69'

15' VEPCO
EASEMENT
INST# 090015069

PROP. 30'
HRSD UTILITY
EASEMENT

S27°27'51"W
48.17'

20' PRIVATE LANDSCAPE
EASEMENT & 20' INGRESS &
EGRESS EASEMENT
D.B. 1192, PG. 1304

R=2137.71'
L=52.47'
Δ=1°24'22"
T=26.23'
C=52.47'
CB=S62°53'15"E

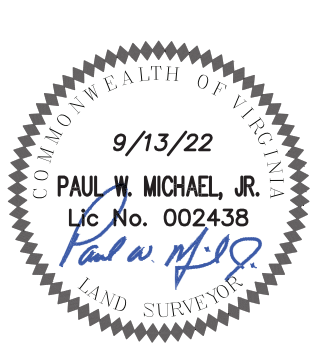
S27°53'29"W
30.00'

BRICK KILN BOULEVARD
80' R/W

LEGEND

- IPF (IRON PIPE FOUND)
- IRF (IRON ROD FOUND)
- ☒ CMF (CONC MON FOUND)
- DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT - 9,531 S.F. (TOTAL)

- NOTES:**
1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.
 2. PROPERTY LINES SHOWN ARE BASED ON COMPILED RECORD INFORMATION, TAX MAP INFORMATION AND MADE TO FIT FIELD FOUND MONUMENTATION. THIS PLAT IS FOR EASEMENT PURPOSES ONLY AND DOES NOT CONSTITUTE A PHYSICAL OR BOUNDARY SURVEY.
 3. A TITLE REPORT WAS NOT PROVIDED FOR THIS PROJECT, THEREFORE THERE MAYBE OTHER EASEMENTS THAT AFFECT THE PROPERTY THAT ARE NOT SHOWN.



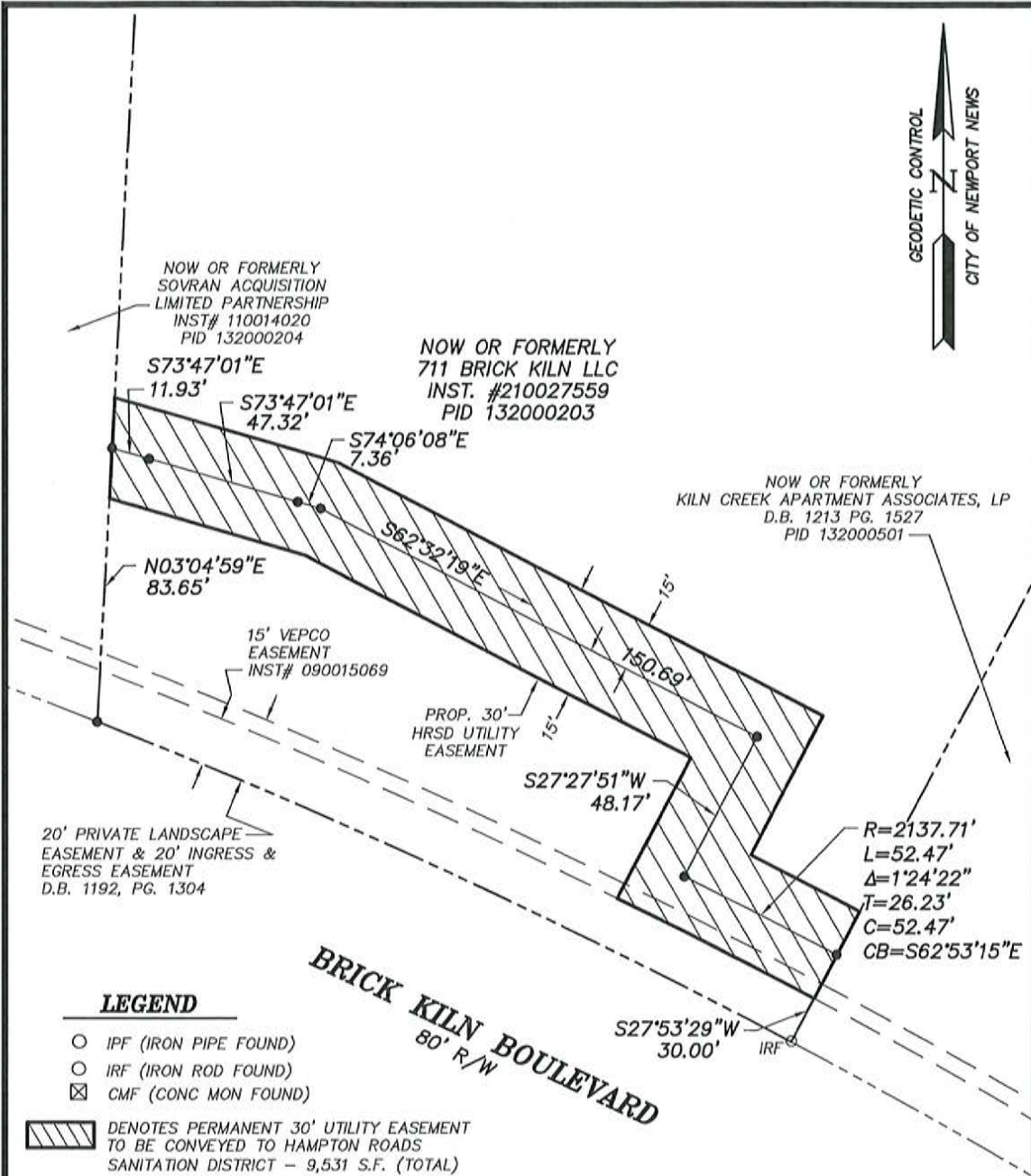
References:
INST. #210027559

Notes:
Rev. 9/13/22

EASEMENT PLAT
FROM: 711 BRICK KILN LLC
TO: HAMPTON ROADS SANITATION DISTRICT
PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III

Date: 3/20/20 Scale: 1"=40' Job No.: 19-012

MICHAEL SURVEYING & MAPPING, P.C.
41 OLD OYSTER POINT RD. - SUITE B
NEWPORT NEWS, VIRGINIA 23602
TEL 757.873.1762 FAX 757.873.1772



LEGEND

- IPF (IRON PIPE FOUND)
- IRF (IRON ROD FOUND)
- ☒ CMF (CONC MON FOUND)
- DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT - 9,531 S.F. (TOTAL)

NOTES:

1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.
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References:
INST. #210027559

Notes:
Rev. 9/13/22

EASEMENT PLAT
FROM: 711 BRICK KILN LLC
TO: HAMPTON ROADS SANITATION DISTRICT
PROJECT: JEFFERSON AVE IFM REPLACEMENT PHASE III

Date: 3/20/20 Scale: 1"=40' Job No.: 19-012

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 41 OLD OYSTER POINT RD. - SUITE B
 NEWPORT NEWS, VIRGINIA 23602
 TEL 757.873.1762 FAX 757.873.1772



Proposed Force Main to be installed

711 Brick Kiln Blvd Parcel

Existing Force Main to be abandoned

NF-179



HRSD Commission Meeting Minutes
February 28, 2023
Attachment #11

11. [Jefferson Avenue Interceptor Force Main Replacement Phase III Easement Acquisition – 638 River Bend Court, Newport News, Virginia 23602](#)

PREPARED BY AND RETURN TO:

HRSD
Attn: Real Estate Department
1434 Air Rail Avenue
Virginia Beach, Virginia 23471-0911

Tax ID: 152.00-07-01

DEED OF EASEMENT

THIS DEED OF EASEMENT made this 20th day of Jan., ~~2022~~²⁰²³, by and between **RP WATERMAN'S CROSSING, LLC, CG WATERMAN'S CROSSING, LLC, AND WE WATERMAN'S CROSSING, LLC**, Virginial limited liability companies, whose mailing address is 1050 Wall Street #230, Lyndhurst, New Jersey 07071, **GRANTOR**, and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

WITNESSETH:

That for and in consideration of the sum of TEN AND 00/100 (\$10.00) DOLLARS and other good and valuable consideration, receipt of which is hereby acknowledged, **GRANTOR** does hereby grant and convey, all of their right, title and interest, if any, in the following easement, with GENERAL WARRANTY OF TITLE, unto **GRANTEE**, its successors and assigns, forever, the perpetual right, privilege, easement and right-of-way, hereinafter described, for the purpose of laying, erecting, constructing, operating, and maintaining underground wastewater and/or water reuse force mains and/or gravity mains together with below ground equipment, accessories, and appurtenances thereto, hereinafter called "facilities," on the lands of the **GRANTOR**, said Permanent Easement (the "Easement") being further described as follows:

All that certain Permanent Utility Easement shown and designated as a "PROP. 30' HRSD UTILITY EASEMENT" and the shaded area labeled as "DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT - 7,551 S.F. (TOTAL)", as shown on the attached plat prepared by Paul W. Michael, Jr., Surveyor, Michael Surveying & Mapping, P.C., 41 Old Oyster Point Road, Suite B, Newport News, Virginia 23602 entitled, "EASEMENT PLAT FROM: RP WATERMANS CROSSING LLC CG WATERMANS CROSSING LLC TO: HAMPTON ROADS SANITATION DISTRICT", and dated March 24, 2020; and being part of the same property containing 19.1982 acres as shown on Plat of Subdivision of Property of Oyster Cove Limited Partnership, City of Newport News, Virginia, dated March 18, 1987, recorded in Deed Book 1169, Page 522.

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

This Easement is subject to the following conditions and provisions:

A. The facilities existing or constructed under the Easement shall remain the property of **GRANTEE**. **GRANTEE** shall have the right to inspect, rebuild, remove, repair, improve, and make such changes, alterations, additions to or extensions of its facilities within the boundaries of said right of way as are consistent with the purpose expressed herein. All construction, maintenance, equipment and facilities shall comply with all applicable laws, ordinances, codes and regulations.

B. Any disturbance of the premises by the **GRANTEE** or its contractor will be restored by the **GRANTEE** to its pre-disturbance condition as nearly and as early as practicable. This includes paving, fences, backfilling of trenches, grass, reseeding, replacing or replanting landscaping, addressing ground sink issues, and removal of trash or debris. Landscaping will be replaced with immature trees, shrubs, and ground cover.

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

D. **GRANTEE** shall have the right of ingress to and egress from said right of way over the lands of **GRANTOR** as may be necessary for the construction and/or maintenance of the facilities with at least 48-hour notice to the Grantor, unless in cases of emergency repair of facilities. **GRANTEE** shall exercise such right in such manner as shall not occasion injury and inconvenience to **GRANTOR**. **GRANTEE** shall at **GRANTEE'S** election (1) pay for or (2) repair any injury to any of **GRANTOR'S** land, structures, roads, fences and other improvements caused by **GRANTEE**, its employees, agents or contractors.

E. **GRANTOR**, its successors and assigns, may use said right of way 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 said facilities, and further provided that such use is not inconsistent with any laws, ordinances or codes pertaining to the construction, operation or maintenance of said facilities. **GRANTOR** shall not place any permanent improvements within the Easement without permission of **GRANTEE**, or its successors, including but not limited to houses, buildings, pools, sheds, signs, or similar permanent structures. **GRANTOR** may install fences, driveways, pavement and landscaping (trees and shrubs shall be varieties that will not exceed 20 feet tall at maturity).

F. It is understood and agreed that the consideration paid to the **GRANTOR** in

connection herewith constitutes payment in full for the property hereby conveyed and for damages (as that term is used in the context of eminent domain litigation), if any, to the residue or other property of the **GRANTOR** resulting from the project and use made of the property conveyed. The foregoing is not applicable to any actual injury caused to Grantor's land, structures, roads, fences and other improvements caused by **GRANTEE**, its employees, agents or contractors.

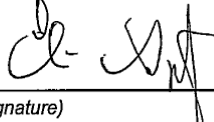
G. Notwithstanding the above, should the property on which the aforesaid perpetual Easement lies be subdivided, then the access rights to the Easement as above enumerated shall be along the publicly dedicated streets within the said subdivision as far as practical, and then the access shall be on subdivided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

H. **GRANTEE** hereby agrees that it will perform all such measures in a manner causing as little inconvenience and disruption to the Grantor, and Grantor's invitees, licensees and occupants as is reasonably possible. Plans for the Easement have been explained to the Grantor, and Grantee warrants that it will not construct above ground facilities, including pumping stations, within the Easement area.

WITNESS the following signature and seal all as of the day and year first above written.

GRANTOR:

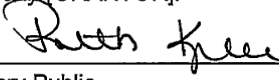
RP WATERMAN'S CROSSING, LLC

BY: 
(Signature)

ITS: MANAGING member
(Title)

STATE/Commonwealth of New Jersey
City/County of Bergen to-wit:

The foregoing instrument was acknowledged before me this 13th day of May, 2022, by ELI SPITZER (Name), on behalf of RP Waterman's Crossing, LLC, a Virginia limited liability company [GRANTOR].


Notary Public

Ruth Kruter
Notary Public
New Jersey
My Commission Expires 7-22-2023
No. 2436487



Notary Public Registration No. 2436487

My commission expires: 7-22-2023

CG WATERMAN'S CROSSING, LLC

BY: [Signature]
(Signature)

ITS: MANAGER
(Title)

STATE/Commonwealth of New Jersey
City/County of Bergen to-wit:

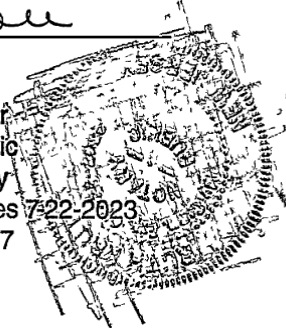
The foregoing instrument was acknowledged before me this 12th day of May, 2022, by ELI SPITZER (Name), on behalf of CG Waterman's Crossing, LLC, a Virginia limited liability company [GRANTOR].

[Signature]
Notary Public

Notary Public Registration No. 2436487

My commission expires: 7-22-2023

Ruth Kruter
Notary Public
New Jersey
My Commission Expires 7-22-2023
No. 2436487



WE WATERMAN'S CROSSING, LLC

My Commission Expires 7-22-2023
No. 2436487

BY: [Signature]
(Signature)

ITS: MANAGER
(Title)

STATE/Commonwealth of New Jersey
City/County of Bergen to-wit:

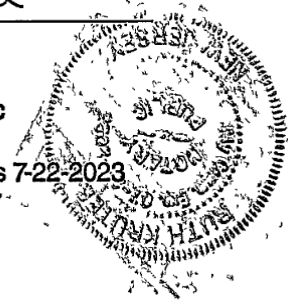
The foregoing instrument was acknowledged before me this 12th day of May, 2022, by ELI SPITZER (Name), on behalf of WE Waterman's Crossing, LLC, a Virginia limited liability company [GRANTOR].

Ruth Kruter

Notary Public

Notary Public Registration No. 2436487
My commission expires: 7-22-2023

Ruth Kruter
Notary Public
New Jersey
My Commission Expires 7-22-2023
No. 2436487



HAMPTON ROADS SANITATION DISTRICT (HRSD)
a political subdivision of the Commonwealth of Virginia

BY: Ayanna R. Williams (SEAL)
(Signature)

ITS: Real Estate Manager
(Title)

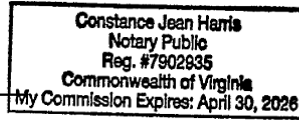
STATE/Commonwealth of Virginia
City/County of Newport News to-wit:

The foregoing instrument was acknowledged before me this 20th day of Jan.
(Name), 2022, by 2023 Ayanna R Williams
on behalf of Hampton Roads Sanitation District, a political subdivision of the
Commonwealth of Virginia.

Cise

Notary Public

Notary Public Registration No. 7902935
My commission expires: April 30, 2026

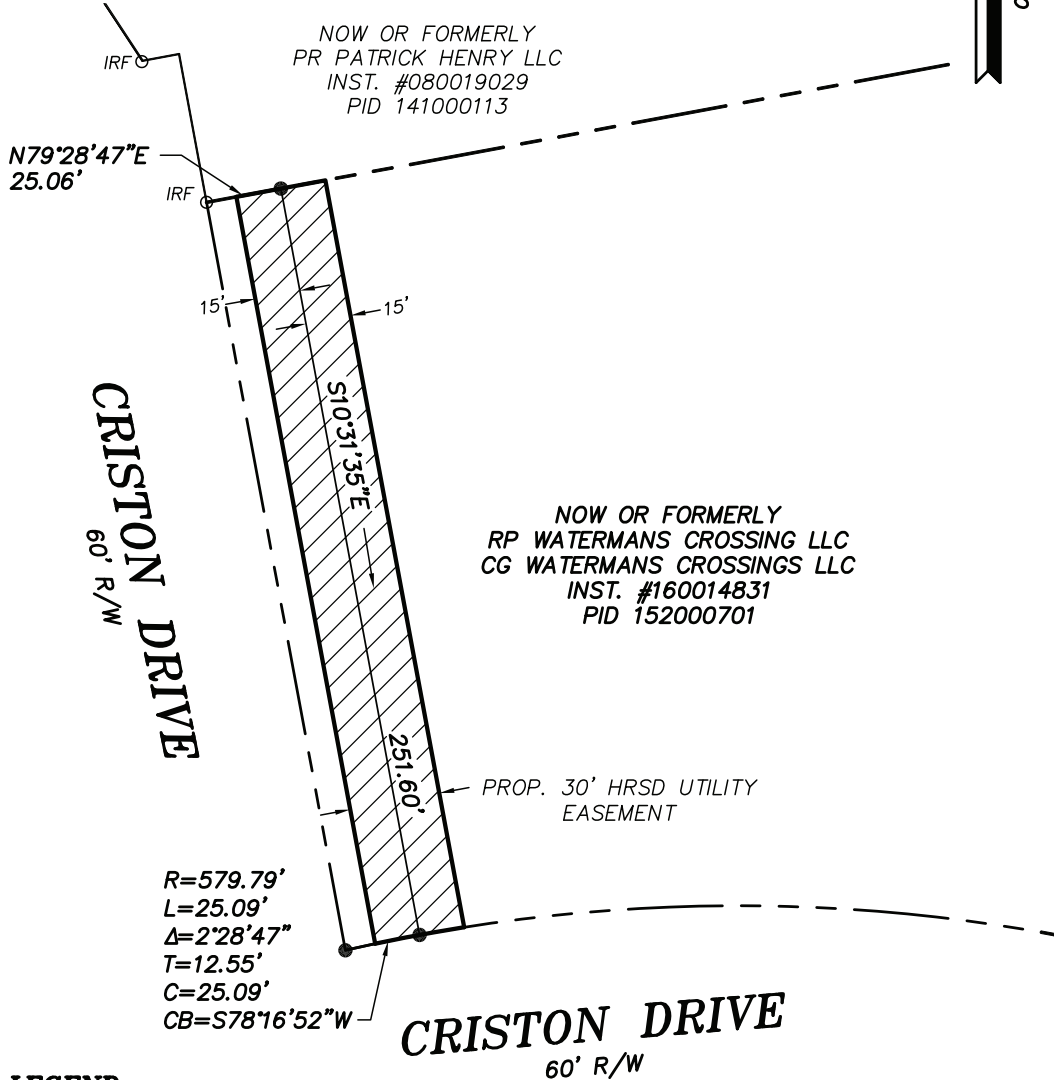


NOTES:

1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.

2. PROPERTY LINES SHOWN ARE BASED ON COMPILED RECORD INFORMATION, TAX MAP INFORMATION AND MADE TO FIT FIELD FOUND MONUMENTATION. THIS PLAT IS FOR EASEMENT PURPOSES ONLY AND DOES NOT CONSTITUTE A PHYSICAL OR BOUNDARY SURVEY.

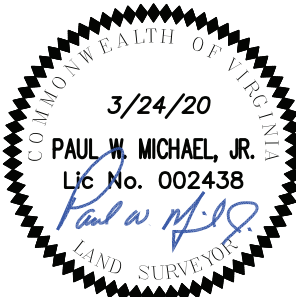
3. A TITLE REPORT WAS NOT PROVIDED FOR THIS PROJECT, THEREFORE THERE MAYBE OTHER EASEMENTS THAT AFFECT THE PROPERTY THAT ARE NOT SHOWN.



LEGEND

- IPF (IRON PIPE FOUND)
- IRF (IRON ROD FOUND)
- ☒ CMF (CONC MON FOUND)

DENOTES PERMANENT 30' UTILITY EASEMENT TO BE CONVEYED TO HAMPTON ROADS SANITATION DISTRICT - 7,551 S.F. (TOTAL)



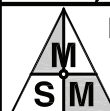
References:
INST. #160014831

Notes:

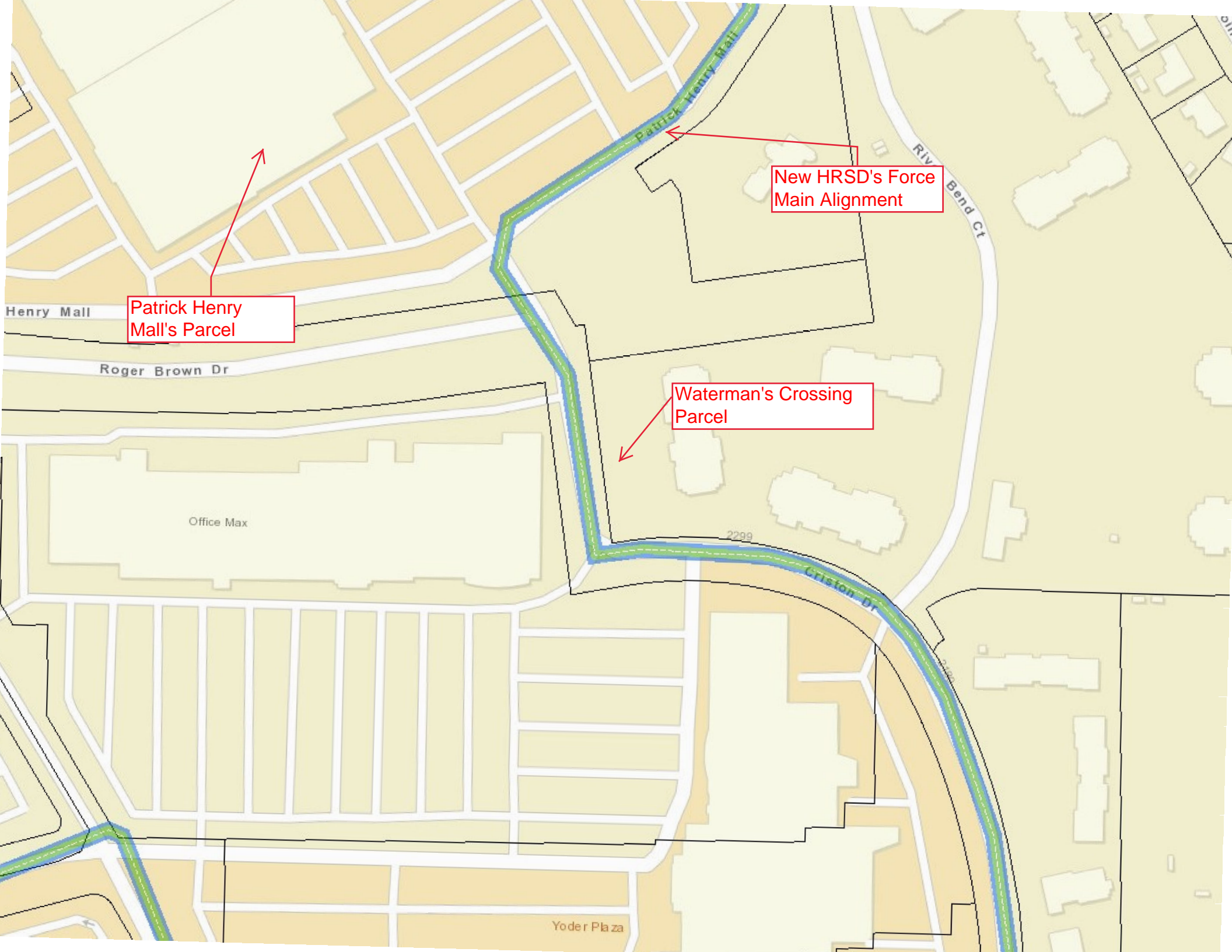
EASEMENT PLAT
FROM: RP WATERMANS CROSSING LLC
CG WATERMANS CROSSINGS LLC
TO: HAMPTON ROADS SANITATION DISTRICT

PROJECT: JEFFERSON AVE IFM
REPLACEMENT PHASE III

Date: 3/24/20 Scale: 1"=50' Job No.: 19-012



MICHAEL SURVEYING & MAPPING, P.C.
41 OLD OYSTER POINT RD. - SUITE B
NEWPORT NEWS, VIRGINIA 23602
TEL 757.873.1762 FAX 757.873.1772



Patrick Henry Mall's Parcel

New HRSD's Force Main Alignment

Waterman's Crossing Parcel

Henry Mall

Roger Brown Dr

Office Max

2299

Criston Dr

Yoder Plaza

Riv Bend Ct

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #12

12. [Wilroy Pressure Reducing Station and Off-line Storage Facility
Real Estate Acquisition – Fee Simple Interest
1941 Wilroy Road, 1949 Wilroy Road, and Tax Map No. 26*22C, Suffolk](#)

ACCT NOS: 301260000; 304324200; 304324300
TAX MAP NOS: 26*22A; 26*22B; 26*22C
PROJECT: Wilroy Pressure Reducing Station and Off-line Storage Facility
ROUTE/STREET: Wilroy Road
CITY/COUNTY: Suffolk, Virginia 23434

PURCHASE AND SALE AGREEMENT

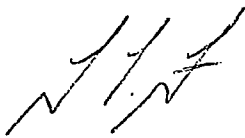
THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 13 day of FEBRUARY 2023, by and between), **JTF Properties, LLC**, a Virginia limited liability company, whose mailing address is 4312 Sandy Bay Drive, Virginia Beach, Virginia 23455 ("Landowner/Seller"), and **HAMPTON ROADS SANITATION DISTRICT** ("HRSD"), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455, the ("Buyer"). Collectively, Buyer and Seller shall be referred to as the "Parties."

RECITALS

- A. Seller represents to Buyer that Seller is the owner in fee simple absolute of certain parcels of property located on Wilroy Road in the City of Suffolk, Virginia, known and described generally as the following:
- 1941 Wilroy Road, City of Suffolk Tax Map No. 26*22A, containing approximately 2.824 AC, more or less, land;
 - 1949 Wilroy Road, City of Suffolk Tax Map No. 26*22B, containing approximately 1.466 AC, more or less, land;
 - City of Suffolk Tax Map No. 26*22C, containing approximately 1.084 AC, more or less, land;

Such properties being more particularly described in **Exhibit A** and referred to as Parcels "A", "B", and "C", in **Exhibit B**, both of said Exhibits being attached hereto and made a part of this Agreement by this reference (such properties being hereinafter collectively referred to as the "Property").

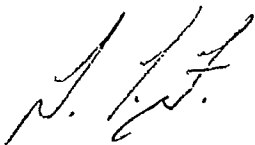
- B. HRSD desires to purchase the Property and all structures and improvements thereon and appurtenances thereto from the Seller for the purpose of the Wilroy Pressure Reducing Station and Off-line Storage Facility CIP# NP012400.
- C. Seller is willing to sell the Property to HRSD subject to the terms and conditions set forth in this Agreement.



D. These recitals are incorporated by this reference into this Agreement.

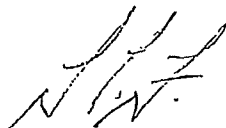
NOW, THEREFORE, in consideration of the purchase price and the mutual promises contained in this Agreement, the parties agree as follows:

1. **SALE.** Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights, improvements, 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, together with all such rights, improvements, and appurtenances thereto, and any such personal property, are hereinafter collectively referred to as "the Property".
2. **PURCHASE PRICE.** The purchase price (the Purchase Price) for the Property is **SIX HUNDRED, THIRTY-EIGHT THOUSAND AND 00/100 DOLLARS (\$638,000)**, and shall be paid to the Seller at settlement, by certified check or wired funds at closing.
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 at HRSD's sole determination, HRSD shall notify Seller in writing (an



"Objection Notice"), prior to Closing 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.

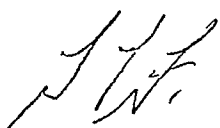
- c. Seller will deliver possession of the Property to HRSD at Closing, except that HRSD will have access to the Property prior to Closing for the purposes specified herein.
 - d. Seller agrees to pay proration of real estate taxes and storm water fees. HRSD will pay all other fees charged in connection with preparation and recordation of the deed, including grantor's tax, and other applicable closing costs, if any.
 - 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.
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 but not limited to 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.



5. CONDITIONS AND CONTINGENCIES.

- 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 are not or cannot be met prior to Closing, HRSD may unilaterally terminate this Agreement or, in HRSD's sole discretion, extend the date of Closing:
 - 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 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. Seller's compliance with all of Seller's obligations under this Agreement.
 - iv. Results of all surveys, testing, and inspections conducted by HRSD of the Property being to HRSD's satisfaction in HRSD's sole discretion.
- b. This Agreement is expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD to the satisfaction of HRSD in HRSD's sole discretion.
- c. Seller agrees that any mortgage, deed of trust, security agreement or monetary lien against the Property shall be removed and released as liens on the Property on or before Closing.
- d. This Agreement is contingent on the review and approval of the purchase by the Hampton Roads Sanitation District Commission and upon such Commission granting authorization to the General Manager to proceed under the terms of this Agreement.

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:
 - (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.

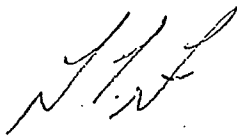
In the event HRSD chooses to perform any additional assessment, such as a Phase II, and determines that the results of such assessment are not satisfactory, HRSD may at its option:

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

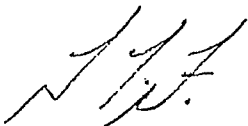
7. REPRESENTATIONS AND WARRANTIES BY SELLER. Seller represents and warrants as of the date of this Agreement and as of the date of Closing that: Seller has the right, title, and authority to enter into this Agreement and to perform its obligations hereunder.

Seller further represents and warrants, and shall deliver to HRSD at or prior to the Settlement, an Owner's Affidavit prepared by HRSD and all other documents required by the title company to issue an owner's policy 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 of 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 of 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 such fact and such other documents as may be required under the Code.
- (vi) From and after the date of this Agreement, Seller has not and shall not transfer any portion of the Property, or interest in the Property, 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.
- (vii) The Seller warrants that to the best of his knowledge there are no wetlands or hazardous wastes, which would prevent HRSD's intended use of the land. To the best of the Seller's knowledge: (i) none of the Property has been excavated (except for standard grading related to site development); (ii) no hazardous materials, toxic chemicals, or similar substances, as defined by 42 U.S.C. §1251, et seq. or 42 U.S.C. §6901, et seq. or 42 U.S.C. §9601, et seq., or 33 U.S.C. §1317(1), or 15 U.S.C. §2606(f), or 49 U.S.C. §1801, et seq., or regulations adopted pursuant thereto, or any similar provision of any applicable state, Federal, or local law (collectively "Hazardous Materials"), are or were stored or used on or under or otherwise were or are in existence or were in any way dealt with on or under the Property; and (iii) no owner or occupant of the Property has received any



notice from any governmental agency with regard to such Hazardous Materials.

(viii) All of Seller's representations and warranties remain true and correct through the actual date of settlement.

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: Jay Bernas, P.E., M.B.A.
General Manager
P.O. Box 5911
Virginia Beach, Virginia 23471-0911

Copy to: D. Rossen S. Greene, Esq.
Pender & Coward, P.C.
117 Market Street
Suffolk, VA 23434

Seller: JTF Properties, LLC
4312 Sandy Bay Dr.,
Virginia Beach, VA 23455

9. CLOSING. Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, or unless the Closing date is extended pursuant to the terms of this Agreement or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent on or about 60 days from the Effective Date of this Agreement (Effective Date being defined as the date on which both the Seller and HRSD have endorsed this Agreement).

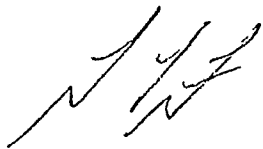
10. [RESERVED]

11. [RESERVED]

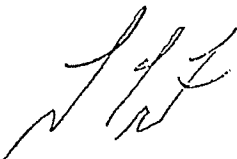
12. PRORATIONS. All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.

13. 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.
14. 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 in writing and 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, which is acceptable to HRSD. This provision will not be included within the deed.
15. 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. Seller agrees to indemnify and hold harmless HRSD from any and all costs, expenses, or damages resulting from any claim for brokerage fees or other similar forms of compensation made by any real estate broker or other person or entity with whom Seller has dealt, and who is not expressly named herein.
16. 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 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.
17. DEFAULT AND REMEDIES.
- a. If the sale and purchase contemplated by this Agreement is not consummated because of Seller's default, HRSD may do the following:
 - i Terminate this Agreement;
 - ii Seek and obtain specific performance of this Agreement;

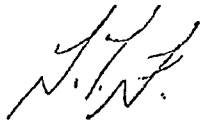


- iii Pursue all other rights or remedies available at law or in equity, including an action for damages.
 - b. If Seller defaults under this Agreement, Seller will be liable for any fees and expenses incurred by HRSD in connection with the enforcement of its rights under this Agreement, including but not limited to reasonable attorney's fees.
 - c. These remedies are cumulative and non-exclusive and may be pursued at the option of HRSD without a requirement of election of remedies.
 - d. If the sale and purchase contemplated by this Agreement is not consummated because of HRSD's default, Seller's sole and exclusive remedy shall be termination of this Agreement.
18. 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.
19. 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.
20. 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.
21. CAPTIONS. Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
22. GOVERNING LAW. This Agreement is to be construed in accordance with the laws of the Commonwealth of Virginia.
23. 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 Suffolk, 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 Suffolk, 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.

24. 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.
25. 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.
26. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
27. FACSIMILE SIGNATURES. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.
28. ETHICS IN PUBLIC CONTRACTING. By executing this Agreement, the undersigned Seller or its representative, and the representative of HRSD, certify that the prices agreed to in this Agreement were arrived at without collusion or fraud and that they have not offered or received any payment, kickbacks or other inducement from any other party to this Agreement or its agent or employee in connection with this Agreement, and that they have not conferred on any public employee having responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services (or anything of more than nominal value, present or promised) unless disclosed in this Agreement.
29. 1031 EXCHANGE. Any party may consummate the purchase or sale (as applicable) of the Property to be conveyed hereunder as part of a so-called like-kind exchange (an "Exchange") pursuant to Section 1031 of the



Code, as amended; provided, however, that: (i) the Closing shall not be delayed or affected by reason of the Exchange nor shall the consummation or accomplishment of an Exchange be a condition precedent or condition subsequent to the exchanging party's obligations under this Agreement; (ii) any assignment of this Agreement necessary to effect its Exchange shall comply with all of the terms of this Agreement; (iii) no party shall be required to take an assignment of any agreement for the relinquished or replacement property or be required to acquire or hold title to any real property for purposes of consummating an Exchange desired by the other party; (iv) the exchanging party shall pay any additional costs that would not otherwise have been incurred by the non-exchanging party had the exchanging party not consummated the transaction through an Exchange; and (v) the non-exchanging party shall not incur any liabilities as a result of the Exchange. No party shall by this Agreement or acquiescence to an Exchange desired by the other party have its rights under this Agreement affected or diminished in any manner or be responsible for compliance with or be deemed to have warranted to the exchanging party that its Exchange in fact complies with Section 1031 of the Code. Subject to the provisions of this Paragraph 29, each party shall cooperate with the other party in effecting an Exchange.

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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 February 28, 2023. This Agreement is expressly subject to approval by the HRSD Commission

WITNESS the following signatures and seals:

BUYER:

HAMPTON ROADS SANITATION DISTRICT (HRSD)

By: Jay Bernas (SEAL)
Date: 2/28/23
Name: Jay Bernas, P.E., M.B.A.
Title: General Manager
Contact Address: 1434 Air Rail Avenue, Virginia Beach, Virginia 23455

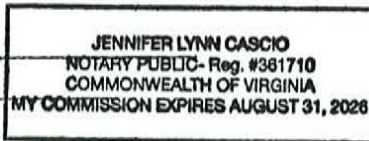
COMMONWEALTH OF VIRGINIA
City of Virginia Beach, to-wit:

The foregoing instrument was acknowledged before me this 28th day of February, 2023, by Jay Bernas, P.E., M.B.A., General Manager, Hampton Roads Sanitation District.

Jennifer Lynn Cascio
Notary Public

Notary Public Registration No. _____

My commission expires: _____



WITNESS the following signatures and seals:

SELLER:

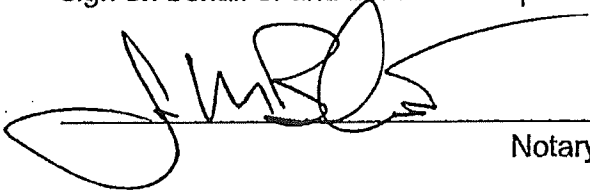
JTF Properties, LLC, A Virginia Limited Liability Company

By: John T. Francavilla (SEAL)
Date: FEB. 13, 2023

Name: JOHN T. FRANCAVILLA
Title: MANAGING MEMBER
Contact Address: 4312 Sandy Bay Drive, Virginia Beach, Virginia 23455

COMMONWEALTH OF VIRGINIA
City/County of Virginia Beach to-wit:

The foregoing instrument was acknowledged before me this 13th day of February 2023, by John T. Francavilla (Name), Managing Member (Title), JTF Properties, LLC, a Virginia Limited Liability Company, who has sworn and affirmed that by virtue of their position with JTF Properties, LLC, that they have the authority to sign on behalf of and bind JTF Properties, LLC.



Notary Public

Notary Public Registration No. 244949
My commission expires: 2-28-2023

EXHIBIT A

1941 Wilroy Road
Tax Map No.: 26*22A
Tax Account No.: 301260000

ALL THAT certain parcel of land, lying, being and situate in the City of Suffolk, Virginia, containing 2.824 acres, together with the buildings and improvements thereon, designated as Parcel "A" as shown on the plat entitled, "Plat Showing Division of a Portion of Property Owned by Gloria Grant Etheridge & Lois Grant Fuhrmann and John W. Fuhrmann & Lois Grant Fuhrmann, Sleepy Hole Borough, Suffolk Virginia...", dated July 30, 1987, made by Art Ray Corporation, which plat is duly recorded in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia, in Plat Book 12, at Page 47.

IT BEING the same property conveyed to JTF Properties, LLC, a Virginia limited liability company by deed from John Lester Fuhrmann dated November 9, 2020, and recorded November 16, 2020, in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia as Instrument #200016612.

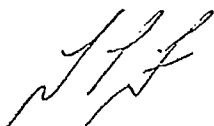
1949 Wilroy Road
Tax Map No.: 26*22B
Tax Account No.: 304324200

ALL THAT certain parcel of land containing 1.466 acres, together with improvements thereon, designated as Parcel "B" as shown on the plat entitled "Plat Showing Division of a Portion of Property Owned by Gloria Grant Etheridge & Lois Grant Fuhrmann and John W. Fuhrmann & Lois Grant Fuhrmann, Sleepy Hole Borough, Suffolk, Virginia...", dated July 30, 1987, made by Art Ray Corporation, which plat is recorded in Plat Book 12, at Page 47.

IT BEING the same property conveyed to JTF Properties, LLC, a Virginia limited liability company by deed from John T. Francavilla dated November 9, 2015, and recorded November 16, 2015, in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia as Instrument #150068536.

Wilroy Road
Tax Map No.: 26*22C
Tax Account No.: 304324300

ALL THAT certain parcel of land containing 1.084 acres, together with



improvements thereon, designated as Parcel "C" as shown on the plat entitled "Plat Showing Division of a Portion of Property Owned by Gloria Grant Etheridge & Lois Grant Fuhrmann and John W. Fuhrmann & Lois Grant Fuhrmann, Sleepy Hole Borough, Suffolk, Virginia...", dated July 30, 1987, made by Art Ray Corporation, which plat is recorded in Plat Book 12, at Page 47.

IT BEING the same property conveyed to JTF Properties, LLC, a Virginia limited liability company by deed from John T. Francavilla dated November 9, 2015, and recorded November 16, 2015, in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia as Instrument #150068536.

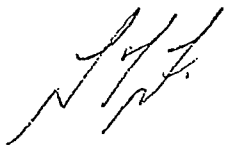
A handwritten signature in black ink, appearing to be 'J.T. Francavilla', located in the bottom left corner of the page.

EXHIBIT B

[Plat entitled "Plat Showing Division of a Portion of Property Owned by Gloria Grant Etheridge & Lois Grant Fuhrmann and John W. Fuhrmann & Lois Grant Fuhrmann, Sleepy Hole Borough, Suffolk, Virginia...", dated July 30, 1987, made by Art Ray Corporation, which plat is recorded in Plat Book 12, at Page 47.]

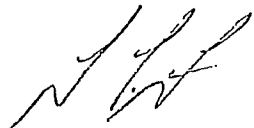
A handwritten signature in black ink, appearing to be 'J. L. F.', located in the bottom left corner of the page.

Exhibit A



Wilroy Pressure Reducing Station and Off-line
Storage Facility – Parcel Acquisitions



HRSD Commission Meeting Minutes
February 28, 2023
Attachment #13

13. [Capital Improvement Program Quarterly Update](#)



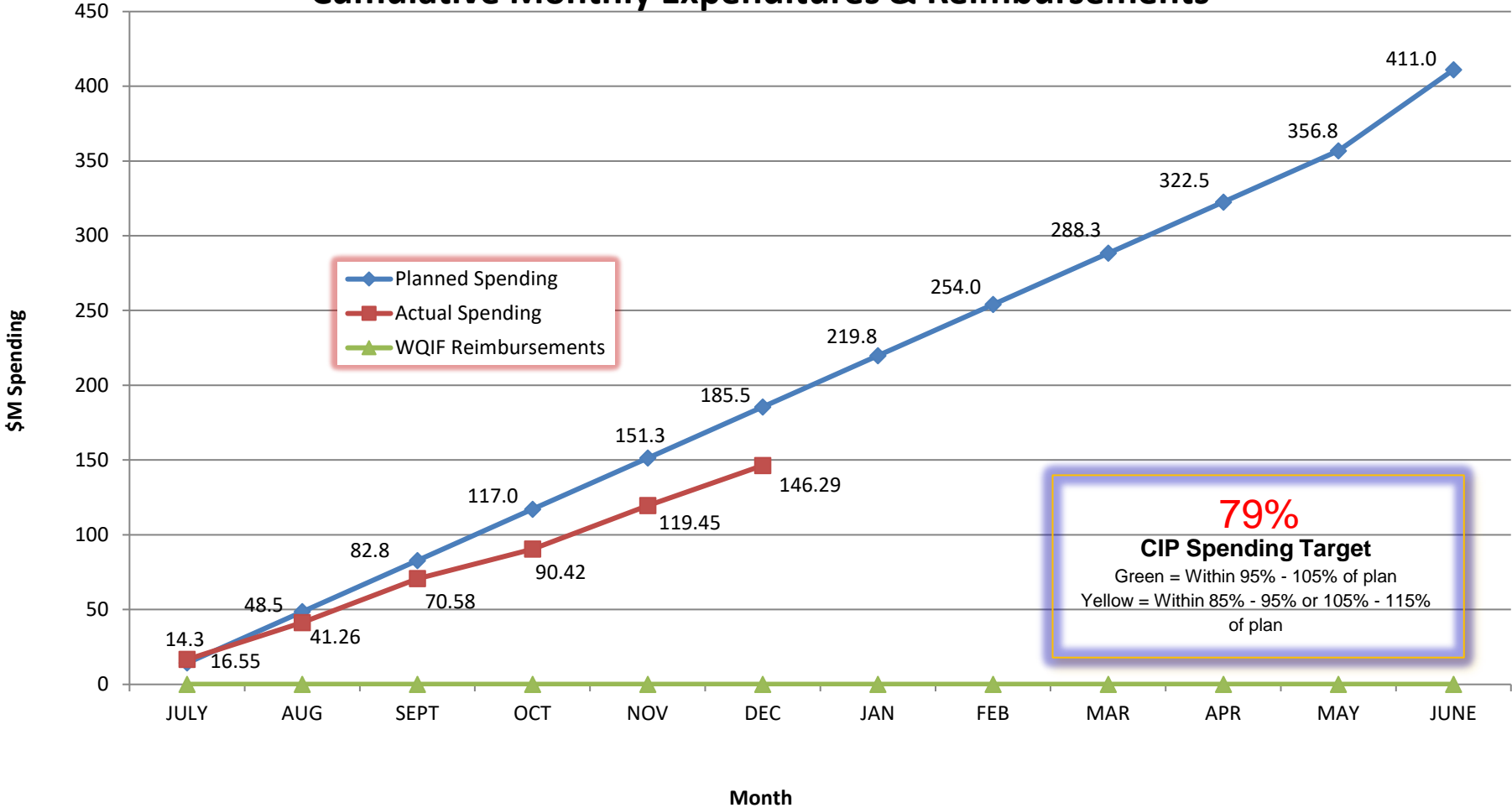
Capital Improvement Program Commission Briefing

February 28, 2023

- CIP Expenditures for FY-2023
- CIP Performance Metrics
- Summary of Projects Requiring Additional Appropriation in CY-2022
- Consent Decree/Sewer Rehabilitation Plan – Project Status
- SWIFT Program Summary
- Significant Project Updates
- Focus: Consultant Construction Cost Estimating

CIP Expenditures for FY-2023

FY2023 Capital Improvement Program Cumulative Monthly Expenditures & Reimbursements



Active Projects in CIP = 182

Planned CIP Spending in FY23 = \$411M

Active Projects Managed by Engineering Department:

➤ **North Shore = 73 (15 Projects/PM)**

Note: Using 1 Consultant PM

➤ **South Shore = 69 (14 Projects/PM)**

Note: Using 2 Consultant PM's

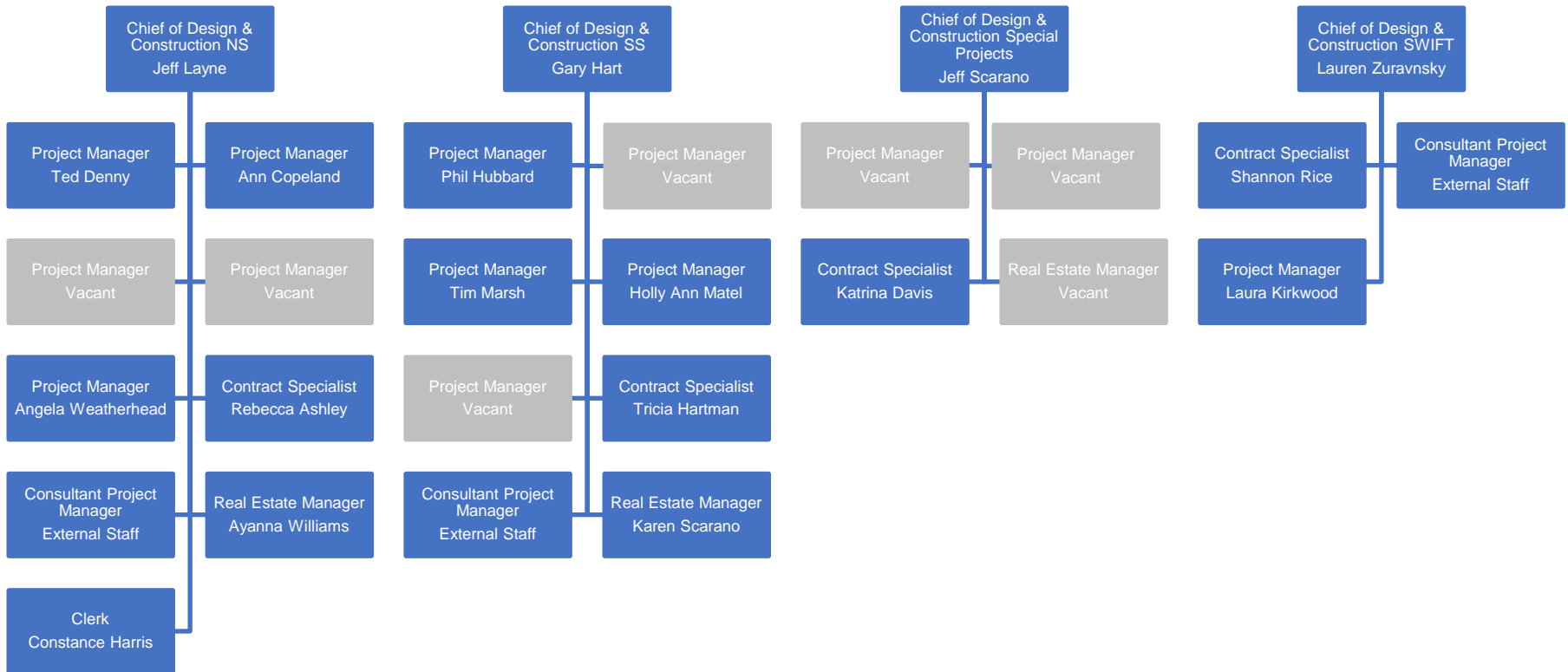
➤ **Special Projects = 8 (4 projects/PM)**

➤ **SWIFT = 16 (4 AECOM PM's = 4 Projects/PM)**

Note: Historical Best Practice = 5 to 10 Projects/PM

Active Projects Managed by Operations Department = 10

Design & Construction Teams



- CIP Spending and Staffing
- Construction Contracts Awarded in CY-2022
- Construction Contracts Completed in CY-2022

CIP Spending and Staffing

CIP Spending for Calendar Year 2022 = \$250.1M
(\$62.5M Design, \$187.6M Construction)

Internal Staffing:

Engineering Department Staff = 53 Full-Time, 4 Part-Time

External Staffing:

Design Services Staff = 313 Full-Time Employees

Construction Services Staff = 1043 Full-Time Employees

Total = 1356 Full-Time Employees

Construction Contracts Awarded in CY-2022

Project Name	CIP	Bid Date	CIP Estimate	Engineer's Estimate	Low Bid	Average of Bids	High Bid	# Bidders
Hampton Trunk SE Div I & J	BH014220	12/15/21	\$ 15,859,380	\$ 14,171,700	\$ 14,783,000	\$ 21,103,533	\$ 34,933,550	5
Sanitary Sewer Project 1950 Part 1	VP014021	02/02/22	\$ 1,750,000	\$ 1,524,000	\$ 3,554,000	\$ 4,225,007	\$ 5,473,100	3
YRTP Admin Bldg Renovation	YR014000	03/24/22	\$ 907,200	\$ 3,648,462	\$ 6,250,900	\$ 6,326,437	\$ 6,401,973	2
Elizabeth River Crossing Reliability Improvements	VP018500	03/31/22	\$ 1,500,000	\$ 1,338,145	\$ 2,346,120	\$ 2,771,658	\$ 3,197,195	2
James River Recharge Wells (Off Site)	GN016362	04/19/22	\$ 20,425,685	\$ 52,812,848	\$ 42,998,200	\$ 42,998,200	\$ 42,998,200	1
West Avenue & 35th Street IFM Replacement	BH014000	04/20/22	\$ 2,600,000	\$ 1,998,585	\$ 2,084,213	\$ 2,237,181	\$ 2,349,999	4
Middlesex CS - Cooks Corner	MP013500	04/21/22	\$ 1,752,400	\$ 2,943,675	\$ 3,734,750	\$ 4,086,248	\$ 4,437,745	2
Park Avenue Pump Station Replacement	VP018000	04/21/22	\$ 11,430,000	\$ 13,232,996	\$ 11,414,000	\$ 13,137,199	\$ 15,867,344	6
NTP Struvite Recovery Fac Improvements/NTP Digester Capacity Upgrades	NP013700/NP014700	04/26/22	\$ 55,502,589	\$ 50,195,323	\$ 59,773,000	\$ 61,743,133	\$ 63,713,265	2
Willard Avenue & 35th St IFM Replacment/Hampton Trunk SE Div K	BH013020/BH014900	05/03/22	\$ 13,000,000	\$ 18,647,460	\$ 16,171,776	\$ 18,345,265	\$ 21,520,344	4
Lucas Creek PS Replacement	JR013500	05/05/22	\$ 12,325,000	\$ 13,679,400	\$ 19,285,068	\$ 19,285,068	\$ 19,285,068	1
46th Street Div Sewer Rehab/Replacement	BH014600	05/25/22	\$ 4,791,600	\$ 6,354,350	\$ 9,419,297	\$ 9,530,929	\$ 9,642,560	2
Small Communities Phase III	MP013020	05/25/22	\$ 1,069,186	\$ 2,047,006	\$ 1,023,578	\$ 1,337,484	\$ 1,651,389	2
Bloxoms Corner FM Replacement	BH015900	06/22/22	\$ 5,322,617	\$ 6,285,680	\$ 4,880,975	\$ 7,742,388	\$ 10,987,654	3
Solids System Improvements for Army Base MHI Offline	GN017900	06/23/22	\$ 4,000,000	\$ 7,852,000	\$ 4,273,000	\$ 5,328,000	\$ 6,100,000	3
JRTP Shoreline Stabilization	JR013800	07/26/22	\$ 2,437,336	\$ 2,576,839	\$ 2,048,453	\$ 2,326,268	\$ 2,500,136	5
York River Isolation Valve Installation	YR013900	08/30/22	\$ 1,732,000	\$ 6,496,955	\$ 6,874,630	\$ 6,874,630	\$ 6,874,630	1
Jefferson Ave IFM Replace Ph III	JR011730	09/28/22	\$ 17,448,054	\$ 21,019,047	\$ 17,870,132	\$ 19,912,006	\$ 21,953,880	2
Sanitary Sewer Project 1950 Part 2	VP014022	10/13/22	\$ 10,800,000	\$ 13,912,200	\$ 17,274,540	\$ 18,254,945	\$ 19,235,350	2
Small Communities Rehab IV/West Point PS No 4 Rehab	MP014700/MP015100	11/15/22	\$ 3,133,000	\$ 3,316,284	\$ 2,898,470	\$ 3,394,423	\$ 3,952,582	4
Washington District PS Area Sanitary Sewer Improvements	AT013000	11/22/22	\$ 5,800,000	\$ 7,613,501	\$ 9,173,032	\$ 9,716,000	\$ 10,258,968	2
BHTP Pump Station Conversion Site Improvements	BH015701	11/30/22	\$ 4,380,000	\$ 5,488,945	\$ 5,307,777	\$ 6,408,523	\$ 7,381,550	4

Totals	22	\$257,155,401	\$263,438,911	\$287,084,523	\$320,716,482
% Difference			2.4%	11.6%	24.7%

Construction Contracts Completed in CY-2022

Project Name	CIP	Constn Start Date	Original Contract	Final Contract	# CO	CO Percentage
Newtown Road Interceptor Force Main Relocation	CE010520	06/15/20	\$2,727,487.00	\$2,727,487.00	1	0.0%
Western Trunk Force Main Replacement	CE011700	06/15/20	\$2,720,693.00	\$2,595,919.00	1	-4.6%
Elbow Road Pressure Reducing Station	CE011821	04/21/20	\$5,297,000.00	\$5,596,048.92	4	5.6%
Virginia Beach Boulevard Force Main Ph VI	CE011823	10/01/21	\$22,274,865.00	\$20,594,614.87	8	-7.5%
PS Generators and Standby Pump Upgrades	GN011700	08/27/19	\$3,823,000.00	\$3,887,791.91	4	1.7%
Manhole Siphon North Shore	GN012130	11/20/19	\$7,260,920.50	\$6,905,510.81	4	-4.9%
TP Dewatering Replacement Ph I	GN016400	11/26/19	\$2,944,000.00	\$3,249,568.48	6	10.4%
Small Communities Mob Dewatering Fac Installation	MP013100	12/16/19	\$1,045,011.00	\$846,768.85	5	-19.0%
Suffolk IFM Main Line Valving Replacement	NP011300	10/24/20	\$1,862,500.00	\$1,967,187.55	1	5.6%
NTP Land Acquisition - Land Stabilization	NP013500	06/01/20	\$3,091,750.00	\$3,210,269.98	1	3.8%
NTP Influent Screen Replacement	NP014400	07/05/20	\$1,134,000.00	\$1,194,448.00	3	5.3%
Totals	11		\$54,181,226.50	\$52,775,615.37		-2.6%
					2021	13.5%
					2020	14.5%
					2019	6.3%

Summary of CIP Projects Requiring Additional Appropriation in CY-2022

- Total Value of 10-Year CIP \$3.09B
- CIP Spending in CY-2021 \$250.1M
- Total # of Projects in 10-Year CIP 224
- # of Active Projects in CY-2021 182

Summary of Projects Requiring Additional Appropriation in CY-2022 (cont.)

Project Name		Original Appropriation	Additional Appropriations in CY22	Total Appropriation	Percent Increase
Atlantic TP FOG Receiving Station	AT012910	\$6,848,646	\$13,553	\$6,862,199	0.2%
Washington District PS Sanitary Sewer Improvements	AT013000	\$2,496,266	\$9,692,226	\$12,188,492	388.3%
Atlantic TP Thermal Hydrolysis Process	AT013500	\$63,193,588	\$142,805	\$63,336,393	0.2%
Willard Avenue & 35th St IFM Replacement	BH013020	\$10,000,000	\$7,812,822	\$17,812,822	78.1%
Hampton Trunk SE Div I & J	BH014220	\$13,644,089	\$4,103,206	\$17,747,295	30.1%
46th Street Div Sewer Rehab/Replacement	BH014600	\$11,470,682	\$707,651	\$12,178,333	6.2%
46th Street Div Sewer Rehab/Replacement	BH014610	\$2,900,000	\$1,123,234	\$4,023,234	38.7%
BHTP PS Conversion Site Imprv	BH015701	\$5,230,000	\$1,085,801	\$6,315,801	20.8%
BHTP Transmission FM Sect-1	BH015710	\$78,778,799	\$89,944,129	\$168,722,928	114.2%
Bloxoms Corner FM Replacement	BH015900	\$3,495,808	\$2,542,755	\$6,038,563	72.7%
Private Pump Station Improvements	CE011837	\$1,500,000	\$1,125,000	\$2,625,000	75.0%
Poplar Hall Davis Corner Gravity Sewer	CE012000	\$121,859	\$111,321	\$233,180	91.4%
CETP Influent FM Modifications	CE012400	\$600,000	\$16,251	\$616,251	2.7%
Eastern Shore Impv TFM Ph-I	ES010100	\$17,643,040	\$15,271,624	\$32,914,664	86.6%
TP Grease Handling Facilities	GN013300	\$11,824,536	\$276,233	\$12,100,769	2.3%
SWIFT RC MAR Well Integration	GN016220	\$1,588,111	\$737,811	\$2,325,922	46.5%
James River SWIFT Facility	GN016360	\$270,613,184	\$35,086,355	\$305,699,539	13.0%
Solids System Imp for Army Base MHI	GN017900	\$4,400,000	\$1,412,494	\$5,812,494	32.1%
Conceptual Project Development FY 2023	GN018400	\$413,000	\$114,274	\$527,274	27.7%
Jefferson Ave IFM Replace Ph III	JR011730	\$11,039,588	\$13,064,220	\$24,103,808	118.3%
JRTP Adv Nutr Reduct Imprvmts	JR013400	\$231,764,106	\$41,923,326	\$273,687,432	18.1%
Lucas Creek PS Replacement	JR013500	\$10,400,000	\$11,924,564	\$22,324,564	114.7%
JRTP Shoreline Stabilization	JR013800	\$2,136,000	\$874,560	\$3,010,560	40.9%
Middlesex CS - Cooks Corner	MP013500	\$1,660,622	\$2,953,747	\$4,614,369	177.9%
Small Communities Rehab IV	MP014700	\$816,260	\$1,295,814	\$2,112,074	158.8%
West Point Pump Station No 4 Rehab	MP015100	\$890,400	\$1,081,229	\$1,971,629	121.4%
NTP Struvite Recovery Fac Improvements	NP013700	\$6,628,400	\$35,099,511	\$41,727,911	529.5%
NTP Advanced NRI Phase II	NP013820	\$263,024,806	\$29,891,859	\$292,916,665	11.4%
NTP Digester Capacity Upgrades	NP014700	\$10,500,000	\$25,013,863	\$35,513,863	238.2%
Surry FM and PS - Dominion Power Ext	SU010400	\$8,000,000	\$2,778,937	\$10,778,937	34.7%
Park Avenue PS Replacement	VP018000	\$5,955,271	\$9,411,307	\$15,366,578	158.0%
Elizabeth River Crossing	VP018500	\$1,250,000	\$1,815,246	\$3,065,246	145.2%
Williamsburg TP Admin Bldg Renov	WB012900	\$3,563,815	\$113,064	\$3,676,879	3.2%
YR Isolation Valve Installation	YR013900	\$2,242,000	\$6,136,582	\$8,378,582	273.7%
YRTP Admin Bldg Renovation	YR014000	\$1,329,400	\$6,138,450	\$7,467,850	461.7%
	Totals	\$1,067,962,276	\$360,835,824	\$1,428,798,100	33.8%
	2021	\$532,218,759	\$121,612,813	\$653,831,572	22.9%
	2020	\$110,653,918	\$30,091,817	\$140,745,735	27.2%
	2019	\$266,575,507	\$121,887,984	\$388,463,491	45.7%

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 components.
- 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	Construction	\$12,188,492
AT013100	South Norfolk Area Gravity Sewer Improvements Phase 1	Complete	\$977,481
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	\$233,180
GN010730	Horizontal Valve Replacement Phase III	Complete	\$0
GN014900	North Shore Gravity Sewer Improvements Phase I	Design	\$5,639,906

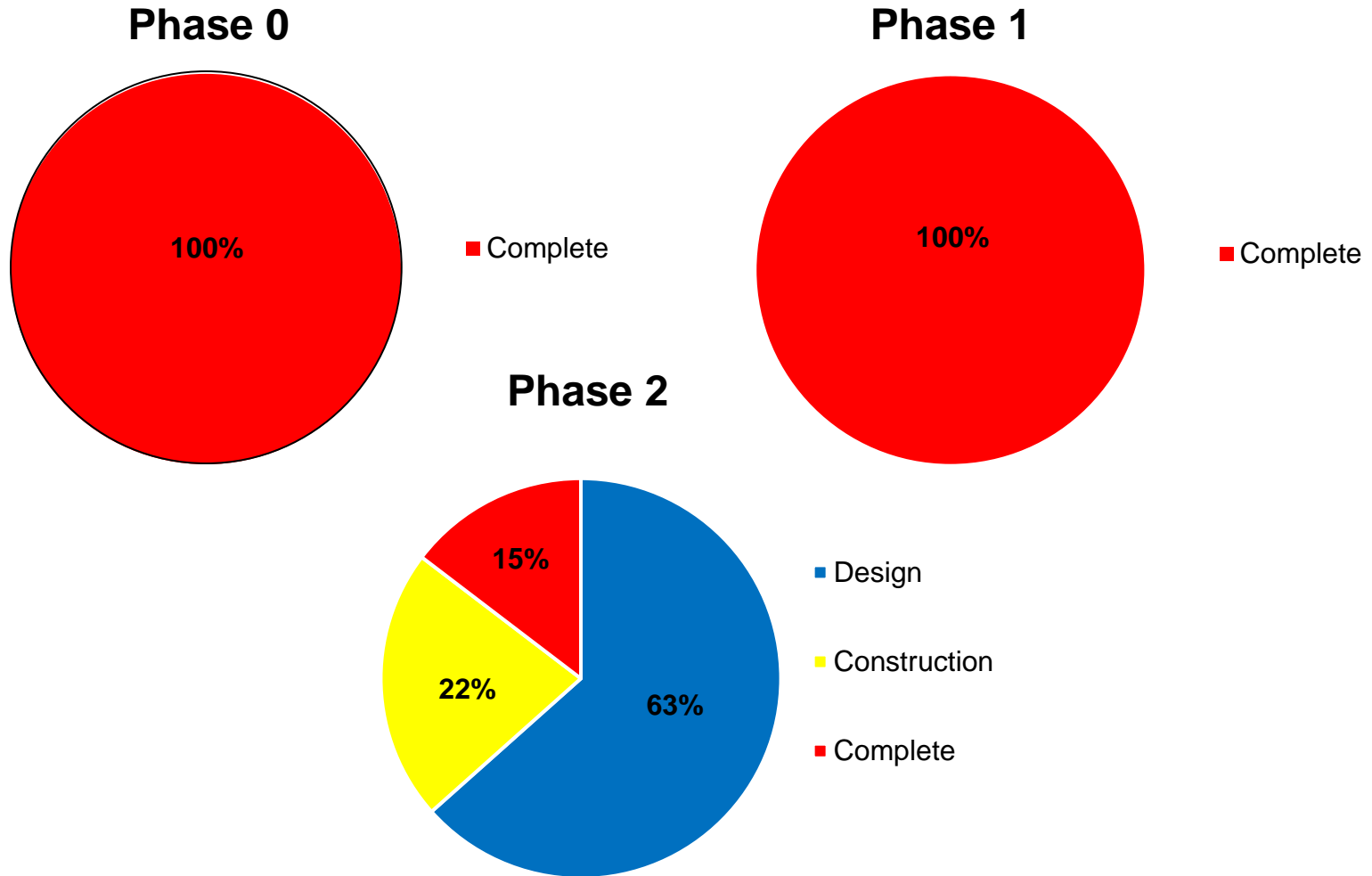
Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

CIP	Project Name	Project Status	Total CIP Cost
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 Replacement	Construction	\$23,403,020
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
VP014022	Sanitary Sewer Project 1950 FM Replacement Part 2	Construction	\$20,833,818
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

\$377,392,374

* Projects with likely schedule delays

Consent Decree / Sewer Rehabilitation Plan – Project Updates



SWIFT Program Milestones

James River Project Staffing

96+

Total On-Site
Employees

82+

Ulliman Schutte
– Alberici JV

4+

Coastal
(shoreline)

10+

A.C. Schultes
(well drilling)

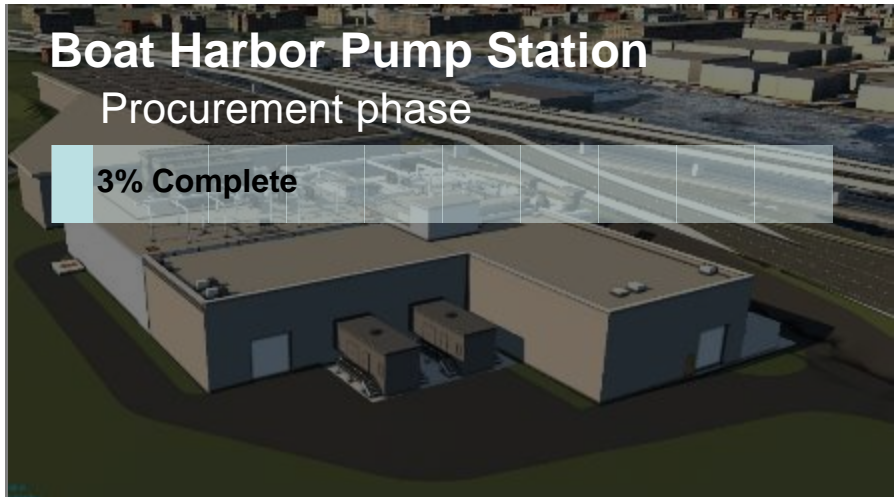
James River
Shoreline
Stabilization is
close to
complete.



On January 26,
HRSD hosted the
4th annual SWIFT
Industry Day.

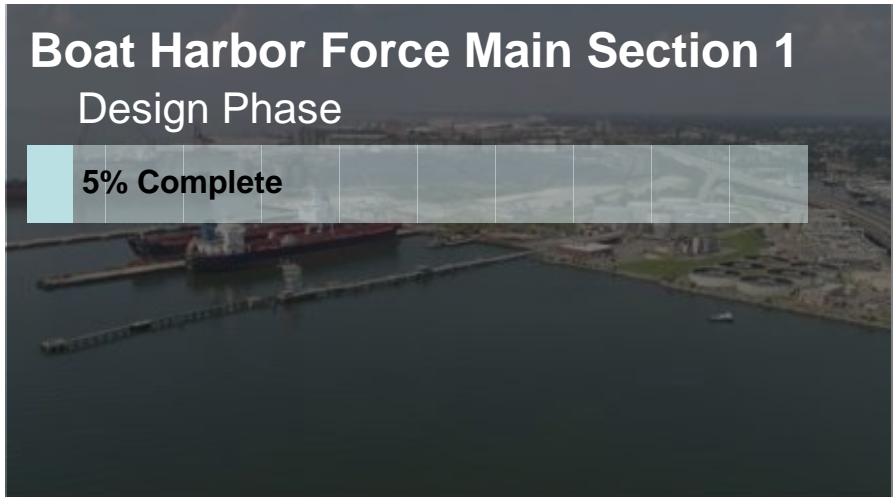
275 attendees
joined in person
in Newport News.

Four Large SWIFT Program Projects are Underway



Boat Harbor Pump Station
Procurement phase

3% Complete



Boat Harbor Force Main Section 1
Design Phase

5% Complete



James River ANRI/SWIFT
Construction Phase

20% Complete



Nansemond ANRI Phase II
Stipulated Price

7% Complete

* Percent of contract value is shown

Grant and Loan Funding Sources

Water Quality Improvement Fund

Potential Grants: \$778 Million

- James River
- Nansemond
- Boat Harbor



Water Infrastructure Finance and Innovation Act

Total Loan: \$1.1 Billion

- Programmatic



American Rescue Plan

Total Grant: \$32 Million

- James River ANRI
- Nansemond ANRI



Virginia Clean Water Revolving Loan Fund

Total Loan: \$74 Million

- James River
- Nansemond
- Boat Harbor



Virginia Department of Conservation & Recreation

Total Grant: \$300,000

- James River Trail



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

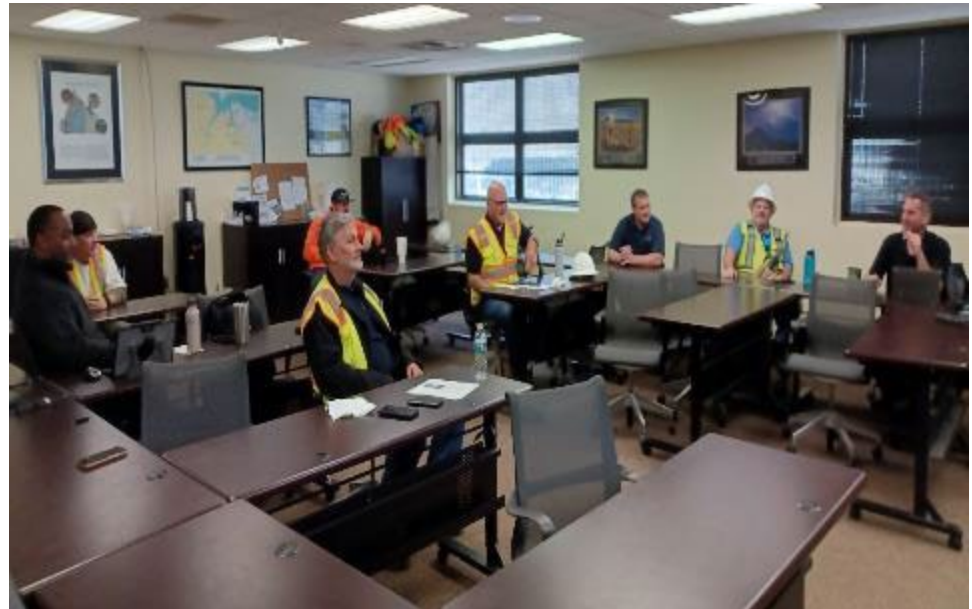
Schedule Completion:

Dec. 2025 (Substantial)

April 2026 (Final)

Project Value: \$293M

Funding: WIFIA, VRLF, WQIF



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



Focus: Consultant Construction Cost Estimating

Definitions:

Professional Services – Work performed by an independent contractor within the scope of accounting, actuarial services, **architecture, land surveying, landscape architecture**, law, dentistry, medicine, optometry, pharmacy or **professional engineering**.

Competitive Negotiation – Process that includes the issuance of a Request for Proposals, short-list process, interviews, selection and negotiations with the highest ranked firm.

Focus: Consultant Construction Cost Estimating (cont.)

Services Provided by Consultants:

- Study Phase – 10% Design
- Preliminary Engineering Report (PER) – 30% Design
- Final Design Phase – 100% Design
- Bidding Services
- Construction Admin & Inspection
- Startup and Testing
- Closeout & Warranty

Focus: Consultant Construction Cost Estimating (cont.)

Short-List Criteria:

- Experience of Firm and subconsultants on similar projects.
- Organization of Firm and subconsultants proposed for Project (including location of personnel).
- Experience of personnel and subconsultants for Project.
- Demonstrated ability to meet schedules.
- **Demonstrated Risk Assessment and Mitigation Strategies for staying within budget.**
- Demonstrated ability to implement a quality approach and deliver quality projects.

Focus: Consultant Construction Cost Estimating (cont.)

Final Selection Criteria:

- Experience of personnel and subconsultants for Project.
- Organization of Firm and subconsultants proposed for Project (including location of personnel).
- Project experience of Firm and subconsultants on similar projects.
- Demonstrated ability to meet schedules.
- **Demonstrated risk assessment and mitigation strategies for staying within budget.**
- Demonstrated ability to implement a quality approach and deliver quality projects.
- Study and design approach to Project.
- Construction services approach to Project including field engineering, inspection, and testing.
- Understanding of Project and Management approach to Project.
- Innovative approach to Project.

Focus: Consultant Construction Cost Estimating (cont.)

Current selection language: Demonstrated ability to stay within budget. List a maximum of three (3) projects providing such information as original total project budget, Firm's estimate at bid time, accepted bid price, change orders and the reason for the change, and all other issues affecting the overall project cost. Detail examples for assessing risk to the budget and schedule, and mitigation strategies developed in collaboration with Owner.

Proposed selection language: Demonstrated ability to accurately estimate construction costs and schedules. List a maximum of five (5) most recent projects managed by FIRM's proposed project manager(s), including a brief description of project and owner reference. Provide the FIRM's Opinion of Probable Construction Cost (OPCC) at time of bid, the accepted bid price, justification for any deviation greater than 10% between the awarded bid and the FIRM's estimate, and date of bid. Provide FIRM's construction duration (months) at time of bid, final construction duration (months), and justification for any deviations.

Questions?

HRSD Commission Meeting Minutes
February 28, 2023
Attachment #14

18. 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](#)



February 21, 2023

Re: General Manager's Report

Dear Commissioners:

On January 11, 2023, there was a line break on Shore Drive that resulted in 115,000 gallons going into Pleasure House Creek, a tributary of the Western Branch of the Lynnhaven River. Our Water Quality technicians took samples the day after and the human DNA marker at one site came back low with the other sites at non-detect levels. Unfortunately, the Virginia Department of Health collected shellfish tissue samples and they exceeded the allowable threshold. The emergency shellfish harvest closure was extended to February 3rd.

SWIFT Industry Day was held on January 26 with over 350 people in attendance. The reviews have been great, and we are hopeful that meaningful connections were made between vendors and contractors.

The Suffolk City Council unanimously approved our rezoning and conditional use permit applications on January 18, 2023. This land use approval was critical for the Boat Harbor Treatment Plant closure and Nansemond ANRI and SWIFT projects.

The Low-Income Household Water Assistance Program (LIHWAP) continues to ramp up as more than \$3.9 million has been applied to 10,500 accounts. We are working with different organizations to lobby for continued LIHWAP funding.

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

- A. **Treatment Compliance and System Operations:** Aside from the line break described above, there was one other Sanitary Sewer Overflow (SSO) in King William when a downstream pump station experienced a float control failure. A new power pole at the Atlantic Treatment Plant that was installed by Dominion Energy caught fire, but it was quickly extinguished by the Fire Department. No injuries or damage to the treatment plant were reported.
- B. **Water Quality:** An Enforcement Order with a \$5,000 Civil Penalty was assessed to the U.S. Navy for 600 gallons of Aqueous Film Foaming Foam (AFFF) discharged on December 7, 2022. Unfortunately, civil penalties are not collectable from the U.S. Navy.
- C. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:
 - 1. NACWA awards presented to the work centers
 - 2. Met staff at the Shore Drive line break

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

- D. **External Communications:** I participated in the following meetings/activities:
1. Provided a SWIFT tour to a TCC Foundation member and former Virginia Beach City Manager, Jim Spore
 2. Met with Delegate Shelly Simonds and one of her constituent's companies, Ziegler Plumbing, about their proposed biosolids operation
 3. Met with EPA/DEQ on proposed Integrated Plan minor modifications.
 4. Attended the Elizabeth River Stars luncheon
 5. Attended the Suffolk City Council rezoning and conditional use permit meeting
 6. Held the annual Integrated Plan public meeting
- E. **Strategic Plan:** A briefing on the final plan will be presented at the February Commission meeting.



Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you in person in Virginia Beach at 9 am on Tuesday, February 28, 2023.**

Respectfully submitted,

Jay Bernas, P.E.
General Manager

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

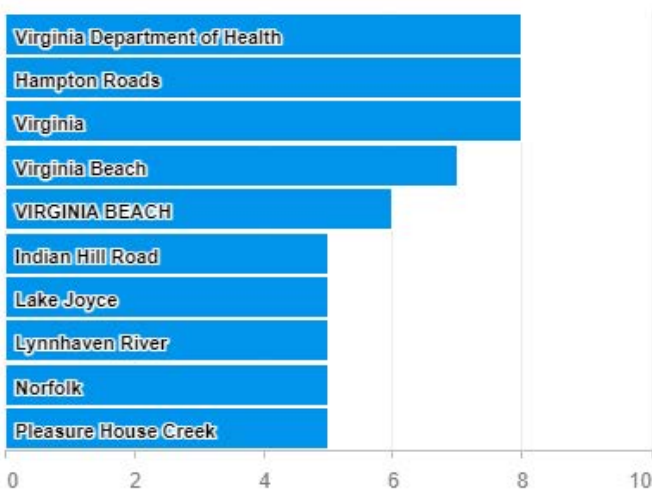
A. Publicity and Promotion

1. HRSD and/or SWIFT were mentioned or featured in 11 news stories or media/social media mentions (there were 279 total mentions of 'Hampton Roads Sanitation District' in the media for the month, but all other HRSD mentions are related to Ted Henifin's role as third-party administrator at Jackson Water). Of those directly about HRSD and/or SWIFT, topics that included:
 - a. Shore Drive sewage pipeline break results in sewage spill; shellfish harvest closure
 - b. Letter to the editor about HRSD's purchase of Lambert's Point golf course
 - c. HRSD pipeline to serve Saluda, Urbanna
 - d. Social media posts shared on Twitter and LinkedIn re: SWIFT Industry Day
2. Analysis of media coverage (now filtered to eliminate mentions of HRSD related to former GM role with Jackson Water)

What are the top entities and keywords?

Top Entities

Top Keywords



wastewater
emergency closure
closures and delays
area payment
city bills waters
emergency ban
official billing payment website

What is the top performing news content?

Top Article by Reach



1.4M Reach Social Echo Negative

WAVY-TV · Brian Reese
Editorial | US | Jan 13 - 6:22 PM

Wastewater pipeline fails on Shore Drive in VB

... to shellfish harvesting due to the sewage release. **HRSD** says about 150,000 gallons of **wastewater** was lost, impacting the Western Branch...

Top Article by Reach and Volume



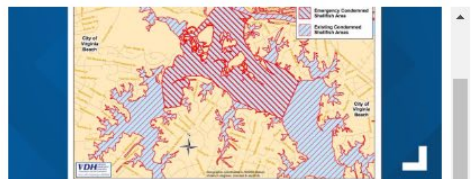
714k Reach Social Echo Negative

The Virginian-Pilot
Editorial | US | Jan 17 - 6:00 PM

Letters for Jan. 18: Responsible gun owners shouldn't fear laws; they should fear the lack of them

... devastated MacArthur. Then they can't stand up to the mighty **Hampton Roads Sanitation District**, so a second golf course is thrown away....

Top Article by Social Echo



541k Reach Social Echo Negative

WVEC-TV · Catherine Rogers
Editorial | US | Jan 13 - 6:13 PM

Shore Drive sewage spill causes ban on shellfish harvesting in most of the Lynnhaven River

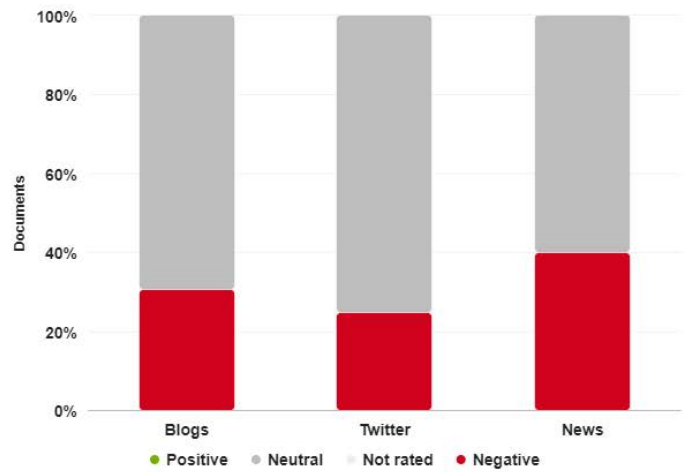
... spill, according to Leila Rice, a spokeswoman for the **Hampton Roads Sanitation District**. The wastewater spilled into nearby Lake Joyce...

How favorable is the content?

Sentiment Share of Voice

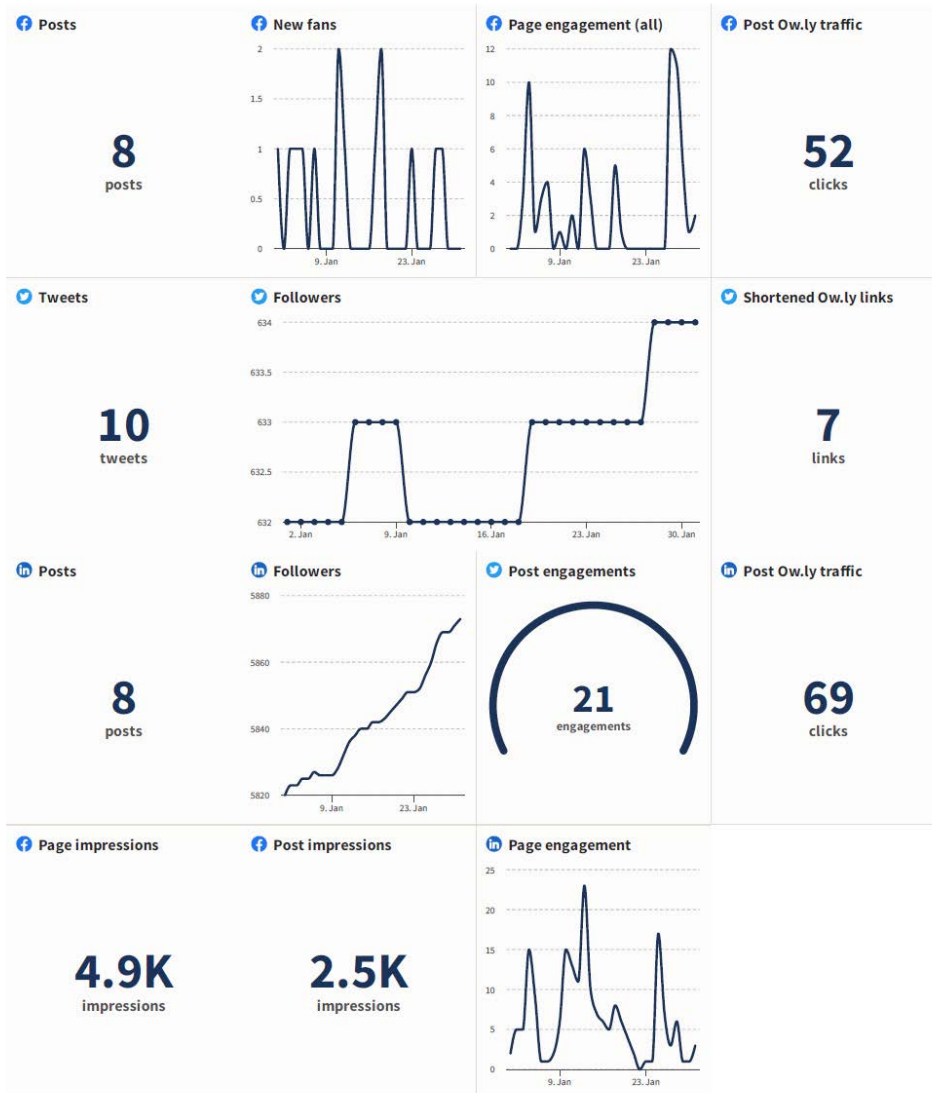


Sentiment by Source Type



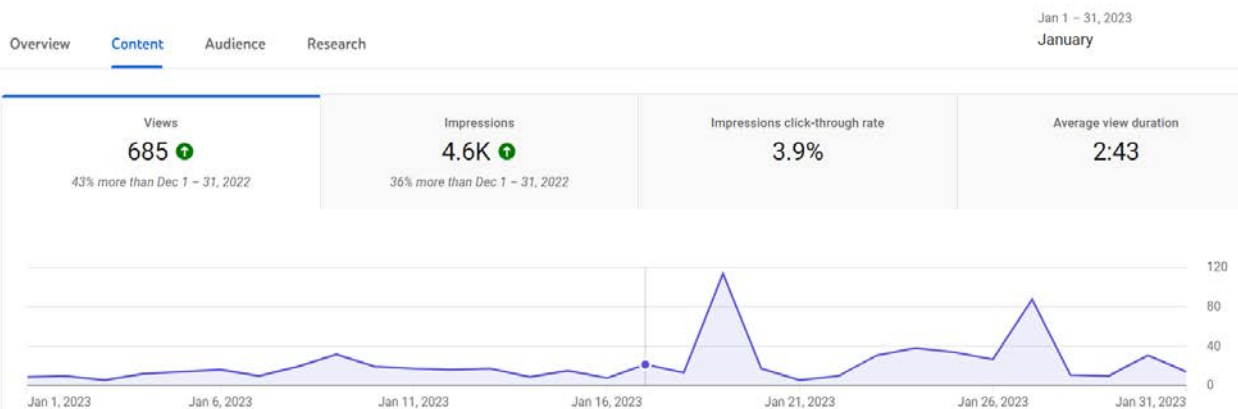
B. Social Media and Online Engagement

1. Metrics – Facebook, Twitter and LinkedIn



2. YouTube

Channel analytics




a. Top Facebook post

HRSD
Published by Hootsuite · January 27 at 9:04 AM · 🌐

Feature Friday - Project update!

We're replacing existing sanitary sewer piping and valves that are nearing the end of their useful service life. The new sanitary sewer piping will accommodate sewage flows from HRSD's new Willard Avenue Pump Station and will allow for future Hampton University development.

A drone took this photo to show two pits used for the horizontal directional drill (HDD) to put the pipeline under the Hampton River. HDD is used to get pipes under riv... [See more](#)



[See insights and ads](#) [Boost post](#)

👍 15 4 shares

b. Top Tweet

Top Tweet earned 138 impressions

Registration is now open! The fourth annual Sustainable Water Initiative for Tomorrow (SWIFT) Industry Day in person on Thursday, January 26, 2023, at the Holiday Inn in Newport News, Virginia.

Registration: ow.ly/6waB50LPQX1
More information: ow.ly/lEra50LPQX3
pic.twitter.com/4hhLpBbUni



- c. Top YouTube Videos
 - [The Wastewater Treatment Process](#) (258 views)
 - [SWIFT Research Center: What is the Potomac Aquifer](#) (139 views)
 - [What is Asset Management](#) (43 views)
 - [HRSD Employee Testimonials - Robert](#) (38 views)
 - [HRSD Atlantic Treatment Plant Cambi](#) (22 views)

4. Website and Social Media Impressions and Visits

- a. Facebook:
 - 4,861 page impressions
 - 2,494 post impressions reaching 2,433 users
 - Facebook Engagement of 70 (58 reactions, 10 shares, and 2 comments)
- b. Twitter:
 - 1,789 tweet impressions
 - 143 profile visits
 - 4 mentions
- c. HRSD.com/SWIFTVA.com: 1,469 page visits
- d. LinkedIn Impressions:
 - 7,804 page impressions
 - 5,912 post impressions
- e. YouTube: 685 views
- f. Next Door unique impressions: 44,322 post impressions from 10 targeted neighborhood postings shared with 1,087,364 residents
- g. Blog Posts: (0)
- h. Construction Project Page Visits – 2,506 total visits (not including direct visits from home page, broken down as follows:
 - 2,145 visits to individual pages
 - 361 to the status page

C. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Web Postings: 14

- 1. News Releases: 1
- 2. Traffic Advisories: 1
- 3. Construction Notices and/or notices to neighbors: 3
- 4. Advertisements: 1 (Annual Public Meeting Notice)

5. Project Notices: 7 (via door hangings, reaching 2,538 residents)
6. Project/Community Meetings: 0
7. New Project Web Pages: 1
 - [Hog Island Pump Station & Sanitary Sewer Installation](#)
8. New Project Videos: 0

D. Special Projects and Highlights

1. Director attended and participated in the 2023 SWIFT Industry Day. The event was well-attended with more than 300 participants gathering in-person this year.
2. Director and Community Outreach and Education Specialist staffed the HRSD table and provided educational outreach during the St. Gregory the Great School career fair for their middle school students.
3. Director attended the Atlantic Treatment Plant quarterly roundtable committee meeting.

E. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. HRSD LIFE Internal Conference planning meetings
 - b. DEI Council ASK Session
 - c. Bi-weekly GM briefings
 - d. SWIFT Industry Day planning meetings
 - e. Engineers Week planning meetings
 - f. HRSD security assessment meetings
 - g. HRSD LIFE conference planning meetings
 - h. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
2. Director also conducted biweekly Communications department status meetings and weekly team and one-on-one check-in meetings.
3. Staff attended project progress and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities: 49 (39 virtual, 10 in-person)
 - a. Self-guided SWIFT Virtual Tours – 39 views (analytics specify number of times “Take a Tour” button was selected)
 - b. 01/04/23 – Hampton High School (HS) SWIFT Tour | 20 participants
 - c. 01/05/23 – HRSD employee SWIFT Tour | 5 participants
 - d. 01/09/23 – Indian River HS wastewater presentation | 90 students
 - e. 01/11/23 – Hampton HS SWIFT Tour | 20 participants
 - f. 01/12/23 – HRSD employee SWIFT Tour | 4 participants
 - g. 01/17/23 – Indian River HS wastewater presentation | 70 students

- h. 01/18/23 – Norfolk Collegiate SWIFT Tours (2) | 30 total participants
 - i. 01/26/23 – SWIFT Industry Day attendee Tour | 12 participants
 - j. 01/30/23 – St. Gregory the Great School career fair | 100 students
2. Number of Community Partners: 4
- a. Chesapeake Public Schools
 - b. Hampton Public Schools
 - c. Norfolk Collegiate
 - d. St. Gregory the Great School
3. Additional Activities Coordinated by Communications Department: 6
- a. 01/05/23 – Nansemond Treatment Plant (NTP) Tour | 5 participants
 - b. 01/09/23 – Central Environmental Laboratory Tour | 2 participants
 - c. 01/12/23 – NTP Tour | 4 participants
 - d. 01/18/23 – NTP Tours (2) | 30 participants
 - e. 01/20/23 – Atlantic Treatment Plant Tour | 2 participants
4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	January 2023
M-1.4a	Total Training Hours per Full Time Employee (4) - Current Month	Hours / #FTE	0.5
M-1.4b	Total Training Hours per Full Time Employee (4) - Cumulative Fiscal Year-to-Date	Hours / #FTE	6.04
M-5.2	Educational and Outreach Events	Number	49
M-5.3	Number of Community Partners	Number	4

Respectfully,

Leila Rice, APR
 Director of Communications

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

A. General

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

CIP Spending (\$M):

	Current Period	FYTD
Actual	26.81	146.29
Plan	34.25	185.50

2. HRSD held its fourth annual SWIFT Industry Day on January 26. This was a well-attended event with 350 participants facilitated by HRSD's SWIFT consultant, AECOM. The event included an Opening Session discussing the SWIFT Program and HRSD procurement procedures. The major Design-Build Teams assisting HRSD were also present and discussed their specific needs and met with the many subcontractors, vendors and suppliers. SWaM firms were also in attendance and were made a focus of the event. We returned to an in-person event this year and received positive feedback from the attendees. We continue to learn how to engage with attendees and have created a website to share information with those individuals who could not attend the event or have requested information as a result of the presentations.

B. Asset Management Division

1. Staff are working with a specialty contractor to conduct an internal inspection of a force main segment in Williamsburg. The technology used is known as Smart Ball. A 14-mile section of force main was internally inspected by sending a neutrally buoyant ball into the pipe. The device can find potential leaks and gas pockets in the pipe. We have had limited success with similar technologies in the past. The data processing of this recent effort is underway and will be used to determine if further inspections are needed.
2. Staff are working with a specialty contractor to conduct an annual inspection of existing cathodic protection stations. These facilities are used to protect HRSD's infrastructure against corrosion. The outcome of these inspections determines corrective actions to existing cathodic protection systems and recommendations for improvements to better protect HRSD's assets. This is a bi-annual effort which is required as part of HRSD's Management, Operations and Maintenance (MOM) Program.

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

1. Portions of the Surry Hydraulic Improvements and Interceptor Force Main project were placed into service in December while additional work is still underway. Three pump stations are still under construction and will be finished later this year. Both the Town of

Surry and the County of Surry Treatment Plants have now been taken offline and the new pump station and force main system are working well.

2. Construction efforts continue for the Eastern Shore Infrastructure Improvements project. To date, 70,000 linear feet of force main and gravity sewer pipe have been installed. Gravity sewer work in Onancock continues and construction of the needed pump stations is underway. A recent change order to include additional sewer replacement work and a new force main to the Town of Accomac has begun. The construction effort is progressing well, and the project team is working closely to address problems and resolve issues as they arise. This project is being constructed using a Design-Build delivery method and the close collaboration between HRSD, designer and contractor has been valuable to keep this project on schedule.
3. The Lynnhaven-Great Neck Interceptor Force Main Relocation project will be bid for construction later this year. The estimate for this work has increased from \$1M to \$3M since it was originally estimated in 2017. The work will be coordinated by the City of Virginia Beach through a Cost Share Agreement. Once the final price is determined, a revision to the agreement will be prepared to address the updated cost of the work. This project will abandon and relocate portions of HRSD's existing interceptor force main located east of the Lynnhaven Inlet along Shore Drive as part of a larger roadway improvement project managed by the City of Virginia Beach.
4. The SWIFT Program reached an important milestone in January with the City of Suffolk's unanimous approval of a Conditional Use Permit for the proposed Nansemond SWIFT project. This approval will allow for the wastewater improvements, SWIFT facility and the recharge wells on the plant site. The City of Suffolk City Council Members were enthusiastic in their approval of the project but stressed issues such as noise abatement, provisions for buffers and other environmental concerns.

D. Planning & Analysis Division

1. Staff continue to coordinate with the numerous communities on the Eastern Shore as we advance our assistance to this area. Coordination continues with Chincoteague, Wachapreague, Onancock and Accomack County. Discussions include the consideration of improved treatment capabilities, extension of sewer service to unserved neighborhoods, cost share agreements and asset transfers to HRSD. As the construction of the new force main system continues, many of the communities in the area are constructing their own sewer improvements to facilitate use of this new regional asset.
2. Staff have completed hydraulic modeling of the proposed Boat Harbor Pump Station. Several scenarios were considered with a focus on future wet weather events. The new facility will be able to handle most extreme weather events. A meeting was held with internal stakeholders to discuss how this new pump station would be operated and potential failure modes. Impacts of a possible failure of the downstream force main was discussed. A Contingency Response and Operations Plan (CROP) was suggested to consider the possibility of a future failure of this force main.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 2

- a. 01/19/2023 – Staff made a presentation on possible Engineering and Survey Careers to the Hampton Roads Public Works Academy.
 - b. 01/26/2023 – Staff made numerous presentations at the HRSD SWIFT Industry Day held at the Newport News Holiday Inn.
2. Number of Community Partners: 1
- a. Hampton Roads Public Works Academy
3. Number of Research Partners: 0
4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	January 2023
M-1.4a	Total Training Hours per Full Time Employee (53) - Current Month	Hours / #FTE	1.70
M-1.4b	Total Training Hours per Full Time Employee (53) - Cumulative Fiscal Year-to-Date	Hours / #FTE	15.00
M-5.2	Educational and Outreach Events	Number	2
M-5.3	Number of Community Partners	Number	1
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 January 2023
 DATE: February 21, 2023

A. General

1. Seven months into the fiscal year, billed wastewater treatment charges (approximately 95% of total budgeted revenues) are on track with budgetary expectations despite slightly lower water consumption levels. Interest earnings are clearly the bright spot in the revenue picture with earnings to date exceeding total fiscal budgetary estimates by nearly \$1.1 million. Operating expenses, to date, are tracking budgetary projections; however, the full effect of significant inflationary pressures for chemicals and contracted services are not fully reflected in costs incurred to date.
2. Staff met with Environmental Protection Agency (EPA) regarding a request for minor modifications to the Integrated Plan.
3. Low-Income Household Water Assistance Program (LIHWAP):

HRSD has been receiving LIHWAP payments since mid-November 2022. A total of \$3,910,896.68 has been applied to over 10,500 low-income qualified combined customer charges for water, sewer and wastewater. HRSD accepts LIHWAP payments on behalf of HRUBS locality partners.

The following is a breakout of total assistance received for all HRSD and locality HRUBS charges:

	LIHWAP	Count
HRSD	\$ 1,796,582.73	6,602
Norfolk	\$ 1,467,455.72	1,985
Suffolk	\$ 405,093.05	1,299
Chesapeake	\$ 208,067.87	566
JCSA	\$ 24,527.22	117
Smithfield	\$ 6,637.86	12
Urbanna	\$ 1,546.33	3
Surry County	\$ 756.10	2
King William	\$ 161.97	2
Town of Surry	\$ 67.83	1
	\$ 3,910,896.68	10,589

The following demonstrates LIHWAP applied to HRSD wastewater charges only, per locality:

	HRSD LIHWAP	Count
Norfolk	\$ 608,491.50	2,569
Newport News	\$ 413,226.52	1,100
Portsmouth	\$ 230,364.63	741
Virginia Beach	\$ 228,002.54	718
Suffolk	\$ 139,683.74	682
Chesapeake	\$ 138,592.34	662
JCSA	\$ 18,278.32	84
Smithfield	\$ 5,678.38	15
Urbanna	\$ 3,764.92	3
Surry County	\$ 2,208.48	3
Isle of Wight	\$ 2,143.65	4
Gloucester	\$ 1,976.79	5
Windsor	\$ 1,835.54	8
Aqua	\$ 1,524.40	5
Town of Surry	\$ 606.67	1
King William	\$ 204.31	2
	\$ 1,796,582.73	6,602

4. Field Activities:

Field staff delivered 2,646 warning door tags and disconnected water service to 1,852 accounts during January. Staff continue to distribute LIHWAP informational tags with warnings tags to promote the availability of assistance. Approvals of LIHWAP funding is uploaded daily in the billing system to prevent disconnection for customers awaiting assistance. Disconnection activities resumed on January 4 following the holiday season.

5. Calls to Call Center:

Customer calls and email volumes increased in January due to the resumption of field operations following the holiday season. Vacant customer care representative positions contributed to a drop in service levels from 81 percent in December to 77 percent in January. Call abandonment rose from eight percent in December to 12 percent in January. Average wait time for a customer on hold was three minutes and 26 seconds in January. Staff are working diligently to recruit new employees as quickly as possible.

B. Interim Financial Report

1. Operating Budget for the Period Ended January 31, 2023

	Amended Budget	Current YTD	Current YTD as % of Budget (58% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 366,882,000	\$ 222,881,253	61%	61%
Surcharge	1,755,000	910,416	52%	60%
Indirect Discharge	3,200,000	2,521,522	79%	54%
Fees	2,910,000	2,011,285	69%	3%
Municipal Assistance	800,000	406,838	51%	92%
Miscellaneous	1,254,000	597,988	48%	66%
Total Operating Revenue	376,801,000	229,329,302	61%	61%
Non Operating Revenues				
Facility Charge	7,150,000	4,120,138	58%	56%
Interest Income	1,570,000	2,662,557	170%	-51%
Build America Bond Subsidy	2,026,000	1,031,088	51%	51%
Other	302,000	419,800	139%	78%
Total Non Operating Revenue	11,048,000	8,233,583	75%	45%
Total Revenues	387,849,000	237,562,885	61%	60%
Transfers from Reserves	18,868,701	11,006,742	58%	58%
Total Revenues and Transfers	\$ 406,717,701	\$ 248,569,627	61%	60%
Operating Expenses				
Personal Services	\$ 63,288,297	\$ 38,313,443	61%	62%
Fringe Benefits	26,520,561	13,630,830	51%	57%
Materials & Supplies	13,385,885	6,669,718	50%	58%
Transportation	1,797,226	876,931	49%	50%
Utilities	15,055,652	8,832,512	59%	56%
Chemical Purchases	13,026,120	6,976,213	54%	56%
Contractual Services	57,808,888	23,113,386	40%	40%
Major Repairs	12,409,035	4,876,408	39%	31%
Capital Assets	625,737	125,572	20%	53%
Miscellaneous Expense	3,594,334	1,641,164	46%	53%
Total Operating Expenses	207,511,735	105,056,177	51%	51%
Debt Service and Transfers				
Debt Service	69,533,000	42,065,161	60%	62%
Transfer to CIP	129,412,966	75,490,897	58%	63%
Transfer to Risk management	260,000	151,669	58%	58%
Total Debt Service and Transfers	199,205,966	117,707,727	59%	62%
Total Expenses and Transfers	\$ 406,717,701	\$ 222,763,904	55%	57%

2. Notes to Interim Financial Report

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

This interim report does not reflect financial activity for capital projects contained in HRSD's CIP.

Transfers represent certain budgetary policy designations as follows:

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

3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended January 31, 2023

HRSD - RESERVE AND CAPITAL ACTIVITY

January 31, 2023

	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	238,411,624					
Line of Credit						
VRA Draws					45,540,858	
WIFIA Draws					35,159,916	
CARES Transfer In	730,692					
Days Cash on Hand Transfer In						
Transfers In	-			151,669	75,490,897	
Sources of Funds	239,142,316	-	-	151,669	156,191,671	-
Total Funds Available	\$ 428,311,201	\$ 420	\$ 33,134,065	\$ 4,431,216	\$ 188,726,704	\$ -
Current Year Uses of Funds						
Cash Disbursements	159,769,687				174,345,714	
CARES Transfer Out		(1,116)				
Days Cash on Hand Transfer Out						
Transfers Out	75,642,566					
Uses of Funds	235,412,253	(1,116)	-	-	174,345,714	-
End of Period - January 31, 2023	\$ 192,898,948	\$ 1,536	\$ 33,134,065	\$ 4,431,216	\$ 14,380,990	\$ -
Unrestricted Funds	\$ 211,711,155					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended January 31, 2023

HRSD - PROJECT ANALYSIS January 31, 2023

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2022	Expenditures Year to Date FY2023	Total Project Expenditures	Encumbrances	Available Funds
Administration	73,738,240	24,017,666	2,999,977	27,017,643	1,660,120	45,060,477
Army Base	163,448,800	124,990,776	664,219	125,654,995	805,834	36,987,971
Atlantic	233,825,424	79,425,640	1,604,237	81,029,877	17,044,995	135,750,552
Boat Harbor	391,690,953	55,428,123	16,303,479	71,731,602	190,228,113	129,731,238
Ches-Eliz	183,518,801	118,083,285	2,891,695	120,974,980	4,955,164	57,588,657
Eastern Shore	34,564,664	3,409,844	12,832,983	16,242,827	16,128,034	2,193,803
James River	348,266,356	40,526,157	32,172,748	72,698,905	245,204,715	30,362,736
Middle Peninsula	102,724,107	19,904,529	4,667,782	24,572,311	9,564,834	68,586,962
Nansemond	466,501,657	41,289,643	17,446,828	58,736,471	313,989,709	93,775,477
Surry	60,391,465	38,362,111	2,075,838	40,437,949	11,825,776	8,127,740
VIP	180,644,256	17,792,976	11,257,186	29,050,162	44,055,816	107,538,278
Williamsburg	27,906,619	20,517,874	3,322,975	23,840,849	1,408,551	2,657,219
York River	77,255,863	13,910,493	2,015,301	15,925,794	16,278,885	45,051,184
General	1,147,886,755	153,413,076	64,225,234	217,638,310	320,997,962	609,250,483
	3,492,363,960	751,072,193	174,480,482	925,552,675	1,194,148,508	1,372,662,777

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's) January 31, 2023

	Principal Dec 2022	Principal Payments	Principal Draws	Principal Jan 2023	Interest Payments
Fixed Rate					
Senior	166,437	-	-	166,437	(964)
Subordinate	681,355	(47)	7,473	688,781	(3)
Variable Rate					
Subordinate	50,000	-	-	50,000	(131)
Line of Credit	33,721			33,721	(104)
Total	\$ 931,513	\$ (47)	\$ 7,473	\$ 938,939	\$ (1,202)

HRSD- Series 2016VR Bond Analysis February 03, 2023

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.57%	0.56%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 02/03/23	1.87%	1.75%	-0.12%

* Since October 20, 2011 HRSD has averaged 56 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended January 31, 2023

HRSD - UNRESTRICTED CASH

January 31, 2023

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

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

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

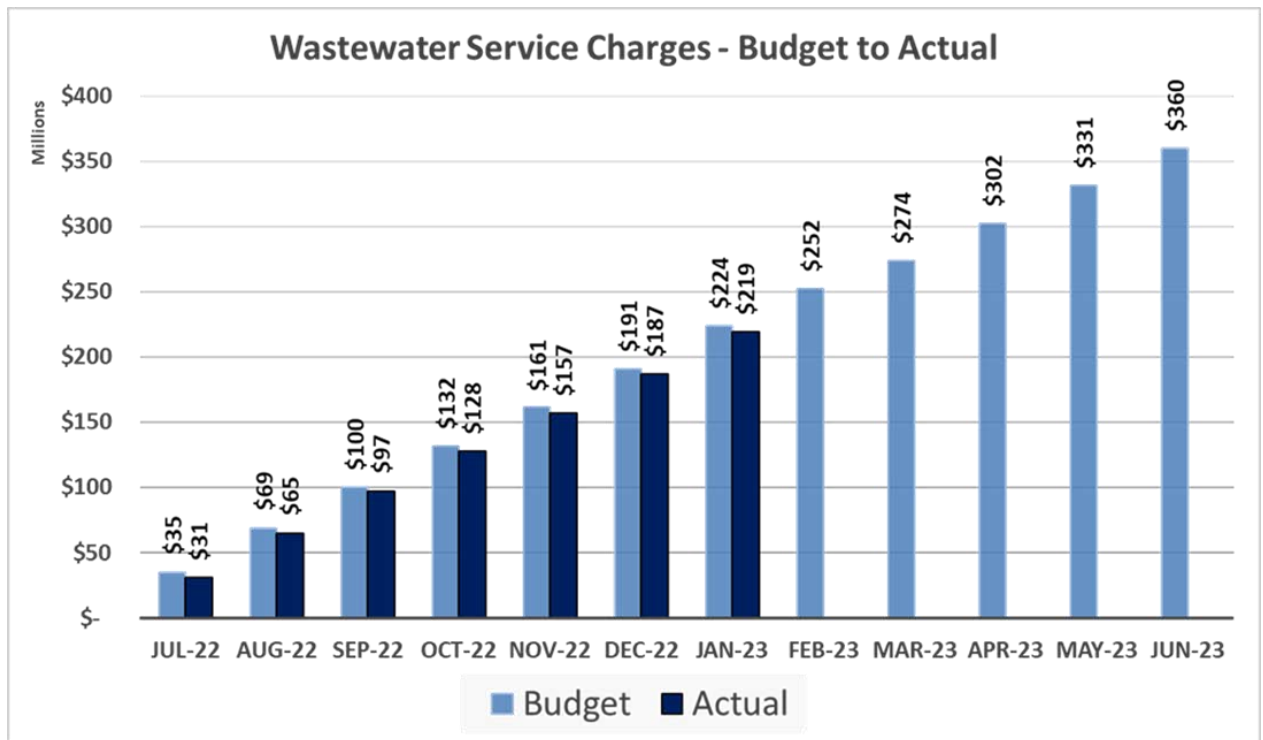
January 31, 2023

Primary Source	Beginning Market Value	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value	Allocation of Funds	Credit Quality	Current Mo Avg Yield
	July 1, 2022				January 31, 2023			
BAML Corp Disbursement Account	25,498,734	333,957,355	331,315,106	241,025	28,382,008	17.2%	N/A	0.55%
VIP Stable NAV Liquidity Pool	144,268,153	10,000,000	20,000,000	2,487,979	136,756,132	82.8%	AAAm	4.54%
Total Primary Source	\$ 169,766,887	\$ 343,957,355	\$ 351,315,106	\$ 2,729,004	\$ 165,138,140	100.0%		

Secondary Source	Beginning Market Value	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
	July 1, 2022				January 31, 2023			
VIP 1-3 Year High Quality Bond Fund	62,932,017	-	7,331	506,967	62,819,070	64,243,653	(1,424,583)	
Total Secondary Source	\$ 62,932,017	\$ -	\$ 7,331	\$ 506,967	\$ 62,819,070	\$ 64,243,653	\$ (1,424,583)	

	Total	Fund Alloc
Total Primary Source	\$ 165,138,140	72.4%
Total Secondary Source	\$ 62,819,070	27.6%
TOTAL SOURCES	\$ 227,957,210	100.0%

7. Summary of Billed Consumption

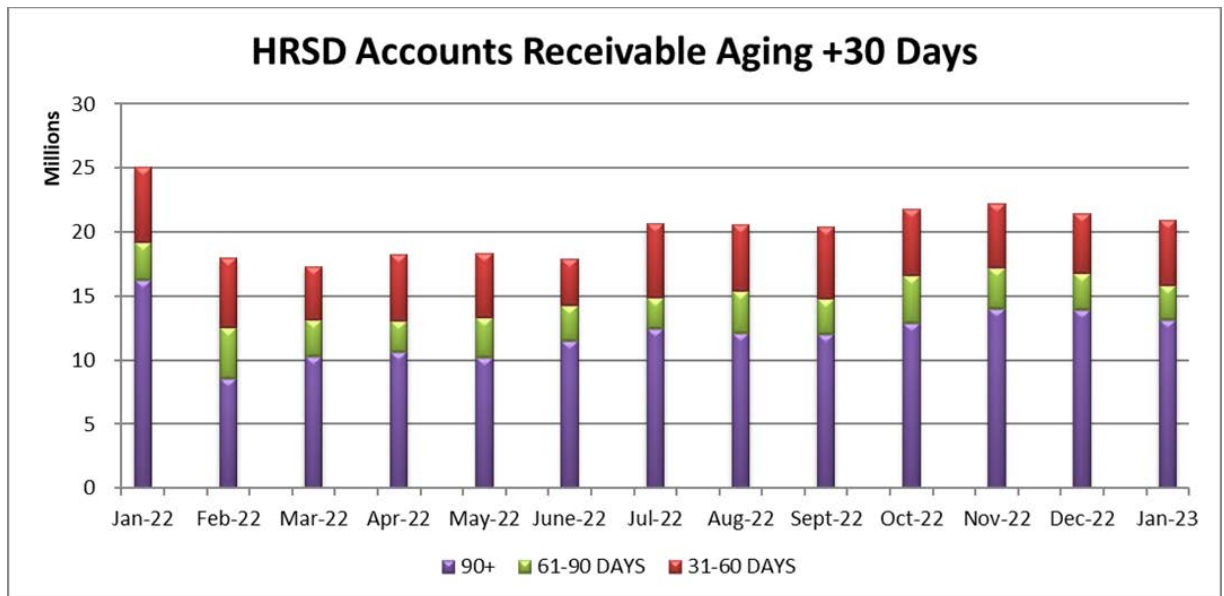


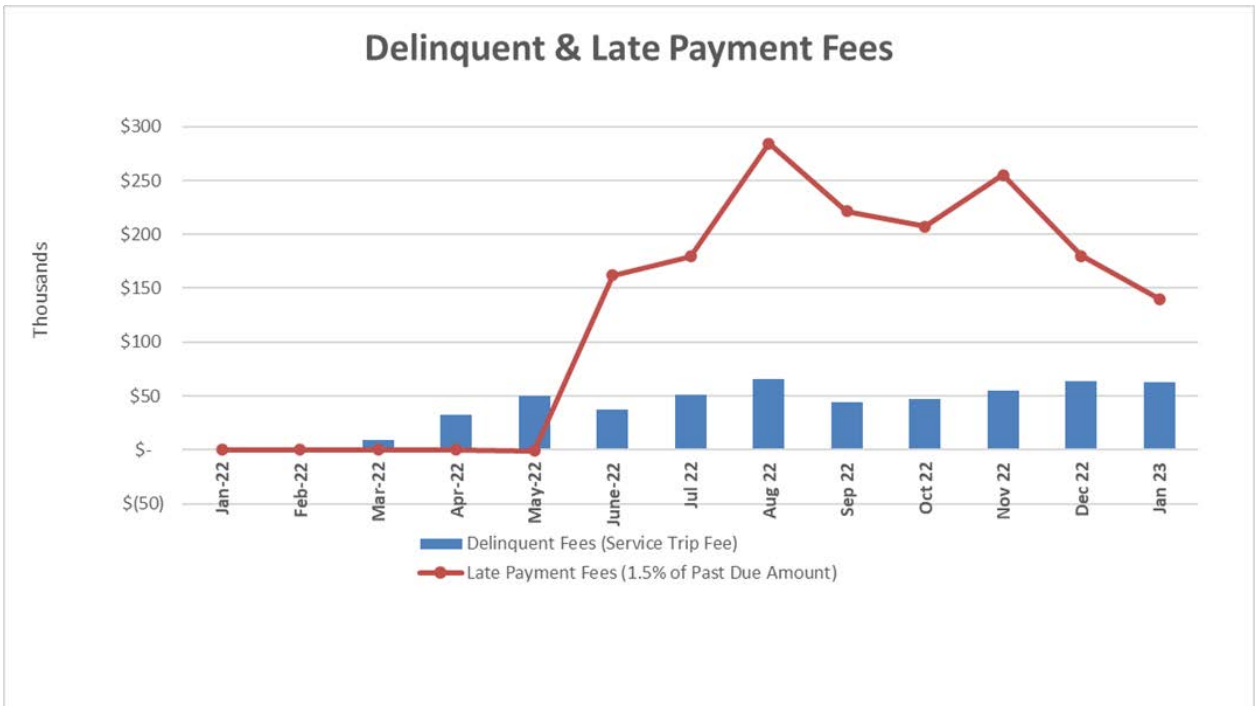
Summary of Billed Consumption (,000s ccf)

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

C. Customer Care Center

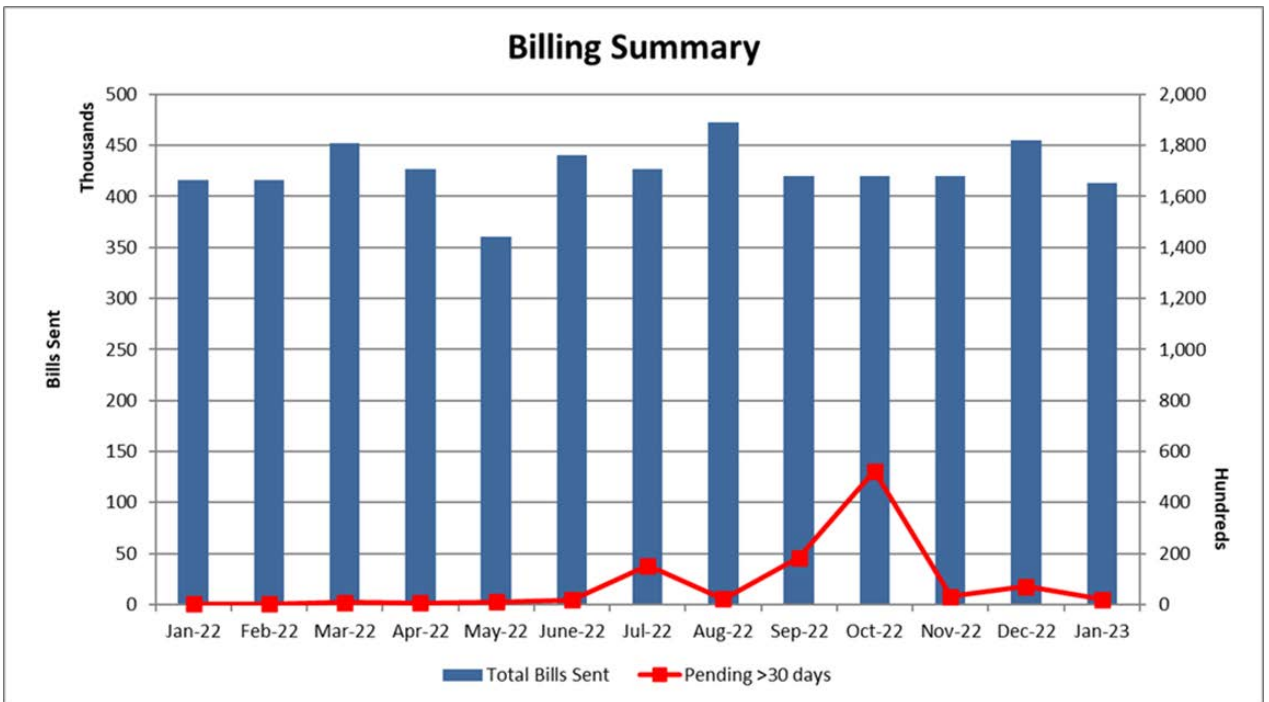
1. Accounts Receivable Overview



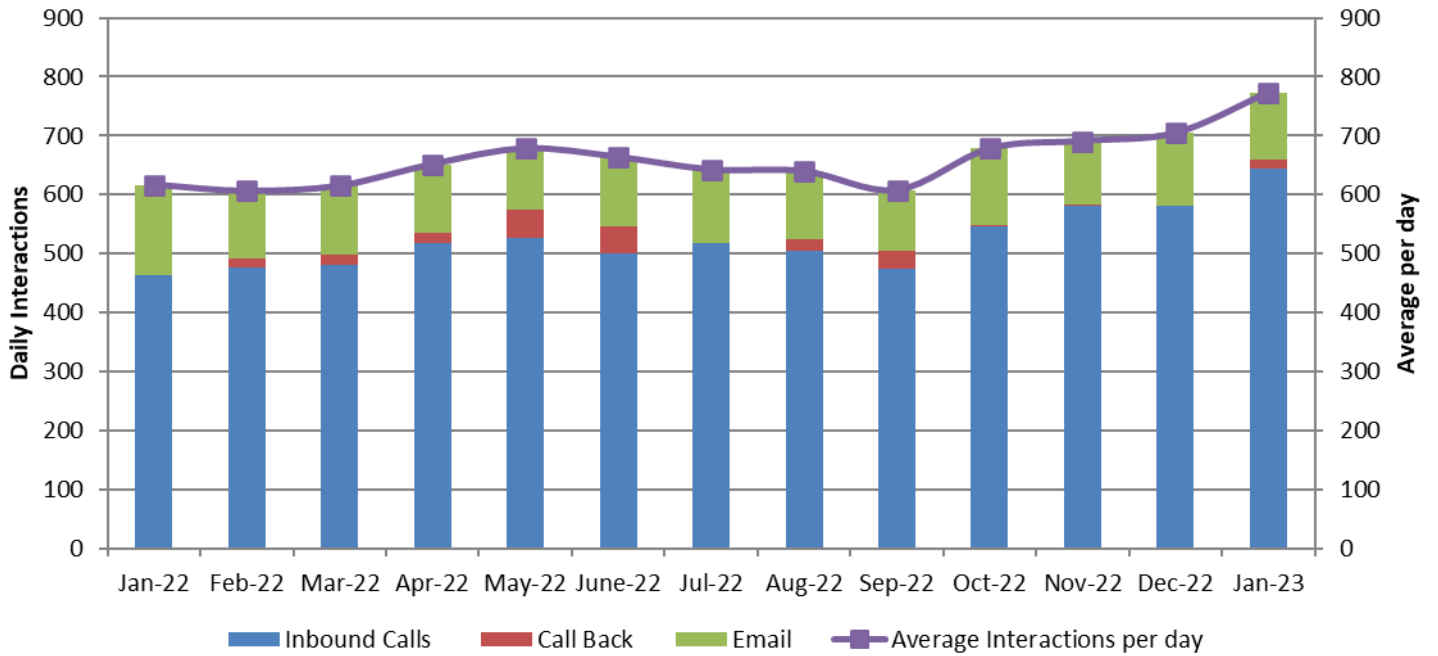


Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19.

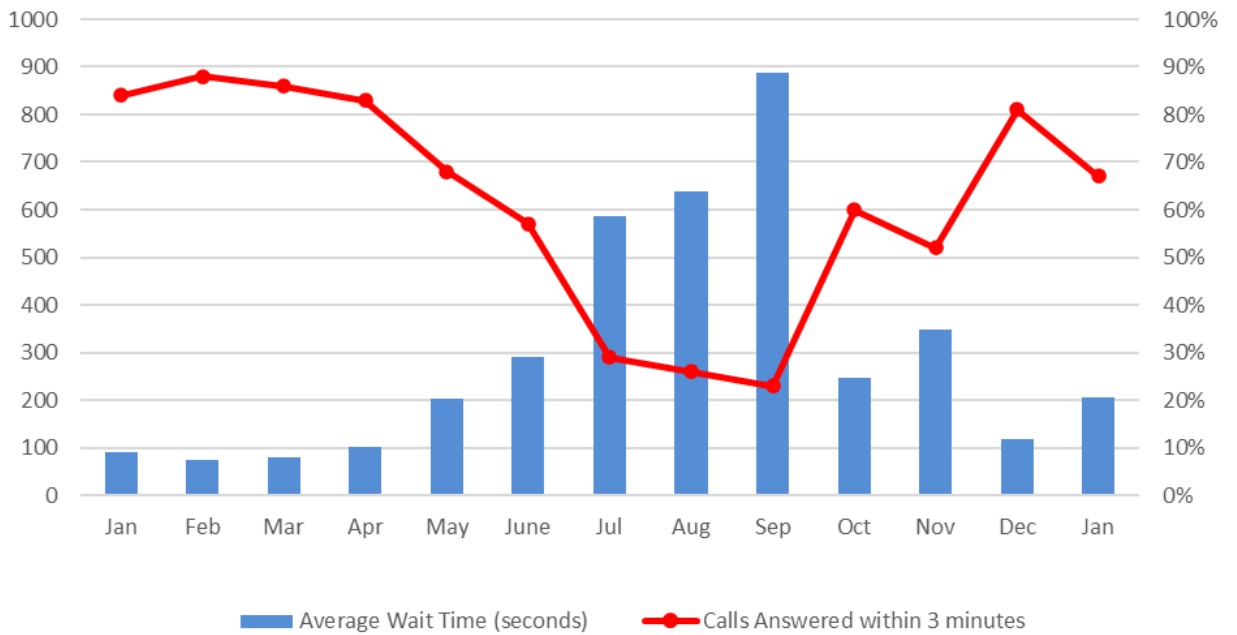
2. Customer Care Center Statistics



Call Center Interactions (per day)

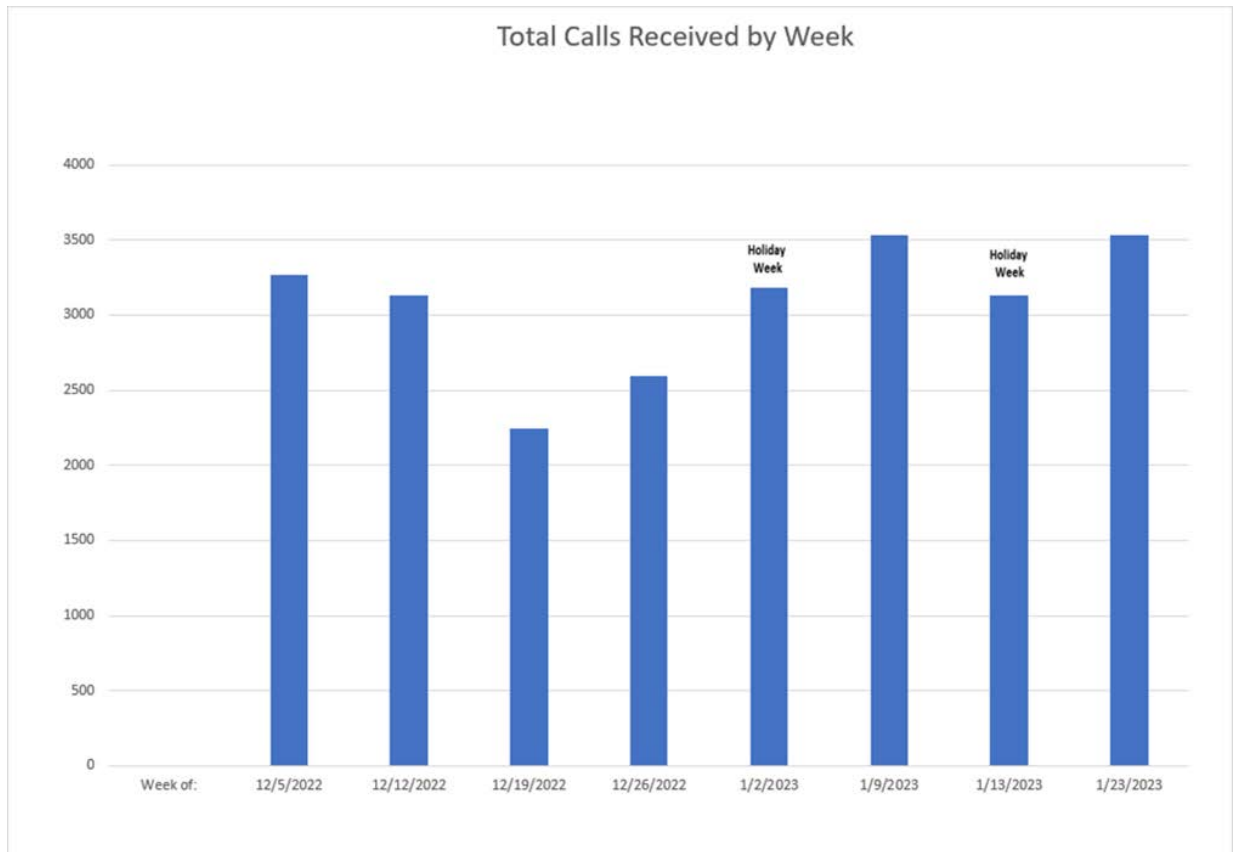


Customer Interaction Statistics



Customer Interaction Statistics

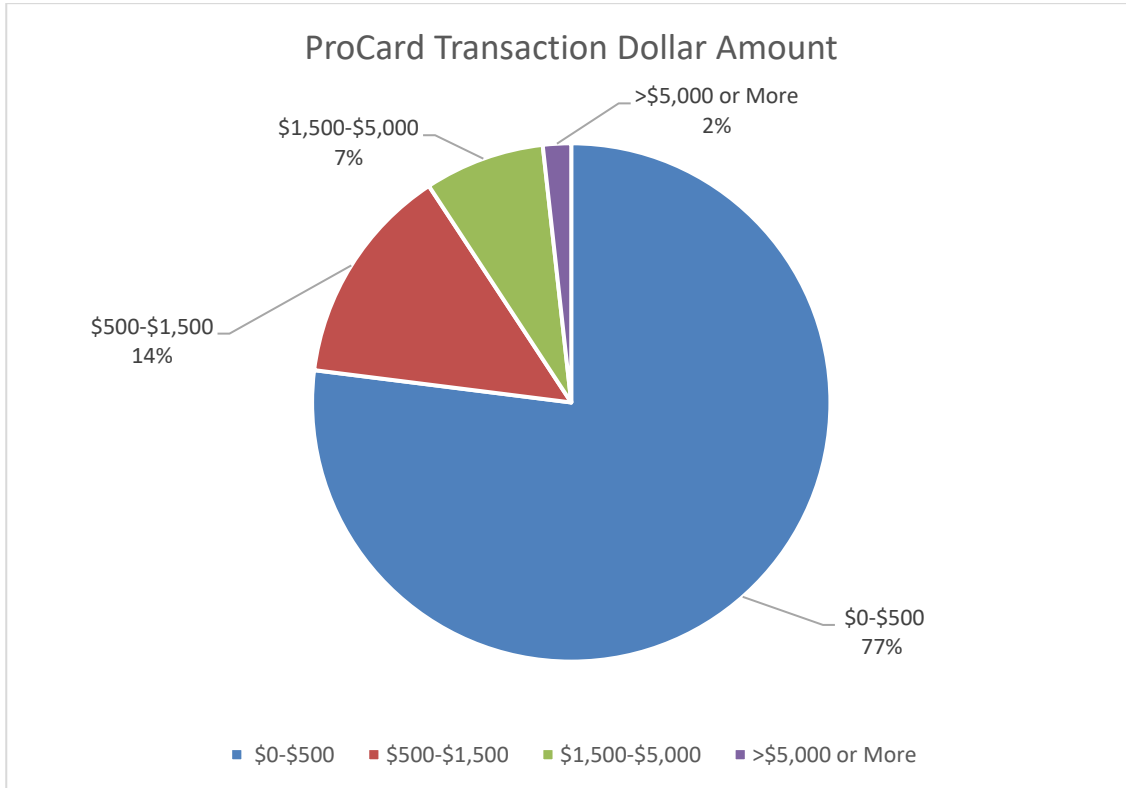
Statistics	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Calls Answered within 3 minutes	84%	88%	86%	83%	68%	57%	29%	26%	23%	60%	52%	81%	67%
Average Wait Time (seconds)	89	75	81	101	203	291	587	638	887	246	347	117	206
Calls Abandoned	9%	6%	7%	7%	12%	15%	25%	25%	31%	14%	18%	8%	12%



Item #	Strategic Planning Measure	Unit	December 2022
	Accounts Receivable (HRSD)	Dollars	\$41,315,851
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	31.9%

D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings ¹	\$49,796	\$357,517
Negotiated Savings ²	\$6,885	\$25,708
Salvage Revenues	\$225	\$21,996
Corporate VISA Card - Estimated Rebate	\$18,657	\$139,799



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

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

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

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

Accidental Use, which is anything that is not purchased for use and ownership by HRSD, was at 0 transaction (0.00%) out of the 2,160.

January ProCard transactions, with a total of \$0.00

Procurement Client Training		
	Current Period	FYTD
ProCard Policy and Process	3	23
Procurement Cycle	6	31
Total	9	54

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
 - a. 01/26/2023 – HRSD SWIFT Industry Day - Procurement
2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2023
M-1.4a	Training During Work Hours Per Full Time Employee (103) – Current Month	Hours / #FTE	0.17
M-1.4b	Total Training During Work Hours Per Full Time Employee (103) – Cumulative Fiscal Year-to-Date	Hours / #FTE	4.77
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	105%
	General Reserves	Percentage of Operating Budget less Depreciation	109%
	Liquidity	Days Cash on Hand	339 Days
	Accounts Receivable (HRSD)	Dollars	\$41,315,851
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	31.9%

Respectfully,

Steven G. de Mik

Steven G. de Mik
Deputy General Manager/CFO

Attachments: [Quarterly Performance 2nd Quarter FY23](#)
[HRSD's Operating Cash Strategies and Retiree Health Trust \(OPEB\)](#)

Hampton Roads Sanitation District
Quarterly Performance Report
For the Quarter Ending December 31, 2022

Total Portfolio Summary

Operating Strategies	December 31, 2022	September 30, 2022
Primary Source	\$ 166,043,343	\$ 153,566,339
Secondary Source	62,423,112	62,017,749
	<u>\$ 228,466,455</u>	<u>\$ 215,584,089</u>

Primary Source Summary

The Primary Source Portfolio consists of BAML Corp Disbursement Account \$29.81m and VaCo/VML VIP Stable NAV Liquidity Pool \$136.23m. BAML Corp Disbursement Account returned 0.55% for the quarter ending December 31, 2022. VIP LIQ Pool Fund 30 Day Avg Net Yield was 4.23% as of December 31, 2022. VIP Stable NAV Liquidity Pool performed at the same level as Va Local Government Investment Pool (the market benchmark) in the month of December 2022. VaCo/VML VIP Stable NAV Liquidity Pool's weighted average credit rating was A-1 for the quarter.

Secondary Source Summary

The Secondary Source Portfolio consists of VaCo/VML VIP 1-3 Year High Quality Bond Fund. The VIP 1-3 Yield to Maturity at Market was 4.51% as of December 31, 2022, which was slightly less than the 4.53% performance of ICE BofA ML 1-3 Yr AAA-AA Corp/Gov Index, (the market benchmark). The weighted average credit rating for VaCo/VML VIP 1-3 Year High Quality Bond Fund's portfolio was AA for the quarter.

Retirement Health Plan Trust	December 31, 2022	September 30, 2022
Investment Assets	62,514,012	58,670,539
Liquidity Assets	46,007	45,617
Combined Assets	<u>\$ 62,560,019</u>	<u>\$ 58,716,156</u>

Retiree Health Plan Trust Summary

The Retiree Health Plan Trust portfolio returned 6.56% (investment assets) for the quarter ended December 31, 2022, below the 6.62% return of the Blended Benchmark.* Over the quarter, the Multi-Asset Class Investment Committee ("the Committee") sought to add value to the portfolio by increasing allocations to Domestic Equity, International Equity, and Cash, while removing allocations to Real Return (commodities) and preferred securities.

*Performance is unreconciled and does not include funds from Boyd Watterson.

	Total Portfolio Value	
	December 31, 2022	September 30, 2022
Investment Assets	\$ 62,514,012	\$ 58,670,539
Combined Assets	\$ 62,560,019	\$ 58,716,156

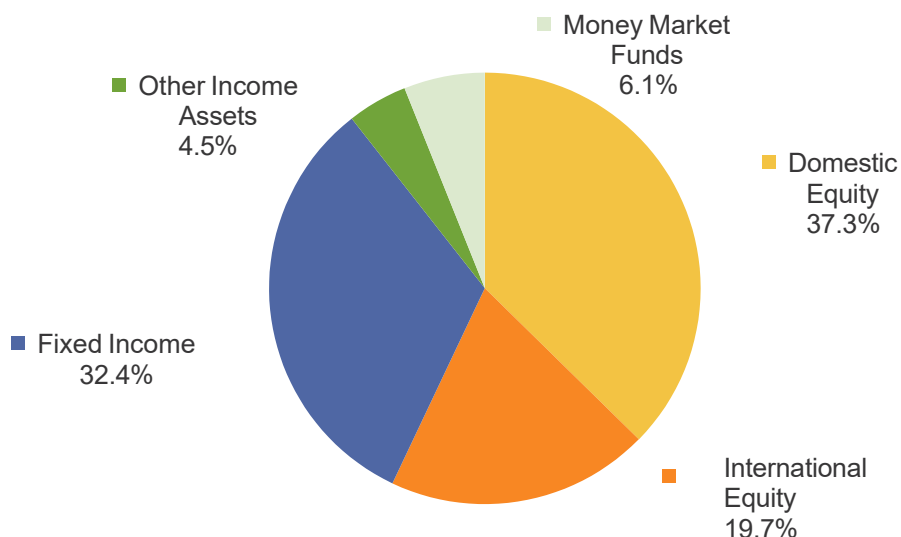
Portfolio Recap & Strategy

- The Retiree Health Plan Trust portfolio returned 6.56% (investment assets) for the quarter ended December 31, 2022, below the 6.62% return of the Blended Benchmark.* Over the quarter, the Multi-Asset Class Investment Committee (“the Committee”) sought to add value to the portfolio by increasing allocations to Domestic Equity, International Equity, and Cash, while removing allocations to Real Return (commodities) and preferred securities.
- Inflation cooled in the fourth quarter, continuing the trend of the third quarter, and ending the year with an annual inflation rate of 6.5%. While markets are optimistic about the continued cooling of inflation, the rate is still significantly over the Federal Reserve’s (Fed) 2% long-term inflation target.
- In line with slowing growth expectations, U.S. gross domestic product (GDP) for the fourth quarter of 2022 is projected to grow at an annual rate of 1.9%, according to the World Bank. 2023 is expected to grow by 1.7%, while 2024 growth is projected to be 2.7%. The prospect of low growth/mild recession continues to gain steam as purchasing managers reported gloomy numbers across the economy. ISM Manufacturing PMI fell into contractionary territory in the fourth quarter, ending the year with a reading of 48.4, while the Services PMI also pointed to its first contraction since May 2020 amid weakening demand, ending the year at 49.6.
- Over the quarter, the market saw positive gains in October and November, but ended with a negative December, with the S&P 500 Index (S&P) posting a positive return of 7.56% for the quarter (the first and only positive quarter of the year). The ending return for 2022 was -18.11%. Within S&P, nine of 11 sectors ended with positive returns for the quarter. Year-to-date, Energy (65.43%) and Utilities (1.56%) were the only two positive sectors, while Communication Services (-39.89%), Consumer Discretionary (-37.03%), and Information Technology (-28.19%) were the biggest detractors.
- Markets outside of the U.S., as measured by the MSCI ACWI ex-U.S. Index, significantly outperformed their U.S. counterparts, returning 14.29% for the quarter, partially helped by a weakening U.S. dollar. All 11 sectors posted strong positive returns for the quarter. In 2022, Energy was the best-performing sector returning 8.08%, while Information technology was the worst-performer, returning -34.47% for the year.
- In the fourth quarter, the U.S. bond market, represented by the Bloomberg U.S. Aggregate (Aggregate) Index, had its first period, up 1.87%. For the year, the Aggregate lost 13.01%, marking its worst annual performance since its inception in 1976. The front end of the yield curve out to the 2-year mark increased due to continued Fed Funds rate hikes, but the back end rose meaningfully in October with the 10-year briefly at the 4.1% mark. But throughout December, it declined, remained below 4% and ended at 3.88%.
- REITs, as measured by the FTSE NAREIT Equity REITs Index, gained 5.24% in the fourth quarter of 2022, compared to a 9.94% decline in the prior quarter. Most major sectors posted positive returns during the fourth quarter, a reversal from the losses seen in prior quarters. The best performers were the Retail and Diversified sectors, which posted returns of 17.48% and 12.81%, respectively. The worst performers during the quarter were the Apartments and Self-Storage sectors, which had previously exhibited stronger performance relative to other real estate sectors. These sectors posted returns of -7.19% and -6.73%, respectively.

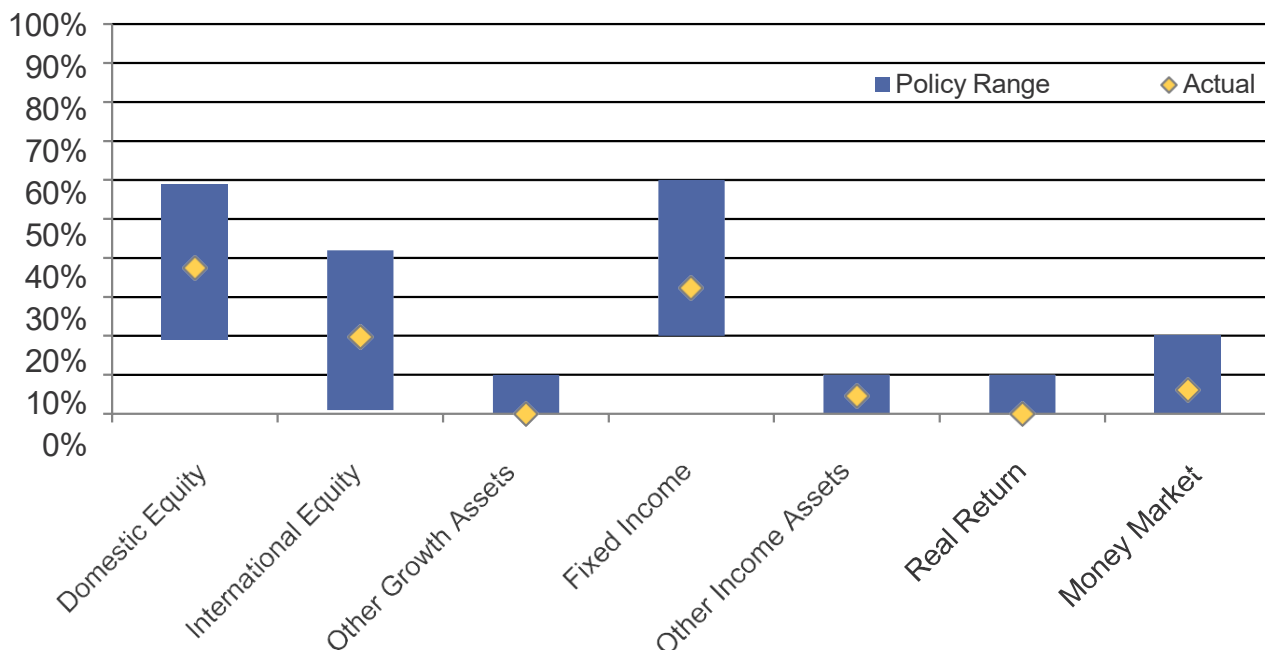
*Performance is unreconciled and does not include funds from Boyd Watterson. See page 3 for detailed information about the Blended Benchmark.

Security Type	December 31, 2022	% of Portfolio	September 30, 2022	% of Portfolio	Permitted by Policy
Domestic Equity	\$ 23,362,605	37.3%	\$ 21,679,243	36.9%	19% - 59%
International Equity	\$ 12,320,423	19.7%	\$ 9,670,754	16.5%	1% - 41%
Fixed Income	\$ 20,257,535	32.4%	\$ 20,131,217	34.3%	20% - 60%
Other Income Assets	\$ 2,821,798	4.5%	\$ 3,974,621	6.8%	0% - 10%
Real Return	\$ -	0.0%	\$ 1,655,616	2.8%	0% - 10%
Money Market Funds	\$ 3,797,657	6.1%	\$ 1,604,706	2.7%	0% - 20%
Totals	\$ 62,560,019	100.0%	\$ 58,716,156	100.0%	

Portfolio Composition
(as of 12/31/22)



Asset Allocation
(as of 12/31/22)

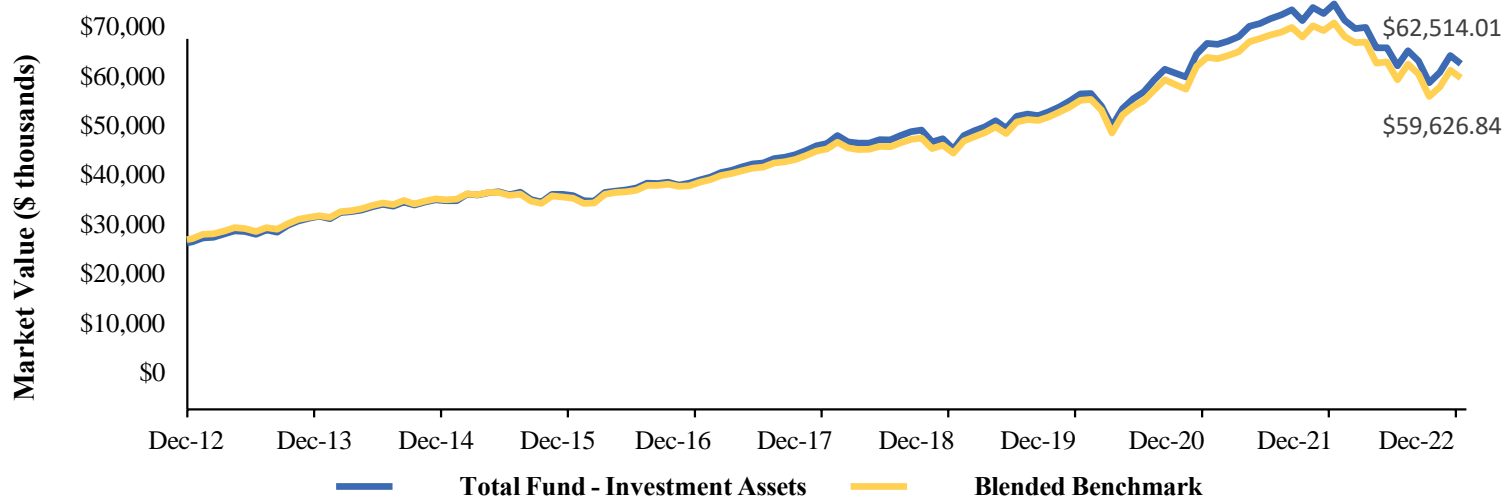


Index	Market Values	%	1 Quarter	Year to Date	Trailing 1 Year	Trailing 3 Years	Trailing 5 Years	Apr-2013 To Dec-2022*	Since Inception	Inception Date
Domestic Equity	\$ 23,362,605	37.37								
Vanguard Total Stock Market ETF	\$ 12,523,136	20.03	7.16%	-19.50%	-19.50%	6.97%	8.72%	11.21%	17.20%	4/1/2020
<i>Russell 3000 Index</i>			7.18%	-19.21%	-19.21%	7.07%	8.79%	11.26%	17.32%	4/1/2020
Invesco S&P 500 Equal Weight ETF	\$ 3,503,283	5.60	11.58%	-11.60%	-11.60%	8.83%	8.92%	11.07%	-6.76%	3/1/2022
<i>S&P 500 Equal Weighted</i>			11.64%	-11.45%	-11.45%	9.01%	9.11%	11.38%	-6.62%	3/1/2022
Jensen Quality Growth Fund	\$ 3,577,119	5.72	9.11%	-16.34%	-16.34%	8.95%	11.37%	12.81%	10.65%	4/1/2019
<i>S&P 500</i>			7.56%	-18.11%	-18.11%	7.66%	9.42%	11.74%	10.29%	4/1/2019
iShares Core S&P Mid-Cap ETF	\$ 1,883,114	3.01	10.78%	-13.08%	-13.08%	7.18%	6.65%	9.57%	-4.95%	10/1/2021
<i>S&P MidCap 400</i>			10.78%	-13.06%	-13.06%	7.23%	6.71%	9.64%	-4.92%	10/1/2021
iShares Core S&P Small-Cap ETF	\$ 1,875,954	3.00	9.15%	-16.20%	-16.20%	5.70%	5.84%	9.81%	-9.62%	2/1/2022
<i>S&P SmallCap 600</i>			9.19%	-16.10%	-16.10%	5.80%	5.88%	9.85%	-9.53%	2/1/2022
International Equity	\$ 12,320,423	19.71								
Vanguard Total International Stock ETF	\$ 6,144,905	9.83	14.71%	-15.99%	-15.99%	0.55%	1.13%	3.88%	11.31%	4/1/2020
<i>MSCI AC World ex USA (Net)</i>			14.28%	-16.00%	-16.00%	0.07%	0.88%	3.57%	10.24%	4/1/2020
J. O. Hambro International Select	\$ 618,621	0.99	14.62%	-32.38%	-32.38%	-1.42%	0.90%	5.47%	4.40%	1/1/2016
<i>MSCI AC World ex USA (Net)</i>			14.28%	-16.00%	-16.00%	0.07%	0.88%	3.57%	4.80%	1/1/2016
Harding Loevner International Equity	\$ 1,253,132	2.00	14.71%	-20.23%	-20.23%	1.37%	2.33%	5.33%	3.58%	7/1/2020
<i>MSCI AC World ex USA (Net)</i>			14.28%	-16.00%	-16.00%	0.07%	0.88%	3.57%	4.86%	7/1/2020
Vanguard FTSE Developed Markets ETF	\$ 3,680,181	5.89	17.11%	-15.35%	-15.35%	1.35%	1.68%	4.60%	-9.60%	3/1/2022
<i>MSCI EAFE (net)</i>			17.34%	-14.45%	-14.45%	0.87%	1.54%	4.26%	-8.49%	3/1/2022
Hartford Schroders Emerging Markets Equity	\$ 623,584	1.00	10.43%	-22.28%	-22.28%	-3.05%	-1.24%	2.08%	-1.88%	3/1/2018
<i>MSCI EM (net)</i>			9.70%	-20.09%	-20.09%	-2.69%	-1.40%	1.64%	-2.11%	3/1/2018
Fixed Income	\$ 20,257,535	32.40								
Baird Core Plus	\$ 6,022,853	9.63	2.51%	-12.87%	-12.87%	-2.10%	0.55%	1.74%	1.77%	5/1/2014
<i>Bloomberg U.S. Aggregate</i>			1.87%	-13.01%	-13.01%	-2.71%	0.02%	1.10%	1.15%	5/1/2014
DoubleLine Core Fixed Income	\$ 3,017,322	4.83	1.17%	-12.76%	-12.76%	-2.80%	-0.17%	1.38%	-0.15%	9/1/2017
PGIM Total Return Bond	\$ 4,827,241	7.72	2.31%	-14.86%	-14.86%	-3.10%	0.09%	1.80%	0.23%	9/1/2017
<i>Bloomberg U.S. Aggregate</i>			1.87%	-13.01%	-13.01%	-2.71%	0.02%	1.10%	0.00%	9/1/2017
Voya Intermediate Bond	\$ 3,018,459	4.83	1.65%	-14.16%	-14.16%	-2.75%	0.19%	N/A	-2.75%	1/1/2020
<i>Bloomberg U.S. Aggregate</i>			1.87%	-13.01%	-13.01%	-2.71%	0.02%	1.10%	-2.71%	1/1/2020
iShares Intermediate-Term Corporate Bond ETF	\$ 1,256,069	2.01	3.57%	-14.06%	-14.06%	-2.51%	1.06%	1.63%	-1.93%	10/1/2019
<i>ICE BofAML U.S. Corporate 5-10 Year Index</i>			3.82%	-14.12%	-14.12%	-2.36%	0.91%	2.25%	-1.79%	10/1/2019
Pacific Funds Floating Rate Income	\$ 1,651,728	2.64	2.72%	-0.83%	-0.83%	1.77%	2.77%	3.22%	-1.24%	2/1/2022
<i>Credit Suisse Leveraged Loan Index</i>			2.33%	-1.06%	-1.06%	2.34%	3.24%	3.63%	-1.41%	2/1/2022
MainStay MacKay High Yield Corp Bond Fund	\$ 463,864	0.74	3.95%	-7.81%	-7.81%	0.74%	2.66%	N/A	-3.54%	6/1/2021
<i>ICE BofAML High Yield Master II</i>			3.98%	-11.25%	-11.25%	-0.25%	2.11%	3.74%	-5.53%	6/1/2021
Other Income	\$ 2,821,798	4.51								
Boyd Watterson GSA Fund	\$ 2,821,798	4.51	0.16%	4.58%	4.58%	6.18%	N/A	N/A	6.43%	7/1/2019
<i>NCREIF Property Income</i>			0.95%	3.90%	3.90%	4.11%	4.28%	4.66%	4.17%	7/1/2019
Cash Equivalent										
First American Government Obligation - Z	\$ 3,751,651	6.00	0.86%	1.48%	1.48%	0.62%	1.13%	0.68%	1.23%	1/1/2004
Retiree Health Plan Trust	\$ 62,514,012	100.00	6.56%	-16.18%	-16.18%	2.92%	4.49%	6.18%	7.13%	9/1/2009
Blended Benchmark*			6.62%	-15.77%	-15.77%	2.06%	3.95%	5.41%	6.74%	9/1/2009

Data as of December 31, 2022.

*N/A" refers to performance that is not applicable.

Growth of Invested Assets: Actual v. Benchmark



*Active Strategy implemented April 1, 2013. Since inception to June 30, 2017, the Blended Benchmark was 33% Russell 3000 / 21% MSCI ACWI ex USA net) / 3% FTSE NAREIT Equity REITs / 3% Bloomberg Commodity TR / 40% Bloomberg Barclays Aggregate. From July 1, 2017 to present, the Blended Benchmark was 39% Russell 3000 / 21% MSCI ACWI ex USA net) / 40% Bloomberg Barclays Aggregate.

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

A. General

1. IT staff are working in conjunction with Microsoft and other vendors to provide an assessment of our O365 implementation as well as recommendations on how to optimize system performance to get the most out of the products.
2. The call center software replacement contract has been awarded to Genesys Pure Cloud. A project kickoff meeting will be scheduled in the next few weeks.
3. The IT Help Desk processed 323 work orders and requests for assistance in January, ensuring availability of computing resources to those working locally and remotely.
4. In preparing for Chesapeake's transition in billing models, staff successfully conducted another in a series of a mock data conversions. It is industry best practice to conduct such trial events to ensure that all critical modules of the billing process can be completed without incident, and in the allotted amount of time. Prior to conducting a mock go-live, each of the previously tested modules are enabled and then tested as a system, beginning-to-end. By adopting this methodology, issues are discovered early, and resolved, minimizing any issues in the go-live process.
5. There is a global increase in malware and ransomware distribution. Accordingly, staff are expediting security patches and other changes to further protect our digital assets.
6. Staff successfully completed their budgetary needs assessments for inclusion in the FY24 ITD draft budget.

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	January 2023
M-1.4a	Training During Work Hours Per Full-Time Employee (54) – Current Month	Total Training Hours / # FTE	3.35
M-1.4b	Total Training During Work Hours Per Full-Time Employee (54) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	17.24
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 January 2023
DATE: February 21, 2023

A. Interceptor Systems

1. North Shore (NS) Interceptors

- a. The Supervisory Control and Data Acquisition (SCADA) project progression ramped up considerably in January following the holidays. Numerous factory acceptance tests, site cutovers and global changes were performed on all three systems: North Shore (NS), South Shore (SS) and Small Communities Division (SCD). The global changes pilot was performed and successfully executed at Freeman and Ferguson Pump Stations (PS), allowing future implementation to commence across all NS sites. The Information Technology (IT) division successfully implemented the permanent remote access solutions using XONA and Dispell software capabilities.
- b. There were no Sanitary Sewer Overflows (SSOs).
- c. There were no odor complaints, two interceptor complaints, and 10 system alarms during the month. The system alarms were relatively minor and fully resolved by NS Operations staff.
- d. There was one Miss Utility no show and there were six after-hour emergency tickets reported for the month. The no show ticket was a result of changes to the VA811 system that were not properly coordinated or tested with the utility marking ticketing system (Polaris) prior to implementation. HRSD did not receive the initial ticket on January 3 and received the no show ticket on January 6. HRSD received a memo from Polaris describing the issues and resolution.
- e. NS operations and engineering staff continue to support the numerous capital project under design and construction.
- f. Staffing remains challenging as we currently have the following vacancies: one heavy equipment operator, five vacant Interceptor Technician positions, and one Interceptor Engineer position.

2. South Shore (SS) Interceptor Systems

- a. There was one SSO reported this month. On January 11, the City of Virginia Beach reported a force main failure near the intersection of Shore Drive and Indian Hill Road. Bridgeman Civil (on-call contractor) found a failed coupling on the 20-inch asbestos cement force main. The contractor installed a full circle clamp and corrosion protection and restored the roadway and residential driveways near the failure. Approximately 115,000 gallons leaked into a nearby

storm culvert that drains to Pleasure House Creek, a tributary of the Western Branch of the Lynnhaven River.

- b. There were no odor complaints reported this month.
- c. There was one Miss Utility no show reported this month. On January 6, VA811, made changes to their ticketing email system, and did not coordinate and test with the Polaris.
- d. There were three interceptor complaints reported this month. Two issues were with the City of Virginia Beach Public Utilities Department and one issue was with the City of Chesapeake Public Utilities Department. All three complaints were minor and were resolved by SS Interceptor staff.
- e. Staff responded to and resolved nine system alarms this month.
- f. On January 18, staff operated a branch valve near the intersection of Military Highway and Smith Avenue to assist the City of Chesapeake Department of Public Utilities with a force main repair.
- g. On January 20, staff repaired an inoperative, critical mainline valve near the intersection of Queen Street and Jamestown Avenue in Portsmouth. The valve closed approximately 75 percent. Staff from several divisions in Operations were able to work together to fix the gearbox and completely open the valve.
- h. On January 24, staff spent a significant amount of time at WEMCO pump rebuilding training that will allow staff to work on the pumps in-house and refine the preventative maintenance (PM) on the pumps.
- i. On January 26, staff assisted the Onancock Treatment Plant with cleaning the Bio-tank. Staff removed approximately six yards of material.
- j. Staffing remains challenging as we currently have seven vacant Interceptor Technician positions.

B. Major Treatment Plant Operations

- 1. Army Base (ABTP) Treatment Plant, Virginia Initiative Treatment Plant (VIP), Treatment Projects Team (TPT) (ACV Group)
 - a. Both VIP and ABTP staff met all Virginia Pollutant Discharge Elimination System (VPDES) permit requirements with no odor complaints.
 - b. There were two reportable MACT 129 permit deviations for use of the incinerator bypass stack at VIP.
 - c. ABTP
 - (1) Staff completed routine preventive maintenance and repairs.

- (2) Staff installed a new 675-foot supply line for aluminum sulfate. The old line varied in pipe size and had several previous repairs.
- (3) Staff and a contractor installed new weir plates in the secondary clarifier distribution box. The new weirs will ensure equal solids loading to each clarifier.
- (4) Staff installed a new eductor on the secondary clarifier #4. The eductor will replace the older foam pumps.
- (5) Staff discovered major issues with the castable work in incinerator 2 and are evaluating the issues and prepping for repairs.

d. VIP

- (1) There were two reportable MACT 129 permit deviations for use of the incinerator bypass stack. The events occurred on January 6 for six minutes, and on January 27 for 20 minutes. Both events were caused by utility power outages.
- (2) Ammonia-Based Aeration Control (ABAC) is operating at a dissolved oxygen low-end setpoint of 0.5 mg/L, ortho-phosphate setpoint of 2.5 mg/L and ammonia setpoint of 1.75 mg/L. The average Dissolved Oxygen (DO) level in the aeration tanks was 0.7 mg/L for January. No supplemental carbon chemical addition was used for denitrification.
- (3) Staff prepared Incinerator 1 for service and plan to switch to that furnace in February.
- (4) Staff replaced the discharge pressure sensor for the biosolids receiving pumping system.
- (5) Staff replaced the mechanical seal on the fermenter recycle pump.
- (6) One primary clarifier was returned to service following an emergency screw conveyor rebuild.
- (7) One dewatering centrifuge was disassembled and inspected onsite for wear. The accelerator was replaced, then reassembled for return to service.
- (8) One dewatering centrifuge has been off site for repairs since May 2022. Labor and parts shortages have delayed its return until February 2023.

e. TPT

- (1) Staff supported SCD with plant operations and maintenance activities.
- (2) Staff supported the Williamsburg Treatment Plant (WBTP) by performing operations and maintenance on the dewatering unit.

- (3) Staff supported the Onancock Treatment Plant (OTP) with membrane pull and inspection.
- (4) Staff started working on the Atlantic Treatment Plant's (ATP) methane condensation and floor drain line repair.
- (5) Staff completed ABTP's Alum conduit and tubing installation.
- (6) Staff completed the VIP #5 Primary rebuild.
- (7) Staff started the installation of Non-Potable Water (NPW) hose reels at the Nansemond Treatment Plant (NTP).

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

a. ATP

- (1) The plant met all VPDES permit requirements.
- (2) The plant had 11 odor complaints in January. Plant staff continue to work with Technical Services Division (TSD) staff to help identify and mitigate off-site odors.
- (3) Plant staff struggled with maintaining treatment throughout the entire month. The newest VPDES permit requires that the plant sample for Total Suspended Solids (TSS) and Biochemical Oxygen Demand (BOD) removal with an 85% removal limit for both parameters. Staff selected the month of January at random, but the process proved challenging until the last week in January.
- (4) Several changes were made to improve the aeration process, but other treatment issues further exacerbated the struggle with the final effluent quality and meeting the 85% removal target. Adding to the upset were issues with the secondary clarifiers, resulting in staff taking secondaries in and out of service for various issues with mechanical equipment, impacting the solids inventory for the aeration process. Staff completed the repairs on aeration tank #1 and placed the tank in service, which helped bring treatment back around by increasing the detention time within the aeration process. This aeration tank was out of service for well over a year for a complete overhaul of the membranes, but plant leadership had to continuously divert maintenance staff away from routine maintenance such as this for critical issues within solids handling and odor control, among other processes.
- (5) Staff started the ATP Biosolids curing testing. The plan is to turn over the Biosolids using a windrow turner to aid in drying the solids, and reducing the occurrence of long-term odors, especially offsite odors during hauling and land application. The pile is being turned over once per day around 12:00pm Monday-Friday. Testing is planned to last around two months. TSD has been onsite taking odor readings to help track any potential for

offsite odor in curing in the open pads. This research will help guide the final pad designs for the Reliability and Odor Control Improvements (ROCI) project.

- (6) On January 18, Dominion Energy (DE) installed a new power pole on the East side of the Preliminary Treatment Facility (PTF) to provide power to the cell communication tower at the back of the plant. Later that day the wires failed and set the pole on fire. Staff contacted the Fire Department and DE. The fire was safely extinguished, and the proper repairs were completed by DE.
- (7) The main steamer for the Thermal Hydrolysis Process (THP) had a bad low water cut-off switch. A contractor replaced the switch and restarted the boiler. The boiler failed again three days later, because of a loose fan in the blower. The loose fan allowed a speed sensor to move out of range and caused the Programmable Logic Control (PLC) to sense there was a malfunction. The contractor retightened the fan and re-adjusted the speed sensor, resolving both the issues.
- (8) Secondary Clarifiers 1-4 started failing on high torque. Staff were able to remove the shims to get the clearance needed to allow the clarifiers to run without torquing out. Staff contacted a representative to visit the site to give repair recommendations for each clarifier.
- (9) Contractors removed the fire-damaged odor scrubber tower. Full repairs are expected to be complete by April 2023.
- (10) A contractor removed two trees from the outskirts of the progress farm due to a neighbor's concern.
- (11) A contractor continues working to repair the Combined Heat and Power (CHP) engines, which will then be followed by air permit testing. Staff hope to have the CHP engines back online and producing power by the end of February. The engines produce roughly 1/3 of the electricity for the ATP.
- (12) Staff continue working with the contractor installing the solids receiving station to accommodate the ABTP liquid solids. This should be complete by the end of 2023.
- (13) Two Variable Frequency Drive (VFD) failures for the Returned Activated Solids (RAS) #1 occurred this month. Staff are determining whether these VFDs are repairable or need to be replaced.
- (14) Contractors have been on site investigating a bearing temperature issue on #1 blower. This blower is primarily used for aeration.

b. BHTP

- (1) No odor complaints were reported.

- (2) No MACT 129 deviations occurred in the month.
- (3) Two Total Hydrogen Carbon (THC) reportable events occurred during the month.
- (4) There was one Department of Environmental Quality (DEQ) reportable event on January 5 for a loss of dechlorination.
- (5) On January 5, staff failed to notify the shift operator while performing routine maintenance on a bisulfite pump. The pump was secured, restricting flow of bisulfite to the contact tanks. This resulted in a loss of dechlorination for approximately 17 minutes until a day operator noticed the flow drop and reported it to the operator on shift. Staff reported this to TSD, who reported the event to DEQ.
- (6) Two THC reportable events occurred in January. On January 19, the oxygen probe was not reading properly causing a failed calibration. Once the probe was fixed, calibration passed. On January 27, the THC unit failed calibration. Plant electrical and instrumentation (E&I) staff adjusted settings and performed a manual calibration and an auto calibration; the unit passed both calibrations.
- (7) Staff discovered a leak behind the contact tank. NS Interceptors helped to excavate the area. The leak was found to be the link seal surrounding the 30-minute sample line that penetrates through the tank wall of contact tank #2. Plant staff successfully replaced the seal.
- (8) Staff replaced the check valve on return pump #4. These large check valves are critical in ensuring there is no back flow through the pumps during rotation or while they are offline.
- (9) A contractor has replaced the final two aeration tank drain valves on aeration tank #2. All 18 valves of the aeration tank complex have now been replaced, making tank draining and maintenance easier and safer for all.
- (10) Staff completed the overhaul on primary #3 to include, but not limited to flights, chain, wear strips and wall brackets.
- (11) During the month of January, the plant operators noticed the performance of the Foreign Biosolids (FBS) pumps declining in volume pumped to the furnace. Upon inspection by the plant maintenance staff, a large latch from the door of the hauling contractor's dump truck was discovered in the FBS hopper which caused damage to the augers as well as the pumps. One pump is operating at a reduced capacity while the second pump is inoperable due to the hauling contractor dropping a large piece of concrete into the hopper in the previous months. The procurement department is seeking compensation due to negligence by the hauler. Staff ordered replacement parts which are expected in March and May 2023. This significantly impacts the NTP's solids handling operations, resulting in the need to go to both composting and the landfill.

- (12) Plant staff, Treatment Process Engineers (TPEs), E&I staff, and Industrial Automation Programmers (IAPs) moved forward with a new method of effluent flow calculation for contact tank #2. In lieu of the hydro ranger performing the flow calculations and relaying the value to the Distributed Control Systems (DCS), the plant will be using open channel flow calculations to determine water level in inches above the weir. The hydro ranger will then relay this value to the DCS, and the flow will be calculated by an equation developed by the TPEs. This equation will properly capture the effluent flow effectively which the hydro ranger could not do because of the weir configuration. Plans to transition contact tank #1 are being coordinated for early February.

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

- (1) The plant met all VPDES permit requirements.
- (2) There were no odor exceptions or odor complaints during the month.
- (3) There were no reportable events for the month.
- (4) The total volume of SWIFT recharge into the Potomac aquifer for the month of December was 18.3 million gallons (MG) (63.7% Recharge Time based on 650gpm).
- (5) Contractors continue construction of the Fats, Oils and Grease (FOG) handling facility, with a new estimated completion date of May 2023.
- (6) On January 12, contractors began pouring the concrete foundations for the new Pre-Dewatering building and Side-stream Nutrient Removal facility. These buildings are part of the ongoing Waste Activated Sludge Stripping (WASSTRIP)/Digester project which will help increase phosphorus recovery in the Struvite Recovery Facility (SRF) and assist in meeting lower effluent nutrient numbers.
- (7) Boiler #1 had a catastrophic failure due to temperatures rising above the safe setpoint. A sensor malfunctioned and caused an alarm. The operator discovered this issue on January 1. This resulted in the boiler tubes warping, the boiler door to push open and connecting pipes to become loose. Staff plan to bring in a temporary boiler as a backup for Boiler #2.
- (8) There was a major event on the ozone system for the SWIFT RC that impacted recharge operations. The strainer for the NPW loop system was clogged, restricting flow to the cool water system and heat exchanger. This created a condition that would not allow the ozone reactor to maintain optimal operating temperatures. To avoid this problem in the future, a new quarterly PM will be created in the Computerized Maintenance Management System (CMMS).
- (9) During the month, the Granular Activated Carbon (GAC) flow setpoint was adjusted to send 90% of the flow to GAC#2, which is the vessel that contains the newest (fresh) carbon media to lower the Perfluorooctanoic

Acid (PFOA) concentration on SWIFT Water®. After reviewing some recent data, it was noticed that PFOA was desorbing from GAC#1 even at 10% of the flow. As per January 11, the GAC#1 vessel is no longer in operation and new media will be delivered mid-February.

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

a. JRTP

- (1) The plant met all VPDES permit requirements.
- (2) There were no reportable wastewater events or odor scrubber deviations.
- (3) Staff performed routine maintenance and repair and provided support to several contractors onsite for various projects.
- (4) The contractor drilling on-site wells worked on wells near the solids holding tank shoreline, and the northwest corner of Riverview Farm Park.
- (5) The contractor working on the Advanced Nutrient Removal Improvements (ANRI)/SWIFT Project completed demolition of secondary clarifiers #1 and #2 and began setting sheet piles. Excavation of the effluent end of #1 through #3 IFAS tanks was complete in preparation for constructing the effluent channel. Excavation for the new RAS building was also completed along with installation of the RAS pipeline that will go through the building. At the SWIFT location, excavation and setting of piles commenced on the power supply building, SWIFT equalization tank, and well backflush tank. Setting of piles for SWIFT process buildings #1 and #2 are in progress.
- (6) Grading of the shoreline and barrier stone was set on the Shoreline Stabilization Project. The contractor is waiting for timber piles to arrive to complete grading and setting additional stone.

b. WBTP

- (1) The plant met all VPDES permit requirements.
- (2) There were no reportable wastewater events, one air event, three incinerator deviations, and one odor scrubber deviation. The air event was a use of the emergency bypass stack due to loss of the induced draft fan after a power blip. The incinerator deviations were a failure of the THC meter to record two valid readings per an hour due to electrical and calibration issues. The odor scrubber deviation was an effluent exhaust hydrogen sulfide reading over two parts per million (ppm) due low chemical feed.
- (3) Staff performed routine maintenance and repair.
- (4) Staff repaired the rake arm on primary clarifier #1.

- (5) Staff reinstalled a rebuilt mixer on the solids holding tank. Reinstalling the mixer required rental of a large crane. While the crane was on site, an NPW pump was removed, cleared of debris, and reinstalled by maintenance staff.
- (6) Work continued on the administration building renovation project. A temporary occupancy permit was received from James City County, allowing for use of the women's and unisex restroom and locker rooms while the existing men's restroom and locker room is demolished. The contractor worked on installation of equipment, electrical fixtures, doors, and punch list items. Scheduled completion is anticipated for the first week of March.
- (7) A contractor performed condition assessment of the headworks influent and effluent piping and piping from the primary clarifier distribution chamber to the primary clarifiers.

c. YRTP

- (1) The plant met all VPDES permit requirements.
- (2) There was one reportable wastewater event or odor scrubber deviations. The wastewater event was a discharge of approximately 700 gallons of centrifuge centrate caused by a hose flange break at the centrate transfer pump. Approximately 300 gallons were recovered.
- (3) Staff performed routine maintenance and repairs.
- (4) Staff completed design review of the Primary Clarifier Influent and Effluent Pipe Rehabilitation Project.
- (5) Staff participated in a kickoff meeting for the yard piping Geographical Information System (GIS) Mapping Project. This project will ultimately locate and record yard piping and valves throughout the plant.
- (6) A contractor conducted Condition assessment of the influent force main.
- (7) E&I staff continued work on the new secondary clarifiers duct bank. This duct bank will replace the existing, deteriorating duct bank.
- (8) The contractor excavated, placed rebar, and poured the footer for the lunchroom and men's restroom for the administration building renovation project.

d. Multiple Hearth Incinerator (MHI) Operations Events Summary

- (1) All plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) met the 100 PPM THC limit with continuous emissions monitoring valid data captured of greater than 75%.
- (2) The MHIs had no deviations from the required 129 Sewage Sludge

Incineration (SSI) rule minimum operating parameters and three minor bypass events (<60 minute).

C. Small Communities (SC) Division (SCD)

1. Middle Peninsula

- a. There was one SSO in the Middle Peninsula System:

On January 9, utility access hole MH-0406 overflowed in King William when the downstream pump station (Central Crossing) experienced a float control failure. Staff were able to restore the pump station and applied lime to the spill area. Approximately 200 gallons of raw wastewater soaked into the ground. A weighted float system and pump run alarm system was added to the pump station to prevent future issues.

- b. There were no permit exceedances this month.

- c. There were no odor complaints and no collection system complaints.

- d. There were no Miss Utility no shows and no after-hour emergency tickets reported for the month.

- e. Several new single-family home connections were made in January.

f. West Point Treatment Plant (WPTP)

(1) Contact Tank Blower motor was replaced.

(2) DEQ performed a routine five-year plant inspection.

(3) E&I staff repaired and worked on various equipment throughout the plant.

g. King William Treatment Plant (KWTP)

(1) Staff completed Clean in Place procedures on the plant membranes.

(2) The KWTP Improvements Stage 1 project is nearing completion and punch list items are being addressed.

2. Surry Systems

- a. There were no SSOs in Surry County.

- b. There were no permit exceedances this month.

- c. There were no odor complaints, and no collections system complaints.

- d. There were no Miss Utility “no shows” and no after-hour emergency tickets

reported for the month.

- e. Staff re-routed the Surry County Treatment Plant service area to the Industrial Park Pump Station and valved the county plant offline.

3. Lawnes Point (LP)

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

4. Eastern Shore (ES)

- a. There were no SSOs for this month.
- b. There was one permit exceedance for the month.
- c. Additional IFAS media and aeration upgrades were implemented in the Nassawadox Treatment Plant Aeration tank to improve nitrification. The increased aeration in the tank led to higher effluent TSS, with an average monthly value of 18.6mg/L, above the 15mg/L permitted monthly average value. Ongoing efforts are being made to reduce effluent TSS.
- d. There were no odor complaints and no collections system complaints.
- e. There were no Miss Utility no shows and seven after-hour emergency tickets reported for the month.
- f. Staff installed several cleanouts and de-ragged pumps at both South Street and Harman Ave Pump Stations.

g. Onancock Treatment Plant (OTP)

- (1) SS Interceptors provided a Vactor Truck and staff to assist plant personnel with cleaning the grit from Aeration Basin #1 in preparations to bring it back online.
- (2) Staff continued with membrane inspections and pulled membrane trains one and two cassettes for inspections and repairs.

h. Nassawadox Treatment Plant

Staff delivered and installed 10 cubic meters of IFAS media along with additional aerators in the aeration basin to limit ice build-up and improve media mixing in the aeration tank. Nitrification greatly improved, but effluent TSS levels increased significantly. Further mixing and aeration improvements along with increased chemical addition should quickly bring TSS levels back to within permit.

g. Chincoteague Treatment Plant

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

D. Electrical & Instrumentation (E&I)

1. Staff worked with engineering firm HDR to finalize the design drawings and specifications for the VIP Motor Control Center (MCC) replacement Project. They also reviewed and provided comments for the 100% drawings and preliminary equipment submittals.
2. Staff operated the Sulphur Hexafluoride (SF6) switches to transfer load to the alternate set of 4,160-volt (V) cables throughout WBTP. Approximately 18 months ago, a new electrical power distribution system was installed at WBTP to provide redundancy in case of a cable failure. By following best maintenance practices and to increase the life expectancy of the cables, the electrical load was transferred to the alternate set of cables.
3. Staff responded to a communication failure on the SCADA system that affected all King William (KW) SCADA sites at King William Treatment Plant (KWTP). Staff diagnosed the problem remotely via radio and determined the Verizon service was inoperable. They contacted IT for assistance with submitting a Verizon ticket for repair. Verizon stated the problem was repaired and closed their outage ticket. Staff responded to the site and upon arrival discovered the Verizon router had failed. They verified all SCADA equipment was operational, reset the Verizon router, and the same condition existed. Staff were later notified that Verizon repair crews were enroute to repair a broken telephone pole and T-1 connection.
4. Staff coordinated Thermographic Inspections with Infralogix, the electrical contractor, at OTP on the Eastern Shore (ES). No major issues were discovered, and a final report will be provided by mid-February.
5. Staff experienced an Automatic Transfer Switch (ATS) failure while performing PM on the electrical equipment at Patrick Henry Pump Station (PS). A new controller was installed and tested prior to returning the ATS to normal operation. The failed controller will be added to our spare parts inventory once repairs are complete.
6. Staff worked with CEC and Systems East Inc. (SEI), the contractors, to update the existing controls to the new SCADA Remote Terminal Unit (RTU) controls at Camden PS. In addition to this cutover, Factory Acceptance Tests (FAT) were performed for Surry Stations, Marina Drive and Dendron A and B.
7. Staff worked with contractors CEC and Kohler to program SCADA alarm parameters for the generator at Courthouse Pressure Reducing Station (PRS). This generator will be used to maintain control power on the station in the event of a power loss.
8. The Data Analysis (DAS) group reported inaccuracies in the Shell Road and Shore

Drive/Juno Master Metering Program (MMP) site flow data. Staff coordinated with Interceptors on South Shore to provide traffic control while maintenance was performed at the flow measuring sites. Maintenance activities included uninstalling, cleaning, and reinstalling the flow sensors. Staff verified the flow sensor data for accuracy and the sites were returned to normal operation.

9. Staff assisted Automotive with diesel generator load bank testing at Coliseum, Newmarket, Steamboat, and Willard Avenue Pump Station's (PS's). The generators operated as designed and were returned to service.
10. E&I superintendents participated in reviewing Interceptor System PM Manual (ISPMM).
11. Alexandria (Lexi) Beecher started as the E&I Manager Intern on January 24, to fulfill HRSD's initiatives to partner with neighboring Historically Black Colleges and Universities (HBCUs). Alexandria is currently a senior majoring in Electrical Engineering at Hampton University (HU).
12. Staff met with HDR Engineering to develop a scope and fee for a proposed CIP project that will replace generator controls due to one of the two Programmable Logic Controllers (PLCs) failing at ABTP.
13. Staff continue coordination of new electrical service with DE, Cox Communications, and Verizon for the Lucas Creek PS Project (JR0135). The easement for Cox Communications was signed and notarized. A letter of authorization was submitted to DE to proceed with scheduling construction. Staff are still coordinating with Verizon to receive an approved easement for the relocation of their utilities.
14. Staff met with Prince George Electric Cooperative (PGEC) to discuss the new service for the new PS for the School Complex in Dendron, Virginia. The next step includes a site visit with PGEC and school administration to determine the best possible route for the new service.

E. Support Systems (SS)

1. Facilities Maintenance (FM)

- a. Renovation of the electrical shop at ATP continues. The HVAC contractor installed a 5-ton HVAC unit to serve the shop, office, and lunchroom area. They are still waiting for the electrical contractor to install a power circuit to start up the unit. The drywall will be ready for paint, along with the installation of the suspended ceiling in mid-February.
- b. The Carpentry Shop (CS) re-configured two offices and repaired walls for one at the main office. CS also modified two 55-gallon drums for Technical Services Division (TSD).
- c. The Machine Shop (MS) had a total of 15 projects with three pump rebuilds.

There were two notable projects for January. The first is the rebuilding of a destroyed valve operator. It was taken apart in the field and brought into the shop in many pieces. It was brought in on Wednesday and rebuilt and reworked by Friday.

2. Infrastructure Assessment (IA)

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

F. Resource Recovery (RR)

1. Methane reduction: the highest methane producers were identified and quantified in the interceptor system. The data was shared with HRSD's consultant and showed the potential to significantly reduce emissions of methane, which is considered a potent Greenhouse Gas (GHG). A feasibility study was provided to staff to evaluate cost-effective methods to reduce this emission of methane.
2. Phase 1 of the study is to conduct a Proof-of-Concept to further sample the 5-10 high gas flow air vents and inform HRSD of available technologies as well as select and design a mobile flare unit for field testing. This will include evaluation of existing flaring technologies to better understand equipment options and requirements to reduce methane emissions. Parameters such as pressure, flow, gas, etc., will be defined as part of the technology evaluation, along with preliminary equipment costs. Once a technology is selected, design sketches for the proof-of-concept flare unit will be developed, and a preliminary testing plan including parameters to evaluate performance will be proposed. Choosing the right technology depends on methane data. Several manufacturers of flares and regenerative thermal oxidizers were contacted. Staff provided the methane quantities to our annual services consultant so that a feasibility study could be considered.

G. Water Technology and Research

With drinking water maximum contaminant levels looming for several per-and polyfluoroalkyl substances (PFAS), we have launched a new research thrust at the SWIFT RC focused on maximizing the capacity of GAC for the adsorption of the target compounds, PFOA and Perfluorooctane Acid (PFOS), as well as developing operational tools and strategies for GAC contactor operation at JRTP. This includes both full-scale GAC contactors at the SWIFT RC and the pilot systems. In addition, we will also begin looking at ion exchange as a high-rate process to be used to polish the target compounds after GAC treatment.

H. MOM reporting numbers

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

I. Strategic Measurement Data

1. Education and Outreach Events: 5

- a. 01/16//2023 - IWA Water Reuse Conference, Podium Presentation, Upstream ozone vs downstream UVAOP for 1,4-dioxane removal in high-bromide O3-BAC-GAC-UV based potable reuse – Mack Pearce
- b. 01/16/2023 - IWA Water Reuse Conference, Podium Presentation, Validating Pathogen Removal in Ozone-Biofiltration Advanced Treatment Trains – Samantha Hogard
- c. 01/16/2023 - IWA International Conference, Water Reclamation and Reuse: “Reducing Life-cycle Cost of Groundwater Recharge and Drinking Water Augmentation” – Germano Salazar-Benites
- d. 01/20/2023 – ATP Tour for Cox High School Students – James Elder
- e. 01/27/2023 – VIP Plant Tour for Norfolk Academy students – Kelly Lamp

2. Community Partners: 7

- a. Atlantic Treatment Plant Roundtable Group, OLHS, OL Neighborhood, Lynnhaven River NOW, City of VB, Navy
- b. Chesapeake Bay Foundation
- c. DOE Jefferson Lab
- d. Ocean Lakes (OL) High School
- e. Old Dominion University (ODU)
- f. Saltwater Chaser Meeting with Cities of Hampton and Newport News
- g. Town of Onancock

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2023
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (524) – Current Month	Hours / FTE	3.72
M-1.4b	Total Training During Work Hours per FTE (524) – Cumulative Year-to-Date	Hours / FTE	17.17
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	29,662.40
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	59.74%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	20.51%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	19.75%
M- 4.1a	Energy Use: Treatment	kWh/MG	2,715
M-4.1b	Energy Use: Pump Stations	kWh/MG	215
M-4.1c	Energy Use: Office Building	kWh/MG	103
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Number of Community Partners	Number	7

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

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for January 2023

DATE: February 21, 2023

A. Talent Management Executive Summary

1. Recruitment Summary

Current Vacancies	48
New Recruitment Campaigns	13
Job Offers Accepted – Internal Selections	7
Job Offers Accepted – External Selections	15
Internal Applications	29
External Applications	155
Average Days to Fill Position	158.64

2. Employee Separation Summary

	January 2023	Total (April 2022-January 2023)
Career/Better Opportunity	5	17
Content of work	0	3
Family circumstances	0	5
Dismissal	2	8
Going to school	0	1
Lack of Opportunity for Advancement	0	1
Moving from the area	0	5
Salary	0	5
Retirement	1	12
End of Assignment (PT)	0	23
Administrative Separation	1	2
Unknown	0	1

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

Description	January 2023	Total (March 2020 – January 2023)
Quarantines due to illness or direct exposure (household or external)	0	452
Work Related Quarantines	0	106
Personal Travel Quarantines	0	61
Confirmed Employee COVID-19 Cases	4	329
Work Related Confirmed COVID-19 Cases	0	13
Contractor COVID-19 Cases on HRSD Sites*	0	12
Work Related exposure no quarantine required*	30	90
Vaccine Acknowledgements	5	902
Booster Acknowledgements	10	474
Vaccination Rate	93%	
Boosted*	44%	

*Added May 2022

4. HRSD continued work with the consultant on system changes to benefit interfaces and benefit plan changes.
5. Benefits and Compensation
 - a. Held a pre-renewal meeting for health benefits with MMA. There are no changes to deductibles and co-pays. Enhanced the dental benefit for children.
 - b. Started the RFP process for a review of our classification and compensation process, job descriptions and another survey.
6. Wellness Program
 - a. Participation

Year Ten Participation Activities	Unit	January 2023	Year to Date (March 2022– February 2023)
Biometric Screenings	Number	96	226
Preventive Health Exams	Number	88	178
Preventive Health Assessments	Number	168	345
Online Health Improvement Programs	Number	0	N/A
Web-MD Online Health Tracking	Number	0	N/A
New Challenges (Previously HIP)	Number	183	442
Fit-Bit Promotion	Number	0	N/A
WellSpark Challenges - Healthy Heart Challenge (ends Feb. 27 th)		212 enrolled	

- b. The Wellness Specialist conducted 10 onsite visits with a total of 228 employees in attendance. She also held five Teams presentations on the wellness program with a total of 353 attendees.
 - c. Presented the wellness program during New Employee Orientation (NEO) to a total of six new employees.
 - d. Continued to talk with employees one on one to answer questions and administered 10 biometric readings.
 - e. Reached a total of 597 employees through the engagement activities mentioned above.
7. Organizational Development and Training (ODT)
- a. Worked with consultant Hicks-Carter-Hicks (H-C-H) and the HRSD sponsor on several Diversity, Equity, and Inclusion (DE&I) initiatives.
 - b. Worked with consultant H-C-H on executive coaching. Interviewed certified coach to begin an executive coaching partnership.
 - c. Continued work on the Corporate Training software. We are currently reviewing courses to finalize offerings.
 - d. Continued work with the Customer Care Division to curate online learning paths and integration of available Corporate Training courses.
 - e. Continued work with the Water Quality Department to increase quality assurance training courses.
 - f. Began a new initiative with Water Quality to facilitate several focus groups around the topic of communication.
 - g. Continued to work with a cross-departmental team to advance the functionality of Canvas.
8. Apprenticeship Program
- a. Conducted Electrical & Instrumentation (E&I) Program Registration
 - b. Held an Apprentice Graduation Committee Meeting to discuss the logistics of the upcoming 2023 Graduation
 - c. Held semi-annual Apprentice Representative meeting
 - d. Work continued on the following:
 - (1) Apprenticeship Mentoring Program
 - (2) Building and structuring a day Apprenticeship Program
 - (3) Developing Standard Operating Procedures for ODT responsibilities

- (4) Trade curricula revisions and course development to update and enhance course offerings

9. Safety

HRSD received five Occupational Safety and Health Administration (OSHA) citations from Virginia Occupational Safety and Health (VOSH) for the Williamsburg Treatment Plant (WTP) accident in July 2022. As required, the citations were posted at WTP. The Safety Manager worked with plant staff to gather information (pictures, receipts, training records, etc.) and completed the VOSH Corrective Actions Form. The completed packet was dropped off at the VOSH office in Norfolk. The Safety Manager worked with Accounts Payable to pay the assigned penalties from the VOSH citations.

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

	<u>2022</u>	<u>2023</u>
Mishaps	36	1
Lost Time Mishaps	4	0
<i>Numbers subject to change pending HR review of each case.</i>		

11. Safety Division Monthly Activities

Safety Training Classes	14
Work Center Safety Inspections	18
Reported Accident Investigations	1
Construction Site Safety Evaluations	8
Contractor Safety Briefings	13
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	201
Industrial Hygiene Monitoring Events	2

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (10)

- a. 1/4/2023 Handshake
- b. 1/6/2023 FEP meeting
- c. 1/10/2023 Virginia Employment Commission (VEC) Veterans Virtual Hiring Event
- d. 1/11/2023 Workforce Council Hiring Event
- e. 1/13/2023 Department of Social Services
- f. 1/20/2023 Veterans/Military Spouse Hiring Event (VEC)
- g. 1/23/2023 Navy Transition Assistance Program (TAP)
- h. 1/25/2023 Four Oaks Job Fair, Newport News
- i. 1/24/2023 Career and College Fair, Western Branch High School
- j. 1/30/2023 Campus 757

2. Community Partners: (7)

- a. City of Chesapeake Public Schools
- b. City of Newport News
- c. City of Newport News Public Schools
- d. Department of Social Services
- e. The Workforce Council
- f. VEC
- g. Virginia Values Veterans Advisory Council (V3)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2023
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.73
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.12%
M-1.4a	Total Training Hours Per Full Time Employee (18)	Total Training Hours/ FTE	0.33
M-1.4b	Total Training During Work Hours Per Full Time Employee (18) – Cumulative Fiscal Year-to-Date	Hours / FTE	15.03
M-5.2	Educational and Outreach Events	Number	10
M-5.3	Community Partners	Number	7

Respectfully submitted,

Dorissa Pitts-Paige
 Director of Talent Management

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

A. General

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

Department of the Navy, Naval Station Norfolk

An Enforcement Order was issued to Department of the Navy, Naval Station Norfolk on January 13, 2023, for administrative and technical violations. The permittee received a technical violation for the December 7, 2022, unauthorized discharge of 600 gallons of Aqueous Film Forming Foam (AFFF) to the sanitary sewer, another technical violation for failing to perform pretreatment device inspections during Quarters 2 and 3, 2022, and an administrative violation for the late submittal of the July 2022 self-monitoring report. A Show Cause meeting was held on January 9, 2023. The Enforcement Order included a \$5,000 civil penalty assessment, but due to the Supreme Court decision, *Ohio v. Department of Energy*, US, 112 SCT 1627, 118 Led2d 255 (1992), an invoice was not generated, and the Civil Penalty is not collectable.

2. The Central Environmental Laboratory (CEL) completed the 2022 annual workload evaluation showing a 2% increase in workload attributed to SWIFT and increases in specialty monitoring in the organics section.
3. CEL representatives attended the Winter 2023 meeting of The National Environmental Laboratories Accreditation Conference (NELAC) Institute to lead and attend committee meetings, and provide comments on standard development for quality systems, proficiency testing, field activities and other expert modules.
4. CEL, Technical Services Division (TSD) and Nansemond Treatment Plant (NTP) staff continued testing and data evaluation of online Total Residual Chlorine (TRC) analysis as part of implementing the Alternate Test Procedure for compliance monitoring. The Permit Manager and NTP representatives have completed data evaluation and reporting procedures. Final Standard Operating Procedure (SOP) updates to clarify data handling procedures and maintenance recording procedures have been developed. Full scale implementation is scheduled for March 1, 2023.
5. WQ continued work with Operations staff to address ongoing odor issues at the Atlantic Treatment Plant (ATP). TSD maintained increased odor surveillance and work with ATP staff to identify and mitigate odor sources and provide immediate response to odor complaints.

6. As discussed in the Effluent and Air Emission Summary, a force main failure resulted in a release of 115,400 gallons of wastewater to waters that drained to the Lynnhaven River. As a result, the Virginia Department of Health's Division of Shellfish Safety issued an emergency condemnation notice for shellfish harvesting that extended from January 14 – February 3, 2023. Lifting of this emergency closure would have allowed for harvest on February 4. However, the growing area that was impacted is also subject to conditional management that requires closure of the growing beds following the exceedance of a rainfall trigger (> 1 inch of rain in 24 hours). This conditional condemnation was triggered on January 26 and ended on February 5. There was a period from January 26 – February 3 of overlapping closures (spill and rain related) during which harvesting was not allowed in this area.
7. DWQ participated in the following HRSD Activities:
 - a. HRSD LIFE Program Development Committee
 - b. HRSD Quality Steering Team (QST)
 - c. SC&H Internal Audit Risk Assessment survey
 - d. SWIFT QST
 - e. VAMWA Biosolids Committee Meeting
8. Advocacy and external activities:
 - a. Elizabeth River Project's River Stars Business Engagement
 - b. National Academy of Science and Technology Board webinar- *Wastewater Disease Surveillance for Public Health Action*
 - c. Virginia Water Environment Association – Leadership Academy
 - d. Water Environment Federation Utility Management Leadership Exploratory meetings

B. Quality Improvement and Strategic Activities

The Sustainability Environment Advocacy (SEA) Group presented to the Hampton Roads Planning District Commission (HRPDC) Regional Environmental Committee on HRSD's SEA Team including past, current, and proposed initiatives as well as metrics from trash cleanup and tree planting events.

C. Municipal Assistance Program (MAP)

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

1. City of Fredericksburg
2. Northumberland County
3. Prince William County – Virginia American Water
4. Stafford County
5. Western Virginia Water Authority
6. Westmoreland County

D. Microbial Source Tracking (MST)

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

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: (0)
2. Community Partners: (8)
 - a. American Red Cross
 - b. City of Chesapeake, Chesapeake Local Health District
 - c. City of Virginia Beach
 - d. HRPDC
 - e. HRPDC Fats, Oils & Grease (FOG) Subcommittee
 - f. Lynnhaven River Now Citizen Monitoring project
 - g. Virginia Department of Health (VDH)
 - h. VDH – Division of Shellfish Sanitation
3. Odor Complaints:

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

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2023
M-1.4a	Training During Work Hours Per Full Time Employee (120) (Current Month)	Total Hours / # FTE	4.5
M-1.4b	Total Training During Work Hours Per Full Time Employee (120) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	30.2
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	7:35,985
M-3.2	Odor Complaints	#	11
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	139,094,381
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	16%
M-5.2	Educational and Outreach Events	#	0
M-5.3	Community Partners	#	8
	Average Daily Flow	Total MGD for all Treatment Plants	142.16
	Pretreatment Related System Issues	#	0

Respectfully submitted,

Jamie Heisig-Mitchell

Director of Water Quality

EFFLUENT SUMMARY FOR JANUARY 2023

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	9.10	51%	4	4.9	2	1	0.45	0.45	5.0	5.0	2
ATLANTIC	44.58	83%	25	23	2	1	NA	NA	NA	NA	11
BOAT HARBOR	11.60	46%	6	9.3	2	1	0.57	0.57	25	25	4
CENT. MIDDLESEX	0.013	53%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA
JAMES RIVER	12.46	62%	6	4.3	2	<1	0.46	0.46	10	10	9
KING WILLIAM	0.070	70%	<2	<1.0	NA	1	0.032	0.032	2.5	2.5	NA
NANSEMOND	15.97	53%	6	9.9	2	1	0.55	0.55	3.6	3.6	0
NASSAWADOX	0.016	16%	5	19	1	2	0.44	0.44	13	13	NA
ONANCOCK	0.170	23%	<2	0.28	<1	1	0.041	0.041	1.2	1.2	NA
SURRY, COUNTY	0.011	17%	4	1.4	NA	1	NA	NA	NA	NA	0
URBANNA	0.035	35%	3	9.1	2	5	3.2	3.2	11	11	NA
VIP	27.26	68%	5	3.2	3	3	0.21	0.21	3.5	3.5	5
WEST POINT	0.466	78%	22	12	3	11	2.5	2.5	18	18	3
WILLIAMSBURG	7.73	34%	5	2.7	1	1	0.51	0.51	2.6	2.6	10
YORK RIVER	12.69	85%	1	0.28	1	<1	0.15	0.15	4.6	4.6	0
	<u>142.16</u>										

	% of Capacity
North Shore	54%
South Shore	68%
Small Communities*	45%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection	CY23	YTD	Projection	CY23
	%	Lbs	%	%	Lbs	%
James River	5%	2,722,157	77%	3%	236,441	75%
York River	6%	250,217	87%	4%	14,487	75%
Rappahannock	3%	NA	NA	3%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY23 to Date: 7:35,985
Pounds of Pollutants Removed in FY23 to Date: 139,094,381
Pollutant Lbs Discharged/Permitted Discharge FY23 to Date: 16%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	2.94"	3.12"	2.88"
Normal for Month	3.48"	3.21"	3.49"
Year to Date Total	2.94"	3.12"	2.88"
Normal for YTD	3.48"	3.21"	3.49"

*Small Communities includes Eastern Shore

AIR EMISSIONS SUMMARY FOR JANUARY 2023

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
MHI PLANT											
ARMY BASE	0	0	0	0	0	0	0	0	34	75	0
BOAT HARBOR	0	0	0	n/a	0	0	0	0	23	99	0
VIP	0	0	0	n/a	0	0	0	2	29	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	20	90	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:	11
HRSD Odor Scrubber H2S Exceptions:	1

Items of Interest – January 2023

MULTIPLE HEARTH INCINERATION (MHI)

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 75%.

The MHIs had no deviations from the required 129 SSI rule minimum operating parameters and three (3) minor bypass events (<60 minute).

DEQ approved the test protocol for Williamsburg on January 9. MHI # 1 was then successfully tested January 31, 2023. The field parameters were met and analytical results for laboratory measured pollutants are pending.

HRSD submitted the quarterly hydrogen chloride (HCl) corrective action plan report for Army Base to DEQ on January 10. The plant also has a 129 emission limits MHI stack test including HCl scheduled for this April 26th.

DEQ received the test protocol for Boat Harbor January 10 and approved them the 13th for the stack test currently scheduled for March 7, 2023.

HRSD submitted VIP's final test report from the MHI stack test conducted on November 29, 2022. On January 20, DEQ reviewed and approved the test report deeming the facility in compliance.

AIR PERMITS and ODOR CONTROL.

On January 20, DEQ affirmed that the fats, oil, and grease (FOG) is not a fuel and thus air compliance and permitting is no longer an issue at this time. And with that determination, Williamsburg was deemed in compliance by inspection from the DEQ site visit on November 15, 2022.

Atlantic plant's permit required odor management plan was submitted to DEQ on January 10, 2023.

HRSD submitted the annual reciprocating internal combustion engine (RICE) rule report for Atlantic's combined heat power (CHP) engines to the EPA on January 31. The CHP engines need to perform the required RICE rule emissions limits test in February.

Two (2) odor control scrubber system hydrogen sulfide (H₂S) exception were measured and a total of eleven (11) odor complaints were received in January.

Atlantic Plant received eleven (11) odor complaints from Ocean Lakes and Lago Mar neighbors. Plant Staff and TSD responded to all complaints and followed up with our neighbors with investigation results as documented and relayed to them accordingly.

TREATMENT

DEQ was notified of the following reportable events:

Boat Harbor

On January 5 a Maintenance Operator Assistant was performing Preventative Maintenance on the sodium bisulfite pump that was online and did not notify the Plant Operator. The pump was off for approximately 17 minutes and no dechlorination occurred during this time. Upon discovery, a different pump was selected and utilized.

York River

On January 25, a hose flange on the centrate transfer pump discharge line disconnected causing the containment to overflow. Upon discovery, plant staff turned off the pump, reconnected/reinforced the flange, and completed cleanup/recovery activities. To prevent a future event, E&I staff installed a float in the containment area that will automatically turn off the transfer pump and activate a Distributed Control System alarm should the float be triggered. Approximately 700 gallons of centrifuge centrate were released, with 300 gallons recovered; of the remaining 400 gallons, approximately 50 gallons went to the creek and 350 gallons soaked into the ground.

SYSTEM

On January 11 release occurred in a 20-in asbestos cement force main near the intersection of Shore Drive and Indian Hill Road when a coupling partially failed. HRSD staff utilized a sump to contain the leak, resulting in an initial release of 150 gallons. A contractor was mobilized to the site to perform the repair. Prior to fully isolating the force main, the contractor prematurely removed the partially failed coupling resulting in the release of an additional 190,500 gallons with approximately 75,250 gallons recovered. Impacted road surfaces were pressure washed and pervious surfaces were treated with lime. The remaining 115,400 gallons entered a storm drain to the Western Branch of the Lynnhaven River via Pleasure House Creek. This event resulted in a shellfish closure advisory.

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

King William Collection System

On January 9, a manhole at Central Crossing Pump Station overflowed due to excessive grease causing the station floats not to work and the pumps failing to activate. A vac truck removed the grease from the wet well, and lime was applied to the spill area. Approximately 200 gallons of wastewater was released and could not be recovered as it soaked into the ground and drained to an unnamed creek. HRSD has added an additional alarm at that site if the pumps don't cycle in a 12 hour duration, and have installed float weights to prevent a future occurrence.

Nassawadox Riverside

At the end of December 2022, HRSD made improvements to the IFAS process to ensure compliance with effluent ammonia limitations as the process temperature dropped below 5 degrees C. To accomplish this, HRSD transferred an additional 10 cubic meters of plastic IFAS media with nitrifying biofilm from the James River Treatment Plant to the north aeration basin at the Nassawadox Plant. This intervention successfully maintained effluent ammonia less than 1 mg/L. Though ammonia was successfully controlled, the additional media unexpectedly prevented adequate mixing in the aeration tank. HRSD subsequently improved mixing by adding coarse bubble aeration and increasing the surface aerator run time and attempted to improve clarifier performance through an increase of polymer/coagulant dosing. Despite these efforts, effluent TSS was elevated for the month of January. The weekly limit of 23 mg/L was met, but the monthly limit of 15 mg/L was exceeded (18.7 mg/L monthly average). Additional modifications are currently being made to further improve mixing in the aeration tank which is expected to improve overall process performance.

2023 Metals, Ammonia, and TKN

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

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

2023 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	9.10												9.10	7.95
Atlantic	44.58												44.58	43.82
Boat Harbor	11.60												11.60	10.15
C.Middlesex	0.013												0.013	0.011
James River	12.46												12.46	11.85
King William	0.070												0.070	0.071
Lawnes Point	0.000												0.000	0.000
Nansemond	15.97												15.97	14.95
Nassawadox	0.016												0.016	0.014
Onancock	0.170												0.170	0.162
Surry, County	0.011												0.011	0.033
Surry, Town	0.000												0.000	0.022
Urbanna	0.035												0.035	0.060
VIP	27.26												27.26	21.89
West Point	0.466												0.466	0.336
Williamsburg	7.73												7.73	9.00
York River	12.69												12.69	10.86
North Shore	44.47												44.47	41.86
South Shore	96.91												96.91	88.61
Small Communities	0.78												0.78	0.71
TOTAL	142.16												142.16	131.18

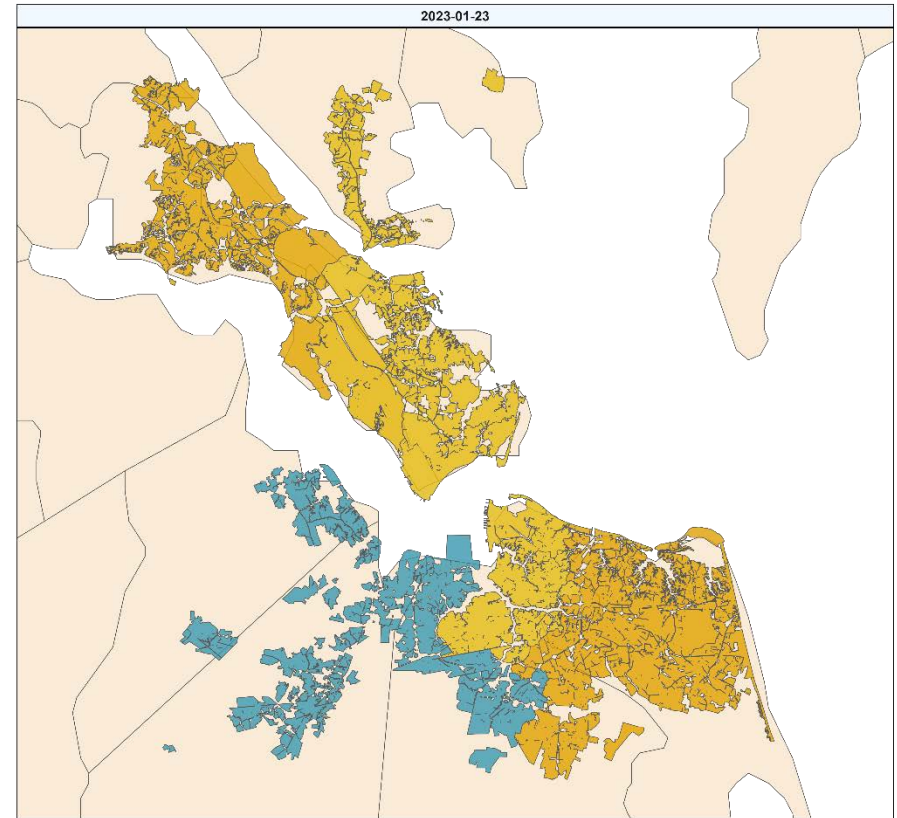
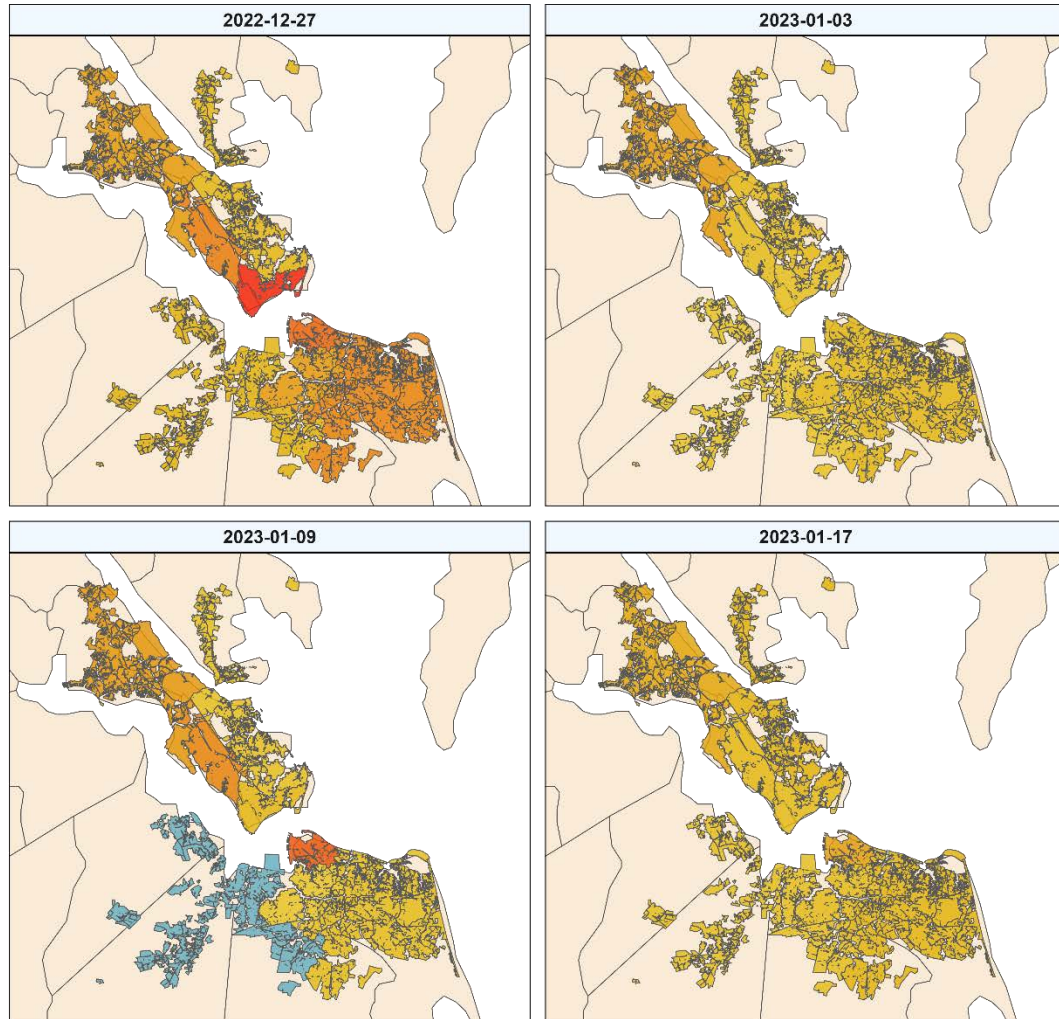
Bold values indicate monthly plant flow average >95% of permitted design flow



Wastewater Surveillance Commission Report

February 2023

SARS-CoV-2 Most Recent 5 Weeks



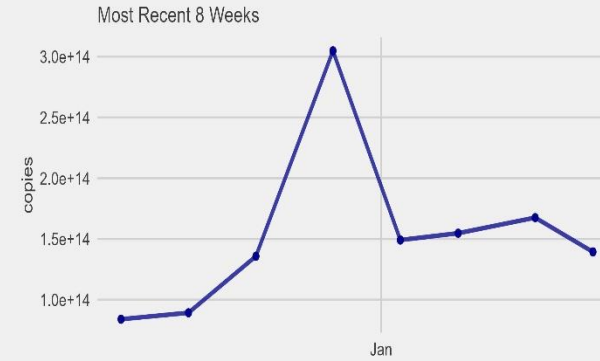
** Note that the scale for this heatmap is now based on the range of the most recent 5 weeks of data.

Regional Viral Load, Hospitalizations, and Deaths

Aggregate Viral Load for HRSD Treatment Facilities

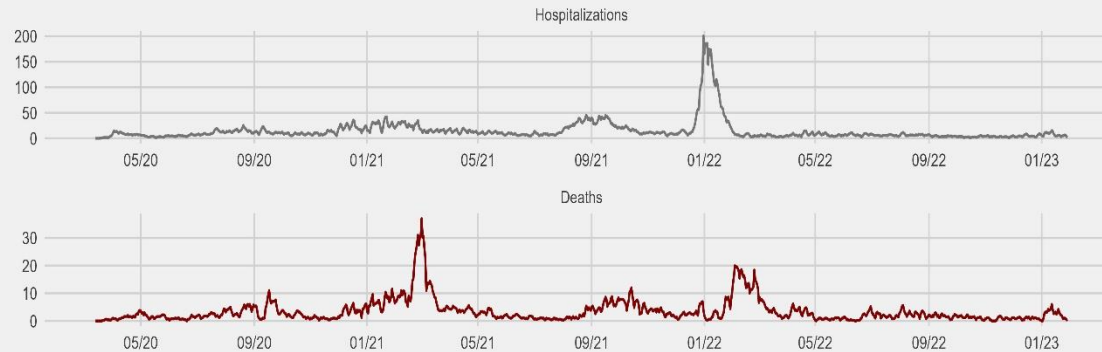


Wastewater Data HRSD Facilities



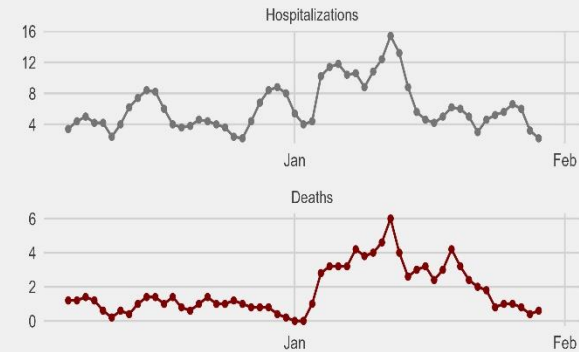
COVID-19 Hospitalizations and Deaths

Hampton Roads 5 Day Rolling Mean

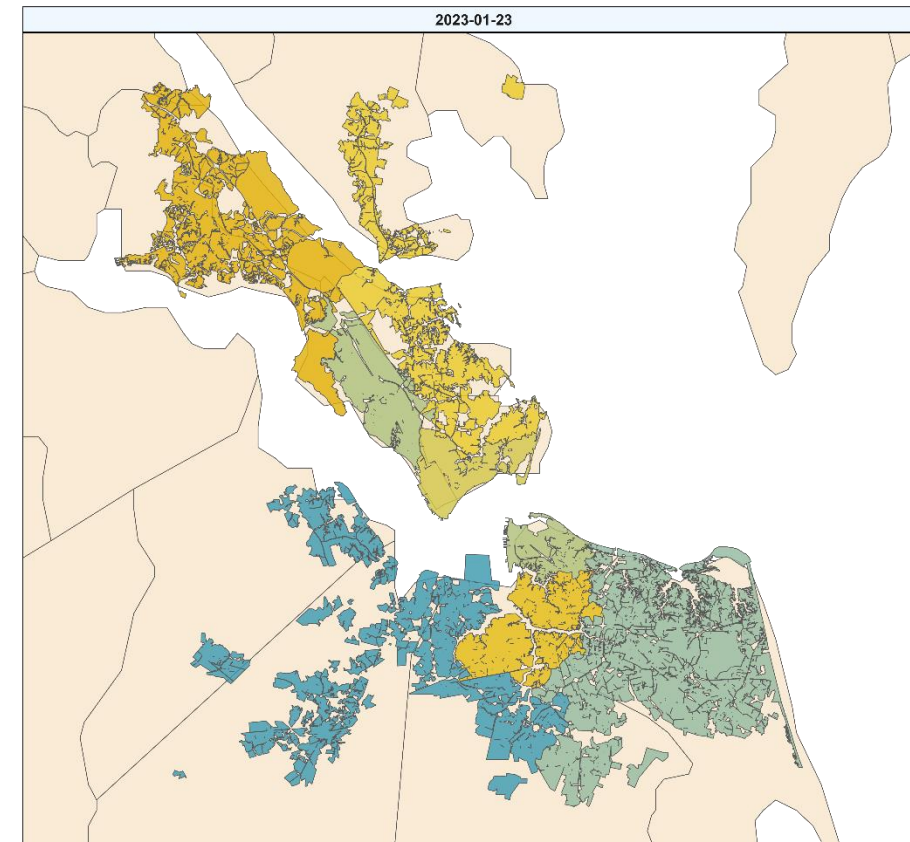
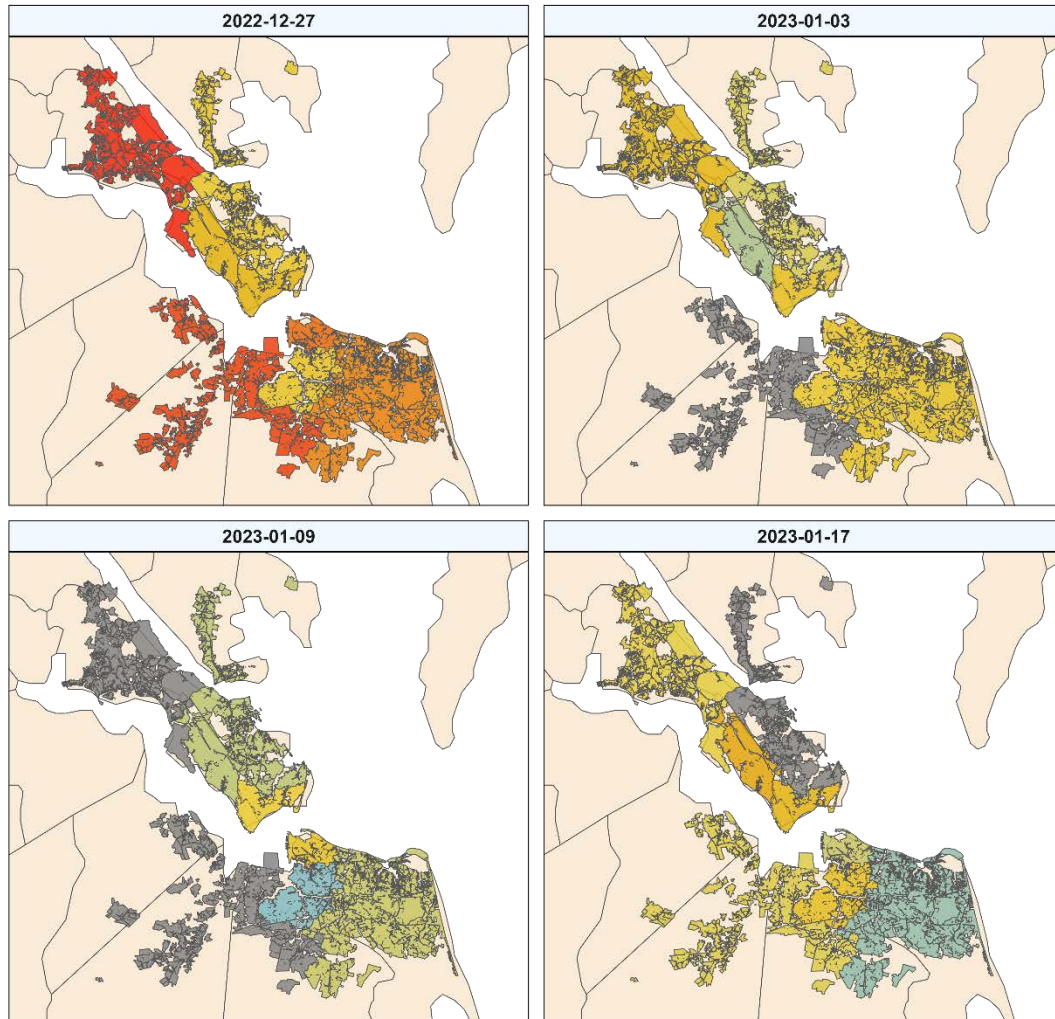


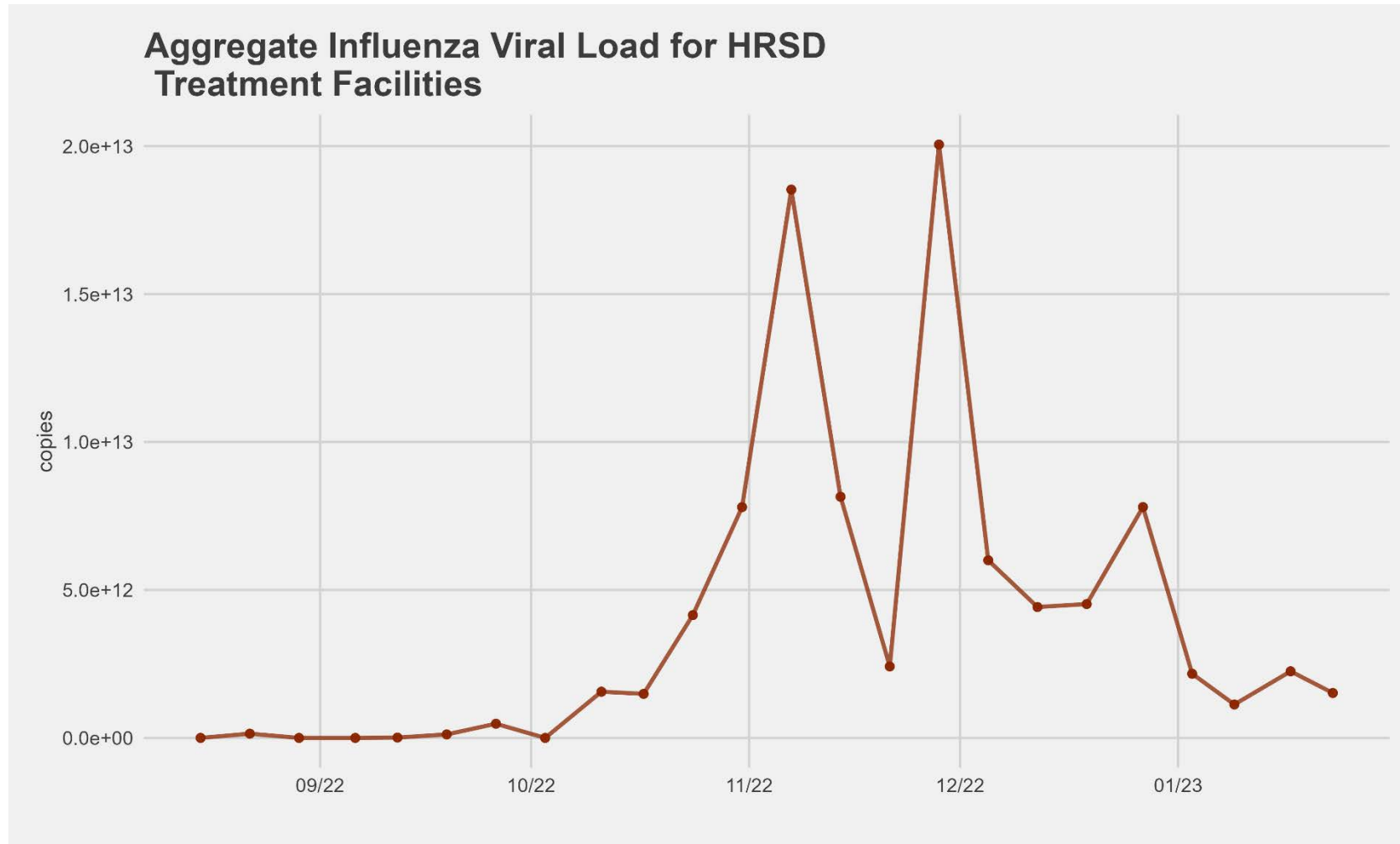
COVID-19 Hospitalizations and Deaths

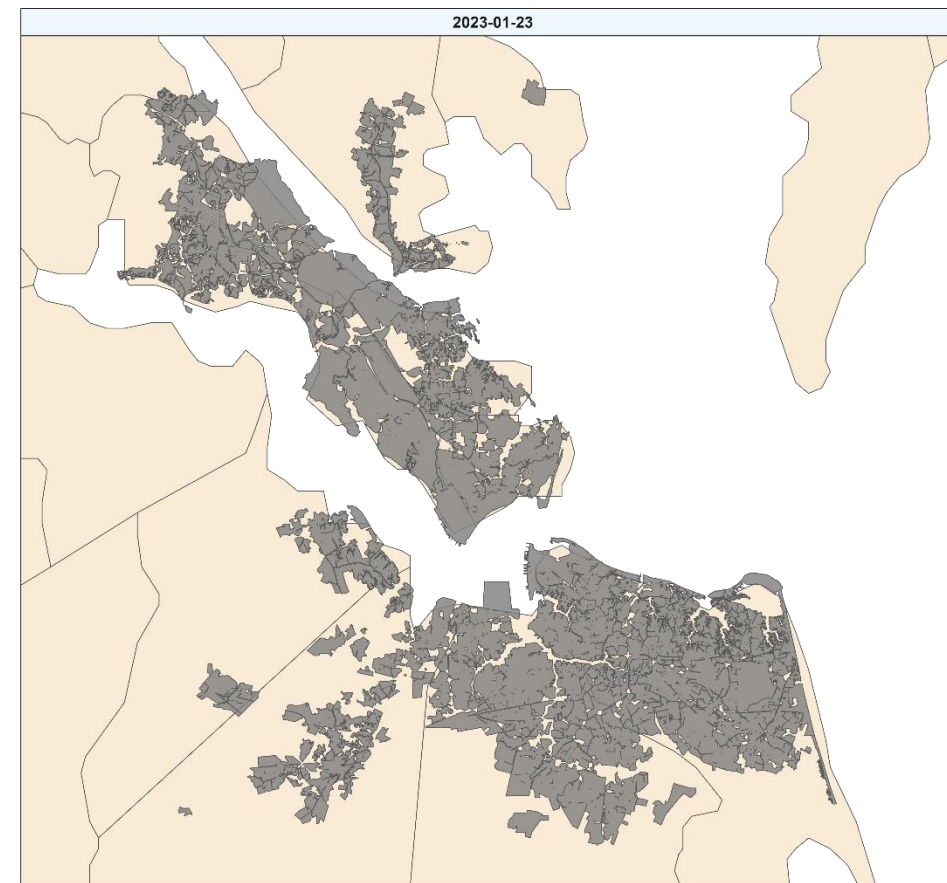
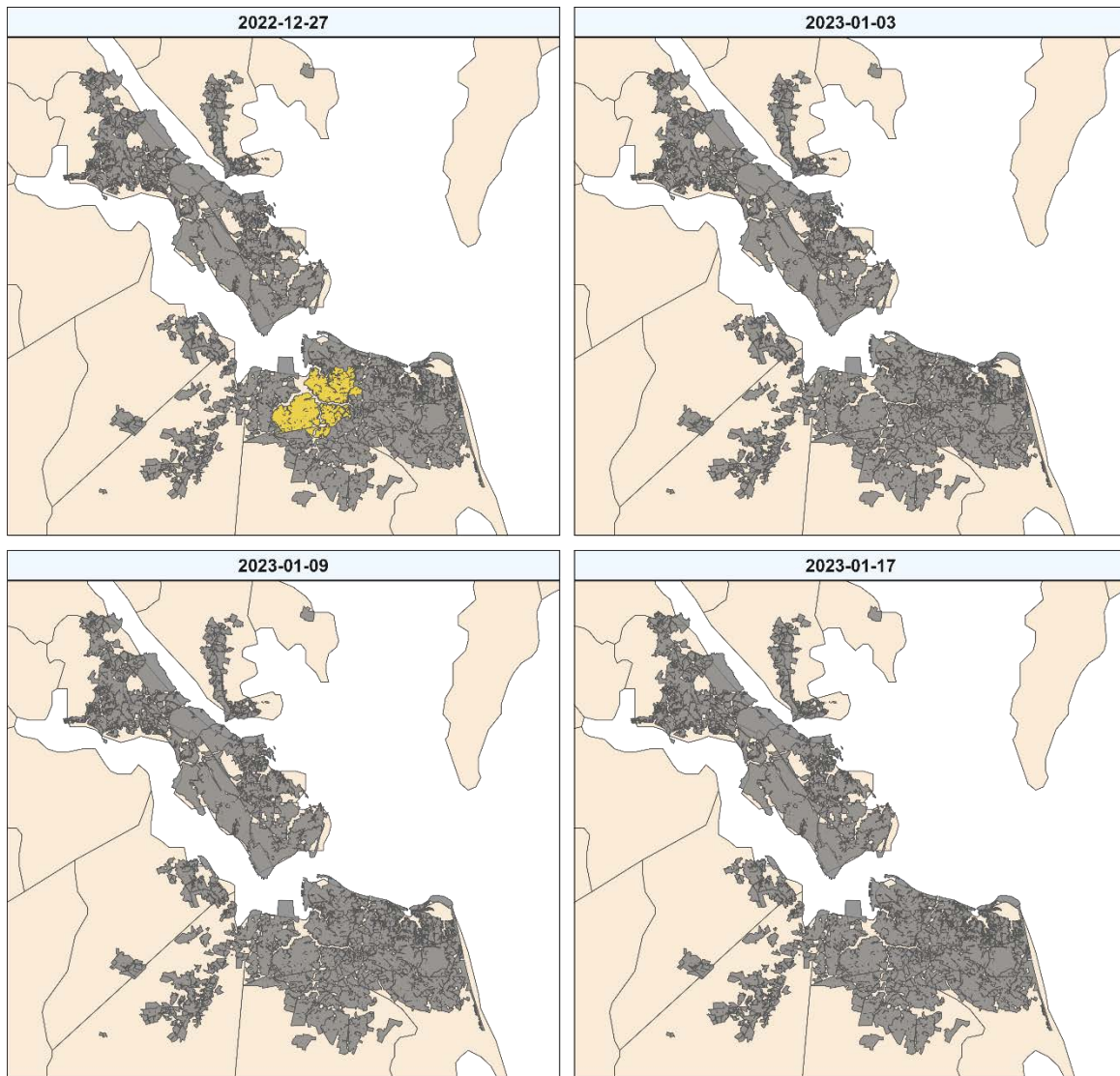
Most Recent 8 Weeks



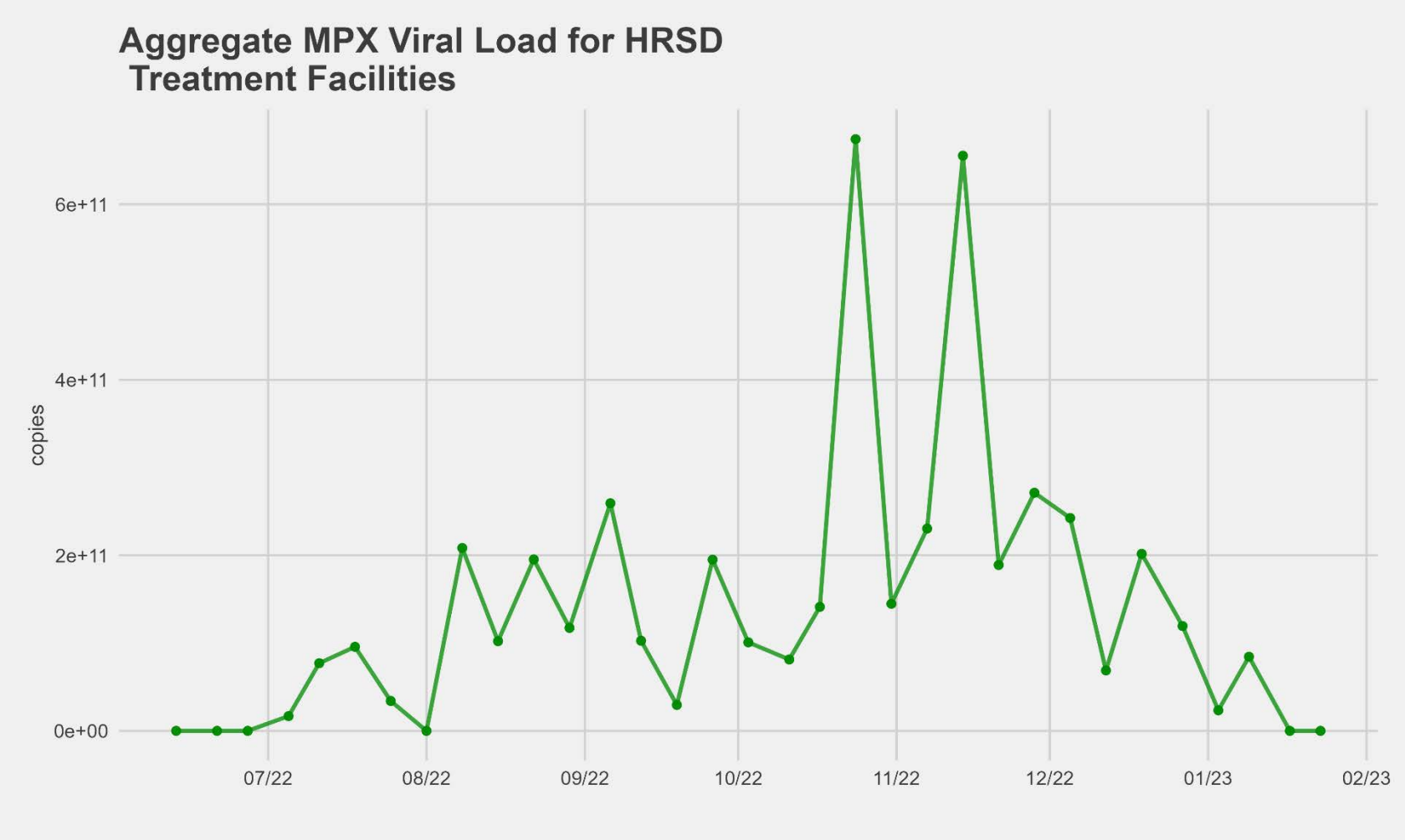
Influenza







Aggregate MPX Viral Load for HRSD Treatment Facilities





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

I. Projects in Process

Personally Identifiable Information

- **Tasks Completed (January 2023)**
 - Continued planning procedures
 - Continued drafting audit program
 - Continued initial walkthrough meetings
 - Reviewed survey results
- **Upcoming Tasks (February 2023)**
 - Finalize audit program; discuss strategy with Deputy General Manager and Director of Finance
 - Commence fieldwork procedures

Risk Assessment

- **Tasks Completed (January 2023)**
 - Administered survey to directors, chiefs, and commission
 - Performed internal risk assessment procedures
- **Upcoming Tasks (February 2023)**
 - Finalize surveys to directors, chiefs, and commission
 - Update risk assessment procedures
 - Draft internal audit plan

Grants Management

- **Tasks Completed (January 2023)**
 - Continued developing preliminary improvement opportunities
 - Drafted memorandum
- **Upcoming Tasks (February 2023)**
 - Finalize improvement opportunities memorandum

Family Medical Leave Act (FMLA)

- **Tasks Completed (January 2023)**
 - Completed internal reviews and updates of fieldwork procedures
 - Completed internal reviews and updates of draft report
- **Upcoming Tasks (February 2023)**
 - Finalize report and provide to Talent Management



Management Action Plan Monitoring

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

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

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

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
Safety Division	9/12/19	March 2023	2	1	3
SWIFT Program	2/24/2021	February 2023	9	3	12
Succession Planning	6/4/2021	March 2023	0	4	4
Emergency Repairs	1/18/2022	February 2023	0	3	3
Freedom of Information Act	12/21/2022	December 2023	0	1	1
D&C: CIP Project Management	5/11/16	Closed	13	0	13
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
Treatment Plant Operations	10/15/18	Closed	9	0	9
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
Customer Care Division	7/26/19	Closed	4	0	4
Pollution Source Control	6/2/20	Closed	8	0	8
Fleet Services	2/24/2021	Closed	17	0	17
Biosolids Recycling	10/8/16	Closed	8	0	8
Unifier/ERP Integration	6/27/2022	Closed	4	0	4
Totals			123	12	135

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

*to be reported

Monthly Updated Metrics																	FY-23	FY-23
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22	Dec-22	Jan-23
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	131.3	133.6	142.2
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	4	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	106%	106%	106%	104%	105%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	106%	106%	109%
	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	\$40,487,489	\$41,315,851
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	34%	32%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	0	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	9:60879	23:60879	9:60879	6:32,117	7:35985
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	51	10	11
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	120,102,111	139,094,381
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	22%	22%	17%	17%	17%	18%	14%	15%	16%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	687	49	65
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	125	18	27