

HRSD Commission Meeting Agenda
9:00 a.m. – April 26, 2022

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

Electronic attendance via Zoom for all others

Public participation and observation of all HRSD Commission and committee meetings is available electronically via Zoom due to space limitations currently in place to protect the health of the Commissioners, staff and the public. To receive a link for virtual attendance/observation or to request accommodations to attend the meeting in-person, please send your request to Jennifer Cascio at jcascio@hrsd.com or by phone to 757.460.7003. Requests must be received by noon one business day prior to the meeting.

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
	Call to Order	Elofson
	Roll Call of HRSD Commission	Cascio
1.	<u>Consent Agenda</u>	Bernas
	a. <u>Approval of Minutes</u>	
	b. <u>Contract Awards</u>	
	c. <u>Task Orders</u>	
	d. <u>Contract Change Order</u>	
	e. <u>Sole Source</u>	
	f. <u>HRSD Use of Existing Competitively Awarded Contract Vehicle</u>	
2.	<u>Annual Budget and Related Components</u>	Bernas
3.	<u>Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Virginia Clean Water Revolving Loan Fund (VCWRLF)</u>	Bernas
4.	<u>2022 CIP Project Program – Programmatic Funding Virginia Clean Water Revolving Loan Fund (VCWRLF)</u>	Bernas
5.	<u>46th Street Diversion Sewer Rehabilitation/Replacement, Huntington Ingalls Incorporated, Newport News Shipbuilding Division (HII-NNS) New CIP, Initial Appropriation and Agreement</u>	Husselbee
6.	<u>Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion Additional Appropriation, Comprehensive Agreement, and Proposal Compensation</u>	Husselbee

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
7.	<u>Dozier's Corner Pump Station Replacement Initial Appropriation</u>	Husselbee
8.	<u>Elizabeth River Crossing Reliability Improvements Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)</u>	Husselbee
9.	<u>Lee Avenue/Wesley Street Horizontal Valve Replacement Initial Appropriation</u>	Husselbee
10.	<u>Lucas Creek Pump Station Replacement Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)</u>	Husselbee
11.	<u>Private Pump Station Improvements Additional Appropriation</u>	Husselbee
12.	<u>Treatment Plant Grease Handling Facilities Additional Appropriation</u>	Husselbee
13.	<u>Virginia Initiative Plant Incinerator Burner Replacement Initial Appropriation</u>	Husselbee
14.	<u>York River Treatment Plant Administration Building Renovation Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)</u>	Husselbee
15.	<u>Boat Harbor Transmission Force Main Land Acquisition Acquisition of Real Property – Suffolk, VA</u>	Husselbee
16.	<u>Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Easement Acquisition – Canonie Atlantic Co., Eastern Shore, Virginia</u>	Husselbee
17.	<u>Middlesex Interceptor System Program Phase II – Transmission Force Main Acquisition of Real Property – Tax Map 26-109/Waverly Lane, Gloucester, VA</u>	Husselbee
18.	<u>Suffolk Pump Station Replacement Project – Parcel 011 Easement Acquisition – 965 Portsmouth Boulevard, Suffolk, Virginia</u>	Husselbee
19.	<u>Elizabeth River Project – Sponsorship of Research Pier Additional Appropriation</u>	Bernas
20.	<u>Capital Improvement Program (CIP) Quarterly Update</u>	Husselbee
21.	<u>COVID-19 Wastewater Surveillance Study Update</u>	Gonzalez
22.	<u>Temporarily Modify Commission Meeting Start Time</u>	Bernas
23.	<u>Unfinished Business</u>	Bernas

<u>No.</u>	<u>Topic</u>	<u>Resource</u>
24.	New Business	Bernas
25.	Commissioner Comments	Elofson
26.	Public Comments – A request to make public comments during the meeting via Zoom or written comments to be read into the minutes should be submitted to Jennifer Cascio by email to jcascio@hrsdc.com or by phone to 757.460.7003 and must be received by noon one business day prior to the meeting.	Cascio
27.	Informational Items	Bernas
	a. Management Reports	
	b. Strategic Planning Metrics Summary	

Next Regular Commission Meeting Date: **May 24, 2022 at 1434 Air Rail Avenue, Virginia Beach**

AGENDA ITEM 1. – April 26, 2022

Subject: Consent Agenda

Recommended Action: Approve the Consent Agenda.

Brief: The items listed below are presented on the following pages for Commission action.

a. Approval of Minutes

The draft minutes of the previous Commission Meeting were distributed electronically prior to the meeting.

b. Contract Awards

1.	Laboratory Courier Services	\$257,040
2.	Fleet Management (FY-2022)	\$1,305,569
3.	Internet-based Publicly Owned Treatment Works Administration and Compliance System (iPACS), GovOnline Hosting System and Biosolids Data Management System Maintenance and Support	\$763,637
4.	MicroC 3000 Solution Blanket Purchase Agreement	\$3,418,445
5.	Prime Guard II Control Panels and Parts	\$266,571

c. Task Orders

1.	Great Bridge Interceptor Extension 16-Inch Replacement	\$414,233
2.	North Shore Automated Diversion Facilities	\$222,994
3.	SWIFT Program Management (Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion)	\$860,545

d. Contract Change Orders

1.	SWIFT Research Center Full-Scale Managed Aquifer Recharge (MAR) Well Integration	\$59,144
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e. Sole Source

1. [Acrulog™ Hydrogen Sulfide \(H2S\) Gas Data Logger with Accessories](#)
2. [Fusion Fluid Wet Well Gear Box](#)

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

1.	Oracle Database Appliance Hardware, Maintenance and Support	\$513,930
2.	Oracle Database Appliance Migration Consulting Subscription Services	\$334,152

CONSENT AGENDA ITEM 1.b.1. – April 26, 2022

Subject: Laboratory Courier Services
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase agreement for Courier Services to Mobile One Courier Services in the estimated amount of \$51,408 for year one with four annual renewal options and an estimated cumulative value in the amount of \$257,040.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Mobile One Courier Services Inc.	\$51,408
GenBlu Logistics, LLC	\$171,660
Rashon Britt DBA Britt Transportation	\$641,500

HRSD Estimate: \$42,158

Contract Description: This contract is an agreement for courier services to pick up wastewater samples from various HRSD locations for delivery to the Central Environmental Laboratory (CEL) and Pretreatment, Pollution and Prevention (P3) Division for analysis.

Analysis of Cost: This is an estimated use agreement in which the trips for CEL are on an as-needed basis and the trips for P3 are a fixed annual requirement. The HRSD Estimate reflects the average spend over the past two years with Mobile One Courier because it best captures the increase in sampling demand and rise in fuel costs.

The high dollar Bid Amounts received across the board are also due to the increased demand for sampling and transportation related costs. In addition, three new routes have been added on the Eastern Shore and some Bidders have calculated the “per trip” unit costs considerably higher than the more local routes.

Mobile One has held the previous term agreements with HRSD and pricing was found to be fair and reasonable.

CONSENT AGENDA ITEM 1.b.2. – April 26, 2022

Subject: Fleet Management (FY-2022)
Contract Award (>\$200,000)

Recommended Action: Award a contract to Peterbilt of Richmond, Inc. in the amount of \$1,305,569.

CIP Project: GN018100

Budget	\$3,600,000
Previous Expenditures and Encumbrances	(\$2,179,719)
Available Balance	\$1,420,281

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Peterbilt of Richmond, Inc.	\$1,305,563

HRSD Estimate: \$889,000

Contract Description: This contract is for the purchase of seven Peterbilt 567 Day Cabs with PACCAR MX 455HP Allison 4000RDS with Hydraulic Wet Lines Kit. These vehicles will be used as part of the biosolids hauling program throughout HRSD.

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

Analysis of Cost: Final award amount is notably high due to increase in manufacturing costs including steel, aluminum, petroleum and tires.

Multiple manufacturer brands were requested in the competitive Solicitation. After inquiring why no other bids were provided, the main response received was that some manufacturers are behind on production due to imposed limits and available build slots per supplier. These slots are very limited because of the need to fulfill orders already presented in 2021. In addition, the suppliers felt they could not be competitive due to the increase in manufacturing costs.

CONSENT AGENDA ITEM 1.b.3. – April 26, 2022

Subject: Internet-based Publicly Owned Treatment Works Administration and Compliance System (iPACS), GovOnline Hosting System and Biosolids Data Management System Maintenance and Support
Contract Award (>\$200,000)

Recommended Action: Award a contract to Enfotech and Consulting Inc. in the estimated amount of \$152,727 for year one with four annual renewal options and an estimated cumulative value in the amount of \$763,637.

Type of Procurement: Sole Source

All services were previously approved as a sole source with Enfotech and Consulting Inc in April 2017.

HRSD Estimate: \$140,990

Contract Description: This contract is an agreement for annual software maintenance and support of the iPACS, GovOnline Hosting System and Biosolids Data Management System. The Biosolids Data Management System was designed specifically for HRSD biosolids and is used to track biosolids land application and maintain required regulatory records and reporting.

Analysis of Cost: Overall price increase is due to additional modules that have been added to system over the years that require support. Pricing is fair and reasonable for the next five-year term.

CONSENT AGENDA ITEM 1.b.4. – April 26, 2022

Subject: MicroC 3000 Solution Blanket Purchase Agreement
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for MicroC 3000 Solution to Environmental Operating Solutions Inc. in the estimated amount of \$683,689 for year one with four annual renewal options and an estimated cumulative value in the amount of \$3,418,445.

Type of Procurement: Supplemental Carbon Policy

The Supplemental Carbon Policy allows for the evaluation and procurement of supplemental carbon products for the treatment plants. It is an organized approach for competitive evaluation and purchase of those carbon sources which, based on price, are determined to be most cost effective.

HRSD Estimate: \$684,700

Contract Description: This is a supplemental contract to the Carbon Policy to supply and deliver MicroC 3000 solution to HRSD Treatment Plants on an as needed basis. MicroC product is a waste methanol and used in the denitrification process. This is a continuous use contract developed and utilized in accordance with the Supplemental Carbon Policy. This contract will be renewed until another Supplier challenges our current product or the plants determine this product is no longer needed.

Analysis of Cost: This is an estimated use contract. The base price changes monthly based on the monthly Methanex Index posted price and added to a differential (fixed unit cost). The HRSD Estimate is based on current estimated annual usage and the FY-2023 Budget Projections. Projections reflect an average annual unit price since the unit cost fluctuates on a monthly basis.

CONSENT AGENDA ITEM 1.b.5. – April 26, 2022

Subject: Prime Guard II Control Panels and Parts
Contract Award (>\$200,000)

Recommended Action: Award a contract to Xylem Dewatering Solutions, Inc. in the amount of \$266,571.

Type of Procurement: Sole Source

All parts and services were previously approved as a sole source with Xylem Dewatering Solutions, Inc. in May, 2018.

HRSD Estimate: \$266,571

Contract Description: This contract is an agreement for the purchase of Prime Guard II controllers and parts. These items will be used at various Pump Stations for the South Shore Interceptors. These controls and panels will integrate with current Xylem pumps so Interceptors can remotely monitor and control the pumps and properly utilize the SCADA system.

Analysis of Cost: Cost are fair and reasonable based on previous purchases and the current market.

CONSENT AGENDA ITEM 1.c.1. – April 26, 2022

Subject: Great Bridge Interceptor Extension 16-Inch Replacement
Task Order (>\$200,000)

Recommended Action: Approve a task order with Rummel, Klepper and Kahl, LLP (RK&K) in the amount of \$414,233.

CIP Project: AT011900

Budget	\$11,915,000
Previous Expenditures and Encumbrances	(\$218,740)
Available Balance	\$11,696,260

Contract Status:	Amount
Original Contract with RK&K	\$0
Total Value of Previous Task Orders	\$218,740
Requested Task Order	\$414,233
Total Value of All Task Orders	\$632,973
Revised Contract Value	\$632,973
Engineering Services as % of Construction	5.3%

Project Description: This project will replace approximately 6,000 linear feet of 16-inch asbestos concrete force main due to risk of failure and is a part of the Consent Decree Rehabilitation Action Plan Phase Two requiring completion by May 2025. The existing force main is located along Battlefield Boulevard from the intersection with Mt. Pleasant Road to just north of Edna Street. Additionally, a main line valve needs to be replaced due to inability to get spare parts. This 16-inch section of pipe needs to be upsized to 24-inches per the Hydraulic Analysis Review Team report.

Task Order Description: This task order will provide engineering design and pre-construction services in accordance with the approved recommendations from the Preliminary Engineering Report (PER).

Analysis of Cost: The cost for this task order is based on the hours required to complete the design and the hourly rates negotiated in the Interceptor System Projects annual services contract. The design fee to construction ratio and average raw workforce rate is on par with similar HRSD construction projects. The number of hours for the design are within the range of comparison projects. The cost per linear foot is on the lower range of the comparison projects.

Schedule:	PER	July 2021
	Design	May 2022
	Bid	February 2023
	Construction	May 2023
	Project Completion	December 2024

CONSENT AGENDA ITEM 1.c.2. – April 26, 2022

Subject: North Shore Automated Diversion Facilities
Task Order (>\$200,000)

Recommended Action: Approve a task order with Systems East Inc. in the amount of \$222,994.

CIP Project: GN015800

Budget	\$1,813,062
Previous Expenditures and Encumbrances	(\$630,933)
Available Balance	<u>\$1,182,129</u>

Project Description: The project will involve installing control valves at two pump station (PS) sites (Woodland Road PS and Big Bethel Pressure Reducing Station) and one terminal force main site (Center Avenue) to provide greater operational flexibility and system diversion capabilities during localized wet weather events. Immediate needs to reduce the three-month average flow at York River Treatment Plant (YRTP) will be addressed. The long-term goal of equalizing and coordinating flows at James River Treatment Plant (JRTP) and YRTP will also be achieved.

The YRTP has experienced increased average daily flow during winter months due to elevated groundwater levels. In the winter of 2014, YRTP experienced five consecutive months that exceeded the 95% design criteria threshold. As required by permit, once three consecutive months above 95% are experienced, a short term and long-range plan shall be developed. This automated diversion project will serve as the long-range solution and will be able to manage the flow through diversions and operational strategies at several locations between the YRTP, JRTP, and Boat Harbor Treatment Plant (BHTP). Meter data, future flow projections, and hydraulic modeling indicate that once implemented these strategies will successfully reduce the flow below the 95% threshold at YRTP and provide the North Shore interceptor system with additional diversion capabilities.

This project was identified in the Smart Sewer Study as possible average daily (non wet-weather) equalization for the YRTP and JRTP. These automated valves, together with off-line storage facilities could be used to equalize treatment plant flows over the entire day. This flow equalization would serve to both improve sewage treatment processes and optimization SWIFT facilities. It is anticipated that these facilities will provide significant operational and capital improvement cost savings.

Task Order Description: This task order will provide services needed for the upgrade of SCADA controls and control valves at the Woodland Road Pump Station and Center Ave sites. This task order will also allow for the remote monitoring of the water level in the gravity pipe downstream from the Center Ave site.

Analysis of Cost: The cost for this task order is based on predetermined rates under the contract with Systems East Inc.

<u>Schedule:</u>	PER	June 2018
	Design	February 2021
	Bid	August 2021
	Construction	March 2022
	Project Completion	February 2023

CONSENT AGENDA ITEM 1.c.3. – April 26, 2022

Subject: SWIFT Program Management (Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion)
Task Order (>\$200,000)

Recommended Action: Approve a task order with AECOM in the amount of \$860,545.

CIP Project: GN016320

Budget	\$80,000,000
Previous Expenditures and Encumbrances	(\$25,589,985)
Available Balance	54,410,015

Contract Status:	Amount
Original Contract with AECOM	\$5,264,440
Total Value of Previous Task Orders	\$20,103,825
Requested Task Order	\$860,545
Total Value of All Task Orders	\$20,964,370
Revised Contract Value	\$26,228,810
Engineering Services as % of Construction	0.6%

Project Description: The SWIFT Full Scale Implementation Program (FSIP) Management team is managing the delivery of the advanced water treatment facilities to take HRSD's already highly treated wastewater and produce SWIFT water. The Program Management team is also delivering 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.

Task Order Description: This task order will provide Owner's Consultant Services during the design phase of the Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion (BH015710) design-build project. Owner's Consultant Services are intended to provide support to HRSD by engaging technical experts to review deliverables and change requests submitted by the design-builder for conformance with the Contract Documents, Basis of Design Report, HRSD Design & Construction Standards, and general design best practices and engaging program management team members to provide project delivery support, document management, cost estimate reviews, and schedule submittal reviews. The expected duration of this project phase is 12 months.

Analysis of Cost: The cost for this task order is based on detailed negotiated scope of work for the design phase support efforts. The proposed fee is 0.6% of the estimated construction cost for the project. This ratio for Owner's Consultant services compares well with other HRSD Design-Build projects, which ranged from 0.26% to 1.63% of construction cost for Owner's Consultant fees during design phase. This task order will be issued as an amendment to the Professional Services Agreement with AECOM for SWIFT Full Scale Implementation. The total hours budgeted are appropriate for the scope proposed for this task order and the labor rates for each category in the proposed fee are consistent with the rates structure in the Agreement, as approved for FY-2022.

Design-Build Schedule:	Selection of Design-Build firm	April 2022
	Stipulated Fixed Final Price	December 2022
	Construction Complete	July 2025

CONSENT AGENDA ITEM 1.d.1. – April 26, 2022

Subject: SWIFT Research Center Full-Scale Managed Aquifer Recharge (MAR) Well Integration Contract Change Order (>25%)

Recommended Action: Approve a change order with MEB General Contractors, Inc. in the amount of \$59,144.

CIP Project: GN016220

Budget	\$2,325,922
Previous Expenditures and Encumbrances	(\$2,145,034)
Available Balance	\$180,888

Contract Status:	Amount	Cumulative % of Contract
Original Contract for MEB General Contractors, Inc.	\$1,040,000	
Total Value of Previous Change Orders	\$597,400	57%
Requested Change Order No. 3	\$59,144	
Total Value of All Change Orders	\$656,544	63%
Revised Contract Value	\$1,696,544	

Time (Additional Calendar Days)	55
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Project Description: This project includes the integration of a full-scale MAR well into the SWIFT Research Center. The site work, process piping, mechanical equipment, backflush pump, instrumentation, and electrical work required to convey SWIFT Water from the Research Center to the new well will be included.

Change Order Description and Analysis of Cost: This change order includes modifications in response to requests for information, owner requested addition related to the existing SWIFT Water piping, and due to the physical location of the recharge well-being off-set from the location shown on the contract drawings. Additionally, this change order includes additional contract time, for Phase 1 Substantial Completion, associated with a delay during the factory testing and delivery of the well backflush pump. The Engineer, Hazen and Sawyer, P.C., reviewed proposed change orders, including the cost and schedule impacts, and found them to be reasonable for the scope of work.

Schedule:	Construction	March 2022
	Project Completion	December 2022

CONSENT AGENDA ITEM 1.e.1. – April 26, 2022

Subject: Acrulog™ Hydrogen Sulfide (H2S) Gas Data Logger with Accessories
Sole Source (>\$10,000)

Recommended Action: Approve the use of Acrulog™ H2S Gas Data Logger with Accessories by Detection Instruments Corporation in the Water Quality Department.

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 Acrulog™ H2S Gas Data Logger, accessory kit, and Acrustat™ Software with Bluetooth Adapter. The gas data loggers are used by the Technical Service Division to measure H2S levels for extended periods of time in various locations, to include pump stations and other areas where Hydrogen Sulfide levels are a concern. The loggers are also used for research efforts and in conjunction with engineering for new odor control structures.

CONSENT AGENDA ITEM 1.e.2. – April 26, 2022

Subject: Fusion Fluid Wet Well Mixer Gear Box
Sole Source (>\$10,000)

Recommended Action: Approve the use of Fusion Fluid Wet Well Mixer Gear Box by Fusion Fluid Equipment at the Fords Colony Pump Station.

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 replacement wet well gear boxes for existing Fusion Fluid brand Submersible Mixers at the Fords Colony Pump Station located in Williamsburg. The gear box assists the mixer with agitating water to prevent the buildup of grease at the wet well.

The submersible mixers were purchased through a competitive bid (accepting equals) in May 2020.

CONSENT AGENDA ITEM 1.f.1. – April 26, 2022

Subject: Oracle Database Appliance Hardware, Maintenance and Support
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the US Communities Contract 180233-002 for Oracle Cloud Solutions from Mythics, Inc.
- b. Award a contract to Mythics, Inc. in the amount of \$513,930.

HRSD Estimate: \$513,930

Contract Description: This contract is for the purchase of hardware consisting of three high availability Oracle Database Appliances (ODA) including five years of support and maintenance for same. The ODA hardware will replace Cisco Unified Computing System (UCS) hardware that is at end of life. The UCS hardware currently houses our Oracle Enterprise Applications and databases. Moving to the ODA hardware will provide licensing compliance and efficiencies not available with UCS hardware. This purchase provides the hardware component of the Oracle Database migration and configuration efforts to replace the end-of-life UCS hardware.

Analysis of Cost: By utilizing the cooperative contract through US Communities Contract, HRSD is receiving 17 percent cost savings.

CONSENT AGENDA ITEM 1.f.2. – April 26, 2022

Subject: Oracle Database Appliance Migration Consulting Subscription Services
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the Virginia Information Technology Agency (VITA) contract VA-170130-MYTH for Oracle Software and Related Services from Mythics, Inc.
- b. Award a contract to Mythics, Inc. in the estimated amount of \$334,152 for two years with three annual renewal options and an estimated cumulative value of \$600,514.

HRSD Estimate: \$600,514

Contract Description: This contract is an agreement for an Oracle based consulting subscription service to deliver key staff augmentation and technical support to HRSD. The migration consulting services include assistance to our IT staff in the setup and configuration of the new Oracle Database Appliance (ODA) hardware, training and workload migration of the enterprise software from the Cisco Unified Computing System (UCS) hardware to the ODA hardware as well as managed services to assist in staff augmentation and implementation by an Oracle Enterprise Manager.

Analysis of Cost: By utilizing the cooperative contract through VITA, HRSD is receiving 13 percent cost savings. HRSD is receiving further discounts for the final three renewal options.

AGENDA ITEM 2. – April 26, 2022

Subject: Annual Budget and Related Components

Recommended Action: Receive the Finance Committee's report for the proposed Fiscal Year 2023 Annual Budget and Capital Improvement Program (CIP).

Brief: The Finance Committee (comprised of Commissioners Rodriguez and Lakdawala) and other Commissioners attended the Capital Improvement Program (CIP) review meeting on March 1, 2022 and the Fiscal Year-2023 Annual Budget review meeting on April 14, 2022. A Commission workshop was held on March 22 to review the draft Fiscal Year-2023 Annual Budget.

The entire budget package will be presented to the Commission for approval during the May Commission meeting. In accordance with Commission Governance Guidelines, the Commission must adopt an operating budget on or before the first day of June for the fiscal year beginning July 1 to allow for four consecutive weeks for rate advertisements as required by the Enabling Act.

The annual budgeting process includes updating a long-range financial forecast as well as developing an Annual Budget, CIP, and Rate and Facility Charge Schedules. Because these components are inter-related, they are presented together to evaluate the overall budget and financial condition of HRSD.

The long-range financial forecast is a planning tool used to project the need, timing and amount of rate adjustments and debt requirements to fund the CIP and maintain financial resiliency. The revenue and expense projections are developed using inflationary assumptions, past experience, the Annual Budget and the CIP.

The 10-year CIP, a long-range planning tool used to summarize needed projects, includes a description, cost estimate and schedule for each project. The Commission approves the 10-year plan along with the planned expenditures for the first fiscal year in the plan. Each project is reviewed prior to commencement to reevaluate the need, timing, location, capacity, cost and schedule for the project. Individual projects in the approved CIP are presented to the Commission for appropriation of project funding when the first dollar is proposed to be spent. As individual projects proceed, the Commission remains informed through regular reports and briefings. The proposed CIP totals approximately \$3.1 billion over the next 10 years.

Staff will present the latest budget information during the meeting followed by a report from the Finance Committee Chair.

AGENDA ITEM 3. – April 26, 2022

Subject: Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I
Virginia Clean Water Revolving Loan Fund (VCWRLF)

Recommended Action: Adopt a resolution authorizing the issuance of a subordinate wastewater revenue bond, not to exceed \$26,063,013 in principal amount, for the purpose of providing funds, with other available money, to pay the costs of certain improvements for Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I, delegating authority to fix the principal installment maturity dates, the interest rate, the redemption provisions and certain other details of the bond, directing the authentication and delivery of the bond, and authorizing the execution of a supplement to the master financing agreement with the Virginia Resources Authority.

CIP Number: ES010100

Brief: The VCWRLF provides subsidized interest rates for local governments for projects that improve water quality or prevent future problems. The Virginia Resources Authority (VRA) manages the loans and the Department of Environmental Quality administers the program and policy aspects of the fund on behalf of the State Water Control Board (SWCB). On June 25, 2021, the SWCB approved the Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I project to receive a subsidized interest rates that vary based on the term. The loan requires adhering to Davis-Bacon wages and using American Iron and Steel, which increases total project cost. Staff determined that the interest savings far outweigh the potential increased project costs.

The Commission approved the Construction Cost Limit for this project during the March 22, 2022 meeting. A portion of the project appropriation covered the payment made to Onancock to acquire the Onancock Treatment Plant. Included in the VCWRLF loan will be loan forgiveness in the same amount as the payment to Onancock (\$1,953,199) to reimburse HRSD for this payment.

The bond authorized by the attached [resolution](#) for the Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I is anticipated to close April 29, 2022. The loan amount is set at a not-to-exceed amount of \$26,063,013 and will bear interest at a rate of 1.30 percent for 20 years if the bond is issued in April. The rate is based on a 1.5 percent subsidy for a 20-year loan. The interest savings compared to HRSD issuing debt in the open market is estimated at \$3,160,000. If the bond is issued in May, it would bear interest at a rate of 1.75%.

These documents have been reviewed by bond and local counsel.

Hampton Roads Sanitation District
Resolution of
April 26, 2022

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION
PROVIDING FOR THE ISSUANCE OF

A SUBORDINATE WASTEWATER REVENUE BOND

Adopted April 26, 2022

2022 Eastern Shore Project: #C-515660E

Resolution

RESOLUTION AUTHORIZING THE ISSUANCE OF A SUBORDINATE WASTEWATER REVENUE BOND, NOT TO EXCEED \$26,063,013 IN PRINCIPAL AMOUNT, FOR THE PURPOSE OF PROVIDING FUNDS, WITH OTHER AVAILABLE MONEY, TO PAY THE COSTS OF THE 2022 EASTERN SHORE PROJECT, FIXING THE PRINCIPAL INSTALLMENT MATURITY DATES, THE INTEREST RATE, THE REDEMPTION PROVISIONS AND CERTAIN OTHER DETAILS OF THE BOND, DIRECTING THE AUTHENTICATION AND DELIVERY OF THE BOND, AND AUTHORIZING THE EXECUTION OF A FINANCING AGREEMENT WITH THE VIRGINIA RESOURCES AUTHORITY.

WHEREAS, the Hampton Roads Sanitation District (the “Borrower”) entered into a Trust Agreement, dated as of October 1, 2011 (the “Trust Agreement”), with The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), as amended and restated as of March 1, 2016, as further amended and supplemented, pursuant to which the Borrower may incur Parity Obligations, as defined in the Trust Agreement; and

WHEREAS, pursuant to Chapter 22, Title 62.1, Code of Virginia of 1950, as amended (the “VWFRF Act”), the General Assembly of the Commonwealth of Virginia created a permanent and perpetual fund known as the Virginia Water Facilities Revolving Fund (the “Fund”); and

WHEREAS, the Hampton Roads Sanitation District Commission (the “Commission”) heretofore received an offer from the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund (the “Fund”), to make a loan from the Fund to the Borrower in an amount expected not to exceed \$24,257,350 and has subsequently requested an increase in such loan amount to not to exceed \$26,063,013, all for the purpose of financing a project described in such offer as Eastern Shore Transmission Force Main Project, together with related expenses; and

WHEREAS, the Commission, as the governing body of the Borrower, has determined to accept such offer (as such offer may be increased to a principal amount not to exceed \$26,063,013) and close on the loan from the Authority, as Administrator of the Fund, by authorizing and issuing its subordinate wastewater revenue bond for the purpose of financing Capital Improvement Program Costs (as defined in the Trust Agreement) of improvements to the Borrower's Eastern Shore Transmission Force Main Project (the "2022 Eastern Shore Local Bond"), to be payable solely from the Net Revenues Available for Debt Service (as defined in the Trust Agreement) on a parity with all Parity Obligations (as defined in the Trust Agreement) of the Borrower and subordinated to all Senior Indebtedness, as defined in, and to extent set forth, in the Trust Agreement, all in conformity with the terms and provisions of the Trust Agreement; now, therefore,

BE IT RESOLVED by the Hampton Roads Sanitation District Commission as follows:

Section 1. (a) Definitions. The capitalized terms contained in this Resolution and not defined above shall have the meanings set forth in the Glossary of Defined Terms attached to this Resolution as Exhibit A, unless the context requires otherwise.

(b) Rules of Construction. The following rules shall apply to the construction of this Resolution unless the context requires otherwise:

(i) Singular words shall connote the plural number as well as the singular and vice versa.

(ii) All references in this Resolution to particular Sections or Exhibits are references to Sections or Exhibits of this Resolution unless otherwise indicated.

Section 2. Authorization of 2022 Eastern Shore Local Bond. Pursuant to Sections 209(b) and 704(a) of the Trust Agreement and for the purpose of financing the Capital

Improvement Program Costs of the Project, which are Project Costs within the definition thereof found in the Financing Agreement, the 2022 Eastern Shore Local Bond of the Borrower is hereby authorized to be issued in the principal amount not to exceed \$26,063,013. The 2022 Eastern Shore Local Bond shall be issuable as a single registered bond without coupons and shall be dated as of its date of issue. The 2022 Eastern Shore Local Bond shall be substantially in the form attached to this Resolution as Exhibit B, with such variations, omissions and insertions as may be necessary or appropriate to conform to the provisions of this Resolution. The 2022 Eastern Shore Local Bond shall be a Parity Obligation and shall be a VRA Subordinate Obligation, each as defined in the Trust Agreement, shall be secured on a parity with all other Parity Obligations of the Borrower under the Trust Agreement, and shall be senior to all Junior Obligations (as defined in the Trust Agreement), as set forth therein.

The 2022 Eastern Shore Local Bond shall be dated as of its date of issue and shall bear interest (or “Cost of Funds” as described in the 2022 Eastern Shore Financing Agreement Supplement) on the disbursed principal balance of the 2022 Eastern Shore Local Bond at a rate not to exceed 1.75% per annum. Such interest shall be payable commencing on the date set forth in a certificate of the General Manager delivered on the date of issue of the 2022 Eastern Shore Local Bond (the “General Manager’s Certificate”), such principal and interest shall be payable in essentially equal semi-annual installments (rounded to the nearest \$100), with the balance due on the date set forth in the General Manager’s Certificate, but not later than December 1, 2045.

Section 3. Redemption Provisions. The principal installments on the 2022 Eastern Shore Local Bond shall be subject to redemption prior to their respective maturities, at the option of the Borrower, from any money that may be made available for such purpose, either in whole or in part on any date at the redemption price of par plus accrued interest with the prior written consent of

the Authority and otherwise as provided in the Financing Agreement. Any such partial redemption shall not postpone the due date of any subsequent payment on the 2022 Eastern Shore Local Bond, or change the amount of such installment, unless the Borrower and the Authority agree otherwise in writing.

Section 4. Deposits to Local Bond Fund. The Borrower shall deposit money with or to the order of the Authority, as Administrator of the Fund, in amounts sufficient to pay in full, when due (whether by maturity, redemption, acceleration or otherwise), the 2022 Eastern Shore Local Bond issued under this Resolution, together with the interest thereon, all as set forth in the 2022 Eastern Shore Local Bond.

Section 5. Authority to Execute 2022 Eastern Shore Financing Agreement Supplement. The execution and delivery of the 2022 Eastern Shore Financing Agreement Supplement, substantially in the form presented at this meeting, relating to the loan from the Authority, as Administrator to the Fund, to the Borrower and the repayment of the loan by the Borrower in accordance with the 2022 Eastern Shore Local Bond, are hereby authorized, with such changes, insertions and omissions as may be approved by the Chair or the Vice Chair of the Commission, the General Manager or the Director of Finance, the execution of the 2022 Eastern Shore Financing Agreement Supplement by the Chair, the Vice Chair, the General Manager or the Director of Finance to be conclusive evidence of his or her approval of any changes, insertions and omissions therein.

Section 6. Manner of Execution of 2022 Eastern Shore Local Bond. The 2022 Eastern Shore Local Bond shall be executed by the Chair or the Vice Chair and the Secretary or an Assistant Secretary of the Commission, and the seal of the Commission shall be impressed on the 2022 Eastern Shore Local Bond. The 2022 Eastern Shore Local Bond shall be delivered to or for

the account of the Authority, as Administrator of the Fund, upon execution and delivery of the 2022 Eastern Shore Financing Agreement.

Section 7. Obligations of Borrower Unconditional. Subject to the terms of the Trust Agreement, nothing contained in this Resolution or the 2022 Eastern Shore Local Bond is intended to or shall impair, as between the Borrower, its creditors, and the holder of the 2022 Eastern Shore Local Bond, the obligation of the Borrower, which is absolute and unconditional, to pay to the holder of the 2022 Eastern Shore Local Bond the principal of, redemption premium, if any, and Cost of Funds on the 2022 Eastern Shore Local Bond as and when the same shall become due and payable in accordance with its terms, or affect the relative rights of the holder of the 2022 Eastern Shore Local Bond and creditors of the Borrower, nor shall anything herein or therein prevent the holder of the 2022 Eastern Shore Local Bond from exercising all remedies otherwise permitted by applicable law and under the Trust Agreement upon default under the 2022 Eastern Shore Local Bond and the 2022 Eastern Shore Financing Agreement Supplement.

Section 8. Payments on 2022 Eastern Shore Local Bond Permitted. Nothing contained in this Resolution or the 2022 Eastern Shore Local Bond shall affect the obligation of the Borrower to make, or prevent the Borrower from making, payment of the principal of, redemption premium, if any, or Cost of Funds on the 2022 Eastern Shore Local Bond in accordance with the provisions hereof, except as otherwise provided in this Resolution.

Section 9. Benefits of Resolution. Nothing in this Resolution or the 2022 Eastern Shore Local Bond, express or implied, shall give to any person, other than the holder of the 2022 Eastern Shore Local Bond, any benefit or any legal or equitable right, remedy or claim under this Resolution.

Section 10. Further Action. The Chair, the Vice Chair, the Secretary and any Assistant

Secretary of the Commission and the General Manager, the Director of Engineering and the Director of Finance of the Borrower are each authorized and directed, acting alone or together (without limitation except as may be expressly set forth therein), to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary or appropriate to effect the transactions contemplated by the 2022 Eastern Shore Financing Agreement Supplement.

Section 11. Effectiveness. This Resolution shall take effect immediately upon its adoption.

[END OF RESOLUTION]

Adopted by the Hampton Roads Sanitation District Commission on April 26, 2022.

Frederick N. Elofson, CPA, Chair

EXHIBIT A

GLOSSARY OF DEFINED TERMS

“*2022 Eastern Shore Financing Agreement Supplement*” means the Supplement to Master Financing Agreement relating to the 2022 Eastern Shore Local Bond, between the Borrower and the Authority, as Administrator of the Fund, together with any amendments or supplements thereto.

“*2022 Eastern Shore Local Bond*” means the bond in substantially the form attached to this Resolution as Exhibit B, to be issued by the Borrower to the Authority, as Administrator of the Fund, pursuant to this Resolution and the 2022 Eastern Shore Financing Agreement Supplement.

“*2022 Eastern Shore Local Bond Proceeds*” means proceeds of the issuance and sale of the 2022 Eastern Shore Local Bond to the Authority, as Administrator of the Fund, pursuant to the 2022 Eastern Shore Financing Agreement Supplement.

“*Capital Improvement Program Costs*” means “Capital Improvement Program Costs” as defined in the Trust Agreement.

“*Financing Agreement*” means the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the 2022 Eastern Shore Financing Agreement Supplement.

“*General Manager’s Certificate*” means the certificate of the General Manager delivered on the date of issue of the 2022 Eastern Shore Local Bond.

“*Junior Indebtedness*” means “Junior Indebtedness,” as defined in the Trust Agreement.

“*Net Revenues*” means “Net Revenues” as defined in the Trust Agreement.

“*Parity Obligations*” means “Parity Obligations,” as defined in the Trust Agreement.

“*Project*” means the project described in Exhibit B to the 2022 Eastern Shore Financing Agreement Supplement, the costs of the acquisition, construction, improving or equipping of which are to be financed or refinanced in part with the 2022 Eastern Shore Local Bond Proceeds.

“*Project Budget*” means the budget for the financing or the refinancing of the Project, a copy of which is attached to the 2022 Eastern Shore Financing Agreement Supplement as Exhibit C, with such changes therein as may be approved in writing by the Authority.

“*Senior Indebtedness*” means “Senior Indebtedness,” as defined in the Trust Agreement.

“*Trust Agreement*” means the Trust Agreement, dated as of October 1, 2011, by and between the Borrower and the Trustee, as amended and restated as of March 1, 2016, as further amended and supplemented.

“*Trustee*” means The Bank of New York Mellon Trust Company, N.A., as trustee under the Trust Agreement, and any successor in trust thereto.

EXHIBIT B

FORM OF LOCAL BOND

United States of America
Commonwealth of Virginia

**HAMPTON ROADS SANITATION DISTRICT
Subordinate Wastewater Revenue Bond**

Hampton Roads Sanitation District (the “Borrower”), a political subdivision of the Commonwealth of Virginia, by Hampton Roads Sanitation District Commission (the “Commission”), the governing body of the Borrower, acknowledges itself indebted and, for value received, hereby promises to pay, solely from the revenues and other property hereinafter described and pledged to the payment of this Bond, to the order of the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund, Richmond, Virginia (the “Fund”), the principal amount equal to the sum of the principal disbursements made by the Authority, as Administrator of the Fund, to the Borrower (as shown in Schedule 1) pursuant to the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the Supplement to Master Financing Agreement, dated as of _____ 1, 2022 (as so amended and supplemented, the “Financing Agreement”) not to exceed _____ Dollars (\$ _____), together with interest (or “Cost of Funds” as described in the Financing Agreement) on the disbursed principal at the rate of _____% per annum, as follows:

Cost of Funds shall be payable on _____ 1, _____, and thereafter principal and Cost of Funds due under this Bond shall be payable in essentially equal semi-annual installments (rounded to the nearest one hundred dollars (\$100)) on _____ 1 and _____ 1 of each year, commencing _____ 1, 20__ (as shown on Schedule 2), provided that if not sooner paid, all amounts under this Bond shall be due and payable in full on _____ 1, 20__.

In addition, if any installment of principal or Cost of Funds is not received by the holder of this Bond within ten (10) days from its due date, the Borrower shall pay to the holder of this Bond, a late payment charge in an amount equal to five percent (5.00%) per annum on such overdue installment. Both principal and Cost of Funds are payable in lawful money of the United States.

No notation is required to be made on this Bond of the payment of any principal or interest on normal installment payment dates. HENCE, THE FACE AMOUNT OF THIS BOND MAY EXCEED THE PRINCIPAL SUM REMAINING OUTSTANDING AND DUE HEREUNDER. This Bond and the premium, if any, and the Cost of Funds thereon are limited obligations of the Borrower and (except to the extent payment with respect to the Bond shall be made from the proceeds from the sale of the Bond or the income, if any, derived from the investment thereof) are payable solely from Net Revenues Available for Debt Service (as defined in the below-mentioned Trust Agreement) from time to time deposited by the Borrower with or to the order of the Authority, as the Administrator of the Fund pursuant to the Resolution (the “Resolution”) adopted

by the Commission on April 26, 2022, authorizing the issuance of this Bond, which Net Revenues Available for Debt Service have been pledged pursuant to the Financing Agreement to secure payment hereof. Neither the Commonwealth of Virginia nor any political subdivision thereof, including the Borrower, shall be obligated to pay the principal of or premium, if any, or Cost of Funds on this Bond or other costs incident thereto except from the revenues pledged therefor, and neither the faith and credit nor the taxing power of the Commonwealth of Virginia or any political subdivision thereof, including the Borrower, is pledged to the payment of the principal of or premium, if any, or Cost of Funds on this Bond or other costs incident thereto.

This Bond shall be a Parity Obligation and a VRA Subordinate Obligation and secured on parity with all other all Parity Obligations and VRA Subordinate Obligations heretofore and hereafter issued and outstanding under the Trust Agreement, dated as of October 1, 2011, as amended and restated as of March 1, 2016, as further amended and supplemented (the “Trust Agreement”), by and between the Borrower and the predecessor in trust to The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), and shall be senior to all Junior Indebtedness (as defined in the Trust Agreement), to the extent and in the manner set forth therein.

This Bond is being issued pursuant to the terms of the Resolution and the Financing Agreement to evidence a loan from the Authority, as Administrator of the Fund, to the Borrower to finance Capital Improvement Program Costs (as defined in the Trust Agreement).

This Bond is subject to optional prepayment to the extent and on the terms set forth in the Resolution and the Financing Agreement.

If an Event of Default (as defined in the Financing Agreement) occurs, the principal of and accrued Cost of Funds on this Bond may be declared immediately due and payable by the holder by written notice to the Borrower.

The obligations of the Borrower under this Bond shall terminate when all amounts due and to become due pursuant to this Bond have been paid in full.

All provisions of this Bond are subject to the terms of the Trust Agreement, and all capitalized terms used herein and not otherwise defined herein shall have the meanings assigned thereto by the Resolution and the Financing Agreement.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Bond have happened, exist and have been performed.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed by the Chair of its Commission and its seal to be impressed hereon and attested by the Secretary of its Commission all as of _____, 2022.

HAMPTON ROADS SANITATION DISTRICT

By: _____
Chair of the Hampton Roads Sanitation
District Commission

(SEAL)

ATTEST:

Secretary of the Hampton Roads
Sanitation District Commission

SCHEDULE OF PRINCIPAL DISBURSEMENTS

The amount and date of disbursements of the principal of the Bond to which this Schedule is attached, not to exceed \$ _____, shall be entered hereon by the authorized representative of Virginia Resources Authority when each such disbursement of principal is made to the Borrower.

<u>Date</u>	<u>Amount</u>	<u>Cumulative Amount</u>	<u>Authorized Signature</u>
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
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_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____

AMORTIZATION SCHEDULE

AGENDA ITEM 4. – April 26, 2022

Subject: 2022 CIP Project Program – Programmatic Funding
Virginia Clean Water Revolving Loan Fund (VCWRLF)

Recommended Action: Adopt a resolution authorizing the issuance of a subordinate wastewater revenue bond, not to exceed \$100,000,000 in principal amount, for the purpose of providing funds, with other available money, to pay the costs of certain improvements for the 2022 CIP Project Program, delegating authority to fix the principal installment maturity dates, the interest rate, the redemption provisions and certain other details of the bond, directing the authentication and delivery of the bond, and authorizing the execution of a supplement to the master financing agreement with the Virginia Resources Authority.

Brief: The VCWRLF provides subsidized interest rates for local governments for projects that improve water quality or prevent future problems. The Virginia Resources Authority (VRA) manages the loans and the Department of Environmental Quality (DEQ) administers the program and policy aspects of the fund on behalf of the State Water Control Board (SWCB). On December 13, 2019, the SWCB approved the 2022 CIP Project Program to receive a subsidized interest rates that vary based on the term. The loan requires adhering to Davis-Bacon wages and using American Iron and Steel, which increases total project cost. Staff determined that the interest savings far outweigh the potential increased project costs.

DEQ and VRA have budgeted \$500M in Clean Water loans over five years for HRSD project funding. The 2022 CIP Project Program will be the second installment of this allocation, the first installment of \$100 million was approved by the Commission in March 2020 and is nearing full disbursement. The 2022 CIP Project Program is made up of 43 individual CIP projects that HRSD can request reimbursement for to drawdown the new loan. A condition of reimbursement from the 2022 Project Program loan will be the full disbursement of the 2020 Project loan. Commission authorization of the resolution will allow HRSD to close the 2022 Project Program loan without a gap in reimbursement eligibility once the 2020 Project loan funds are fully disbursed.

The bond authorized by the attached [resolution](#) for the 2022 CIP Project Program is anticipated to close April 29, 2022. The loan amount is set at a not-to-exceed amount of \$100,000,000 and will bear interest at a rate of 1.3% for 20 years if the bond is issued in April. The rate is based on a 1.5 percent subsidy for a 20-year loan. The interest savings compared to HRSD issuing debt in the open market is estimated at \$11,000,000. If the bond is issued in May, it would bear interest at a rate of 1.75%.

These documents have been reviewed by bond and local counsel.

Hampton Roads Sanitation District
Resolution of
April 26, 2022

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION
PROVIDING FOR THE ISSUANCE OF

A SUBORDINATE WASTEWATER REVENUE BOND

Adopted April 26, 2022

2022 CIP Project: #C-515751

Resolution

RESOLUTION AUTHORIZING THE ISSUANCE OF A SUBORDINATE WASTEWATER REVENUE BOND, NOT TO EXCEED \$100,000,000 IN PRINCIPAL AMOUNT, FOR THE PURPOSE OF PROVIDING FUNDS, WITH OTHER AVAILABLE MONEY, TO PAY THE COSTS OF CERTAIN IMPROVEMENTS TO THE WASTEWATER TREATMENT SYSTEM, FIXING THE PRINCIPAL INSTALLMENT MATURITY DATES, THE INTEREST RATE, THE REDEMPTION PROVISIONS AND CERTAIN OTHER DETAILS OF THE BOND, DIRECTING THE AUTHENTICATION AND DELIVERY OF THE BOND, AND AUTHORIZING THE EXECUTION OF A FINANCING AGREEMENT WITH THE VIRGINIA RESOURCES AUTHORITY.

WHEREAS, the Hampton Roads Sanitation District (the “Borrower”) entered into a Trust Agreement, dated as of October 1, 2011 (the “Trust Agreement”), with The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), as amended and restated as of March 1, 2016, as further amended and supplemented, pursuant to which the Borrower may incur Parity Obligations, as defined in the Trust Agreement; and

WHEREAS, pursuant to Chapter 22, Title 62.1, Code of Virginia of 1950, as amended (the “VWFRF Act”), the General Assembly of the Commonwealth of Virginia created a permanent and perpetual fund known as the Virginia Water Facilities Revolving Fund (the “Fund”); and

WHEREAS, the Hampton Roads Sanitation District Commission (the “Commission”) heretofore received an offer from the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund (the “Fund”), to make a loan from the Fund to the Borrower in an amount expected not to exceed \$100,000,000 for the purpose of financing projects collectively described in such offer as the 2022 CIP Project, together with related expenses; and

WHEREAS, the Commission, as the governing body of the Borrower, has determined to accept such offer and close on the loan from the Authority, as Administrator of the Fund, by authorizing and issuing its subordinate wastewater revenue bond for the purpose of financing Capital Improvement Program Costs (as defined in the Trust Agreement) of improvements to the Borrower's wastewater treatment system (the "2022 CIP Project Local Bond"), to be payable solely from the Net Revenues Available for Debt Service (as defined in the Trust Agreement) on a parity with all Parity Obligations (as defined in the Trust Agreement) of the Borrower and subordinated to all Senior Indebtedness, as defined in, and to extent set forth, in the Trust Agreement, all in conformity with the terms and provisions of the Trust Agreement; now, therefore,

BE IT RESOLVED by the Hampton Roads Sanitation District Commission as follows:

Section 1. (a) Definitions. The capitalized terms contained in this Resolution and not defined above shall have the meanings set forth in the Glossary of Defined Terms attached to this Resolution as Exhibit A, unless the context requires otherwise.

(b) Rules of Construction. The following rules shall apply to the construction of this Resolution unless the context requires otherwise:

(i) Singular words shall connote the plural number as well as the singular and vice versa.

(ii) All references in this Resolution to particular Sections or Exhibits are references to Sections or Exhibits of this Resolution unless otherwise indicated.

Section 2. Authorization of 2022 CIP Project Local Bond. Pursuant to Sections 209(b) and 704(a) of the Trust Agreement and for the purpose of financing the Capital Improvement Program Costs of the Project, which are Project Costs within the definition thereof found in the

Financing Agreement, the 2022 CIP Project Local Bond of the Borrower is hereby authorized to be issued in the principal amount not to exceed \$100,000,000. The 2022 CIP Project Local Bond shall be issuable as a single registered bond without coupons and shall be dated as of its date of issue. The 2022 CIP Project Local Bond shall be substantially in the form attached to this Resolution as Exhibit B, with such variations, omissions and insertions as may be necessary or appropriate to conform to the provisions of this Resolution. The 2022 CIP Project Local Bond shall be a Parity Obligation and shall be a VRA Subordinate Obligation, each as defined in the Trust Agreement, shall be secured on a parity with all other Parity Obligations of the Borrower under the Trust Agreement, and shall be senior to all Junior Obligations (as defined in the Trust Agreement), as set forth therein.

The 2022 CIP Project Local Bond shall be dated as of its date of issue and shall bear interest (or “Cost of Funds” as described in the 2022 CIP Project Financing Agreement Supplement) on the disbursed principal balance of the 2022 CIP Project Local Bond at a rate not to exceed 1.75% per annum. Such interest shall be payable commencing on the date set forth in a certificate of the General Manager delivered on the date of issue of the 2022 CIP Project Local Bond (the “General Manager’s Certificate”), such principal and interest shall be payable in essentially equal semi-annual installments (rounded to the nearest \$100), with the balance due on the date set forth in the General Manager’s Certificate, but not later than December 1, 2046.

Section 3. Redemption Provisions. The principal installments on the 2022 CIP Project Local Bond shall be subject to redemption prior to their respective maturities, at the option of the Borrower, from any money that may be made available for such purpose, either in whole or in part on any date at the redemption price of par plus accrued interest with the prior written consent of the Authority and otherwise as provided in the Financing Agreement. Any such partial redemption

shall not postpone the due date of any subsequent payment on the 2022 CIP Project Local Bond, or change the amount of such installment, unless the Borrower and the Authority agree otherwise in writing.

Section 4. Deposits to Local Bond Fund. The Borrower shall deposit money with or to the order of the Authority, as Administrator of the Fund, in amounts sufficient to pay in full, when due (whether by maturity, redemption, acceleration or otherwise), the 2022 CIP Project Local Bond issued under this Resolution, together with the interest thereon, all as set forth in the 2022 CIP Project Local Bond.

Section 5. Authority to Execute 2022 CIP Project Financing Agreement Supplement. The execution and delivery of the 2022 CIP Project Financing Agreement Supplement, substantially in the form presented at this meeting, relating to the loan from the Authority, as Administrator to the Fund, to the Borrower and the repayment of the loan by the Borrower in accordance with the 2022 CIP Project Local Bond, are hereby authorized, with such changes, insertions and omissions as may be approved by the Chair or the Vice Chair of the Commission, the General Manager or the Director of Finance, the execution of the 2022 CIP Project Financing Agreement Supplement by the Chair, the Vice Chair, the General Manager or the Director of Finance to be conclusive evidence of his or her approval of any changes, insertions and omissions therein.

Section 6. Manner of Execution of 2022 CIP Project Local Bond. The 2022 CIP Project Local Bond shall be executed by the Chair or the Vice Chair and the Secretary or an Assistant Secretary of the Commission, and the seal of the Commission shall be impressed on the 2022 CIP Project Local Bond. The 2022 CIP Project Local Bond shall be delivered to or for the

account of the Authority, as Administrator of the Fund, upon execution and delivery of the 2022 CIP Project Financing Agreement.

Section 7. Obligations of Borrower Unconditional. Subject to the terms of the Trust Agreement, nothing contained in this Resolution or the 2022 CIP Project Local Bond is intended to or shall impair, as between the Borrower, its creditors, and the holder of the 2022 CIP Project Local Bond, the obligation of the Borrower, which is absolute and unconditional, to pay to the holder of the 2022 CIP Project Local Bond the principal of, redemption premium, if any, and Cost of Funds on the 2022 CIP Project Local Bond as and when the same shall become due and payable in accordance with its terms, or affect the relative rights of the holder of the 2022 CIP Project Local Bond and creditors of the Borrower, nor shall anything herein or therein prevent the holder of the 2022 CIP Project Local Bond from exercising all remedies otherwise permitted by applicable law and under the Trust Agreement upon default under the 2022 CIP Project Local Bond and the 2022 CIP Project Financing Agreement Supplement.

Section 8. Payments on 2022 CIP Project Local Bond Permitted. Nothing contained in this Resolution or the 2022 CIP Project Local Bond shall affect the obligation of the Borrower to make, or prevent the Borrower from making, payment of the principal of, redemption premium, if any, or Cost of Funds on the 2022 CIP Project Local Bond in accordance with the provisions hereof, except as otherwise provided in this Resolution.

Section 9. Benefits of Resolution. Nothing in this Resolution or the 2022 CIP Project Local Bond, express or implied, shall give to any person, other than the holder of the 2022 CIP Project Local Bond, any benefit or any legal or equitable right, remedy or claim under this Resolution.

Section 10. Further Action. The Chair, the Vice Chair, the Secretary and any Assistant

Secretary of the Commission and the General Manager, the Director of Engineering and the Director of Finance of the Borrower are each authorized and directed, acting alone or together (without limitation except as may be expressly set forth therein), to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as such officer, with the advice of counsel, may deem necessary or appropriate to effect the transactions contemplated by the 2022 CIP Project Financing Agreement Supplement.

Section 11. Effectiveness. This Resolution shall take effect immediately upon its adoption.

[END OF RESOLUTION]

Adopted by the Hampton Roads Sanitation District Commission on April 26, 2022.

Frederick N. Elofson, CPA, Chair

EXHIBIT A

GLOSSARY OF DEFINED TERMS

“*2022 CIP Project Financing Agreement Supplement*” means the Supplement to Master Financing Agreement relating to the 2022 CIP Project Local Bond, between the Borrower and the Authority, as Administrator of the Fund, together with any amendments or supplements thereto.

“*2022 CIP Project Local Bond*” means the bond in substantially the form attached to this Resolution as Exhibit B, to be issued by the Borrower to the Authority, as Administrator of the Fund, pursuant to this Resolution and the 2022 CIP Project Financing Agreement Supplement.

“*2022 CIP Project Local Bond Proceeds*” means proceeds of the issuance and sale of the 2022 CIP Project Local Bond to the Authority, as Administrator of the Fund, pursuant to the 2022 CIP Project Financing Agreement Supplement.

“*Capital Improvement Program Costs*” means “Capital Improvement Program Costs” as defined in the Trust Agreement.

“*Financing Agreement*” means the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the 2022 CIP Project Financing Agreement Supplement.

“*General Manager’s Certificate*” means the certificate of the General Manager delivered on the date of issue of the 2022 CIP Project Local Bond.

“*Junior Indebtedness*” means “Junior Indebtedness,” as defined in the Trust Agreement.

“*Net Revenues*” means “Net Revenues” as defined in the Trust Agreement.

“*Parity Obligations*” means “Parity Obligations,” as defined in the Trust Agreement.

“*Project*” means the projects described in Exhibit B to the 2022 CIP Project Financing Agreement Supplement, the costs of the acquisition, construction, improving or equipping of which are to be financed or refinanced in part with the 2022 CIP Project Local Bond Proceeds.

“*Project Budget*” means the budget for the financing or the refinancing of the Project, a copy of which is attached to the 2022 CIP Project Financing Agreement Supplement as Exhibit C, with such changes therein as may be approved in writing by the Authority.

“*Senior Indebtedness*” means “Senior Indebtedness,” as defined in the Trust Agreement.

“*Trust Agreement*” means the Trust Agreement, dated as of October 1, 2011, by and between the Borrower and the Trustee, as amended and restated as of March 1, 2016, as further amended and supplemented.

“*Trustee*” means The Bank of New York Mellon Trust Company, N.A., as trustee under the Trust Agreement, and any successor in trust thereto.

EXHIBIT B**FORM OF LOCAL BOND**

United States of America
Commonwealth of Virginia

HAMPTON ROADS SANITATION DISTRICT
Subordinate Wastewater Revenue Bond

Hampton Roads Sanitation District (the “Borrower”), a political subdivision of the Commonwealth of Virginia, by Hampton Roads Sanitation District Commission (the “Commission”), the governing body of the Borrower, acknowledges itself indebted and, for value received, hereby promises to pay, solely from the revenues and other property hereinafter described and pledged to the payment of this Bond, to the order of the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund, Richmond, Virginia (the “Fund”), the principal amount equal to the sum of the principal disbursements made by the Authority, as Administrator of the Fund, to the Borrower (as shown in Schedule 1) pursuant to the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the Supplement to Master Financing Agreement, dated as of _____ 1, 2022 (as so amended and supplemented, the “Financing Agreement”) not to exceed One Hundred Million Dollars (\$100,000,000), together with interest (or “Cost of Funds” as described in the Financing Agreement) on the disbursed principal at the rate of _____% per annum, as follows:

Cost of Funds shall be payable on _____ 1, _____, and thereafter principal and Cost of Funds due under this Bond shall be payable in essentially equal semi-annual installments (rounded to the nearest one hundred dollars (\$100)) on _____ 1 and _____ 1 of each year, commencing _____ 1, 20__ (as shown on Schedule 2), provided that if not sooner paid, all amounts under this Bond shall be due and payable in full on _____ 1, 20__.

In addition, if any installment of principal or Cost of Funds is not received by the holder of this Bond within ten (10) days from its due date, the Borrower shall pay to the holder of this Bond, a late payment charge in an amount equal to five percent (5.00%) per annum on such overdue installment. Both principal and Cost of Funds are payable in lawful money of the United States.

No notation is required to be made on this Bond of the payment of any principal or interest on normal installment payment dates. HENCE, THE FACE AMOUNT OF THIS BOND MAY EXCEED THE PRINCIPAL SUM REMAINING OUTSTANDING AND DUE HEREUNDER. This Bond and the premium, if any, and the Cost of Funds thereon are limited obligations of the Borrower and (except to the extent payment with respect to the Bond shall be made from the proceeds from the sale of the Bond or the income, if any, derived from the investment thereof) are payable solely from Net Revenues Available for Debt Service (as defined in the below-mentioned Trust Agreement) from time to time deposited by the Borrower with or to the order of the Authority, as the Administrator of the Fund pursuant to the Resolution (the “Resolution”) adopted by the Commission on April 26, 2022, authorizing the issuance of this Bond, which Net Revenues

Available for Debt Service have been pledged pursuant to the Financing Agreement to secure payment hereof. Neither the Commonwealth of Virginia nor any political subdivision thereof, including the Borrower, shall be obligated to pay the principal of or premium, if any, or Cost of Funds on this Bond or other costs incident thereto except from the revenues pledged therefor, and neither the faith and credit nor the taxing power of the Commonwealth of Virginia or any political subdivision thereof, including the Borrower, is pledged to the payment of the principal of or premium, if any, or Cost of Funds on this Bond or other costs incident thereto.

This Bond shall be a Parity Obligation and a VRA Subordinate Obligation and secured on parity with all other all Parity Obligations and VRA Subordinate Obligations heretofore and hereafter issued and outstanding under the Trust Agreement, dated as of October 1, 2011, as amended and restated as of March 1, 2016, as further amended and supplemented (the “Trust Agreement”), by and between the Borrower and the predecessor in trust to The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”), and shall be senior to all Junior Indebtedness (as defined in the Trust Agreement), to the extent and in the manner set forth therein.

This Bond is being issued pursuant to the terms of the Resolution and the Financing Agreement to evidence a loan from the Authority, as Administrator of the Fund, to the Borrower to finance Capital Improvement Program Costs (as defined in the Trust Agreement).

This Bond is subject to optional prepayment to the extent and on the terms set forth in the Resolution and the Financing Agreement.

If an Event of Default (as defined in the Financing Agreement) occurs, the principal of and accrued Cost of Funds on this Bond may be declared immediately due and payable by the holder by written notice to the Borrower.

The obligations of the Borrower under this Bond shall terminate when all amounts due and to become due pursuant to this Bond have been paid in full.

All provisions of this Bond are subject to the terms of the Trust Agreement, and all capitalized terms used herein and not otherwise defined herein shall have the meanings assigned thereto by the Resolution and the Financing Agreement.

All acts, conditions and things required to happen, exist or be performed precedent to and in the issuance of this Bond have happened, exist and have been performed.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed by the Chair of its Commission and its seal to be impressed hereon and attested by the Secretary of its Commission all as of _____, 2022.

HAMPTON ROADS SANITATION DISTRICT

By: _____
Chair of the Hampton Roads Sanitation
District Commission

(SEAL)
ATTEST:

Secretary of the Hampton Roads
Sanitation District Commission

SCHEDULE OF PRINCIPAL DISBURSEMENTS

The amount and date of disbursements of the principal of the Bond to which this Schedule is attached, not to exceed \$100,000,000, shall be entered hereon by the authorized representative of Virginia Resources Authority when each such disbursement of principal is made to the Borrower.

<u>Date</u>	<u>Amount</u>	<u>Cumulative Amount</u>	<u>Authorized Signature</u>
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
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_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____
_____	\$ _____	\$ _____	_____

AMORTIZATION SCHEDULE

AGENDA ITEM 5. – April 26, 2022

Subject: 46th Street Diversion Sewer Rehabilitation/Replacement, Huntington Ingalls Incorporated, Newport News Shipbuilding Division (HII-NNS)
New CIP, Initial Appropriation and Agreement

Recommended Actions:

- a. Approve a new CIP project (BH014610) for the 46th Street Diversion Sewer Rehabilitation/Replacement, HII-NNS.
- b. Authorize funding in the amount of \$2,900,000.
- c. Approve the terms and conditions of the Cost Sharing Agreement with Huntington Ingalls Incorporated, through its Newport News Shipbuilding Division (HII-NNS) for the reimbursement of construction costs associated with the 46th Street Diversion Sewer Rehabilitation/Replacement, HII-NNS, project 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.

CIP Project: BH014610

Project Description: This project will involve the rehabilitation and/or replacement of the main sanitary sewer trunk line on Newport News Shipbuilding property. This project has been split from the 46th Street Diversion Sewer Rehabilitation/Replacement (CIP BH014600) project which will include the installation of a new main sanitary sewer trunk line in the City right of way outside of NNS property to divert public flow from the sewer trunk line on HII-NNS property.

This project will address long standing conditional, access, encroachment and jurisdictional issues related to the James River Diversion Sewer. Splitting this portion of the work from CIP BH014600 will allow HII-NNS to bid out the project using their process and contractors and will allow BH014600 to be bid out and start construction sooner. Upon completion, this portion of the work will be owned and operated by HII-NNS. This is a Consent Decree Rehabilitation Action Plan Phase II project.

Funding Description: The total cost for this project is estimated at \$2,900,000 based on a Class I cost estimate and a twenty percent contingency included in the requested appropriation.

Agreement Description: The attached [Cost Sharing Agreement](#) between HRSD and HII-NNS has been reviewed by HRSD legal counsel. A location map is included as [Exhibit 1](#).

Analysis of Cost: The estimated cost for this project is based on an AACE Class I cost estimate provided at the 100% design stage. The cost for this effort has been removed from the budget for CIP BH014600 and includes an estimated 12% of the construction subtotal for CA/CI services and a 15% construction contingency.

AGREEMENT FOR COST SHARING AND FACILITY OWNERSHIP TRANSFER

OF THE

**HAMPTON ROADS SANITATION DISTRICT
46th STREET DIVERSION SEWER REHABILITATION/REPLACEMENT
BH014600**

AND

**HUNTINGTON INGALLS INCORPORATED, THROUGH ITS NEWPORT NEWS
SHIPBUILDING DIVISION**

THIS AGREEMENT FOR COST SHARING AND FACILITY OWNERSHIP TRANSFER (the "Agreement"), between the HUNTINGTON INGALLS INCORPORATED, THROUGH ITS NEWPORT NEWS SHIPBUILDING DIVISION ("HII-NNS") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this ____ day of _____, 202__ (the "Effective Date"). HRSD AND HII-NNS shall be referred to jointly as the "Parties".

RECITALS

R:1. HRSD is constructing its 46th Street Diversion Sewer Rehabilitation / Replacement Project referred to as the "Improvements"; and

R:2. The Improvements will be comprised of facilities located on HII-NNS property and facilities located in the City of Newport News Right of Way referred to as "ROW". Refer to **Exhibit 1** for the locations of the facilities on HII-NNS property and for the locations of the facilities in the ROW; and

R:3. The construction of the Improvements will necessitate the design, realignment, relocation, rehabilitation, bypassing, and replacement of existing gravity sewer on HII-NNS property and ROW; and

R:4. HRSD and HII-NNS collectively desire to design, replace, realign, rehabilitate and relocate the existing facilities on HII-NNS property to maintain public flows in ROW and divert public flows away from HII-NNS facilities; and

R:5. HRSD agrees to include the design of the facilities located on HII-NNS property in the design of the Improvements; and

R:6. HRSD agrees to include the construction of the facilities in the construction of the Improvements; and

R:7. HII-NNS agrees to reimburse HRSD for that portion of the costs of the

construction of the facilities on HII-NNS property; and

R:8. HRSD and HII-NNS agree that following the completion of construction, the facilities located on HII-NNS property will only receive private HII-NNS sewer flows conveyed through facilities located on HII-NNS property; and

R:9. HRSD and HII-NNS agree that the construction of the Improvements shall be completed prior to May 5, 2025 in compliance with the Environmental Protection Agency's Consent Decree deadline; and

R:10. HII-NNS agrees to accept ownership, operations and maintenance of the Facilities located on HII-NNS property following the completion of construction 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 RAMBOLL ("ENGINEER"), to prepare plans and specifications for the Improvements.
2. ENGINEER, along with HRSD and HII-NNS, will meet to coordinate, review, and approve a set of final construction documents (the "Final Plans and Specifications") for the Improvements.

B. Payment of the Design Costs

HRSD will compensate ENGINEER for all engineering design costs and any amendments related to the Improvements.

C. Compliance

All design work shall comply with HRSD's Design and Construction Standards, latest edition and HII-NNS's General Provisions for Construction Projects. Any changes to the Final Plans and Specifications shall be approved by HRSD and HII-NNS.

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The cost of Construction of the Improvements, as more particularly defined by the Final Plans and Specifications, prepared by ENGINEER for HRSD and HII-NNS (the "Improvements Costs") 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 (CA) and construction inspection (CI);
 - e. Costs of services rendered by ENGINEER;
 - f. Costs for all temporary or permanent easements and fee simple land acquisitions;
 - g. Costs of any additional security, if required;
 - h. Cost of any repair work for damage done during construction to existing facilities subject to joint review and approval by HRSD and HII-NNS; and
 - i. Any related miscellaneous essential expenses.
2. The current estimated cost of construction of the Improvements on HII-NNS property is \$2,636,975. HII-NNS's estimated portion of the cost of construction of the Improvements on HII-NNS property is \$313,086.

B. Construction Contract

1. HRSD will employ a Contractor to construct the Improvements in the ROW per the plans and specifications provided by ENGINEER.
2. HII-NNS will employ a Contractor to construct the Improvements on HII-NNS property per the plans and specifications provided by

ENGINEER.

3. The construction of the Improvements shall be completed prior to May 5, 2025 due to the Consent Decree deadline.

C. Approval of Final Plans and Specifications; Contractors; Change Orders

1. HRSD and HII-NNS agree that before any construction work is to begin under this Agreement, HRSD and HII-NNS will jointly review and approve the Final Plans and Specifications. This approval shall be in writing.
2. HRSD shall acquire all necessary plan approvals and property acquisitions related to the Improvements prior to the award of the construction contract.
3. HRSD and HII-NNS shall review and agree upon the Contractors and any Subcontractors qualifications prior to bidding the project and confirm that the construction contract is awarded to a firm(s) that meets the stated requirements pursuant to the requirements of Section IV, B.5 herein.
4. Contractors shall be responsible for all necessary permits and approvals necessary for the Improvements.
5. HRSD and HII-NNS will review and approve shop drawings related to the Improvements.
6. HRSD will review and approve change orders related to the Improvements in ROW.
7. HRSD and HII-NNS will review and approve change orders related to the Improvements on HII-NNS property.

D. Payment of Improvement Costs

1. The Improvement Costs include costs of design, bid phase, and construction phase services. Construction phase services include costs of CA and CI. The Improvement Costs shall be apportioned among the parties as follows:
 - a. HRSD will administer and be responsible for bearing one hundred percent (100%) of the design costs of the

- Improvements. This includes costs of design services rendered by ENGINEER.
- b. HRSD will administer and be responsible for bearing one hundred percent (100%) of the construction costs of rehabilitated Improvements. Improvements to include manhole and pipe rehabilitation.
 - c. HRSD will administer and be responsible for bearing one hundred percent (100%) of the construction costs for new, relocated, or replaced facilities located in ROW.
 - d. HRSD will administer and be responsible for bearing fifty percent (50%) of the construction costs for relocated or replaced facilities on HII-NNS property.
 - e. HII-NNS will administer and be responsible for bearing fifty percent (50%) of the construction costs for relocated or replaced facilities on HII-NNS property.
 - f. HRSD will administer and be responsible for bearing one hundred percent (100%) of CA and CI costs for the Improvements in ROW.
2. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:
- a. HRSD shall be responsible for one hundred percent (100%) of all costs due to a Change Order requested by HRSD.
 - b. HII-NNS shall be responsible for one hundred percent (100%) of all costs due to a Change Order requested by HII-NNS on HII-NNS property.
 - c. HII-NNS shall be responsible for one hundred percent (100%) of all costs associated with changed field conditions on HII-NNS property.
 - d. HII-NNS shall be responsible for one hundred percent (100%) of all costs associated with schedule delays resulting from HII-NNS operational changes.
 - e. HII-NNS shall be responsible for one hundred percent (100%)

of all costs associated with contaminated soil and groundwater on HII-NNS property.

- f. HII-NNS shall be responsible for one-hundred percent (100%) of all costs associated with unforeseen conditions and other needed changes approved by both HII-NNS and HRSD on HII-NNS property.
 - g. HRSD shall be responsible for one hundred percent (100%) of all costs associated with unforeseen conditions within the ROW.
3. During the course of construction, HII-NNS will provide monthly invoices for the cost of Improvements on HII-NNS property, and HRSD shall compensate HII-NNS for all Improvement Costs on HII-NNS property, including those for which HII-NNS is responsible, within forty-five (45) days from the date of receiving the invoice.
 4. HII-NNS shall reimburse HRSD for all payments made on its behalf. HII-NNS shall reimburse HRSD upon completion of construction for HII-NNS Facilities (as determined by HRSD and HII-NNS). HRSD shall provide HII-NNS with an invoice detailing HII-NNS's share of the Improvement Costs for review upon completion of construction. HII-NNS shall provide written notification to HRSD of all discrepancies for Improvement Costs within a period of thirty (30) days from receiving the invoice. The Parties shall resolve all discrepancies as cooperatively and expeditiously as possible. Upon resolution of all discrepancies and HII-NNS's acceptance of Improvement Costs, within forty-five (45) days of its receipt of such invoice, HII-NNS shall reimburse HRSD for HII-NNS's share of the Improvement Costs as detailed in the invoice (including any revisions thereof) and accepted.

E. Operation and Maintenance of the Improvements

1. HRSD shall be responsible for operation and maintenance of the HRSD Facilities in the ROW during and after completion of construction.
2. HII-NNS shall be responsible for operation and maintenance of the Facilities located on HII-NNS property upon completion of construction.
3. HRSD shall be responsible for operation and maintenance of the

Facilities located on HII-NNS property during construction.

4. HRSD and HII-NNS agree to cooperate and coordinate for the operations and maintenance of any interconnections between the Facilities to include pipe replacement and relocation.

F. Facility Ownership Transfer

1. Within the limits of the Improvements, the Parties intend to divert public sewer flows away from the facilities located on HII-NNS property. Only private HII-NNS sewer flows will be conveyed through facilities located on HII-NNS property.
2. Upon completion of construction of the Improvements, and diversion of public flows from the facilities located on HII-NNS property, HII-NNS agrees to assume ownership of the facilities located on HII-NNS property.
3. Following the assumption of ownership of the Facilities, HII-NNS agrees to comply with HRSD's current Industrial Wastewater Discharge Regulations and any future permit requirements set forth by HRSD.

III. SCHEDULE

The construction is anticipated to begin in April 2022 and be complete by April 2024. Prior to initiation of any construction, HRSD, Contractor and HII-NNS will agree on a detailed project schedule, which will include periodic updates as agreed upon by all parties. If the construction dates listed herein are substantially delayed, HRSD or HII-NNS reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND HII-NNS

A. Public Hearing or Meeting

HRSD will be responsible for holding a public hearing or meeting if required by the City of Newport News. HRSD will be responsible for contacting the City of Newport News to discuss these requirements.

B. Bidding of the Improvements

1. HRSD agrees to issue bidding documents for construction of the

Improvements. HII-NNS agrees to provide administrative support during the bidding phase. The Parties 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 in the ROW.
 3. HII-NNS will receive bids for construction of the Improvements on HII-NNS property.
 4. All bids received will be reviewed and approved by HII-NNS and HRSD prior to award of the construction contract.
 5. HII-NNS and HRSD shall negotiate in good faith to resolve financial matters with regards to bidding the Improvements.

C. Administration

1. HRSD shall provide construction contract administration of the Improvements in ROW.
2. HII-NNS shall provide construction contract administration of the Improvements on HII-NNS property.

D. Inspection

1. HRSD shall provide full-time inspection for the Improvements in ROW. The inspector(s) shall have the authority to assure the Improvements are constructed in accordance with the Final Plans and Specifications.
2. HII-NNS shall provide full-time inspection for the Improvements on HII-NNS property. The inspector(s) shall have the authority to assure the Improvements are constructed in accordance with the Final Plans and Specifications.

E. Deeds and Easements

1. HRSD shall obtain any and all necessary fee simple deeds and/or deeds of easement needed for the Facilities.
2. All unused easements on HII-NNS property will be vacated. The vacation shall specify that no public flows occur on HII-NNS property.

F. Correction of Construction Defects in the Improvements

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 HII-NNS within one (1) year of Substantial Completion of the Improvements.

G. Construction Record Drawings

ENGINEER shall provide HRSD and HII-NNS approved construction record drawings in accordance with HRSD's Design and Construction Standards, latest edition.

H. Access to HII-NNS Property

Prior to and during the period of construction HII-NNS shall facilitate access to HRSD personnel, representatives, contractors, sub-contractors, consultants, and agents. HRSD personnel, representatives, contractors, sub-contractors, consultants shall comply with all HII-NNS access rules and regulations.

V. GOVERNING LAW

This Agreement shall be deemed to be a Virginia Contract and shall be governed as to all matters whether of validity, interpretations, obligations, performance or otherwise exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws. If such question or dispute arises with regard to this Agreement, it shall be resolved in the Circuit Court for the City of Newport News. Regardless of where actually delivered and accepted, this contract shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.

VI. TERMINATION

Anything herein or elsewhere to the contrary notwithstanding, this Agreement and the obligations of the parties hereunder may be terminated by HII-NNS or HRSD in

the event that the other party breaches or violates any material provision of this Agreement or fails to perform any material covenant or agreement to be performed by either party under the terms of this Agreement and such breach, violation or failure 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 by mutual agreement of HII-NNS and HRSD.

VII. NOTICE

Any notice, communication or request under this Agreement shall be provided in writing by either (a) certified mail, return receipt requested, postage prepaid, or (b) a nationally recognized overnight delivery service (next business day service), or (c) hand-delivery, if the receipt of the same is evidenced by the signature of the addressee or authorized agent, and addressed to the following:

For: HRSD

If by U.S. Postal Service:
General Manager
P. O. Box 5911
Virginia Beach, VA 23471-0911
Telephone: (757) 460-4242

If by Overnight Mail:
General Manager
1434 Air Rail Avenue
Virginia Beach, VA 23455

With Copy to:

Conway H. Sheild, III
Jones, Blechman, Woltz and Kelly
701 Town Center Drive, Suite 200
Newport News, VA 23606
Telephone: 757-873-8056

For: HII-NNS

Jim O'Brien

HII-NNS Director of Facilities

4101 Washington Ave, Newport News, VA 23607

Telephone: 757-688-9307

With Copy to:

Christopher Page

HII-NNS Senior Staff Counsel

4101 Washington Ave, Newport News, VA 23607

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. 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.

XI. DAMAGES

If by omission that constitutes negligence or willful misconduct or failure to abide by engineering standards or failure to abide by the Final Plans and Specifications described herein, the negligent party shall be responsible for the payments for damages to any other party to this Agreement.

XII. INSURANCE

HRSD and HII-NNS have the right to review and approve insurance coverage in the various insurance categories that HRSD and HII-NNS 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 HII-NNS and the insurance coverage shall be maintained during the term of this Agreement.

XIII. 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.

XIV. FORCE MAJEURE

In the event of enforced delay in the performance of such obligations due to unforeseeable causes beyond the control of HII-NNS or HRSD or the Contractor and without their fault or negligence, including, but not restricted to, acts of God or of the public enemy, acts of the government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargos, and unusually severe weather or delays of subcontractors due to such causes; it being the purpose and intent of this provision that in the event of the occurrence of any such enforced delay, the time or times for performance of the obligations of the parties shall be extended for the period of the enforced delay.

XV. INDEPENDENT CONTRACTOR

If the Contractor(s) hire subcontractors or independent contractors, HRSD and HII-NNS have the right to approve them by reviewing their requisite experience and knowledge to complete the work assigned and to determine if they carry insurance in accordance with Article XII herewith.

XVI. SUBCONTRACTOR

If any Contractors or subcontractors are selected by any party to this Agreement for completion of the work contemplated herein, HRSD has the right to approve the same and to determine if they carry insurance in accordance with Article XII herewith.

XVII. 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.

XVIII. 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.

XVIV. Binding Effect

This Agreement requires Commission approval of HRSD Commission.

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 _____, 202__.

HAMPTON ROADS SANITATION DISTRICT

By _____
Jay Bernas, PE, General Manager

IN WITNESS WHEREOF, the Huntington Ingalls Incorporated Through Its Newport News Shipbuilding Division

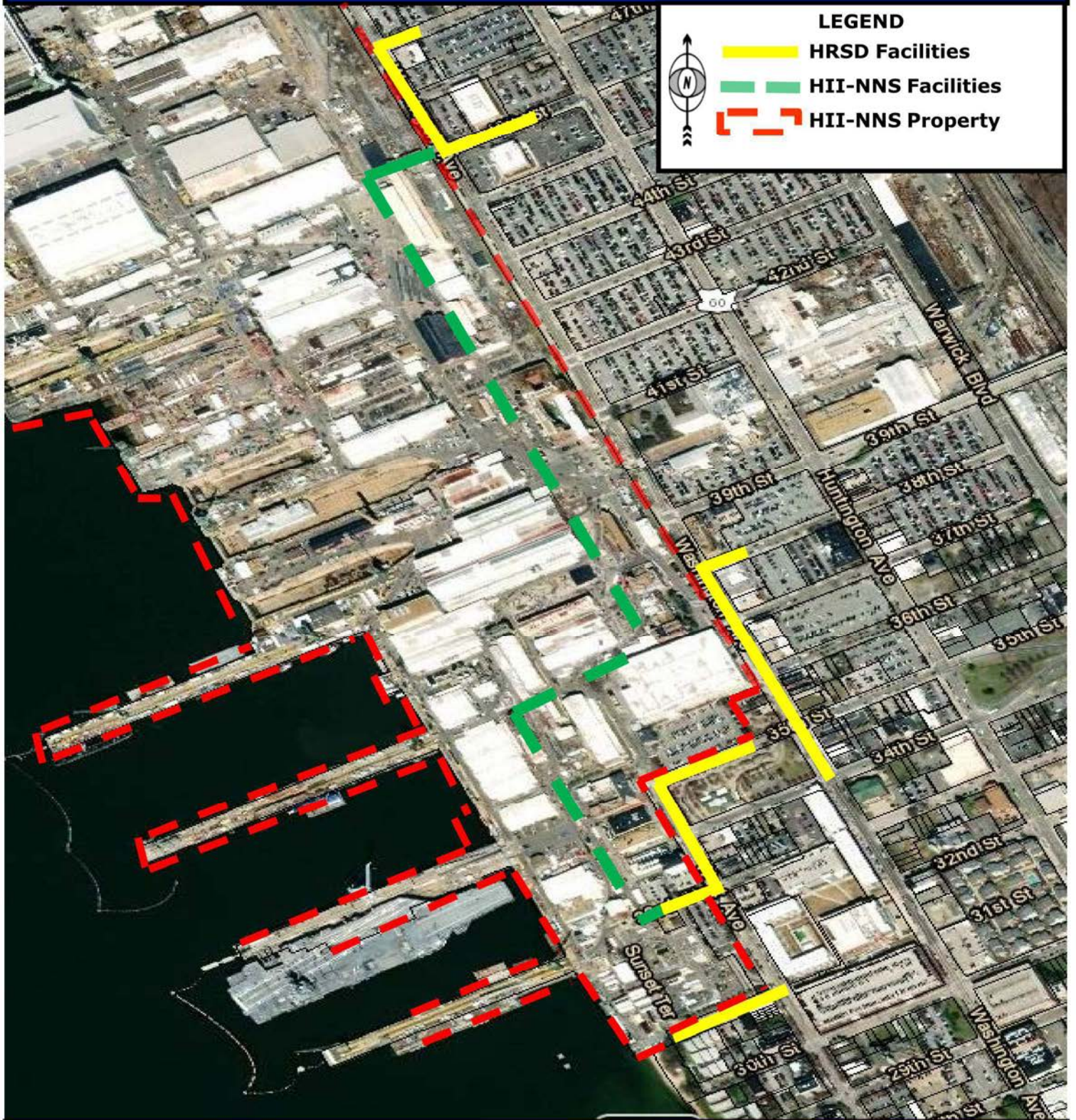
**Jim
Obrien**

Digitally signed
by Jim Obrien
Date: 2022.03.17
08:20:24 -04'00'

By: _____
Name: Jim Obrien
Title: Director of Facilities

EXHIBIT 1

HRSD



46th Street Diversion Sewer Rehabilitation / Replacement

AGENDA ITEM 6. – April 26, 2022

Subject: Boat Harbor Treatment Plant Transmission Force Main Section 1 – Subaqueous Portion
Additional Appropriation, Comprehensive Agreement, and Proposal Compensation

Recommended Actions:

- a. Appropriate additional funding in the amount of \$89,944,129.
- b. Approve a comprehensive agreement with Garney Companies, Inc. including a Contract Cost Limit (CCL) of \$144,309,720.
- c. Approve a payment to Kokosing Industrial, Inc. in the amount of \$150,000.
- d. Approve a payment to Michels Corporation in the amount of \$150,000.

CIP Project: BH015710

Budget	\$78,778,799
Previous Expenditures and Encumbrances	(\$1,966,750)
Available Balance	\$76,812,049
Proposed Contract Award to Design-Builder	(\$144,309,720)
Proposed Contingency	(\$22,146,458)
Proposal Compensation Payment	(\$300,000)
Project Shortage/Requested Additional Funding	(\$89,944,129)
Revised Total Project Authorized Funding	<u>\$168,722,928</u>

Type of Procurement: Competitive Negotiation – Design-Build

The use of the Design-Build project delivery method was approved by Commission at the August 25, 2020, meeting. A Public Notice for the Request for Qualifications was issued on June 6, 2021. Five teams submitted Statements of Qualifications on July 13, 2021, and all teams were considered to be responsive and deemed fully qualified, responsible, and suitable to the requirements in the Request for Qualifications. Three Design-Build teams were short-listed. A Request for Proposals was issued on August 16, 2021, to the short-listed teams. All three short-listed teams submitted Technical Proposals on February 17, 2022, and interviews were held on March 3, 2022. Price Proposals were submitted on March 30, 2022. The points received and the final ranking for each of the short-listed teams are listed below:

Proposers	SOQ	Technical Proposal	Price Proposal	Total Ranking	Recommended Selection Ranking
Garney Companies, Inc.	22.98	27.27	33.05	83.03	1
Kokosing Industrial, Inc.	24.20	22.80	35.00	82.00	2
Michels Corporation	19.11	29.65	18.03	66.79	3

The Selection Committee recommends the top ranked team, comprised of Garney Companies, Inc. with Dewberry Engineers, Inc. as the design engineering consultants. The teams not selected were Kokosing Industrial, Inc. and Michels Corporation. They completed the selection process and were fully responsive to the procurement process. As approved at the May 25, 2021, Commission meeting, proposal compensation in the amount of \$150,000 is recommended for each team.

Agreement Description: The Comprehensive Agreement is for design-build services to design, build, and start-up the necessary infrastructure as described in the project description below. The Agreement includes the requirement to reach substantial completion no later than June 30, 2025, because the force main must be completed in time for start-up activities of the Boat Harbor Pump Station (BHPS) and Nansmond Treatment Plant (NTP) to be completed before the end of 2025.

Project Description: The project consists of the subaqueous crossing of the James River to convey screened and de-gritted wastewater from the proposed BHPS to the NTP. The proposed transmission force main is anticipated to be constructed by two different methods. Horizontal directional drilling will be used under the shipping channel and marine open-cut construction will be used for the remaining pipe. This project is a complex project due to the horizontal directional drill length, required permits and stakeholder coordination, and unique aspects associated with permitting and conducting work in the James River.

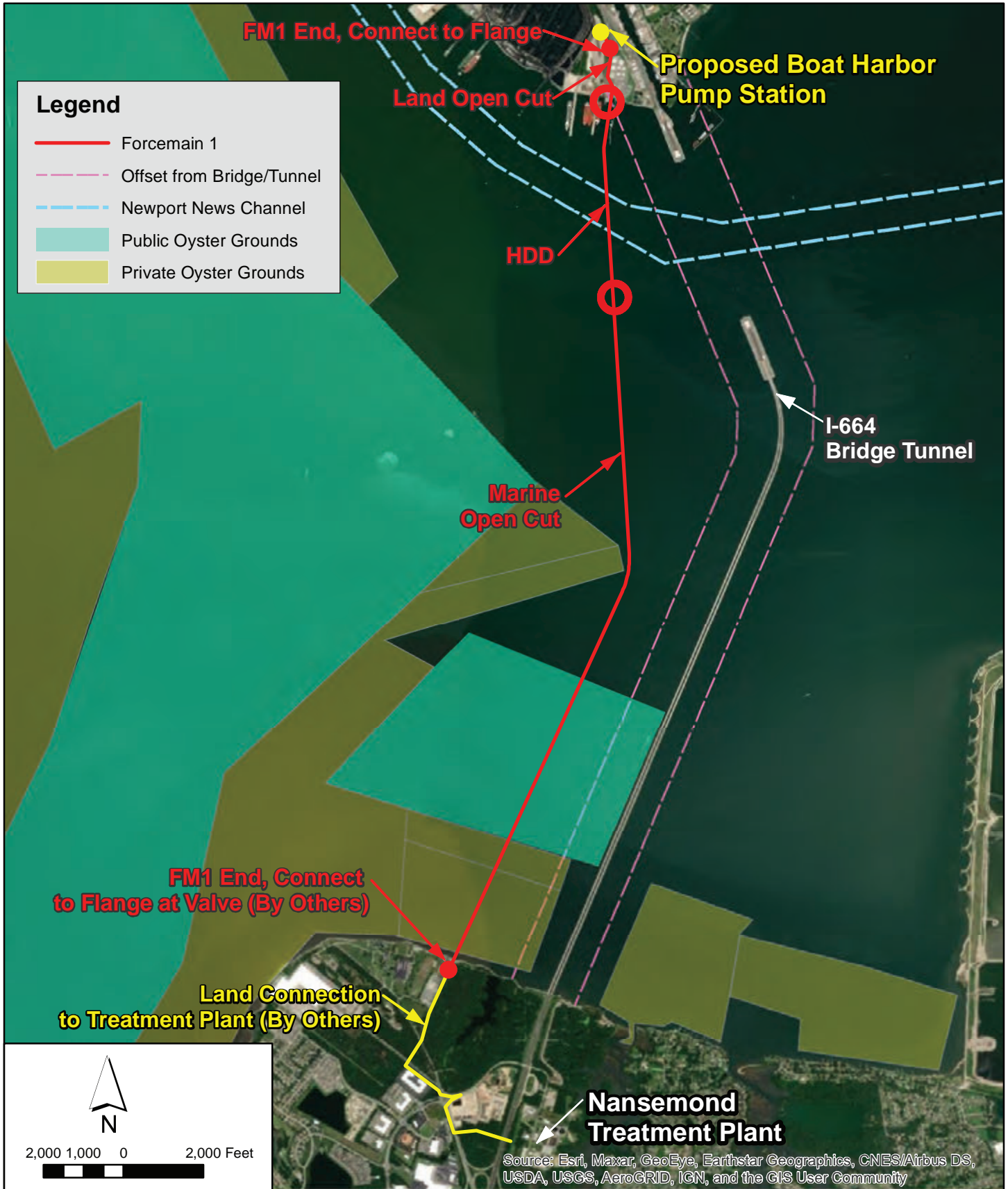
A [location map](#) is included for clarification purposes.

Funding Description and Analysis of Cost: The proposed CCL of \$144,309,720 reflects a complete project based on the scope within the basis of design minus approximately \$10 million of accepted alternates proposed by the design-builder. Design costs are 2.7% of the CCL, which is considered reasonable and appropriate, especially when compared to other HRSD design-build projects that have ranged from 4.7% to 7.0%. Engineering services during construction are 1.8% of the CCL, which is appropriate considering the design-builder is providing construction administration and construction inspection services.

The project was appropriated in November 2020, based on a Class 5 cost estimate of an early design concept with a 36-inch diameter force main. At the completion of the basis of design documents in May 2021, a Class 3 cost estimate was prepared. A revised Class 3 estimate was prepared in March 2022 to incorporate revised requirements for excavated material handling from regulatory agencies, a change in pipe size (increased to 48-inch diameter), and to update for market conditions. All three Price Proposals received were significantly higher than the latest Class 3 estimate of \$126,991,648. A comparison of the engineer's opinion of probable construction cost and Garney Companies Inc.'s Price Proposal reveals a difference in marine-trench excavation quantities that corresponds to a similar difference in cost. The marine-trench excavation quantity and cost are dependent on contractor means and methods, sediment properties, material disposition (e.g. either placed back in the marine-trench or taken off site for disposal), and regulatory requirements. The marine-trench excavation quantity will be revisited during the design phase.

The request for additional appropriation includes a fifteen percent Owner's contingency to accommodate potential cost impacts to the project such as further material cost increases, potential scope improvements, and other unknowns. The SWIFT Program Management Team, AECOM with Hazen and Sawyer PC, will provide Owner's Consultant services under the SWIFT Program Management project (GN016320) during the execution of the Comprehensive Agreement. The task order for these services has been submitted as a separate agenda item.

<u>Schedule:</u>	Design-Build	April 2022
	Project Completion	July 2025



**Boat Harbor Treatment Plant Transmission Force Main Section 1
Subaqueous Portion (BH015710)**

Project Location

DRAWING NO	1
SHEET	1
DATE	April 19, 2022

AGENDA ITEM 7. – April 26, 2022

Subject: Dozier’s Corner Pump Station Replacement
Initial Appropriation

Recommended Action: Appropriate total project funding in the amount of \$17,121,868.

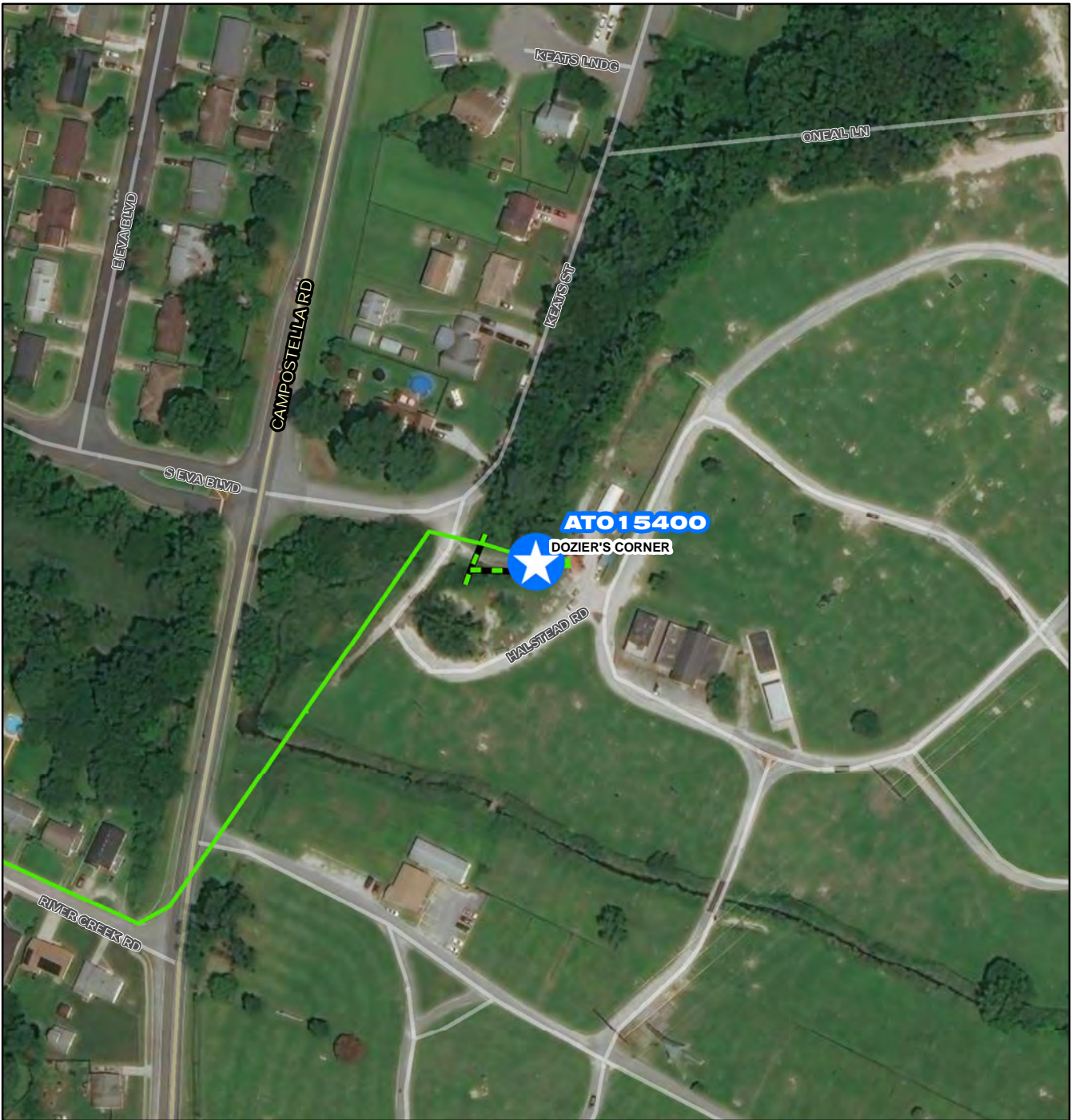
CIP Project: AT015400

Project Description: This project will replace the existing Dozier’s Corner Pump Station in the same location or relocated to a different site due to flooding and being surrounded by a cemetery. The pump station, if rebuilt on the same location, will need to be raised based on the 100-year flood information received from the City of Chesapeake. This project was originally planned to be included with work at the Washington District Pump Station (AT013200) but was separated due to changes in scope and schedule. This is a Consent Decree Rehabilitation Action Plan Phase II project.

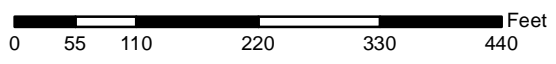
A [location map](#) is included for clarification purposes.

Funding Description: The total project cost estimate of \$17,121,868 includes approximately \$196,495 in preliminary engineering phase services, \$1,326,000 in design phase services, \$20,000 in pre-construction phase services, \$12,155,000 in construction phase costs, and a 25 percent contingency allowance of \$3,424,373 and is based on a Class 5 CIP-prioritization level cost estimate prepared by Gannett Fleming, Inc. Engineering services will be completed by Gannett Fleming under the General Engineering Services annual services contract and the cost for preliminary engineering is below the \$200,000 Commission approval threshold.

Schedule:	PER	August 2022
	Design	September 2023
	Bid	November 2023
	Construction	January 2024
	Project Completion	May 2025



- ATO 15400**
- 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



CIP Location



ATO 15400

Doziers Corner Pump Station Replacement



AGENDA ITEM 8. – April 26, 2022

Subject: Elizabeth River Crossing Reliability Improvements
Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Appropriate additional funding in the amount of \$1,815,246.
- b. Award a contract to Bridgeman Civil, Inc. in the amount of \$2,346,120.
- c. Approve a task order for Rummel, Klepper and Kahl, LLP (RK&K) in the amount of \$270,439.

CIP Project: VP018500

Budget	\$1,250,000
Previous Expenditures and Encumbrances	(\$331,387)
Available Balance	\$918,613
Proposed Contract Award to Bridgman Civil	(\$2,346,120)
Proposed Task Order to RK&K	(\$270,439)
Proposed Contingency	(\$117,300)
Project Shortage/Requested Additional Funding	(\$1,815,246)
Revised Total Project Authorized Funding	\$3,065,246

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on March 7, 2022, and two bids were received on March 31, 2022.

Bidder	Bid Amount
Bridgeman Civil, Inc.	\$2,346,120
Shaw Construction Corporation	\$3,197,195

Engineer's Estimate: \$1,338,145

Contract Description: The design engineer, RK&K, evaluated the bids and recommends award to the lowest responsive and responsible bidder, Bridgeman Civil, Inc., in the amount of \$2,346,120. The bid results confirm an increasing trend in construction costs for projects of this nature and may be attributed to an abundance of local infrastructure-related construction work, the global material supply chain shortages and construction labor pool limitations experienced in the pandemic/post-pandemic construction economy, and other domestic and international socio-economic drivers. RK&K did not account for these factors adequately in their Engineer's Estimate.

Contract Status:	Amount
Original Contract with RK&K	\$0
Total Value of Previous Task Orders	\$319,483
Requested Task Order	\$270,439
Total Value of All Task Orders	\$589,922
Revised Contract Value	\$589,922
Engineering Services as % of Construction	25%

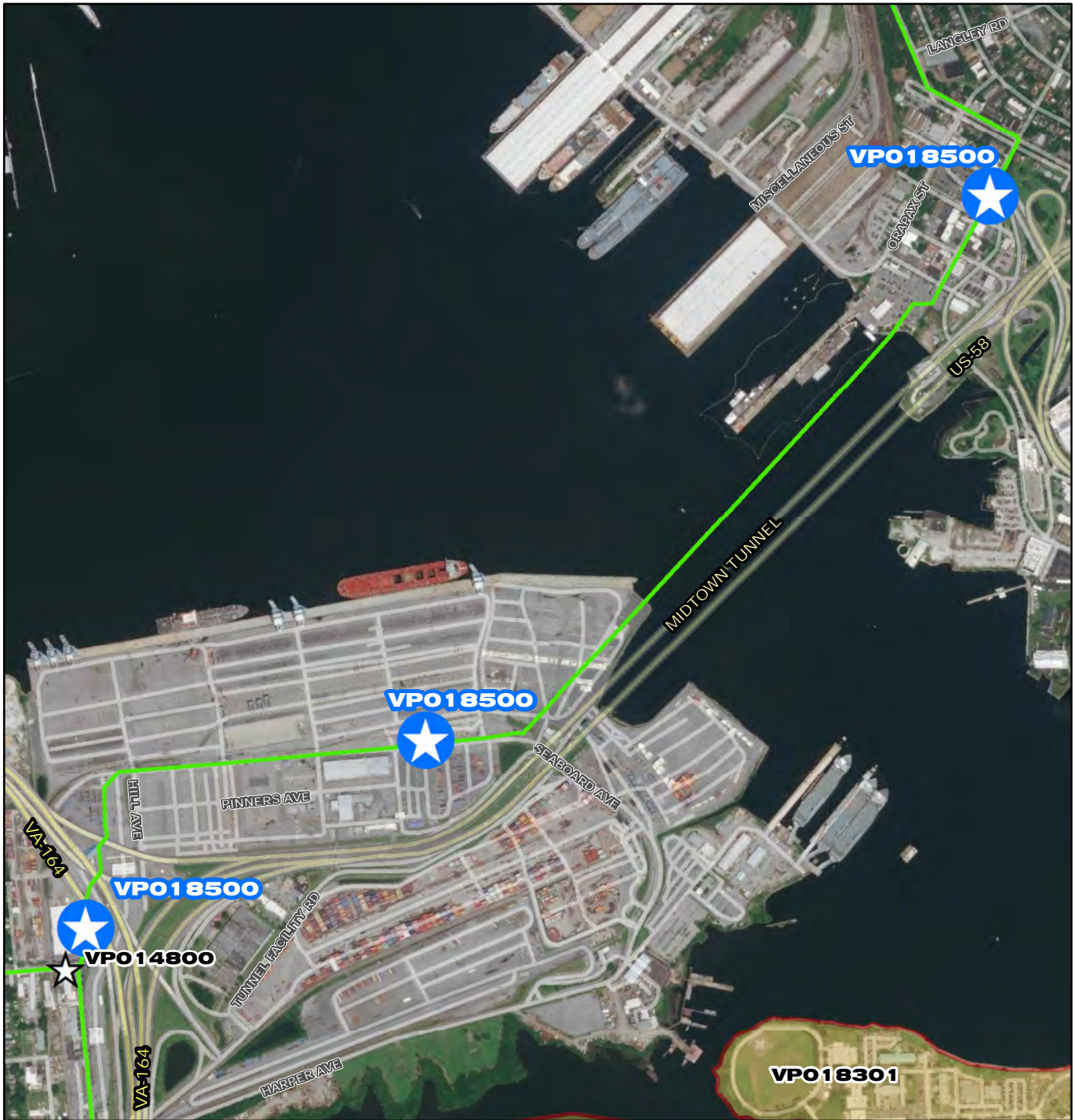
Project Description: This project will install two metering vaults and a bypass pump connection. One metering vault will replace the failed direct bury meter at Pinners Point. The other metering vault will be located in Norfolk to provide information about the condition of the river crossing. An emergency pump connection will be installed at the Pinners Point diversion structure, and that structure will be demolished.

A [location map](#) is included for clarification purposes.

Funding Description: The original CIP project estimate did not anticipate the current issues such as increases in gasoline prices, supply chain issues, and long lead times for all materials. This request includes a 5% contingency to accommodate any additional unforeseen conditions. This project requires additional funding due to construction contract award and project oversight. The amount for this work is \$1,915,246 and exceeds the balance available for this CIP project.

Task Order Description and Analysis of Cost: This task order will provide contract administration, field engineering and inspection, and post-startup and certification services. A meeting was held to discuss the project and scope of services. A fee of \$270,439 was negotiated, which will provide the required project oversight during construction and contract closeout. The cost of the task order is based on an estimation of hours and rates to complete the work. The hours and rates are in line with past efforts on similar projects.

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

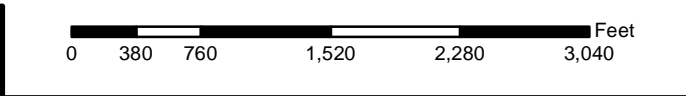


VPO 18500

- 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



VPO 18500

Elizabeth River Crossing Reliability Improvements

CIP Location

AGENDA ITEM 9. – April 26, 2022

Subject: Lee Avenue/Wesley Street Horizontal Valve Replacement
Initial Appropriation

Recommended Action: Appropriate total project funding in the amount of \$4,081,470.

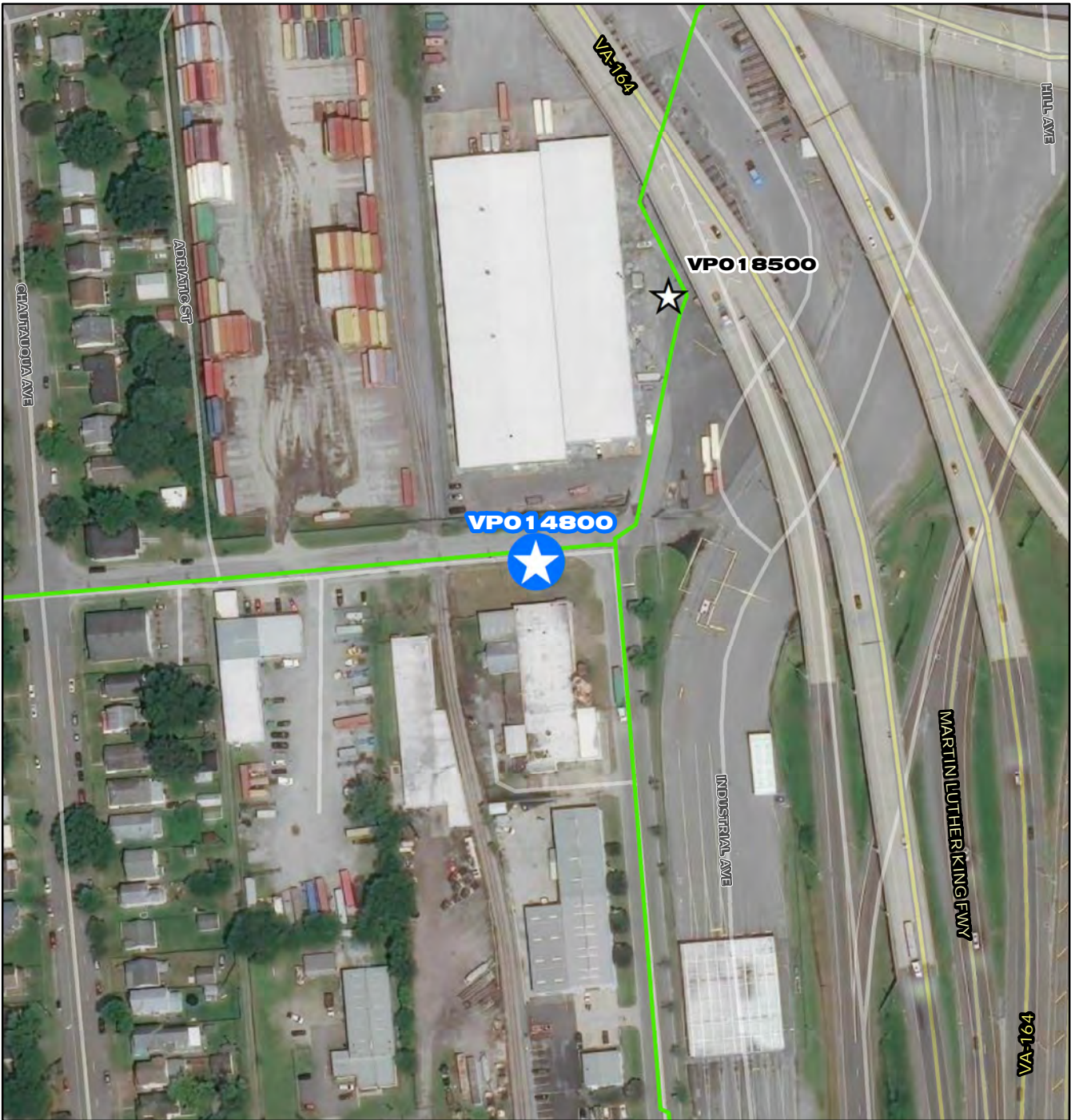
CIP Project: VP014800

Project Description: This project will replace the inoperable 36-inch horizontal gate valve and install a new 48-inch valve at the intersection of Lee Avenue and Wesley Street in the City of Portsmouth. A Preliminary Engineering Report was completed in 2011. The contract was cancelled and the CIP project was put on hold. The project has now been restarted since this work is part of the Consent Decree Rehabilitation Action Plan Phase II.

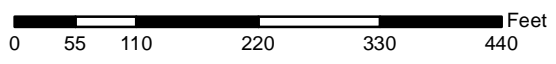
A [location map](#) is included for clarification purposes.

Funding Description: The total project cost estimate of \$4,081,470 includes \$96,216 in PER phase services, \$160,359 in design phase services, \$16,036 in preconstruction phase services, \$2,994,572 in construction phase costs, and \$814,287 of project contingency and is based on a Class 5 CIP-prioritization level cost estimate prepared by HRSD. Engineering services will be completed by Rummel, Klepper and Kahl, LLP under the Interceptor System Projects annual services contract and the cost for design is below the \$200,000 Commission approval threshold.

Schedule:	PER	December 2022
	Design	June 2023
	Bid	March 2024
	Construction	June 2024
	Project Completion	January 2025



- VPO14800**
- 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



VPO 14800

Lee Avenue-Wesley Street Horizontal Valve Replacement



AGENDA ITEM 10. – April 26, 2022

Subject: Lucas Creek Pump Station Replacement
Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Appropriate additional funding in the amount of \$11,924,564.
- b. Award a contract to Kiewit Infrastructure South Company in the amount of \$19,285,068.
- c. Approve a task order with HDR, Inc. in the amount of \$1,157,264.

CIP Project: JR013500

Budget	\$10,400,000
Previous Expenditures and Encumbrances	(\$907,232)
Available Balance	\$9,492,768
Proposed Contract Award to Contractor	(\$19,285,068)
Proposed Task Order to HDR, Inc.	(\$1,157,264)
Proposed Contingency	(\$975,000)
Project Shortage/Requested Additional Funding	(\$11,924,564)
Revised Total Project Authorized Funding	\$22,324,564

Type of Procurement: Competitive Bid

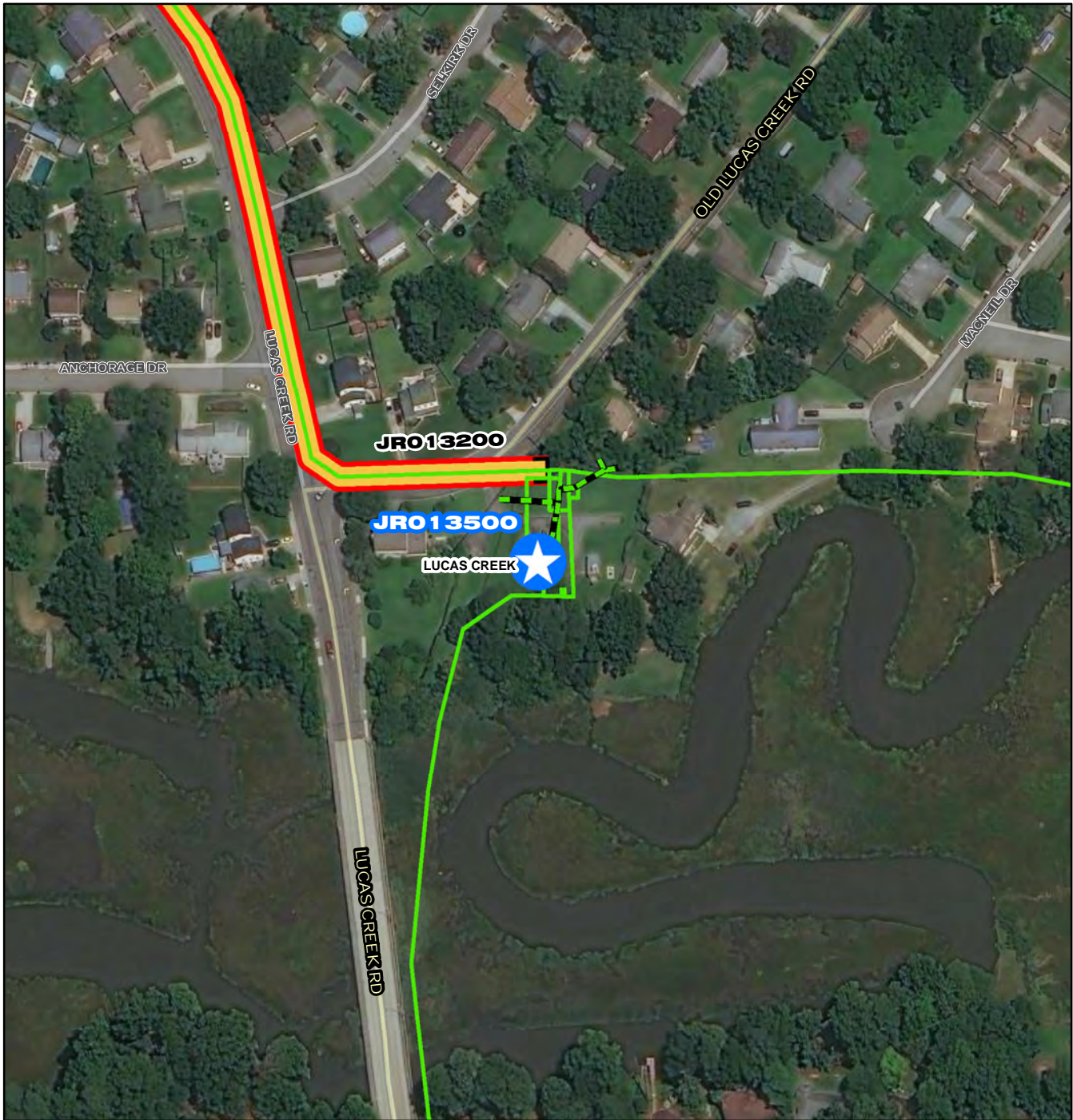
In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on March 4, 2022, and one bid was received on April 5, 2022. A number of discrepancies between the bidder and the Engineer's estimate were observed. Some items of significance include:

- Demolition work
- Grading and civil work
- Generator
- Odor Control Systems

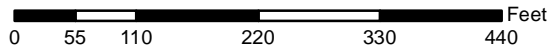
Bidder	Bid Amount
Kiewit Infrastructure South Company	\$19,285,068

Engineer Estimate: \$13,679,400

Contract Award and Analysis of Cost: Although there was a significant difference between the single low bid and the Engineer's estimate, the discrepancies are due to market conditions and not a result of project detail or undue risk. The design engineer, HDR, Inc., evaluated the bid based upon the requirements in the invitation for bids and recommends award to the lowest responsive and responsible bidder, Kiewit Infrastructure South Company, in the amount of \$19,285,068.



- JRO 13500**
- 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



CIP Location



JRO 13500

Lucas Creek Pump Station Replacement



AGENDA ITEM 11. – April 26, 2022

Subject: Private Pump Station Improvements
Additional Appropriation

Recommended Action: Appropriate additional funding in the amount of \$1,125,000.

CIP Project: CE011837

Budget	\$1,500,000
Previous Expenditures and Encumbrances	(\$954,841)
Available Balance	\$545,159
Proposed Task Orders (8) to On-call Contractors	(\$850,000)
Proposed Pump Purchase	(\$150,000)
Proposed Contingency	(\$670,159)
Project Shortage/Requested Additional Funding	(\$1,125,000)
Revised Total Project Authorized Funding	\$2,625,000

Project Description: This project will complete upgrades on private pump stations that cannot meet the new pressure condition now that the Chesapeake-Elizabeth Treatment Plant is closed and all flow has been diverted to the Atlantic Treatment Plant. Approximately 60 pump stations were identified as potential at-risk stations and have been inspected. HRSD will work with local maintenance service providers to make improvements now through the end of 2022, one year after the diversion was implemented. The project budget originally included minor improvements (pump / impeller changes only) to up to 40 private pumping stations. Six stations are planned to be modified and HRSD will monitor those modified stations, as well as four other stations, through the end of calendar year 2022.

Funding Description: The original CIP project cost estimate did not anticipate the magnitude of the scope of work for the stations that would be ultimately required. Fewer stations need to be improved than originally anticipated; however, the scope of work includes, in most scenarios, new pumps, guide rails, piping, valves, hatch, control panel, electrical service work and some pavement demolition and restoration. This request includes a \$270,159 contingency to accommodate any additional unforeseen conditions as well as budget for four additional stations, \$400,000, for contractor service calls and upgrade work and engineering services. To date, these four small stations have continued operating against the new pressure condition but the team suspects the stations may struggle to pump into the HRSD system during large wet weather events. These four stations will be monitored through the end of the calendar year.

This project requires additional funding due to an increase in the required scope of work and construction start delays due to coordination with private property owners, localities and Dominion Energy, which has resulted in additional cost associated with bypass pumping and pump and haul services. When this project was originally appropriated, many assumptions were made about the scope of work because the team investigated facilities that are not owned by HRSD.

Analysis of Cost: HRSD has negotiated multiple task orders with three contractors to perform the station upgrade work. These task orders have been less than \$200,000 and utilize on-call contract unit prices.

<u>Schedule:</u>	Pump Station Inspections	May 2021
	Design	August 2021
	Construction	November 2021
	Project Completion	January 2023

AGENDA ITEM 12. – April 26, 2022

Subject: Treatment Plant Grease Handling Facilities
Additional Appropriation

Recommended Actions: Appropriate additional funding in the amount of \$276,233.

CIP Project: GN013300

Budget	\$11,824,536
Previous Expenditures and Encumbrances	(\$11,672,879)
Available Balance	\$151,657
Proposed Change Order No. 1 to Downey Ridge Environmental	(\$147,880)
Proposed Contingency	(\$280,000)
Project Shortage/Requested Additional Funding	(\$276,223)
Revised Total Project Authorized Funding	\$12,100,759

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for Downey Ridge Environmental	\$775,000	
Total Value of Previous Change Orders	0	%
Requested Change Order	\$147,880	
Total Value of All Change Orders	\$147,880	19%
Revised Contract Value	\$922,880	

Time (Additional Calendar Days)	0
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Project Description: This project involves installation of a facility at Nansmond Treatment Plant to receive FOG (Fats, Oils, and Grease) from indirect haulers. The facility will screen, decant, and process the FOG in a manner that will convert a portion to bio-fuel using the Greasezilla system. The portion of FOG converted to bio-fuel will be sold to Greasezilla per a separate by product (off-take) agreement. The decanted FOG water will be sent to headworks for normal wastewater treatment, and the remaining processed FOG will be sent to the digesters.

Funding Description: This change order includes funding for a number of improvements made to the Greasezilla system since the equipment purchase agreement was signed in September 2019. It also allows for an adjustment in steel pricing associated with fabrication of the two Greasezilla process tanks in the amount of \$41,117. This funding request includes a change order to Downey Ridge Environmental (Greasezilla system supplier) for \$147,880. It also includes a contingency budget of \$280,000 to account for additional contractor and engineering costs to accommodate unforeseen conditions and owner requested changes moving into the final phases of construction.

Analysis of Cost: HRSD requested and reviewed documentation associated with the Greasezilla system change order and determined it to be fair and reasonable.

Schedule: Construction October 2020
Project Completion November 2022

AGENDA ITEM 13. – April 26, 2022

Subject: Virginia Initiative Plant Incinerator Burner Replacement
Initial Appropriation

Recommended Action: Appropriate total project funding in the amount of \$5,330,000.

CIP Project: VP019100

Project Description: The two incinerators at Virginia Initiative Plant (VIP) contain 46 burners total (23 each). This project will replace 42 old burners with new low NOx North American burners to maintain NOx levels below permit requirements, to meet modern safety standards and improve fuel efficiency. New local control panels at each individual burner and two central control panels on the mezzanine level, conduits, wiring and other ancillary electrical components will bring the system up to current electrical safety standards and will allow control of the burners through the Distributed Control System (DCS).

Funding Description: The total project cost estimate of \$5,330,000 includes approximately \$20,000 in design phase services, \$10,000 in pre-construction phase services, \$4,441,000 in construction phase costs and \$859,000 of project contingency and is based on a Class 5 CIP-prioritization level cost estimate prepared by HRSD. Engineering services will be completed by HDR Engineering, Inc. under the General Engineering Services annual services contract and the cost for design is below the \$200,000 Commission approval threshold.

<u>Schedule:</u>	Design	April 2022
	Bid	July 2022
	Construction	January 2023
	Project Completion	January 2025

AGENDA ITEM 14. – April 26, 2022

Subject: York River Treatment Plant Administration Building Renovation
Additional Appropriation, Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Appropriate additional funding in the amount of \$6,138,450.
- b. Award a contract to E.T. Gresham Company, Incorporated in the amount of \$6,250,900.
- c. Award a Task Order to Guernsey Tingle in the amount of \$268,500.

CIP Project: YR014000

Budget	\$1,329,400
Previous Expenditures and Encumbrances	(\$335,905)
Available Balance	\$993,495
Proposed Contract Award to Contractor	(\$6,250,900)
Proposed Task Order to Guernsey Tingle	(\$268,500)
Proposed Owner-purchased Furnishings and Equipment	(\$300,000)
Proposed Contingency	(\$312,545)
Project Shortage/Requested Additional Funding	\$6,138,450
Revised Total Project Authorized Funding	\$7,467,850

Type of Procurement: Competitive Bid

In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on February 20, 2022, and two bids were received on March 24, 2022. The bids received were much higher than the estimate provided by the designer. The following areas were found to be the significant variation from the estimate:

- Rising material prices
- Tight labor market
- Subcontractors only holding prices for 1 to 2 weeks
- Fuel Surcharges

Bidder	Bid Amount
E.T. Gresham Company, Inc.	\$6,250,900
Syncon, LLC	\$6,401,973

Engineer's Estimate: \$3,648,462

Contract Description: The designer, Guernsey Tingle, evaluated the bids based upon the requirements in the invitation for bid and recommends award to the lowest responsive and responsible bidder, ET Gresham Company, Inc., in the amount of \$6,250,900.

Contract Status:	Amount
Original Contract with Guernsey Tingle	\$39,730
Total Value of Previous Task Orders	\$296,174
Requested Task Order	\$268,500
Total Value of All Task Orders	\$564,674
Revised Contract Value	\$604,404
Engineering Services as % of Construction	10.3%

Project Description: This project will renovate the existing 1980's Administration Building at the York River Treatment Plant. This project will provide for an expanded men's and women's restroom and locker facilities as well as a unisex restroom and shower. Existing toilets, sinks, showers and lockers will be replaced as needed. Much needed office space for plant staff, an expanded lunch room and a conference room will also be provided. A larger plant lab and a larger operations control room capable of meeting existing and future SWIFT needs will be constructed along with secured rooms for control systems.

Funding Description: The original CIP project estimate did not anticipate modifications to project scope that were added after project inception. Two notable changes are the addition, electrical & instrumentation shop renovation and relocation of medium voltage electric and fiber optic to accommodate the construction. The lowest responsive and responsible bid amount of \$6,250,900 exceeds the current balance available for the CIP project. A budget of \$300,000 is being requested to accommodate the purchase of Owner-furnished furniture, A/V equipment, and commercial appliances. A five percent contingency of \$312,545 is being requested for any additional unforeseen conditions during construction. Therefore, the project requires \$6,138,450 of additional funding.

Task Order Description and Analysis of Cost: This task order will provide construction phase services for this project. A fee of \$268,500 was negotiated with Guernsey Tingle and was based upon anticipated construction administration and inspection hours required for this effort. This cost for construction phase service is approximately 4 percent of the total construction cost, which is lower than comparable projects. The labor rates are within the Rate Schedule included in Amendment 5 of the Professional Engineering Services Agreement for Architectural, Mechanical, and Electrical Services, dated July 1, 2021.

Schedule: Construction June 2022
Project Completion December 2023

AGENDA ITEM 15. – April 26, 2022

Subject: Boat Harbor Transmission Force Main Land Acquisition
Acquisition of Real Property – Suffolk, VA

Recommended Action: Approve the purchase of a portion of property from Tax Parcel: 6*35*B1*1, to be subdivided to HRSD as follows: +/- 31,745 Square Foot / 0.729 acres in fee simple and purchase of the North Parcel (Parcel B-1B), a +/- 326 S.F. / 0.007 acres temporary construction easement on Parcel B-2A, and a +/- 12,081 S.F. / 0.277 acres temporary construction easement on Parcel B-3A, and associated acquisition costs for \$479,050. in accordance with the terms and conditions of the Purchase and Sale Agreement with GEE's Group Partners, LLC, owner of subject property in Suffolk, Virginia, 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.

CIP Project: GN016346

Project Description: This project consists of the land acquisition to support the Boat Harbor Treatment Plant Transmission Force Main Section 2 (Land) project BH015720, which is constructing a force main and piping to and from the proposed eight (8) Managed Aquifer Recharge (MAR) Wells. The portion of the force main in BH015720 will connect the subaqueous force main Section 1 (separate project under BH015710) to the Nansemond Treatment Plant. The piping to and from managed aquifer recharge wells in BH015720 include the SWIFT Water and backflush piping from the future Nansemond SWIFT Facility to each of the proposed well sites located west of I-664. This acquisition allows for the construction and housing of one of three Managed Aquifer Recharge (MAR) Wells planned for at this location, as well as construction easements on adjoining parcels. Additional agreements will be needed for the remaining well sites located at this and other properties to the west of I-664, for which the design and negotiations are currently underway.

Agreement Description: The [Purchase and Sale Agreement](#) is attached and was reviewed by HRSD staff and legal counsel. The deed of bargain and sale will also be reviewed by HRSD staff and legal counsel before execution. A [Location Map](#) is provided for clarification purposes.

Analysis of Cost: The acquisition cost of \$479,050 reflects sales of commercial properties in the area as well as a negotiated purchase price with the owner.

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this ____ day of April, 2022, by and between **Gee's Group Partners, LLC**, a Virginia limited liability company, hereinafter referred to as Seller, and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("HRSD"), their successors and/or assigns, Purchaser.

RECITALS

- A. Seller is the owner in fee simple absolute of a certain parcel of property approximately 0.729 Acres, known as PARCEL B-1B, The Point at Harbour View in the City of Suffolk, Tax Parcel: 6*35*B1*1 such property being more particularly shown in the subdivision plat referenced as Exhibit A which is attached to this Agreement and is entitled "Subdivision Plat of Parcels B-1, B-2 and B-3, The Point at Harbour View, Nansemond Borough – Suffolk, Virginia" and recorded on October 15, 2021 as Instrument Number 210018862 in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia (the "North Parcel").
- B. HRSD desires to purchase the North Parcel and construction easements on adjoining property (the Property) as follows:
(+/-) 31,745 S.F. / 0.729 Acre in fee simple and purchase of the North Parcel, a (+/-) 326 S.F. / 0.007 Acre temporary construction easement on Parcel B-2A and a (+/-) 12,081 S.F. / 0.277 Acre temporary construction easement on Parcel B-3A, from the Seller for the purpose of constructing a Managed Aquifer Recharge (MAR) Well at this location; such property being more particularly described in the subdivision plat referenced as Exhibit B which is attached to and made a part of this Agreement (the "Property") and entitled: "EASEMENT EXHIBIT FOR PARCELS B-1A, B-2A AND B3-A "SUBDIVISION PLAT OF PARCELS B-1, B-2 AND B-3 THE POINT AT HARBOUR VIEW (INST.#210018862) NANSEMOND BOROUGH – SUFFOLK, VIRGINIA"" and dated November 12, 2021 by Johnson, Mirmiran and Thompson, Inc.
- C. Seller is willing to sell the Property to HRSD subject to the terms and conditions set forth in this Agreement.
- D. These recitals are incorporated by this reference into this Agreement.

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

1. SALE. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called the "Property".
2. PURCHASE PRICE. The purchase price (the Purchase Price) for the Property is **Four Hundred Seventy-Nine Thousand and Fifty Dollars (\$479,050)**, and the Purchase Price shall be paid to the Seller 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 special 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"), within 90 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller

covenants that it shall cure all monetary encumbrances and all title objections which may be cured by execution of a document requiring the signature of no party other than Seller (including any affidavits which may reasonably be required by the title insurer). Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects, exceptions or other matters referenced in such Objection Response and proceed to Closing hereunder with no reduction of the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD (the "Property Documents").

- c. Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
 - d. Seller agrees to pay proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at settlement. HRSD will pay all other fees charged in connection with preparation and recordation of the deed, including grantor's tax.
 - e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
4. RIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including 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 damage to the Property. HRSD agrees to indemnify and save harmless the Seller from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property or the North Parcel before or after Closing.

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 cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both HRSD and Seller), HRSD may unilaterally terminate this Agreement:
 - i. Subject to the title examination, and any Objection Notices and Objection Responses thereto pursuant to Section 3(b), 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 timely objected to by HRSD, then 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 of all of its obligations under this Agreement.
- b. This Agreement is expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to

HRSD within the 90 day period. In the event HRSD fails to notify the Seller in writing within such 90 day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and the Seller agrees that the same shall be removed and released as liens on the Property on or before Closing.

- c. 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. Within 90 days after the Effective Date, 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, then, within five (5) business days prior to the Closing date HRSD may at its option:

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

7. ACCESS. Subject to any access, examination, or other contract rights granted to any prospective purchaser of Parcel B-1A, HRSD shall have the right of ingress to and egress from said right of way over the lands of Seller. HRSD shall exercise such right in such manner as shall not occasion injury and inconvenience to Seller or Seller's prospective purchasers. HRSD shall at HRSD's election pay for or repair any injury to any of Seller's land, structures, roads, fences and other improvements caused by HRSD, its employees, agents or contractors.

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

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

- (i) Other than this Agreement, there are no other contracts for sale or options involving the Property now in effect;
- (ii) To the best of Seller's knowledge, other than TowneBank, no other party has any right, title or interest in the Property;
- (iii) There are no unrecorded leases, options, licenses or easements existing in connection with the Property to which the Seller is a party;
- (iv) There are no adverse government notifications or proceedings and there is no pending or threatened litigation or any other potentially adverse claims affecting the Property to which the Seller has knowledge.

- (v) Foreign Status. Seller is not a foreign corporation, person or entity and is a "United States Corporations, Person or Entity" as such terms is defined in Section 1445 and in Section 7701 (a)(30) of the Internal Revenue Code of 1986, as amended (the "Code") and shall deliver to HRSD at or prior to the Settlement an Affidavit prepared by HRSD evidencing such fact and such other documents as may be required under the Code.

- (vi) Other than (i) that certain proposed Second Amendment to Declaration of Covenants, Conditions and Restrictions for The Point at Harbour View between Seller and The Point at Harbour View Property Association; and (ii) that certain proposed Third Amendment to Declaration of Covenants and Restrictions between Seller, Tidewater Community College Real Estate Foundation, Inc., BRG Harbor View, LLC, Hermitage Point, LLC, and the Economic Development Authority of the City of Suffolk; from and after the date of this Agreement, Seller shall not transfer any interest in, or grant any easements or enter into any contractual agreement or understanding, written or oral, with respect to the Property or any portion thereof or make any changes at all that require recordation and therefore modifications to title, without the prior written consent of HRSD.

- (vii) The Seller warrants that to the best of his knowledge, and except as provided in the Property Documents or other environmental reports provided to Buyer hereunder, 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: (1) 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 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.

Purchaser represents and warrants as of the date of HRSD Commission approval of this Agreement and as of the date of Closing that: Purchaser has the right, title, and authority to enter into this Agreement and to perform its obligations hereunder. Purchaser further represents, warrants and covenants as follows:

- (i) Architectural – The façade of the MAR Well will follow The Point at Harbour View Design Guidelines.
- (ii) Landscape – The landscape features will follow the Point at Harbour View Design Guidelines.
- (iii) The façade and exterior improvements constructed on the Property will be in a substantially similar style to the surrounding property as shown on Exhibit C which is attached to and made a part of this Agreement, such that they blend in with the surroundings. Purchaser will also maintain grass in the filled in area as shown on Exhibit C as green space.

9. NOTICES. All notices to the parties hereto will be delivered by hand, via certified mail return receipt requested, via Federal Express or a comparable overnight mail service, or via facsimile (provided that an original copy of the transmission shall be mailed by Federal Express or a comparable overnight mail service) 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.
General Manager
P.O. Box 5911
Virginia Beach, Virginia 23471-0911

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

Seller: Gee's Group Partners, LLC
Attn: David Gianascoli
600 Lynnhaven Parkway, Suite 200
Virginia Beach, Virginia 23452

Copy to: Alyssa Carducci Dangler, Esq.
Williams Mullen
999 Waterside Drive, Suite 1700
Norfolk, Virginia 23510

10. CLOSING. Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent within 120 days of the Effective Date, unless extended by terms of these agreements or by mutual agreement of the parties.
11. SURVIVAL. The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
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 ten (10) 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 addressed in accordance

with the provisions of Section 9 herein or such other address provided to HRSD by the Seller and shall provide Seller with at least ninety (90) calendar days to present HRSD with an offer to purchase the Property.

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. Each party agrees to indemnify and hold harmless the other 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 a party 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 current means of ingress and egress to the Property or to the roads or driveways adjoining the Property, or to change such ingress or egress or to change the grade thereof, Seller agrees immediately to notify HRSD thereof. HRSD then shall have the right, at HRSD's option, to terminate this Agreement by giving written notice to Seller within thirty (30) days after receipt of such notice.
17. DEFAULT AND REMEDIES.
 - a. If the sale and purchase contemplated by this Agreement is not consummated because of Seller's or HRSD's default, the nondefaulting party may elect to:
 - (i) Terminate this Agreement;
 - (ii) Seek and obtain specific performance of this Agreement; or
 - (iii) Pursue all other rights or remedies available at law or in equity, including an action for damages.
 - b. If either Seller or HRSD brings any action or proceeding for the enforcement of its rights under this Agreement, then the prevailing party will be entitled to recover any expenses incurred in connection with such action or proceeding.

- c. These remedies are cumulative and non-exclusive and may be pursued at the option of the non-defaulting party without a requirement of election of remedies.
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. If this Agreement is assigned by HRSD with Seller's consent, HRSD will nevertheless remain fully liable for its performance.
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.

(Remainder of page intentionally left blank – Signature Pages follow)

SELLER:

Gee's Group Partners, LLC

By: _____

Name: David M. Gianascoli

Its: Manager

COMMONWEALTH OF VIRGINIA

CITY OF _____, to-wit:

I, _____, a Notary Public in and for the City of _____, in the Commonwealth of Virginia, whose term of office expires on _____, do hereby certify that David M. Gianascoli, as Manager of Gee's Group Partners, LLC, whose name is signed to the foregoing Purchase and Sale Agreement, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this _____ day of April, 2022.

Notary Public

My Commission Expires: _____

Registration Number: _____

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 _____, 2022. This Agreement is expressly subject to approval by the HRSD Commission

HAMPTON ROADS SANITATION DISTRICT

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

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

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

Notary Public

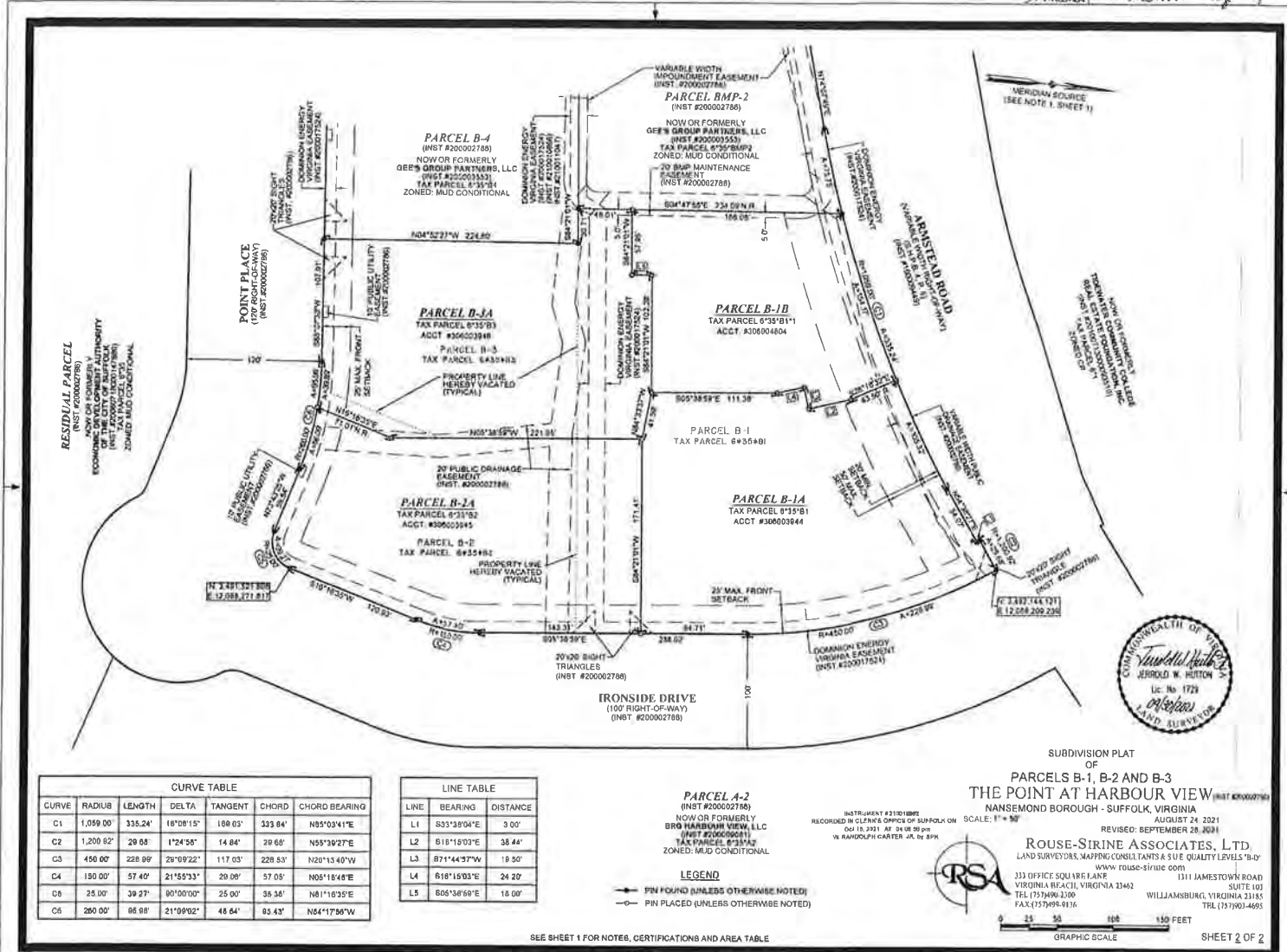
My Commission Expires: _____

Registration No.: _____

HRSD/AGREEMENTS/PURCHASE AND SALE AGREEMENT HRSD AND
LANDOWNER/SELLER

EXHIBIT A

SUBDIVISION PLAT OF PARCEL B-1



SUBDIVISION PLAT
OF
PARCELS B-1, B-2 AND B-3
THE POINT AT HARBOUR VIEW (INST #200002788)
NANSEMOND BOROUGH - SUFFOLK, VIRGINIA
AUGUST 24, 2021
REVISED: SEPTEMBER 20, 2021

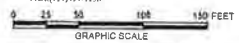
ROUSE-SIRINE ASSOCIATES, LTD.
LAND SURVEYORS, MAPPING CONSULTANTS & SUE QUALITY LEVELS "B-D"
www.rouse-sirine.com
333 OFFICE SQUARE EAST SUITE 100 1311 JAMESTOWN ROAD
VIRGINIA BEACH, VIRGINIA 23462 SUITE 100
TEL: (757) 490-3200 WILLIAMSBURG, VIRGINIA 23185
FAX: (757) 490-0136 TEL: (757) 603-4693



INSTRUMENT # 210018862
RECORDED IN CLERK'S OFFICE OF SUFFOLK CO. SCALE: 1" = 50'
Dtd 12, 2021 At 04:08:50 pm
IN WASHINGTON, D.C. BY SPK

PARCEL A-2
(INST #200002788)
NOW OR FORMERLY
BRO HARBOUR VIEW, LLC
(INST #200000281)
TAX PARCEL # 03540
ZONED: MUD CONDITIONAL

LEGEND
- PIN FOUND UNLESS OTHERWISE NOTED
- PIN PLACED (UNLESS OTHERWISE NOTED)



CURVE TABLE						
CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD	CHORD BEARING
C1	1,059.00'	335.24'	18°08'15"	168.03'	323.84'	N55°03'41"E
C2	1,200.82'	29.08'	1°24'55"	14.84'	29.68'	N55°39'27"E
C3	456.00'	228.99'	28°09'22"	117.03'	228.53'	N20°13'40"W
C4	150.00'	57.40'	21°55'33"	29.00'	57.05'	N05°18'44"E
C5	25.00'	39.27'	90°00'00"	25.00'	35.36'	N81°18'35"E
C6	280.00'	95.88'	21°09'02"	46.64'	93.43'	N54°17'56"W

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S33°39'04"E	3.00'
L2	S18°18'03"E	38.44'
L3	S71°44'37"W	19.50'
L4	S18°18'03"E	24.22'
L5	S05°38'69"E	16.00'

SEE SHEET 1 FOR NOTES, CERTIFICATIONS AND AREA TABLE

THE SUBDIVISION OF PROPERTY, AS IT APPEARS ON THIS PLAT, IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNER(S), WHO ALSO DEDICATE THE STREETS TO THE CITY OF BUFFOLK AND AGREE TO COMPLY WITH ALL REQUIREMENTS OF THE SUB-DIVISION ORDINANCE PRIOR TO THEIR ACCEPTANCE BY THE CITY.

OWNER: GEE'S GROUP PARTNERS, LLC (INST #200000355)
 SIGNED: [Signature] DATE 9.30.2021
 DAVID M. GIANACCOLI, MANAGER

STATE OF Virginia
 CITY/TOWN OF Virginia Beach TO WIT:
[Signature] A NOTARY PUBLIC IN AND FOR THE
 COUNTY AND STATE AFORESAID, DO HEREBY CERTIFY THAT DAVID M. GIANACCOLI,
 MANAGER OF GEE'S GROUP PARTNERS, LLC, WHOSE NAME IS SIGNED TO THE FOREGOING
 WRITING HAS ACKNOWLEDGED THE SAME BEFORE ME IN MY CITY/COUNTY AND STATE
 AFORESAID.
 GIVEN UNDER MY HAND THIS 30 DAY OF SEPTEMBER, 2021.
 SIGNED: [Signature]
 MY COMMISSION EXPIRES: 09/30/2024
 VIRGINIA NOTARY REGISTRATION # 195477



BUILDING SETBACKS PER THE POINT AT HARBOUR VIEW DESIGN GUIDELINES

ADJACENT TO PROPOSED PUV & PRIVATE STREETS

MINIMUM FRONT YARD:	0 FEET
MAXIMUM FRONT YARD:	25 FEET
MINIMUM SIDE YARD:	0 FEET
MAXIMUM SIDE YARD:	10 FEET
MINIMUM REAR YARD:	0 FEET
MAXIMUM REAR YARD:	0 FEET

OUTPARCELS ADJACENT COLLEGE DRIVE OR ARMITAGE RD

MINIMUM FRONT YARD:	20 FEET
MAXIMUM FRONT YARD:	50 FEET
MINIMUM SIDE YARD:	5 FEET
MAXIMUM SIDE YARD:	10 FEET
MINIMUM REAR YARD:	0 FEET
MAXIMUM REAR YARD:	0 FEET

- NOTES:**
1. MERIDIAN SOURCE IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM OF 1983, SOUTH ZONE (NAD83) (1983 VIRGINIA HARN). THE SUFFOLK GEOIDETIC CONTROL SYSTEM COORDINATE VALUES SHOWN HEREON ARE IN U.S. SURVEY FEET. THE CITY OF SUFFOLK GEOIDETIC CONTROL REFERENCE POINTS USED TO ESTABLISH THE COORDINATE VALUES SHOWN HEREON WERE STATIONS 114 & 115.
 2. THE PROPERTY ENCOMPASSED BY THIS SURVEY FALLS IN TAX PARCEL 6*35*81, 6*35*82 AND 6*35*83.
 3. TOTAL AREA OF THIS SUBDIVISION IS 187,889 SQUARE FEET OR 4.314 ACRES.
 4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
 5. THIS PROPERTY IS LOCATED WITHIN THE CHESAPEAKE BAY PRESERVATION AREA (CBPA) OVERLAY DISTRICT AND IS DESIGNATED AS A RESOURCE MANAGEMENT AREA (RMA).
 6. THIS PROPERTY IS ZONED MUD MIXED USE DEVELOPMENT OVERLAY DISTRICT (CONDITIONAL) PER ORDINANCE NUMBER 18-0-223 RECORDED AT INSTRUMENT NO. 180004029 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF SUFFOLK AND IS SUBJECT TO REQUIREMENTS STATED THEREIN.
 7. THIS PROPERTY FALLS IN FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SCALED FROM FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 5101500043E, MAP'S REVISED AUGUST 3, 2015.
- THE PROPERTY SHOWN ON THIS PLAT ARE SUBJECT TO THE FOLLOWING APPROVALS:
- RZ2016-00015 (CONDITIONAL), APPROVED MARCH 21, 2016
 - EPN2016-00002, APPROVED NOVEMBER 26, 2016
 - FSB2019-00008, APPROVED MARCH 3, 2020
 - EPA2020-00003, APPROVED MAY 29, 2020
 - EPA2020-00005, APPROVED AUGUST 17, 2020
 - BPL2020-00016, APPROVED MAY 27, 2021



I HEREBY CERTIFY THAT THIS SUBDIVISION PLAT WAS MADE BY ME AT THE DIRECTION OF THE OWNERS AND THAT THIS PROPERTY IS ENTIRELY WITHIN THE BOUNDARIES OF LAND OWNED BY HIM/HER AND THAT STEEL PINS, AS SHOWN ON THIS PLAT BY SMALL CIRCLES, HAVE ACTUALLY BEEN PLACED AND THEIR LOCATIONS CORRECTLY SHOWN AND THAT THE PLAT DETAILS MEET THE STANDARDS FOR PLATS AS ADOPTED UNDER VC § 42-1-82 OF THE VIRGINIA PUBLIC RECORDS ACT (S 42-1-70 et. seq.).

SIGNED: [Signature] DATE: 09/30/21
 GERALD W. HUTTON, L.S. #1728

SOURCE OF TITLE:
 THE PROPERTY SHOWN ON THIS PLAT WAS CONVEYED FROM ECONOMIC DEVELOPMENT AUTHORITY FOR THE CITY OF SUFFOLK, VIRGINIA (VIA THE INDUSTRIAL DEVELOPMENT AUTHORITY FOR THE CITY OF SUFFOLK, VIRGINIA (GRANTEE) TO GEE'S GROUP PARTNERS, LLC BY DEED DATED MARCH 13, 2020 AND RECORDED MARCH 19, 2020 AS INSTRUMENT #200003555 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF SUFFOLK, VIRGINIA.

AREA TABLE			
PARCEL	SQUARE FEET	ACRES	TAX PARCEL
PARCEL B-1	109,012	2.503	306003944 6*35*81
PARCEL B-2	42,107	0.967	306003945 6*35*82
PARCEL B-3	36,770	0.844	306003948 6*35*83
TOTAL	187,889	4.314	

NEW PARCELS			
PARCEL	SQUARE FEET	ACRES	TAX PARCEL
PARCEL B-1A	55,345	1.269	306003944 6*35*81
PARCEL B-1B	31,743	0.729	306004804 6*35*81*1
PARCEL B-2A	50,376	1.161	306003945 6*35*82
PARCEL B-3A	30,321	1.153	306003946 6*35*83
TOTAL	187,889	4.314	

THE UNDERSIGNED CERTIFY THAT THIS SUBDIVISION AS IT APPEARS ON THIS PLAT, CONFORMS TO THE APPLICABLE REGULATIONS RELATING TO THE SUBDIVISION OF LAND AND IS ACCORDINGLY APPROVED.
 BY SUCH APPROVAL, THE UNDERSIGNED DO NOT CERTIFY AS TO THE CORRECTNESS OF THE BOUNDARIES OR OTHER LINES SHOWN ON THIS PLAT.

SIGNED: [Signature] DATE 10/1/21
 AGENT, CITY OF SUFFOLK, VIRGINIA

OWNER / DEVELOPER:
 GEE'S PARTNERS, LLC
 770 LYNNHAVEN PARKWAY, SUITE 200
 VIRGINIA BEACH, VA 23452
 TEL: (757) 340-7356
 CONTACT: DAVID GIANACCOLI
 EMAIL: DGC@GEEGROUP.COM



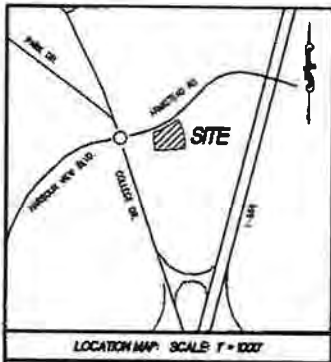
SUBDIVISION PLAT OF PARCELS B-1, B-2 AND B-3 THE POINT AT HARBOUR VIEW (INST #210018862) NANSEMOND BOROUGH - SUFFOLK, VIRGINIA SCALE: AS SHOWN AUGUST 24, 2021 REVISED: SEPTEMBER 28, 2021

ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & SUE QUALITY LEVELS "B-C"
 www.rouse-sirine.com
 333 OFFICE SQUARE LANE SUITE 103 VIRGINIA BEACH, VIRGINIA 23462 TEL: (757) 690-2100 WILLIAMSBURG, VIRGINIA 23183 FAX: (757) 690-5136 TEL: (757) 690-4695



EXHIBIT B

EASEMENT PLAT



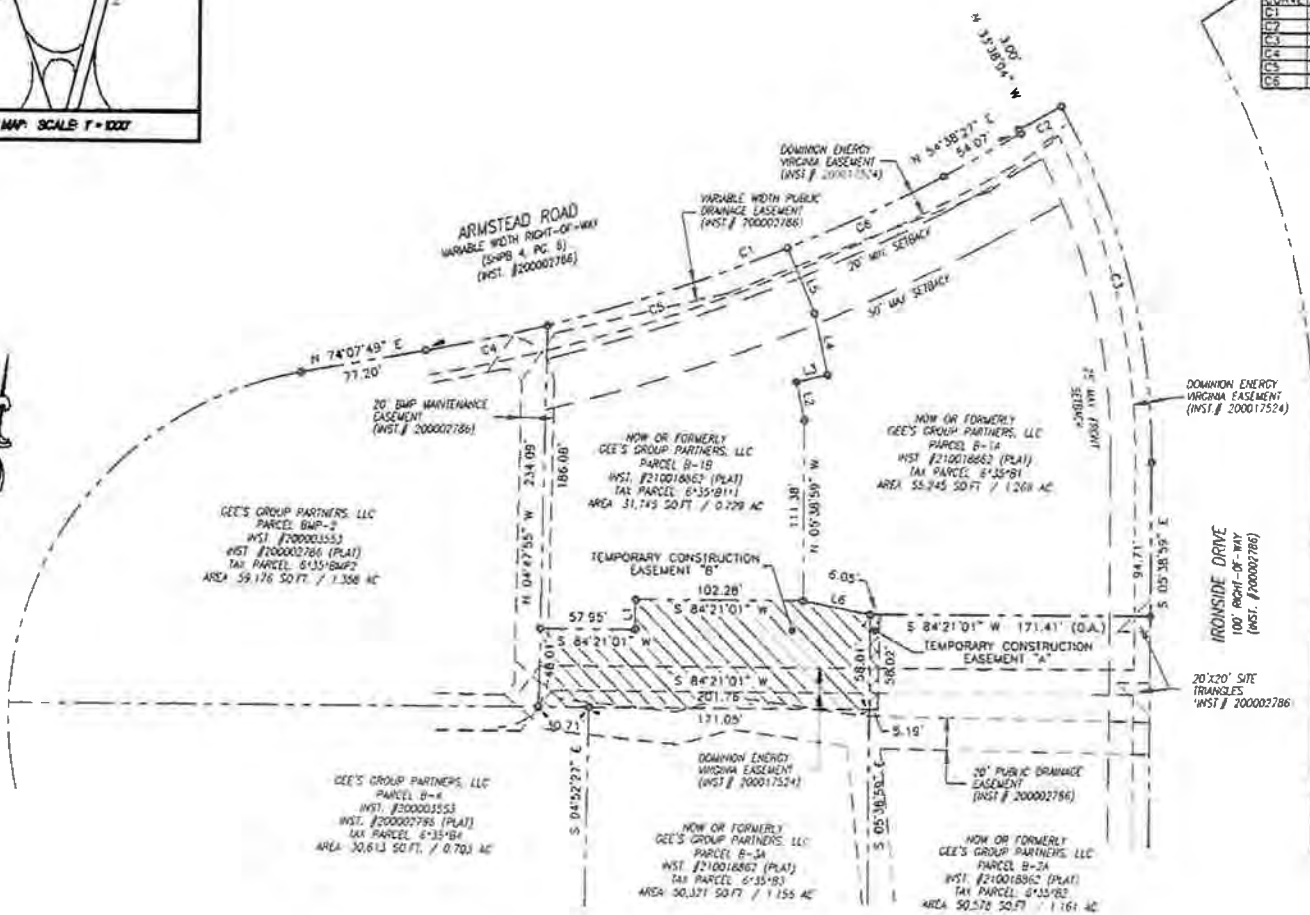
- NOTES:
1. THE MERIDIAN SOURCE OF THIS PLAT IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, MAD 1983. COORDINATE VALUES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET.
 2. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL MATTERS THAT AFFECT THE SUBJECT PARCEL.
 3. THIS PLAT DOES NOT CONSTITUTE A SUBDIVISION OF LAND.

CURVE NO.	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	335.24	1059.00	18°08'15"	N 65°03'41" E	533.84
C2	78.68	1200.92	1°24'58"	N 55°38'27" E	299.68
C3	928.99	450.00	28°08'52"	S 20°13'40" E	226.53
C4	175.35	1059.00	4°05'54"	N 72°04'50" E	175.35
C5	154.17	1059.00	8°20'26"	N 65°51'42" E	154.02
C6	1105.33	1059.00	5°41'55"	N 58°50'32" E	105.28

LINE	BEARING	DISTANCE
L1	S 05°38'59" E	18.00
L2	N 18°15'03" W	74.20
L3	N 71°44'57" E	19.50
L4	N 18°15'03" W	38.44
L5	N 28°18'52" W	43.50
L6	N 64°33'37" W	41.58

- LEGEND
- TEMPORARY CONSTRUCTION EASEMENT "A"
AREA: 326.50 FT² / 0.007 AC
 - TEMPORARY CONSTRUCTION EASEMENT "B"
AREA: 12,081.50 FT² / 0.277 AC

(SEE NOTE 1 FOR MERIDIAN)



EASEMENT EXHIBIT FOR
PARCELS B-2A AND B-3A
 "SUBDIVISION PLAT OF PARCELS B-1, B-2 AND B-3
 THE POINT AT HARBOUR VIEW"
 (INST. #210018862)
 PROPERTY OWNED BY
GEE'S GROUP PARTNERS, LLC
 NANSEMOND BOROUGH - CITY OF SUFFOLK, VIRGINIA
 NOVEMBER 12, 2021
 SHEET 1 OF 1

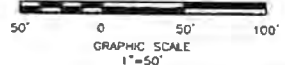


EXHIBIT C

DEPICTION OF PARCEL B-1B and surrounding property; façade and exterior improvements on the Property should blend in with the surrounding property's style.

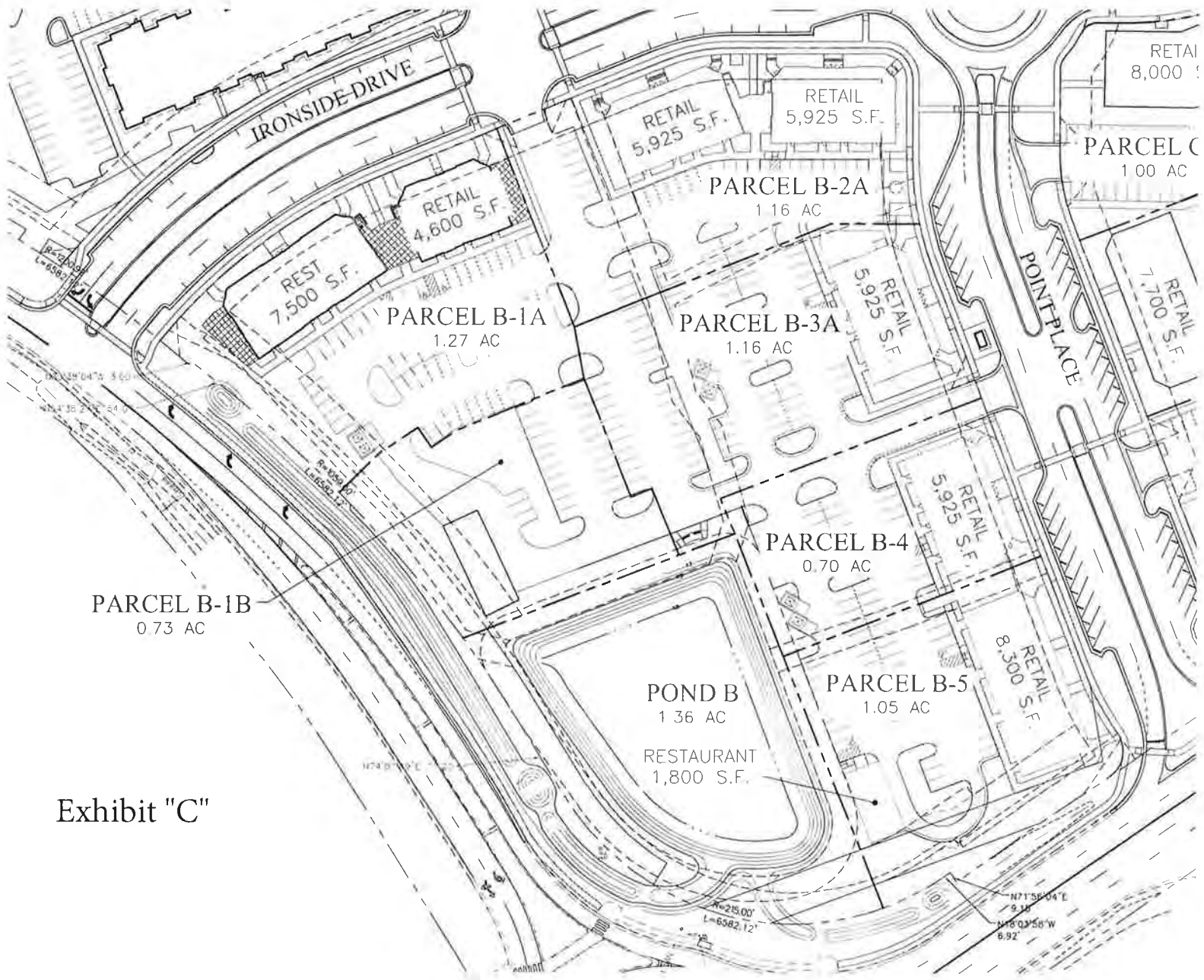
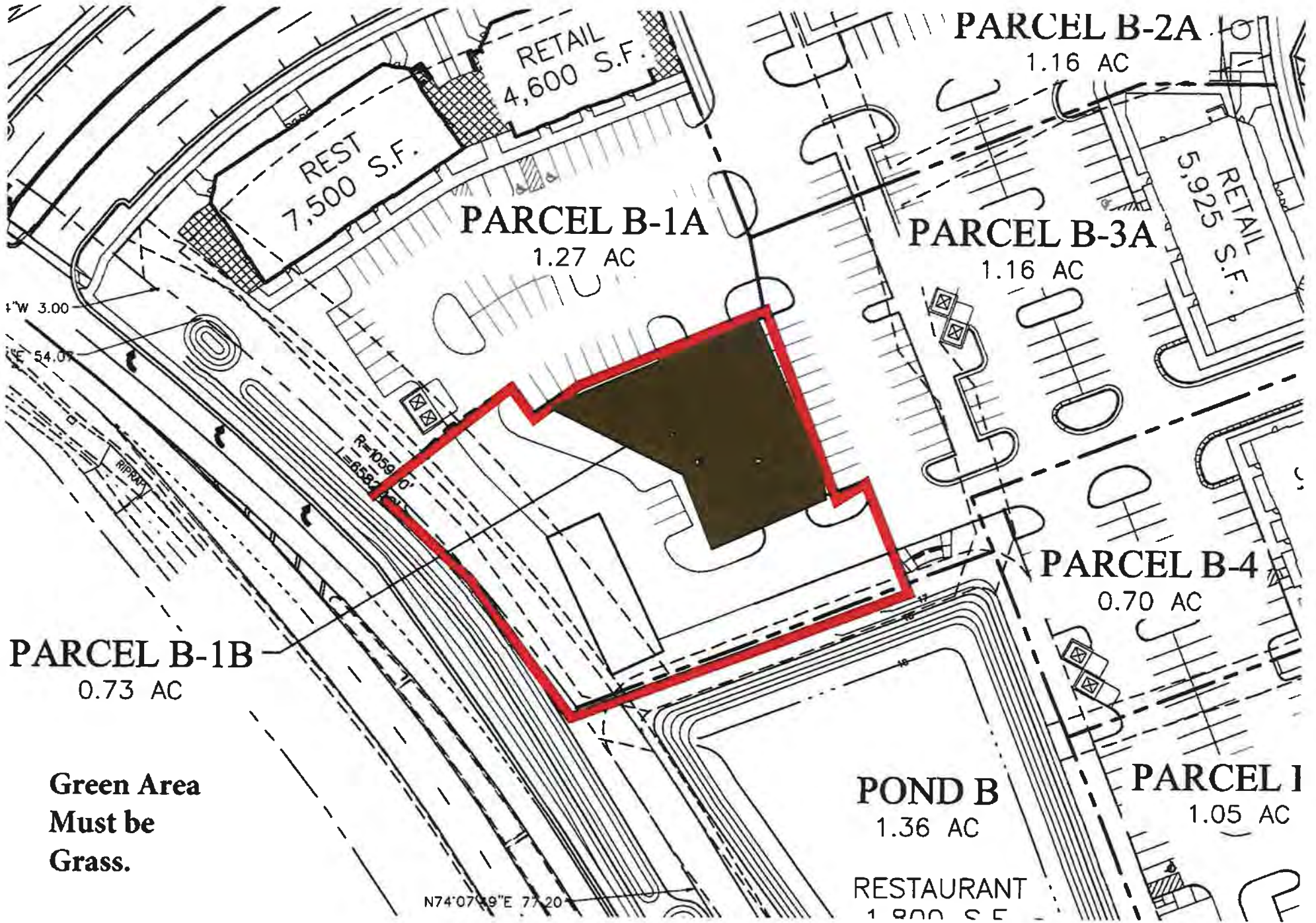


Exhibit "C"



PARCEL B-1A
1.27 AC

PARCEL B-2A
1.16 AC

PARCEL B-3A
1.16 AC

PARCEL B-4
0.70 AC

PARCEL B-1B
0.73 AC

POND B
1.36 AC

PARCEL I
1.05 AC

RESTAURANT
1,800 S.F.

RETAIL
4,600 S.F.

REST
7,500 S.F.

RETAIL
5,925 S.F.

**Green Area
Must be
Grass.**

N74°07'19"E 77.20'

1"=30.00'
1"=54.00'



Gee's Group
Development
Parcel

31,745 SF SITE AREA

Acquisition Area
Subdivided Parcel

12,327 SF TEMPORARY
CONSTRUCTION EASEMENTS
(TWO AREAS)

Temporary Construction
Easements (2)

AGENDA ITEM 16. – April 26, 2022

Subject: Eastern Shore Infrastructure Improvements – Transmission Force Main Phase I Easement Acquisition – Canonie Atlantic Co., Eastern Shore, Virginia

Recommended Action: No action is required.

CIP Project: ES010100

Project Description: This project will provide for the abandonment of the wastewater treatment plant at the Town of Nassawadox by taking advantage of unused capacity at the Onancock Treatment Plant. A pumping station will be built in the Town of Nassawadox in order to abandon the Town's wastewater treatment plant and a pumping station will be built in the Town of Exmore to receive additional flow. HRSD will replace the Hartman Avenue Pumping Station due to additional flow being added to the existing station in the Town of Onancock. A pipeline will be constructed to connect and convey the flows from various towns starting at Nassawadox and north onto Onley.

This easement acquisition allows for the construction and installation of the 20-mile-long conveyance pipeline and appurtenances, within the non-active railroad right of way.

Additional agreements and acquisitions will be required, for which the design of and negotiations are currently underway.

Agreement Description: The [Agreement](#) is attached and was reviewed by HRSD staff and legal counsel. The deed of easement will also be reviewed by HRSD staff and legal counsel before execution. A [Location Map](#) is provided for clarification purposes.

Analysis of Cost: The acquisition of the 20-mile easement utilizing the Canonie Atlantic Railway ROW property, was granted to HRSD at zero cost due to the public nature of the project and the relationship that has been built with Canonie Atlantic, its owners and HRSD staff.

Real Estate Easement Agreement

THIS AGREEMENT, made as of 14th April, 2022, the "Effective Date", by and between **Canonie Atlantic Co. ("Canonie")**, hereinafter called "Owner"/"Grantor"; and **Hampton Roads Sanitation District (HRSD)**, a political subdivision of the Commonwealth of Virginia, whose mailing address is 1434 Air Rail Avenue, Virginia Beach, VA 23455, hereinafter called "HRSD"/"Grantee".

WITNESSETH:

WHEREAS, Grantee, HRSD, is a Political Subdivision of the Commonwealth of Virginia, collects wastewater along the Eastern Shore of Virginia and treats wastewater at the Onancock Wastewater Treatment Plant, as well as in the Greater Hampton Roads Region; and

WHEREAS, HRSD is in the process of constructing and operating a wastewater sanitary sewer force main (FM) from Nassawadox to Onancock on the Eastern Shore of Virginia; and

WHEREAS, Owner, Canonie, is the owner of railroad right-of-way real property containing, or formerly containing, rail bed and supporting facilities, along with access thereto, located in the Counties of Accomack and Northampton, Virginia, including the right-of-way property between milepost 76.3 near Nassawadox, in Northampton County, milepost 71.7, near Exmore at Carolyn Ave., and milepost 58.70 near Onley in Accomack County (the "Subject Property"); and

WHEREAS, the Subject Property is currently subject to a Notice of Interim Trail Use ("NITU") issued by the Surface Transportation Board ("STB") in STB Docket No. AB 1266 (Sub-No. 1X); and

WHEREAS, Owner contemplates transferring or leasing the Subject Property to a trail sponsor for interim trail use and rail banking pursuant to the requirements of the National Trails System Act, 16 USC §1247(d) (the "Trails Act") and the NITU; and

WHEREAS, pursuant to the Trails Act and the NITU, the Subject Property must be maintained and remain available for reactivated rail use (the "Reactivated Rail Use"); and

WHEREAS, HRSD desires to be granted a non-exclusive easement under, along and across the Subject Property for the purpose of constructing, installing, servicing, maintaining, repairing and replacing an underground FM, and attendant equipment and facilities including but not limited to valves, air release valves (ARV); and

WHEREAS, Owner desires to grant a non-exclusive easement under, along and across the Subject Property for an underground FM and attendant equipment and facilities on the terms and conditions set forth herein; and

WHEREAS, due to the public nature of HRSD's mission, and the significant costs involved in constructing the FM, the Parties wish to structure the easement to be granted to HRSD in accordance with the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises, mutual covenants, terms and agreements herein contained, the parties hereto agree, and covenant as follows:

1. DEDICATION OF EASEMENT:

- 1.1 Owner shall grant to HRSD a 15 foot wide non-exclusive easement (the "15' FM Easement") to construct, install, service, maintain, repair, renew, operate, use, alter or change said FM within the Subject Property, along with the right of ingress and egress for such purposes, upon prompt notice to the Owner, subject to all existing encumbrances, conditions, covenants and easements of record applicable to the Subject Property, including without limitation prospective Trail Use and Reactivated Rail Service. The actual location of the 15' FM Easement starting at milepost 76.30 near Nassawadox, through Exmore near milepost 71.07 and continuing to milepost 58.70 near Onley, shall be subject to approval by Owner and HRSD (which shall not be unreasonably withheld) and shall be located so as to not interfere with or jeopardize the safe conduct of the Owner's operations, Trail Use or Reactivated Rail Use and other easement holders. The 15' FM Easement shall be reasonably located, to the extent possible, so as to facilitate the cost-effective construction and maintenance of the FM by HRSD. At completion of the construction of the FM, HRSD will provide the final 15' FM Easement plat and construction record drawings to Owner. With the assistance of the Owner, HRSD shall prepare the necessary easement documents to be executed by Owner and delivered to HRSD for recording in the local county courthouses (Accomack & Northampton), at the sole cost and expense of HRSD.
- 1.2 The FM shall include the pipeline and all appurtenances, including but not limited to, valves, ARVs and bollards marking these features. HRSD shall have the right to construct, in accordance with Section 2, the FM and appurtenances required for operation of the HRSD facilities that do not create a hazardous condition or interfere with Owner's operations, Trail Use or Reactivated Rail Use.
- 1.3 Owner and HRSD will enter into mutually agreeable 30 foot wide temporary construction easement ("Construction Easement") for the construction of the FM. The Construction Easement shall be executed by the parties prior to HRSD or its contractor(s) entering onto the Subject Property for construction. The Construction Easement shall include provisions covering the release of liability of Owner and indemnification for injury or damage to any persons or the Subject Property. The Construction Easement will terminate once the referenced FM has been accepted and placed in service.

- 1.4 Owner shall grant to HRSD a non-exclusive ingress/egress and maintenance easement on and over the Subject Property (the "Ingress/Egress Maintenance Easement") for temporary, emergency, and also ongoing monitoring, maintenance and repair of the FM. Prior to entering the portion of the Ingress/Egress Maintenance Easement located outside the 15' FM Easement, except in the case of an emergency, HRSD shall provide prompt advance notice of no less than 24 hours prior to such entry to the Owner by courier or by email to Jim Outland set forth in Section 8.3 below. In the event of an emergency, HRSD shall provide Owner with prompt advance notice as soon as reasonably known of its need to access or enter upon the Ingress/Egress Maintenance Easement. Such ingress/egress and maintenance easement is subject to and encumbered by all existing encumbrances, conditions, covenants, and easements of record applicable to the subject property including without limitation prospective Trail Use and Reactivated Rail Service. The Ingress/Egress Maintenance Easement shall include but is not limited to the ingress and egress to the 15' FM Easement and temporary storage of materials, equipment and machinery needed for monitoring, maintenance and repair of the FM. The Ingress/Egress Maintenance Easement shall terminate upon the discontinued use of the FM.
- 1.5 The management of the Subject Property and of the rights granted herein shall be administered by Owner. The 15' FM Easement is granted solely for the purpose of constructing, installing, operating and maintaining one FM and appurtenances, and for no other use or purposes. HRSD shall not have the right to grant any easements over or across the 15' FM Easement granted herein, nor will HRSD allow placement by third parties of any additional facilities in or on the 15' FM Easement. Installation of additional or expanded facilities by HRSD in the 15' FM Easement will be subject to review and approval of the Owner as set forth in Section 5, which approval will not be unreasonably withheld provided that the additional facilities do not unreasonably burden the Subject Property or interfere with Owner's operations, Trail Use or Reactivated Rail Use.
- 1.6 Owner shall have the right to retain existing tracks and other improvements on the Subject Property at their current location, or to reinstall such tracks and improvements, even if removed, in the future. Nothing shall be done, now or in the future, by HRSD that will in any manner impair or restrict the usefulness or safety of the Subject Property for the reactivation of rail service, or of such track, or other improvements as Owner may construct in the future across or on the Subject Property. HRSD will be responsible for any damage, to include settling, erosion and impaired drainage, caused to the roadbed, right of way and/or tracks, facilities or appurtenances on the Subject Property arising from, or as a result of, the installation of the FM or its presence on the Subject Property, and HRSD, at its expense, shall repair such damage. In addition, any damage caused to any air vents or other component of the FM, other than damage caused by the negligence of the Owner, shall be the responsibility of HRSD.

- 1.7 The 15' FM Easement will be granted to HRSD for the consideration of \$10.00 in hand paid by HRSD to Owner, other good and valuable consideration, the receipt and sufficiency of which will be acknowledged when the 15' FM Easement is granted, and the mutual covenants and consideration set forth herein.
- 1.8 HRSD covenants and agrees that no assessments, taxes, or charges of any kind shall be assessed or made against Owner or the Subject Property by reason of the construction or presence of the 15' FM Easement or the FM, and HRSD further covenants and agrees to promptly repay to Owner, the full amount of any assessments, taxes or charges of any kind which may be levied, charged, assessed or imposed against Owner or the Subject Property by reason of the construction or presence of said 15' FM Easement or FM.

2. DESIGN, CONSTRUCTION, MAINTENANCE AND REPAIRS:

- 2.1 All design, construction, maintenance and repairs of the FM and appurtenances shall be at the sole cost and expense of HRSD.
- 2.2 HRSD shall design the FM in accordance with all federal and state requirements and in conformance with HRSD's Design and Construction Standards, and the American Railway Engineering and Maintenance-of-Way Association ("AREMA") standards for the installation of underground pipelines in railroad rights-of-way. All design and construction plans shall be subject to review and reasonable approval of Owner, at Owner's option. Owner shall, upon reasonable notice, provide access to the Subject Property to HRSD for all necessary surveys and field visits to properly design the FM. HRSD shall meet the Owner's requirements for safety and advance notice to access the area for design, including execution of a standard right of entry releasing Owner from any liability.
- 2.3 HRSD shall construct, maintain, relocate, repair, renew, alter, and/or remove said FM in a prudent, workmanlike manner, using quality materials and complying with all federal and state requirements and in conformance with HRSD's Design and Construction Standards, and AREMA standards for the installation of underground pipelines in railroad rights-of-way. Any ARV, or any other above-ground force main facility within the 15' FM Easement shall be appropriately marked with visible markers.
- 2.4 If the manner of constructing, replacing, repairing, maintaining, altering, relocating, removing and operating the FM and related infrastructure shall at any time be in violation of any such applicable standard, law, rule, regulation or ordinance, then HRSD shall, at no cost or expense to Owner, promptly, upon receipt of any notice from Owner, or any governmental agency having jurisdiction over the Subject Property or the FM, make such changes or repairs as shall be necessary or required. Failure or refusal of HRSD to make the required changes or repairs within the time prescribed shall terminate the 15' FM Easement, provided that it shall not terminate as long as HRSD in good faith and with

diligence pursues appropriate legal or equitable remedies, enjoins, defends against, appeals from or pursues other lawful measures to avoid the enforcement of said laws, ordinances, rules or regulations.

- 2.5 Except in cases of emergency, subject to Section 1.4 above, all HRSD work and the exercise of rights hereunder shall be undertaken at reasonable times and in a manner so as to eliminate or minimize any impact on or interference with Owner's operations, Trail Use or Reactivated Rail Use, or the impact on or interference with other entities sharing a right to utilize the Subject Property. In the event of an emergency, HRSD shall provide Owner with prompt advance notice as soon as reasonably known of its need to access the Subject Property.

HRSD's use, operation and maintenance of the FM shall not interfere with Owner's use, Trail Use or Reactivated Rail Use of the Subject Property, including the right of Owner to grant to third parties similar non-exclusive leases, licenses, or easements to the Subject Property. The Owner shall not otherwise interfere with HRSD's use of the 15' FM Easement or FM. HRSD, subject to Section 1.4 above, and Owner shall, within commercially reasonable timeframes, undertake repairs or maintenance of their facilities necessary to protect HRSD's use, Owner's use, Trail Use or Reactivated Rail use of the FM.

- 2.6 In the event HRSD (including HRSD's employees, agents, invitees, contractors, subcontractors, materialmen, laborers, tenants and licensees) causes any loss or damage with respect to the Subject Property during construction, installation, servicing, maintenance, repair or replacement of the FM and appurtenances to the FM, HRSD shall promptly submit the proposed repairs to Owner for approval, and shall promptly make such repairs, in accordance with standards referenced in Section 2.2. Should HRSD fail to make the repairs within a reasonable period of time, Owner reserves the right to contract to have the repairs made and will submit the reasonable direct expenses to HRSD for reimbursement to Owner.

Direct expenses incurred by Owner shall include, without limitation, any reasonable cost paid or incurred by the Owner, including the cost of personnel of the Owner needed to ensure the proper design, location and construction of the FM and to ensure the safety of trains, if applicable, and the use of the Subject Property.

3. MARKING AND SUPPORT:

- 3.1 With respect to the subsurface installation of the FM upon the Subject Property, HRSD, at its sole cost and expense, shall:
- (A) support tracks, roadbed and the surface of the Subject Property in a manner that is reasonable and appropriate for Owner's use, Trail Use and Reactivated Rail Use of the Subject Property.

- (B) backfill with material and thoroughly tamp all trenches to prevent settling of the surface of the land and roadbed of Owner in a manner that is reasonable and appropriate for Owner's use, Trail Use and Reactivated Rail Use of the Subject Property.
- (C) remove and dispose of any surplus earth or material in a reasonable and appropriate manner, and in compliance with all applicable laws and regulations.

3.2 After construction of the FM, HRSD or HRSD's contractor shall:

- (A) restore the roadbed and other disturbed property of Owner, to the original condition or to a condition reasonably satisfactory to Owner; and
- (B) erect, maintain and periodically verify the accuracy of aboveground markers, indicating the location, depth and ownership of the underground FM or related appurtenances.

4. FUTURE FM CHANGES REQUIRED BY OWNER:

4.1 In the event future use by Owner of the Subject Property necessitates any change of location, height or depth of the FM, HRSD shall reasonably cooperate with Owner to make the required changes to the FM in order to accommodate Owner's operations, Trail Use or Reactivated Rail Use, at Owner's expense. Such expenses for relocation of HRSD's FM shall be reasonable and customary to the industry.

5. FUTURE FM CHANGES BY HRSD:

5.1 If HRSD undertakes to relocate or materially change all or part of the FM or is required by any public agency or court order to do so, plans therefore shall be submitted to Owner for approval before any such change is made, which approval shall not be unreasonably withheld provided that the additional facilities do not unreasonably burden the Subject Property or interfere with Owner's operations, Trail Use or Reactivated Rail Use. After approval, the terms and conditions of this Agreement shall apply thereto. No material change shall be deemed to have been made if such change does not require additional FM and appurtenances, and/or underground support work.

6. INTERFERENCE WITH OPERATIONS:

6.1 HRSD shall ensure that the FM or other appurtenances installed pursuant to this Agreement do not interfere with Owner's operations, Trail Use or Reactivated Rail Use. Owner shall ensure that Owner's operations and Trail Use do not unreasonably interfere with HRSD's FM and appurtenances, use or access to the easement or the FM; however, the parties acknowledge that Reactivated Rail Use is a priority use of the Subject Property, and nothing herein can

unreasonably interfere with the reactivation of rail use on the Subject Property.

7. DEFAULT, BREACH, WAIVER:

- 7.1 In the event any party fails or refuses to fully and completely perform any of its covenants or to remedy any breach within ninety (90) calendar days after receiving written notice from the other party in accordance with this Agreement, prior to instituting any litigation arising out of or related to this Agreement or any related agreements, the parties agree to submit the dispute or other matter to mediation. Any party desiring mediation shall begin the process by giving the other party or parties involved in the dispute a written request to mediate, which shall describe the issues involved and request the other party or parties to join in naming a mutually agreeable mediator and scheduling the mediation. The mediation shall be conducted in the County of Northampton, Virginia. The contents of all discussions during the mediation shall be confidential and non-discoverable in any subsequent arbitration or litigation. If the mediation results in a mutually acceptable resolution to the dispute, the agreed resolution shall be reduced to writing and signed by the parties. The costs of mediation shall be divided equally among the parties to the dispute. If the mediation does not result in a mutually acceptable resolution to the dispute, either party shall have the right to institute a suit for damages or other relief which shall be filed in the Circuit Court of the County of Northampton, Virginia.

Notwithstanding the foregoing, HRSD retains all its rights under sovereign immunity, and the liability of the parties shall be limited only to the non-breaching party's actual and direct costs and shall specifically exclude any recovery for the value of such party's business as a going concern, present or future expectation of profits, loss of business or any other related damages of such non-breaching party, subject to such requirements of applicable state and federal laws and regulations. Each party shall be solely responsible for their own attorney's fees and costs regarding any dispute between the parties.

8. NOTICE:

- 8.1 Except as per Sections 1.4 and 2.5 above, HRSD shall give Owner at least five (5) business days' written notice before doing any work of any character hereunder on the Subject Property. In cases of emergency, shorter notice may be given to Owner when available.
- 8.2 All other notices and communications concerning this Agreement shall be addressed to HRSD and to Owner as follows:

If to Owner:

Canonie Atlantic Co.
P.O. Box 312
202 Mason Avenue
Cape Charles, VA 23310
Phone: 804-928-8206

If to HRSD:

Hampton Roads Sanitation District
1434 Air Rail Avenue, Virginia Beach, VA 23455
Phone: (757) 460-2261

- 8.3 Unless otherwise expressly stated herein, all such notices shall be in writing and sent via Certified or Registered Mail, Return Receipt Requested, or by courier, and/or email to the following emails, if to Owner: Jim Outland, General Manager at joutland@canonieatlantic.com; H. Spencer Murray, Director and Senior Vice President, at hspencermurray@msn.com or Donald Hart, Chairman, at dhart@co.accomack.va.us; and if to HRSD: Jay Bernas, General Manager, jbernas@hrsd.com and Jennifer Cascio, Commission Secretary, jcascio@hrsd.com; and shall be effective upon actual receipt, or date of refusal of such delivery.
- 8.4 Either party may change its address for notices, by providing written notice to the other party in accordance with the provisions of this Section 8.

9. ASSIGNMENT:

- 9.1 This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors or assigns, or heirs, legal representatives, and assigns, as the case may be.
- 9.2 In the event of sale or other conveyance by Owner of any portion of its interest in the Subject Property, across or under which the FM is installed, such conveyance shall be made subject to HRSD's rights and obligations under the 15' FM Easement and this Agreement.

10. TITLE, LIENS, ENCUMBRANCES:

- 10.1 Owner hereby represents and warrants to the HRSD as follows for so long as the Subject Property is subject to the NITU or is being used for Trail Use or Reactivated Rail Use:
- 10.1.1 That the use, upkeep, and maintenance of the Subject Property, including the installation, maintenance and use of the FM, as contemplated by this Agreement are consistent with the Owner's rights, title and franchise in the Subject Property and;

- 10.1.2 That the use, upkeep and maintenance of the Subject Property, as well as the grant to HRSD of the 15' FM Easement, along with any and all other rights set forth in this Agreement, do not infringe, violate or constitute trespass upon the property or property rights of any other person or entity.
- 10.2 Nothing in this Agreement shall be deemed to give, and Owner hereby expressly waives, any claim of ownership in and to any part of HRSD's FM.
- 10.3 Nothing in this Agreement shall be deemed to give, and HRSD hereby expressly waives, any claim of ownership in or rights to the Subject Property except as expressly set forth herein or in the 15' FM Easement.
- 10.4 Notwithstanding anything to the contrary herein, Owner shall not in any circumstance be liable to HRSD for the failure of, or defect in, Owner's title or in the estate of the Owner in and to the Subject Property over, under or along which the above-described 15' FM Easement lies.
- 10.5 In the event that any property of Owner becomes subject to any liens or encumbrances as a result of HRSD's actions or omissions, HRSD agrees promptly to pay, discharge or remove the same from such property upon HRSD's receipt of notice that such liens or encumbrances have been filed or docketed against the Subject Property or any other property of Owner; however, HRSD reserves the right to challenge, at its sole expense, the validity and/or enforceability of any such liens or encumbrances, so long as HRSD promptly institutes and diligently prosecutes such challenge.

11. GENERAL PROVISIONS:

- 11.1 This Agreement, together with the easements to be executed by the parties, contains the entire understanding between the parties hereto. Modifications or amendments to this Agreement or to the easements must be in writing and executed by duly authorized representatives of each party.
- 11.2 Each of the parties hereto agrees to execute and deliver unto the other all such documents as may be necessary or appropriate for the effectuation of the provisions and intent of this Agreement and the easement to be granted hereunder.
- 11.3 Neither this Agreement, any provision hereof, nor any agreement or provision included herein by reference, shall operate, or be construed as being for the benefit of any third person.
- 11.4 The form or any language of this Agreement shall not be interpreted or construed in favor of or against either party hereto as the drafter thereof.

- 11.5 This Agreement is executed under current interpretation of any and all applicable Federal, State, County, Municipal or other local statute, ordinance or law in the Commonwealth of Virginia. Each and every separate division (paragraph, clause, item, term, condition, covenant or agreement) hereof shall have independent and severable status from each other separate division for the determination of legality, so that if any separate division is determined to be void or otherwise unenforceable, such determination shall have no effect upon the validity or enforceability of each other separate division, or any other combination thereof.
- 11.6 Subject to Section 7.1, in the event of any litigation arising hereunder, venue for such claim shall be in the Circuit Court for Northampton County, Virginia.
- 11.7 The grant of any easement contemplated herein shall be made subject to the rights of lienholders, bondholders or other entities holding obligations secured by Owner's property, and the rights and obligations under the Trails Act and the NITU to maintain the Subject Property for possible reactivation of rail service. HRSD's use of any such easements or the FM shall be subject to any necessary regulatory or governmental approvals of any local, state or federal agencies having regulatory supervision of Owner's operations, Trail Use or Reactivated Rail Use on the Subject Property.
- 11.8 HRSD shall indemnify, hold harmless and defend Owner and its employees, agents, invitees, contractors, subcontractors, materialmen, laborers, tenants and licensees, trail sponsors and their invitees, from any and all claims, losses, demands and/or causes of action, to include attorney's fees, court costs and/or judgments of any person or other legal entity (including HRSD and its employees, agents, invitees, contractors, subcontractors, materialmen, laborers, tenants and licensees, as well as any persons coming in contact with the Subject Property or any part thereof), which are caused by, or that may arise from the construction, repair, maintenance, use, operation, existence, or presence of the FM, or from the grant of the 15' FM Easement, the Construction Easement and the Ingress/Egress Maintenance Easement (collectively "All Easements") to HRSD. Notwithstanding the foregoing, HRSD retains all of its rights under sovereign immunity.
- 11.9 Prior to commencing work under the Construction Easement on the installation of the FM and appurtenances, HRSD or any design and/or construction party under contract with HRSD, will maintain and provide Owner proof of insurance, including workman's compensation, general liability, pollution legal liability and protective liability in types and amounts satisfactory to Owner. Owner shall be named as an additional insured on all policies.
- 11.10 Following construction of the FM, HRSD shall maintain and provide Owner proof of insurance, including workman's compensation, general liability, pollution legal liability in types and amounts satisfactory to Owner, to cover liability related to the

occupancy of the Subject Property by the FM as well as all other activities on the Subject Property permitted under All Easements. Owner shall be named as an additional insured on all policies.

- 11.11 This Agreement is contingent upon the review and approval of its terms and conditions 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.

12. CESSATION OF OPERATION/ABANDONMENT:

- 12.1 In the event HRSD does not commence construction of the FM within eighteen (18) months of the execution of this Agreement, and the aforesaid time period has not been extended by mutual agreement of the parties, Owner may consider All Easements, or any one of them, hereunder abandoned, and proceed as provided in Paragraph 12.2, below. Moreover, should HRSD or its successors or assigns, cease doing business without transferring its assets and operations to a successor or assign for a period of sixty (60) calendar days or in the event All Easements, or any one of them, provided for herein ceases to be used for FM purposes for a period in excess of Ninety (90) calendar days, then the Owner may consider All Easements, or any one of them, to have been abandoned, and proceed as provided in Paragraph 12.2, below.

- 12.2 In the event Owner considers All Easements, or any one of them, to have been abandoned, Owner shall provide written notice to HRSD or assigns advising of the reason Owner considers that All Easements, or any one of them, has been abandoned. Upon receipt of such notice, HRSD shall have thirty (30) calendar days to resume such operations or provide evidence that All Easements, or any one of them, has not been abandoned. In the event operations are not resumed or evidence is not provided as called for herein, HRSD shall execute and deliver to Owner a "termination of easements" in recordable form. Owner shall also have the right to pursue any remedies it may have at law or equity.

13. NO MERGER:

- 13.1 The terms of this Agreement shall survive execution and delivery of the Deed of Easements and shall not be merged therein.

14. AMENDMENT, RELOCATION AND FINALIZATION OF EASEMENT:

- 14.1 The parties acknowledge that the final location of the FM and appurtenances has not been finally determined as of the date of execution of this Agreement. The actual location of the foregoing items may change due to a variety of circumstances and the parties agree to cooperate in locating the 15' FM Easement and appurtenances. This Agreement and the proposed Deed of

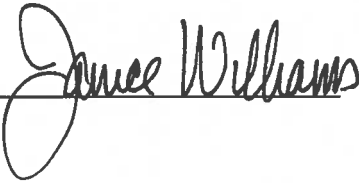
Easements may be amended from time to time to reflect the agreed upon final location of the 15' FM Easement and related appurtenances.


In accordance with Section 1.1, HRSD will provide Owner with copies of "record drawing" plats or engineer's drawings in a mutually acceptable form to Owner verifying the location of the 15' FM Easement, Construction Easement, and appurtenances.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate (each of which shall constitute an original) as of the date and year first above written.

Witness for Canonie:

Canonie Atlantic Co.



By: 
Name: H. Spencer Murray
Title: Director & SVP for Administration
and duly authorized agent

Witness for HRSD:

Hampton Roads Sanitation District

Jennifer Cascio
HRSD Commission Secretary

By: _____
Name: Jay Bernas
Title: General Manager and duly
authorized agent in accordance with
authorization granted by the
Hampton Roads Sanitation
District Commission at its regular
Commission meeting held on
_____ April 26 , 2022.

LOCATION MAP: Canonie Atlantic Rail Road ROW

HRSD easement extents



ONLEY

HRSD 15 ft. Easement in RR ROW ends here

Canonie Atlantic RailRoad ROW

HRSD 15 ft. Easement in RR ROW begins here

Nassawadox

Google Earth

Image © 2022 TerraMetrics
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

5 mi



AGENDA ITEM 17. – April 26, 2022

Subject: Middlesex Interceptor System Program Phase II – Transmission Force Main Acquisition of Real Property – Tax Map 26-109/Waverly Lane, Gloucester, VA

Recommended Action: Approve the purchase of property identified as Tax Map 26-109 (+/-1.5 Acres), located on Waverly Lane, Gloucester, Virginia, for \$55,000 in accordance with the terms and conditions of the Purchase and Sale Agreement with Timmy Martin Cash, owner of subject property 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.

CIP Project: MP013730

Project Description: This project will develop sewer service areas in Middlesex County and includes the construction of a 3.2-mile force main from Urbanna to Cook's Corner in addition to a 13-mile force main along Route 33 in Middlesex County from Cook's Corner to the Mathews Transmission Force Main (TFM). This interceptor system will convey wastewater from Middlesex County to the York River Treatment Plant (YRTP) and be able to decommission both the Urbanna Treatment Plant and Central Middlesex Treatment Plant permanently. The system consists of pump stations, storage, and a transmission force main. Acquisition of the subject site will facilitate this effort and was determined to be the most feasible location for the proposed pump station.

Agreement Description: The [Purchase and Sale Agreement](#) is attached and was reviewed by HRSD staff and legal counsel. The deed of bargain and sale is forthcoming and will also be reviewed by HRSD staff and legal counsel before execution. A [location map](#) is provided for clarification purposes.

Analysis of Cost: The acquisition cost of \$55,000 is based upon a negotiated settlement with the landowner.

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this _____ day of _____, 2022, by and between **CASH, TIMMY MARTIN**, hereinafter referred to as Seller, and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("HRSD"), Purchaser.

RECITALS

- A. Seller is the owner in fee simple absolute of a certain parcel of property approximately 1.5 acre [+/-] in area, being a part of 8210 Waverley Lane, Gloucester, Virginia, Tax Map 26-109, such property being more particularly described in Exhibit A and shown on Exhibit B, both of which are attached to and made a part of this Agreement (the "Property").
- B. HRSD desires to purchase the Property from the Seller for the purpose of constructing wastewater infrastructure (the "Facilities").
- C. Seller is willing to sell the Property to HRSD subject to the terms and conditions set forth in this Agreement.
- D. These recitals are incorporated by this reference into this Agreement.

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

- 1. **SALE**. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called "the Property".
- 2. **PURCHASE PRICE**. The purchase price (the Purchase Price) for the Property is **Fifty-Five Thousand and 00/100 Dollars (\$55,000.00)**, and the Purchase Price shall be paid to the Seller 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"), within 90 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller covenants that it shall cure all monetary encumbrances and all title objections which may be cured by execution of a document requiring the signature of no party other than Seller (including any affidavits which may reasonably be required by the title insurer). Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects, exceptions or other matters referenced in such Objection Response and proceed to Closing hereunder with no reduction of the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD.

- c. Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
 - d. Seller agrees to pay Grantor's tax, proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at settlement. HRSD will pay all other fees charged in connection with preparation and recordation of the deed and resubdivision plat.
 - e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
4. RIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including 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. HRSD agrees to indemnify and save harmless the Seller from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property before or after Closing.
5. CONDITIONS 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 cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both HRSD and Seller), HRSD may unilaterally terminate this Agreement:
 - i. Receipt of a satisfactory title commitment with all unacceptable title exceptions, encumbrances, and conditions

as deemed by HRSD removed or cured at Seller's cost; however, if Seller chooses not to remove or 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 of all of its obligations under this Agreement.
- b. This Agreement is expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to HRSD within the 90-day period. In the event HRSD fails to notify the Seller in writing within such 90-day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and the Seller agrees that the same shall be removed and released as liens on the Property on or before Closing.
- c. This Agreement is contingent upon HRSD receiving approval by the Town of West Point of a resubdivision plat upon terms acceptable to HRSD at their sole discretion, which incorporates this purchase into their existing.
- 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 Affidavit prepared by HRSD evidencing the following facts:

- (i) Other than this Agreement, there are no other contracts for sale or options involving the Property now in effect;

- (ii) To the best of Seller's knowledge, no other party has any right, title or interest in the Property;
- (iv) There are no unrecorded leases, options, licenses or easements existing in connection with the property to which the Seller has knowledge;
- (v) There are no adverse government notifications or proceedings and there is no pending or threatened litigation or any other potentially adverse claims affecting the property to which the Seller has knowledge.
- (vi) 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.
- (vii) From and after the date of this Agreement, Seller shall not transfer any interest in, or grant any easements or enter into any contractual agreement or understanding, written or oral, with respect to the Property or any portion thereof or make any changes at all that require recordation and therefore modifications to title, without the prior written consent of HRSD.
- (viii) 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.

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: Ayanna R. Williams
HRSD Real Estate Manager
2389 G Avenue
Newport News, VA 23606

Copy to: Conway Sheild, III
Jones, Blechman, Woltz and Kelly
701 Town Center Dr Ste 800
Newport News, VA 23606

Seller: Timmy Martin Cash
8842 Marlfield Road
Gloucester, VA 23061

9. CLOSING. Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent within 120 days of the Effective Date, unless extended by terms of these agreements or by mutual agreement of the parties.
10. SURVIVAL. The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
11. PRORATIONS. All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.
12. RISK OF LOSS. All risk of loss or damage to the Property by fire, windstorm, casualty, or other cause is assumed by Seller until Closing. In the event of substantial loss or damage to the Property before Closing, HRSD will have the option of either:
- a. Terminating this Agreement, or

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

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

23. WAIVER OF TRIAL BY JURY. THE PARTIES WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM BROUGHT BY EITHER PARTY AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ANY RELATED AGREEMENTS OR INSTRUMENTS AND THE ENFORCEMENT THEREOF, INCLUDING ANY CLAIM OF INJURY OR DAMAGE TO ANY PARTY OR THE PROPERTY OF ANY PARTY.
24. SUCCESSOR/ASSIGNMENT. This Agreement will be binding upon and the obligations and benefits hereof will accrue to the parties hereto, their heirs, personal representatives, successors, and assigns. This Agreement is assignable by HRSD only upon written consent of the Seller, which consent will not be unreasonably withheld. If this Agreement is assigned by HRSD with Seller's consent, HRSD will nevertheless remain fully liable for its performance.
25. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
26. FACSIMILE SIGNATURES. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.
27. 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.

(Remainder of page intentionally left blank – Signature Pages follow)

SELLER:

TIMMY MARTIN CASH

(Signature)

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 April 26, 2022. [This Agreement is expressly subject to approval by the HRSD Commission]

HAMPTON ROADS SANITATION DISTRICT

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

EXHIBIT A

(Legal description forthcoming)

EXHIBIT B

(Boundary Line or Resub Plat forthcoming)



AGENDA ITEM 18. – April 26, 2022

Subject: Suffolk Pump Station Replacement Project – Parcel 011
Easement Acquisition – 965 Portsmouth Boulevard, Suffolk, Virginia

Recommended Action: Approve the purchase of a +/-10,863 square foot permanent and +/-9,013 square foot temporary construction easements located at Tax Parcel: 35*149 in Suffolk, VA and the associated acquisition costs of \$30,000 in accordance with the terms and conditions of the Agreement between Truong Duc Tran and Khuong Thi Pham Tran, owners of subject property in Suffolk, Virginia and HRSD 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.

CIP Project: NP010620

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

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

As part of the project, HRSD will require 26 temporary and permanent easements. This subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD's Policy and Guidelines and requires Commission approval.

Agreement Description: The [Agreement](#) and [Acquisition Plat](#) are attached and were reviewed by HRSD staff and legal counsel. The deed of bargain and sale will also be reviewed by HRSD staff and legal counsel before execution. A [Location Map](#) is provided for clarification purposes.

Analysis of Cost: The cost for the easement is based on an appraisal by Brian Dundon & Associates as well as negotiated settlement with the property owner that reflects current market value acquisition costs in the area and the additional costs negotiated to relocate and store upwards of 100 vehicles, currently on site and in the path of the construction.

TAX PARCEL NO.: 35*149
KPCTA FILE:
PROJECT: Suffolk Pump Station Replacement Phase 2 (NP010620)
ROUTE/STREET: 965 Portsmouth Boulevard
CITY/COUNTY: Suffolk, VA

PURCHASE AGREEMENT

THIS CONTRACT FOR PURCHASE AND SALE, made this _____ day of _____ 2022, by and among **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 their successors and/or assigns (the “Buyer”), and **TRUONG DUC TRAN AND KHUONG THI PHAM TRAN**, husband and wife, whose mailing address is 11 Lake Ovide Court, Hampton, VA 23669 (the “Landowner”). Collectively, Buyer and Landowner shall be referred to as the “Parties.”

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

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

Being as shown on attached plat prepared by Rouse-Sirine Associates, Ltd., entitled “PLAT SHOWING PROPOSED 25’ PERMANENT UTILITY EASEMENT AND PROPOSED 20’ TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED FROM TRUONG DUC TRAN & KHUONG THI PHAM TRAN BY HAMPTON ROADS SANITATION DISTRICT” and dated November 10, 2020 and amended March 11, 2022 and containing 0.249 acres (10,863 square feet), more or less land for the proposed HRSD permanent utility easement and containing 0.207 acres (9,013 square feet), more or less land for the proposed temporary construction easement said plat is attached hereto and made a part hereof. Said property is vested in Truong Duc Tran and Khuong Thi Pham Tran, husband and wife, pursuant to deed dated April 25, 2005, from James A. Whiting which is recorded in the Clerk’s office of the Circuit Court of the City of Suffolk Virginia, on May 2, 2005 as Instrument No. 050008409.

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

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

CONSIDERATION: THIRTY THOUSAND AND 00/100 DOLLARS (30,000.00) in full for the easements described hereinbefore and for all damages, if any.

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

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

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

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

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

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

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

HRSD, or its agents, successors and assigns may exercise the unimpeded right to enter upon so much of the parcel or land needed for such purposes as may be necessary for the construction operation or maintenance of said facilities, and further provided that such use is not inconsistent with any laws, ordinances or codes pertaining to the construction, operation or maintenance of said facilities, without further notice to the Landowner. Landowner shall not place any permanent improvements within the easement without permission of Buyer, or its successors, including but not limited to houses, buildings, pools, sheds, signs, or similar permanent structures. Landowner may install fences, driveways, pavement and landscaping (trees and shrubs shall be varieties that will not exceed 20 feet tall at maturity).

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

ETHICS IN PUBLIC CONTRACTING: By executing this Agreement, the undersigned Landowner or its representative, and the representative of HRSD, certify that the prices agreed to in this Agreement were arrived at without collusion or fraud and that they have not offered or received any payment, kickbacks or other

inducement from any other party to this Agreement or its agent or employee in connection with this Agreement, and that they have not conferred on any public employee having responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised unless disclosed in this Agreement.

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

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

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

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

WITNESS the following signatures and seals:

IN WITNESS WHEREOF, the Hampton Roads Sanitation District Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on _____, 2022. This Agreement is expressly subject to approval by the HRSD Commission

BUYER:

HAMPTON ROADS SANITATION DISTRICT (HRSD)

By: _____ Date: _____

Name: Jay Bernas, P.E.

Title: General Manager

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

COMMONWEALTH OF VIRGINIA

City of Virginia Beach, to-wit:

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

Notary Public

Notary Public Registration No. _____

My commission expires: _____

LANDOWNER(S):

Truong Duc Tran

(Signature)

COMMONWEALTH OF VIRGINIA

City/County of _____ to-wit:

The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by
Truong Duc Tran.

Notary Public

Notary Public Registration No. _____

My commission expires: _____

Khuong Thi Pham Tran

(Signature)

COMMONWEALTH OF VIRGINIA

City/County of _____ to-wit:

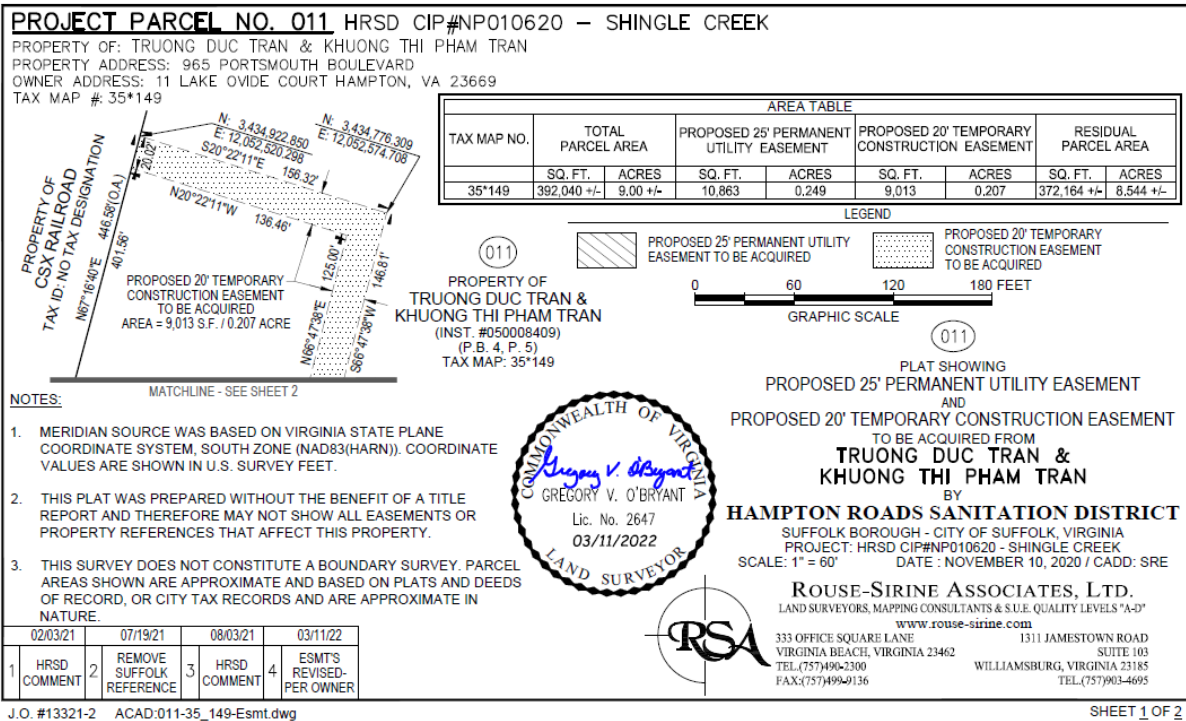
The foregoing instrument was acknowledged before me this ___ day of _____, 2022, by
Khuong Thi Pham Tran.

Notary Public

Notary Public Registration No. _____

My commission expires: _____

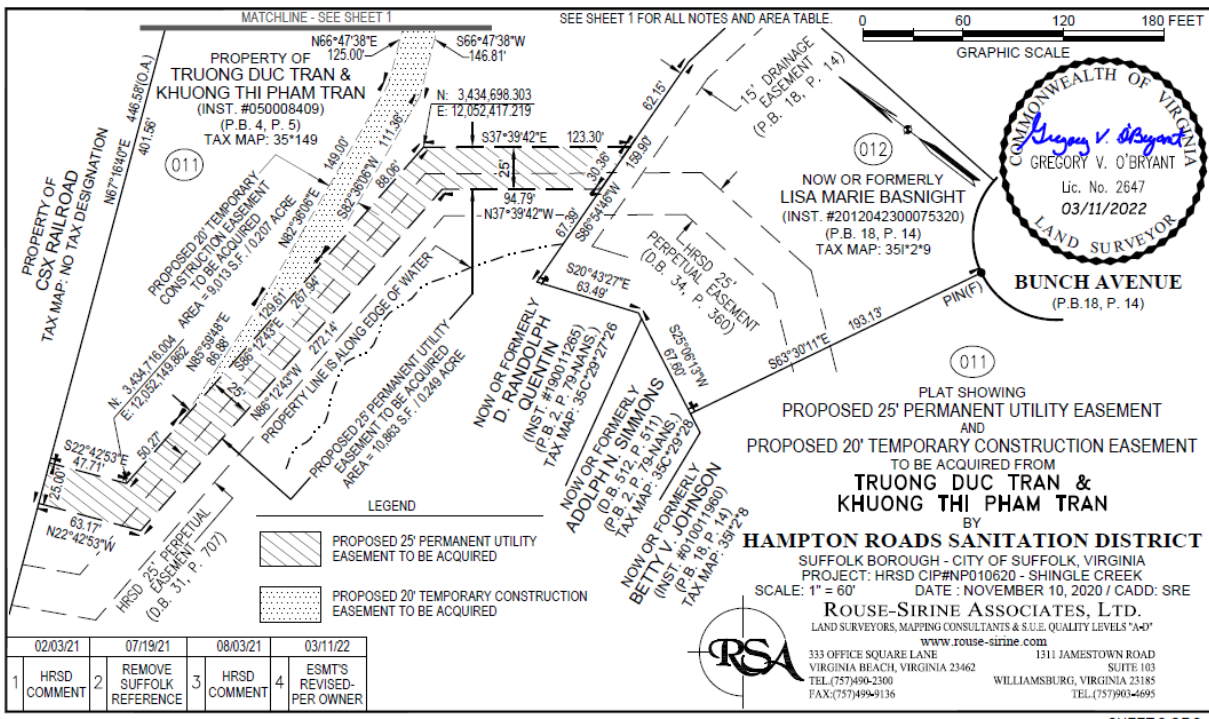
EXHIBIT
 ACQUISITION PLAT



COMMONWEALTH OF VIRGINIA
Gregory V. O'Bryant
 GREGORY V. O'BRYANT
 Lic. No. 2647
 03/11/2022
 LAND SURVEYOR

PLAT SHOWING
 PROPOSED 25' PERMANENT UTILITY EASEMENT
 AND
 PROPOSED 20' TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
TRUONG DUC TRAN & KHUONG THI PHAM TRAN
 BY
HAMPTON ROADS SANITATION DISTRICT
 SUFFOLK BOROUGH - CITY OF SUFFOLK, VIRGINIA
 PROJECT: HRSD CIP#NP010620 - SHINGLE CREEK
 SCALE: 1" = 60' DATE: NOVEMBER 10, 2020 / CADD: SRE

ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
 www.rouse-sirine.com
 333 OFFICE SQUARE LANE SUITE 103
 VIRGINIA BEACH, VIRGINIA 23462 WILLIAMSBURG, VIRGINIA 23185
 TEL:(757)490-2300 TEL:(757)903-4695
 FAX:(757)499-0136



COMMONWEALTH OF VIRGINIA
Gregory V. O'Bryant
 GREGORY V. O'BRYANT
 Lic. No. 2647
 03/11/2022
 LAND SURVEYOR





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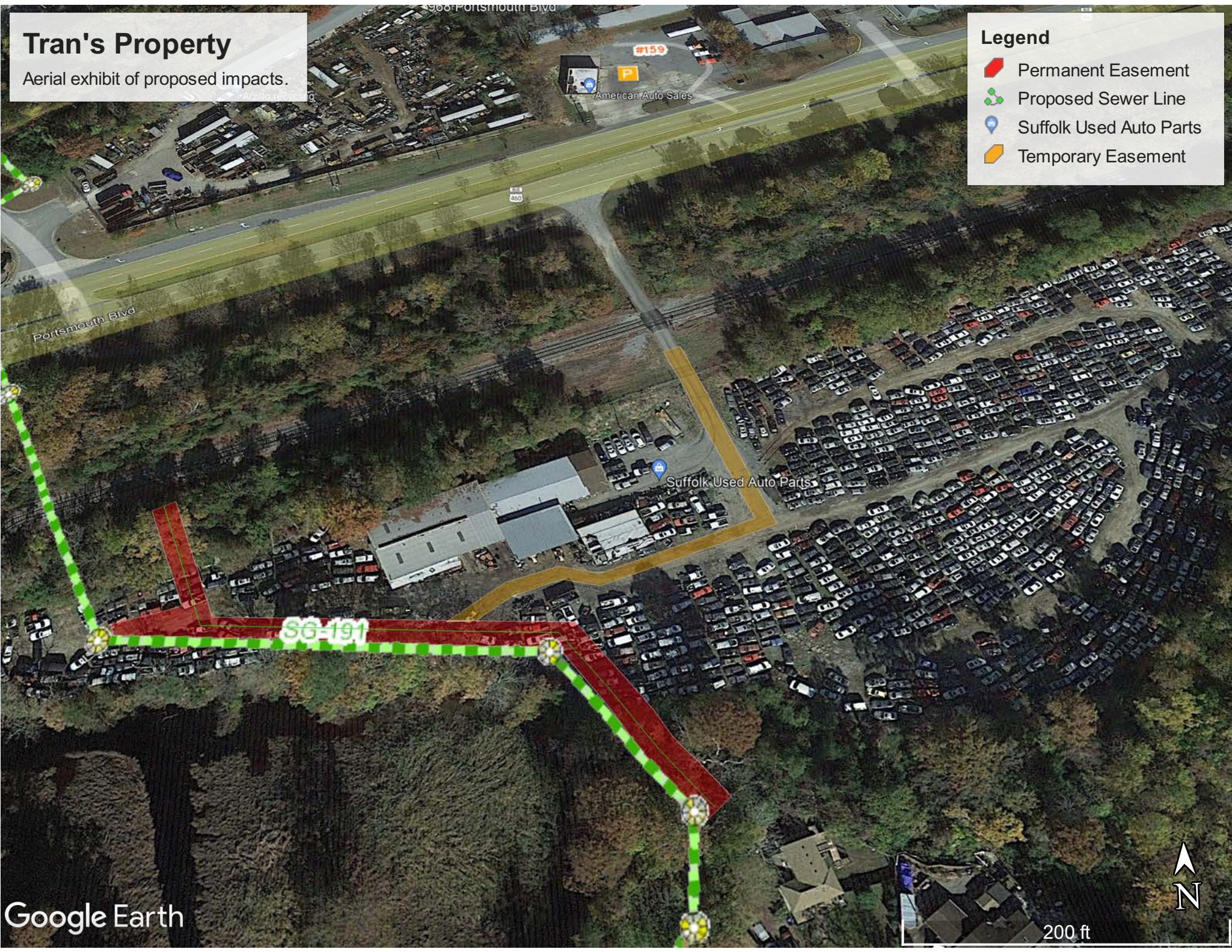
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 FAX:(757)499-0136

Tran's Property

Aerial exhibit of proposed impacts.

Legend

-  Permanent Easement
-  Proposed Sewer Line
-  Suffolk Used Auto Parts
-  Temporary Easement



AGENDA ITEM 19. – April 26, 2022

Subject: Elizabeth River Project – Sponsorship of Research Pier
Additional Funding

Recommended Actions: Approve additional funding to sponsor the Elizabeth River Project's Research Dock at their new Resilience Lab on Colley Avenue in Norfolk in the amount of \$27,407.

Background: In February 2021, the Commission approved HRSD sponsorship of the Elizabeth River Project's (ERP) Research Dock, now known as the HRSD Research Dock, at the \$300,000 level. With increasing costs of construction, there is a gap of \$27,407 from the original estimate and the recent Construction Cost Limitation (CCL) prepared by the Contractor.

HRSD has a long history of partnership with the ERP. We share the same vision, that future generations will inherit clean waterways. The ERP has focused on partnerships with businesses and residents on the river and within the watershed. They have had tremendous success and are moving to the "Next Wave" with a focus on resiliency. The three key elements in this initiative are building a resilience lab on Colley Avenue in Norfolk on Knitting Mill Creek, a tributary of the Lafayette River within the watershed of the Elizabeth; expanding the Beazley River Academy at Paradise Creek in Portsmouth; and a new Youth Resilience Strategy focused on expanding educational opportunities on the ERP Learning Barge.

In 2010 HRSD partnered with ERP to get the River Star Home initiative off the ground. The concept was to increase personal accountability for ensuring a clean river with homeowners within the watershed. HRSD funded the first ERP River Star Home position at ERP as well as developing and producing the initial education materials and recognition flags. This program has been extremely successful with thousands of River Star Homes within the watershed and similar programs in other watersheds modeled after the ERP success.

In 2015 HRSD partnered with ERP to fund a portion of the education building at Paradise Creek Nature Park in Portsmouth. Our funding provided build out of the bathrooms, where we were able to design and install educational graphics to tell the HRSD story and our positive impact on the Elizabeth.

In 2021, ERP reached out to HRSD to offer the opportunity to sponsor a [research dock](#) which will be located at the site of their new Resilience Lab. This research dock, located in the waters of Knitting Mill Creek, will be home to VIMS continuous water quality monitoring equipment while increasing access for students at Norfolk State and Old Dominion to studies focused on river water quality – a live laboratory. Old Dominion University is relocating its Institute for Coastal Adaptation and Resilience to a University owned building across Colley Avenue from the ERP Resilience Center. The goal is to develop an eco-corridor along this stretch of Colley Avenue.

With HRSD leading the region in water quality monitoring and related science, our partnership in this project fits perfectly with our mission and vision. A visible presence at this exciting new facility will provide HRSD with a platform to highlight our leadership in water quality science.

More details can be found at <https://elizabethriver.org/thenextwave>.



HRSD Research Dock at the Elizabeth River Project's Resilience Lab

April 26, 2022

HRSD Dock Overview



HRSD Dock



HRSD Sign Concept



AGENDA ITEM 20. – April 26, 2022

Subject: Capital Improvement Program (CIP)
Quarterly Update

Recommended Action: No action is 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. In addition, the Chief of Asset Management will provide a demonstration of the asset management software program.

AGENDA ITEM 21. – April 26, 2022

Subject: COVID-19 Wastewater Surveillance Study Update

Recommended Action: No action is required.

Brief: Staff will present the latest data and status of the COVID-19 surveillance work.

AGENDA ITEM 22. – April 26, 2022

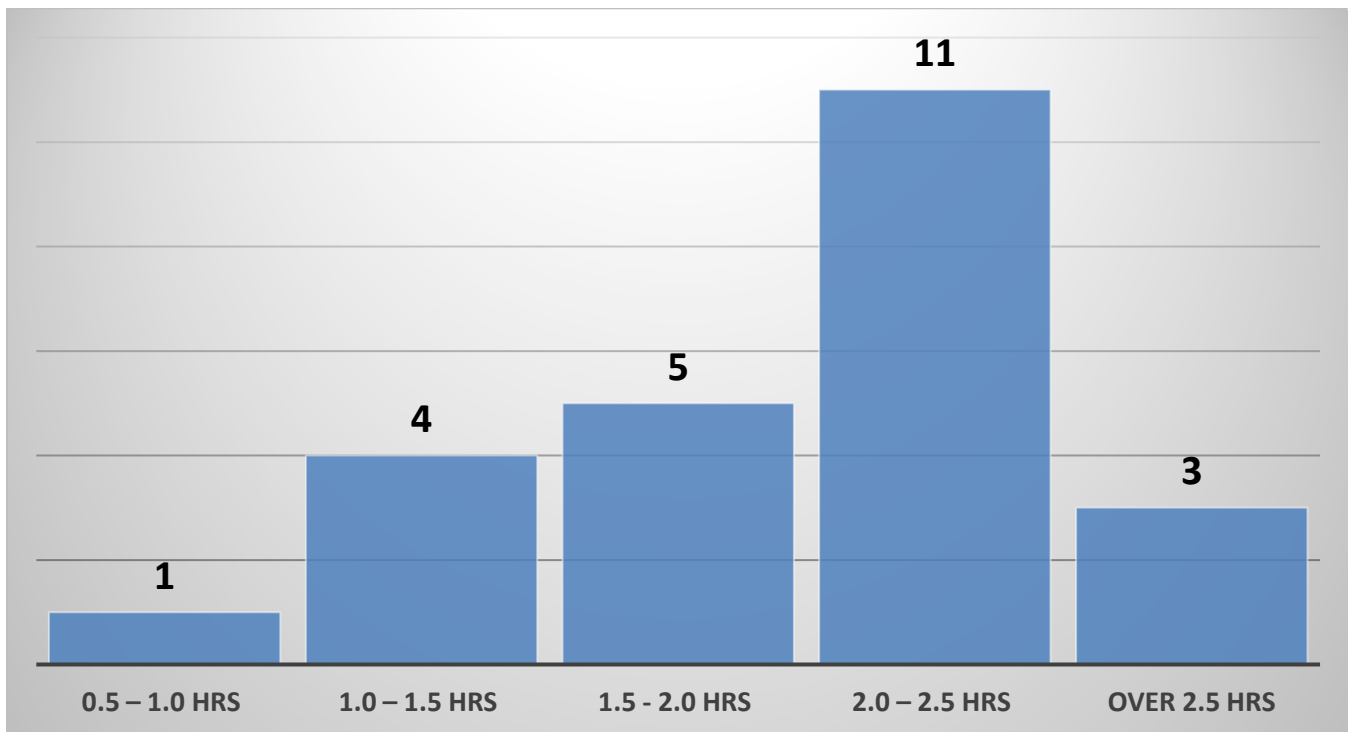
Subject: Temporarily Modify Commission Meeting Start Time

Recommended Action: Discuss and vote to either approve a new, temporary Commission meeting start time or maintain the current one.

Brief: Due to ongoing Hampton Roads Bridge tunnel construction and related traffic issues, the recommendation has been made by Commission members to temporarily modify the Commission meeting start time. Staff are available to accommodate any start time the Commission approves.

Of the last 24 Commission meetings, meeting time has averaged almost two hours (1 hour and 58 minutes) with a breakdown as follows:

- More than 2.5 hours - 3 meetings (Max = 2 hrs 52 min)
- 2.0 – 2.5 hours – 11 meetings
- 1.5 - 2.0 hours – 5 meetings
- 1.0 – 1.5 hours – 4 meetings
- 0.5 – 1.0 hours - 1 meeting



AGENDA ITEM 23. – April 26, 2022

Subject: Unfinished Business

AGENDA ITEM 24. – April 26, 2022

Subject: New Business

AGENDA ITEM 25. – April 26, 2022

Subject: Commissioner Comments

AGENDA ITEM 26. – April 26, 2022

Subject: Public Comments Not Related to Agenda

AGENDA ITEM 27. – April 26, 2022

Subject: Informational Items

Recommended Action: No action is required.

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

- a. Management Reports
 - (1) [General Manager](#)
 - (2) [Communications](#)
 - (3) [Engineering](#)
 - (4) [Finance](#)
 - (5) [Information Technology](#)
 - (6) [Operations](#)
 - (7) [Talent Management](#)
 - (8) [Water Quality](#)
 - (9) [Report of Internal Audit Activities](#)
- b. [Strategic Planning Metrics Summary](#)



April 15, 2022

Re: General Manager's Report

Dear Commissioners:

Spring has sprung and staff are moving forward on multiple fronts. With budget season well underway, staff have been busy making last minute budget adjustments, balancing the CIP, updating the financial forecast and working with our rate modeler on revised rates. Everything is on track to present the draft budget to the Commission at the April meeting and the final budget in May, before the four-week rate advertisement as required in the Enabling Act.

I think it's critically important to establish a communication channel with the organization, so I've started short, bi-weekly General Manager briefings with supervisors via Microsoft Teams. The purpose is to communicate hot topics and provide a town hall style question and answer period. One of the benefits of having a virtual environment is being able to efficiently communicate key initiatives and the reasoning behind them "in-person." The March topics have centered around the budget and making sure everyone understands the process, how our finances work and what is driving rate increases. So far, the feedback has been excellent with many employees appreciating the topics covered.

The highlights of March's activities are detailed in the attached monthly reports.

- A. **Treatment Compliance and System Operations:** On March 9, 2022, Naval Station Norfolk reported a 1,500 spill of dilute Aqueous Film Forming Foam (AFFF) to the sanitary sewer. Interceptors and Army Base Treatment plant staff worked tirelessly with the Navy's spill contractors through the weekend to control the release. Thankfully, their efforts worked, and no permit limitations were exceeded. The Pretreatment & Pollution Prevention (P3) Division is handling the enforcement of this unauthorized discharge by the US Navy. While a Civil Penalty would normally result from this type of incident, as a result of a Supreme Court decision [Ohio V. Department of Energy, US, 112 SCT 1627, 118 Led2d 255 (1992)], the US Navy will not be required to pay the Civil Penalty. However, the P3 Division is pursuing cost recovery for staff time involved with investigation and mitigation of the event under the Civil Liability section of the HRSD Industrial Wastewater Discharge Regulations.
- B. **Finance:** With the Municipal Utility Relief funds expended, staff resumed field activities for non-payment. Starting the week of March 21st, warning tags were placed, along with a separate information tag with helpful options including payment plans to avoid shut-off. The volume of tags is being coordinated with the call center to ensure staff are available to help customers. Overall, finances continue to be in-line with expectations as revenues exceed expectations. Increased costs related to inflation are being offset by higher than expected water consumption.

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

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

1. Continued lunches with Chiefs
2. Held grievances
3. Participated in the annual health insurance renewal
4. Attended the compensation study debrief
5. Visited the Nansemond Treatment Plant
6. Toured the Central Environmental Laboratory
7. Participated in the Atlantic Treatment Plant tree planting
8. Held interviews for the Director of Finance

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

1. Spoke at a US Treasury Leadership Roundtable climate change policy event about HRSD's SWIFT project
2. Lunch with Senator Warner's staffer
3. Discussed a potential SWIFT economic benefits project with the Hampton Roads Planning District Commission's chief economist
4. Recorded a podcast on how HRSD arrived at the decision to close the Chesapeake-Elizabeth Treatment Plant – this is part of the Straight Flush podcast series sponsored by the Virginia Water Environment Association (VWEA)
5. Lunch with Chesapeake Bay Bridge Tunnel Executive Director and Commonwealth Transportation Board member
6. Met with the Chesapeake Bay Foundation staff on ongoing initiatives
7. Attended the Potomac Aquifer Recharge Oversight Committee meeting
8. Provided a tour of the SWIFT Research Center to the City of Norfolk's new Utility Director, Doug Beaver
9. Met with Peter Grevatt with the Water Research Foundation

D. **SWIFT Update:** On March 11, 2022, we closed on the \$12 million property in Newport News that is critical for the James River SWIFT project.

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you in person in Newport News on Tuesday, April 26, 2022.**

Respectfully submitted,

Jay Bernas, P.E.
General Manager

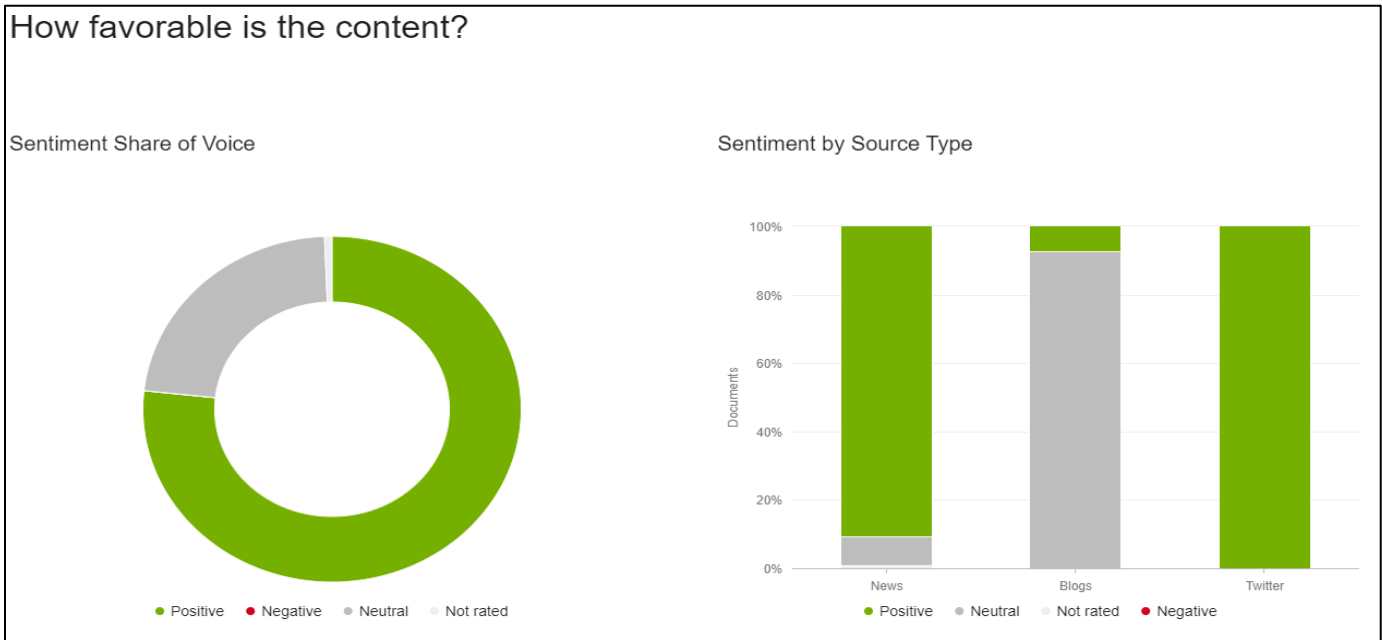
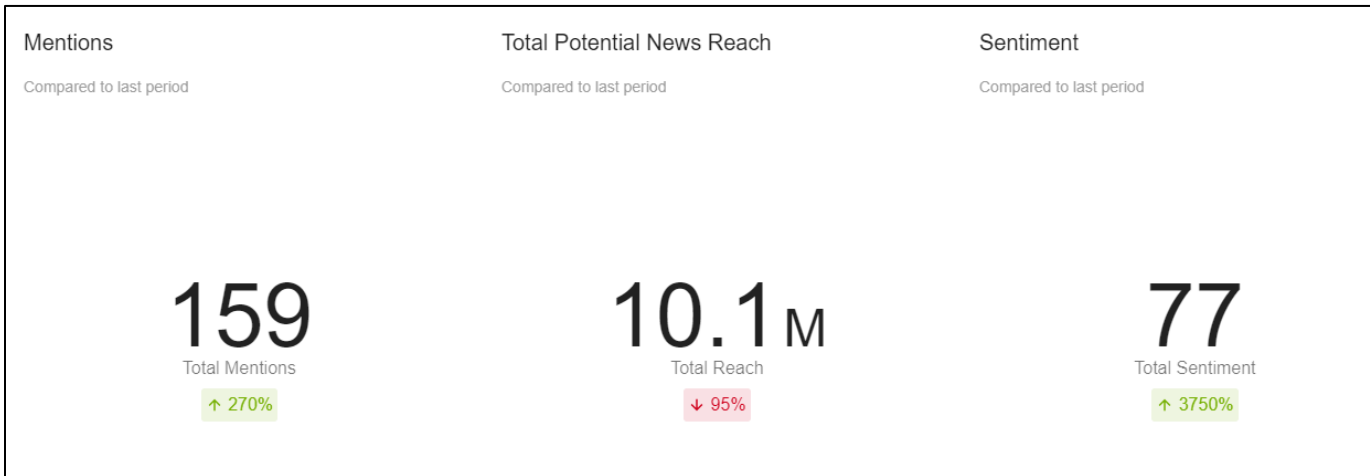
TO: General Manager
FROM: Director of Communications
SUBJECT: Monthly Report for March 2022
DATE: April 12, 2022

A. Publicity and Promotion

HRSD and/or SWIFT were mentioned or featured in 11 news stories or media/social media mentions on topics that included:

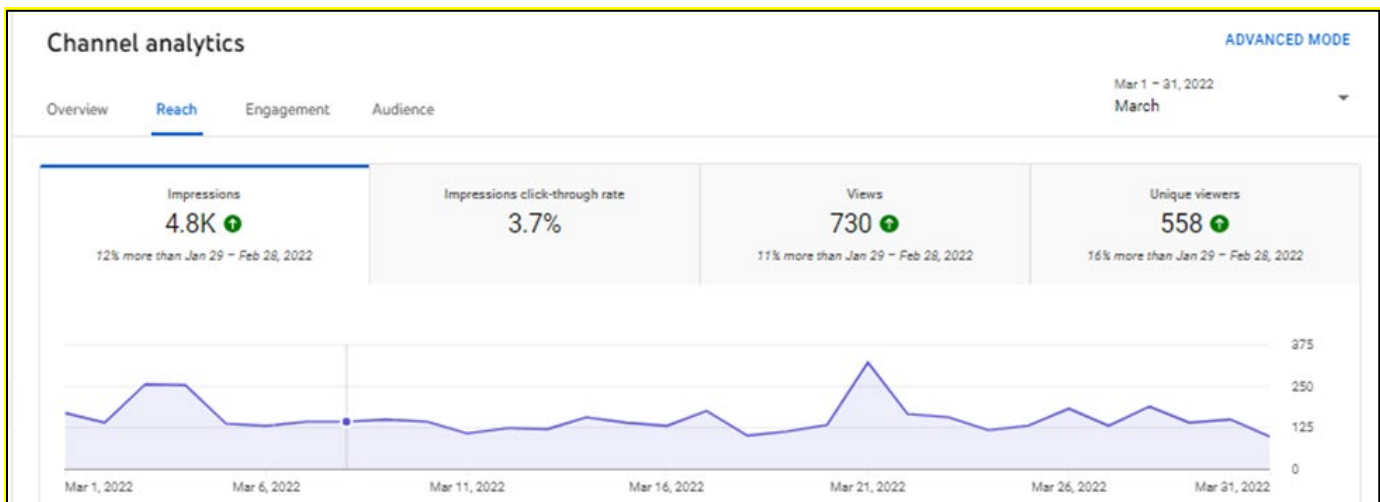
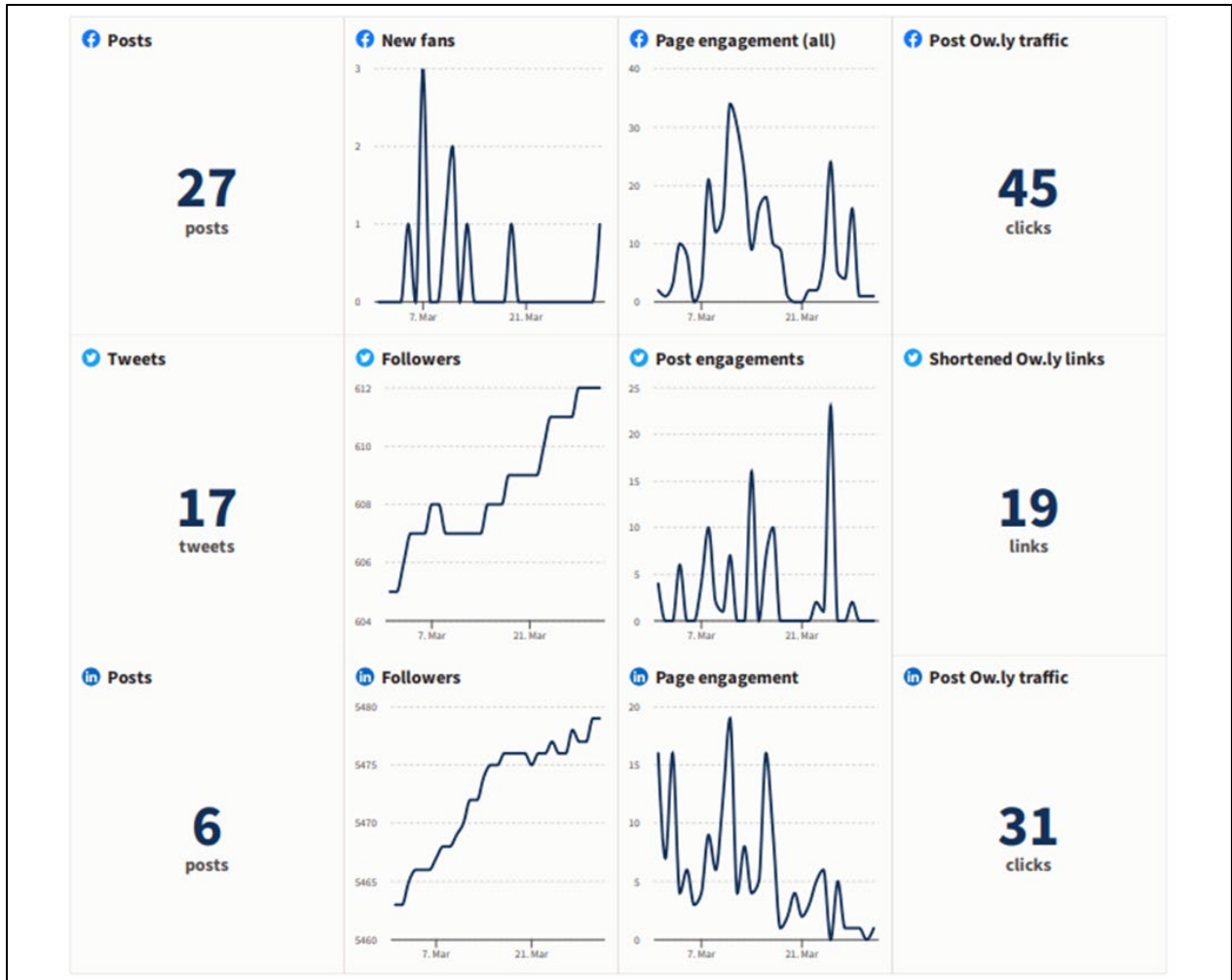
1. Wastewater COVID-19 tracking
2. Water bill delays due to staff shortages in Norfolk
3. HRSD expansion into Eastern Shore

Analysis of March media coverage:



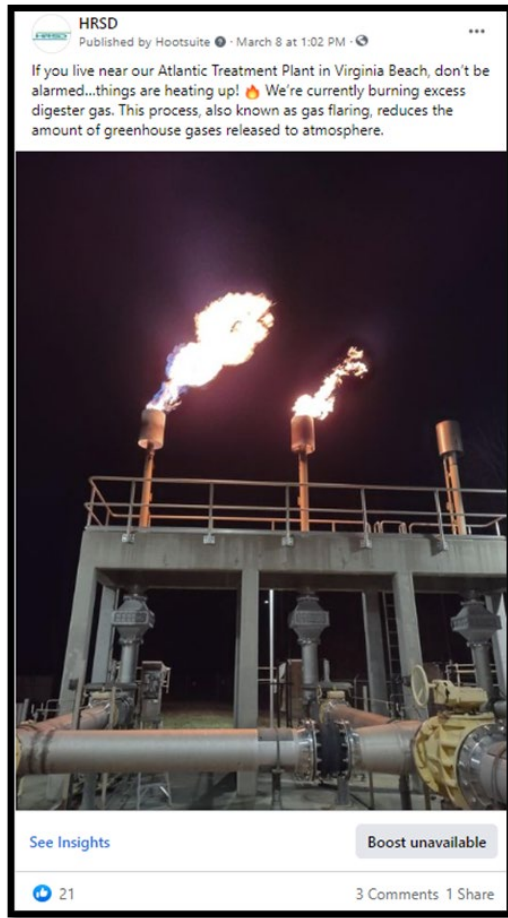
B. Social Media and Online Engagement

1. Metrics



2. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post



b. Top Tweet



c. Top YouTube Videos

Top YouTube Videos	
1.	The Wastewater Treatment Process (450 views)
2.	HRSD Atlantic Treatment Plant Cambi Tour (41 views)
3.	SWIFT What is the Potomac Aquifer (33 views)
4.	What is Asset Management? HRSD Celebrates Infrastructure Week United for Infrastructure (30 views)
5.	HRSD's Amazing Aquifers: How to Make and Aquifer at Home (19 views)

3. Website and Social Media Impressions and Visits

- a. Facebook: 12,561 page impressions, 10,055 post impressions reaching 9,455 users
- b. Twitter: 3,294 tweet impressions; 1,880 profile visits and 9 mentions
- c. HRSD.com/SWIFTVA.com: 1117 page visits
- d. LinkedIn Impressions: 8,881 page impressions and 4,194 post impressions
- e. YouTube: 730 views
- f. Next Door unique impressions: 392 post views from two targeted neighborhood posting shared with 4,102 residents
- g. Blog Posts: (0)
- h. Construction Project Page Visits – 1,501 total visits (not including direct visits from home page, broken down as follows:
 - (1) 1010 visits to individual pages
 - (2) 491 to the status page

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

- 1. News Releases: 0
- 2. Traffic Advisories: 0
- 3. Construction Notices and or notices to neighbors: 2
- 4. Advertisements: 0
- 5. Project Notices: 2 (via door hanging, reaching 88 residents)
- 6. Project/Community Meetings: 1 (Notice of Public Review Comment Period and Public Hearing)
- 7. New Project Web Pages: 1 ([Wythe Creek Road Sewer Replacement](#))

8. New Project Videos: 0

D. Special Projects and Highlights

1. Director and General Manager met with SIR Research to plan this year's customer satisfaction survey and discuss plans to develop and conceptualize a Popular Annual Financial Report (PAFR) highlighting key financial data to show HRSD use of rate payer funds and state and federal grants and loans to fulfill the HRSD mission and vision.

E. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. DEI UNIFIED Council meeting and communication planning meeting
 - b. Compensation Study findings review meeting
 - c. Annual CIP Review meeting
 - d. Weekly GM check-in meetings
 - e. MOM Quarterly Meeting
 - f. Architectural Review Committee meeting
 - g. Potomac Aquifer Recharge Oversight Committee (PAROC) monthly meeting
 - h. Director of Finance interview panels
 - i. James River SWIFT ground breaking event planning meetings
 - j. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
 - k. Apprenticeship Graduation preliminary planning meeting
 - l. Weekly GM check-in 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 meetings, and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities (all virtual unless otherwise noted): 59
 - a. Self-guided SWIFT Virtual Tours – 52 views (analytics specify number of times the “Take a Tour” button was selected)
 - b. 03/03/2022 – Kilgore Gifted Center (4 classes) | 72 students
 - c. 03/09/2022 – Cradock Middle School (4 classes) | 80 students
 - d. 03/11/2022 – Rotary Club Hampton Roads | 25 attendees
 - e. 03/14/2022 – Churchland Middle School (4 classes) | 101 students
 - f. 03/23/2022 – Landstown Middle School Guided Virtual SWIFT Tour 21 | students
 - g. 03/24/2022 – Landstown Middle School Outreach Guided SWIFT Tour | 21 students
 - h. 03/24/2022 – Churchland Middle School outreach (4 classes) | 95 students

2. Number of Community Partners: 4

- Portsmouth Public Schools
- Hampton Public Schools
- Rotary Club Hampton Roads
- Virginia Beach Public Schools

3. Additional Activities Coordinated by Communications Department: 2

- Cradock Middle School | 78 students
- Earl Swift Event | 150 people

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	March 2022
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	10.5
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	64.25
M-5.2	Educational and Outreach Events	Number	6
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 March 2022
DATE: April 13, 2022

A. General

1. Capital Improvement Program (CIP) spending for the eighth month of Fiscal Year (FY) 2022 was slightly below the planned spending target. Actual CIP spending for the FY is likely to continue to trail planned spending with a new FY 2022 target of \$180M.

CIP Spending (\$ million):

	Current Period	FYTD
Actual	23.92	94.62
Plan	26.00	185.90

2. Efforts to update the CIP for FY-2023 thru FY-2032 continues. An initial CIP Review Meeting was held on March 1st. All new and existing CIP projects were discussed with a particular attention to new projects and the benefits of these efforts. There were 20 new projects proposed this year. As infrastructure costs continue to rise, an inflation factor of 8% was added to each existing project. This inflation factor addresses the rise in material costs, but due to increased volumes of work in the construction industry, prices continue to escalate beyond the normal inflation for materials. A limited labor pool for both professional staff and skilled trades continues to limit the ability for firms to grow and meet the demand in the market.

B. Asset Management Division

1. Buried pipe condition assessment remains a significant focus of the Asset Management Division. A troublesome section of existing asbestos cement force main pipe adjacent to the CSX Railroad in Newport News was recently inspected using a new non-invasive technology. This no-dig technology has the capability to locate anomalies in the buried pipe, to suggest locations where an offset or joint might be located. These locations are where existing clamps were used to connect the sections of pipe. In some cases, the bolts on the clamps have corroded causing failures. An initial effort located two existing clamps on the buried pipe. Further tests are proposed to validate this technology and determine if these clamps can be located without significant excavations. This could be a valuable tool to limit costly excavations and indicate where these potential failure locations are located before the pipe segment fails.
2. Another pipe condition assessment tool that has had some success is Smart Ball. This device is installed in the existing pipe segment and can measure location and pipe condition. The challenge has been the ability to insert and retrieve the device into an active force main. Earlier attempts using the Smart Ball technology have resulted in the device getting stuck within the pipe. A new feature used with the device includes a foam cover. This cover protects the ball and keeps the ball buoyant, limiting the likelihood of the device lodging in a low spot or other restriction. A first attempt at using this device

was successful and further tests will be conducted to verify that this new Smart Ball can assist in predicting pipe condition and remaining life.

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

1. Construction of the Hampton Trunk A and B Replacement Project was recently completed. Flow has been diverted to the replacement pipeline and a final inspection will occur in April. Cleanup work including restoration efforts and paving has begun. Improvements to the neighborhood, including additional paving, landscaping, and other neighborhood amenities (due to the difficulties the citizens experienced during the previous pipe failure in the area) will now be completed with the pipeline in service.
2. The Atlantic Treatment Plant Solids Storage Pad Improvements project was recently advertised for bids. Unfortunately, due to the increasing volume of work in the market, the relatively small size of the project (\$1M) and the specialized nature of the work, we did not receive any bids. We plan to review our options and possibly repackage in a different structure to gain more interest in this work. It is becoming more common in our market to see fewer bidders and higher prices. With the increased volume of work in the construction industry, contractors are being more selective and looking to increase profit margins for the work they procure.
3. The effort to procure a Design-Build Team for the Boat Harbor Transmission Force Main Phase I - Subaqueous Crossing is nearing completion. Interviews and price proposals were received in March. Discussions are underway with the top proposer with the goal of taking a recommendation of award to the April Commission Meeting. This will be a very challenging project to construct and will include 4.5 miles of sub-aqueous crossing of the Hampton Roads. The work will include a section of directionally drilled pipe under the Newport News Shipping Channel and a large section of buried pipe extending from Newport News to Suffolk. This project is a critical component to allow for the future closing of the Boat Harbor Treatment Plant.

D. Planning & Analysis Division

1. Staff are continuing the effort to bring pump station instrumentation and controls from the existing iFix SCADA System to the new Emerson Ovation System. To date, 38 pump stations have been transferred to the new system with approximately 60 pump stations yet to be converted. Data to be available remotely will include pressure, flow, wet well levels, security and critical alarms. This conversion will allow HRSD to remotely monitor and control the pump stations and will be an important step in our Smart Sewer System.
2. Staff continue to see an increase in workload related to the number of Development Services requests. This is an indicator of the continued growth of development in the region and an indicator of construction activity. Development Services requests can take many forms, but are typically related to the following:
 - Location information related to existing HRSD infrastructure
 - Proposed development and new work that might impact HRSD infrastructure
 - Proposed connections to the HRSD regional sewer system
 - Proposed pump stations that will ultimately send flow to HRSD
 - Other miscellaneous requests related to information on existing or future infrastructure.

We expect this increased workload to continue until the development pressures within the region subside.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 3
 - a. 03/22/2022 – Participated in a panel discussion on Design-Build Project Delivery at the Virginia Association of Governmental Purchasing (VAGP) at their Spring Conference.
 - b. 03/23/2022 – Guest Lecturer on Asset Management and Infrastructure Planning at the Virginia Tech Municipal Engineering Course.
 - c. 03/31/2022 – Presented on Project Delivery to the Old Dominion University American Society of Civil Engineering (ASCE) Student Chapter.
2. Number of Community Partners: 3
 - a. VAGP
 - b. Virginia Tech
 - c. Old Dominion University ASCE Student Chapter
3. Number of Research Partners: 0
4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	March 2022
M-1.4a	Total Training Hours per Full Time Employee (45) - Current Month	Hours / #FTE	1.24
M-1.4b	Total Training Hours per Full Time Employee (45) - Cumulative Fiscal Year-to-Date	Hours / #FTE	18.34
M-5.2	Educational and Outreach Events	Number	3
M-5.3	Number of Community Partners	Number	3
M-5.4	Number of Research Partners	Number	0

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

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

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for March 2022
DATE: April 13, 2022

A. General

1. Customer Care has gradually returned to field activities for collection. Warning tag distribution resumed March 21, 2022, with approximately 50 tags per day. Customers are also given a separate tag suggesting ways to avoid a shut-off, including pay plans, donation programs and available assistance through local human services. The first round of shut-off activities is scheduled to begin the week of April 4, 2022.
2. Warning tag fees have resumed. Late Payment Fees will resume on billed charges starting with bills created May 2, 2022; therefore, if the May 2022 bill goes unpaid, the Late Payment Charge will be assessed on the June 2022 bill. All March and April bills have a message indicating the resumption of Late Payment Charges. If a customer has a pay plan and is keeping up with it, late payment charges can be avoided.
3. As anticipated with the return of field activities at the end of March, the Call Center team has helped an increasing number of customers seeking pay plans and ways to avoid shut-off field activities. To expedite the approval process, the Call Center has a pre-approved structure for pay plans to quickly assist customers. The Customer Self-Service portal is also available to create pay plans or pay extensions. Customer Care leadership continues to monitor the volume of calls and is prepared to reposition resources or address training issues as needed.
4. Water consumption was up in March relative to budgeted estimates which drove Wastewater Operating revenues higher. Miscellaneous revenues are significantly higher as we received our annual prescription rebate, approximately \$898,000, which is \$173,000 more than last year. Facility Charges are below expectations and compared to last year as 30-year interest rates approach 5% and supply and labor issues dampen new construction. Interest Income continues to underperform as rising rates affect monthly market value adjustments. This should turn around in the coming year as higher interest income will offset market value adjustments. Other Non-Operating revenues are higher as HRSD received \$99,000 from FEMA for COVID-19 related reimbursements. Personal Services is slightly higher than budget with the mid-year inflation adjustment and the three pay periods in December. Materials and Supplies, Transportation (Fuels), Utilities and Chemicals are much higher than the previous year due to inflation, but staff are managing usage to the extent possible to control costs. Overall, total revenues exceed total expenses by approximately \$13.5 million.

B. Interim Financial Report

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

	Amended Budget	Current YTD	Current YTD as % of Budget (75% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 336,455,000	\$ 260,685,571	77%	77%
Surcharge	1,600,000	1,202,435	75%	81%
Indirect Discharge	3,200,000	2,339,314	73%	75%
Fees	3,020,000	115,523	4%	-13%
Municipal Assistance	700,000	778,167	111%	70%
Miscellaneous	1,285,000	1,892,680	147%	133%
Total Operating Revenue	346,260,000	267,013,690	77%	76%
Non Operating Revenues				
Facility Charge	7,320,000	5,098,700	70%	95%
Interest Income	1,210,000	(1,646,459)	-136%	30%
Build America Bond Subsidy	2,095,000	1,064,842	51%	0%
Other	610,000	590,751	97%	72%
Total Non Operating Revenue	11,235,000	5,107,834	45%	64%
Total Revenues	357,495,000	272,121,524	76%	76%
Transfers from Reserves	17,346,624	13,009,968	75%	85%
Total Revenues and Transfers	\$ 374,841,624	\$ 285,131,492	76%	77%
Operating Expenses				
Personal Services	\$ 62,776,055	\$ 48,064,643	77%	75%
Fringe Benefits	25,173,707	17,995,191	71%	73%
Materials & Supplies	9,509,735	6,832,572	72%	65%
Transportation	1,555,282	979,689	63%	46%
Utilities	12,350,061	9,429,093	76%	70%
Chemical Purchases	9,249,441	6,810,533	74%	56%
Contractual Services	55,345,089	28,009,257	51%	51%
Major Repairs	16,056,857	6,268,774	39%	37%
Capital Assets	655,963	451,531	69%	27%
Miscellaneous Expense	3,137,304	1,896,778	60%	63%
Total Operating Expenses	195,809,494	126,738,061	65%	63%
Debt Service and Transfers				
Debt Service	64,308,209	53,856,922	84%	85%
Transfer to CIP	114,463,921	90,847,940	79%	78%
Transfer to Risk management	260,000	195,003	75%	75%
Total Debt Service and Transfers	179,032,130	144,899,865	81%	81%
Total Expenses and Transfers	\$ 374,841,624	\$ 271,637,926	72%	71%

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

HRSD - PROJECT ANALYSIS

March 31, 2022

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2021	Expenditures Year to Date FY2022	Total Project Expenditures	Encumbrances	Available Funds
Administration	70,138,240	20,771,298	1,886,133	22,657,431	2,980,033	44,500,776
Army Base	163,448,800	123,537,916	1,053,827	124,591,743	893,500	37,963,557
Atlantic	134,030,972	74,355,561	4,672,564	79,028,125	3,041,249	51,961,598
Boat Harbor	281,519,163	42,734,184	6,581,493	49,315,677	23,268,546	208,934,940
Ches-Eliz	182,144,370	105,101,136	11,951,899	117,053,035	7,070,646	58,020,689
Eastern Shore	26,967,651	68,570	1,296,700	1,365,270	22,216,827	3,385,554
James River	281,901,134	21,336,192	13,638,513	34,974,705	208,216,142	38,710,287
Middle Peninsula	95,522,822	13,361,582	4,650,292	18,011,874	7,291,393	70,219,555
Nansemond	401,373,953	27,969,786	9,856,681	37,826,467	263,449,016	100,098,470
Surry	57,612,528	26,413,528	11,444,557	37,858,085	3,550,113	16,204,330
VIP	145,331,917	9,757,328	5,341,753	15,099,081	12,032,589	118,200,247
Williamsburg	28,243,555	17,550,821	1,944,514	19,495,335	5,702,035	3,046,185
York River	64,980,831	9,783,051	2,777,602	12,560,653	4,406,696	48,013,482
General	787,928,293	152,763,171	46,164,992	198,928,163	284,324,254	304,675,876
	\$ 2,721,144,229.00	\$ 645,504,124.46	\$ 123,261,519.54	\$ 768,765,644.00	\$ 848,443,041.00	\$ 1,103,935,544.00

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's)

March 31, 2022

	Principal Feb 2022	Principal Payments	Principal Draws	Principal Mar 2022	Interest Payments
Fixed Rate					
Senior	185,172	(1,274)	-	183,898	(345)
Subordinate	595,889	(3,237)	7,293	599,945	(1,241)
Variable Rate					
Subordinate	50,000	-	-	50,000	(6)
Line of Credit	33,721			33,721	(18)
Total	\$ 864,782	\$ (4,511)	\$ 7,293	\$ 867,564	\$ (1,610)

HRSD- Series 2016VR Bond Analysis

April 1, 2022

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.33%	0.48%	0.15%
Minimum	0.01%	0.01%	0.00%
As of 4/1/22	0.51%	0.50%	-0.01%

* Since October 20, 2011 HRSD has averaged 48 basis points on Variable Rate Debt

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

HRSD - UNRESTRICTED CASH

March 31, 2022

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

		Days Cash on Hand	Adjusted Days Cash on Hand
Total Unrestricted Cash	\$ 213,509,483		398
Risk Management Reserve	\$ (4,214,546)	(8)	390
Capital (PAYGO only)	\$ (29,583,881)	(55)	335
Adjusted Days Cash on Hand	\$ 179,711,056		335

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

March 31, 2022

Primary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value March 31, 2022	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	30,017,420	370,989,801	373,013,814	29,245	28,022,652	16.3%	N/A	0.55%
VIP Stable NAV Liquidity Pool	108,890,465	50,000,000	15,000,000	107,829	143,998,294	83.7%	AAAm	0.25%
Total Primary Source	\$ 138,907,885	\$ 420,989,801	\$ 388,013,814	\$ 137,074	\$ 172,020,946	100.0%		

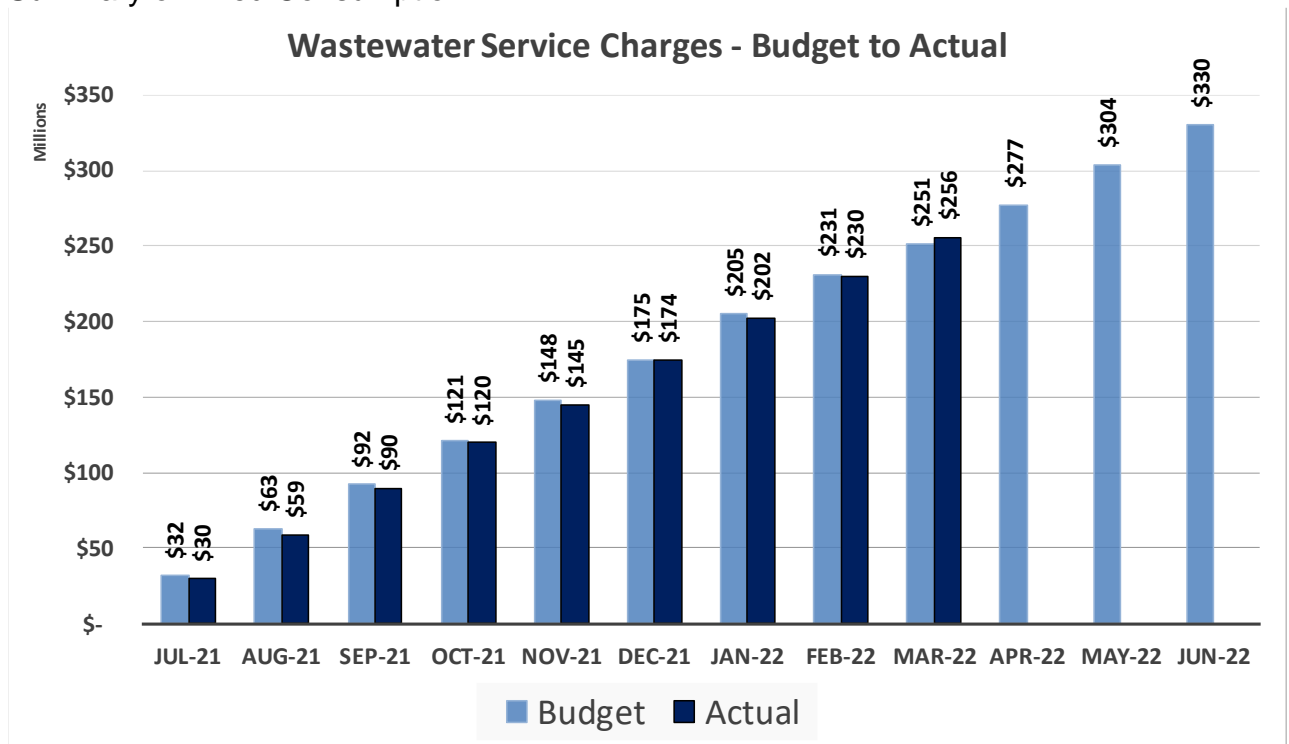
VIP Stable NAV Liquidity Pool performed at the same level as Va Local Government Investment Pool (the market benchmark) in the month of March 2022.

Secondary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value March 31, 2022	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	65,054,203	-	9,706	234,353	63,234,406	63,624,190	(389,784)	2.20%
Total Secondary Source	\$ 65,054,203	\$ -	\$ 9,706	\$ 234,353	\$ 63,234,406	\$ 63,624,190	\$ (389,784)	

VIP 1-3 Year High Quality Bond Fund performed at the same level as ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) in March 2022.

	Total	Fund Alloc
Total Primary Source	\$ 172,020,946	73.1%
Total Secondary Source	\$ 63,234,406	26.9%
TOTAL SOURCES	\$ 235,255,352	100.0%

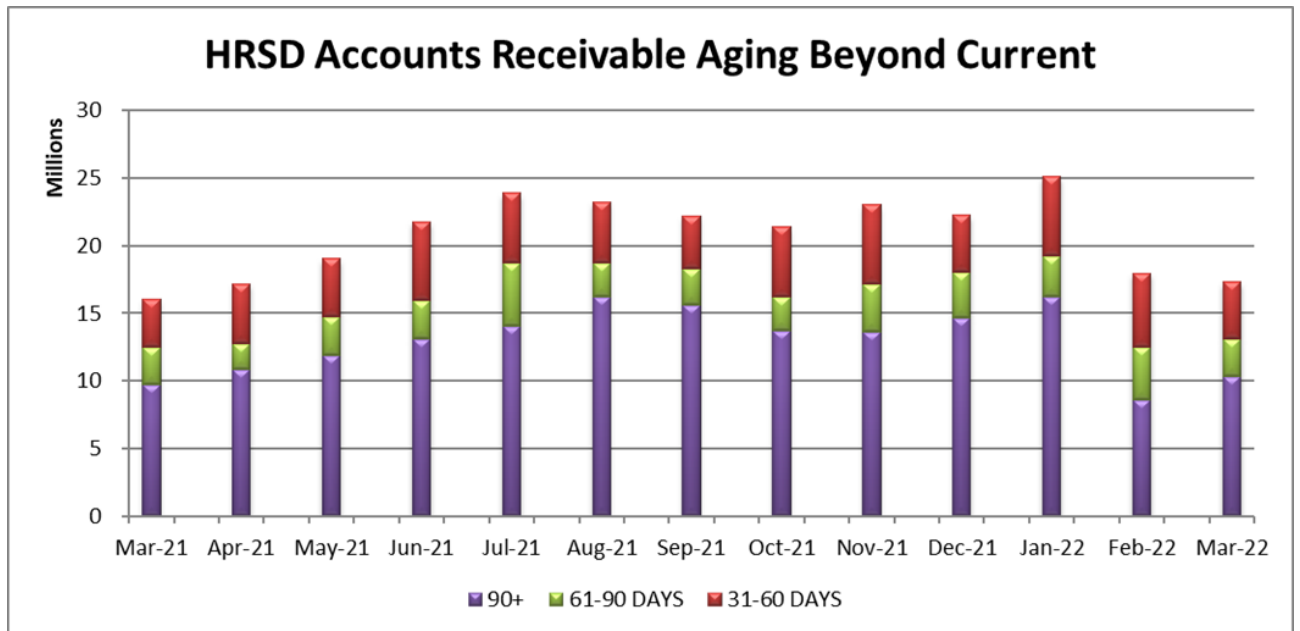
7. Summary of Billed Consumption

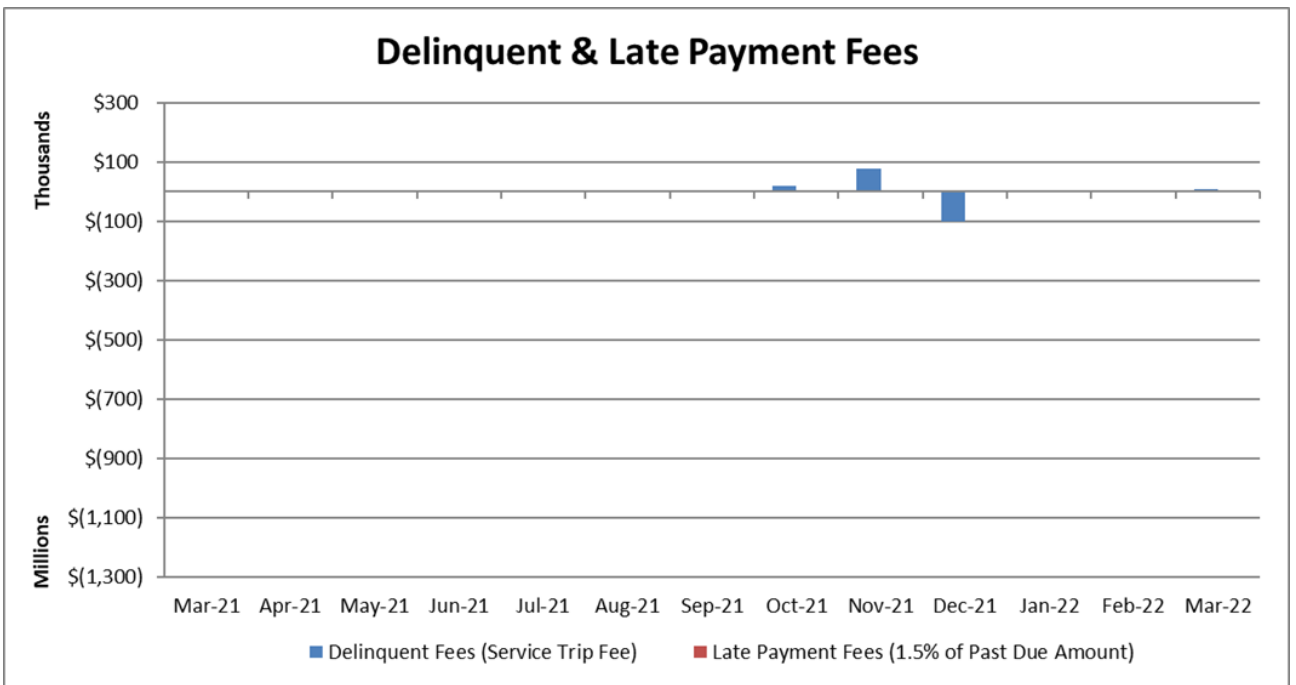


Summary of Billed Consumption (,000s ccf)							
Month	FY2022 Cumulative Budget Estimate	FY2022 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2021 Actual	From FY2021	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,976	-0.8%	4,751	4.7%	5,006	-0.6%
Aug	9,883	9,517	-3.7%	9,459	0.6%	9,866	-3.5%
Sept	14,413	14,346	-0.5%	14,335	0.1%	14,303	0.3%
Oct	18,892	19,048	0.8%	18,863	1.0%	18,931	0.6%
Nov	23,125	22,952	-0.7%	21,192	8.3%	22,474	2.1%
Dec	27,336	27,541	0.8%	27,614	-0.3%	27,458	0.3%
Jan	32,088	31,865	-0.7%	32,478	-1.9%	32,116	-0.8%
Feb	36,182	36,187	0.0%	36,068	0.3%	36,110	0.2%
March	39,309	40,229	2.3%	41,018	-1.9%	40,340	-0.3%
Apr	43,360	-	N/A	45,116	N/A	44,540	N/A
May	47,508	-	N/A	49,256	N/A	48,716	N/A
June	51,620	-	N/A	54,195	N/A	53,202	N/A

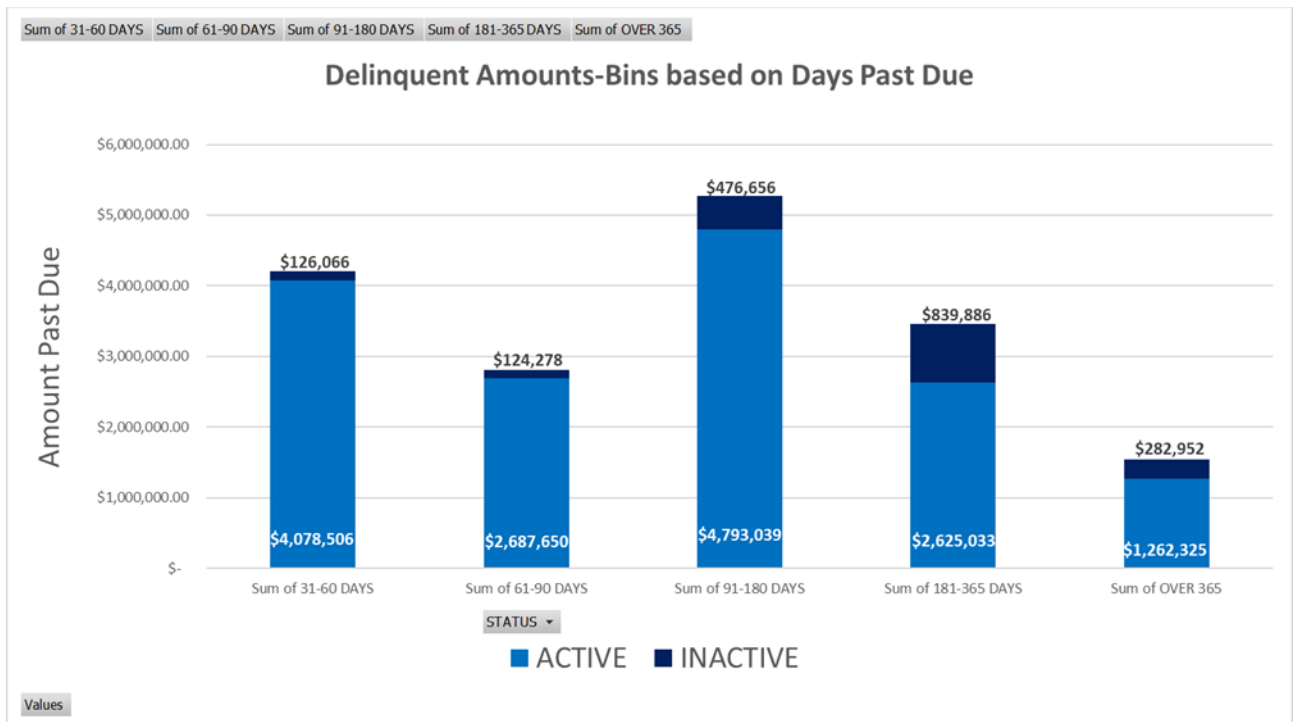
C. Customer Care Center

1. Accounts Receivable Overview

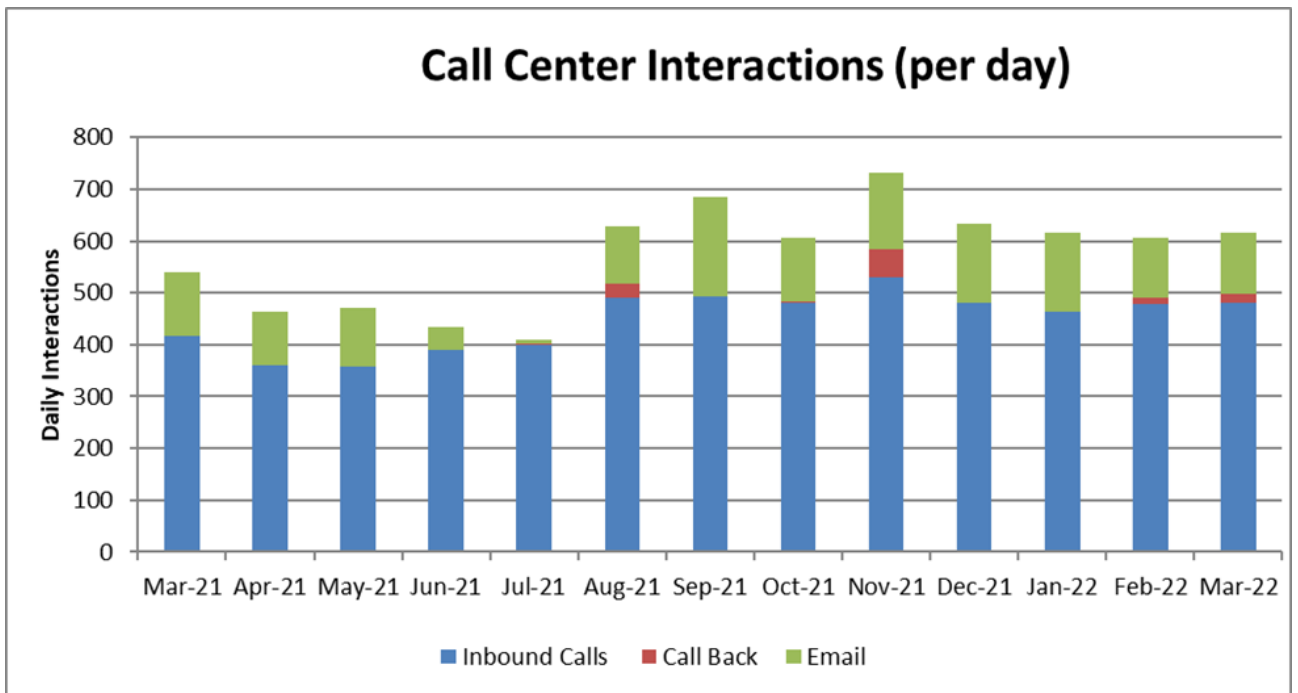
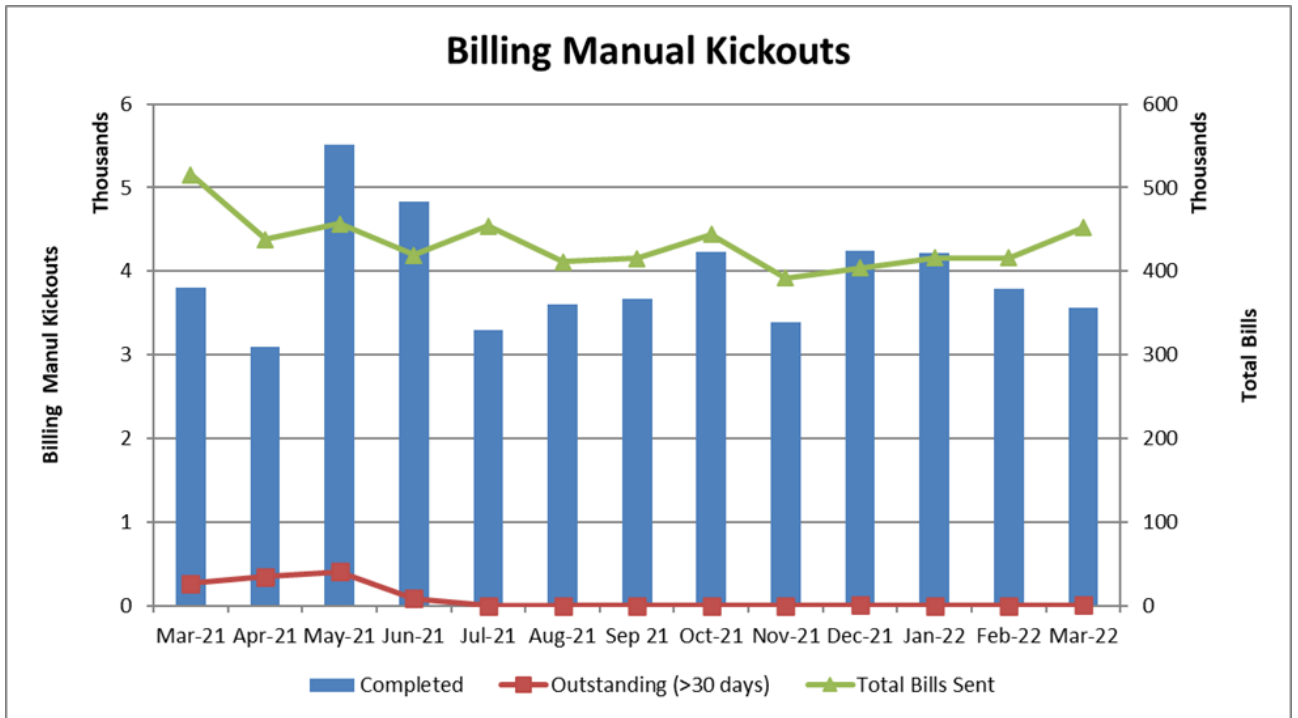


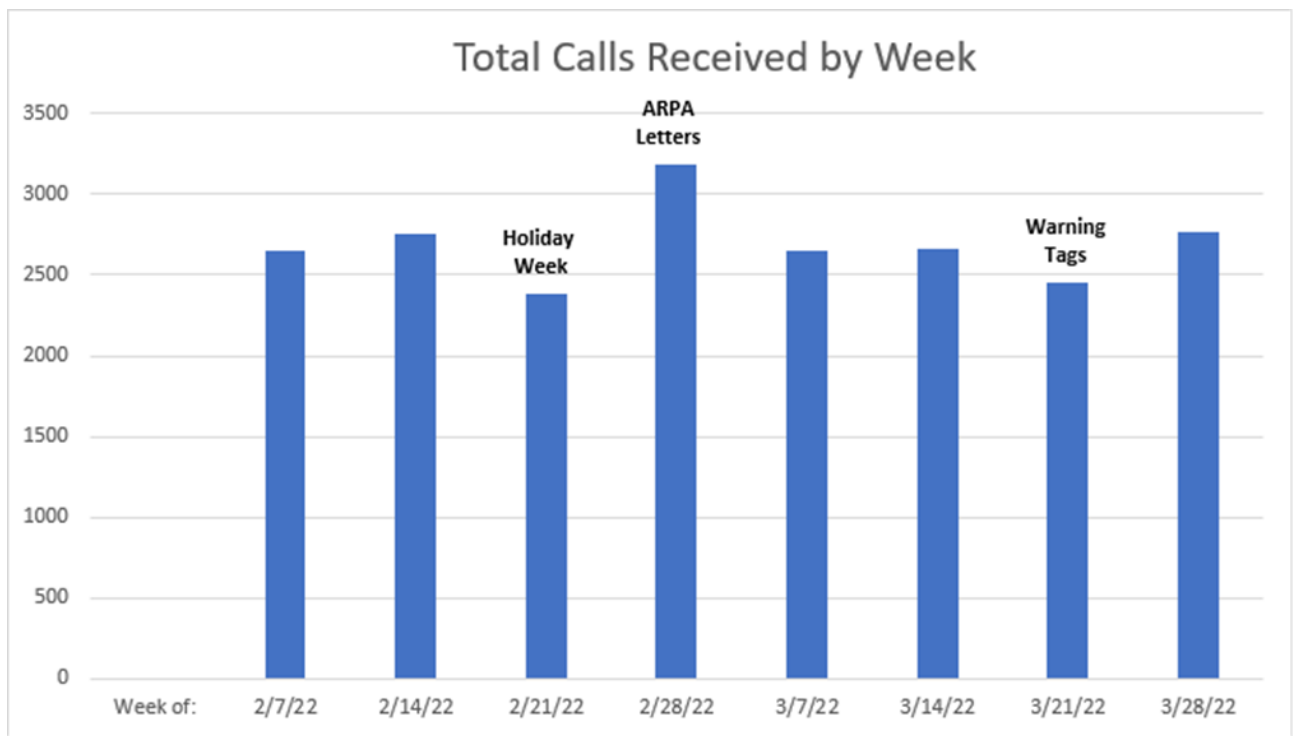


Apr 20-Feb 22 Field Activity was suspended late March 2020 in response to COVID-19.



2. Customer Care Center Statistics





Customer Interaction Statistics	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Calls Answered within 3 minutes	96%	65%	91%	93%	50%	67%	84%	88%	86%
Average Wait Time (seconds)	30	433	57	38	379	193	89	75	81
Calls Abandoned	4%	23%	6%	4%	22%	15%	9%	6%	7%

D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	0	
September	1	Caught by card holder
October	0	
November	1	
December	8	Caught by card holder
January	5	3 caught by the bank, 2 caught by card holder
February	1	Caught by card holder
March	2	Caught by the bank
Total	18	

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
03/21/2022-04/23/2022 - VAGP Spring Conference
2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2022
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	2.14
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	19.51
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	103%
	General Reserves	Percentage of Operating Budget less Depreciation	107%
	Liquidity	Days Cash on Hand	398 Days
	Accounts Receivable (HRSD)	Dollars	\$33,156,194
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	31%

Respectfully,
Jay A. Bernas
 Jay A. Bernas, P.E.
 Director of Finance

TO: General Manager
FROM: Director of Information Technology
SUBJECT: Information Technology Department Report for March 2022
DATE: April 11, 2022

A. General

1. Staff completed their review of the mid-tier computing replacement proposals and will be preparing a requisition for procurement. These high-density computing platforms will consolidate existing application and database servers which are nearing end of support.
2. The IT Help Desk processed 391 work orders in March, ensuring availability of computing resources to those working locally and remotely.
3. Proposals for the upgrade of existing audio-visual equipment are under review. Much of the equipment has been in service since construction of the Air Rail and North Shore Operations buildings. Components which are obsolete or no longer supported by their manufacturers will be replaced.
4. The Enterprise Resource Planning (ERP) upgrade project is on schedule and will go-live next month.
5. Staff continue to work on several technology refresh initiatives involving the retirement of software and hardware nearing end of support, while deploying the updated versions and replacements, concurrently.

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	March 2022
M-1.4a	Training During Work Hours Per Full-Time Employee (51) – Current Month	Total Training Hours / # FTE	1.33
M-1.4b	Total Training During Work Hours Per Full-Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	9.37
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 March 2022
DATE: April 13, 2022

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. Staff responded to and resolved eight system alarms this month.
- b. Staff continue to support the numerous capital projects under design and construction.

2. South Shore (SS) Interceptor Systems

- a. On March 24, the City of Chesapeake reported a displaced utility access hole cover on Kempsville Road near the intersection of Kempsville Road and Midlands Lane. Staff replaced and sealed the cover.
- b. Staff responded to and resolved 19 system alarms this month.
- c. On March 15, staff operated system valves to assist the City of Chesapeake with a force main failure near the intersection of Hillwell Road and Mt. Pleasant Road.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

On March 10, the Navy released approximately 1,500 gallons of aqueous film-forming foam (AFFF) into the sanitary sewer system. As a result, excessive foam accumulated in the process tanks. Staff across HRSD worked together to minimize disruptions to the biological treatment process. Staff applied defoamer and sprayed non-potable water (NPW) over the foam to keep it in the tanks. Despite these efforts, foam overflowed the tanks. The foam was contained and did not reach the receiving waters. Approximately three gallons of foam soaked into the ground.

2. Atlantic Treatment Plant (ATP)

- a. On March 5, staff were notified that a strong odor was coming from the plant. Plant staff determined the odors were coming from the solids holding tanks. The odor control system that currently handles this area is scheduled to be replaced in a future CIP.
- b. Staff planned to perform the annual Thermal Hydrolysis Plant (THP) maintenance effort in December 2022. However, the system developed blockages and was unable to maintain adequate pressures for proper operation of the process. As result, staff performed the THP annual turn around and

inspection during the week of March 14. During the shutdown reactor fill, and blowdown valves were pulled, inspected, and rebuilt; pressure relief valves were replaced; steam lances for the reactors were pulled cleaned and inspected; pulper lances were replaced, and Cooling Heat Exchanger pipes were flushed. While the THP was offline, solids were sent to treatment plants with incinerators and to a private composting contractor.

- c. Contractors began hauling biosolids away from the ATP for land application.
- d. Staff finished repairing primary clarifier #4. This was the last of the primaries that required significant repairs due to the increased Fats, Oils, and Grease (FOG) loadings that were received at the plant's headworks while the Williamsburg Treatment Plant (WTP) FOG facility remained offline.

3. Boat Harbor Treatment Plant (BHTP)

Staff met all permit requirements despite challenges from a buildup of yeast in the activated solids system. Staff noticed the buildup of yeast in the dewatering centrate in early February, which worsened in March. The yeast caused issues in dewatering and resulted in significant Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) on the final effluent. Due to permit concerns, plant staff started additional chemicals (sodium hydroxide and hypochlorite, and aluminum sulfate) to aid in eliminating the yeast problem. In mid-March, staff from the Water Quality (WQ) Department sampled various utility access holes within the BH service area and determined that a dairy processing plant may have been the source of the problem. The industry will now conduct routine hypochlorite treatments to prevent future discharges of high yeast concentrations to the plant.

4. James River Treatment Plant (JRTP)

- a. Staff completed modifications to the gravity thickener recycle water piping.
- b. A contractor removed scum from the water surface of primary clarifier #4.
- c. Well drilling for the Sustainable Water Initiative For Tomorrow (SWIFT) Project continued with most efforts focused on the well closest to the future SWIFT location. Clearing of trees and an earth berm for the well across from the solids holding tank is complete. After removal of the berm, a neighbor complained about seeing above ground tank structures and plant lights. Staff are attempting to minimize light coming from the plant.

5. Nansemond Treatment Plant (NTP)

- a. Staff and contractors excavated sections of the sodium hydroxide line and tested each section for leaks. Once the faulty section was found, the line was repaired and returned to service.
- b. Plant staff diverted flow from the final effluent flow meter Parshall flume to the chlorine contact tanks on March 29, in order to have a contractor install a new bisulfite line. The diversion lasted about 30 minutes. The new line was placed in

service on March 30. The old line will be removed to help decrease turbulence in the Parshall flume.

- c. Sustainable Water Initiative For Tomorrow (SWIFT) Research Center (RC)
 - (1) The total volume of SWIFT Water™ recharge into the Potomac aquifer for the month of March was 12.77 million gallons (MG).
 - (2) On March 14, the SWIFT RC was offline to allow Dominion Power to relocate line feeding power to the RC. Once power was restored, staff restarted the influent pumps and floc-sed process. Flow was “off-spec” to allow for chemical stabilization. However, the drain pump station pumps were not in operation at the time, resulting in an overflow of approximately 200 gallons of floc-sed effluent that soaked into the ground and was not recoverable.
 - (3) On March 20, staff discovered that a valve and hose connection on a caustic tote outside of SWIFT RC was slowly leaking. Most of the material (237 gallons) was caught in a containment area. The remaining 38 gallons were not recovered.
 - (4) Staff installed an upgraded inline mixer located upstream of biofilters one and three.
 - (5) One of the two granular activated carbon (GAC) pumps failed due to a seal failure. A contractor is currently rebuilding and recoating this pump.
 - (6) One of the two influent pumps failed when a mechanical seal failed and is being rebuilt and recoated by a contractor.

6. Virginia Initiative Plant (VIP)

There was a large amount of grease present in the plant influent on March 12 and 23. Staff worked overtime to keep the grease moving through the band screens and compactors. Approximately 30 cubic yards of compacted grease was removed from the influent screening equipment during these events.

7. Williamsburg Treatment Plant (WBTP)

- a. Staff reinstalled solids draft tubes on #2 secondary clarifier. The draft tubes were removed to properly coat the rake arm.
- b. Polymer usage continues to be lower on the new dry activation polymer system for dewatering. For the past two months usage has decreased by 60 percent.
- c. Repairs to the Fats, Oil and Grease (FOG) System are complete and the system is back in service. The new coating on the FOG water tank rake arm is blistering and will need to be replaced at some point in the future. Steel test strips with different coatings will be mounted in the tank to help find an alternative coating product that can standup to the FOG being delivered.

8. York River Treatment Plant (YRTP)

Staff replaced the bottom flights and chain on the #2 dissolved air floatation thickener. Rubber scrapers on the top flights were also replaced.

9. Incinerator Operations Events Summary

- a. Total Hydrocarbon (THC) monthly averages (not to exceed 100 parts per million) were met by all four treatment plants with incinerators with a THC continuous emissions monitoring (CEM) valid data captured of greater than 98 percent.
- b. There were no deviations from the required 129 SSI rule minimum operating parameters and no minor bypass events (<60 minute).

C. Small Communities (SC)

1. Middle Peninsula – King William Treatment Plant and Collections (KWTP)

A clean-in-place was completed on process train 2 this month. Contractors began installation of the new open channel Ultraviolet (UV) system. Staff also began installation of a new screen unit in the headworks.

Total flow for the month of March was 2.042 MG of which 1.877 MG was pumped to Nestle-Purina as reuse/reclaimed water and 0.165 MG was effluent flow to the outfall.

2. Surry Systems

Heavy rainfall inundated the area during two storm events, creating overflows at the Dendron Pumpstation (PS) on Railroad Avenue in Dendron. Staff from the Sussex Service Authority (SSA) checked the station during each event and found both pumps operating properly. On March 12, 1.53 inches of rain was recorded, and 955 gallons were spilled onto Ground/Cypress Swamp. On March 24, 1.61 inches of rain fell causing an overflow of 5,980 gallons onto Ground/Cypress Swamp

Following the March 24 rain event, a leak developed along the horizontal seam on the influent equalization tank at the Surry County Plant. The tank developed a crack near a bolted seam approximately four feet above grade. The plant was inundated with high flows and as the tank level increased, two more small leaks were located along the same tank seam. SSA installed a sump pit and pumped accumulated water from around the influent equalization tank back into the tank. The release ceased on March 25 when water levels were below the leaking seam. The seam was welded and repaired. Approximately 30,622 gallons of partially treated wastewater were released with 20,425 gallons recovered. The remaining 10,197 gallons drained to Dark Swamp.

3. Eastern Shore

a. Onancock Treatment Plant (ONTP)

- (1) Although, staff has been optimizing the use of potable water to control foam, the use of potable water is expensive. A non-potable water system is planned and will drastically cut potable water consumption.

- (2) Staff spent considerable time organizing plant equipment and addressed several safety concerns.
- (3) Staff responded to several service calls for residential lateral repairs.

D. Support Systems

Staff continues to make repairs to the Army Base Treatment Plant (ABTP) incinerator building elevator. Staff completed 21 projects including one total pump rebuild for North Shore (NS) Interceptors. One notable project included fabricating a stainless-steel cone for the suction pipe at a Pump Station (PS) to divert sand pile ups. Another special project was the construction of a custom bulkhead for the Virginia Initiative Plant (VIP) pilot program that is not manufactured. Staff were able to complete a design and fabricate the bulkhead out of round Polyvinyl Chloride (PVC) stock.

E. Electrical & Instrumentation (E&I)

1. Staff deployed the Mobile Phosphate Analyzer at Route 337 Pressure Reducing Station (PRS). This analyzer draws a sample from the PRS piping to capture short duration phosphate spikes that may be caused by a discharger and can adversely affect the treatment process at Nansemond Treatment Plant (NTP). The mobile phosphate analyzer is part of a multi-department effort to find the discharger and provide an early detection warning so chemical phosphate treatment can be added to the plant's influent.
2. Staff worked to address multiple safety issues documented in February's safety inspection report at Onancock Treatment Plant (ONTP). Staff installed exterior and interior lighting in the administration building, mechanical building, and shop area. Additionally, staff installed missing weatherproof receptacle covers, replaced missing panel screws, and sealed open junction boxes with exposed wires. This is a work in progress and much more work is required to address all the items contained within the report.

F. Energy Management

1. Recent installations of oxidation catalysts on generators in four treatment plants (TP's) allow us to run the generators in those TPs to support the operation of the electrical grid when it is operating at abnormally high-power levels. This activity is called Demand Response (DR). When the Regional Transmission Operator (RTO) requests a DR event, they pay participants to get off the electric grid for a specific amount of time. Running our generators for the RTO in 2021 paid us nearly \$50,000.
2. The solar array for the North Shore (NS) Operations (OPS) building is performing as expected. The array produced over 26,000 kilowatt hours (kWh) this month, which provided 86% of the building load over the last three weeks. The solar array produced enough power to provide for 29 average homes.

G. Water Technology and Research

HRSD's development and demonstration of polishing partial denitrification-anammox (PdNA) has been quite promising, and this technology is operating in the full-scale York River Treatment Plant (YRTP) denitrification filters. In March, the first demonstration tank for PdNA

in a moving media integrated fixed film activated sludge (MIFAS) configuration was placed in service at the James River Treatment Plant (JRTP). After a few weeks of biofilm carrier wetting, methanol addition will begin in April. Based on pilot testing results, we expect to observe evidence of anammox establishment on the biofilm carriers within three to four months and then continued increases in anammox activity over the subsequent year.

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)	2	3	3	4	2	4	4	4	4			
2.7	# of PS Annual PMs Performed (SS)	6	6	4	5	2	4	2	10	4			
2.7	# of Backup Generator PMs Performed (Target is 4.6)	10	13	8	10	8	13	12	12	10			
2.8	# of FM Air Release Valve PMs Performed (NS)	72	89	184	210	166	251	149	41	185			
2.8	# of FM Air Release Valve PMs Performed (SS)	124	165	193	269	167	205	211	166	381			
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	5,209	0	9,963	8,696	3,829	3,161	4,047	4,403	1,801			
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	3,531	7,717	10,276	5,272	0	0	745	2,693			
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	0	11,796	0	11,796	24,175	33,133	10,570	10,570			

I. Strategic Measurement Data

1. Education and Outreach Events: 9

- a. 03/06/2022 – Podium Presentation, Multi-point Ozone Dissolution for Bromate Control & Trace Contaminant Oxidation, WaterReuse Association Annual Conference – Mack Pearce
- b. 03/06/2022 – Podium Presentation, Enhancing 1,4-Dioxane Removal with Co-Metabolic Biofiltration for Potable Reuse, WaterReuse Association Annual Conference – Hannah Stohr
- c. 03/06/2022 – Panel Participant at the WaterReuse Symposium – Germano Salazar-Benites
- d. 03/25/2022 – Career Day at St. Helena Elementary School in Norfolk, VA – Kevin Ketchum
- e. 03/28/2022 – Invited Panel Presentation, on Technology Development International Water Association, Leading Edge Technology Conference – Charles Bott
- f. 03/28/2022 – Workshop Participant at the IWA LET Conference – German Salazar-Benites
- g. 03/30/2022 – Poster presentation and brief podium, SWIFT's successful operation of an ozone-biofiltration potable reuse scheme, International Water Association, Leading Edge Technology Conference – Mack Pearce, Samantha Hogard, Savannah Moretz
- h. 03/30/2022 – Poster presentation and brief podium, Enhancing 1,4-dioxane removal through co-metabolic biofiltration in advanced water treatment systems for potable reuse, International Water Reuse Association, Leading Edge Technology conference – Hannah Stohr
- i. 03/30/2022 – Poster presentation and brief podium, Mainstream anammox in action! Implementation of full-scale Partial Denitrification-Anammox (PdNA), International Water Association, Leading Edge Technology Conference – Stephanie Klaus

2. Community Partners: 3

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

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2022
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (538) – Current Month	Hours / FTE	2.84
M-1.4b	Total Training During Work Hours per FTE (538) – Cumulative Year-to-Date	Hours / FTE	25.12
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	32,604.18
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	59.19%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	12.58%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	28.23%
M- 4.1a	Energy Use: Treatment *Reported for March 2022	kWh/MG	2,866
M-4.1b	Energy Use: Pump Stations *Reported for March 2022	kWh/MG	329
M-4.1c	Energy Use: Office Building *Reported for March 2022	kWh/MG	112
M-5.2	Educational and Outreach Events	Number	9
M-5.3	Number of Community Partners	Number	3

Respectfully submitted,
Steve de Mik
 Director of Operations

TO: General Manager
 FROM: Director of Talent Management (TM)
 SUBJECT: Monthly Report for March 2022
 DATE: April 13, 2022

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	14
Job Offers Accepted – Internal Selections	5
Job Offers Accepted – External Selections	6
Internal Applications	43
External Applications	131
Average Days to Fill Position	125

3. The following activities were performed in response to the COVID-19 pandemic:

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

Description	February 2022	Total (March 2020 – March 2022)
Quarantines due to illness or direct exposure (household or external)	1	423
Work Related Quarantines	0	59
Personal Travel Quarantines	0	59
Confirmed Employee COVID-19 Cases	2	197
Work Related Confirmed COVID-19 Cases	0	6
Contractor COVID-19 Cases on HRSD Sites*	0	12
Vaccine Acknowledgements	13	849
Booster Acknowledgements	12	356

- b. The Human Resources (HR) Business Analyst continued generating reports for Data Analysts to track and update transmission rates across the region. HRSD's current vaccination rate is 98% and 43% of employees have received the booster.
- c. Staff continued addressing multiple Vaccination Policy religious and medical exception requests.

4. Human Resources continued work with the consultant on system changes to benefit interfaces and benefit plan changes.

5. Compensation and Benefits

- a. The Compensation and Classification (C&C) team evaluated positions based on Department requests.
- b. Worked with the benefits consultant on the 2022/2023 medical, vision and dental plan renewals including changes and cost projections.

6. Wellness Program

a. Participation

Year Nine Participation Activities	Unit	March 2022	Year to Date (March 2022–February 2023)
Biometric Screenings	Number	50	50
Preventive Health Exams	Number	44	44
Preventive Health Assessments	Number	16	16
Online Health Improvement Programs	Number	6	6
Web-MD Online Health Tracking	Number	67	67
New Challenges “ <i>Team to Team</i> ”	Number	30	30
Fit-Bit Promotion	Number	9	9

- b. The Wellness Specialists worked with Optima Health to determine who earned the lower health insurance deductible, outcomes and COVID vaccination incentives from the wellness year that ended February 2022.
- c. Incentive level and appeal forms were mailed to employee and spouses who earned the lower deductible. Appeal forms are due to Optima Health or the Wellness Specialists by April 15, 2022.
- d. SharePoint was updated with Year 10 wellness requirements and forms.
- e. The W M Jordan Team to Team Weight Loss Challenge ended with 30 HRSD participants losing 3.63% weight from their starting total weight for a total of 214.03 pounds in two months. HRSD came in 3rd out of the eight teams that participated.
- f. Wellness worked with Optima Employee Assistance Program (EAP) on stress management and burn out material for the wellness SharePoint page.

7. Worked with Organizational Development consultant Hicks Carter Hicks (HCH) on the following:
 - a. Worked with the HRSD sponsor on several Diversity, Equity and Inclusion (DE&I) strategies.
 - b. Worked on the Leadership Ethical Accountability Program (LEAP) supervisor training program. The program began on March 8.
 - c. Continued working on the Leadership and Management Academy (LAMA) Cohort 2 program beginning April 22.
 - 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
8. Coordinated a cross-sectional team to advance the functionality of Canvas.
9. Apprenticeship Program
 - a. The *Youth Summer Intensive (YSI) Program* is a new internship opportunity that will place six youth interns at two treatment plant work centers. Organizational Development & Training (ODT) Staff are currently working with apprenticeship instructors and work center staff to develop and prepare for the summer internship.
 - b. Work continued on the following:
 - (1) Apprenticeship Mentoring Program
 - (2) Request for Proposals for a Student Information System and Attendance and Assessment applications
 - (3) Developing Standard Operating Procedures for ODT responsibilities
 - (4) Trade curricula revisions and course development to update and enhance course offerings

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

	<u>2021</u>	<u>2022</u>
Mishaps	33	8
Lost Time Mishaps	12	3
<i>Numbers subject to change pending HR review of each case.</i>		

11. Safety Manager interviews were conducted with four candidates. An internal selection was made. Stephanie Laughinghouse, Industrial Hygienist was promoted to Safety Manager effective March 26, 2022.

12. Safety Division Monthly Activities

Safety Training Classes	26
Work Center Safety Inspections	10
Reported Accident Investigations	1
Construction Site Safety Evaluations	6
Contractor Safety Briefings	5
Hot Work Permits Issued	0
Confined Space Permits Issued/Reviewed	318
Industrial Hygiene Monitoring Events	2

13. Staff participated in the following external activities:

- a. Virginia Water Environment Association (VWEA) Diversity, Equity, and Inclusion Committee
- b. VWEA DE&I Water Jam Subcommittee Meeting

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (0)
2. Community Partners: (0)
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2022
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.42
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.65%
M-1.4a	Total Training Hours Per Full Time Employee (17)	Total Training Hours/ FTE	1
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	18.29
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	0

Respectfully submitted,
Dorissa Pitts-Paige
 Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for March 2022
DATE: April 13, 2022

A. General

1. The Virginia Environmental Laboratory Accreditation Program report was received from The Division of Consolidated Laboratory Services (DCLS) for the biennial assessment of the Central Environmental Laboratory (CEL) and Whole Effluent Toxicity Testing. CEL and Technical Services Division (TSD) staff completed and submitted a Corrective Action Plan in response to findings, primarily related to documentation. DCLS provided notification that the assessment is closed, and that all corrective actions outlined in the plan are considered acceptable and complete.
2. The Pretreatment and Pollution Division (P3) submitted revised Industrial Wastewater Discharge Regulations and Enforcement Response Plan to the Department of Environmental Quality (DEQ) for review and approval. DEQ approved both documents and determined the changes were non-substantial, therefore waiving the thirty-day public comment requirement. The regulations will become effective July 1, 2022.
3. TSD submitted comments to DEQ on Virginia's Triennial Review of Water Quality Standards. Comments most relevant to HRSD pertain to a proposed elimination of a method for calculating freshwater copper criteria which includes an optional approach for site-specific adjustments based in local water chemistry known as a Water Effect Ratio (WER). DEQ's proposal will only permit use of the Biotic Ligand Model (BLM) for site specific criteria derivation, a significantly more limited approach to evaluating complex site-specific chemistry, which is likely to produce more conservative criteria than are necessary for aquatic life protection. HRSD has four Small Communities facilities that currently discharge to freshwater streams. Though the change is not envisioned to create a challenge for HRSD facilities regarding copper, there is a concern with the precedent of eliminating the more empirical WER option in favor of a model and its potential application to other criteria.
4. P3 addressed the following system issues:
 - a. Army Base Treatment Plant (ABTP): On the morning of March 9, 2022, Naval Station Norfolk staff contacted P3 to report an estimated spill of 1,500 gallons of dilute Aqueous Film Forming Foam (AFFF) to the sanitary sewer. HRSD staff responded by modifying Taussig Blvd Pump Station (PS) operations to maintain a high wet well level to mitigate the impact on ABTP. The Navy hired a spill contractor to pump foam from the sanitary sewer and to add a defoaming agent to further reduce the impact. ABTP staff were notified and instructed to prepare for AFFF entering the plant and by mid-afternoon on March 9th, foaming began in the aeration tanks. ABTP staff made operational changes and began spraying the foam with non-potable water and a defoaming agent. Work continued through the weekend, including a 24-hour response by Navy spill contractors. Normal

wastewater conveyance and treatment resumed on March 14. HRSD completed a Wastewater Treatment Regulatory Reporting Form, reporting a three-gallon foam spill onto the ground. No treatment permit limitations were exceeded.

- b. Boat Harbor Treatment Plant (BHTP): P3 initiated source tracking efforts at the end of February and throughout March 2022 due to settling issues attributed to the presence of yeast in the influent. Process and pump station samples were collected and analyzed for yeast with the highest concentrations found in hauled waste from grease control devices and in Marva Maid Dairy's equalization (EQ) tank. Further evaluation revealed that a grease load skimmed from the Marva Maid Dairy EQ tank entered the plant headworks on February 21. BHTP discontinued acceptance of hauled waste grease loads and P3 began working with Marva Maid to eliminate yeast in the EQ tank to recover operations. Sodium hypochlorite was identified as an effective disinfectant. The CEL performed benchtop testing to determine appropriate dosing and P3 conducted field testing to evaluate the effect on the EQ tank pH. Results were shared with Marva Maid for development of a plan to dose the EQ tank with sodium hypochlorite starting in April. The expectation is that elimination of yeast in the EQ tank coupled with discontinuation of grease loads will allow full recovery of BHTP operations.

5. Advocacy and external activities:

- a. Environmental Scientist, Dr. Raul Gonzalez was appointed to the National Academies of Science, Engineering and Medicine Committee on Community Based Wastewater Disease Surveillance.
- b. Virtually participated in the United States Geological Survey Subsidence/National and Level Map Stakeholder meeting and submitted responses to questions.
- c. Attended the Environment Virginia Symposium.
- d. Virtually attended the Potomac Aquifer Recharge Oversight Committee meeting.
- e. Attended the quarterly Virginia Association of Municipal Wastewater Agencies (VAMWA) meeting.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group performed the following:
 - a. Completed the second phase of tree plantings at the Atlantic Treatment Plant (ATP) including planting nearly 500 Loblolly Pines, installing stakes for the trees planted in Fall 2021, spreading mulch, and performing a litter pickup along Firefall Drive.
 - b. Coordinated and announced four cleanup events during March and April to participate in the *Great American Cleanup* and *Earth Day*. The first event was completed on March 26 on the Shoreline adjacent to Nansemond Treatment Plant (NTP).

- c. Distributed the SEA Team's *Sustainable Spotlight*. In addition to highlighting the tree planting and announcing cleanup events, March's Spotlight:
 - (1) Raised awareness about light pollution and energy consumption by promoting *Earth Hour* on March 26.
 - (2) Promoted Eco-Friendly businesses that provide sustainable alternatives and/or dedicate a portion of their profits towards sustainable initiatives.

C. Municipal Assistance Program (MAP)

1. HRSD provided sampling and analytical services to Hanover County, Frederick County, Northumberland County, Westmoreland County, and the Town of Lawrenceville to support monitoring required for their respective VPDES permits.
2. [MAP Billed Reimbursements](#) for service provided from January 1 to March 31, 2022.
3. [MAP Invoice Summary](#) for the first quarter 2022 calendar year.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 6
 - a. 03/08/2022 - presented *HRSD's COVID-19 Surveillance Program* as part of Virginia Institute of Marine Science (VIMS) Spring seminar series.
 - b. 03/09/2022 - presented HRSD research regarding wastewater treatment impacts on microplastics to William and Mary undergraduate class, *Plastics in Society and the Environment: Problems and Solutions*.
 - c. 03/11/2022 and 03/14/2022 - provided James River TP tours to Christopher Newport University (CNU) microbiology students, focused on Biological Nutrient Removal and wastewater treatment.
 - d. 03/14/18/2022: five WQ staff judged the virtual Tidewater Science and Engineering Fair
 - e. 03/29/2022 - attended and provided SWIFT outreach materials at the Suffolk Literary Club's 125th Anniversary Event, *An Evening with Author Earl Swift*.
 - f. 03/30/2022 – provided two presentations at the Environment Virginia Symposium: *Present and Future Spill Response* and co-presented *A Joint Public Health and SARS-CoV-2 Surveillance Research and Inventory Project* with the City of Chesapeake and the Chesapeake Health District.
2. Community Partners: 6
 - a. The City of Chesapeake, Chesapeake Local Health District and the Virginia Department of Health - Local COVID-19 wastewater surveillance
 - b. William and Mary

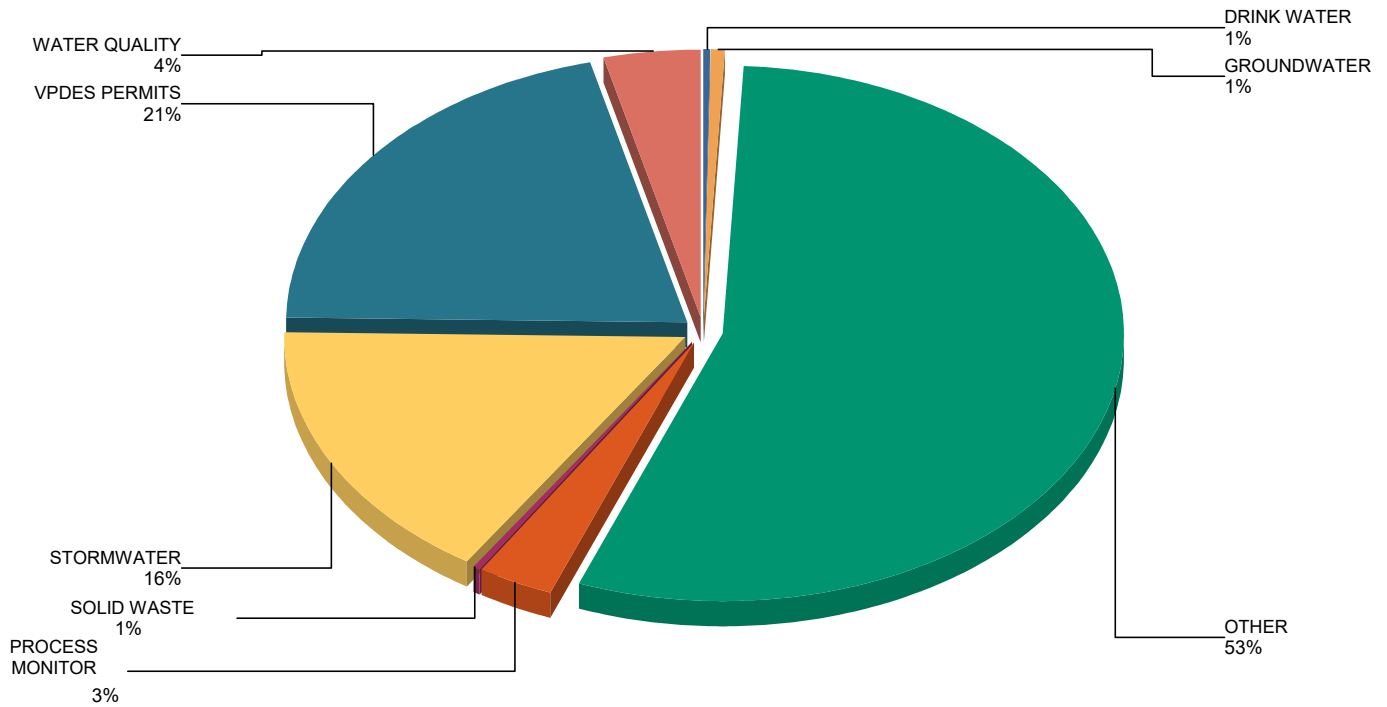
- c. Christopher Newport University
 - d. Tidewater Science Congress
 - e. Lynnhaven River Now -water quality trend analysis of citizen monitoring data
 - f. Hampton Roads Planning District Commission - Fats, Oils & Grease subcommittee
3. Odor Complaints are provided in the [Effluent and Air Emissions Summary](#).
4. Monthly Metrics:

Item #	Strategic Planning Measure	Unit	March 2022
M-1.4a	Training During Work Hours Per Full Time Employee (119) (Current Month)	Total Hours / # FTE	6.43
M-1.4b	Total Training During Work Hours Per Full Time Employee (119) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	43.12
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	6:45,649
M-3.2	Odor Complaints	#	2
M-3.4	Pollutant Removal (Cumulative Fiscal Year-to-Date)	Total Pounds Removed	135,508,338
M-3.5	Pollutant Discharge (Cumulative Fiscal Year-to-Date)	% Pounds Discharged/ Pounds Permitted	15%
M-5.2	Educational and Outreach Events	#	6
M-5.3	Community Partners	#	6
	Average Daily Flow	Total MGD for all Treatment Plants	146.85
	Pretreatment Related System Issues	#	2

Respectfully submitted,
Paula A Hogg
 Director of Water Quality

Municipal Assistance Billed Reimbursements per Service From 01/01/2022 to 03/31/2022

Attachment 1



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

Municipal Assistance Invoice Summary

From 01/01/2022 - 03/31/2022

Municipality	Reimbursements
Accomack County	\$1,300.92
Buckingham County	\$850.25
Chesapeake Public Works	\$2,531.07
City of Chesapeake	\$2,329.28
City of Emporia	\$248.44
City of Franklin	\$1,546.65
City of Fredericksburg	\$12,533.72
City of Hampton	\$2,177.52
City of Norfolk	\$3,667.80
City of Portsmouth	\$3,797.91
City of Suffolk	\$5,525.68
City of Virginia Beach	\$5,421.95
City of Winchester	\$968.91
Exmore WWTP	\$1,441.18
HRPDC	\$41,673.68
METRO WATER RECOVERY	\$66.45
New Kent County	\$11,163.05
Northampton County WWTP	\$1,784.19
Northumberland Co. - Callao WWTP	\$3,486.52
South Central Wastewater Authority	\$7,783.89
Spotsylvania County	\$1,560.16
St Brides Corr Ctr COVID	\$64,600.00
St Brides Corr Ctr WWTP	\$3,548.50
Stafford County	\$93.60
Town of Cape Charles	\$10,467.37
Town of Lawrenceville	\$1,312.26
Town of South Hill	\$485.96
Upper Occoquan Service Authority	\$1,371.84
Virginia Department of Health	\$65,259.48
Western VA Water Authority	\$169.14
Westmoreland County	\$1,915.70
Totals:	<u>\$261,083.07</u>

EFFLUENT SUMMARY FOR MARCH 2022

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	CONTACT TANK EX
ARMY BASE	9.12	51%	3	3.0	1	3	0.19	0.29	3.4	3.7	8
ATLANTIC	42.81	79%	11	9.1	2	1	NA	NA	NA	NA	11
BOAT HARBOR	13.31	53%	12	15	1	1	0.41	0.46	23	21	11
CENT. MIDDLESEX	0.006	25%	<2	8.3	<1	<1	NA	NA	NA	NA	NA
JAMES RIVER	14.65	73%	8	11	5	1	1.4	0.99	9.2	9.0	4
KING WILLIAM	0.066	66%	<2	<1.0	NA	1	<0.05	0.29	2.4	3.2	NA
NANSEMOND	16.16	54%	3	3.7	1	<1	0.38	0.50	3.3	4.0	0
NASSAWADOX	0.022	22%	2	9.4	1	1	1.0	0.57	18	17	NA
ONANCOCK	0.208	28%	<2	<1.0	1	2	0.13	0.23	0.25	1.0	NA
SURRY, COUNTY	0.057	88%	6	1.0	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.057	95%	7	5.1	NA	2	NA	NA	NA	NA	NA
URBANNA	0.038	38%	5	12	6	7	0.58	0.74	6.1	14	NA
VIP	27.83	70%	6	3.3	1	<1	0.22	0.22	2.6	3.1	5
WEST POINT	0.429	72%	25	7.5	1	2	3.1	2.9	19	18	0
WILLIAMSBURG	8.41	37%	5	4.5	3	2	0.51	0.63	3.2	3.5	8
YORK RIVER	13.66	91%	0	0.057	<1	1	0.41	0.33	4.3	4.7	0
	<u>146.84</u>										

	% of Capacity
North Shore	61%
South Shore	58%
Small Communities*	48%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection	CY22	YTD	Projection	CY22
	%	Lbs	%	%	Lbs	%
James River	13%	2,374,911	67%	11%	200,360	63%
York River	20%	258,568	90%	22%	16,993	88%
Rappahannock	12%	NA	NA	2%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY22 to Date: 6:45,659
Pounds of Pollutants Removed in FY22 to Date: 135,508,338
Pollutant Lbs Discharged/Permitted Discharge FY22 to Date: 15%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	5.32"	4.49"	3.81"
Normal for Month	3.89"	3.33"	3.49"
Year to Date Total	12.67"	11.58"	10.38"
Normal for YTD	10.36"	9.45"	9.82"

*Small Communities includes Eastern Shore

AIR EMISSIONS SUMMARY FOR MARCH 2022

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave (F)	12 hr ave (in. WC)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	pH 3 hr ave	Bypass Stack Use	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ARMY BASE	0	0	0	0	0	0	0	1	51	99	0
BOAT HARBOR	0	0	0	n/a	0	0	0	1	37	99	0
VIP	0	0	0	n/a	0	0	0	0	46	99	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	17	98	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:	2
HRSD Odor Scrubber H2S Exceptions:	2

Items of Interest – March 2022

MULTIPLE HEARTH INCINERATION (MHI)

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all four MHI plants (Army Base, Boat Harbor, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 98%.

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

Army Base and Boat Harbor had an MHI stack tested against Section 129 emission limits in early March. The field parameters (CO, NO_x, and SO₂) results demonstrated compliance. We are waiting for analytical results from the contract lab for the rest of the test parameters.

AIR PERMITS and ODOR CONTROL

March 1 an air permit application was submitted for Atlantic requesting to increase the flare's digester gas throughput limit. Atlantic was approaching the existing permitted digas limit from the CHP being offline, additional FOG from Williamsburg, and the addition of flow from Chesapeake Elizabeth. DEQ has already made an interpretation that this request is not a minor amendment of the Article 5 state operating permit. Based on their interpretation of "change in method of operation" the permit action now falls under Article 6 minor new source review. HRSD has submitted the additional 597 dollars for the application fee. We will also go through the 30-day public notice process with DEQ to obtain the new air permit. Permit issuance is expected 90-days once the application is deemed complete.

HRSD received two odor complaints and had two hydrogen sulfide (H₂S) plant odor wet scrubber exceptions in March.

At the end of February, a neighbor of Powhatan Avenue pump station in Norfolk mentioned the station as "increasingly odorous". This was also confirmed by an HRSD employee who lives nearby. South Shore Operations (SS Ops) responded immediately and found no odors or nothing unusual. Technical Services Division (TSD) followed up on March 3 with additional monitoring and found some slight odors that were being intermittently exhausted from the wet well during the fill cycle of the station. The wet well gooseneck and vent stack from the wet well exhaust fan were both emitting PPB level H₂S and odor. The damper on the exhaust fan was closed and will only be open during wet well entry. While a Pi2 mesh carbon adsorber was installed on the gooseneck to control this odor source. SS Ops and TSD will periodically monitor to ensure the station including the carbon adsorber continue to mitigate any odors. No further complaints have been received.

Overlord Services, LLC in Newport News contacted HRSD about odors from Morrison Street pump station on March 7. North Shore Operations (NS Ops) responded immediately observing no odors at the time of investigation. TSD followed up and found a faint sewer odor at the station but no offsite odor at that time either. Interview of nearby City of Newport News worker indicated they had also smelled a sewer odor previously. The pump station itself and possibly the ongoing construction coupled with worst case meteorological conditions has the potential to create offsite odor. To what

frequency, duration and intensity is unknown but expected to be quite low. While no additional complaints have been received, NS Ops and TSD will continue to monitor and respond as necessary.

TREATMENT

DEQ was notified of the following reportable events:

Army Base

On March 9 approximately 1500 gallons of diluted Aqueous Film Forming Foam (AFFF) entered the sanitary sewer from a US Navy facility leading to Army Base. This discharge created conditions for foam in aeration tanks/ secondary clarifiers. Dissolved oxygen concentrations were reduced and Non-Potable Water (NPW) and defoamants were used to reduce and contain the foam. Approximately 3 gallons of foam blew off the secondaries and soaked into the ground.

Nansemond

On March 14, the SWIFT Research Center went offline for Dominion Power to relocate a utility power feed. Once power was restored the influent pumps and flocculation/sedimentation processes were started. Flow was directed to off-spec to allow for chemical stabilization, and this caused the drain pump station to overflow. The drain pump station pumps were not in operation; they were found to be in manual mode, likely due to the power outage. The pumps were returned to automatic control, pumping down the water level and ceasing the overflow. Approximately 200 gallons of settled water effluent soaked into the ground and were not recoverable.

On March 20 a critical valve and critical valve hose connection on a caustic tote located outside of the SWIFT Research Center was found to be slowly leaking. The critical valve leakage was caught by the secondary containment basin, but the connection where it attached to the hose was outside the containment area. Upon discovery the critical valve on the tote and the hose connection were repaired. Approximately 275 gallons of caustic were released onto the ground/pavement, with 237 gallons recovered using a vac trailer and oil dry. The remaining 38 gallons were not recovered.

SYSTEM

There were no reportable events during this month.

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

Dendron, PS 1

Heavy rainfall inundated the area during two storm events, creating conditions for overflows at 889 Railroad Avenue in Dendron. Sussex Service Authority (SSA) checked the station during each event and found both pumps operating properly. The following releases were reported:

- March 12, 1.53" of rain, 955 gallons onto Ground/Cypress Swamp
- March 24, 1.61" of rain, roadways were flooded, 5,980 gallons onto Ground/Cypress Swamp

Surry County

Following the March 24 rain event a leak developed along the horizontal seam on the influent equalization tank at the Surry County Plant. The tank developed a crack near a bolted seam approximately 4 feet above grade. The plant was inundated with high flows and as the tank level increased 2 more small leaks were located along the same tank seam. SSA installed a sump pit and pumped accumulated water from around the influent equalization tank back into the tank. The release ceased on March 25 when water levels were below the leaking seam. The seam was welded and repaired. Approximately 30,622 gallons of partially treated wastewater were released with 20,425 gallons recovered. The remaining 10,197 gallons drained to Dark Swamp.

2022 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56	0.03	NA	NA									
	TKN	3.0	<0.50	NA	NA									
King William	Zinc	*	75	NA	NA									
	TKN	3.0	1.3	2.6^	0.44									
Nassawadox Riverside	Cadmium	2.0	<0.50	<0.50	<0.50									
	Copper	23	<5.0	<5.0	<5.0									
	Nickel	38	17	23	14									
	Zinc	150	<50	<50	<50									
	Ammonia	1.7	2.2^	0.09	0.07									
Onancock	Copper	12	2.0	NA	NA									
	Ammonia	0.90, 2.0	0.29	0.16	0.02									
Surry County	Copper	5.9	3.0	2.0	1.0									
	Zinc	56	24	33	11									
	Ammonia	0.77	NA	NA	NA	NA	NA					NA	NA	
	TKN	3.0	0.55	NA	0.57									
Town of Surry	Copper	12	2.0	6.0	3.0									
	Zinc	39	14	12	12									
	Ammonia	4.5	0.11	0.10	0.11									
	TKN	6.7	2.0	1.9	1.8									
Urbanna	Ammonia	3.83, 9.08	7.76	0.05	1.26									

*No limit. Treatment objective 53 ug/L

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

^ NR Monthly average 2.2, weekly Jan 23 3.4

^ KW Monthly average 2.6, weekly Feb 6 9.95

2022 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	8.38	8.29	9.13										8.60	8.10
Atlantic	42.47	42.46	42.81										42.58	33.77
Boat Harbor	15.64	13.78	13.31										14.24	11.80
C.Middlesex	0.005	0.006	0.006										0.006	0.006
Ches-Eliz	0.00	0.00	0.00										0.00	7.08
James River	14.47	13.70	14.65										14.27	13.04
King William	0.064	0.050	0.066										0.060	0.066
Lawnes Point	0.000	0.000	0.000										0.000	0.000
Nansemond	16.32	15.78	16.16										16.09	15.58
Nassawadox	0.020	0.013	0.022										0.018	0.013
Onancock	0.177	0.160	0.208										0.18	0.191
Surry, County	0.047	0.043	0.057										0.049	0.043
Surry, Town	0.043	0.044	0.057										0.048	0.037
Urbanna	0.041	0.034	0.038										0.038	0.046
VIP	25.64	26.17	27.83										26.55	23.86
West Point	0.433	0.385	0.429										0.416	0.374
Williamsburg	8.25	7.59	8.41										8.08	8.17
York River	14.08	12.97	13.66										13.57	11.43
North Shore	52.45	48.03	50.03										50.17	44.44
South Shore	92.81	92.70	95.93										93.81	88.40
Small Communities	0.83	0.73	0.88										0.82	0.78
TOTAL	146.09	141.47	146.85										144.80	133.61

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



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

Model 3 Billing

- **Tasks Completed (March 2022)**
 - Issued final report

Unifier/ERP Integration

- **Tasks Completed (March 2022)**
 - Continued test procedures
- **Upcoming Tasks (April 2022)**
 - Finalize internal audit and issue report

Grant Management

- **Tasks Completed (March 2022)**
 - Presented preplanning results
- **Upcoming Tasks (April 2022)**
 - None: On hold until June

Risk Assessment Refresh

- **Task Completed (March 2022)**
 - Finalized risk assessment activities
- **Upcoming Tasks (April 2022)**
 - Present internal audit plan to the Finance Committee

Family Medical Leave Act (FMLA)

- **Task Completed (March 2022)**
 - Conducted preplanning procedures
- **Upcoming Tasks (April 2022)**
 - Kickoff internal audit

Freedom of Information Act

- **Task Completed (March 2022)**
 - Conducted preplanning procedures
- **Upcoming Tasks (April 2022)**
 - Kickoff internal audit



II. Management Action Plan Monitoring

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

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

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

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
Biosolids Recycling	10/8/16	June 2022	7	1	8
Treatment Plant Operations	10/15/18	July 2022	8	1	9
Safety Division	9/12/19	May 2022	0	2	2
SWIFT Program	2/24/2021	April 2022	9	3	12
Fleet Services	2/24/2021	May 2022	0	17	17
Succession Planning	6/4/2021	July 2022	0	4	4
Emergency Repairs	1/18/2022	February 2023	0	3	3
D&C: CIP Project Management	5/11/16	Closed	13	0	13
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
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
Totals			98	31	129

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
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%
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%	
M-1.2	Internal Employee Promotion Eligible	Percentage	100%	59%	80%	70%	71%	64%	69%	68%	85%	85%	63%	78%	
M-1.3	Average Time to Fill a Position	Calendar Days	< 30	70	60	52	43.76	51	56	67	67	66	60	95	
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	
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	
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34	1.3	
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	4.1	
M-2.1	CIP Delivery - Budget	Percentage		113%	96%	124%	149%	160%	151%	156%	160%	170%	170%	123%	
M-2.2	CIP Delivery - Schedule	Percentage		169%	169%	161%	150%	190%	172%	173%	167%	159%	159%	155%	
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	
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg		20%	27%	70%	73%	48%	41%	43%	44%	59%	59%	62%	
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg		63%	51%	12%	10%	18%	25%	25%	24%	18%	19%	16%	
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg		18%	22%	20%	18%	32%	34%	32%	32%	27%	25%	22%	
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%	8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%	7%	
M-3	Carbon Footprint	Tons per MG Annual Total		1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7	1.75	
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH		0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940	56,473,800	58,044,110	
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg		2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277	2,408	2,459	
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg		197	173	152	159	168	163	173	170	181	174	170	
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg		84	77	102	96	104	97	104	104	95	102	82	
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%	
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423	\$1,348	\$1,487	\$1,545
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%	0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%	0.71%	0.67%	
M-4.5	Total Operating Cost/MGD	Total Operating Expense/ 365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959	\$3,823	\$4,048	\$4,311
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A	53%	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment		129%	235%	177%	149%	181%	178%	143%	114%	117%	143%	138%	
M-5.5	Number of Research Partners	Annual Total Number		42	36	31	33	28	35	15	20	26	32	27	
	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
	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
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%	72%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%	5.80%	6.03%
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%	2.81%	2.66%

*to be reported

Monthly Updated Metrics																	
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	FY-22
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	141.5	146.9
	Industrial Waste Related System Issues	Number	0	3	6	6	6	6	2	4	7	4	7	1	2	0	2
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	106%	104%	103%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	108%	107%	107%	107%
	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	\$36,909,633	\$33,156,194
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	17%	18%	29%	23%	31%	31%
M-2.5	Capacity Related Overflows	Number within Level of Service	0	25	1	30	5	11	16	6	10	5	2	25	0	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters			12:55,045	1:51995	2:52491	1:52491	2:52491	2:52491	9:53236	9:58338	2:60879	9:60879	23:60879	6:40586	6:45649
M-3.2	Odor Complaints	Number	0	6	2	7	11	5	9	7	6	9	15	31	3	2	2
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	120,825,576	135,508,338
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	20%	22%	17%	17%	18%	17%	18%	15%	15%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	50	78
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	7	15