



COMMISSION MEETING MINUTES
April 27, 2021

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

Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-22
Lynch, Maurice P.	Commission Vice-Chair	1-22
Glenn, Michael E.	Commissioner	1-22
Lakdawala, Vishnu K.	Commissioner	1-22
Levenston, Jr., Willie	Commissioner	1-22
Rodriguez, Stephen C.	Commissioner	1-22
Taraski, Elizabeth	Commissioner	Absent
Ward, Molly Joseph	Commissioner	1-22

1. **Consent Agenda**

Action: Approve the items listed in the Consent Agenda.

Moved: Maurice Lynch

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

Brief:

a. Approval of minutes from previous meeting.

b. Contract Awards

1. [Arc Flash Electrical Safety Training](#) \$316,575

c. Task Orders

1. [Climate Change Planning](#) \$676,780

2. [James River Treatment Plant Advanced Nutrient Reduction Improvements](#) \$756,405

3. [Middlesex Interceptor System Program Phase II – Transmission Force Main](#) \$314,810

4. [Nansemond Treatment Plant Digester Capacity Upgrade](#) \$1,242,580



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- 5. [Nansemond Treatment Plant Struvite Recovery Facility Improvements](#) \$763,340
- 6. [Treatment Plant Server and UPS Replacement and CISCO Equipment Refresh](#) \$647,928
- d. Sole Source
 - 1. [AC Variable Frequency Drive Enclosures, Parts and Repairs](#)
 - 2. [Chemtrac Sensors, Probes and Analyzers](#)
 - 3. [Industrial Turnaround Corporation DBA ITAC Pre-Engineered Components and Services](#)
 - 4. [Xylem Ozone System Preventative Maintenance and Replacement Parts](#)
- e. HRSD Use of Existing Competitively Awarded Contract Vehicle
 - 1. [Fleet Management Program](#) \$591,371

Item(s) Removed for Discussion: None

Attachment: #1

Public Comment: None



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2. **Revenue Policy**
Commission Adopted Policy

Action: No action is required.

Brief: The purpose of the Revenue Policy is to ensure that there is sufficient revenue to support direct and indirect operating, capital, reserves and current and future debt service costs. The Policy covers areas such as the basis of charges, how charges are determined, how rates are approved, revenue forecasts, collections and an overview of HRSD's Rate Model. It was originally adopted in May 2017 and last revised in May 2019.

The revised policy includes additional definitions for new rates and clarifications. The following key changes were presented at the March 23, 2021 Commission Workshop and April 15, 2021 Finance Committee meetings:

- Added a new **Fats, Oils, and Grease (FOG) Rate** and defined **FOG** as wastewater created from the cleaning of a grease control device (GCD) and transported and discharged to a wastewater treatment plant by conveyance other than pipelines.
- Modified the definition of **Hauled Wastewater** to exclude **FOG**.
- Added a new rate, **Town Wholesale Rate** that is limited to towns with a population less than 2,000 where the town is billed based on effluent meter data as opposed to billing individual properties based on their own water meters.
- Modified the method used to set **Surcharge Rates**. Surcharge rates will now be set using moving averages to dampen year-over-year volatility.

The [revised policy](#) is provided for Commission review and comment. The revised policy will be presented to the Commission for action at the May meeting. Staff reviewed the [proposed changes](#) during the meeting.

Attachment: #2

Public Comment: None



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3. **Annual Budget and Related Components**

Action: Receive the Finance Committee's report for the proposed Fiscal Year 2022 Annual Budget and Capital Improvement Program (CIP).

Brief: The Finance Committee (comprised of Commissioners Rodriguez, Elofson and Lynch) and other Commissioners attended the Capital Improvement Program (CIP) review meeting on March 4, 2021 and the Fiscal Year-2022 Annual Budget review meeting on April 15, 2021. A Commission workshop was held on March 23 to review the draft Fiscal Year-2022 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. 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 \$3.0 billion over the next 10 years.

Staff presented the latest [budget information](#) during the meeting followed by a report from the Finance Committee Chair.

Discussion Summary: Commissioner Rodriguez, chair of the Finance Committee, provided a report on the annual budget process including a summary of committee meetings held this year. He thanked the Commissioners for attending the committee meetings. He also thanked staff for the thorough, well organized and streamlined presentation of the CIP and budget information.

Attachment: None

Public Comment: None



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4. **Bank of America Amended and Restated Credit Agreement and Resolution**

Action: Authorize the execution and delivery an amended and restated credit agreement with Bank of America, N.A. and grant the authority to execute and deliver such other documents and agreements relating to such transaction as may be necessary or appropriate.

Moved: Michael Glenn

Seconded: Vishnu Lakdawala

Roll call vote:

Ayes: 7

Nays: 0

Agreement Description: On October 27, 2015, the Commission approved a resolution to establish a junior lien \$90 million Line of Credit (LOC) with Bank of America to fund the Capital Improvement Program. After the LOC was paid off with proceeds from the February 2016 Fixed Rate bond sale, HRSD continued to extend the LOC to keep this credit facility open. Most recently, the Commission approved the Fifth Amendment to the Credit Agreement on April 28, 2020 to extend the agreement and increase the amount available to \$50 million.

In the proposed [agreement](#), Bank of America will initially provide a \$50 million revolving line of credit for capital projects with the ability to increase the amount to \$200 million. There is a provision that allows up to two requests for an increase with a \$25 million minimum. The termination date is set for June 30, 2022, but HRSD can request an extension at least 30 days, but no more than 120 days ahead of time. The tax-exempt interest rate will be based on the SIFMA index, currently 0.08%, plus 0.39%. Under the advice of counsel to prevent fraud, two signatures will be required to request a withdrawal and the bank is required to deposit it in HRSD's account.

A component of the amended agreement is to address a tax issue that arose when staff made a \$10 million tax-exempt draw on the LOC on December 23, 2020 in the middle of the ransomware attack. The draw was subsequently paid off on February 11, 2021. When staff requested the draw, IRS Form 8038-G (Information Return for Tax-Exempt Governmental Obligations) was not prepared by bond counsel and submitted to the IRS. On March 17, 2021, HRSD's bond counsel sent IRS Form 8038-G with a request pursuant to Rev. Proc 2002-48 for an extension to time to file, since this was not due to willful neglect. If the IRS does not accept the extension request, the \$10 million draw will be deemed taxable and the interest rate will increase to the taxable rate. This would require HRSD pay Bank of America \$13,194.44. If the IRS does not notify HRSD within 90 days of receipt of the request, the extension request will be deemed accepted and no further action is necessary.

The attached [Resolution](#) was prepared by HRSD legal counsel and reviewed by staff.

Attachment: #3

Public Comment: None



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5. **Sole Source Annual Review**
Approval of Updated Sole Source

Action: Approve the use of the updated sole source items as listed.

Moved: Stephen Rodriguez

Seconded: Maurice Lynch

Roll call vote:

Ayes: 7

Nays: 0

Brief: Procurement has started reviewing previous sole sourced products and services on an annual basis. All sole source items approved more than a year ago have been reviewed to ensure that the circumstances surrounding the original sole source approval request are still valid, including whether the product or service is still needed and is the product only offered through one source. In addition, sole source requests made prior to August 2019 have been updated to reflect the current Commission guidelines. All previous sole source requests are now based on the specific manufacturer or brand of product or service offered and not the authorized distributor or service provider.

Reviewed Sole Source Items	246
Expired Sole Source Items	27
Sole Source Items Updated to Current Guidelines	188
Total Approved Sole Source Items	219

Expired Sole Source Items

Product or Service	Manufacturer or Brand	Location	Reason for Expiration
Anaerobic Metagenomics Research and Nutrient Center and Chesapeake Elizabeth Biological Nutrient Removal (BNR) Pilot	The Trustees of Columbia University	All HRSD Facilities	Contract not renewed
Banking and Armored Car Services	Bank of America	Finance	Limited sole source criteria no longer valid. New RFP and contracts issued
Communication Tower Rental Services	Areawide Communications, Inc.	All HRSD Facilities	Agreement no longer needed and ended in September 2020
e2 Vault and Service Software Maintenance and Support	Pitney Bowes Software	Customer Care Center	No longer used
Eaton Variable Frequency Drive (VFD)	Eaton Corporation	Atlantic TP	Multiple Distributors
e-Billing and related services	Kubra Data Transfer, Ltd.	Finance	Limited sole source criteria no longer valid. New RFP and contracts issued



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Fairbanks Morse Vertical Close-Coupled Sewage Pumps	Sydnor Hydro, Inc.	North Shore Operations	Replaced by agenda item on 11/28/2017
Financial Management System (FMS) Software Maintenance	Mitchell Humphrey and Co	Finance	Replaced by ERP
High Line Human Resource Management System (HRMS) ePersonality Software Maintenance and Support	High Line Corporation	All HRSD Facilities	System replaced by ERP
Lockbox and Commercial Electronic Office Services	Wells Fargo Financial	Finance	Limited sole source criteria no longer valid. New RFP and contracts issued
Man-Tech Equipment Maintenance Services	ManSci, Inc.	Central Environmental Laboratory	Services no longer needed confirmed with Robin Parnell as non-renewal in July 2019.
Mobile Printer Integration Services	Infirms, Inc.	Customer Care Center	Replaced by a new system
Moyno EZStrip™ Pump	Moyno	James River TP	Replaced by Commission approval in July 2019 due to previous limited sole source approval
Netzsch Pump	Netzsch	Atlantic TP	Replaced by Commission approval in October 2019 due to previous limited sole source approval
Netzsch Replacement Pump Parts	Netzsch	All HRSD Facilities	Replaced by Commission approval in October 2019 due to previous limited sole source approval
Organizational Development Supervisor Training Co-Facilitator	James D. Gorski	Talent Management	Contract not renewed
Peak ® Nitrogen Generator Preventive Maintenance Service	Peak Scientific, Inc.	Central Environmental Laboratory	Contract not renewed
Recruitment Advertising Services Contract	Daily Press, Inc.	Talent Management	Contract not renewed
SPX Flow Lightnin Mixer Shaft Extensions	SPX Flow	All HRSD Facilities	Multiple Distributors
SPX Flow Lightnin Refurbished Mixer Gear Boxes	SPX Flow	All HRSD Facilities	Multiple Distributors
SymProTreasury Management Software Maintenance and Support Contract	Emphasys Computer Solutions Inc. DBA SymPro Inc.	Finance	Agreement no longer needed and ended in April 2019



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Technical Grade Magnesium Hydroxide Slurry	Premier Magnesia LLC	James River TP	Product no longer needed
Vaughn Chopper Pump, Motor and Parts for Primary Clarifier and Pumping	Heyward, Inc.	York River TP	Replaced by Commission approval in 5/28/2019
Williamsburg Treatment Plant Outfall Repairs Underwater Inspection and Repair Services	Crofton Diving	Williamsburg Treatment Plant (TP)	Removing due to limiting competition for future projects
Goulds Chemical Resistant Pump and Parts	Goulds Pumps	Boat Harbor TP	Replaced by Commission approval in May 2019
JWC Muffin Monster Inline Sewage Grinders	JWC Environmental, LLC	Atlantic TP	Replaced by Commission approval in 2018
Ovivo® Influent Screen Parts	Ovivo USA, LLC	Army Base TP	Replaced by Commission approval in 2018
Siemens Turblex Blower Services	Siemens Demag Delaval Turbomachinery, Inc.	All HRSD Facilities	Replaced by Commission approval in 2018

Sole Source Items updated to approved product or service in accordance with current Commission Guidelines

Product or Service	Manufacturer or Brand	Location	Previously Approved
Aeration Tank Diffusers	Environmental Systems International, Inc	York River TP	2/26/2019
AirVac Sewage and Vacuum Pump Packages	Aqseptence Group, Inc. DBA AirVac Inc	Small Communities Division	11/27/2018
AirVac Vacuum valve units	Aqseptence Group, Inc. DBA AirVac Inc	Mathews Collection System	7/22/2014
AirVac Valve Pit Packages	Aqseptence Group, Inc. DBA AirVac Inc	All HRSD Facilities	2/29/2016
Allen Bradley Controllers, Panels and Power Supplies	Rockwell Automation	All HRSD Facilities	4/26/2016
Allen Bradley Programmable Logic Controllers (PLCs)	Rockwell Automation	Courthouse Interim PRS and State Street PS	4/28/2015
Americamysis Bahia for Toxicity Analysis	Aquatic Research Organisms (formerly Chesapeake Cultures Inc.)	All HRSD Facilities	5/23/2017
American R/D Valve Replacement Parts	Atlantic Valve	All HRSD Facilities	10/31/2017
APG-Neuros Turbo Blower Repair Services	APGN, Inc.	All HRSD Facilities	1/24/2017



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Apogee Insight Building Automation Software Modifications, Service and Maintenance	Siemens Industry, Inc.	South Shore Operations Center	8/25/2015
Aqua Virginia Meter Reading Services	Utility and Municipal Services, Inc.	Customer Care Center	7/28/2015
Aqua® brand Equipment, Replacement Parts and Service	Aqua-Aerobic Systems, Inc.	Small Communities Division	5/28/2019
Aqua-Aerobic Systems, Inc. - Aqua® Equipment, Replacement Parts and Service	Aqua-Aerobic Systems, Inc.	Surry County Wastewater TP	4/24/2018
Aqualog® Spectrometer	Horiba	Technical Services Division	3/22/2016
Aqua-Screen™ Replacement Belt Screen Parts and Repairs	Andritz Separation, Inc.	Atlantic TP	3/28/2017
ArcGIS Software Licensing, Maintenance and Support	Environmental Systems Research Institute DBA ESRI	All HRSD Facilities	8/25/2015
ASCO Power Technologies® Generator Control System Parts and Service	ASCO Power Services, Inc.	Nansemond TP	6/26/2018
AST Grants Analytics Software	AST Corporation	All HRSD Facilities	11/27/2018
Atomic Absorption Spectrometer Systems preventative maintenance, emergency service and parts	Agilent Technologies Inc.	Central Environmental Laboratory	10/27/2015
Aurora Pumps and Replacement Parts	Pentair	Army Base TP	8/22/2017
Automate Schedule Software Licensing and Support	HS Group Holdings Inc. DBA Help Systems LLC	Information Technology Department	7/22/2017
BioWin Software Licensing and Support	EnviroSim Associates LTD	Water Technology and Research	6/27/2017
Boerger ® Primary Pump and Parts	Boerger	York River TP	3/28/2017
Boerger ® Pumps and Parts	Boerger	All HRSD Facilities	11/27/2018
Bubble mixing system	EnviroMix	Virginia Initiative Plant	10/15/2013
CAMBI Pilot Unit	Bucknell University	All HRSD Facilities	5/24/2016
CAMBI Thermal Hydrolysis Process and FOG Receiving Station	CAMBI	Atlantic TP	11/26/2013
CAMBI Thermal Hydrolysis Process and Phosphorus Release for Dewatering and Struvite Control	Bucknell University	All HRSD Facilities	4/28/2015
Carlton Industrial Automation for scale programming	Carlton Industrial Automation	Nansemond TP Regional Residuals Facility	2/24/2009



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Caterpillar Generator Modifications (Switchgear, controls and associated electrical appurtenances)	Cardinal Machinery Company DBA Carter Machinery Company, Inc.	All HRSD Facilities	8/25/2015
CBS ArcSafe - ArcSafe™ Remote Switch Actuators and Operators	CBS ArcSafe	All HRSD Facilities	4/24/2018
Centrifugal blowers	Siemens Turblex	Virginia Initiative Plant	10/15/2013
Centrifuge Variable Frequency Drive Parts and Repairs	Kntrol Automation, Inc.	All HRSD Facilities	9/26/2017
Chemical Facility Improvements	Emerson Process Management	York River TP	8/26/2014
Chemineer Mixer Replacement Parts and Repairs	Brown & Morrison, Ltd.	Virginia Initiative Plant	9/26/2017
ChemScan® Process Analyzer Preventative Maintenance Service Contract and Related Parts	Applied Spectrometry Associates, Inc.	All HRSD Facilities	3/28/2017
Clearwater Sales, Inc. DBA Clearwater, Inc. InsiteIG® Sensors and Replacement Parts	Insite Instrumentation Group, Inc.	All HRSD Facilities	7/31/2018
Combined Heat and Power (CHP) Systems Generators Planned Maintenance Agreement	Cummins Atlantic, LLC	Atlantic TP	5/26/2015
Controllers, Sensors, Probes and Associated Parts	Hach Company	All HRSD TPs	4/28/2015
Cornell University & Water Research Foundation Collaboration Sidestream Enhanced Biological Phosphorus Removal	Cornell University	All HRSD Facilities	8/28/2018
Cyprinodon Variegatus for Toxicity Analysis	Aquatic BioSystems Inc.	All HRSD Facilities	5/23/2017
Debt Collection Services	Transworld, Inc.	Customer Care Center	7/23/2019
Diesel Engine Emergency Generator Replacement	Emerson Process Management	Virginia Initiative Plant	1/28/2014
Dionex™ Integriion™ Reagent - Free Ion Chromatography System, Parts and Maintenance	Thermo Electron North America LLC	All HRSD Facilities	7/22/2017
Dorr-Oliver Air Operated Diaphragm Pump	FLSmith USA, LLC	Virginia Initiative Plant	3/24/2015
Downey Ridge Environmental Company Greasezilla® Grease Separating Unit	Downey Ridge Environmental Company	Nansemond TP	7/31/2018



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Droplet Digital Polymerase Chain Reaction (ddPCR™) System Parts, Maintenance and Support	Bio-Rad Laboratories, Inc.	All HRSD Facilities	7/22/2017
EIM Valve Actuators, Parts and Services	Automatic Controls of VA, Inc. (and their wholly owned subsidiary, Valve Automation)	All HRSD Facilities	1/27/2015
Electric actuated diaphragm pumps	Penn Valley Pump Company	Virginia Initiative Plant	10/15/2013
Electrical and Energy Management Training	National Technology Transfer Inc.	Electrical and Energy Management Division	7/26/2016
Electronic Bill Distribution and other Related Financial Services, Maintenance and Support	Fiserv, Inc.	All HRSD Facilities	7/22/2017
Emerson Process Automation Equipment, Parts and Services	Emerson Process Management	All HRSD Facilities	1/27/2015
Entech Design Filter Media Expansion and Backwash Turbidity Sensor, Replacement Parts and Service	Analytical Technology, Inc.	SWIFT Research Center	5/28/2019
Envirex Dystor® Membrane Service	EWT Holdings III Corp DBA Evoqua Water Technologies LLC	Atlantic TP	4/25/2017
Envirodyne Systems Grit Classifier	Envirodyne Systems, Inc.	York River TP	9/22/2015
Epoxy coating system	Warren Environmental	Virginia Initiative Plant	10/15/2013
Equalization tank flush gate system	Gabriel Novac and Associates	Virginia Initiative Plant	10/15/2013
Evoqua Water Technologies Digester Replacement Parts	EWT Holdings III Corp DBA Evoqua Water Technologies LLC	All HRSD Facilities	7/28/2015
EXO Multiparameter, Probes, Sensors and Supplies	Xylem, Inc.	All HRSD Facilities	6/28/2016
Facilitator Training	Leadership Strategies Inc.	All HRSD Facilities	2/29/2016
Fairbanks Morse Pumps, Parts and Repairs	Sydnor Hydro, Inc.	All HRSD Facilities	11/28/2017
Fairbanks Nijhuis® Vortex Pump and Parts	Sydnor Hydro, Inc.	York River TP	4/25/2017
Flowserve Replacement Pump Parts	Flowserve	All HRSD Facilities	7/22/2017
Fluid Engineering Automatic Self Cleaning Strainer Replacement Parts	Coastal Filtration	All HRSD Facilities	5/22/2018
Flygt Mixers and Parts	Xylem, Inc.	All HRSD Facilities	3/28/2017
Flygt N-Technology Wastewater Pumps	Xylem, Inc.	All HRSD Facilities	8/28/2018



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Flygt Pump Parts, Rebuild and Repair Services - over 90 horsepower (hp)	Xylem, Inc.	All HRSD Facilities	5/23/2017
Flygt Pumps	Xylem, Inc.	Shippo Corner Interim Improvements Project	5/24/2016
Flygt Submersible Mixers	Xylem, Inc.	James River & Urbanna TPs	10/27/2015
Furnace Automation	Emerson Process Management	Boat Harbor TP	12/8/2014
Fusible Polyvinylchloride (FPVC) Pipe	Underground Solutions Inc.	Ferguson Interceptors Force Main Bridge Span Relocation	3/28/2017
Gas Chromatograph (GC and Mass Selective (GC/MS) Detector	Agilent Technologies Inc.	Central Environmental Laboratory	4/26/2016
Gas Chromatograph (GC) and Mass Spectrometry (MS) Preventative Maintenance and Support Contracts	Agilent Technologies Inc.	Central Environmental Laboratory	5/23/2017
Gas Chromatography – Triple Quadrupole (GC-QQQ)	Agilent Technologies, Inc.	Central Environmental Laboratory	12/19/2017
General Electric Intelligent Platforms GlobalCare Complete Software Support Maintenance	AutomaTech, Inc.	All HRSD Facilities	9/22/2015
Geomembrane Technologies Centrate Equalization Tank Covers	EWT Holdings III Corp DBA Evoqua Water Technologies LLC	James River TP	9/22/2015
Getinge Autoclave Preventative Maintenance Services	Getinge USA, Inc.	Central Environmental Laboratory	3/24/2015
Godwin Equipment Preventive Maintenance, Parts and Service	Xylem, Inc.	All HRSD Facilities	5/22/2018
Goulds Chemical Resistant Pumps, Replacement Parts and Service	ITT Goulds Pumps	Multiple HRSD facilities	5/28/2019
GraniteNet (GNet) Software License Support Contract	Elxsi DBA Cues	All HRSD Facilities	5/23/2017
HERE License Software Support Contract	American Digital Cartography, Inc.	All HRSD Facilities	3/28/2017
Hewlett Packard Enterprise Maintenance and Support Services	Hewlett Packard Enterprise Company	Information Technology Department	7/26/2016
Hoffman Blowers, Replacement Parts, Maintenance and Repairs	Gardner Denver Nash	All HRSD Facilities	2/27/2018



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Huber Step Screens® and Replacement Parts	Huber Technology, Inc.	James River TP	5/28/2019
Hydrograv GmbH - Hydrograv® Adapt Variable Clarifier Inlet	Hydrograv GmbH	All HRSD Facilities	4/24/2018
Hypochlorite Tanks Replacement	Emerson Process Management	York River TP	8/26/2014
Inductively Coupled Plasma - Mass Spectrometer Preventive Maintenance Services	Agilent Technologies Inc.	Central Environmental Laboratory	1/27/2015
Inductively Coupled Plasma - Optical Emission Spectrometer (ICP - OES)	Agilent Technologies Inc.	Central Environmental Laboratory	6/28/2016
Inductively Coupled Plasma Optical Emission Spectrometer (ICP - OES) Preventative Maintenance Contract	Agilent Technologies Inc.	Central Environmental Laboratory	6/28/2016
Infilco Degremont Replacement Parts	Infilco Degremont	All HRSD Facilities	11/22/2016
Influent Flume Abandonment and Residuals pit odor control	JWC Environmental, LLC	Patrick Henry Pump Station	12/8/2014
InfoAsset™ Planner Software	Innovyze, Inc.	Asset Management Division	5/28/2019
Infor Enterprise Asset Management (EAM) Maintenance and Support	Infor US, Inc.	All HRSD Facilities	11/24/2015
Infor Enterprise Asset Management (EAM) Mobile Application and Support	Infor US, Inc.	All HRSD Facilities	5/26/2015
Internet-based Publicly Owned Treatment Works Administration and Compliance System (iPACS) and Biosolids Data Management System Maintenance and Support	enfoTech and Consulting, Inc.	All HRSD Facilities	4/25/2017
Intuitech Granular Media Filtration Pilot Skid, Parts and Service	Intuitech, Inc.	All HRSD Facilities	7/23/2019
ISCO Flow Meters, Samplers, Probes and Related Accessories	Teledyne ISCO	All HRSD Facilities	5/24/2016
iSeq Next Generation Sequencing System	Illumina Inc	Central Environmental Laboratory	4/23/2019
Jerome® Analyzers Maintenance Contract	Arizona Instrument LLC	Technical Services Division	6/27/2017
JWC Environmental Channel Grinder	JWC Environmental, LLC	Bridge Street Pump Station Replacement	1/26/2016



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JWC Environmental LLC Muffin Monster Inline Sewage Grinders and Replacement Cartridges	JWC Environmental, LLC	All HRSD Facilities	7/31/2018
JWC Sewage Grinder Parts and Services	JWC Environmental, LLC	All HRSD Facilities	2/24/2015
K3 Bio-Film Carrier Media	Kruger, Inc.	James River TP Centrate Equalization Improvements Project	1/26/2016
Laboratory Balance Equipment Preventative Maintenance, Calibration Services and Parts	Mettler Toledo Inc.	Central Environmental Laboratory	8/23/2017
Laboratory Total Organic Carbon (TOC) Analyzer	Suez WTS Analytical Instruments, Inc. (Formerly GE Analytical)	Central Environmental Laboratory	5/24/2016
Landia Mixer, Replacement Parts and Service	Landia, Inc.	York River TP	6/26/2018
Liquid Chromatography - Tandem Mass Spectrometry Preventive Maintenance Services	Thermo Electron North America, LLC	Central Environmental Laboratory	1/27/2015
Magnesium Hydroxide Tank and Mixer Assembly	Engineered Lubrications	James River TP	4/25/2017
mDataManager Enterprise Software Application	Margolis, Ainsworth, & Kinlaw Inc. DBA MAK Solutions	Information Technology Department	4/25/2017
Meiden Ceramic Membranes	Meiden America, Inc.	King William TP	12/19/2017
Meridian License Maintenance and Support Contract	Bluecielo ECM Solutions, Inc.	All HRSD Facilities	3/28/2017
MIKE URBAN Hydraulic Model Software Support and Maintenance	DHI Water and Environment	All HRSD Facilities	7/28/2015
Millennium Merlin Cold Vapor Atomic Absorption System	PS Analytical Inc	Central Environmental Laboratory	11/24/2015
Moyno EZStrip™ Pump, Parts and Service	Moyno	All HRSD Facilities	7/23/2019
Moyno EZstrip™ TR Muncher Grinder Biosolids Pump, Replacement Parts and Repairs	Moyno	Atlantic TP	5/23/2017
National Water Research Institute (NWRI) Independent Advisory Panel	National Water Research Institute	All HRSD Facilities	6/28/2016
NucliSENS® easyMAG® Instrument Preventive Maintenance and Support	bioMerieux, Inc.	Central Environmental Laboratory	9/26/2017
Online Information Technology (IT) Learning License and Support Contract	CBT Nuggets LLC	Information Technology Department	5/23/2017



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Ovation DCS	Emerson Process Management	Virginia Initiative Plant	10/15/2013
Ovivo® Influent Screen Parts, Onsite Installation Assistance and Repairs	Ovivo USA, LLC	All HRSD Facilities	12/18/2018
Ovivo® Influent Screen Replacement Parts and Service	Ovivo USA, LLC	Multiple HRSD facilities	5/28/2019
Panoptra™ Visualization Platform	Enstoa Inc.	Information Technology Department	4/25/2017
Parkson Aqua Guard® Bar Screen Parts and Repairs	Parkson	Williamsburg TP	9/26/2017
Petersen® Pipe Plug Inspection System and Accessories	Petersen Resources LLC DBA Petersen Products Co LLC	SS Interceptors, NS Interceptors & Small Communities	5/28/2019
Plastic Sheet Liner	T-Lock	Virginia Initiative Plant	10/15/2013
PolyBlend® Skid-Mounted Polymer Feed System, Replacement Parts and Service	USGI Chemical Feed, Inc.	Chesapeake-Elizabeth TP	5/28/2019
Premier Distributed Control Systems (DCS), Enterprise Data Servers (EDS) and Ovation Security Centers (OSC) SureService Support Agreement	Emerson Process Management	HRSD Ovation Sites	6/28/2016
ProMinent Peristaltic Pumps, Parts and Repairs	Prominent Fluid Controls, Inc	All HRSD Facilities	2/27/2018
Prominent Polymer Dilution Skid	Prominent Fluid Controls, Inc	Nansemond TP	5/28/2019
ProMix™ Polymer Mixing System, Parts and Service	Prominent Fluid Controls, Inc	Nansemond TP	5/28/2019
NSF International Quantitative Microbial Risk Assessment Based Criteria Development Research	NSF International	All HRSD Facilities	8/24/2017
Rate Model	EEC, Inc. (Environmental & Economic Consultants Inc.)	All HRSD Facilities	9/22/2015
Re-Chroming Services on Moyno Brand Parts	Moyno	All HRSD Facilities	3/22/2016
RecoverE ESep™ System	RecoverE, LLC	Nansemond TP	3/28/2017
Recruitment Advertising Services Contract	Tribune Publishing DBA The Virginian-Pilot Media Companies, LLC	Talent Management	10/27/2015
Repair parts and services for Big Bore Cummins Emergency Generators	Cummins Inc	All HRSD Facilities	1/22/2019
Rheinhutte Recirculation Pumps and Related Parts	Rheinhutte	Nansemond TP	3/28/2017



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Rockwell Automation software and support	Rockwell Automation	All HRSD Facilities	8/23/2016
Rodney Hunt-Fontaine Flow Control Sluice Gate Hoist	Rodney Hunt-Fontaine	Boat Harbor TP	1/26/2016
s::can Nitrification Analyzer	s::can Measuring Systems LLC	Boat Harbor TP	1/22/2019
SAP® Software Solutions Maintenance and Support	SAP America Inc.	Information Technology Department	6/27/2017
SAS Analytics Pro Software and Access Interface	SAS Institute, Inc.	All HRSD Facilities	10/25/2016
Schweitzer Relays, Meters, Controllers and Associated Training	Schweitzer	All HRSD Facilities	7/23/2019
Secondary clarifier solids collection equipment	Siemens Envirex	Virginia Initiative Plant	10/15/2013
Seepex Progressive Cavity Pumps, Parts and Service	Seepex, Inc.	Nansemond TP	5/28/2019
Shoap Process Equipment - EIM Submersible Pumps, Replacement Parts, Maintenance and Repairs	Shoap Process Equipment	James River TP	4/24/2018
Siemens Turblex Blower Services	Siemens Demag Delaval Turbomachinery, Inc.	All HRSD Facilities	9/25/2018
Smart Prep II Extractor System	Biotage (formerly known as: Horizon Technology, Inc.)	Central Environmental Laboratory	2/26/2019
Software Maintenance and support for the Thermo LabSystems SampleManager (LIMS TM) and Integration Manager System	Thermo Fisher Scientific	All HRSD Facilities	11/22/2016
SolarWinds License and Maintenance Contract	SolarWinds Inc.	Information Technology Department	2/27/2018
SPE-DEX ® 3000XL Extractor System Purchase and Preventive Maintenance Service	Biotage (formerly known as: Horizon Technology, Inc.)	Central Environmental Laboratory	7/26/2016
SPE-DEX ® 5000 and Smart Prep II Extractor System Preventative Maintenance, Repairs and Related Parts Contract	Biotage (formerly known as: Horizon Technology, Inc.)	Central Environmental Laboratory	12/18/2018
S-Select Technology	World Water Works, Inc.	Urbanna TP	4/28/2015
StackVision Server Migration and Data Controllers Upgrade	ESC Spectrum	All HRSD Facilities	1/26/2016
Sulzer Effluent Pump Parts, Rebuild and Repair Services	Sulzer Pump Services (US) Inc.	All HRSD Facilities	6/27/2017



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SUMO© Process Modeling Support Services	Dynamita SARL	All HRSD Facilities	4/24/2018
SUMO© Software License and Support Contract	Dynamita SARL	Information Technology Department	2/27/2018
TeledyneTekmar ATOMX Purge and Trap Preventive Maintenance Contract	Teledyne Instruments, Inc.	Central Environmental Laboratory	12/19/2017
Telog Data Recorders, Modems and Related Parts	Telog Instruments, Inc.	All HRSD Facilities	9/22/2015
Telog Enterprise Administration Services and Software Maintenance Agreement	Telog Instruments, Inc.	All HRSD Facilities	7/28/2015
Thermal Hydrolysis Process and Fats, Oil & Grease (FOG) Receiving Station	SNF Flomix, Cummins and KAI Controls	Atlantic TP	2/28/2017
Thermo Fisher™ Dionex™ Ion Chromatography (IC) System Preventative Maintenance and Support Contract	Thermo Electron North America LLC	Central Environmental Laboratory	5/23/2017
Toshiba Primary Total Suspended Solids (TSS) Analyzer	Toshiba	Nansemond TP	5/24/2016
Total Organic Carbon (TOC) Analyzer Parts and Preventive Maintenance	Suez WTS Analytical Instruments, Inc.	Central Environmental Laboratory	3/27/2018
Total Organic Carbon (TOC) Analyzer Parts and Preventive Maintenance and Support	Shimadzu Scientific Instruments Inc.	All HRSD Facilities	3/26/2019
Tracer Summit™ Building Automation System (BAS) Equipment Maintenance and Software Support Services	Damuth Trane	All HRSD Facilities	5/22/2018
Track-It! Licenses, maintenance, and support services	BMC Software, Inc.	All HRSD Facilities	12/20/2016
Unitrak TipTrak Bucket Conveyor Belt Assembly	Unitriak	Nansemond TP	8/23/2016
Varec Components and Replacement Parts	Westech Industrial, Inc DBA Varec Biogas	Atlantic, James River, Nansemond and York River TPs	2/26/2019
Vaughan Chopper Pumps, Motor, Replacement Parts and Service	Vaughan Co., Inc.	Multiple HRSD facilities	5/28/2019
Verantis Fiberglass Reinforced Plastic Fan Replacement Parts	Verantis	All HRSD Facilities	10/25/2016
Vertex Payroll Tax Q Series Software and Support	Vertex, Inc.	All HRSD Facilities	7/28/2015
Vertical Turbine Centrifugal Pump	Engineered Systems and Products	Chesapeake-Elizabeth TP	3/26/2019



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Video Production Services	Jpixx LLC	Communications Division	8/23/2016
Walker Process Equipment Gravity Thickener Parts	Walk Process Equipment	All HRSD Facilities	2/29/2016
Watson-Marlow Replacement Pump Parts	Watson-Marlow	All HRSD Facilities	7/22/2017
Weir-Wolf Automated Brush System	Ford W. Hall Company, Inc.	Virginia Initiative, Nansemond, Williamsburg and York River Treatment Plants	10/27/2015
WEMCO® Hydrogritter® Grit Removal and Dewatering System Parts and Repairs	WEMCO	All HRSD Facilities	5/23/2017
Whipps Stainless Steel Stop Plates	Whipps, Inc.	All HRSD Facilities	4/26/2016
Wolseley Industrial Group - ITT Engineered Fabri Valves, Gates, Seals and Replacement Parts	Wolseley Industrial Group	Struvite Recovery Facilities (SRF)	4/24/2018
Xylem Advanced Prime Guard Controllers	Xylem Dewatering Solutions, Inc. dba Godwin Pumps of America	Shippo Corner Pressure Reducing Station (PRS)	1/27/2015
Xylem YSI Ammonia Probes	Xylem, Inc.	All HRSD Facilities	6/26/2018
Yeoman Pump Parts	Yeoman	Used by multiple work centers	4/23/2019
YSI Multiparameter Sondes, Probes and Calibration Supplies	Xylem, Inc.	All HRSD Facilities	4/28/2015

Attachment: None

Public Comment: None



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6. **Bethel-Poquoson Interceptor Force Main Replacement Phase II Agreement**

Action: Approve the terms and conditions of the cost sharing agreement for the Poquoson Pump Station #5 Force Main Relocation with the City of Poquoson and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved: Willie Levenston

Seconded: Michael Glenn

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: YR014300

Project Description: This project will require the replacement of approximately 3,700 linear feet of 20-inch prestressed concrete cylinder pipe (PCCP) along Wythe Creek Road from north of Huntlandia Way to Wythe Creek. This also includes the relocation of the City of Poquoson Pump Station #5 discharge force main. The relocation of the City Pump Station Force Main will be constructed as part of the HRSD project.

Agreement Description: The [agreement](#) between HRSD and City of Poquoson describes the terms of the cost sharing for the relocation of the discharge force main of Poquoson Pump Station #5. The agreement has been reviewed by HRSD legal counsel.

Analysis of Cost: The estimated cost of \$223,895 for the force main relocation is based on the design and construction proposal provided by HRSD's annual services interceptor consultant and is the basis for this cost sharing agreement.

Attachment: [#4](#)

Public Comment: None



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7. **Interceptor System Valve Improvements Phase I
Initial Appropriation**

Action: Appropriate total project funding in the amount of \$3,259,305.

Moved: Maurice Lynch

Seconded: Michael Glenn

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

CIP Project: GN015300

Project Description: This project will address multiple valves and air vents assessed to be at material risk of failure during the Condition Assessment Program. These assets are located between North and South Shore Interceptors. All South Shore air vents on this project were addressed through CIP GN013900 for the South Shore Interceptors Air Vent Rehabilitation project. This project is necessary due to condition assessment activities and/or preventative maintenance reviews suggesting that these assets are either at material risk of failure, in need of replacement or in need of repair. This project is included in the Rehabilitation Action Plan Phase Two with a May 2025 regulatory completion date due to material risk of failure.

Funding Description: The estimated total project cost is \$3,259,305 and is based on an AACE Class 5 cost estimate completed by HRSD. The estimated project cost consists of construction costs of \$2,346,907 combined with an engineering services estimate of \$209,993 and an 18 percent contingency allowance of \$586,727. Through the use of HRSD’s existing Professional Services Agreement for Interceptor Systems Projects, Rummel, Klepper and Kahl (RK&K) will provide preliminary engineering, design and construction phase services. Negotiations for the PER phase services are in progress and will be under \$200,000; therefore, no Commission action will be required. This cost is in agreement with other similar efforts from other firms.

Schedule:	PER	May 2021
	Design	September 2021
	Bid	September 2021
	Construction	November 2022
	Project Completion	September 2024

Attachment: None

Public Comment: None



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8. **South Shore Aerial Crossing Improvements**
Initial Appropriation

Action: Appropriate total project funding in the amount of \$290,758.

Moved: Molly Ward
Seconded: Vishnu Lakdawala
Roll call vote:

Ayes: 7 **Nays:** 0

CIP Project: GN015400

Project Description: This project will repair/rehabilitate four of HRSD’s aerial/exposed crossings.

Funding Description: The total project cost estimate of \$290,758 includes approximately \$28,504 in design phase services, approximately \$219,178 in construction phase costs, and \$43,076 of project contingency and is based on a Class 5 CIP-prioritization level cost estimate prepared by HRSD. Engineering services will be completed by Collins Engineers, Inc. under the Structural Services annual services contract.

Schedule:	PER	November 2020
	Design	April 2021
	Bid	August 2022
	Construction	December 2022
	Project Completion	December 2023

Attachment: None

Public Comment: None



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9. **Surry Force Main and Pump Station - Dominion Power Extension
Initial Appropriation**

Action: Appropriate total project funding in the amount of \$8,000,000.

Moved: Maurice Lynch

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: SU010400

Project Description: This project will design and construct a 6.5-mile force main and pump station extending from the [Surry Nuclear Power Plant](#) to HRSD's Mt. Ray Pump Station which is currently under construction. The project will be funded through a cost sharing study [agreement](#) with Dominion Virginia Power (DVP). The initial agreement will provide for the preparation of a Preliminary Engineering Report (PER). HRSD has tasked our annual services engineering firm RK&K to develop the PER scope and fee for the pump station and pipeline associated with this project. The PER cost is \$75,660. The study agreement will allow for the preparation of the PER and reimbursement from DVP for this initial work. The PER will include a cost estimate to be used for the next phase of the project to include the final design and construction. A separate agreement with DVP will be prepared for this next phase of work if the PER is approved by both parties. This is the same arrangement used when we considered work at DVP's Chesapeake Power Station. The estimated cost for the overall project is approximately \$8 million. The PER will establish more accurate costs.

At the completion of the project, DVP will reimburse HRSD for the design and construction of the pipeline and pump station. DVP will turn over their James River nutrient credits allocated for their existing treatment plant to HRSD at the completion of the project. DVP will grant HRSD an easement for the pump station and the associated connections to be constructed on their property. HRSD will obtain easements from all affected property owners along the pipeline at DVP's expense (cost of which to be captured in the construction phase of the project).

Schedule:	PER	June 2021
	Design	January 2022
	Bid	September 2023
	Construction	December 2023
	Project Completion	June 2025

Attachment: [#5](#)

Public Comment: None



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10. **Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition (Allen: Tax Map 55-1)**

Action: Approve the purchase of a 10,846 square foot permanent easement in accordance with the terms and conditions of the Agreement and Deed of Easement between James Allen, Jr., (Landowner) and HRSD for \$27,060 (Tax Map: 55-1).

Moved: Michael Glenn
Seconded: Maurice Lynch
Roll call vote:

Ayes: 7 **Nays:** 0

CIP Project: SU010200

Project Description: This project will close the Town of Surry Treatment Plant and construct a 20-mile long interceptor force main to connect to the existing HRSD force main in the Town of Smithfield. HRSD is a signatory to a Consent Decree with the Virginia Department of Environmental Quality to close the Town of Surry Treatment Plant and this project will eliminate this plant in-lieu of making facility improvements.

As part of the project, HRSD has acquired over 140 of the 150 temporary and permanent easements necessary for this project. The subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD's Policy Guidelines and will require Commission approval.

Agreement Description: The attached [Agreement](#) and [Deed of Easement](#) were reviewed by HRSD staff and legal counsel. An [Acquisition Plat](#) and [Facilities Orientation Map](#) are also provided for clarification purposes.

Analysis of Cost: The cost for the easement is based upon an appraisal by Valbridge Property Advisors and a negotiated settlement with the property owner.

Attachment: [#6](#)

Public Comment: None



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11. **Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition (ROSF: Tax Map 13-01-048B)**

Action: Approve the purchase of 56,716 square feet in permanent easements and a 308 square foot temporary easement in accordance with the terms and conditions of the Agreement and Deed of Easement between ROSF, LLC, (Landowner) and HRSD for \$39,200.20 (Tax Map: 13-01-048B).

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: SU010200

Project Description: This project will close the Town of Surry Treatment Plant and construct a 20-mile long interceptor force main to connect to the existing HRSD force main in the Town of Smithfield. HRSD is a signatory to a Consent Decree with the Virginia Department of Environmental Quality to close the Town of Surry Treatment Plant and this project will eliminate this plant in-lieu of making facility improvements.

As part of the project, HRSD has acquired over 140 of the 150 temporary and permanent easements necessary for this project. The subject easement acquisition cost is above the \$25,000 threshold as defined in HRSD's Policy Guidelines and will require Commission approval.

Agreement Description: The attached [Agreement](#) and [Deed of Easement](#) were reviewed by HRSD staff and legal counsel. An [Acquisition Plat](#) and [Facilities Orientation Map](#) are also provided for clarification purposes.

Analysis of Cost: The cost for the easement is based upon an appraisal by Valbridge Property Advisors and a negotiated settlement with the property owner.

Attachment: [#7](#)

Public Comment: None



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12. **West Point Pump Station #4 Improvements and Wet Well Rehab
Property Acquisition – 475 Thompson Avenue, West Point**

Action: Approve the acquisition of a 1,000 (+/-) square foot parcel located at 475 Thompson Avenue, West Point, VA in accordance with the terms and conditions of the Agreement and forthcoming bargain and sale Deed between Carlie W. Bertram (Landowner) and HRSD for \$4,000 (Tax Map: 63A41-96F).

Moved: Maurice Lynch

Seconded: Michael Glenn

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: MP015100

Project Description: This project consists of improvements to the existing pump station located on Thompson Avenue in the Town of West Point. Work includes a new influent manhole and rehabilitation of the pump station to include a new wet well, pumps, controls and metering as well as site beautification. This project will replace pump station controls and associated appurtenances that are beyond the end of their useful life; this project will also eliminate surcharging conditions in the upstream collection system. As part of the project, HRSD will require an additional 1,000 (+/-) square feet from the adjacent parcel which will be resubdivided and merged with HRSD's existing pump station site.

Agreement Description: The [Agreement](#) was reviewed by HRSD staff and legal counsel, as will the forthcoming Deed. A [plan sheet exhibit](#) and [Facilities Orientation Map](#) are also provided for clarification purposes.

Analysis of Cost: The cost for the property acquisition cost of \$4,000 is based upon a negotiated settlement with the property owner. Land values and impact to the remainder of the Landowner's residual property were considered as part of this negotiation.

Attachment: [#8](#)

Public Comment: None



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13. **Establishment of the Virginia Oyster Ground Closures Fund Agreement**

Action: Approve the general terms of an agreement between the Virginia Marine Resources Commission and HRSD to settle claims validated by VMRC related to the extended closure of shell fishing grounds due to the discharge of untreated wastewater into the James River in January 2021.

Moved: Maurice Lynch

Seconded: Michael Glenn

Roll call vote:

Ayes: 7

Nays: 0

Background: HRSD was created in response to a public health crisis that resulted in the condemnation of a significant portion of the local shell fishing grounds due to contamination by untreated sewage discharged to the local waterways throughout Hampton Roads in 1925. Since that time HRSD has successfully intercepted the direct pipe discharges and re-directed all sewage to regional wastewater treatment plants that have eliminated the chronic problem of untreated sewage polluting our local waterways.

While the chronic pollution problem due to the regular discharge of untreated wastewater has been eliminated, other chronic sources of pollution (primarily stormwater runoff or legacy pollutants in the waterbody) continue to limit access to some waterways for shellfish harvest. Occasionally, other issues create acute, short term impact to waterways throughout the region. These include runoff from yards, fields, farms, streets, and undeveloped lands after heavy rainfall, overflows from sewers due to extreme storms, and can also include failure of sanitary sewer infrastructure. These acute impacts typically create temporary impacts to the harvesting of shellfish as ordered by the Virginia Department of Health.

In recent history, there have been a few extended prohibitions (due to various causes) on the harvesting of shellfish as ordered by VDH. Extended prohibitions can create economic hardship on Virginia’s watermen. Virginia’s oyster fishery is a critical industry for Virginia and ideally will remain viable for generations to come.

Given the role Virginia’s shellfish industry has played in HRSD’s history and the potential for future infrastructure failures to contribute to economic challenges of keeping the Virginia oyster fishery viable, HRSD is proposing to create the Virginia Oyster Ground Closures Fund. HRSD will propose new legislation in the 2022 General Assembly to create such a fund under the administration of the VMRC. Additionally, staff recommends developing a grant agreement with VMRC to provide initial funding for such a fund, should the fund be created for the purposes so described.



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As creating a new fund will take more than one-year, staff is further recommending HRSD enter into a memorandum of agreement with VMRC immediately to provide economic assistance to watermen damaged during the extended closure in January 2021. The proposed terms and conditions would include the following:

- VMRC will review shellfish harvest records from similar periods and notify potential damaged waterman to submit a claim of damages.
- VMRC will review the claims to ensure they represent an accurate claim based on historical harvest records and 2021 prices.
- VMRC will forward approved claims to HRSD for payment upon receipt of a release from the waterman claiming damages.
- The release (to be drafted by HRSD legal counsel) will admit no fault as HRSD cannot prevent infrastructure failures and that these payments are only made in recognition of the importance of maintaining a viable oyster fishery in Virginia.
- The payment of damages will be an income producing event for the receiving waterman as it is replacing income that would have been earned had the closure not been in place and as such HRSD will issue an IRS Form 1099 to each recipient.
- HRSD will pay VMRC a reasonable administrative fee to cover the direct cost of administering this claim process (to be negotiated).

Staff is requesting Commission approval to move forward with an MOA with VMRC immediately as well as approval to pursue legislation creating a permanent Virginia Oyster Ground Closures Fund and the associated grant agreement with VMRC to provide initial funding of \$100,000 per year for the first five years after the fund is created.

Discussion Summary: Staff explained the historical shellfish harvest reports would be submitted by the individual waterman claiming damages. Furthermore, only valid claims would receive payment for damages. Commissioner Ward expressed concern about HRSD's appearance of fault and liability for closures.

Attachment: [#9](#)

Public Comment: None



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14. **COVID-19 Wastewater Surveillance Study Update**

Action: No action is required.

Brief: Staff presented the latest data and status of the COVID-19 surveillance work including number of COVID-19 clinical cases in Virginia and regional trends in Hampton Roads; daily new clinical cases and viral load in HRSD treatment Plants; SARS-CoV-2 variants in wastewater; and wastewater sensitivity – moving forward (minimum infections needed in treatment catchment plant to be detected). Data is being provided to National Wastewater Surveillance System and staff is finalizing variant of concern visualizations and analysis. COVID-19 analysis for Department of Corrections, Norfolk State University and Virginia Municipalities continues. Staff is discussing more targeted monitoring with a local health department.

Discussion: Th CDC is receiving our raw data and is using it to test their model which estimates the true number of infections in the communities. HRSD has the largest data set since we began monitoring at the beginning of the pandemic. As of last summer, many national and international municipalities and universities are also contributing information to the wastewater surveillance database.

Commissioner Rodriguez inquired as to the possibility of installing a separate collection port to sample for COVID-19 as new facilities are sited. Staff will discuss further with the Planning and Analysis Division. However, a limitation will be the availability of someone to collect the sample and perform the analysis.

Attachment: [#10](#)

Public Comment: None



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15. **Capital Improvement Program (CIP) Quarterly Update**

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 provided a briefing describing the status of the CIP, financial projections, projects of significance and other issues affecting the program.

Attachment: [#11](#)

Public Comment: None

16. **Unfinished Business**

Staff announced the Woodstock Skate Park and the Providence Road Offline Storage Tank ribbon cutting ceremony is scheduled for June 16.

17. **New Business – None**

18. **Commissioner Comments – None**

19. **Public Comments Not Related To Agenda – None**

20. **Informational Items**

Action: No action required.

Brief: The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Effluent Summary](#)
- d. [Air Summary](#)
- e. [Emergency Declarations - SWIFT Research Center \(RC\) – Backflush pump and well rehabilitation](#)

Attachment: [#12](#)

Public Comment: None

HRSD

COMMISSION MEETING MINUTES April 27, 2021

21. **Closed Meeting**

Action: Motion to go into Closed Meeting for consultation with legal counsel to discuss specific legal issues regarding employment policies concerning the COVID-19 pandemic as provided for in Section 2.2-3711A8.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

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

Brief: Consultation with legal counsel employed or retained by a public body regarding specific legal matters requiring the provision of legal advice by such counsel.

22. **Reconvened Meeting**

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

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

Action: No action is required.

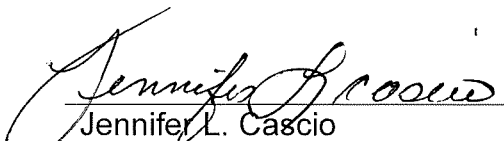
Attachment: None

Public Comment: None

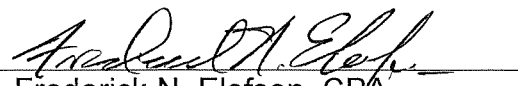
Next Commission Meeting Date: May 25, 2021

Meeting Adjourned: 11:15 a.m.

SUBMITTED:


Jennifer L. Cascio
Secretary

APPROVED:


Frederick N. Elofson, CPA
Chair

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #1

Agenda Item 1. Consent Agenda

CONSENT AGENDA ITEM 1.b.1. – April 27, 2021

Subject: Arc Flash Electrical Safety Training
Contract Award (>\$200,000)

Recommended Action: Award a contract to National Technology Transfer Inc. in the amount of \$316,575.

Type of Procurement: Sole Source

All services were previously approved as a sole source with National Technology Transfer Inc. in July of 2016.

Contract Description: This contract is an agreement for online instruction, classroom instruction and lab exercises for NFPA 70E electrical and electrical audit training. National Technology Transfer Inc. is unique as the provider of these services based on market research from past competitive negotiations in which other companies could not meet HRSD needs. This includes supplying standalone test equipment versus using HRSD equipment which prevents interruption of plant operations and providing hands-on lab exercises with working visual aids.

CONSENT AGENDA ITEM 1.c.1. – April 27, 2021

Subject: Climate Change Planning
Task Order (>\$200,000)

Recommended Action: Approve a task order with CDM Smith, Inc. in the amount of \$676,780.

CIP Project: GN017100

Budget	\$3,000,000
Previous Expenditures and Encumbrances	(\$2,323,220)
Available Balance	\$676,780

Contract Status:	Amount
Original Contract with CDM Smith, Inc.	\$828,000
Total Value of Previous Task Orders	\$1,494,000
Requested Task Order	\$676,780
Total Value of All Task Orders	\$2,170,780
Revised Contract Value	\$2,998,780

Project Description: The Hampton Roads Planning District Commission (HRPDC) has adopted a range of 3 to 4.5 feet as the planning range for sea level rise by 2100. When this elevation is added to the Virginia Institute of Marine Science (VIMS) 100-year flood projections, the Hampton Roads region could be significantly impacted by the year 2060. In addition, there are several other climate change scenarios that will also have impacts to our facilities. These include recurrent flooding and extreme storm events (those beyond the level of service) which could cause damage to HRSD infrastructure. This study will look at ensuring continuing operation of HRSD facilities during these events and to prepare for Sea Level Rise. From this analysis, additional CIP projects will be determined in order to prepare HRSD for resiliency today and future climate change.

Task Order Description and Analysis of Cost: The first effort is for extending Work Order 1, Project Management. This is the overall management of the study which includes meetings and status reports, as needed. A fee of \$120,000 was negotiated and was considered to be appropriate for this effort. The second effort is for Work Order 6, Climate Change Adaptation Plan and Dynamic Dashboard. This task will provide a long-term plan for addressing climate change impacts to HRSD treatment plants, pressure reducing stations, and pump stations (facilities) exposed to flooding over an 80-year planning horizon. The estimated representative damages and flood mitigation measure cost data will be summarized in a database and a dashboard will be developed to visualize the data. A fee of \$556,780 was negotiated and was considered to be appropriate for the this phase of the study.

Schedule: Final Report February 2022

CONSENT AGENDA ITEM 1.c.2. – April 27, 2021

Subject: James River Treatment Plant Advanced Nutrient Reduction Improvements
Task Orders (>\$200,000)

Recommended Action:

- a. Approve task order with Tidewater Utility Construction Inc. in the amount of \$257,226.
- b. Approve task order with Tidewater Utility Construction Inc. in the amount of \$499,179.

CIP Project: JR013400

Budget	\$231,764,106
Previous Expenditures and Encumbrances	(\$219,867,102)
Available Balance	<u>\$11,897,004</u>

Contract Status:	Amount
Original Contract with Tidewater Utility Construction Inc.	\$0
Total Value of Previous Task Orders	\$2,036,240
Requested Task Order	\$756,405
Total Value of All Task Orders	\$2,792,645
Revised Contract Value	\$2,792,645

Project Description: This project is for the design and construction of improvements to the secondary treatment process at the James River Treatment Plant. The scope includes equalization of primary effluent, modifications to the Integrated Fixed Film Activated Sludge (IFAS) system, increased IFAS media fill, demolition of existing secondary clarifiers (1, 2, and 3), replacement with new rectangular secondary clarifiers, conversion of clarifier 5 to a post denitrification moving bed bio-reactor (MBBR), chemical storage and feed systems, and all pumping, piping, instrumentation, and site work required. Current estimate does not include any upgrades to the treatment plant electrical system backbone.

The current James River ANRI Design-Build project scope includes a polishing MBBR process post-secondary clarification. Based on a pilot scale study conducted at JRTP in 2020 the project team believes that incorporating partial denitrification-anammox (PdNA) into the existing integrated fixed-film activated sludge (IFAS) process will eliminate the need for the MBBR, which will significantly reduce capital costs and also reduce external carbon needs during future operation. Post monitoring of the installed full-scale pilots will validate this assumption. HRSD will evaluate fixed media IFAS (FIFAS) in conjunction with more standard moving media IFAS (MIFAS) to determine the feasibility of each alternative and make a selection to retrofit the remaining reactors. The findings of this study will also inform future projects at other HRSD 5-stage plants that need to achieve PdNA.

Task Order Description: These task orders consist of making modifications to 2 of 9 existing IFAS reactors at JRTP to operate two separate full scale PdNA demonstrations.

The first task order consists of making modifications to the IFAS tank No. 5 at JRTP, to facilitate a PdNA MIFAS system. The work will involve installation of a media containment zone, plastic IFAS media, a new slide gate and other ancillary components necessary to complete the conversion.

The second task order consists of making modifications to IFAS tank No. 8 at JRTP, to facilitate a PdNA FIFAS system. The work will involve installation of a fixed media module zone, the fixed media modules, and other ancillary components necessary to complete the conversion.

Analysis of Cost: This cost is in agreement with the existing Sewer Repair and Condition Assessment contract and other similar projects.

<u>Schedule:</u>	PER	July 2019
	Design	October 2019
	Bid	May 2022
	Construction	October 2021
	Project Completion	January 2026

CONSENT AGENDA ITEM 1.c.3 – April 27, 2021

Subject: Middlesex Interceptor System Program Phase II – Transmission Force Main Task Order (>\$200,000)

Recommended Action: Approve a task order with Kimley-Horn in the amount of \$314,810.

CIP Project: MP013730

Budget	\$33,027,000
Previous Expenditures and Encumbrances	(\$1,877,700)
Available Balance	\$31,149,300

Contract Status:	Amount
Original Contract with Kimley-Horn	\$1,877,700
Total Value of Previous Task Orders	\$0
Requested Task Order	\$314,810
Total Value of All Task Orders	\$314,810
Revised Contract Value	\$2,192,510
Engineering Services as % of Construction	8.6%

Project Description: This project includes approximately 17 miles of sewer force main piping that extends from Urbanna to a proposed connection to HRSD's Mathews Transmission Force Main near the intersection of Twiggs Ferry Road and Buckley Hall Road (Route 3/198). The force main will convey wastewater from Middlesex County to HRSD's York River Treatment Plant and enable decommissioning of both the HRSD Urbanna and Central Middlesex Treatment Plants. This project will be designed and constructed by HRSD. A portion of this project will be funded through the Virginia Clean Water Revolving Loan Fund Program and the Virginia Water Quality Improvement Fund Program.

Task Order Description: This task order will provide easement acquisition assistance for approximately 50 parcels of land.

Analysis of Cost: The cost for this task order is based on a negotiated number of consulting hours and hourly rates to negotiate for permanent and temporary construction easements across an estimated 50 properties. The engineering services as a percentage of construction cost is comparable to other force main projects of similar size and complexity.

Schedule:	Design	January	2021
	Bid	January	2022
	Construction	April	2022
	Project Completion	May	2025

CONSENT AGENDA ITEM 1.c.4. – April 27, 2021

Subject: Nansemond Treatment Plant Digester Capacity Upgrade
Task Order (>\$200,000)

Recommended Action: Approve a task order with Hazen and Sawyer (Hazen) in the amount of \$1,242,580.

CIP Project: NP014700

Budget	\$10,500,000
Previous Expenditures and Encumbrances	(\$199,423)
Available Balance	\$10,300,577

Contract Status:	Amount
Original Contract with Hazen	\$199,423
Total Value of Previous Task Orders	0
Requested Task Order	\$1,242,580
Total Value of All Task Orders	\$1,442,003
Engineering Services as % of Construction	11%

Project Description: This project will improve and replace certain equipment associated with the Nansemond Treatment Plant (NTP) anaerobic digester process in advance of receiving consolidated wastewater from the Boat Harbor Treatment Plant (BHTP) service area. The following equipment will be evaluated, designed, and constructed under this CIP to meet projected loading: Digester mixing pumps and piping; Centrifuge feed pumps; Process boilers; Sludge heat exchangers; Digester gas collection metering and waste gas burners; Deammonification, WASSTRIP downstream of dewatering centrifuge, Digestion process instrumentation and controls; Digestion process electrical systems. Wastewater from the BHTP service area will be diverted and combined with existing NTP primary influent beginning in first half of FY-2026. The additional loading on NTP will require capacity upgrades to the anaerobic digestion process, including the ability of the current digestion systems to treat pre-dewatered primary and waste activated solids up to a concentration 7% total dry solids. By providing the capability of treating thicker solids in the existing anaerobic digesters, this project alleviates the need to construct additional anaerobic digester volume, which reduces overall NTP upgrade costs and reserves limited on-site space for future needs. This project will be designed in parallel with the Nansemond Treatment Plant Struvite Recovery Facility Equipment Upgrade which provides pre-dewatering facilities needed to make beneficial use of the capacity enhancements provided under this project.

Task Order Description: This task order will provide design and bid phase services for the project.

Analysis of Cost: The cost for this task order is based on a negotiated price between Hazen and HRSD. The design phase services as a percentage of construction cost is 7.4%. This compared well to similar projects.

Schedule:	PER	December 2020
	Design	May 2021
	Bid	December 2021
	Construction	March 2022
	Project Completion	March 2024

CONSENT AGENDA ITEM 1.c.5. – April 27, 2021

Subject: Nansemond Treatment Plant Struvite Recovery Facility Improvements
Task Order (>\$200,000)

Recommended Action: Approve a task order with Hazen and Sawyer (Hazen) in the amount of \$763,340.

CIP Project: NP013700

Budget	\$6,628,400
Previous Expenditures and Encumbrances	(\$4,293,593)
Available Balance	\$2,334,807

Contract Status:	Amount
Original Contract with Hazen	\$70,255
Total Value of Previous Task Orders	\$1,545,250
Requested Task Order	\$763,340
Total Value of All Task Orders	\$1,615,505
Engineering Services as % of Construction	14%

Project Description: This project involves the implementation of the WASSTRIP® (Waste Activated Sludge Stripping to Remove Internal Phosphorus) process and improvements to the Struvite Recovery Facility (SRF). The WASSTRIP process consists of the storage of thickened WAS/PS in a tank for a period sufficient to allow phosphorus and magnesium release, followed by post thickening, and transfer of thickened solids to digestion. The thickening filtrate (WASSATE) will be transferred to the SRF reactors along with the existing centrate stream. The SRF upgrade includes improvement of the chemical system, additional reactor capacity, and upgrades to the ancillary equipment. This project will be completed as one construction project in unison with the Digester Capacity Upgrade (NP014700).

A design for NP013700 was completed previously but only for Nansemond Treatment Plant (NTP) flows. HRSD's recent decision to continue digestion at NTP has resulted in the need to design the WASSTRIP and SRF processes to be sized for flows from both the Boat Harbor Treatment Plant and Nansemond Treatment Plant. This requires a new pre-dewatering building as well as additional tankage and ancillary equipment and piping.

Task Order Description: This task order will provide design phase services for the project.

Analysis of Cost: The cost for this task order is based on a negotiated price between Hazen and HRSD. The design phase services as a percentage of construction cost is 5%. This is low compared to similar projects, but this is due to the ability for Hazen to utilize previous work to complete the design.

Schedule:	PER	September 2017
	Design	May 2018
	Bid	December 2021
	Construction	March 2022
	Project Completion	March 2024

CONSENT AGENDA ITEM 1.c.6. – April 27, 2021

Subject: Treatment Plant Server and UPS Replacement and CISCO Equipment Refresh Task Order (>\$200,000)

Recommended Action: Approve a task order with CDW LLC dba CDW-Government (CDW-G) LLC in the amount of \$647,928.

Contract Status:	Amount
Original Contract with CDW-G LLC	\$100,000
Total Value of Previous Task Orders	\$2,612,512
Requested Task Order	\$647,928
Total Value of All Task Orders	\$3,260,440
Revised Contract Value	\$3,360,440

Project Description: The servers and uninterruptible power supplies (UPS) are being procured as part of HRSD's technology refresh program. The network equipment, comprised of routers, switches, servers, and uninterruptible power supplies, will replace existing equipment which has reached end of support by the manufacturer, or is scheduled for replacement, based upon criticality of function, and age.

Task Order Description: This task order will provide the necessary equipment to replace aging equipment for ended support by the manufacturers.

Analysis of Cost: The cost for this task order is based on the quotation provided by CDW-G LLC and discount off retail pricing. HRSD is receiving a 53% - 68% discount on most products by utilizing our contract with CDW-G LLC.

CONSENT AGENDA ITEM 1.d.1. – April 27, 2021

Subject: AC Variable Frequency Drive Enclosures, Parts and Repairs
Sole Source (>\$10,000)

Recommended Action: Approve AC Variable Frequency Drive Enclosures, Parts and Repairs for use at the Boat Harbor Treatment Plant.

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: This purchase includes a NEMA 12 variable frequency drive (VFD) enclosure and all associated components that are used on the primary clarifiers at the Boat Harbor Treatment Plant (BHTP). The drives control the pumping speed of the solids from each of the six primary clarifiers to the solids handling holding tanks.

This sole source is unique to BHTP as there are three existing AC VFD enclosures already installed on primary clarifiers 1 through 3. Additional enclosures are needed for primary clarifiers 4 through 6 and to maintain consistency with pre-programming and functionality with the existing enclosures.

CONSENT AGENDA ITEM 1.d.2. – April 27, 2021

Subject: Chemtrac Sensors, Probes and Analyzers
Sole Source (>\$10,000)

Recommended Actions: Approve Chemtrac Sensor, Probes and Analyzers for use at all HRSD facilities.

Sole Source Justification:

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

Details: Purchase includes Chemtrac HydroAct Residual Chlorine Analyzer with single open flow cell, Chemtrac HydroAct Sensor Total Chlorine, pH2 Probe, gray scale display, analog output, 15 ft. of cable, flow cell, membrane cap, and one-year supply of electrolyte. Analyzers, probes, and probe cells are the equipment used to read the chlorine residuals in the effluent process. The analyzers will supply HRSD with the Chlorine Residuals required for the Virginia Pollution Discharge Elimination System (VPDES) permit.

Previous competitive Solicitation in May 2016 determined only one authorized distributor for this product.

CONSENT AGENDA ITEM 1.d.3. – April 27, 2021

Subject: Industrial Turnaround Corporation DBA ITAC Pre-Engineered Components and Services
Sole Source (>\$10,000)

Recommended Actions:

- a. Approve the use of ITAC pre-engineered components for switchgear and generator controls for use at the Boat Harbor and Williamsburg Treatment Plants.
- b. Approve the use of ITAC design, commissioning, start-up, and programming services at the Boat Harbor and Williamsburg Treatment Plants.

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: ITAC previously provided Woodward Easygen 3400XT-P2 Controllers, LS5 Main/Tie Breaker Controllers, Generator Operator Interface Panels, and Generator Data Link Gateway; design, programming and site visits for unit-specific settings as part of the generator upgrade projects at Boat Harbor and Williamsburg Treatment Plants. Parts and services included in this request are to maintain operation of the switchgear and controllers to reduce significant downtime during power outages. These units are interchangeable between both plants and will help to minimize training.

CONSENT AGENDA ITEM 1.d.4. – April 27, 2021

Subject: Xylem Ozone System Preventative Maintenance and Replacement Parts
Sole Source (>\$10,000)

Recommended Action: Approve Xylem Water USA as the provider of preventive maintenance for the Xylem Ozone System including all associated parts and equipment for use at the SWIFT Research Center.

Sole Source Justification:

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

Details: Services include annual preventative maintenance for the Ozone Disinfection System. The preventative maintenance includes servicing the gas analyzers and the N2 Boost System as well as the purchase of replacement parts used to calibrate the Ozone Disinfection System and on-site assistance from Xylem technicians.

The Ozone Disinfection System was installed by Crowder Construction Company during the SWIFT Research Center construction.

CONSENT AGENDA ITEM 1.e.1. – April 27, 2021

Subject: Fleet Management Program
Contract Award (>\$200,000)

Recommended Actions:

- a. Approve the use of the Sourcewell Contract #122017-FSC-2 for purchase of a VACCON Combination Sewer Flusher Truck from Infrastructure Solutions Group Inc.
- b. Award a contract to Infrastructure Solutions Group Inc. in the amount of \$591,371.

CIP Project: GN017700

HRSD Estimate: \$591,000

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

Contract Description: This contract is for the purchase of a VACCON Combination Sewer Flusher Truck with a 12-yard debris body, water recycling system and 1,500-gallon water capacity. Sourcewell competitively solicited this cooperative contract solution. HRSD is eligible to use this competitively bid contract.

Analysis of Cost: By utilizing the cooperative contract through Sourcewell, HRSD is receiving three percent cost savings.

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #2

Agenda Item 2. Revenue Policy

- [Policy](#)
- [Presentation](#)

COMMISSION ADOPTED POLICY
Revenue Policy



Adopted: May 23, 2017
Commission Revision: ~~May 28, 2019~~ May 25, 2021
Effective: July 1, 2021

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1.0 Purpose and Need

The purpose of this revenue policy is to ensure that there is sufficient revenue to support direct and indirect operating, capital, reserves and current and future debt service costs.

2.0 Definitions

2.1 Domestic Quality Wastewater. Defined in accordance with HRSD's Domestic Wastewater Survey that specifies the primary pollutants and the corresponding concentration levels for domestic wastewater.

2.2 Domestic Quality Wastewater Survey. A sampling evaluation of wastewater to define Domestic Quality Wastewater concentrations of primary pollutants conducted in residential neighborhoods in various localities (cities/counties) served by HRSD.

2.3 Facility Charges. Charges to cover the cost of treatment and conveyance capacity consumed by new connections or redevelopment. Facility charges are applied to any sewer or sewer system discharging into HRSD facilities and any increase to existing service.

~~2.3~~**2.4 Fats, Oils, and Grease (FOG).** *Wastewater created from the cleaning of a grease control device (GCD) and transported and discharged to a wastewater treatment plant by conveyance other than pipelines.*

~~2.4~~**2.5 Flat Rate.** A constant rate applied to customer accounts in lieu of a metered based bill. The rate is based on the winter average water consumption of existing flat rate accounts as determined periodically.

~~2.5~~**2.6 Hauled Wastewater.** Wastewater transported and discharged to a wastewater treatment plant by conveyance other than pipelines, *excluding Fats, Oils and Grease (FOG) waste from a grease control device (GCD).*

~~2.6~~**2.7 High Strength or Unusual Waste.** Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Total Phosphorus (TP), and Total Kjeldahl Nitrogen (TKN) discharged waste concentrations that exceed those defined as Domestic Quality Wastewater or unusual wastes not covered by the Rate Schedule that may be considered separately and may be assigned a special rate.

~~2.7~~**2.8 HRSD Charges.** Any and all charges or fees billed to customers for wastewater services provide by HRSD.

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- 2.82.9 HRSD Collection System.** All infrastructure conveying flow to the Interceptor System in localities where HRSD owns or operates a collection system.
- 2.92.10 HRSD Collection System Charges.** Rates for HRSD Collection System operating and maintenance costs that are in addition to Wastewater Treatment Charges.
- 2.102.11 HRSD Enabling Act.** The Commonwealth of Virginia 1960 Acts of the Assembly, c. 66 as amended.
- 2.112.12 HRSD Rate Schedule.** Published listing of rates, fees and charges applicable for specified time frame.
- 2.122.13 Interceptor System.** Larger diameter pipelines conveying flow from the collection system to the Wastewater Treatment Plant.
- 2.132.14 NAICS Surcharge Categories.** The North American Industry Classification System (NAICS) standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.
- 2.142.15 Rational Nexus Criteria.** These ensure that there is a reasonable connection between HRSD Charges and the actual cost of operating the wastewater system. These criteria ensure: (1) the charges are not arbitrary, (2) the charges are equitable, and (3) the charges are not discriminatory.
- 2.152.16 Regional Sanitary Sewer System.** All portions of the individual locality and HRSD wastewater collection and interceptor systems and appurtenances thereto.
- 2.162.17 Surcharge Rate.** Rates for High Strength or Unusual Wastes to recover costs in direct proportion to volume and pollutant concentrations. Surcharge rates are based on a marginal cost approach for the variable costs associated with the incremental costs to treat High Strength or Unusual Wastes.
- 2.172.18 Wastewater Treatment Charges.** Charges to convey and treat Domestic Quality Wastewater that are based on billed water consumption, an effluent wastewater meter, or a Flat Rate.
- 2.19 Wastewater Treatment Rate.** Rate per specified unit of measure to recover the costs of conveyance and treatment of Domestic Quality Wastewater.

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~~2.18~~**2.20** **Town Wholesale Treatment Rate.** *Rate paid by an~~the~~ incorporated town per specified unit of measure to recover the costs of conveyance and treatment of Domestic Quality Wastewater when the town does not use all HRSD facilities or need all of the services provided to a typical customer. This rate is only applicable to incorporated towns with a population less than 2,000.*

3.0 Guiding Principles

3.1 General.

- 3.1.1** To the extent feasible, HRSD is a cost recovery enterprise and supports a uniform rate structure for interception and treatment regardless of which wastewater treatment plant treats a customer's wastewater.
- 3.1.2** Wastewater Treatment and Collection Charges shall not be waived. However, payment extensions may be established for the collection of HRSD Charges.
- 3.1.3** All new connections and redevelopment shall pay an equitable share for the treatment and conveyance capacity consumed by their wastewater discharge to the Regional Sanitary Sewer System.
- 3.1.4** All HRSD rates shall be reviewed and revised (if required) at least annually and approved by the Commission. Changes shall be publicly advertised in accordance with HRSD's Enabling Act and posted on HRSD's web site.
- 3.1.5** Surcharge rates are set to recover costs in direct proportion to volume and pollutant concentrations in excess of Domestic Quality Wastewater.
- 3.1.6** Facility Charges ensure that an unfair burden is not placed on existing users that would otherwise pay higher rates to expand the system to accommodate new flows and loads to HRSD's facilities. HRSD uses the Rational Nexus Criteria as one of the guiding principles to derive Facility Charges.
- 3.1.7** HRSD will not depend on temporary revenues such as grants to fund operating costs. One-time temporary revenues or grants should typically be used to fund one-time expenses.
- 3.1.8** Surcharge rates are applied to non-permitted commercial facilities using sampling data for groups of businesses that produce similar goods or services using the North American Industry Classification System (NAICS).

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3.2 Basis of Charges.

3.2.1 Wastewater Treatment Charges

- (1) The Wastewater Treatment Rate is derived from the Rate Model, see Appendix A.
- (2) Volumetric Accounts
 - a. Volume of water purchased by the customer (as recorded by a water meter); or,
 - b. Volume of effluent discharged to the sewer system (as recorded by an effluent meter)
- (3) A rate based on facility use and billing period.
- (4) A single family residential Flat Rate as defined herein.
- (5) HRSD treatment plants are designed to treat domestic quality wastewater. Additional charges may be assessed for wastewater with qualities that differ from the current definition of Domestic Quality Wastewater.
- (6) Minimum charges apply to all accounts, except as specified herein.

3.2.2 Facility Charges.

- (1) HRSD shall establish Facility Charges for new connections based upon the size of the water meter serving the new connection. If the locality does not offer a specific meter size, a combination meter is proposed, or another similar scenario exists, the Facility Charge may be based on a calculated meter size using the AWWA M22 Sizing Water Service Lines and Meters manual. Additional special exceptions, including redevelopment provisions, may be outlined in the HRSD Rate Schedule.
- (2) The Facility Charge for each meter size is based on the total net replacement value of all HRSD's assets, HRSD's total hydraulic capacity, and the average water consumption for each meter size.
- (3) HRSD reserves the right to require Facility Charges based upon wastewater that differs from domestic quality wastewater and that consumes loading capacity in excess of capacity consumed by the equivalent volume of Domestic Quality Wastewater.

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3.2.3 HRSD Collection System *Rate*. – A rate to recover HRSD costs for maintenance and operation of HRSD owned collection systems. The rate shall be based upon the weighted average rate charged by localities within the HRSD service area for collection system operation and maintenance of locality owned collection systems. Localities that do not charge a Locality collection rate will be excluded from this calculation. The weighted average will be based on the latest population estimates provided by the Welden Cooper Center for Public Service or other Commonwealth designated demographics agency. HRSD may establish separate collection system maintenance charges for each locality within the HRSD Collection System where warranted by unique circumstances.

3.2.4 Hauled Wastewater Rate. – This rate is based on five individual charges *specific to Hauled Wastewater*: BOD, TSS, TP, TKN and volume as derived from the HRSD Rate Model *and may include applicable credits*, see Appendix A, and are not subject to a minimum charge. Since waste haulers do not use the Interceptor System, those costs are excluded from the volume rate.

3.2.5 *Fats, Oils, and Grease (FOG) Rate*. – *This rate is based on five individual charges specific to FOG: BOD, TSS, TP, TKN and volume as derived from the HRSD Rate Model and may include applicable credits, see Appendix A, and are not subject to a minimum charge. Since waste haulers do not use the Interceptor System, those costs are excluded from the volume rate.*

3.2.4.3.2.6 *Town Wholesale Treatment Rate*. – *This rate is based on HRSD's average unit costs to: (1) treat wastewater in all of its major wastewater plants, (2) transport wastewater from HRSD's member municipalities through its interceptor systems, and (3) the management, administration, and support costs applicable to these services. This charged volume is based on an effluent meter where ~~at~~ the town discharges into the HRSD System, which will include infiltration and inflow.*

4.0 Procedures

4.1 Determining Costs Used in the HRSD Rate Model, See Appendix A.

4.1.1 The budgeted annual costs shall be used to calculate rates that will be in effect for the budget fiscal year.

4.1.2 Budgeted costs shall be loaded into a comprehensive rate model to allocate costs to applicable categories annually. This model shall allocate costs to volume and each pollutant identified in the most recent Domestic Wastewater Survey.

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4.1.3 The Domestic Wastewater Survey shall be updated every five years or more frequently if permit requirements or treatment technology changes warrant revisiting.

4.2 Determining Total Wastewater Volume.

The total volume of wastewater to be billed during a budget year shall be estimated based upon the water consumption trends within the HRSD service area and other information when available.

4.3 Calculating Rates.

4.3.1 The model shall calculate the Wastewater Treatment Rate based on total budgeted cost divided by the estimated volume of wastewater to be billed in the fiscal year. The rate shall be expressed in dollars per hundred cubic feet or per 1,000 gallons.

4.3.2 The HRSD Rate Model shall calculate the Surcharge Rate for High Strength Waste based on the incremental cost to treat each additional pound of each pollutant in excess of the pounds of pollutants identified for Domestic Quality Wastewater in the most recent HRSD Domestic Quality Wastewater Survey. The rates shall be expressed in dollars per 100 pounds or per milligrams per liter per hundred cubic feet of wastewater.

4.3.3 Facility Charges shall be calculated by dividing the replacement cost for all HRSD facilities by HRSD's total hydraulic capacity to obtain the replacement cost per gallon. This replacement cost per gallon shall be multiplied by the estimated flow expected from new connections and redevelopment and expressed in dollars per meter size. The estimated flow is based on the average daily flows for each size water meter using actual historical data from HRSD's meter database and any additional information available.

4.3.4 Flat Rate shall be calculated by determining the average water consumption for the months of January, February, and March for all existing flat rate accounts for a 30-day period multiplied by the Wastewater Treatment Rate.

4.3.5 Daily Minimum shall be calculated by dividing the total labor costs (not dependent on volume of wastewater conveyed or treated) of the Operations Department by the total number of accounts' ten-year rolling average divided by 365.

4.3.5 **4.3.6** *Surcharge Rates shall be calculated using moving averages using historical data to dampen the year-over-year volatility.*

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4.4 Implementation.

4.4.1 All rates shall be approved by the Commission.

4.4.2 Rates shall be advertised for four consecutive weeks in a newspaper of general circulation within the District.

4.5 Financial Forecast.

HRSD will analyze water consumption, regional economic and population data periodically to identify any trends that may impact its long-range financial forecast. HRSD will also analyze and conservatively project major expense drivers, such as construction costs, inflation, operating cost increases, and borrowing costs. The forecast should target financial metrics, across the twenty-year period, that are consistent with rating agency metrics for a strong, double-A rated credit. This approach will ensure the long-range forecast is resilient and maintains HRSD's strong financial framework.

4.6 Collections.

4.6.1 HRSD will monitor all collections to ensure they are equitably administered, timely and accurate. The cost of collections shall not exceed the marginal incremental revenue and it should not be a large percentage of the amount to be collected.

4.6.2 Charges shall be collected for all services rendered unless determined to be uncollectable.

4.6.3 Charges may be assessed for services received but not billed (for any reason) for a period of up to three prior years. The rate in effect in the year treatment services were provided shall be applied. If necessary, at HRSD's sole discretion, billing adjustments and/or payment plans may be established for payment of delayed billing or unbilled previous service.

4.6.4 Past due charges for services received and billed shall be pursued for up to 10-years after write-off.

4.6.5 If a customer has past due charges on any account for services received, and establishes a new account within HRSD's service area, customer will be subject to the past due charges being transferred to their active account, and collection will be pursued.

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5.0 Responsibility and Authority

- 5.1 The General Manager shall ensure the Commission reviews all rates annually as part of the annual budget process.
- 5.2 Rates may only be changed with an affirmative vote of a majority of the Commission at a legally noticed public meeting of the Commission.
- 5.3 The General Manager shall ensure any rate revisions are advertised and published in accordance with the HRSD Enabling Act.
- 5.4 The Director of Finance will present an updated Financial Forecast to the Commission and manage the update to the Rate Model on an annual basis.

Approved: _____

Frederick N. Elofson
Commission Chair

_____ Date

Attest: _____

Jennifer L. Cascio
Commission Secretary

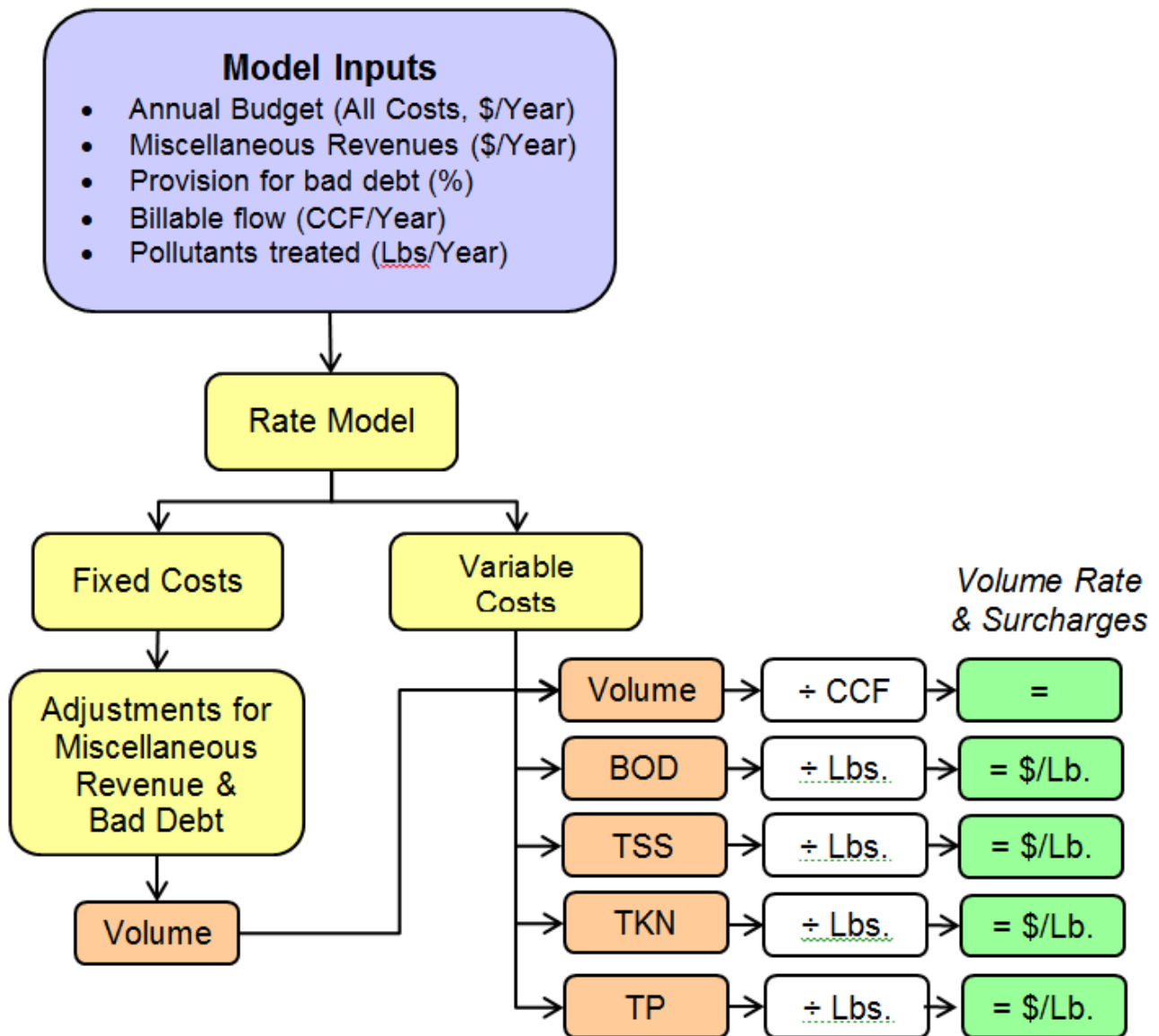
_____ Date



1.0 HRSD's Rate Model Summary

HRSD's Rate Model uses a cost accounting process to allocate all operating costs to volume and each of four specific pollutants. The model designates each line item cost as fixed or variable. Fixed costs are those that are not influenced, in the short run, by volume or the quantity of pollutants in the wastewater being treated. These include for example, personnel costs, office, administrative, customer service, billing and collection expenses, and debt service. Conversely, variable costs are those that are affected by the volume and the amount of pollutants present; these include treatment plant expenditures for chemicals, electricity, fuel, and solids disposal. The rate model uses engineering criteria to allocate the variable costs to each of the four pollutants. Once the operating costs have been allocated, the model deducts miscellaneous revenues, includes a provision for bad debt, and derives rates for volume (\$/CCF) and high strength surcharges (\$/pound); the latter equates to HRSD's marginal or incremental cost attributable to treating each pollutant in excess of the amount present in typical domestic wastewater and is also presented as the equivalent \$ per mg/l per 100 CF to facilitate calculation by customers. –Net fixed costs and the variable costs to treat the four pollutants present in typical domestic sewage are recovered via the volume rate and surcharges.

2.0 Rate Model Schematic





FY2022 Budget
April 27, 2021

- Revenue Policy Changes
- FY22 Budget
- FY22-31 CIP
- Financial Forecast
- Rates
 - Small Communities
 - Surcharge
 - Hauled Waste and New Fats, Oils and Grease (FOG) Rate
 - Facility Charges

Proposed Revenue Policy Changes

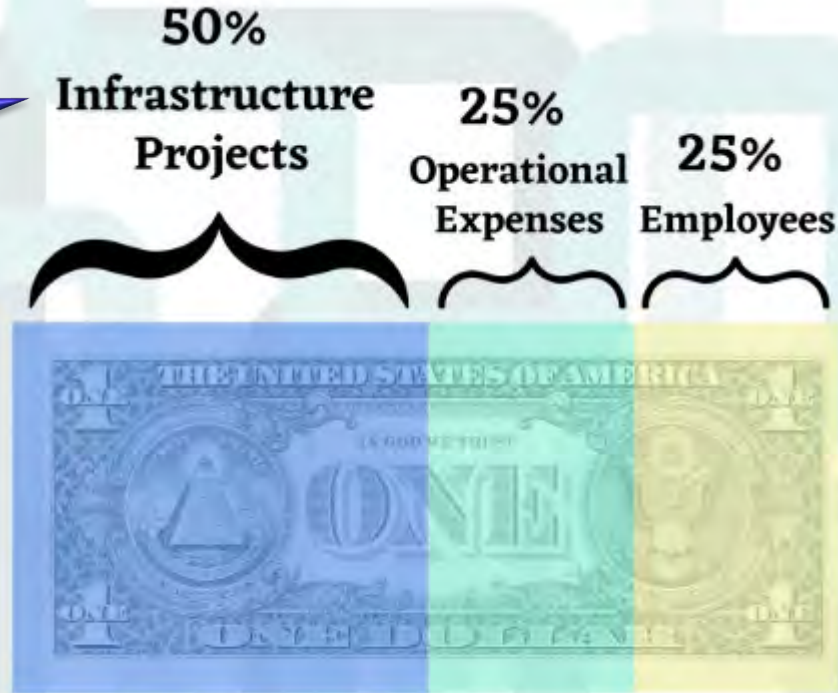
- Last updated July 2019
- New Fats, Oils, and Grease (FOG) Rate established
- Town Wholesale Rate – limited to towns with a population less than 2,000 and where the town is billed based on effluent meter data
- Changes to using moving averages for Surcharge Rates setting
 - Dampens changes year-to-year

FY22 Budget At-A-Glance

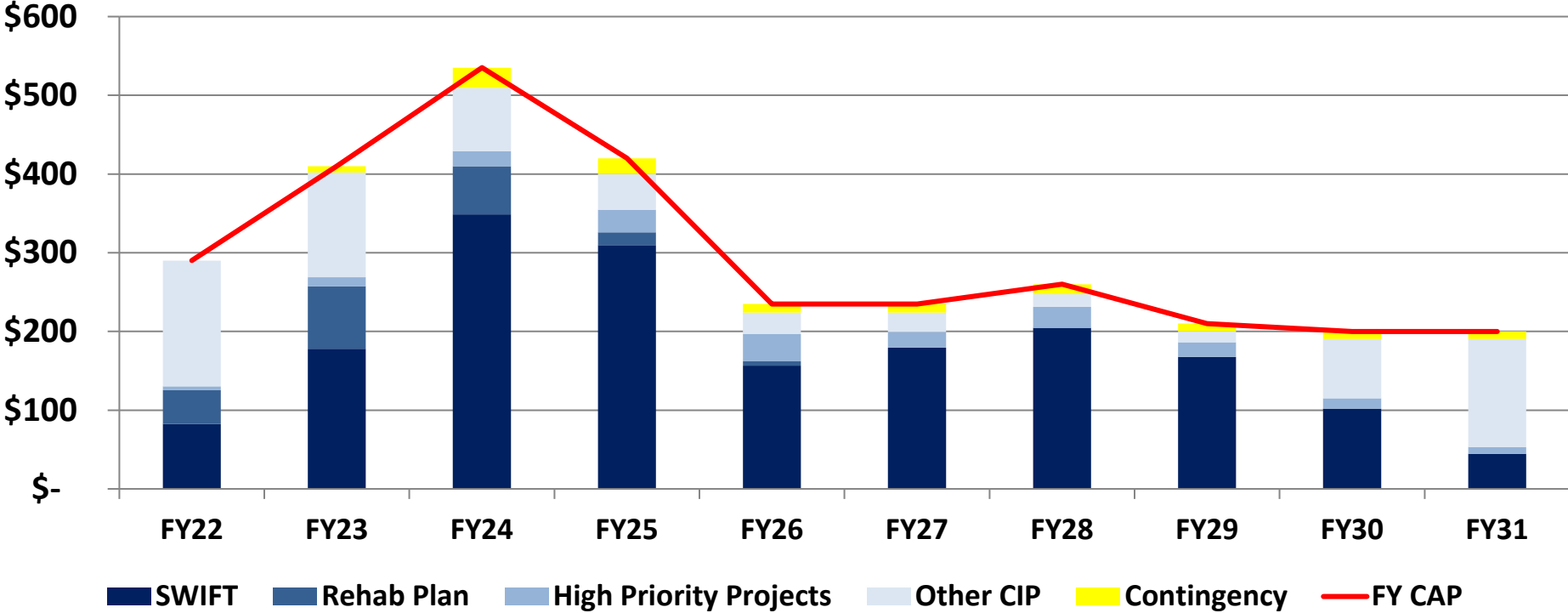
• Revenue	\$357M	9% Rate Increase
• Operating Expenses	- \$178M	1.5% YOY Increase
• Debt Service	- \$65M	\$5.1M Projected New
• PAYGO (Cash for CIP)	= \$114M	\$58M FY21 Carry-over
• FY22 Capex	= \$290M	Clean Water Loans WIFIA Line of Credit
• Financed Amount	= \$176M	
• 10-year CIP = \$3.0B		
• 20-year CIP = \$5.1B		

Where does HRSD spend money? 50% is for Infrastructure

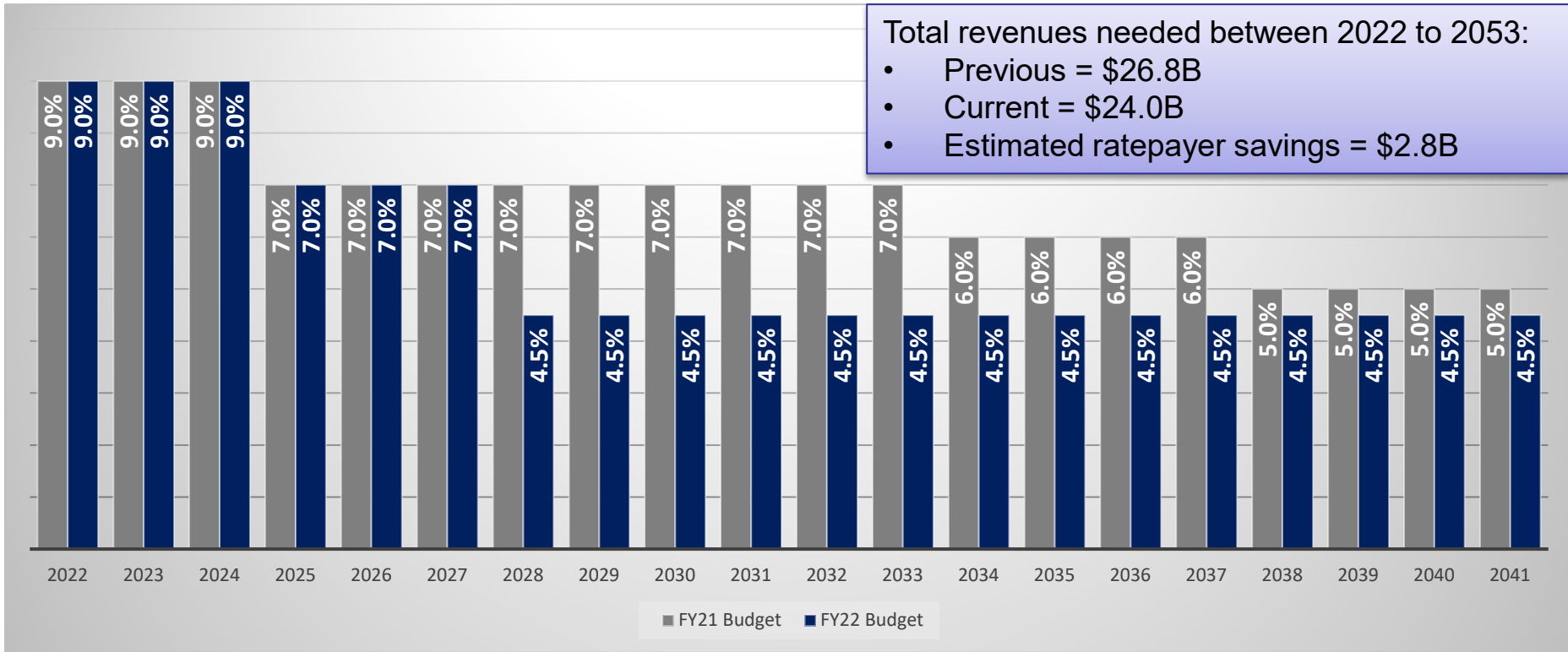
Debt Service +
Cash for CIP



Annual CIP Spend by Major Program

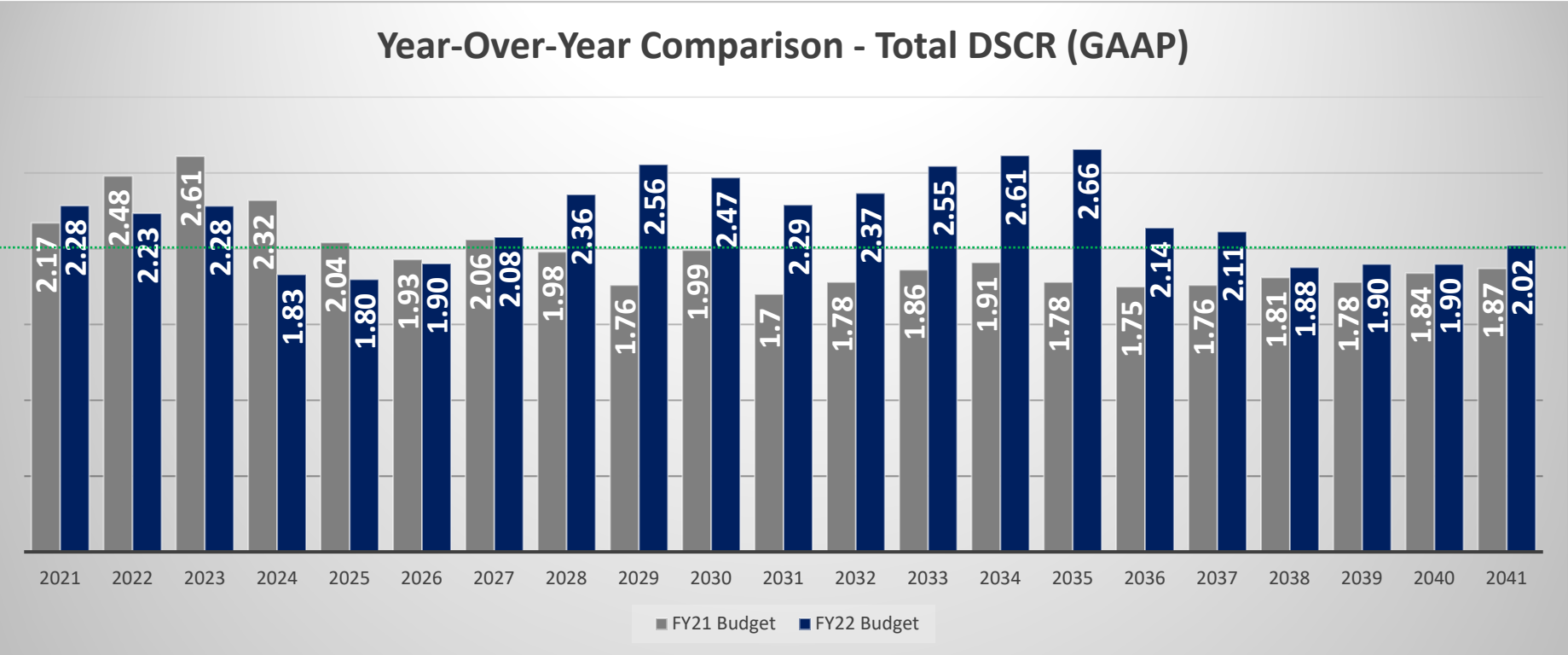


Projected Wastewater Rates - \$2.8B in Ratepayer Savings

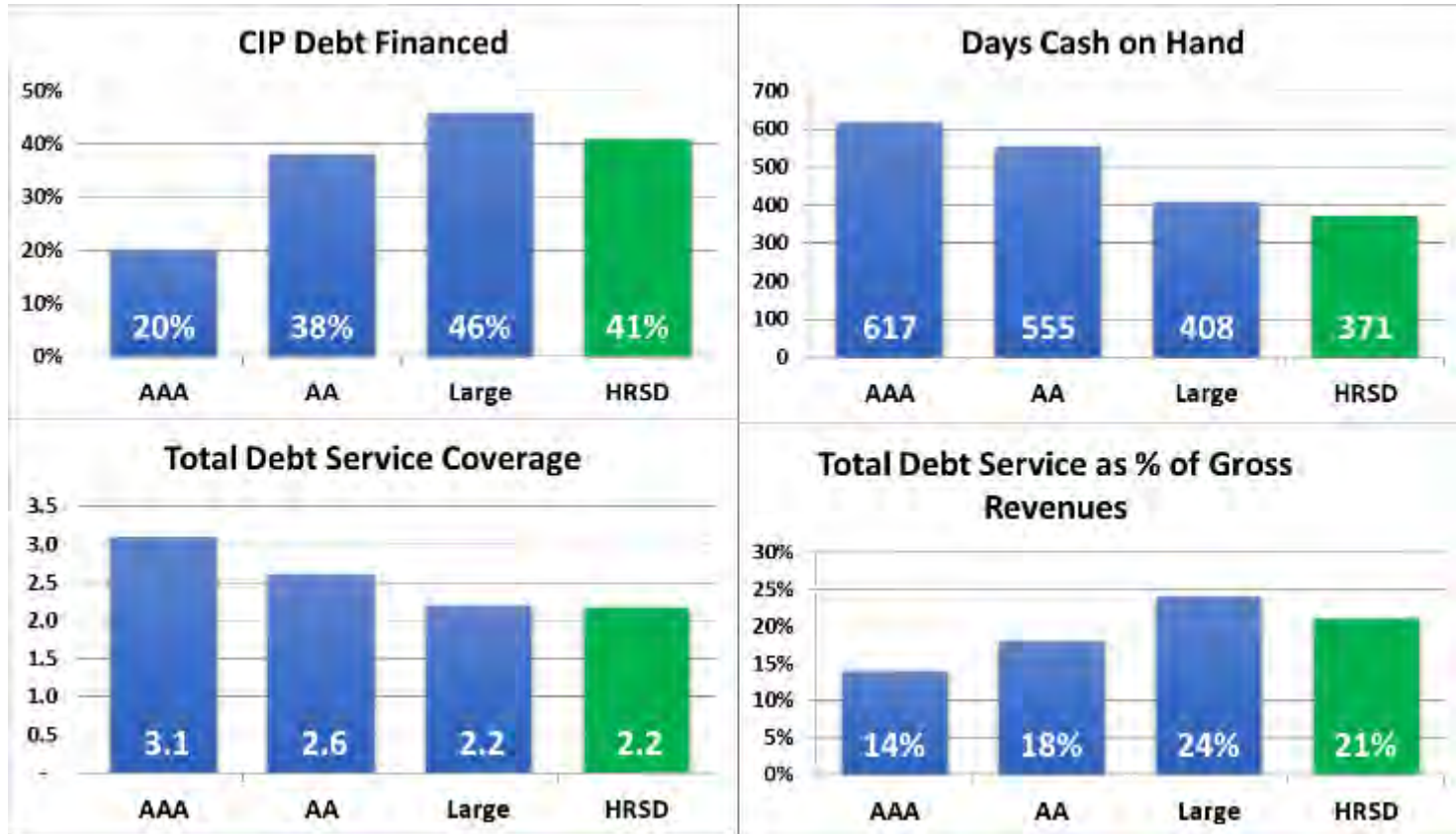


20-Year Financial Forecast – Debt Service Coverage Target = 2.0x

Year-Over-Year Comparison - Total DSCR (GAAP)

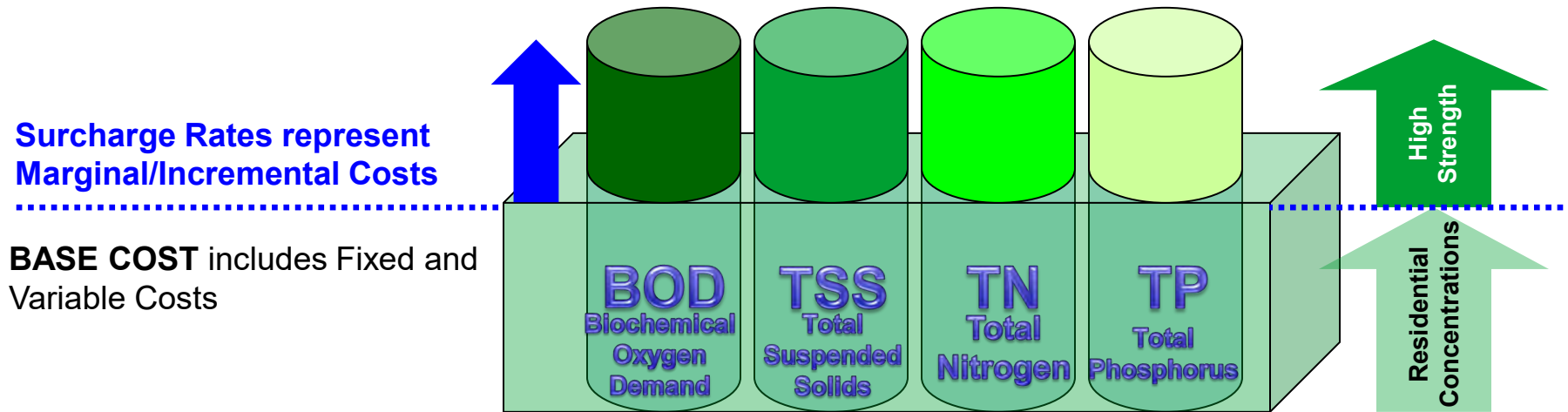


Financial Forecast Metrics compared to 2020 Fitch Medians



*HRSD = 10-year forecast average

- Domestic Quality Wastewater
- High Strength or Unusual Wastes



FY22 Wastewater Treatment Rate

- Volume Rate = \$6.39/ccf
 - Up 9.0% YOY
 - \$0.10 per day

$$\text{WW Treatment Rate } \left(\frac{\$}{\text{ccf}} \right) = \frac{\text{Total Expenses} - \text{Surcharge} - \text{Other Revenue}}{\text{Billable Flow (51,619,559 ccf)}}$$

$$\text{WW Treatment Rate } \left(\frac{\$}{\text{ccf}} \right) = \frac{\$357,495,000 - \$1,528,176 - \$26,218,000}{\text{Billable Flow (51,619,559 ccf)}} = \$6.39/\text{ccf}$$

New Surcharge Thresholds Increased = Lower bill

Surcharge Thresholds	Previous	FY22	
Pollutant	In Excess of	In Excess of	<i>% Difference</i>
Biochemical Oxygen Demand (BOD)	282 mg/L	297 mg/L	5.3%
Total Suspended Solids (TSS)	261 mg/L	282 mg/L	8.0%
Total Phosphorus (TP)	6 mg/L	7 mg/L	16.7%
Total Kjeldahl Nitrogen (TKN)	47 mg/L	57 mg/L	21.3%

- As required in the Revenue Policy – Domestic Wastewater Survey shall be updated every five years

FY22 Proposed Surcharge Rates – Incorporates Moving Averages

FY22 Surcharge Rate per 100 lbs			FY22 vs FY21	
Pollutant	FY21	FY22	<i>\$ Differential</i>	<i>% Difference</i>
Biochemical Oxygen Demand (BOD)	\$ 2.07	\$ 2.83	\$ 0.76	36.7%
Total Suspended Solids (TSS)	\$ 10.08	\$ 9.34	\$ (0.74)	-7.3%
Total Phosphorus (TP)	\$ 158.12	\$ 160.99	\$ 2.87	1.8%
Total Kjeldahl Nitrogen (TKN)	\$ 54.11	\$ 42.61	\$ (11.50)	-21.3%

Proposed Small Communities Rate (per k-gals), 6% monthly bill increase

FY22 Small Communities Treatment and Collections Residential Bill

Updated

	HRSD Rate (\$/k-gals)	Collections Rate (\$/k-gals)	Capital Recovery Rate (\$/k-gals)	FY22	Min Daily Charge for metered	Min 30-day Charge for metered	Flat Monthly Bill ¹	Flat Daily Charge
Accomack	\$8.54	\$5.74	N/A	\$14.28	\$0.30	\$9.00	\$57.12	\$1.90
King William	\$8.54	\$5.74	\$0.26	\$14.54	\$0.30	\$9.00	\$58.16	\$1.94
Mathews	\$8.54	\$5.74	N/A	\$14.28	\$0.30	\$9.00	\$57.12	\$1.90
Surry	\$8.54	\$5.74	N/A	\$14.28	\$0.30	\$9.00	\$57.12	\$1.90
Middlesex/Urbanna	\$8.54	\$5.74	N/A	\$14.28	\$0.30	\$9.00	\$57.12	\$1.90
West Point	\$8.54	\$5.74	N/A	\$14.28	\$0.30	\$9.00	\$57.12	\$1.90

\$0.26

N/A

Ended FY21

¹ Assumes 4,000 gals per month

FY22 Treatment Rate - \$6.39/ccf = \$8.54/k-gals)



Hauled Waste and New Fats, Oils, and Grease (FOG) Rates

- Cost to treat excluding conveyance – Volume, BOD, TSS, TKN, TP
- FOG costs significantly more to treat
- Proposed Rates
 - Hauled Waste = \$0.1717/gallon
 - FOG = \$0.2737/gallon
- Approve July 1st, implement January 1, 2022



Surcharge Category	Mixed	Portable Toilet	Residential Septage	FOG
BOD	12,762	6,973	3,431	32,340
TSS	12,032	6,241	12,320	29,880
TP	51	220	87	46
TKN	391	2,753	350	418

Proposed FY22 Facility Charges

- Covers the cost of the new development's share of the wastewater system's capacity
- FY21 – no change
- Year 3 of 3-Year Phase-In
- Chesapeake-Elizabeth will reduce both Net Replacement Value and HRSD's Plant Capacity by 24 MGD
- Meters larger than 3 inches are rare (not including fire flow meters)

Meter	FY20 & FY21	FY22	% Diff
5/8 in	\$ 1,905	\$ 2,055	7.9%
3/4 in	\$ 4,210	\$ 4,210	0.0%
1 in	\$ 7,410	\$ 7,410	0.0%
1.5 in	\$ 16,645	\$ 16,645	0.0%
2 in	\$ 30,505	\$ 31,465	3.1%
3 in	\$ 73,810	\$ 80,405	8.9%
4 in	\$ 138,445	\$ 156,530	13.1%
6 in	\$ 336,960	\$ 400,625	18.9%
8 in	\$ 634,710	\$ 780,840	23.0%
10 in	\$ 1,038,525	\$ 1,310,665	26.2%
12 in	\$ 1,554,120	\$ 2,001,460	28.8%
14 in	\$ 2,186,505	\$ 2,863,155	30.9%
16 in	\$ 2,940,135	\$ 3,904,635	32.8%

$$\frac{\text{Net Replacement Value}}{\text{HRSD's Plant Capacity}} \times \frac{\text{Meter Size}}{\text{Average Flow}}$$

- *March 23 – Budget Work Session*
- April 15 – Finance Committee meeting
- April 27 – Draft Budget
- **May 25 – Commission votes on budget**
- **Newspaper advertisement - 4 consecutive weeks**
- **July 1 – Budget Effective**

Questions?

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #3

Agenda Item 4. Bank of America Amended and Restate Credit Agreement and Resolution

- [Agreement](#)
- [Resolution](#)

AMENDED AND RESTATED
CREDIT AGREEMENT

Dated as of April 29, 2021

by and between

HAMPTON ROADS SANITATION DISTRICT

and

BANK OF AMERICA, N.A.

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This AMENDED AND RESTATED CREDIT AGREEMENT (this "Agreement"), dated as of April 29, 2021, between HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia having its principal office at 1434 Air Rail Avenue, Virginia Beach, Virginia (the "District"), and BANK OF AMERICA, N.A., a national banking association organized under the laws of the United States (the "Bank").

RECITALS

WHEREAS, the District and the Bank entered into a Credit Agreement, dated as of October 30, 2015, as previously modified by (i) the Amendment dated as of March 30, 2016, (ii) the Second Amendment dated as of April 5, 2017, (iii) the Third Amendment dated as of May 31, 2018, (iv) the Fourth Amendment dated as of June 6, 2019, and (v) the Fifth Amendment dated as of April 30, 2020 (collectively, the "Existing Credit Agreement"), pursuant to which the Bank agreed, on the terms and conditions set forth in the Existing Credit Agreement, to provide a line of credit to the District to provide interim financing or refinancing for the costs of the District's Capital Improvement Program (the "Projects"); and

WHEREAS, the District and the Bank desire to amend and restate the Existing Credit Agreement to provide the District a revolving line of credit in an aggregate principal amount of \$50,000,000, subject to increase of up to a maximum aggregate principal amount of \$200,000,000, to provide interim financing or refinancing for costs of the Projects; and

WHEREAS, in order to induce the Bank to enter into this Agreement and make Advances (as hereinafter defined) hereunder, the District has agreed to execute and deliver to the Bank, prior to any Advance, the Tax-Exempt Note and the Taxable Note (as each is hereinafter defined) and any related agreements, undertakings, instruments and documents to provide for the repayment to the Bank of (i) any Advances hereunder and (ii) any other payment made hereunder; and

WHEREAS, the District plans, but is not obligated to under the terms of this Agreement, to make all principal payments on an Advance made for purposes of financing a Project from proceeds of permanent financings or other sources in accordance with the terms and conditions of this Agreement; and

WHEREAS, the District's obligation to make payments under this Agreement and each Note issued pursuant to the terms hereof shall constitute a Junior Obligation within the meaning of the Trust Agreement, dated as of October 1, 2011, as amended and supplemented, between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, and are expressly subordinate and junior to the Lien on Net Revenues Available for Debt Service (each as defined in the Trust Agreement) created pursuant to Section 701(a) thereof; and

WHEREAS, the Bank is willing to amend and restate the Existing Credit Agreement and provide a line of credit to the District upon the terms and conditions set forth in this Agreement;

NOW, THEREFORE, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and in order to induce the Bank to enter into this Agreement and make Advances

to the District hereunder, the District and the Bank hereby amend and restate the Existing Credit Agreement in its entirety as follows:

SECTION I DEFINITIONS

1.1 Definitions. In addition to the defined terms set forth in the Recitals, as used in this Agreement, the following terms as used in this Agreement shall have the following meanings (such meanings to be equally applicable to both the singular and the plural forms of the terms defined):

“Advance” has the meaning ascribed to such term in Section 2.1(a) hereof.

“Advance Date” means the date an Advance is made by the Bank hereunder.

“Advance Notice” means an irrevocable request, substantially in the form of **Exhibit A**, given by the District, pursuant to Section 2.1 of this Agreement.

“Affiliate” means, with respect to any Person, any Person that directly or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such first Person. A Person shall be deemed to control another Person for the purposes of this definition if such first Person possesses, directly or indirectly, the power to direct, or cause the direction of, the management and policies of the second Person, whether through (i) the ownership of at least a majority of its voting securities, (ii) the right to designate or elect at least a majority of the members of its board of directors or other governing board or body, or (iii) by contract or otherwise.

“Agreement” means this Amended and Restated Credit Agreement, as the same may be further amended, restated, supplemented or otherwise modified from time to time.

“Available Commitment,” as of any day, means the Commitment less the outstanding principal amount of any Advances.

“Bank” has the meaning ascribed to such term at the beginning of this Agreement.

“Bank’s Prime Rate” means on any day, the rate of interest in effect for such day as publicly announced from time to time by the Bank as its “prime rate.” The “prime rate” is a rate set by the Bank based upon various factors including the Bank’s costs and desired return, general economic conditions and other factors, and is used as a reference point for pricing some loans, which may be priced at, above, or below such announced rate. Any change in such rate announced by the Bank shall take effect at the opening of business on the day specified in the public announcement of such change.

“Base Rate” means the greater of (i) the Bank’s Prime Rate +1.00% and (ii) the Federal Funds Rate + 2.00%.

“Bond Counsel” means Norton Rose Fulbright US LLP or such other attorney or firm of attorneys experienced in the field of municipal bonds whose opinions are generally accepted by purchasers of municipal bonds and acceptable to the Bank.

“Business Day” means a day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the Commonwealth of Virginia are required or authorized by law to close or (c) a day on which the New York Stock Exchange is closed, or (d) a day on which the Federal Reserve System is not in operation.

“Closing Date” means April 29, 2021.

“Code” means the United States Internal Revenue Code of 1986, as the same may be amended from time to time, and the regulations and published interpretations thereof.

“Commission” means the Hampton Roads Sanitation District Commission, which is the governing body of the District.

“Commitment” means initially \$50,000,000, as such amount may be increased or reduced pursuant to Section 2.12 and Section 6.2 hereof.

“Commitment Increase Request” means a request substantially in the form of **Exhibit C**, given by the District pursuant to Section 2.12(b) of this Agreement.

“Commitment Period” means the period commencing on the Closing Date and ending on the Termination Date.

“Computation Date” means, with respect to the Tax-Exempt Interest Rate, Wednesday of each week, or if any Wednesday is not a U.S. Government Securities Business Day, the next succeeding U.S. Government Securities Business Day.

“Default” means any event, condition or occurrence that with notice or the lapse of time, or both, would constitute an Event of Default hereunder.

“Default Rate” means the Base Rate plus 4.00%.

“Derivative Agreement” has the meaning set forth in the Trust Agreement.

“Designated Jurisdiction” means any country or territory to the extent that such country or territory itself is the subject of any Sanction.

“District” means the Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia.

“District Representative” means each of the persons at the time designated to act on behalf of the District in a written certificate furnished to the Bank, which certificate shall contain the specimen signature(s) of such person(s) and shall be signed on behalf of the District by an authorized officer of the District.

“Event of Default” means any of the events specified in Section 6.1 of this Agreement, provided that any requirement for the giving of notice, the lapse of time, or both, or any other condition, has been satisfied.

“Federal Funds Rate” means, for any day, the rate per annum equal to the weighted average of the rates on overnight federal funds transactions with members of the Federal Reserve System arranged by federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided that (a) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (b) if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate (rounded upward, if necessary, to a whole multiple of 1/100 of 1%) charged to the Bank on such day on such transactions as determined by the Bank.

“Fiscal Year” means the period beginning on July 1 of any year and ending on June 30 of the following year.

“Fitch” means Fitch Ratings, Inc., a corporation duly organized and existing under and by virtue of the laws of the state of Delaware, and its successors and assigns.

“Governmental Authority” means any nation, government, or state, or any political subdivision thereof, or any court, entity or agency exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government.

“Interest Payment Date” means the first day of each calendar month, provided that if the first day of a month is not a Business Day then the Interest Payment Date for such month shall be the next succeeding Business Day.

“Interest Period” means (i) with respect to a Tax-Exempt Interest Rate, the period from and including an Advance to and including the next Wednesday and each succeeding period from and including each Thursday to and including the following Wednesday, and (ii) with respect to a Taxable Interest Rate, a period of one month, provided, however, the first Interest Period of each Advance shall commence on the date of such Advance and end on the last day of the calendar month in which the Advance was made.

“ISDA Definitions” means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time by the International Swaps and Derivatives Association, Inc. or such successor thereto, as adjusted from time to time in the Bank’s discretion for reserve requirements, deposit insurance, assessment rates and other regulatory costs.

“LIBOR Rate” means, for any applicable date of determination, but subject to the qualifications hereinafter set forth, the per annum rate that is equal to the London Interbank Offered Rate for U.S. Dollar deposits for delivery on the date in question for a one-month term beginning on that date, as adjusted from time to time in the Bank’s discretion for reserve requirements, deposit insurance, assessment rates and other regulatory costs. The Bank will use the London Interbank Offered Rate as published by Bloomberg (or other commercially available source

providing quotations of such rate as selected by the Bank from time to time) as determined at approximately 11:00 a.m. London time two (2) London Banking Days prior to the date the initial Advance is made on a taxable basis under the Taxable Note and on the date any subsequent Advance is made on a taxable basis under the Taxable Note when there is then no outstanding balance under the Taxable Note, and two (2) London Banking Days prior to the first day of each calendar month during which amounts are outstanding under the Taxable Note. The LIBOR Rate shall automatically reset on the first day of each calendar month. For avoidance of doubt, all Advances made on a taxable basis under the Taxable Note shall bear interest at the same rate such that if an Advance is made on a taxable basis under the Taxable Note when there is an outstanding balance on the Taxable Note such Advance shall bear the same Taxable Interest Rate as that borne by the outstanding balance on the Taxable Note. The foregoing shall be subject to the provisions of Sections 2.2(b), 2.2(c), and 2.2(d) of this Agreement, and if LIBOR shall be less than zero, such rate shall be deemed zero for purposes of this Agreement and the Taxable Note. A "London Banking Day" is a day on which banks in London are open for business and dealing in offshore dollars.

"LIBOR Replacement Date" has the meaning specified in Section 2.2(b).

"LIBOR Screen Rate" means the LIBOR quote on the applicable screen page the Lender designates to determine LIBOR (or such other commercially available source providing such quotations as may be designated by the Lender from time to time).

"LIBOR Successor Rate" has the meaning specified in Section 2.2(b).

"LIBOR Successor Rate Conforming Changes" means, with respect to any proposed LIBOR Successor Rate, any conforming changes to this Agreement, including changes to the definition of Base Rate, Interest Period, timing and frequency of determining rates and making payments of interest and other technical, administrative or operational matters (including, for the avoidance of doubt, the definition of Business Day, timing of borrowing requests or prepayment, conversion or continuation notices and length of lookback periods) as may be appropriate, in the discretion of the Bank, to reflect the adoption and implementation of such LIBOR Successor Rate and to permit the administration thereof by the Bank in a manner substantially consistent with market practice (or, if the Bank determines that adoption of any portion of such market practice is not administratively feasible or that no market practice for the administration of such LIBOR Successor Rate exists, in such other manner of administration as the Bank determines is reasonably necessary in connection with the administration of this Agreement and any other Loan Document).

"Loan Documents" means this Agreement, the Tax-Exempt Note, any Taxable Note, and all other agreements, documents, certificates and instruments executed and delivered in connection with this Agreement, and/or any Note and/or which evidences, secures or otherwise pertains to the loan made by the Bank to the District pursuant to this Agreement.

"Material Adverse Effect" means (a) a material adverse change in, or a material adverse effect on, the operations, business, assets, properties, liabilities (actual or contingent), condition (financial or otherwise) or prospects of the District (including, without limitation, contingent liabilities indicated in the notes to the District's financial statements), taken as a whole;

(b) material impairment of the rights and remedies of the Bank under this Agreement or any Related Documents; or (c) a material adverse effect upon the legality, validity, binding effect or enforceability against the District of this Agreement or any Related Documents, in each case as determined in the sole discretion of the Bank.

“Maturity Date” means June 30, 2022.

“Maximum Rate” has the meaning ascribed to such term in Section 7.16.

“Moody’s” means Moody’s Investors Service, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and its successors and assigns.

“Note” means a Tax-Exempt Note or Taxable Note evidencing Advances made by the Bank to the District under the Commitment, substantially in the form of **Exhibit B** attached hereto.

“Obligations” means all obligations and all liabilities of the District under this Agreement, including, but not limited to, its obligations to make all payments required by Section 2.2 of this Agreement.

“OFAC” means the Office of Foreign Assets Control of the United States Department of the Treasury.

“Person” means any individual, partnership, firm, corporation, limited liability company, association, joint venture, trust or other entity, or any government or political subdivision or agency, department or instrumentality thereof.

“Pre-Adjustment Successor Rate” has the meaning specified in Section 2.2(b).

“Prepayment Premium Costs” means, for any optional prepayment of an Advance on a taxable basis under the Taxable Note on a day other than the first Business Day of the month, the difference, if any, between Reinvestment Earnings and the Cost of Funds.

“Private Activity Bond Tests” means either the Private Business Test or the Private Loan Test.

“Private Business Test” means any use of proceeds of the Tax-Exempt Note that would cause (i) more than ten percent (10%) of such proceeds to be used for any activities that constitute a Private Use and (ii) more than ten percent (10%) of the principal of or interest on the Tax-Exempt Note, under the terms thereof or any underlying arrangement, to be, directly or indirectly, (A) secured by any interest in (I) property used or to be used for a Private Use or (II) payments in respect of such property or (B) derived from payments in respect of property used or to be used for a Private Use, whether or not such property is a part of a Tax-Exempt Project. Such ten percent (10%) limitation shall be reduced to five percent (5%) to the extent the use of the proceeds is unrelated to any governmental use of a Tax-Exempt Project or any Private Use of a Tax-Exempt Project that is disproportionate to a related governmental use.

“Private Loan Test” means any use of proceeds of the Tax-Exempt Note that would cause more than the lesser of five percent (5%) of the proceeds of the Tax-Exempt Note and \$5 million to be used to make or finance loans to any person other than to a state or local governmental unit.

“Private Use” means any activity that constitutes a trade or business that is carried on by persons or entities, other than state or local governmental entities. Any activity carried on by a person other than a natural person shall be treated as a trade or business.

“Projects” has the meaning ascribed to such term in the Recitals.

“Property” means any interest in any kind of property or asset, whether real, personal or mixed, and whether tangible or intangible upon which a Project is financed through Advances.

“Rate Adjustment Event” means any determination by the Internal Revenue Service, any federal administrative agency or any court that the District has taken an action, or failed to take an action, with the result that the interest payments on the Tax-Exempt Note are includable in gross income for federal income tax purposes.

“Rating Agency” means Moody’s, S&P or Fitch.

“Reimbursement Obligations” means all obligations and liabilities of the District to the Bank, whether direct or indirect, absolute or contingent, due or to become due, or now existing or hereafter incurred, that may arise under, out of, or in connection with this Agreement or any other document executed and delivered in connection therewith or herewith.

“Reinvestment Earnings” means the amount of earnings the Bank reasonably determines could be obtained by reinvesting the principal amount of an applicable Advance on a taxable basis under a Taxable Note accruing interest that is optionally prepaid on a day other than the first Business Day of a month in U.S. Government Securities from the day the optionally prepaid Advance is received by the Bank to the first Business Day of the following month. The Bank may adjust the rate it uses to compute the Reinvestment Earnings to reflect the compounding of interest, the accrual basis of interest or other costs of the prepaid amount. Any computation is the Bank’s estimate only, and the Bank is under no obligation to actually reinvest any prepayment.

“Related Adjustment” means, in determining any LIBOR Successor Rate, the first relevant available alternative set forth in the order below that can be determined by the Bank applicable to such LIBOR Successor Rate:

(A) the spread adjustment, or method for calculating or determining such spread adjustment, that has been selected or recommended by the Relevant Governmental Body for the relevant Pre-Adjustment Successor Rate (taking into account the interest period, interest payment date or payment period for interest calculated and/or tenor thereto) and which adjustment or method (x) is published on an information service as selected by the Bank from time to time in its reasonable discretion or (y) solely with respect to Term SOFR, if not currently published, which was previously so recommended for Term SOFR and published on an information service acceptable to the Bank; or

(B) the spread adjustment that would apply (or has previously been applied) to the fallback rate for a derivative transaction referencing the ISDA Definitions (taking into account the interest period, interest payment date or payment period for interest calculated and/or tenor thereto).

“Related Documents” means this Agreement, the Tax-Exempt Note, any Taxable Note, the Trust Agreement and any other documents related to any of the foregoing or executed in connection therewith or otherwise made to evidence, secure or set forth the terms of the District’s obligations hereunder or thereunder, and any and all future renewals and extensions or restatements of, or amendments or supplements to, any of the foregoing permitted hereunder and thereunder.

“Related Party” means, with respect to any Person, any of such Person’s Affiliates and any of the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of such Person and of such Person’s Affiliates.

“Relevant Governmental Body” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York.

“Requirement of Law” means, as to any Person, any law, rule, treaty, regulation or determination of an arbitrator or court, or other Governmental Authority, in each case applicable to or binding upon such Person, any operation or conduct by or on behalf of such Person or any of its Property or assets or to which any such Person or any of its Property or assets may be bound or affected.

“S&P” means S&P Global Ratings, and its successors and assigns.

“S&P Weekly High Grade Index” means, for any date of determination, the S&P Municipal Bond 7 Day High Grade Rate Index maintained by S&P Dow Jones Indices’ Municipal Bonds Index Committee as published each Wednesday, or if any Wednesday is not a Business Day, on the immediately succeeding Business Day.

“Sanction(s)” means any international economic sanction administered or enforced by the United States Government (including, without limitation, OFAC), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority.

“Scheduled Termination Date” means June 30, 2022.

“Scheduled Unavailability Date” has the meaning specified in Section 2.2(b).

“SIFMA” means the Securities Industry and Financial Markets Association.

“SIFMA Index” means for any date computed, the level of the index which is issued weekly and which is compiled from the weekly interest rate resets of tax-exempt variable rate issues included in a database maintained by Municipal Market Data which meet specific criteria established from time to time by SIFMA and issued on Wednesday of each week, or if any

Wednesday is not a U.S. Government Securities Business Day, the next succeeding U.S. Government Securities Business Day. If the SIFMA Index is no longer published, then "SIFMA Index" shall mean the S&P Weekly High Grade Index and if the S&P Weekly High Grade Index is no longer published, then "SIFMA Index" shall mean the prevailing rate determined by the Bank for tax-exempt state and local bonds meeting criteria determined in good faith by the Bank to be comparable under the circumstances to the criteria used by the SIFMA to determine the SIFMA Index immediately prior to the date on which the SIFMA ceased publication of the SIFMA Index. Notwithstanding anything to the contrary contained herein, if the SIFMA Index determined according to the foregoing provisions of this paragraph shall be less than zero, such rate shall be deemed zero for purposes of determining the Interest Rate hereunder. The SIFMA Index for each week shall be effective for the period beginning on Thursday and continuing through and including the following Wednesday.

"SOFR" with respect to any Business Day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York's website (or any successor source) at approximately 8:00 a.m. (New York City time) on the immediately succeeding Business Day and, in each case, that has been selected or recommended by the Relevant Governmental Body.

"Solvent" means, with respect to any Person, that as of the date of determination (without duplication) both (i) (a) the sum of such Person's debt (including contingent liabilities) does not exceed all of its property, at a fair valuation; (b) the Person is able to pay the probable liabilities on such Person's then existing debts as they become absolute and matured; (c) such Person's capital is not unreasonably small in relation to its business or any contemplated or undertaken transaction; and (d) such Person does not intend to incur, or believe (nor should it reasonably believe) that it will incur, debts beyond its ability to pay such debts as they become due; and (ii) such Person is "solvent" within the meaning given that term and similar terms under applicable laws relating to fraudulent transfers and conveyances. For purposes of this definition, the amount of any contingent liability at any time shall be computed as the amount that, in light of all of the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability (discounted to present value at rates believed to be reasonable by such Person acting in good faith).

"Tax-Exempt Interest Rate" means the SIFMA Index plus 0.39% per annum. The Tax-Exempt Interest Rate will be automatically set and reset as set forth in Section 2.2.

"Tax-Exempt Note" shall have the meaning ascribed to such term in Section 2.1(b).

"Tax-Exempt Project" means a Project that is financed with an Advance that accrues interest at the Tax-Exempt Interest Rate.

"Taxable Interest Rate" means the LIBOR Rate plus 0.45% per annum.

"Taxable Note" shall have the meaning set forth in Section 2.1(b).

"Taxable Project" means a Project that is financed with an Advance that accrues interest at a Taxable Interest Rate.

“Term SOFR” means the forward-looking term rate for any period that is approximately (as determined by the Bank) as long as any of the Interest Period options set forth in the definition of “Interest Period” and that is based on SOFR and that has been selected or recommended by the Relevant Governmental Body, in each case as published on an information service as selected by the Bank from time to time in its reasonable discretion.

“Termination Date” means the date which is the earliest of (i) 5:00 p.m. (New York City time) on the Scheduled Termination Date, (ii) the date on which the Commitment shall have been reduced to zero (whether by termination by the District or otherwise) and is not subject to reinstatement upon repayment of Advances and (iii) the date the Commitment is terminated pursuant to Section 6.2 hereof.

“Trust Agreement” means the Trust Agreement, dated as of October 1, 2011, as amended and restated as of March 1, 2016, by and between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, securing Subordinate Obligations (as defined in the Trust Agreement), as supplemented and amended from time to time.

“U.S. Government Securities Business Day” means any day except Saturday, Sunday or a day on which SIFMA recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

1.2 Other Definitions.

(a) All terms used in this Agreement shall have the defined meanings when used in any certificate or other document made or delivered pursuant hereto. The words “hereof,” “herein” and “hereunder” and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement, and section, subsection, schedule and exhibit references are to this Agreement unless otherwise specified.

(b) All accounting terms not specifically defined in this Agreement shall be construed, and all calculations with respect to accounting or financial matters shall be computed, in accordance with Generally Accepted Accounting Practices (GAAP) applied in a manner consistent with the application of the principles in the preparation of the financial statements of the District required hereunder.

(c) In this Agreement, in the computation of a period of time from a specified date to a later specified date, the word “from” means “from and including” and the words “to” and “until” each mean “to but excluding.”

(d) The following rules shall apply to the construction of this Agreement unless the context requires otherwise: (1) the singular includes the plural and the plural, the singular; (2) words importing any gender include the other gender; (3) references to statutes are to be construed as including all statutory provisions consolidating, amending or replacing the statute to which reference is made; (4) references to “writing” include printing, photocopy, typing, lithography and other means of reproducing words in a tangible visible form; (5) the words “including,” “includes” and “include” shall be deemed to be followed by the words “without limitation;” (6) references to agreements and other contractual instruments shall be

deemed to include all subsequent amendments and other modifications to such instruments, but only to the extent that such amendments and other modifications are permitted or not prohibited by the terms of this Agreement; (7) references to Persons include their respective permitted successors and assigns; and (8) headings herein are solely for the convenience of reference and shall not constitute a part of this Agreement nor shall they affect its meaning, construction or effect.

All times given herein shall refer to New York, New York time, unless otherwise specified.

SECTION II AMOUNT AND TERMS OF ADVANCES UNDER THE LOAN; INTEREST; REPAYMENTS AND FEES

2.1 The Advances.

(a) Extension of Credit. The Bank agrees, on the terms and conditions set forth in this Agreement, to make advances under the Commitment (collectively, "Advances" and severally, an "Advance") to the District from time to time, during the Commitment Period; *provided* that in no event shall the aggregate principal amount of Advances to be made by the Bank on any date exceed the Available Commitment as of such date. Each Advance shall be made in such amount as requested pursuant to an Advance Notice solely for the purpose of providing a source of funds for payment of the Projects. The District may borrow under this Section 2.1(a), repay or prepay under Sections 2.2 and 2.3 and reborrow under this Section 2.1(a).

(b) Note.

(i) The Advances made on a tax-exempt basis shall be evidenced by a Note, payable to the Bank, in substantially the form attached hereto as **Exhibit B**. Such Note shall be referred to as the "*Tax-Exempt Note*." The principal amount outstanding of the Tax-Exempt Note at any time shall equal the amount of the then outstanding and unpaid Advances for Tax-Exempt Projects under the Commitment. The Tax-Exempt Note shall bear interest during the same periods and at the same rates as are applicable to the Advances for Tax-Exempt Projects determined as provided herein in accordance with the provisions hereof. The principal of the Tax-Exempt Note, and the interest thereon, shall be payable (and prepayable) at the same times and in the same amounts as are applicable to the related Advances evidenced by the Tax-Exempt Note, determined as provided herein in accordance with the provisions hereof.

(ii) If any Advances are to be made on a taxable basis, the District will provide an additional Note in substantially the form attached hereto as **Exhibit B**, payable to the Bank, for Advances made to finance Taxable Projects. Such Note shall be referred to as the "*Taxable Note*." The principal amount outstanding of the Taxable Note at any time shall equal the amount of the then outstanding and unpaid Advances for Taxable Projects under the Commitment. The Taxable Note shall bear interest during the same periods and at the same rates as are applicable to the Advances for Taxable Projects determined as provided herein in accordance with the provisions hereof. The principal of the Taxable Note, and the interest thereon, shall be payable (and prepayable) at the same

times and in the same amounts as are applicable to the related Advances evidenced by the Taxable Note, determined as provided herein in accordance with the provisions hereof.

(c) Advance Notices. Each Advance shall be made based on the receipt by the Bank of an Advance Notice given by the District. Each Advance Notice shall be for an amount not less than \$100,000. Each Advance Notice shall be by telephone, electronically in PDF format or teletype, confirmed in writing, in substantially the form of **Exhibit A** attached hereto, specifying (i) the requested date for such Advance, which shall be a Business Day and (ii) the aggregate principal amount of such requested Advance.

If the Bank makes a new Advance under this Agreement on a day on which the District is to repay all or any part of an Advance, the Bank shall apply the proceeds of its new Advance to make such repayment and only an amount equal to the difference (if any) between the amount being borrowed and the amount being repaid shall be made available by the Bank or remitted by the District as provided in Section 2.1(e) or 2.2, as the case may be.

(d) Opinion as to Tax Exemption. On the date of the first Advance with respect to a Tax-Exempt Note, and prior to the Bank approving the initial Advance Notice with respect to a new Tax-Exempt Project, the District shall provide to the Bank an unqualified opinion of Bond Counsel that the interest on the Tax-Exempt Note is not includable in gross income of the owner thereof for purposes of federal income tax.

(e) Making the Advances. Upon receipt of an Advance Notice from the District not later than 12:00 noon (New York City time) on the third (3rd) Business Day preceding the day of the proposed borrowing (which shall be a Business Day), the Bank, subject to the terms and conditions of this Agreement, shall be required to make an Advance by 2:00 p.m. (New York City time) on the day of the proposed borrowing for the account of the District in an amount equal to the amount of the requested borrowing. With respect to any such Advance Notice received by the Bank after 12:00 noon (New York City time) on any date, the Bank shall be required to make such Advance by 2:00 p.m. (New York City time) on the fourth (4th) Business Day thereafter. Any Advance Notice shall be signed by two (2) District Representatives. Each Advance shall be made by the Bank by transfer of immediately available funds to an account of the District with the Bank in accordance with written instructions provided by the District.

(f) December 2020 Advance. Solely with respect to the Advance, dated December 23, 2020 with respect to the Tax-Exempt Note (the "December 2020 Advance"), the District represents that, on March 17, 2021, it duly filed, by certified mail, IRS Form 8038-G, together with a request pursuant to Rev. Proc. 2002-48 for an extension of time to file such information return, with the Internal Revenue Service Ogden Submission Processing Center. The Bank and the District agree that, solely with respect to the 2020 Advance, the District shall be deemed to have complied with the provisions of Sections 4.1(a) and 5.1(j) of the Existing Credit Agreement and Section 3.02 of the Fifth Amendment comprising part of the Existing Credit Agreement, without having delivered an opinion of Bond Counsel or having filed IRS Form 8038-G with the Internal Revenue Service prior to March 17, 2021. Unless, pursuant to Section 3.01 of Rev. Proc. 2002-48, the Internal Revenue Service accepts or is deemed to have accepted the District's request for the extension of time to have filed IRS Form 8038-G with respect to the December 2020 Advance, the rate of interest on the December 2020 Advance shall increase,

retroactive to the date of the December 2020 Advance to the Taxable Interest Rate that would have been in effect during the period the December 2020 Advance was outstanding, the District shall promptly pay the amount due resulting from such increase in the rate of interest and the District shall promptly pay, upon demand by the Bank, all amounts that are, or become, due and owing to the Bank under Section 2.11(b) as if a Rate Adjustment Event occurred on the date of the December 2020 Advance.

2.2 Repayment and Interest.

(a) Subject to the provisions of Section 2.11 and Section 6.2(c) hereof, all Advances made on a tax-exempt basis under the Tax-Exempt Note shall bear interest at a per annum rate equal to the Tax-Exempt Interest Rate for each applicable Interest Period and all Advances made on a taxable basis under a Taxable Note shall bear interest at the Taxable Interest Rate for the period the Advance is outstanding. The District shall pay interest to the Bank on each Interest Payment Date all accrued interest on outstanding Advances and on the Maturity Date, and if any interest accrues or remains payable after such date, or during the continuance of an Event of Default, upon demand by the Bank. Subject to Section 2.3, all outstanding Advances shall be repaid on the Maturity Date.

(b) Notwithstanding anything to the contrary in this Agreement or any other Loan Documents, if the Bank determines (which determination shall be conclusive absent manifest error), or the District notifies the Bank that the District has determined, that:

(i) adequate and reasonable means do not exist for ascertaining LIBOR for the Interest Period hereunder or any other tenors of LIBOR, including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

(ii) the administrator of the LIBOR Screen Rate or a Governmental Authority having or purporting to have jurisdiction over the Bank or such administrator has made a public statement identifying a specific date after which LIBOR or the LIBOR Screen Rate shall no longer be made available, or used for determining the interest rate of loans, provided that, at the time of such statement, there is no successor administrator that is satisfactory to the Bank, that will continue to provide LIBOR after such specific date (such specific date, the "Scheduled Unavailability Date"); or

(iii) the administrator of the LIBOR Screen Rate or a Governmental Authority having jurisdiction over such administrator has made a public statement announcing that all Interest Periods and other tenors of LIBOR are no longer representative; or

(iv) commercial loans currently being executed, or that include language similar to that contained in this Section 3.03, are being executed or amended (as applicable) to incorporate or adopt a new benchmark interest rate to replace LIBOR;

then, in the case of clauses (i)-(iii) above, on a date and time determined by the Bank (any such date, the "LIBOR Replacement Date"), which date shall be at the end of an Interest Period or on the relevant interest payment date, as applicable, for interest calculated and shall occur reasonably

promptly upon the occurrence of any of the events or circumstances under clauses (i), (ii) or (iii) above and, solely with respect to clause (ii) above, no later than the Scheduled Unavailability Date, LIBOR will be replaced hereunder and under any Loan Document with, subject to the proviso below, the first available alternative set forth in the order below for any payment period for interest calculated that can be determined by the Bank, in each case, without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document (the "LIBOR Successor Rate"; and any such rate before giving effect to the Related Adjustment, the "Pre-Adjustment Successor Rate"):

- (x) Term SOFR plus the Related Adjustment; and
- (y) SOFR plus the Related Adjustment;

and in the case of clause (iv) above, the Bank may amend this Agreement solely for the purpose of replacing LIBOR under this Agreement and under any other Loan Document in accordance with the definition of "LIBOR Successor Rate" and such amendment will become effective at 5:00 p.m., on the fifth Business Day after the Bank has notified the District of the occurrence of the circumstances described in clause (iv) above;

provided that, if the Bank determines that Term SOFR has become available, is administratively feasible for the Bank and would have been identified as the Pre-Adjustment Successor Rate in accordance with the foregoing if it had been so available at the time that the LIBOR Successor Rate then in effect was so identified, and the Bank notifies the District of such availability, then from and after the beginning of the Interest Period, relevant interest payment date or payment period for interest calculated, in each case, commencing no less than thirty (30) days after the date of such notice, the Pre-Adjustment Successor Rate shall be Term SOFR and the LIBOR Successor Rate shall be Term SOFR plus the relevant Related Adjustment.

The Bank will promptly (in one or more notices) notify the District of (x) any occurrence of any of the events, periods or circumstances under clauses (i) through (iii) above, (y) a LIBOR Replacement Date and (z) the LIBOR Successor Rate.

Any LIBOR Successor Rate shall be applied in a manner consistent with market practice; provided that to the extent such market practice is not administratively feasible for the Bank, such LIBOR Successor Rate shall be applied in a manner as otherwise reasonably determined by the Bank.

Notwithstanding anything else herein, if at any time any LIBOR Successor Rate as so determined would otherwise be less than 0%, the LIBOR Successor Rate will be deemed to be 0% for the purposes of this Agreement and the other Loan Documents.

In connection with the implementation of a LIBOR Successor Rate, the Bank will have the right to make LIBOR Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such LIBOR Successor Rate Conforming Changes will become effective without any further action or consent of any other party to this Agreement; provided that, with respect to any such amendment effected, the Bank shall post each such amendment implementing such LIBOR

Successor Rate Conforming Changes to the District reasonably promptly after such amendment becomes effective.

If the events or circumstances of the type described in Section 2.2(b)(i)-(iii) have occurred with respect to the LIBOR Successor Rate then in effect, then the successor rate thereto shall be determined in accordance with the definition of "LIBOR Successor Rate."

(c) Notwithstanding anything to the contrary herein, (i) after any such determination by the Bank or receipt by the Bank of any such notice described under Section 2.2(b)(i)-(iii), as applicable, if the Bank determines that none of the LIBOR Successor Rates is available on or prior to the LIBOR Replacement Date, (ii) if the events or circumstances described in Section 2.2(b)(iv) have occurred but none of the LIBOR Successor Rates is available, or (iii) if the events or circumstances of the type described in Section 2.2(b)(i)-(iii) have occurred with respect to the LIBOR Successor Rate then in effect and the Bank determines that none of the LIBOR Successor Rates is available, then in each case, the Bank may amend this Agreement solely for the purpose of replacing LIBOR or any then current LIBOR Successor Rate in accordance with this Section 2.2 at the end of any Interest Period, relevant interest payment date or payment period for interest calculated, as applicable, with another alternate benchmark rate giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated commercial credit facilities for such alternative benchmarks and, in each case, including any Related Adjustments and any other mathematical or other adjustments to such benchmark giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated commercial credit facilities for such benchmarks, which adjustment or method for calculating such adjustment shall be published on an information service as selected by the Bank from time to time in its reasonable discretion and may be periodically updated. For the avoidance of doubt, any such proposed rate and adjustments shall constitute a LIBOR Successor Rate. Any such amendment shall become effective at 5:00 p.m. on the fifth Business Day after the Bank shall have posted such proposed amendment to the District.

(d) If, at the end of any Interest Period, relevant interest payment date or payment period for interest calculated, no LIBOR Successor Rate has been determined in accordance with clauses (b) or (c) of this Section 2.2 and the circumstances under clauses (b)(i) or (b)(iii) above exist or the Scheduled Unavailability Date has occurred (as applicable), the Bank will promptly so notify the District. Thereafter, the obligation of the Bank to make or maintain Advances on a taxable basis under the Taxable Note shall be suspended until the LIBOR Successor Rate has been determined in accordance with clauses (b) or (c). Upon receipt of such notice, the District may revoke any pending request for an Advance on a taxable basis under the Taxable Note or the continuation of the outstanding balance of the Taxable Note (which shall be deemed a notice of optional prepayment) or, failing that, will be deemed to have converted such request into a request for an Advance on a taxable basis and the continuation of the outstanding balance on the Taxable Note, in each case, at a variable interest rate equal to the Bank's Prime Rate minus 2.55%.

(e) The Interest Rate for Advances made on a tax exempt basis shall be set and reset, as applicable, on each Computation Date and the Interest Rate for Advances made on a taxable basis under a Taxable Note shall be determined on the date of the Advance and will automatically reset as of, and on, the first day of each calendar month. All Advances made on a taxable basis under a Taxable Note shall bear interest at the same rate.

2.3 Prepayment. The District may prepay, at any time, all or any portion of any Advance made on a tax-exempt basis under the Tax-Exempt Note without cost, penalty or premium. The District may prepay all or any portion of any Advance made on a taxable basis under the Taxable Note without cost, penalty or premium if such prepayment is made on the first Business Day of a month or if made prior to such Business Day, such prepayment amount contains sufficient interest to cover the period from the date such prepayment is made through the first Business Day of the following month and the Bank may hold such payment and apply it on such first Business Day of the following month. Any prepayment of any Advance made on a taxable basis under the Taxable Note on a day other than the first Business Day of a month shall include Prepayment Premium Costs to the Bank. Each such notice of optional prepayment shall be irrevocable and shall bind the District to make such prepayment in accordance with such notice; provided, however, that in the event that the District certifies to the Bank that the source of payment is the proceeds of a borrowing by the District, such optional notice of prepayment shall be deemed conditional in that it is subject to the timely closing of the borrowing and should the borrowing for any reason not close on or before the date fixed for such prepayment, such notice of optional prepayment shall be deemed withdrawn and of no effect. All prepayments of principal shall include accrued interest on such prepaid amount to the date of prepayment and all other amounts due pursuant to this Agreement.

2.4 [Reserved]

2.5 [Reserved]

2.6 Payments and Computations.

(a) Computations of the Tax-Exempt Interest Rate and any other amounts under the Tax-Exempt Note shall be made on the basis of a 365/366 day year for the actual number of days elapsed and computations of the Taxable Interest Rate and any other amounts under the Taxable Note shall be made on the basis of a 360 day year for the actual number of days elapsed. If, by the terms of this Agreement, the District at any time is required or obligated to pay interest at a rate in excess of the Maximum Rate, the provisions of Section 7.16 hereof shall apply.

(b) The District shall make all payments on Advances or fees or interest under this Agreement not later than 2:00 p.m. (New York City time) on the day when due in lawful money of the United States of America in good and available funds without set-off or counterclaim of any nature or kind to the Bank by wire transfer pursuant to wire instructions as the Bank may, from time to time, deliver to the District in writing.

(c) Whenever any payment to be made hereunder shall be stated to be due on a day that is not a Business Day, such payment shall be made on the next succeeding Business Day, and interest and any applicable fees other than late fees shall accrue during such extension through and including the date of payment.

2.7 [Reserved]

2.8 Payment of Obligations.

(a) The obligations of the District to make payments on Advances under this Agreement are Junior Obligations within the meaning of the Trust Agreement and are expressly subordinate and junior to the Lien on Net Revenues Available for Debt Service (as defined in the Trust Agreement). The obligations of the District under this Agreement shall be observed strictly in accordance with the terms of this Agreement or the Note, as applicable, under all circumstances whatsoever including, without limitation, the following circumstances:

(i) the existence of any claim, set-off, defense or other right which the District may have at any time against the Bank or any beneficiary or transferee, whether in connection with this Agreement, the transactions contemplated therein, or any unrelated transaction;

(ii) any Advance Notice presented hereunder proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect whatsoever;

(iii) any statement or any other document presented hereunder proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect;

(iv) payment by the Bank hereunder against presentation of an Advance Notice which does not strictly comply with the terms hereof;

(v) any exchange, acceptance, release or non-perfection as to any collateral or release or addition of any other Person primarily or secondarily liable;

(vi) the failure of the Bank: (a) to enforce any right or remedy against the District or any other Person under the provisions of this Agreement or otherwise, or (b) to exercise any right or remedy against any payment of all or any of the Reimbursement Obligations, or any other extension, compromise or renewal of any Reimbursement Obligations with respect to the District or any other Person; or

(vii) any other circumstances or happening whatsoever, whether or not similar to any of the foregoing.

(b) The District shall pay all amounts owed under any Advances and any other amounts owed under this Agreement free of any abatement, charges, counterclaims, assessments, set-offs, offsets, impositions or deductions of any kind whatsoever, and under no circumstances or conditions shall the District be expected or required to make any payment of any kind with respect to Agreement or be under any obligation or liability hereunder, except as provided in this Agreement and the Note.

2.9 Extension of Scheduled Termination Date. The District may request an extension of the Scheduled Termination Date no more than 120 days and no less than 30 days prior to the Scheduled Termination Date. The Bank will respond in writing within 30 days of receipt of a written request, and the Bank's determination to accept or reject any such request shall be within the Bank's sole and absolute discretion. The failure of the Bank to respond to a request for an extension shall be deemed the denial of the request. No such extension of the Scheduled

Termination Date shall take effect until the District shall have provided the Bank an opinion of Bond Counsel that such extension will not, in and of itself, adversely affect the exclusion of interest on the Tax-Exempt Note from gross income of the owner thereof for federal income tax purposes.

2.10 Early Termination. The District may direct in writing that this Agreement and the Loan shall be terminated at any time before the Schedule Termination Date; provided, however, that this Agreement shall not actually terminate until all amounts payable under this Agreement, including all Advances, made have been paid in full.

2.11 Interest Rate and Payment Adjustment. (a) From and after a Rate Adjustment Event, the interest rate on the Tax-Exempt Note shall change to a rate equal to the interest rate applicable for a Taxable Project.

(b) It is further expressly provided that the District shall additionally pay to the Bank, any taxes, interest, penalties or other charges assessed against or payable by the Bank and attributable to a Rate Adjustment Event, notwithstanding the repayment of all Advances, together with any and all attorney's fees, court costs or other out-of-pocket costs incurred by the Bank in connection therewith.

2.12 Changes to the Commitment.

(a) By written amendment to this Agreement, the District and Bank may agree to increase or decrease the Commitment. No change in the Commitment shall take effect until the District shall have provided the Bank an opinion of Bond Counsel to the effect that such change will not, in and of itself, adversely affect the exclusion of interest on the Tax-Exempt Note from gross income of the owner thereof for federal income tax purposes.

(b) At any time, but not more than two (2) times prior to the Scheduled Termination Date, the District may request, pursuant to a Commitment Increase Request, that the aggregate Commitment be increased; provided that: (i) the District shall provide the Bank an opinion of Bond Counsel to the effect that such change will not, in and of itself, adversely affect the exclusion of interest on the Tax-Exempt Note from gross income of the owner thereof for federal income tax purposes, (ii) the aggregate Commitment shall at no time exceed \$200,000,000, and (iii) such request will be in a minimum amount of a \$25,000,000 increase. Such request shall be made in a written notice given to the Bank by two (2) District Representatives not less than 30 days prior to the proposed effective date of such increase and shall be subject to the written approval of the Bank, in its sole discretion (it being understood that the Bank shall give reasonable consideration to any request for such an increase). Any increase in the Commitment shall be subject to the receipt by the Bank of a certificate, signed by two (2) District Representatives as of the effective date of the increase in the Commitment, which sets forth that before and after giving effect to such Commitment (a) the representations and warranties set forth under Section III hereof shall be true and correct in all material respects as though made on such date and (b) no event shall have occurred and then be continuing which constitutes a an Event of Default or which would, with notice and/or lapse of time, constitute an Event of Default. Any increase in the Commitment shall be evidenced and effected by a written Amendment to this Agreement as set forth in paragraph (a) above.

SECTION III
REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties. To induce the Bank to make Advances hereunder, the District represents and warrants to the Bank as of the Closing Date and as of the date of each Advance that:

(a) Organization and Qualification. The District is a political subdivision of the Commonwealth of Virginia, validly existing under the laws of the Commonwealth of Virginia.

(b) Corporate Power and Authority. The District has all requisite power and authority to execute, deliver and carry out the terms and provisions of this Agreement and the other instruments and documents to be executed or delivered by it pursuant hereto or in connection herewith and has taken or caused to be taken by it all necessary action required of it in connection with the receipt of Advances, to authorize the execution, delivery and performance by the District of this Agreement, the occurrence of the obligations contemplated hereunder and thereunder and the execution, delivery and performance of the other instruments and documents to be executed or delivered by it pursuant hereto or in connection herewith or therewith. This Agreement and each of the other instruments and documents executed or delivered by the District pursuant hereto or thereto or in connection herewith or therewith have been duly executed and delivered by the District and constitute the legal, valid and binding obligations of the District and are enforceable against the District in accordance with their respective terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally, and by general equitable principles.

(c) Compliance with Law and Contracts. Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated therein to be consummated by the District or the compliance by the District with the provisions thereof, will conflict with, or constitute on the part of the District a material violation or breach of or an event of default under, (x) any statute, indenture, mortgage, commitment, note or other agreement or instrument to which the District is a party or by which the District is bound, or (y) any existing law, rule, regulation or ordinance or judgment, order or decree of any court or Governmental Authority having jurisdiction over the District or any of its activities or properties. All consents, approvals, authorizations and orders of Governmental Authorities that are required for the District's execution and delivery of, consummation of the transactions contemplated by and compliance with the provisions of this Agreement have been obtained or can be obtained in a timely manner. The District is duly authorized and licensed to own its Property and to operate its business under the laws, rulings, regulations and ordinances of all Governmental Authorities having the jurisdiction to license or regulate such Property or business activity, and the District has obtained all requisite approvals of all such governing bodies required to be obtained for such purposes.

(d) Litigation. There is no action, suit, proceeding, inquiry or investigation, at law or in equity, before or by any court, public board or body, pending or threatened against or affecting the District or its properties and rights or powers, its legal existence, or the actions taken or contemplated to be taken by it, nor is there any basis therefor, wherein an

unfavorable decision, ruling or finding would be reasonably likely to result in a Material Adverse Effect upon the financial condition or operations of the District, the validity or enforceability of this Agreement or the Related Documents or the transactions contemplated hereby or thereby.

(e) Governmental Approvals. No authorization or approval or other action by, filing with, or notice to, any Person or Governmental Authority is required for the due execution, delivery and performance by the District of this Agreement, or any other instrument or document to be executed and/or delivered pursuant hereto or thereto or in connection herewith or therewith, except such authorizations, approvals, actions or filings which have been duly obtained or notices which have been duly given by the District, each of which is in full force and effect (or will be obtained as and when required).

(f) Securities Laws. The District is not an "investment company," or a Person "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended.

(g) Taxes. The execution and delivery of this Agreement is not subject to any tax, duty, fee or other charge, including, without limitation, any registration or transfer tax, stamp duty or similar levy, imposed by any Governmental Authority that has not been paid.

(h) Continuing Representations. Each Advance Notice shall be deemed to constitute a representation and warranty by the District as of the date of such Advance that each of the representations and warranties herein made are true and correct in all material respects on and as of such date as though made on and as of such date; provided, however, that any representations or warranties given as of a specific date shall remain true and correct in all material respects as of such date.

(i) Financial Condition. The most recent financial statements of the District delivered to the Bank hereunder are complete and accurate and fairly present the financial condition and the results of operations and cash flows of the District on the dates thereof and for the periods then ended and such financial statements show all known liabilities, direct or contingent, of the District as of the dates thereof and were prepared in accordance with GAAP.

(j) No Misrepresentations or Omissions. None of this Agreement, any Related Documents or any other document, certificate, information, report or statement furnished to the Bank by the District contains any untrue statements of a material fact or omits to state a material fact necessary in order to make the statements contained herein and therein not misleading. Any financial, budget and other projections furnished by the District to the Bank were prepared in good faith on the basis of the assumptions stated therein, which assumptions were fair and reasonable in light of conditions existing at the time of delivery of such financial, budget or other projections.

(k) No Material Adverse Facts. There are no facts that the District has failed to disclose to the Bank that, individually or in the aggregate, could have a Material Adverse Effect or, as far as the District can reasonably foresee, could have a Material Adverse Effect.

(l) Margin Stock. The District is not engaged in, nor does it have as one of its substantial activities, the business of extending or obtaining credit for the purpose of

purchasing or carrying “margin stock” (as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System) and no proceeds of any Advances will be used for such purpose or for the purpose of purchasing or carrying any shares of margin stock.

(m) No Maximum Interest Rate Violation. The obligations of the District under this Agreement are not in violation of any Requirement of Law prescribing a maximum rate of interest.

(n) Consent Orders. The operations of the District are in material compliance with all of the requirements of that certain Civil Action No. 2:09-cv-481 Consent Decree agreement imposed by the United States Environmental Protection Agency (“EPA”) and the Virginia Department of Environmental Quality on the District in February 2010 in Federal Court relating to sanitary sewer overflows, where a failure to comply with any such requirement or the need for any such remedial action could reasonably be expected to result in a Material Adverse Effect.

The District, EPA, and the Virginia Department of Environmental Quality have agreed upon a Fifth Amended Consent Decree that is expected to be lodged with the Court in either the first or second quarter of 2021. The District, EPA, and the Commonwealth have all signed the Fifth Amended Consent Decree and are waiting on the U.S. Department of Justice to execute the Fifth Amendment and file it with the Court for entry.

Compliance with the Fifth Amended Consent Decree will result in the District (i) continuing to implement \$700 million in ongoing sewer system improvements through 2025; (ii) implementing approximately \$200 million in defined high priority sewer system improvements by 2030 with such improvements designed to further reduce wet weather sewer overflows in the region; (iii) implementing an additional \$212 million in defined high priority projects between 2030 and 2040; and (iv) performing, between 2040 and 2043, post-construction monitoring and evaluations of the system improvements to date.

The scheduling of these improvements in the Fifth Amended Consent Decree is expressly structured to accommodate the District’s Sustainable Water Infrastructure For Tomorrow (SWIFT) initiative.

(o) Solvent. The District is Solvent.

(p) Derivative Agreements. The District has not entered into any Derivative Agreement that requires the District to post cash collateral to secure its obligations thereunder.

(q) Labor Matters. The District has no knowledge of any existing or pending strike, walkout or work stoppage relating to the District or its wastewater system.

(r) No Sanctions. The District (i) is not currently the subject of any Sanctions, (ii) is not located, organized or residing in any Designated Jurisdiction, or (iii) is not and has not been (within the previous five (5) years) engaged in any transaction with any Person who is now or was then the subject of Sanctions or who is located, organized or residing in any Designated Jurisdiction. The proceeds from the Note or the transaction contemplated by this

Agreement have not been used, directly or indirectly, to lend, contribute, provide or otherwise be made available to fund any activity or business in any Designated Jurisdiction or to fund any activity or business of any Person located, organized or residing in any Designated Jurisdiction or who is the subject of any Sanctions, or in any other manner that will result in any violation by any Person (including the Bank) of Sanctions.

SECTION IV CONDITIONS PRECEDENT

4.1 Conditions Precedent to Effectiveness. This Agreement shall become effective when each of the following conditions precedent has been fulfilled in a manner satisfactory to the Bank:

(a) Delivery of Documents. The Bank shall have received on or before the Closing Date the following, each in form and substance satisfactory to the Bank, unless indicated otherwise, dated the Closing Date

(i) the Note;

(ii) a certificate of the Chairman or General Manager of the Commission certifying as to the incumbency and signature of each of the District Representatives authorized to sign this Agreement and any Advance Notices;

(iii) certified copies of any resolutions, approvals or authorizations required in connection with the transactions contemplated by this Agreement;

(iv) the audited financial statements of the District for the Fiscal Year ended June 30, 2020, a copy of the current budget and a copy of the capital improvement program of the District;

(v) a favorable opinion of Norton Rose Fulbright US LLP, Washington, D.C., Bond Counsel as to the validity of this Agreement and of the Note, including an opinion as to the tax status of interest on the Tax-Exempt Note;

(vi) a favorable opinion of counsel to the District, as to such matters as mutually agreed to by the parties to this Agreement; and

(vii) such other documents, instruments, approvals or opinions as mutually agreed to by the parties to this Agreement.

(b) Representations: Defaults. The following statements shall be true and correct on and as of the Closing Date, and the Bank shall have received certificates signed by a District Representative, dated the Closing Date, stating that:

(i) the representations and warranties of the District contained in Section 3.1 of this Agreement are true and correct in all material respects on and as of the Closing Date as though made on and as of such date; and

(ii) no Default shall have occurred and be continuing or would result from the making of any Advance.

(c) Material Adverse Change. Since June 30, 2020, no material adverse change in the financial condition, business, assets, liabilities or prospects of the District shall have occurred.

4.2 Conditions Precedent to the Making of Advances. As conditions precedent to the approval by the Bank hereunder of each Advance Notice (including the initial Advance Notice on or after the Closing Date):

(a) The Bank shall have received (or waived the receipt of, in the sole discretion of the Bank) the written Advance Notice required under, and in strict conformity with Section 2.1(c) of this Agreement, in a manner satisfactory to the Bank.

(b) The Termination Date shall not have occurred.

(c) No Event of Default shall have occurred and be continuing or shall result from the funding of the Advance in question.

(d) The District shall have delivered to the Bank if applicable, such additional instruments or documents and such additional approvals and opinions as the Bank may reasonably request under the terms of this Agreement, or otherwise as soon as commercially reasonable after request therefor.

(e) No Material Adverse Effect shall have occurred.

Unless the District shall have otherwise previously advised the Bank in writing, delivery to the Bank of an Advance Notice shall be deemed to constitute a representation and warranty by the District that on the date of such Advance each such condition is satisfied.

Approval by the Bank of any one or more Advance Notices when one or more conditions contained in this Section 4.2 have not been fulfilled, shall not be deemed a waiver of such condition or conditions as to the Bank's approval of subsequent Advance Notices.

SECTION V COVENANTS OF THE DISTRICT

5.1 Affirmative Covenants. The District agrees that, so long as any Advances remain outstanding or any amount is due or owing to the Bank under this Agreement or the Note, the District shall keep and perform fully each and all of the following covenants:

(a) Compliance with Laws, Etc. The District shall comply with all Requirements of Law or any change therein or in the application, the administration or interpretation thereof (including, without limitation, any request, directive, guideline or policy, whether or not having the force of law) by any Governmental Authority charged with the administration or interpretation thereof and all indentures, mortgages, deeds of trust, agreements or other instruments or contractual obligations to which it is a party or by which it or any of its

Property may be bound or affected, except such Requirements of Law or indentures, mortgages, deeds of trust, agreements or other instruments or contractual obligations noncompliance with which could not reasonably be expected to have a Material Adverse Effect.

(b) Keeping of Books. The District shall keep proper books of record and account, containing complete and accurate entries of all financial and business transactions relating to the business, operations, Property, assets, condition (financial or otherwise) or prospects of the District in conformity with GAAP and all Requirements of Law. At any reasonable time and from time to time during reasonable business hours, the District shall permit the Bank or any agents or representatives thereof to examine and make copies of and abstracts from the records and books of account (other than those books and records that must be treated as confidential under any Requirement of Law) of, and visit the Property of, on which the Projects are located upon and to discuss the affairs, finances and accounts of the District with any of its officers.

(c) Notice of Default. The District shall promptly notify the Bank in writing of (i) the occurrence of any Default or Event of Default hereunder, or (ii) any default, or event, condition or occurrence which with notice or the lapse of time, or both, would constitute a default by any party thereto under the Senior Trust Agreement (as defined in the Trust Agreement) and the Trust Agreement or by which any of its Property may be bound or affected and which could reasonably be expected to have a Material Adverse Effect.

(d) Maintenance of Insurance. The District shall maintain insurance as required by Section 708 of the Trust Agreement.

(e) Performance and Compliance with Other Covenants. The District shall perform and comply in all material respects, and subject to the applicable grace periods, with each of the covenants binding on it, as in effect on the Closing Date, including, without limitation, all covenants hereunder and all covenants under the Related Documents.

(f) Payment of Taxes and Other Claims. The District shall pay when due all taxes, assessments and charges which are imposed upon it or its operations or properties, or which it is required to withhold and pay over (including payroll withholding taxes), and shall pay all other claims which, if unpaid, might become liens or charges upon its properties and except to the extent such taxes, liens or charges are the subject of a good faith contest.

(g) Use of Proceeds. The proceeds of any Advances will be used, by the District solely to finance the costs of the Projects. None of such proceeds will be used, directly or indirectly, for the purpose, whether immediate, incidental or ultimate, of purchasing or carrying any "margin stock" within the meaning of Regulation U of the Board of Governors of the Federal Reserve System. The District shall use, or cause to be used, the proceeds of the Advances in compliance with all applicable legal and regulatory requirements of any Governmental Authority (including, without limitation, Regulations U and X of the Board of Governors of the Federal Reserve System and the Securities Exchange Act of 1934 and the Securities Act of 1933 and any regulations thereunder).

(h) Financial and Other Information. The District agrees that it will furnish its Annual Report, including without limitation, the audited financial statements of the

District, directly to the Bank (and to The Electronic Municipal Market Access (“EMMA”) system administered by the Municipal Securities Rulemaking Board) when the same becomes available, but in no event more than 270 days after the close of each Fiscal Year. Simultaneously therewith, the District shall deliver to the Bank a certificate signed by a District Representative stating that no Event of Default or Default has occurred, or if such Event of Default or Default has occurred, specifying the nature of such Event of Default or Default, the period of its existence, the status thereof and any remedial steps taken or proposed to correct such Event of Default or Default. The District shall provide to the Bank such other information regarding the business affairs, financial condition and/or operations of the District as the Bank may from time to time reasonably request.

(i) Litigation; Material Change. The District shall promptly notify the Bank of (i) the existence and status of any litigation that the counsel for the District determines is not reasonably certain to have a favorable outcome and which individually or in the aggregate could have a Material Adverse Effect on the financial condition or operations of the District or its obligation to perform its obligations under this Agreement, or (ii) any change in any material fact or circumstance represented or warranted in this Agreement.

(j) General Tax Covenant. The District hereby covenants that it will not take any action which will, or fail to take any action which failure will, cause the interest on the Tax-Exempt Note to become includable in the gross income of the owners of the Tax-Exempt Note for federal income tax purposes pursuant to the provisions of the Code and the regulations promulgated thereunder in effect on the date of original issuance of the Tax-Exempt Note. In furtherance of this covenant, the District will execute a tax certificate in connection with the first Advance under the Tax-Exempt Note that will set forth the requirements that must be satisfied so that the Tax-Exempt Note will not be a private activity bond within the meaning of Section 141 of the Code.

(k) Private Activity Bond Covenant. The District hereby covenants that it will not take any action that would cause the Tax-Exempt Note to be a private activity bond within the meaning of Section 141 of the Code and the applicable regulations thereunder.

(l) Arbitrage Covenant. The District hereby covenants that money on deposit in any fund or account maintained in connection with the Tax-Exempt Note, whether or not such money was derived from draws on the Tax-Exempt Note or from any other sources, will not be used in a manner that would cause the Tax-Exempt Note to be an “arbitrage bond” within the meaning of Section 148 of the Code and the applicable regulations thereunder. To that end, the District shall comply with all requirements of Section 148 of the Code and all regulations of the United States Department of the Treasury issued thereunder to the extent such requirements are, at the time, in effect and applicable to the Bonds.

(m) Derivative Agreements. Without the prior written consent of the Bank the District shall not enter into any Derivative Agreement which requires the District to post cash collateral to secure its obligations thereunder.

(n) Fundamental Changes. The District shall not merge, dissolve, liquidate, consolidate with or into another Person, or dispose of (whether in one transaction or in a series of transactions) all or substantially all of its assets (whether now owned or hereafter

acquired) to or in favor of any Person (referred to herein as a "Fundamental Change"); provided, however, the District may undertake a Fundamental Change to the extent permitted by the Trust Agreement, provided that (i) after giving effect to any such Fundamental Change no Default or Event of Default shall have occurred, (ii) such Fundamental Change would not reasonably be expected to have a Material Adverse Effect; (iii) the District is the surviving entity of any such Fundamental Change; and (iv) after giving effect to such Fundamental Change, the District would be in pro forma compliance with the covenants set forth in Section 705 of the Trust Agreement.

SECTION VI EVENTS OF DEFAULT

6.1 Events of Default. The occurrence of any of the following events shall be an Event of Default hereunder:

(a) failure by the District (i) to pay or cause to be paid any scheduled principal of or interest on any Advance when due for any reason other than the failure of any Bank to perform its obligations hereunder and such failure is not cured by one (1) Business Day after such non-payment, or (ii) to pay or cause to be paid within five (5) Business Days after its due date any amount payable under this Agreement; or

(b) failure by the District to observe or perform any of the covenants set forth in any of the following paragraphs of Section 5.1: (g), (m) or (n) and such failure continues for a period of five (5) Business Days after the occurrence of such failure; or

(c) failure by the District to observe or perform any of the other covenants set forth in Section 5.1 and such failure continues for a period of thirty (30) or more days after (i) written notice thereof to the District from the Bank or (ii) the Bank is notified of such failure, or should have been notified of such failure by the District, pursuant to the terms of this Agreement, unless such failure is not reasonably capable of being cured within such thirty (30) day period but is capable of being cured within ninety (90) days and the District commences action to cure such failure within such thirty (30) day period and diligently and continuously prosecutes such action to completion and causes such failure to be cured within ninety (90) days after the date of the written notice specified above; or

(d) failure by the District to observe or perform any other term, condition, covenant or agreement set forth in this Agreement to be observed or performed by the District (and not constituting an Event of Default under any of the preceding or following provisions of this Section VI) and such failure continues for a period of thirty (30) or more days after (i) written notice thereof to the District from the Bank or (ii) the Bank is notified of such failure, or should have been notified of such failure by the District, pursuant to the terms of this Agreement, unless such failure is not reasonably capable of being cured within such thirty (30) day period but is capable of being cured within ninety (90) days and the District commences action to cure such failure within such thirty (30) day period and diligently and continuously prosecutes such action to completion and causes such failure to be cured within ninety (90) days after the date of the written notice specified above; or

(e) any representation, warranty or statement made or deemed made by or on behalf of the District in this Agreement or which is contained in any certificate, document or financial or other statement furnished at any time under or in connection with this Agreement shall prove to have been misleading or incorrect when made or deemed made which could reasonably be expected to have a Material Adverse Effect; or

(f) any material provision of this Agreement shall for any reason cease to be valid and binding on the District or be in full force and effect for the District; or

(g) the District shall (i) apply for or consent to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator or other similar official of itself or of all or a substantial part of its Property, (ii) admit in writing its inability, or be generally unable, to pay its debts as they become due, (iii) make a general assignment for the benefit of creditors, (iv) commence a voluntary case, proceeding or other action under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seek to have an order of relief entered with respect to it or seek to adjudicate it a bankrupt or insolvent, or seek reorganization, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to its debts, or (v) take any corporate action for the purpose of effecting any of the foregoing; or

(h) a case, proceeding or other action shall be commenced without the application or consent of the District, in any court of competent jurisdiction, seeking the liquidation or readjustment of debts, the appointment of a trustee, receiver, custodian, liquidator or the like of the District, or of all or any substantial part of its assets, or any similar action with respect to the District, under any existing or future law of any jurisdiction, domestic or foreign relating to bankruptcy, insolvency, reorganization or relief of debtors and such case, proceeding or other action shall continue undismissed, or unstayed and in effect, for a period of ninety (90) days, or an order for relief against the District, shall be entered in any such involuntary case, proceeding or other action or the District, shall take any action in furtherance of, or indicating its consent to, approval of or acquiescence in any of the actions described above; or

(i) a final judgment for an amount not otherwise covered by insurance, in excess of \$5,000,000 (which the Bank determines to not be covered by insurance or as to which the insurer has given notice of a denial of coverage) is rendered against the District, within ninety (90) days after entry thereof, such judgment has not been discharged or execution thereof stayed pending appeal or if, within thirty (30) days after the expiration of any such stay, such judgment has not been discharged; or

(j) the ratings on Parity Obligations issued under the Trust Agreement are withdrawn for credit reasons or rated lower than Baa2 from Moody's, BBB from S&P or BBB from Fitch.

6.2 Rights and Remedies Upon Default. Upon the occurrence of any Event of Default specified in Sections 6.1(g) or 6.1(h) (each, a "Special Event of Default"), the obligations of the Bank to make Advances hereunder shall automatically and immediately terminate and the Commitment shall be reduced to zero without notice or other action on the part of the Bank and all Obligations shall immediately become due and payable.

(b) Upon the occurrence of any Event of Default (other than a Special Event of Default) (i) the Available Commitment shall immediately be reduced to zero (and, accordingly, the obligations of the Bank to make Advances hereunder shall automatically and immediately terminate) and (ii) and the Bank shall have the right to declare that all Obligations shall immediately become due and payable.

(c) During the continuance of any Event of Default all outstanding Advances shall accrue interest at the Default Rate.

SECTION VII MISCELLANEOUS PROVISIONS

7.1 Amendments, Etc. No amendment or waiver of any provision of this Agreement nor consent to any departure by the District therefrom shall in any event be effective unless the same shall be in writing and signed by the Bank. In the case of any waiver, the District and the Bank shall be restored to their former position and rights hereunder, and any default or Event of Default waived shall be deemed to be cured and not continuing; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

7.2 Notices. Except as provided in paragraph (b) below, all notices, requests and demands to be given to, or made hereunder by, the District or the Bank shall be given or made in writing and shall be deemed to be properly given or made if delivered by personal delivery, by nationally recognized overnight courier service or by certified United States mail, postage prepaid, addressed to the party to whom directed at the applicable address set forth below (or such address changed by similar notice in writing given by the particular party whose address is to be changed), or electronically in pdf format (so long as any notice sent electronically is also sent by one of the other methods no later than the following day). Notices, requests and demands shall be deemed to have been given either at the time of personal delivery or, in the case of courier or U.S. mail, as of the date of first attempted delivery at the address and in the manner provided herein, or, in the case of email as set forth in paragraph (c) below. Notwithstanding the foregoing, no notice of change of address shall be effective except upon actual receipt. Notices, requests and demands are to be addressed as follows:

(i) If to the District, to:

Hampton Roads Sanitation District
1434 Air Rail Avenue
Virginia Beach, VA 23455
Attention: Director of Finance
email: JBernas@hrsdc.com

(ii) If to the Bank, to:

R. Brooks Scurry III
Senior Vice President
Bank of America
Bank of America Tower
NC1-030-25-01
620 S. Tryon St.
Charlotte, NC 28255
email: r.b.scurry@bofa.com

With a copy thereof sent to:

Kevin Larkin
SVP & Senior Client Manager
VA 3-999-08-01
999 Waterside Drive, 8th Floor
Norfolk, VA 23510
email: kevin.larkin@bofa.com

(b) Notices and other communications to the Bank hereunder may, in the Bank's discretion, be sent by electronic communication (including e-mail and Internet or intranet websites) in accordance with procedures approved by the Bank. During any epidemic, pandemic, pestilence, or other healthcare emergency, or any terrorism, national, state or local emergency, or any quarantine, or stay-at-home or shelter-in-place orders issued by a Governmental Authority in which the Bank closes, or restricts access to, all or any of its offices, the Bank may require that all notices, requests, and demands to it be given by email or other electronic communication as specified by the Bank. Due to the current COVID-19 pandemic, the Bank directs all notices, requests and demands to it be sent to the email addresses noted above in paragraph (a) until further notice. The District agrees to accept notices and other communications to it hereunder by email as noted above in paragraph (a), and may, in its discretion, also provide for receipt of other electronic communications pursuant to procedures approved by it.

(c) Unless the Bank specifies otherwise, (i) notices and other communications sent by e-mail shall be deemed received upon the sender's receipt of an acknowledgment from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgment), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor; provided that, in the case of clauses (i) and (ii) above, if such notice, email or other communication is not sent during the recipient's normal business hours, such notice, email or communication shall be deemed to have been sent at the recipient's opening of business on the next Business Day.

7.3 No Waiver; Remedies. No failure on the part of the Bank to exercise, and no delay in exercising, any right, remedy, power or privilege under this Agreement shall operate as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power or privilege

hereunder preclude any other further exercise of any other right, remedy, power or privilege. The rights, remedies, powers and privileges herein provided are cumulative and not exclusive of any rights, remedies, powers and privileges provided by law.

7.4 No Fiduciary Relationship. The District acknowledges and agrees that their dealings with the Bank relate solely to the transactions occurring under this transaction and that in no event shall the Bank be considered to be a partner of, or joint venturer with, the District. Also, the District represents and warrants that it has independently evaluated the transactions contemplated by this Agreement and has not relied upon, nor will it rely upon, the expertise, advice or other comments or statements of the Bank (including agents of the Bank), if any, in deciding to pursue such undertaking. As the District is experienced in financial affairs (or has sought professional advice (other than from the Bank) concerning its financial affairs, in no event shall the Bank owe any fiduciary or similar obligations to it in connection with the subject transaction.

7.5 Successors and Assigns. This Agreement is a continuing obligation and shall be binding upon the Bank and the District, and their respective successors, transferees and assigns, and shall inure to the benefit of and be enforceable by the Bank and the District, and their respective successors, transferees and assigns; provided, however, that the District may not assign all or any part of this Agreement without the prior written consent of the Bank.

7.6 Liability of Bank. Neither the Bank nor any of its officers, directors, employees or representatives shall be liable or responsible for: (a) the use which may be made of any Advance; (b) the validity, sufficiency or genuineness of documents, or of any endorsement(s) thereon, even if such documents should in fact prove to be in any or all respects invalid, insufficient, fraudulent or forged; (c) payment by the Bank against presentation of documents which do not comply with the terms hereof, including failure of any documents to bear any reference or adequate reference to this Agreement; (d) the validity or sufficiency of any instrument transferring or assigning or purporting to transfer or assign this Agreement, or the rights or benefits under this Agreement, or proceeds of any Advance, in whole or in part, which may prove to be invalid or ineffective for any reason; (e) errors, omissions, interruptions, losses or delays in transmission or delivery of any messages by mail, cable, telex, telephone or otherwise; (f) any loss or delay in the transmission or otherwise of any document or draft required in order to make an Advance Notice hereunder; or (g) any other circumstances whatsoever in making or failing to make payment hereunder, except only that the District shall have a claim against the Bank, and the Bank shall be liable to the District, to the extent, but only to the extent, of any direct, as opposed to consequential, indirect or punitive damages suffered by the District that were caused by (i) the Bank's willful misconduct or gross negligence in determining whether documents presented hereunder comply with the terms hereof or (ii) the Bank's willful failure to pay hereunder after the presentation to it by the District of an Advance Notice strictly complying with the terms and conditions hereof. The District hereby waives any right to object to any payment made hereunder against an Advance Notice in the form provided for herein but varying in punctuation, capitalization, spelling or similar matters of form. IN NO EVENT SHALL THE BANK EVER BE LIABLE FOR CONSEQUENTIAL, INDIRECT OR PUNITIVE DAMAGES, ANY RIGHT OR CLAIM THERETO BEING EXPRESSLY AND UNCONDITIONALLY WAIVED. In furtherance and not in limitation of the foregoing, the Bank may accept documents that appear on their face to be in order, without responsibility for further investigation, regardless of any notice or information to the contrary; provided, however, that if the Bank shall receive written notification

from the District that sufficiently identifies (in the opinion of the Bank) documents to be presented to the Bank which are not to be honored, the Bank agrees that it will not honor such documents.

7.7 Severability. Any provision of this Agreement which is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or nonauthorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

7.8 Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the law of the Commonwealth of Virginia.

7.9 Jurisdiction; Venue; Waiver of Jury Trial.

(a) Submission to Jurisdiction. THE DISTRICT IRREVOCABLY AND UNCONDITIONALLY AGREES THAT IT WILL NOT COMMENCE ANY ACTION, LITIGATION OR PROCEEDING OF ANY KIND OR DESCRIPTION, WHETHER IN LAW OR EQUITY, WHETHER IN CONTRACT OR IN TORT OR OTHERWISE, AGAINST THE BANK OR ANY RELATED PARTY OF THE BANK IN ANY WAY RELATING TO THIS AGREEMENT OR ANY OTHER RELATED DOCUMENT OR THE TRANSACTIONS RELATING HERETO OR THERETO, IN ANY FORUM OTHER THAN THE COURTS OF THE COMMONWEALTH OF VIRGINIA SITTING IN VIRGINIA BEACH, VIRGINIA, AND OF THE UNITED STATES DISTRICT COURT OF THE EASTERN DISTRICT OF VIRGINIA, AND ANY APPELLATE COURT FROM ANY THEREOF, AND EACH OF THE PARTIES HERETO IRREVOCABLY AND UNCONDITIONALLY SUBMITS TO THE JURISDICTION OF SUCH COURTS AND AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION, LITIGATION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH VIRGINIA STATE COURT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL JUDGMENT IN ANY SUCH ACTION, LITIGATION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR IN ANY OTHER RELATED DOCUMENT SHALL AFFECT ANY RIGHT THAT THE BANK MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER RELATED DOCUMENT AGAINST THE DISTRICT OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(b) Waiver of Venue. THE DISTRICT IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER RELATED DOCUMENT IN ANY COURT REFERRED TO IN PARAGRAPH (a) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(c) Service of Process. EACH OF THE DISTRICT AND THE BANK HERETO IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 7.2. NOTHING IN THIS AGREEMENT WILL AFFECT THE RIGHT OF ANY PARTY HERETO TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY APPLICABLE LAW.

(d) Waiver of Jury Trial. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER RELATED DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER RELATED DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

7.10 Headings. Section and subsection headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

7.11 Survival of Representations and Warranties. All representations and warranties made in any document, certificate or statement delivered pursuant hereto or thereto or in connection herewith shall survive the execution and delivery of this Agreement.

7.12 Rights Cumulative. All rights, powers and remedies herein given to the Bank or the District are cumulative and not alternative, and are in addition to all statutes or rules of law; any forbearance or delay by the Bank in exercising the same shall not be deemed to be a waiver thereof, and the exercise of any right or partial exercise thereof shall not preclude the further exercise thereof, and the same shall continue in full force and effect until specifically waived by an instrument in writing executed by the Bank.

7.13 Exhibits and Schedules. The Exhibits attached to this Agreement are an integral part hereof and are hereby made a part of this Agreement.

7.14 Entire Agreement. This Agreement constitutes the entire agreement between the Bank and the District and the written and executed form of this Agreement and shall completely and fully supersede all prior undertakings and agreements, both written and oral, between the District and the Bank, executed in anticipation of this Agreement.

7.15 Counterparts. This Agreement may be executed by the parties hereto in several counterparts, and each such counterpart shall be deemed to be an original and all of which constitute together but one and the same agreement. All recitals and statements made in the this

Agreement shall be deemed fully incorporated within the text of this Agreement and made a part hereof.

7.16 Interest Limitation. Notwithstanding anything to the contrary contained herein, the total liability of the District for payment of interest pursuant to this Agreement and pursuant to any Advances for any period for which interest is payable shall not exceed the maximum amount, if any, of such interest permitted by applicable law to be contracted for, charged or received (the "Maximum Rate"), and if any payments by the District, to the Bank include interest in excess of such a maximum amount, the Bank shall apply such excess to the reduction of the unpaid obligations of the District under this Agreement, as applicable, or if none is due, such excess shall be refunded to the District. Any such application or refund shall not cure or waive any Event of Default. Provided that, to the extent permitted by applicable law, in the event the interest is not collected, is applied to principal or is refunded pursuant to this Section, if the rate of interest payable hereunder shall exceed the Maximum Rate for any period for which interest is payable, then (i) interest at the Maximum Rate shall be due and payable with respect to such interest period and (ii) interest at the rate equal to the difference between (A) the rate of interest calculated in accordance with the terms hereof and (B) the Maximum Rate (the "Excess Interest"), shall be deferred until such date as the rate of interest calculated in accordance with the terms hereof ceases to exceed the Maximum Rate, at which time the District shall pay to the Bank with respect to amounts then payable to the Bank that are required to accrue interest hereunder, such portion of the deferred Excess Interest as will cause the rate of interest then paid to the Bank to equal the Maximum Rate, which payments of deferred Excess Interest shall continue to apply to such unpaid amounts hereunder until all deferred Excess Interest is fully paid to the Bank. Upon the termination of this Agreement, in consideration for the limitation of the rate of interest otherwise payable hereunder, the District shall pay to the Bank a fee equal to the amount of all unpaid deferred Excess Interest. In determining whether or not any interest payable under this Agreement or with respect to any Advance exceeds the highest rate permitted by law, any non-principal payment (except payments specifically stated in this Agreement to be "interest") shall be deemed, to the extent permitted by applicable law, to be an expense, fee, premium or penalty rather than interest.

7.17 Survival. So long as any of the Reimbursement Obligations remain outstanding or the Bank has any obligations under this Agreement or the District has any continuing obligations under this Agreement or Advances unless otherwise provided herein, all covenants, agreements, representations and warranties made herein shall survive the execution and delivery to the Bank of this Agreement and the making of Advances hereunder and shall continue in full force and effect. Notwithstanding the foregoing, Sections 7.2, 7.3, 7.4, 7.6., 7.8, 7.9 and 7.11 shall survive the termination of this Agreement and repayment of all amounts payable under this Agreement and shall be deemed to continue in full force and effect.

7.18 No Recourse Against Members, Officers, or Employees of Commission or District. No recourse under, or upon, any statement, obligation, covenant, or agreement contained in this Agreement, or in the Tax-Exempt Note or the Taxable Note issued pursuant to this Agreement, or in any document or certification whatsoever, or under any judgment obtained against the Commission or the District or by the enforcement of any assessment or by any legal or equitable proceeding by virtue of any constitution or statute or otherwise or under any circumstances, shall be had against any member, officer or employee, as such, of the Commission

or the District, either directly or through the Commission or the District, respectively, or otherwise, for the payment for or to, the Commission or the District or any receiver of either of them, or for, or to, the Bank or otherwise, of any sum that may be due and unpaid pursuant to this Agreement or upon the Tax-Exempt Note or the Taxable Note. Any and all personal liability of every nature, whether at common law or in equity or by statute or by constitution or otherwise, of any such member, officer or employee, as such, to respond by reason of any act or omission on his or her part or otherwise, for the payment for, or to, the Commission or the District or any receiver of either of them, or for, or to, the Bank or otherwise, of any sum that may remain due and unpaid pursuant to this Agreement or upon the Tax-Exempt Note or the Taxable Note, is hereby expressly waived and released as an express condition of, and in consideration for, the execution of this Agreement and the issuance of the Tax-Exempt Note and any Taxable Note.

7.19 QFC Provisions. To the extent that this Agreement or the Note and any other document pertaining to the transaction evidenced or secured thereby (collectively, the "Transaction Documents") provide support, through a guarantee or otherwise, for any swap contract or any other agreement or instrument that is a QFC (such support, "QFC Credit Support", and each such QFC, a "Supported QFC"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "U.S. Special Resolution Regimes") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Transaction Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

(a) Acknowledgment Regarding Supported QFCs. In the event a Covered Entity that is party to a Supported QFC (each, a "Covered Party") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Transaction Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Transaction Documents were governed by the laws of the United States or a state of the United States.

(b) Limitation on the Exercise of Certain Rights Related to Affiliate Insolvency Proceedings with Respect to Any Supported QFCs. Notwithstanding anything to the contrary in the Transaction Documents, but without prejudice to the requirements of the preceding paragraph (a), Default Rights under the Transaction Documents that might otherwise apply to a Supported QFC or any QFC Credit Support may not be exercised against a Covered Party if such Default Rights are related, directly or indirectly, to a BHC Act Affiliate of such Covered Party

becoming subject to Insolvency Proceedings, except to the extent such exercise would be permitted under 12 C.F.R. § 252.84, 12 C.F.R. § 47.5, or 12 C.F.R. § 382.4, as applicable. After a BHC Act Affiliate of a Covered Party has become subject to Insolvency Proceedings, if any party to the Transaction Documents, any Supported QFC or any QFC Credit Support seeks to exercise any Default Right against such Covered Party with respect to such Supported QFC or such QFC Credit Support, the party seeking to exercise such Default Right shall have the burden of proof, by clear and convincing evidence, that the exercise of such Default Right is permitted hereunder.

(c) As used in this Section 7.19, the following terms have the following meanings:

“BHC Act Affiliate” of a party means an “affiliate” (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

“Covered Entity” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“Default Right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“Insolvency Proceeding” means a receivership, insolvency, liquidation, resolution, or similar proceeding.


“QFC” has the meaning assigned to the term “qualified financial contract” in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

[Signature Page Follows]

[Signature Page to Amended and Restated Credit Agreement]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first above written.

**HAMPTON ROADS SANITATION
DISTRICT**

By:  _____
Director of Finance

BANK OF AMERICA, N.A.

By: _____
Senior Vice President

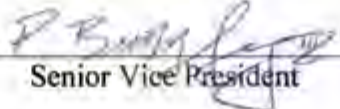
[Signature Page to Amended and Restated Credit Agreement]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first above written.

**HAMPTON ROADS SANITATION
DISTRICT**

By: _____
Director of Finance

BANK OF AMERICA, N.A.

By:  _____
Senior Vice President

FORM OF REQUEST FOR ADVANCE

REQUEST FOR ADVANCE

Advance No. ____

Project No. ____

Bank of America, N.A.

Attention: _____

The undersigned District Representatives of Hampton Roads Sanitation District (the "District"), refers to the Amended and Restated Credit Agreement dated as of April ____, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time, the "Agreement") between the District and Bank of America, N.A. (the "Bank"), and hereby requests on _____, pursuant to Section 2.1 of the Agreement, that the Bank make an Advance under the Agreement, and in that connection (i) certifies that (a) no Default has occurred and is continuing or would result from making such Advance and (b) the representations and warranties contained in Section 3.1 of the Agreement are true and correct in all material respects, and (ii) sets forth below the following information relating to such Advance:

1. The aggregate amount of the proposed Advance is \$ _____.
2. The aggregate amount of the Advance shall be used solely to finance or refinance the costs of acquisition of a [Tax-Exempt][Taxable] Project, described on Attachment A to this notice, pursuant to the Agreement.
3. The funds for such Advance are to [pay costs of a Tax-Exempt Project][pay costs of a Taxable Project][repay an outstanding Advance].
4. The proposed Advance shall be made by the Bank by direct deposit of immediately available funds to the account of the District at the Bank in accordance with the instructions set forth below:

[Account information]

IN WITNESS WHEREOF, this Certificate has been executed this _____ day of _____, 20__.

[NOTE: SIGNATURES OF TWO (2) DISTRICT REPRESENTATIVES ARE REQUIRED FOR ADVANCES PURSUANT TO SECTION 2.1 OF THE AGREEMENT.]

HAMPTON ROADS SANITATION DISTRICT

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

FORM OF NOTE

Date of Note: _____, 20__

Amount: As set forth on Attachment A hereto as Unpaid Principal Balance.

Interest Rate: As set forth on Attachment A hereto.

FOR VALUE RECEIVED, HAMPTON ROADS SANITATION DISTRICT (the "District"), does hereby covenant and promise to pay to BANK OF AMERICA, N.A. (hereinafter with its successors or assigns being collectively termed the "Bank"), ON THE SCHEDULED TERMINATION DATE OR ANY ACCELERATION TO THE SCHEDULED TERMINATION DATE at its principal office at Norfolk, Virginia, or at such other place or places as the Bank may designate to the District in writing from time to time, in immediately available funds, the Amount of this Note, or so much of the Commitment as may be Advanced by the Bank (the "Principal Amount"), pursuant to the Credit Agreement (hereinafter defined) and the unpaid interest upon such Principal Amount until this Note is paid in full. This Note is being issued pursuant to and is further subject to the terms of that certain Amended and Restated Credit Agreement dated as of April ____, 2021 (together with any amendments or supplements thereto, the "Credit Agreement"), between the District and the Bank. Capitalized terms used and not otherwise defined herein have the meanings assigned to such terms in the Credit Agreement.

The District promises to pay interest on the unpaid Principal Amount of this Note on the dates and at the rates and times and in all cases in accordance with the Credit Agreement. All payments of principal and interest shall be made to the Bank in lawful money of the United States of America in immediately available funds. The Bank shall endorse its records relating to this Note with appropriate notations evidencing the Advances made for financing Tax-Exempt or Taxable Projects under the Credit Agreement and payments of principal hereunder as contemplated by the Credit Agreement.

This is a special obligation of the District payable solely from the amounts described in the Credit Agreement. This Note shall not be deemed to constitute a debt, or a pledge of the faith and credit, of the Commonwealth of Virginia or of any county, city, town or political subdivision thereof, other than the District. The issuance of this Note shall not directly or indirectly or contingently obligate the Commonwealth of Virginia or any political subdivision thereof (including the District) to levy or to pledge any form of taxation whatever therefor.

As provided in the Credit Agreement, this Note is subject to prepayment, in whole or in part. In case an Event of Default (as defined in the Credit Agreement) shall occur and be continuing, the principal of and accrued interest on this Note may be declared due and payable in the manner and with the effect provided in the Credit Agreement.

Notwithstanding that the Bank may make demand for payment of the Principal Amount upon the occurrence of an Event of Default, the Bank may, at its option, thereafter make Advances under

the Credit Agreement and all such Advances shall be evidenced by this Note regardless of whether or not the sums outstanding at the time of any such demand for payment have been paid.

All notices and other communications provided for under this Note shall be delivered and be deemed delivered to the addresses specified above and in the manner provided in Section 7.2 of the Credit Agreement; or, as to each, at such other address as shall be designated by such party in a written notice to the other party complying as to delivery with the terms of Section 7.2.

This Note may not be changed orally, but only by an agreement in writing and signed by the party against whom enforcement of any waiver, change, modification or discharge is sought.

All parties to this Note, whether the District, principal, surety, guarantor or endorser, hereby waive valuation and appraisal, demand, presentment for payment, notice of dishonor, protest and notice of protest of this Note.

This Note shall be construed and enforced in accordance with the laws of the Commonwealth of Virginia.

Signed and sealed as of [_____], 20 ____.

HAMPTON ROADS SANITATION DISTRICT

[Seal]

By: _____
Name: _____
Title: _____

ADVANCES AND PAYMENTS OF PRINCIPAL

Date	Amount	Project	Initial Advance for Project [y/n]	Amount of Principal Paid or Prepaid	Unpaid Principal Balance	Notation made By

FORM OF REQUEST FOR INCREASE IN COMMITMENT

[_____, 202__]

To: Bank of America, NA.

Reference is made to that certain Amended and Restated Credit Agreement, dated as of April ____, 2021 (as amended, restated, amended and restated, supplemented and/or otherwise modified from time to time, the "Agreement"), between Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia (the "Borrower"), and Bank of America, N.A. (the "Bank"). Capitalized terms used but not otherwise defined herein shall have the same meanings assigned to such terms in the Agreement.

1. This request for an increase in the aggregate Commitment is made pursuant to Section 2.12(b) of the Agreement.

2. The Borrower has [not previously made a][previously made only one] request for an increase in the aggregate Commitment.

3. The amount of the increase in the aggregate Commitment being requested is [\$ _____].¹

4. The Business Day on which such increase in the aggregate Commitment is requested to be made effective is _____ [which date is not less than 30 days after this Request is delivered to the Bank].

5. The Borrower hereby certifies, represents and warrants, which certifications, representations and warranties shall be deemed remade as of the date the increase in the aggregate Commitment becomes effective, the following:

(a) No event has occurred and is now continuing which constitutes an Event of Default under the Agreement or which, with notice and/or the lapse of time, would constitute an Event of Default under the Agreement; and

(b) All representations and warranties made by the Borrower in Section III of the Agreement are true and correct in all material respects.²

¹ The amount of the increase in the aggregate Commitment being requested shall be (i) in an aggregate principal amount of not less than \$25,000,000, and (ii) at no time shall the aggregate Commitment exceed \$200,000,000.

² Note that for the increase in the aggregate Commitment to become effective the Bank must give its written approval thereof, an amendment to the Agreement must be executed, and the opinion of Bond Counsel required by Section 2.12 of the Agreement must have been received by the Bank.

[NOTE: SIGNATURES OF TWO (2) DISTRICT REPRESENTATIVES ARE REQUIRED TO INCREASE OR DECREASE THE COMMITMENT PURSUANT TO SECTION 2.12 OF THE AGREEMENT.]

HAMPTON ROADS SANITATION DISTRICT

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

Hampton Roads Sanitation District
Resolution of
April 27, 2021

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF AN AMENDED AND RESTATED CREDIT AGREEMENT WITH BANK OF AMERICA, N.A.; AND GRANTING THE AUTHORITY TO EXECUTE AND DELIVER SUCH OTHER DOCUMENTS AND AGREEMENTS RELATING TO SUCH TRANSACTION AS MAY BE NECESSARY OR APPROPRIATE.

Adopted April 27, 2021

RESOLUTION AUTHORIZING THE EXECUTION AND DELIVERY OF AN AMENDED AND RESTATED CREDIT AGREEMENT WITH BANK OF AMERICA, N.A.; AND GRANTING THE AUTHORITY TO EXECUTE AND DELIVER SUCH OTHER DOCUMENTS AND AGREEMENTS RELATING TO SUCH TRANSACTION AS MAY BE NECESSARY OR APPROPRIATE

WHEREAS, the Hampton Roads Sanitation District (the “District”) and Bank of America, N.A. (the “Bank”) entered into a Credit Agreement, dated as of October 30, 2015, as previously modified by (i) the Amendment, dated as of March 30, 2016, (ii) the Second Amendment, dated as of April 5, 2017, (iii) the Third Amendment, dated as of May 31, 2018, (iv) the Fourth Amendment, dated as of June 6, 2019, and (v) the Fifth Amendment, dated as of April 30, 2020 (as so amended, the “Existing Credit Agreement”), pursuant to which the Bank agreed, on the terms and conditions set forth in the Existing Credit Agreement, to provide a line of credit to the District to provide interim financing or refinancing for the costs of the District’s Capital Improvement Program (the “Projects”); and

WHEREAS, the Hampton Roads Sanitation District Commission (the “Commission”) is the District’s governing body; and

WHEREAS, the District and the Bank desire to amend and restate the Existing Credit Agreement to provide the District a revolving line of credit in an aggregate principal amount of \$50,000,000, subject to increase of up to a maximum aggregate principal amount of \$200,000,000, to provide interim financing or refinancing for costs of the Projects, to extend the scheduled termination date of the Existing Credit Agreement to June 30, 2022, to amend provisions relating to the determination of the rate of interest on amounts advanced thereunder and to make certain other changes; and

WHEREAS, there has been presented to the Commission a proposed form of such amendment and restatement of the Existing Credit Agreement (the “Amended and Restated Agreement”); and

WHEREAS, the District’s obligation to make payments under the Existing Credit Agreement, as amended by the Amended and Restated Agreement and any Note issued under the terms thereof will constitute a Junior Obligation within the meaning of the Trust Agreement, dated as of November 1, 2011, as amended and supplemented (the “Trust Agreement”), between the District and The Bank of New York Mellon Trust Company, N.A., as trustee, and will be expressly subordinate and junior to the Lien on Net Revenues Available for Debt Service (each as defined in the Trust Agreement) created pursuant to Section 701(a) thereof; and

WHEREAS, the Commission has duly reviewed and considered the form of the Amended and Restated Agreement and has determined that it is in acceptable form; now therefore,

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

SECTION 1. Authorization of the Amended and Restated Agreement. The Commission hereby authorizes the execution of the Amended and Restated Agreement, and the Chairman of the Commission, the Vice Chairman of the Commission, the Secretary of the Commission, the General Manager of the District or the Chief Financial Officer of the District (each a “Delegate”) are hereby each authorized, directed and empowered to execute and deliver,

under seal, in the name and on behalf of the District, the Amended and Restated Agreement in such form and containing substantially the same terms and provisions, with such additions and modifications as shall be approved by the Delegate executing such Amended and Restated Agreement, the execution thereof by such officer being conclusive evidence of such approval.

SECTION 2. Execution of Documents. The execution and delivery by any Delegate of the Amended and Restated Agreement, and any other agreements, documents, closing papers and certificates executed and delivered pursuant to this Resolution shall be conclusive evidence of his or her approval of the changes, if any, in the forms thereof.

SECTION 3. Ratification. All actions taken by the District, the members of the Commission, and officers, agents and employees of the District in connection with the authorization, execution and delivery of the Amended and Restated Agreement and the authorization, execution and delivery of the agreements, certificates and other documents to be executed by the District and delivered in connection with such authorization, execution and delivery are hereby ratified and confirmed.

SECTION 4. Further Actions. The members, officers and employees of the District are hereby authorized and directed to do all acts and things, including without limitation the, execution and delivery of such agreements, documents, certificates and closing papers on behalf of the District required of them by the provisions of the Amended and Restated Agreement for the full, punctual and complete performance of all the terms, covenants, provisions and agreements of the Amended and Restated Agreement and, also, to do all acts and things required of them by the provisions of this Resolution. After the execution and delivery of the Amended and Restated Agreement, each Delegate is also authorized to do all acts and things that may be necessary or desirable, from time to time, to seek and obtain one or more increases in the maximum aggregate principal amount of the revolving line of credit thereunder up to a maximum aggregate principal amount of \$200,000,000.

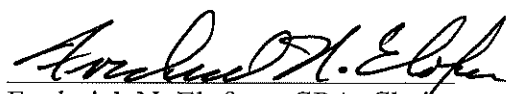
SECTION 5. Delegate Certificate. Each Delegate may execute a certificate or certificates evidencing the determinations made or other actions carried out pursuant to the authority granted in this Resolution, and any such certificate shall be conclusive evidence of the actions or determinations as stated therein.

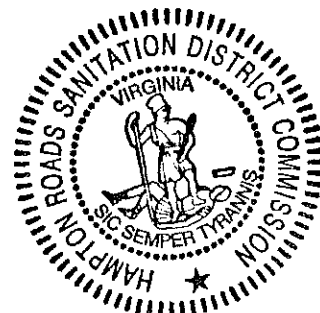
SECTION 6. Repeal of Conflicting Resolutions. Any and all resolutions of the Commission or portions thereof in conflict with the provisions of this Resolution are hereby repealed to the extent of such conflict.

SECTION 7. Effective Date. This resolution shall take effect immediately upon its adoption.

[END OF RESOLUTION]

Adopted By the Hampton Roads Sanitation District Commission on April 27, 2021:


Frederick N. Elofson, CPA, Chairman



HRSD Commission Meeting Minutes
April 27, 2021

Attachment #4

Agenda Item 6. Bethel-Poquoson Interceptor Force Main Replacement Phase II Agreement

AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
BETHEL-POQUOSON INTERCEPTOR FORCE MAIN REPLACEMENT PHASE II
(YR014300)
AND
CITY OF POQUOSON
POQUOSON PUMP STATION #5 FORCE MAIN RELOCATION

THIS AGREEMENT FOR COST SHARING (the "Agreement"), between the CITY OF POQUOSON ("CITY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this 6th day of May, 2021 (the "Effective Date").

RECITALS

R:1. HRSD is constructing its Bethel-Poquoson Interceptor Force Main Replacement Phase II as shown on **Exhibit 1** (the "HRSD Facilities"); and

R:2. The CITY is constructing its own Poquoson Pump Station #5 Force Main Relocation as shown on **Exhibit 2** (the "CITY Facilities") as part of the City of Poquoson; and

R:3. The design and construction of the HRSD Facilities and the CITY Facilities (collectively referred to as the "Improvements") will necessitate the design, construction, realignment, rehabilitation, and replacement of the existing force mains; and

R:4. HRSD and the CITY agree that it is in the best interest of the parties to have the Improvements designed and constructed together; and

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

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

TERMS

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

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

1. HRSD will employ RUMMEL, KLEPPER & KAHL, LLP ("ENGINEER"), to prepare plans and specifications for the HRSD Facilities and the CITY Facilities. A location map of the HRSD Facilities is shown on Exhibit 1. A location map of the CITY Facilities is shown on Exhibit 2.
2. ENGINEER, along with HRSD and the CITY, 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

1. HRSD will compensate the ENGINEER for all engineering design costs and any amendments related to the HRSD Facilities. HRSD will also compensate the ENGINEER, on the CITY's behalf, for all engineering design costs and any amendments related to the CITY Facilities, and the CITY shall reimburse HRSD for all such payments.
2. The CITY shall reimburse HRSD for the design costs attributable to the CITY Facilities in one lump sum payment due once the design of the Improvements is complete. HRSD shall provide the CITY with an invoice detailing the CITY's share of the design costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the design costs as detailed in the invoice. Pursuant to HRSD's agreement with ENGINEER, the current estimated design cost for the CITY Facilities is \$16,120.

C. Compliance

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

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Improvements, as more particularly defined by the Final Plans and Specifications, prepared by the ENGINEER for HRSD and the CITY (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 and inspection;
 - e. Costs of services rendered by ENGINEER; and
 - f. Any related miscellaneous essential expenses and cost of compliance with Public Procure Act and applicable laws and regulations.
2. The current estimated cost of the construction of the HRSD Facilities is \$3,632,343 and the estimated cost of the construction of the CITY Facilities is \$207,775.

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

1. HRSD and the CITY agree that before any construction work is to begin under this Agreement, HRSD and the CITY 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 HRSD Facilities prior to the award of the construction contract.
3. The CITY shall acquire all necessary plan approvals and property acquisitions related to CITY Facilities prior to the award of the construction contract.

4. HRSD and the CITY 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 that meets the stated requirements.
5. Contractors shall be responsible for all necessary permits and approvals necessary for the Improvements.
6. HRSD will review and approve shop drawings related to the HRSD Facilities. CITY will review and approve shop drawings related to the CITY Facilities.
7. HRSD will review and approve the scope of work and fee for the construction contract administration and inspections related to the HRSD Facilities. CITY will review and approve the scope of work and fee for the construction contract administration and inspections related to the CITY Facilities.
8. HRSD will review and approve change orders related to the HRSD Facilities. CITY will review and approve change order related to the CITY Facilities.

C. Payment of Improvement Costs

1. The Improvement Costs shall be apportioned among the parties as follows:
 - a. HRSD will administer and be responsible for bearing one hundred percent (100%) of the cost of the HRSD Facilities.
 - b. The CITY will be responsible for bearing one hundred percent (100%) of the cost of the CITY Facilities.
 - c. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:
 - (1) HRSD shall be solely responsible for costs due to a Change Order requested by HRSD; and
 - (2) The CITY shall be responsible for costs due to a Change Order requested by the CITY.

- (3) Change Orders related to design errors, omissions or changed field conditions shall be the responsibility of the entity impacted by the change. If the Change Order impacts the work of both HRSD and the CITY, the responsibility shall be equally shared.
 2. During the course of construction, HRSD shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Improvements for all Improvement Costs, including those for which the CITY is responsible. The CITY shall reimburse HRSD for all such payments made on its behalf. The CITY shall pay its share of the Improvements Costs to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). HRSD shall provide the CITY with an invoice detailing the CITY's share of the Improvement Costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the Improvement Costs as detailed in the invoice.
 3. In conjunction with the above, and for additional clarity, it is agreed that the CITY shall pay its share of the construction administration and construction inspection costs (the "CA and CI Costs") to HRSD in one lump sum payment upon completion of construction (as determined by HRSD). HRSD shall provide the CITY with an invoice detailing the CITY's share of the CA and CI Costs. Within thirty (30) days of its receipt of such invoice, the CITY shall reimburse HRSD for the CITY's share of the CA and CI Costs as detailed in the invoice.
- D. Operation and Maintenance of the Improvements during and after Construction
 1. HRSD shall be responsible for operation and maintenance of the HRSD Facilities during and after construction.
 2. CITY shall be responsible for operation and maintenance of the CITY Facilities during and after construction.
 3. HRSD and the CITY agree to cooperate and coordinate for the operations and maintenance of any interconnections between the HRSD Facilities and CITY Facilities.

III. SCHEDULE

The construction is anticipated to begin by August 2021 and be complete by July 2022. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Hearing or Meeting

HRSD and the CITY will be responsible for holding a public hearing or meeting if required. The CITY will coordinate and reserve the location, and assist HRSD in such public hearing.

B. Bidding of the Improvements

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

C. Administration

HRSD shall provide contract administration of the Improvements. The CITY shall reimburse HRSD for the contract administration cost of the CITY Facilities.

D. Inspection

HRSD shall provide full-time inspection for the Improvements. The CITY shall reimburse HRSD for the inspection costs of the CITY Facilities. The inspector(s) shall have the authority to assure that 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 HRSD Facilities.
2. CITY shall obtain any and all necessary fee simple deeds and/or deeds of easements for the CITY Facilities.

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 the CITY within one (1) year of the final acceptance of the Improvements.

G. Construction Record Drawings

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

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. 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 the CITY 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 the CITY 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

For: City of Poquoson
Chad Krejcarek, Utilities Superintendent
City of Poquoson, Virginia
500 City Hall Avenue
Poquoson, VA 23662
Telephone: 757-868-3594
Facsimile: 757-868-3101

With Copy to:
Randall J. Wheeler, City Manager
500 City Hall Avenue
Poquoson, VA 23662
Telephone: 757-868-3030
Facsimile: 757-868-3101

With Copy to:
Tonya A. O'Connell, Director of Finance
City of Poquoson, Virginia
500 City Hall Avenue
Poquoson, VA 23662
Telephone: 757-868-3030
Facsimile: 757-868-3101

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 the CITY have the right to review and approve insurance coverage in the various insurance categories that HRSD and the CITY deem necessary to be carried by the Contractor or any other parties to this Agreement. Proof of insurance shall be provided at the request of HRSD or the CITY 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 the CITY 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 the CITY have the right to approve them by reviewing their requisite experience and knowledge to complete the work assigned.

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.

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.

Signature pages follow

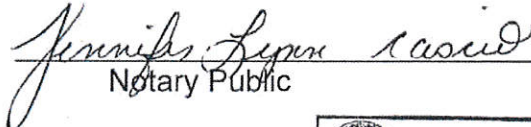
IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on April 27, 2021.

HAMPTON ROADS SANITATION DISTRICT

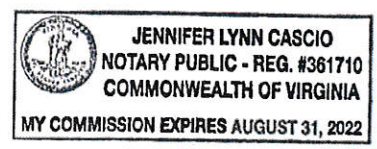
By 
Edward G. Henifin, P.E., General Manager

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

The foregoing Agreement was acknowledged before me this 27th day of April, 2021, by Edward G. Henifin, HRSD General Manager.

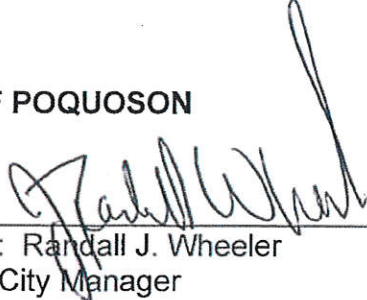

Notary Public

My commission expires: August 31, 2022
Registration No.: 361710



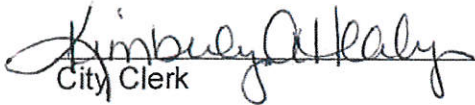
IN WITNESS WHEREOF, the City of Poquoson (CITY) has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on April 26, 2021,

CITY OF POQUOSON

By: 
Name: Randall J. Wheeler
Title: City Manager

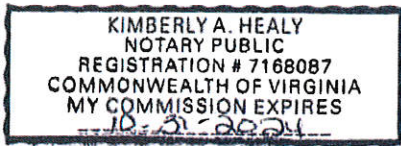
[update the information below as specified by the locality]


ATTEST:


City Clerk

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

The foregoing Agreement was acknowledged before me this 6 day of May, 2021, by Randall J. Wheeler, City Manager, City of Poquoson, Virginia.




Notary Public

My commission expires: 1031-2024

Registration No.: 7168087

Approved as to Form and Correctness:


Deputy City Attorney

Approved as to Content:

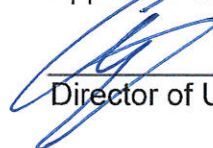

Director of Utilities

Exhibit 1 - HRSD Facilities

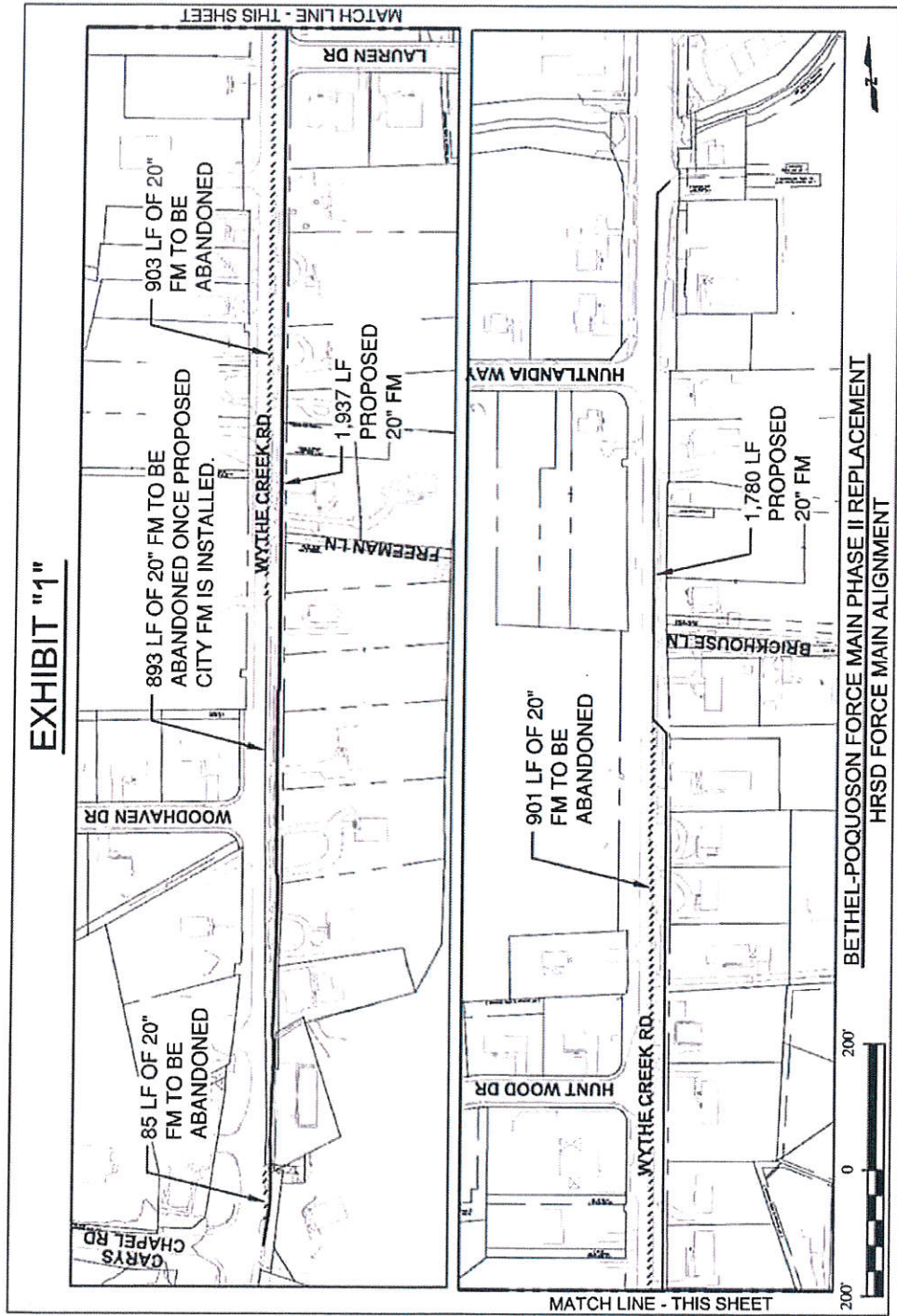
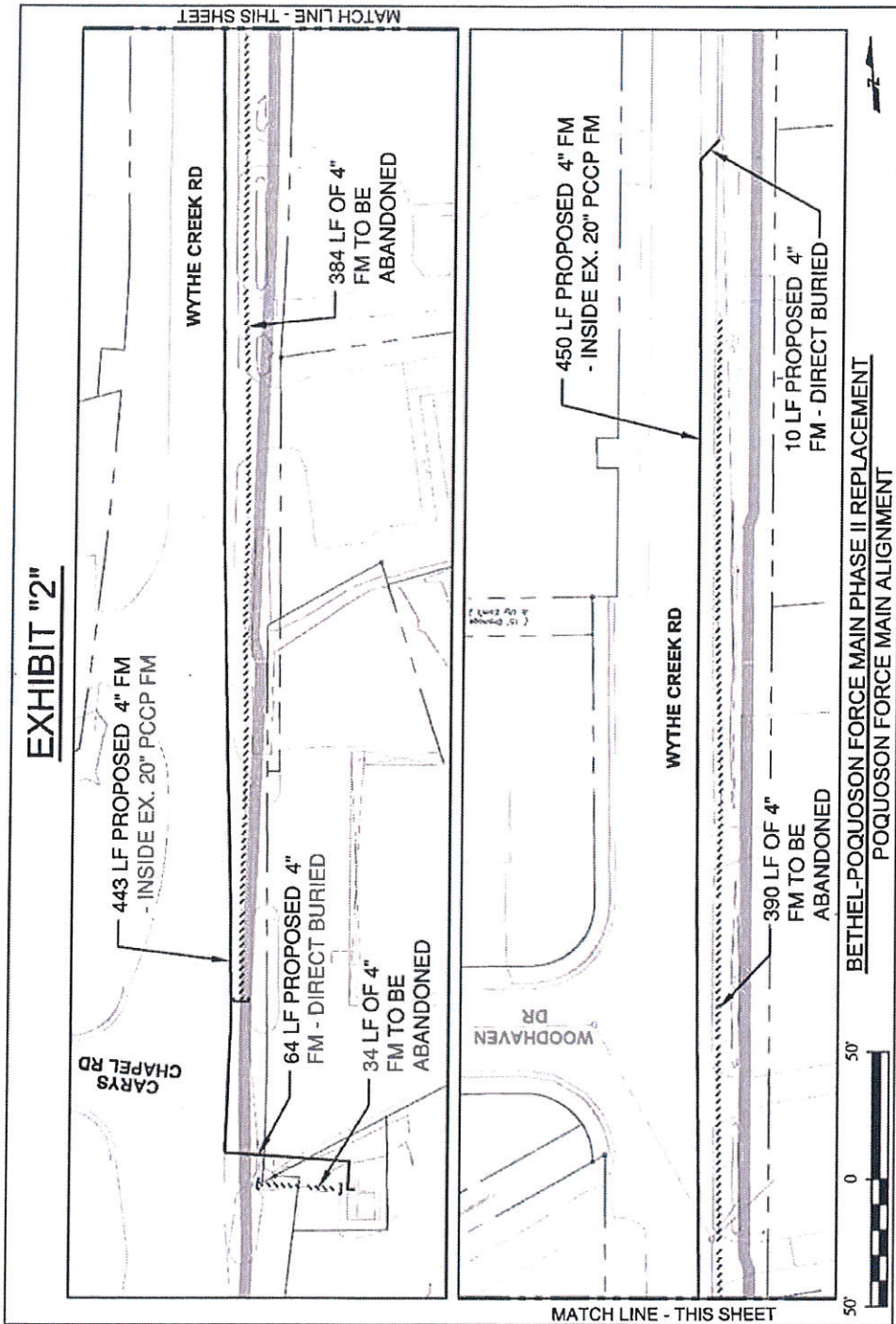


Exhibit 2 - City Facilities



HRSD Commission Meeting Minutes
April 27, 2021

Attachment #5

Agenda Item 9. Surry Force Main and Pump Station Dominion Power Extension

- [Map](#)
- [Agreement](#)

PROJECT STUDY AGREEMENT

This PROJECT STUDY AGREEMENT (this "**Agreement**") is made as of the latest date of execution below (the "**Effective Date**") by and between **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("**HRSD**"), and **Virginia Electric and Power Company**, a Virginia Public Service Company ("**DOMINION**").

RECITALS

- A. DOMINION is the owner (the "**Owner**") of certain real property located in the County of Surry, Virginia, and commonly known as the Surry Power Station 5570 Hog Island Road, Surry, Virginia 23883 (the "**Property**"), on which property Dominion owns a wastewater treatment plant (the "**Plant**") that is to be closed.
- B. Accordingly, DOMINION and HRSD have entered into discussions regarding the potential construction of a sewer pump station and force main to be owned and operated by HRSD to allow for the closure of the Plant ("**Project**"). In connection therewith, HRSD and DOMINION have agreed to permit HRSD to conduct a Study (as defined herein) to develop a reliable scope and cost estimate for the Project, and to provide for DOMINION'S reimbursement of HRSD for the costs of the Study.
- C. The parties desire to enter into this Agreement to provide for the Study, as described herein.

AGREEMENT

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

1. **Scope of Study.** HRSD will engage Rummel, Kleppler & Kahl ("**RK&K**") to perform certain preliminary engineering services, as set forth in RK&K's scope of work and fee proposal dated December 9, 2020 attached hereto as Exhibit A. RK&K is referred to herein as the "**Engineer**." The scope of work and fee proposal is referred to herein as the "**Study**". For purposes of conducting the Study, HRSD, the Engineer and their respective employees, agents, consultants, contractors and other representatives (collectively, the "**Licensed Parties**") shall, for a period of six (6) months after the Effective Date, have the right of reasonable ingress and egress to the Property, with supervision by DOMINION, at all reasonable times and upon no less than two (2) business days prior written notice to DOMINION. Without limiting the foregoing, Dominion acknowledges that the Engineer will need access to perform limited onsite work as described in Exhibit A, subject to the terms of this Agreement.

2. DOMINION's Payment Obligations.

- (a) Subject to the limitations set forth in subsection (b) below, DOMINION shall reimburse HRSD for any invoices issued by the Engineer in connection with the Study within thirty (30) days of DOMINION's receipt thereof together with written verification from HRSD that such portion of the Study has been completed and is satisfactory for HRSD's purposes.
- (b) DOMINION's reimbursement obligations under this Section 2 are limited to the amount designated as "GRAND TOTAL" or words of similar import in the Estimate in Exhibit A (i.e., \$75,660.00), unless DOMINION consents in writing to be responsible for higher amounts, which consent it may withhold in its absolute discretion.

3. Insurance. Until the termination of this Agreement, HRSD shall maintain, and shall cause the Engineer to maintain, commercial general liability insurance, including personal injury and property damage against claims arising out of or connected with the Licensed Parties' access to the Property, other than claims arising from the gross negligence of DOMINION, in the amount of \$2,000,000 each occurrence and aggregate. This coverage amount can be satisfied via a combination of a primary liability policy and/or umbrella policy. Any insurance required under this Section 3 may be subject to reasonable deductibles as are usually carried by prudent persons or companies of similar financial condition operating similar properties. DOMINION shall be named as an additional insured under the foregoing commercial general liability insurance policies, and HRSD shall provide DOMINION with evidence of such insurance in the form of certificates of insurance for each such policy within five (5) business days after the Effective Date.

4. DOMINION Access to Engineers' Study. HRSD shall provide DOMINION with periodic updates regarding the progress of the Study. HRSD shall also provide DOMINION with copies of any reports or other papers generated by the Engineer in connection with the Study promptly following HRSD's receipt of any of the same.

5. Breach; Remedies. In the event that DOMINION breaches the terms hereof, HRSD may pursue any and all remedies available to it at law or in equity provided HRSD has first provided DOMINION written notice of such breach and DOMINION fails to cure such breach within thirty (30) days after its receipt of such notice. In the event that HRSD breaches the terms hereof and fails to cure such breach within thirty (30) days of HRSD's receipt of written notice of such breach from DOMINION, DOMINION may (1) terminate this Agreement, in which event HRSD shall promptly return or reimburse DOMINION for any amounts paid by DOMINION before such termination under Section 2 above; and (2) pursue any and all remedies available to it at law or in equity.

6. **Bilateral Agreement; No Third-Party Beneficiaries.** This Agreement is solely between DOMINION and HRSD and accordingly, except for any claims of Engineer due to the gross negligence of DOMINION, DOMINION shall have no direct liability to the Engineer and the Engineer shall not be third-party beneficiaries of any of the terms hereof.

7. **Miscellaneous.**

(a) *Notices.* All notices to a party pursuant to this Agreement must be in writing and shall be sent only by United States Mail (first-class, certified, return- receipt requested); facsimile; email; personal delivery; or by an overnight courier service which keeps records of deliveries. For purposes of giving notice hereunder, the addresses of the parties are, until changed as hereinafter provided, the following:

VIRGINIA ELECTRIC AND POWER COMPANY:

5570 Hog Island Road
Surry, Virginia 23883
Attention: Jignesh Jain, P.E.
Email: jignesh.jain@dominionenergy.com

HRSD:

1434 Air Rail Ave
Virginia Beach, Virginia 23455
Attention: Bruce W. Husselbee, P.E.
Email: bhusselbee@hrsd.com

A party may change its address at any time by giving written notice of such change to the other party in the manner provided herein. Notices sent by certified mail shall be deemed given on the date of delivery or attempted delivery as shown on the return-receipt. Notices sent by personal delivery, facsimile, email, or courier service shall be deemed given on the date of delivery or refusal to accept delivery.

(b) *Counterparts.* This Agreement may be executed in counterparts, each of which shall be deemed to be an original, and all of such counterparts shall together constitute one instrument. The delivery of copies of this Agreement and the parties' respective fully-executed signature pages by PDF or facsimile transmission shall constitute effective execution and delivery as to the parties and may be used in lieu of originals for all purposes.

(c) *Termination.* Unless sooner terminated by DOMINION pursuant to Section 5 above, this Agreement shall terminate upon the full payment by DOMINION of all sums it has agreed to pay pursuant to Section 2 above.

- (d) *Amendments.* This Agreement may only be amended in writing, executed by each of the parties hereto.
- (e) *Governing Law.* This Agreement shall be governed, construed and enforced in accordance with the Laws of the Commonwealth of Virginia.
- (f) *Successors and Assigns.* This Agreement shall be binding upon and inure to the benefits of the parties hereto and their respective designees, successors and assigns.


[REMAINDER OF PAGE BLANK; SIGNATURES FOLLOW]

Signature Page

In witness whereof, the parties hereto have affixed their signatures and seals as of the dates set forth below:

HRSD:

HAMPTON ROADS SANITATION DISTRICT,
a Political Subdivision of the Commonwealth of Virginia

By: 
Name: Edward G. Henifin, P.E.
Title: General Manager
Date: 4/21/2021

DOMINION:

VIRGINIA ELECTRIC AND POWER COMPANY,
a Virginia Public Service Company

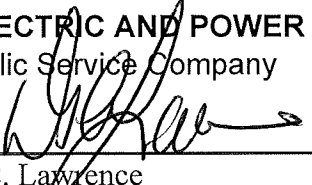
By: 
Name: Doug C. Lawrence
Title: Site Vice President – Surry Power Station
Date: 6/4/21

Exhibit A



1827 Canon Blvd., Suite 102 | Newport News, VA 23606 | P 757.926.7568 | F 757.926.1537 | www.rkk.com

December 9, 2020

Mr. Sam McAdoo, PE
Interceptor Engineer
Hampton Roads Sanitation District
2389 G Avenue
Newport News, VA 23602

Reference: **Professional Engineering Services for Interceptor Systems Projects
Amendment No. NS-XX – Surry Dominion Force Main and Pump Station PER
Scope of Work and Fee Proposal
Preliminary Engineering Phase Services
RK&K Comm. No. 18097**

Dear Sam:

We are pleased to submit the attached scope of work and fee proposal for the referenced project. The scope reflects our understanding of the project as discussed during our phone conversation in late November.

The scope of work includes preparation and delivery of a Preliminary Engineering Report including construction cost estimate reflecting the new force main and pump station serving the Dominion Energy Surry Power Station. The force main will discharge to the gravity sewer at the Mt. Ray Pump Station.

We look forward to working with you and proceeding with this important project. Please call me at (757) 650-2510 if you have any questions.

Sincerely

RK&K

Mike Gaffney, P.E.

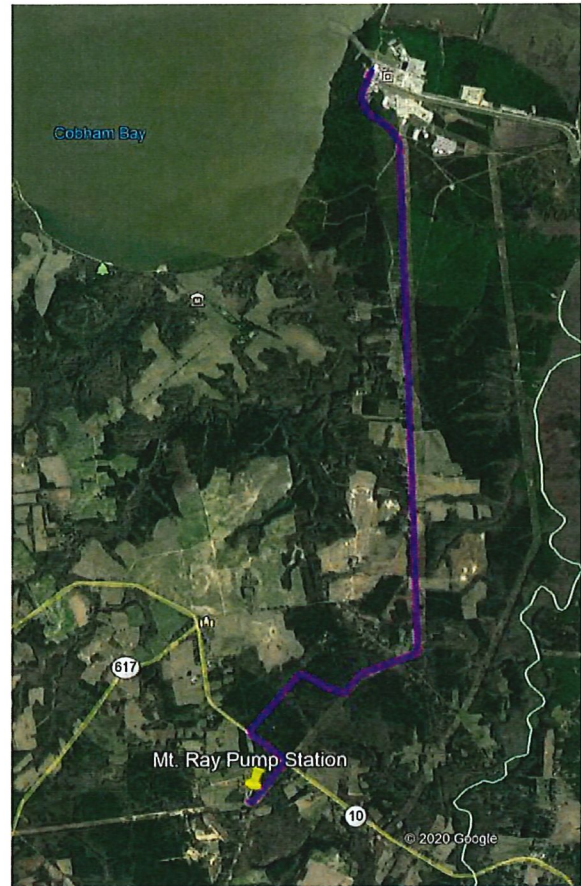
Director, Municipal Engineering

Attachment
Comm. No.: 18097
MVG:mvg

V:\rk.com\A\Closed\Project Management\Contracts\2018\18097_HRSD Interceptor System Projects\NSXX-DVFForceMain_Surry\SurryDomFM\FER_Scope.docx

SCOPE OF SERVICES

HRSD and Dominion Energy are evaluating construction of a sanitary sewer pump station and force main to convey sewage flows generated at the Dominion Energy Surry Power Station to the proposed Mt. Ray Pump Station located on Mt. Ray Drive. Construction of a pump station and force main would allow Dominion Energy to abandon the existing wastewater treatment plant located at the facility. The 6" force main is approximately seven miles in length with a planned alignment (presented in the adjacent image) along the Dominion Energy easement until Mantura Farms property where the alignment will turn westerly (avoiding the planned solar farm) to Hog Island Road and then follow Hog Island Road to Colonial Trail East. The alignment follows Colonial Trail East until intersecting the Dominion Easement and then turn southwesterly along the Dominion Easement to the Mt. Ray Pump Station. The pump station will be located adjacent to the existing WWTP located on the Surry Power Plant property. HRSD has requested RK&K prepare a Preliminary Engineering Report (PER) for the



selected alignment to identify design considerations, permitting requirements, pump station design conditions and equipment selection, location of HDDs and air vents and provide costs associated with construction of the force main and pump station. HRSD requested RK&K perform these preliminary engineering under the Professional Engineering Services Agreement for Interceptor System Projects.

SCOPE OF WORK

1. The ENGINEER shall meet with HRSD and Dominion Energy officials to review the scope of work, establish parameters for design of the force main and pump station, gather information, and review available documentation.
2. The ENGINEER will visit the project site to review the pump station site and force main alignment. The ENGINEER will meet with the Dominion WWTP Superintendent.

3. The ENGINEER will meet with VDOT to discuss road crossing details including locations where trenchless crossings will be required.
4. The ENGINEER will Identify environmental permitting requirements including permitting approvals and reviews with the ACOE, DWR, DEQ, etc. Desktop research including evaluation of available wetland inventory mapping, endangered species information and other available documentation will be completed. Fieldwork to identify exact boundaries of wetlands and waters of the US will not be completed as part of the PER. Specific Environmental planning tasks include:
 - a. RK&K will identify the required environmental documentation for environmental compliance on state land and resources of concern in those areas. It is anticipated the project alignment would cross the Carlisle Tract of the Hog Island State Wildlife Management Area administered by the Virginia Department of Wildlife Resources. RK&K will support preliminary coordination with DWR as directed.
 - b. RK&K will identify all permits/approvals anticipated for environmental compliance.
 - c. RK&K will produce mapping showing state land parcels and environmental resources of potential concern
5. The ENGINEER will perform private utility research at the road crossing locations.
6. The ENGINEER will perform a desktop cultural resources evaluation to identify potential cultural resources along the alignment. Fieldwork to sample for cultural resources will not be completed as part of the PER. Specific cultural resources tasks include:
 - a. RK&K will conduct an electronic archival search of the Virginia Cultural Resources Information System (VCRIS) to identify: Previous archaeological surveys, known archaeological sites, and known historic resources including American Battlefield Protection Program properties (ABPP) within the proposed alignment and a 1000- foot buffer.
 - b. RK&K will provide written documentation of the reviewed properties summarizing the previous research and project mapping of known resource locations
7. The ENGINEER will identify locality and state permitting requirements including Surry County and VDOT.

8. The ENGINEER will prepare force main alignment mapping using available Virginia Ortho-Imagery data for aerial and topographic data. The force main alignment will feature:
 - a. Plan view concept design of the force main alignment within the cleared limits of Dominions easements and public rights-of-way. Topographic data will be provided on the plan sheets. A force main profile will not be prepared for the PER.
 - b. Dominion Energy Easement – The force main will be located 10 feet from the edge of the Dominion Energy Easement inside of the clearing limits of the easement.
 - c. VDOT ROW – The force main will be located 10 feet from the edge of the VDOT ROW outside of the ROW.
 - d. Horizontal direction drill installations for crossing of waterways, wetlands and road crossings. Horizontal directional drill construction will also be considered for culturally significant sites identified along the alignment.
 - e. Estimate air release and valve locations.
9. The ENGINEER will identify easement requirements along the alignment. The force main will require a permanent easement 20-feet in width. A temporary construction easement 10-feet in width will be required in the Dominion Easement section. Required easements, sizes and estimated values will be summarized to provide an estimated property acquisition cost.
10. The ENGINEER will review 12 months of flow data for the Dominion WWTP to identify average and peak flows for design of the pump station.
11. The ENGINEER will evaluate pump station hydraulics including completing a hydraulic model of the force main to determine pump design conditions and air vent locations (including auto air vents); establish system head conditions, select pumping equipment, size the wet well and other pump station appurtenances.
12. The ENGINEER will determine power requirements for the pump station including preparation of a preliminary power riser diagram.
13. The ENGINEER will prepare pump station schematics.
14. The ENGINEER will prepare a AACE Level 3 Construction Cost Estimate.
15. The ENGINEER will prepare and submit a Draft PER.

16. The ENGINEER will preside over a Draft PER Review Meeting. Comments received from the Draft PER will be addressed in the Final PER.

ADDITIONAL SERVICES

1. Fieldwork associated with environmental or cultural resources work.

HRSD PROVIDED SUPPORT

HRSD shall provide the following information for use in design:

1. Permitting/agency review fees.

SERVICES NOT INCLUDED

Unless specifically included elsewhere, the following services are excluded from this design scope of work:

1. Fieldwork for survey, wetland identification, cultural resources evaluation or endangered species evaluation.
2. Geotechnical investigations.
3. Topographic survey.
4. Utility locating and designation.
5. Environmental delineations including wetlands.
6. Permitting.
7. Public participation.
8. Design, pre-construction and construction phase services.

PROJECT SCHEDULE

From date of Notice to Proceed for each phase:

- | | |
|---------------------|---|
| 1. Submit Draft PER | 120 days from NTP |
| 2. Submit Final PER | 30 days after Draft PER Review Meeting and receipt of Draft PER Review Comments |

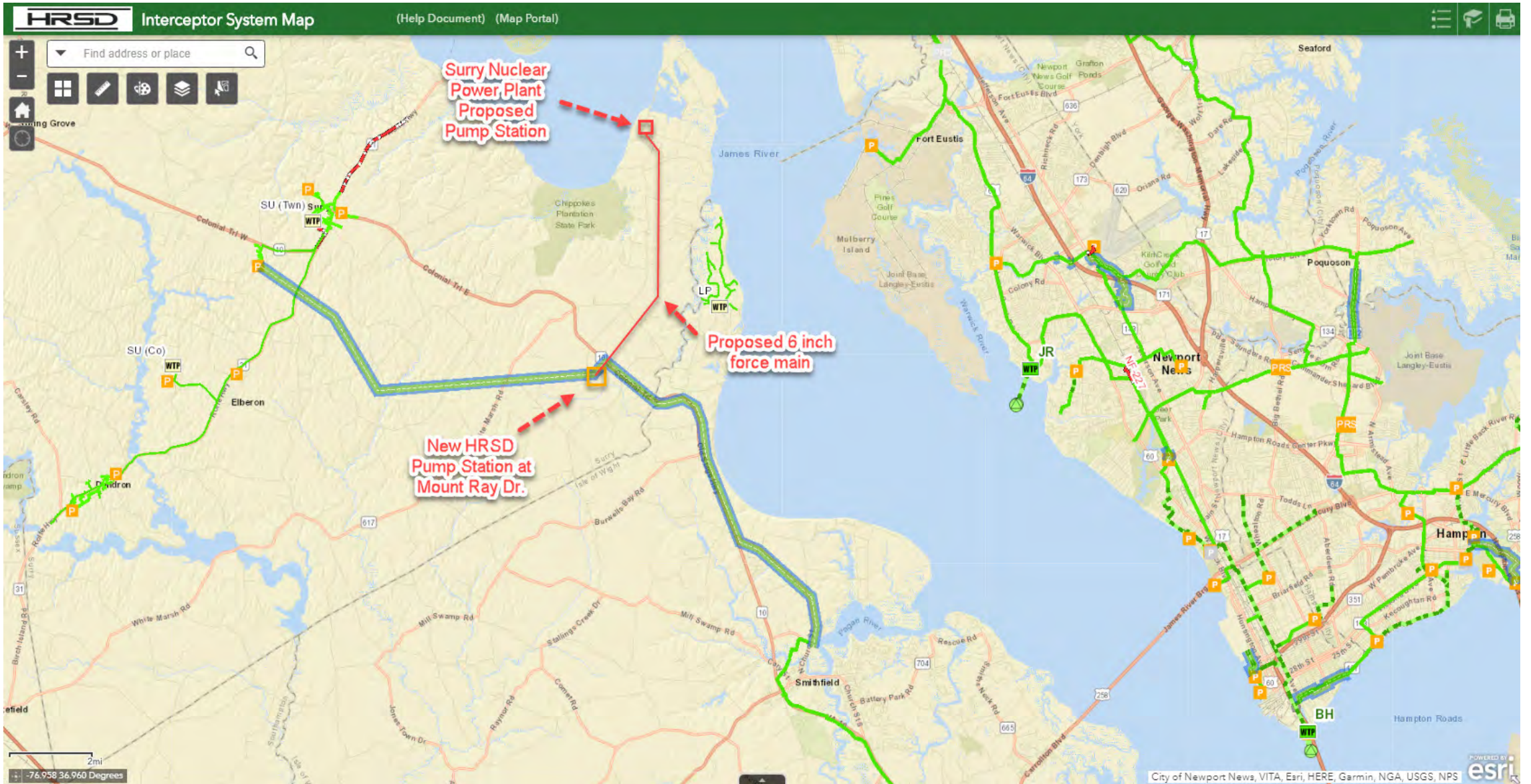
COMPENSATION

ENGINEER requests a lump sum fee as follows:

Design Phase Services (Lump Sum)	\$70,660
Additional Services Allowance (When Authorized)	\$5,000

This fee was established based on the attached fee derivation. Authorized additional services will be negotiated when determined necessary.

Vicinity Map



HRSD Commission Meeting Minutes
April 27, 2021

Attachment #6

Agenda Item 10. Surry Hydraulic Improvements and Interceptor Force
Main Easement Acquisition (Allen: Tax Map 55-1)

- [Agreement](#)
- [Deed](#)
- [Plat](#)
- [Facility Map](#)

AGREEMENT

THIS AGREEMENT, made this 11 day of March 2021, by and between **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 (the “Grantee”), and **JAMES S. ALLEN, JR.**, whose mailing address is 8911 Colonial Trail East, Smithfield, Virginia 23430 (“Landowner”). Collectively, Buyer and Seller shall be referred to as the “Parties.”

WITNESSETH: That for and in consideration of one dollar and other valuable consideration, receipt of which is hereby acknowledged, Landowner agrees to convey to HRSD a permanent easement over, across and through the following described property of the Landowner, by deed of easement, properly executed, acknowledged, and delivered.

The land and improvements subject to this Utility Easement Agreement (hereinafter referred to as the "Easement") is described as follows:

Being as shown on the attached plat prepared by W. M. Naulty, Surveyor, 4701 Owens Way, Suite 900 Prince George, Virginia 23875 entitled “PLAT SHOWING EASEMENT TO BE ACQUIRED FROM JAMES S. ALLEN, JR.” and dated July 28, 2020 and containing 10,846 SQ. FT. (0.249 acres), more or less land for the proposed HRSD permanent utility easement; and being part of the same property conveyed to James S. Allen, Jr. by Herbert M. Stringfield and Lillian P. Stringfield, by Deed dated December 4, 1996 and recorded in the Surry County Circuit Court Clerk's Office in Deed Book 143 at page 314.

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

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

CONSIDERATION: TWENTY SEVEN THOUSAND SIXTY AND 00/100 DOLLARS (\$27,060.00) in full for the easement 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 damages to remaining lands of the Landowner which may result by reason of the use to which HRSD will put the land to be conveyed. The Landowner agrees to accept his legal proportionate share of such total consideration for his interest and right in the said land.

Agreement – Tax Map# 55-1, County of Surry, VA Between HRSD and James S. Allen, Jr.

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.

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. Plans for the Easement have been explained to the Landowner, and Grantee warrants that it will not construct above ground pumping station facilities within the easement area.

HRSD or its contractor hereby agrees that it will complete all construction within sixty (60) days of commencement of work on Tax Map # 55-1 or additional funds will be paid to Mr. Allen for the boarding of the horses.

HRSD or its contractor agrees to obtain a soil compaction test where the pipe is being installed. The test will be conducted before construction and after construction to ensure soil compaction is left at the same percentage or better as it was before construction.

HRSD has added \$1,000.00 to the compensation amount per the landowner's request for any fence repair or electrical repairs. HRSD or its contractor will try to repair any damage to the fence that may occur, but the landowner has been compensated to repair the fence.

HRSD or its contractor agree that any electrical or water line damage caused by the contractor will be repaired in a good and workmanlike manner.

RIGHT TO ENTER: The HRSD, or its agents, may exercise the right to enter upon so much of the parcel or Land needed for such purposes as may be necessary for the construction of this project without further notice to the Landowner.

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

Agreement – Tax Map# 55-1, County of Surry, VA Between HRSD and James S. Allen, Jr.

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.

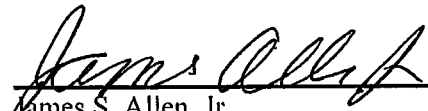
Landowner acknowledges that HRSD has relied upon these covenants, representations and warranties in purchasing the above easement.

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:

SELLER:


James S. Allen, Jr.

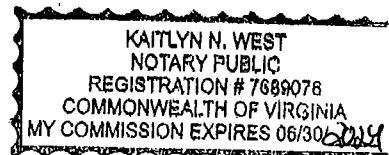
STATE OF Virginia
COUNTY OF Newport News, to-wit:

I, Kaitlyn West, a Notary Public in and for the County of Newport News, in the State of Virginia, whose term of office expires on June 30, 2024, do hereby certify that James S. Allen, Jr., Seller herein, whose name is signed to the foregoing Utility Easement Agreement, has acknowledged the same before me in my County and State aforesaid.

Given under my hand this 11 day of March, 2021.


Notary Public

My Commission Expires: 06/30/2024
Registration Number: 7689076



WITNESS the following signatures and seals:

HRSD:

HAMPTON ROADS SANITATION DISTRICT

By: _____

Name: _____

Title: _____

STATE OF _____

CITY/COUNTY OF _____, to-wit:

I, _____, a Notary Public in and for the Commonwealth of Virginia,
whose term of office expires on _____, do hereby certify that
_____, as _____ of Hampton Roads Sanitation District, HRSD
herein, whose name is signed to the foregoing Agreement, has acknowledged the same before me
in the City/County and State aforesaid.

Given under my hand this ____ day of _____, 2021.

Notary Public

My Commission Expires: _____

Registration Number: _____

PREPARED BY AND RETURN TO:

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

Tax ID: 55-1

DEED OF EASEMENT

THIS DEED OF EASEMENT, made this 11 day of March, 2021, by and among JAMES S. ALLEN, JR., GRANTOR, (whether one or more) and HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, GRANTEE, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

WITNESSETH:

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

All that certain permanent utility easement located in the County of Surry, Virginia, shown and designated as "20' H.R.S.D. PERMANENT UTILITY EASEMENT 0.249 ACRES 10,846 SQUARE FOOT", as shown on that certain plat entitled, "PLAT SHOWING EASEMENT TO BE ACQUIRED FROM JAMES S. ALLEN, JR. BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN COBHAM DISTRICT SURRY COUNTY, VIRGINIA", made by W. M. Naulty, Surveyor, dated July 28, 2020, a copy of which plat is attached hereto and made a part hereof, to which reference is here made.

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

It being part of the property conveyed to James S. Allen, Jr. by Herbert M. Stringfield and Lillian P. Stringfield, by Deed dated December 4, 1996 and recorded in the Surry County Circuit Court Clerk's Office in Deed Book 143 at page 314.

This easement is subject to the following conditions and provisions:

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

B. Any disturbance of the premises by the **GRANTEE** or its contractor will be restored by the **GRANTEE** as nearly as practicable. This includes paving, backfilling of trenches, grass, reseeding, and removal of trash or debris.

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

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

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

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

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

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

GRANTOR:

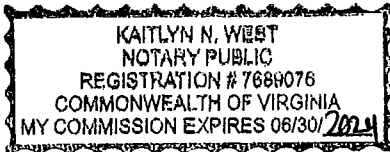
James S. Allen, Jr.
James S. Allen, Jr.

STATE OF Virginia
CITY/COUNTY OF Newport News, to-wit:

The foregoing instrument was acknowledged before me this 11 day of March, 2021, by James S. Allen, Jr.

Kaitlyn N. West

Notary Public



My Commission Expires: 06/30/2024
Registration Number: 7689076

PROJECT PARCEL NO. 057
PROPERTY OF: JAMES S. ALLEN JR
PROPERTY ADDRESS: 8911 COLONIAL TRAIL EAST
OWNER ADDRESS: 8911 COLONIAL TRAIL EAST
SMITHFIELD, VA 23430
PIN: 55-1B

N/F
 JACKLYN D. & SHARON D. SLADE
 PIN: 55-1C
 D.B. 148, PG. 689
 P.B. 6, PG. 51

N: 3558276.22
 E: 12005567.83

JAMES S. ALLEN, JR
 PIN: 55-1B
 D.B. 143, PG. 314
 D.B. 98, PG. 140

N/F
 JAMES S. ALLEN, JR
 PIN: 55-1
 D.B. 143, PG. 314
 P.B. 4, PG. 139

N: 3558154.22
 E: 12005742.70

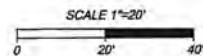
AREA TABLE

20' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.098 ACRES 4,269 SQUARE FOOT
--	----------------------------------

LINE TABLE

LINE	BEARING	LENGTH
L1	S54°23'38"E	4.80'

STATE ROUTE 10
COLONIAL TRAIL EAST
 80' RW



NOTES:

- PROPERTY LINES AND RIGHT OF WAY INFORMATION SHOWN IS BASED ON PLATS, DEEDS OR RECORD AND ACTUAL FILED MEASUREMENTS. ONLY THE BOUNDARIES SHOWN HAVE BEEN SURVEYED FOR THIS PROJECT.
- THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THIS PROPERTY
- EASEMENTS SHALL BE ACQUIRED BY DEED.



PLAT SHOWING EASEMENT TO BE ACQUIRED FROM

JAMES S. ALLEN, JR





BY HAMPTON ROADS SANITATION DISTRICT
 FOR SURRY COUNTY MARINA FORCE MAIN
 COBHAM DISTRICT
 SURRY COUNTY, VIRGINIA

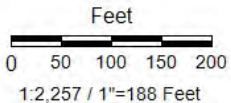
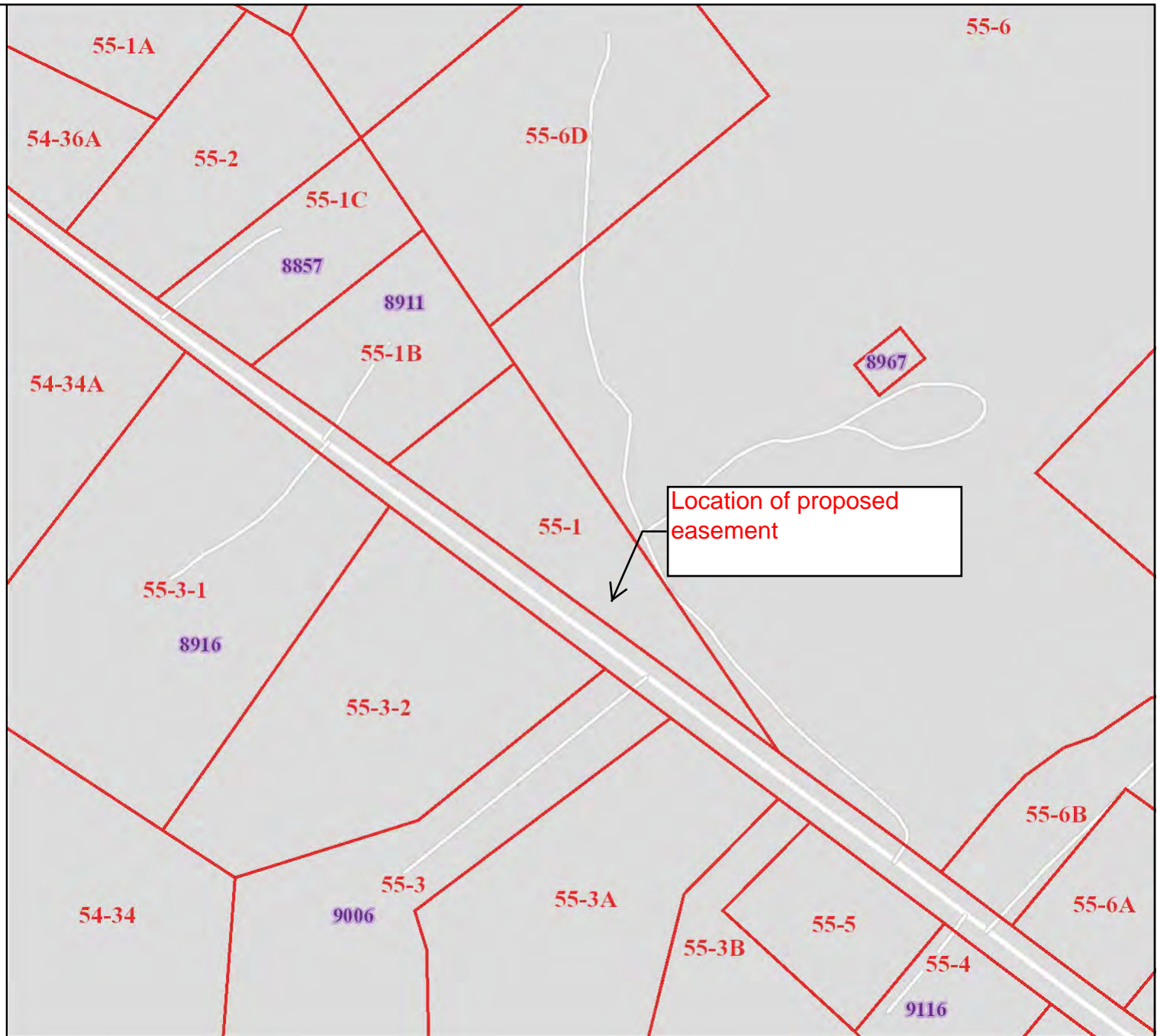
SCALE 1"=20' NOVEMBER 26, 2019
 JN: 42956-903-55-1B

W.M. NAULTY, SURVEYOR
 4701 OWENS WAY, SUITE 900
 PRINCE GEORGE, VIRGINIA 23875

Surry County, Virginia

Legend

-  County Boundary
-  Parcels
-  Hidden Roads 2257
-  Driveways



Title:

Date: 4/18/2021

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

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #7

Agenda Item 11. Surry Hydraulic Improvements and Interceptor Force
Main Easement Acquisition (ROSF: Tax Map 13-01-048B)

- [Agreement](#)
- [Deed](#)
- [Plat](#)
- [Facility Map](#)

AGREEMENT

THIS AGREEMENT, made this 6TH day of JANUARY ²⁰²¹ ~~2020~~, by and between **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 (the “Grantee”), and **ROSF, LLC**, A VIRGINIA LIMITED LIABILITY COMPANY, whose mailing address is 932 Laskin Road Suite 200, Virginia Beach, Virginia 23451 (“Landowner”). Collectively, Buyer and Seller shall be referred to as the “Parties.”

WITNESSETH: That for and in consideration of one dollar and other valuable consideration, receipt of which is hereby acknowledged, Landowner agrees to convey to HRSD a permanent easement over, across and through the following described property of the Landowner, by deed of easement, properly executed, acknowledged, and delivered.

The land and improvements subject to this Utility Easement Agreement (hereinafter referred to as the "Easement") is described as follows:

Being as shown on the attached plat prepared by W. M. Naulty, Surveyor, 4701 Owens Way, Suite 900 Prince George, Virginia 23875 entitled “PLAT SHOWING EASEMENT TO BE ACQUIRED FROM ROSF, LLC” and dated July 28, 2020 and containing 18,384 SQ. FT. (0.422 acres), more or less land for the proposed HRSD 20’ permanent utility easement and containing 38,332 SQ. FT. (0.880 acres) more or less land for the proposed HRSD 30’ permanent utility easement and containing 308 SQ. FT. (0.007 acres), more or less land for the proposed HRSD temporary construction easement; and being part of the same property conveyed to ROSF LLC, a Virginia limited liability company by Joseph W. Luter, III, by Deed dated October 25, 2007 and recorded in the County of Isle of Wight Clerk's Office in as Instrument Number 080502.

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

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

CONSIDERATION: THIRTY NINE THOUSAND TWO HUNDRED AND 20/100 DOLLARS (\$39,200.20) in full for the easement 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 damages to remaining lands of the Landowner which may result by reason of the use to which HRSD will put the land to be conveyed. The Landowner agrees to accept its legal proportionate share of such total consideration for its interest and right in the said land.

The Landowner hereby covenants and agrees for itself, its successors and assigns, 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. If any fencing on Landowner's land and Parcel is removed to allow equipment onto the Property, HRSD or its contractor will ensure that the fencing is nailed back into its original position or as close to the original position as possible following completion of construction.

HRSD or its contractor, MEB Contractors, hereby agrees to utilize smaller equipment, where feasible, to install the proposed sewer pipe on the Landowner's land and Parcel.

HRSD or its contractor, MEB Contractors, hereby agrees to place Rip Rap Rock at approximately at N:3533226.23; E:12028915.09 as indicated on Plan Sheet C-82 by MEB Contractors in an effort to mitigate additional erosion of the property.

HRSD or its contractor, MEB Contractors, hereby agrees that prior to the commencement of any construction or tree cutting on the Property, MEB Contractors will meet in person with Bo Russell, the designated representative of ROSF, LLC, to identify and tag any trees that Landowner desires to keep. Bo Russell agrees to allow MEB Contractors to leave the identified trees within the easement or lay just outside the easement onto ROSF property.

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. Plans for the Easement have been explained to the Landowner, and Grantee warrants that it will not construct above ground pumping station facilities within the easement area.

HRSD or its contractors, MEB Contractors, hereby agrees to use hydro seeding for replacement of any grass disturbed during construction.

Landowner and HRSD hereby agree that, following completion of construction, Landowner may plant or install trees within the easement area that do not have canopies over THIRTY (30) feet so as to not interfere with the sewer pipe or drainage facilities.

RIGHT TO ENTER: HRSD, or its agents, may exercise the right to enter upon so much of the parcel or Land needed for such purposes as may be necessary for the construction of this project without further notice to the Landowner.

This Agreement ensures to the benefit of HRSD, its successors or assigns only, and any additional rights to said Easement shall require written permission and agreement from Landowner.

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.

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.

Agreement – Tax Map# 13-01-048B, County of Isle of Wight, VA Between HRSD and ROSF LLC,
a Virginia limited liability company

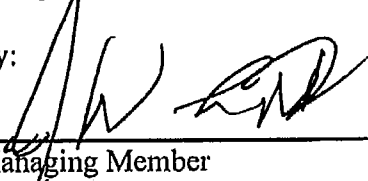
THE COVENANTS, AGREEMENTS, REPRESENTATIONS, WARRANTIES OF THE
LANDOWNER CONTAINED IN THESE PARAGRAPHS SHALL SURVIVE THE CLOSING
AND DELIVERY OF THE DEED OF EASEMENT ACROSS THE SUBJECT LAND.

WITNESS the following signatures and seals:

SELLER:

ROSF, LLC,
a Virginia limited liability company

By:



Managing Member

STATE OF Idaho
COUNTY OF Blaine, to-wit:

I, Tina O'Donnell, a Notary Public in and for the County of Blaine, in the
State of Idaho, whose term of office expires on 11.26.25,
do hereby certify that Joseph Luter, _____ of ROSF, LLC, a Virginia
limited liability company, Seller herein, whose name is signed to the foregoing Utility Easement
Agreement, has acknowledged the same before me in my County and State aforesaid.

Given under my hand this 6th day of January, 2020.

Tina O'Donnell

Notary Public

My Commission Expires: 11.26.25
Registration Number: 42878





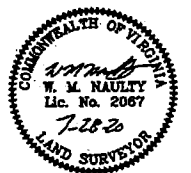
PROJECT PARCEL NO. 143
PROPERTY OF: ROSF, LLC
PROPERTY ADDRESS: HORSHOE POINT LANE
OWNER ADDRESS: 14396 HORSHOE POINT LANE
SMITHFIELD, VA 23430
PIN: 13-01-048B

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING	CHORD
C1	1038.95'	165.57'	82.96'	9°07'52"	S17°28'42"E	165.40'
C2	1018.95'	164.75'	82.55'	9°15'50"	N17°30'42"W	164.57'

LINE TABLE		
LINE	BEARING	LENGTH
L1	N81°13'50"E	10.00'
L2	S8°28'09"E	30.89'
L3	S81°13'50"W	10.00'
L4	S81°13'50"W	10.00'
L5	S86°51'45"W	30.00'

ROSF, LLC
 PIN: 13-01-048B
 INST. #08000502

AREA TABLE	
20' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.422 ACRES 18,364 SQUARE FOOT
30' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.880 ACRES 38,332 SQUARE FOOT
20' TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.007 ACRES 308 SQUARE FOOT
TOTAL PERMANENT UTILITY EASEMENT TO BE ACQUIRED	1.302 ACRES 56,716 SQUARE FOOT

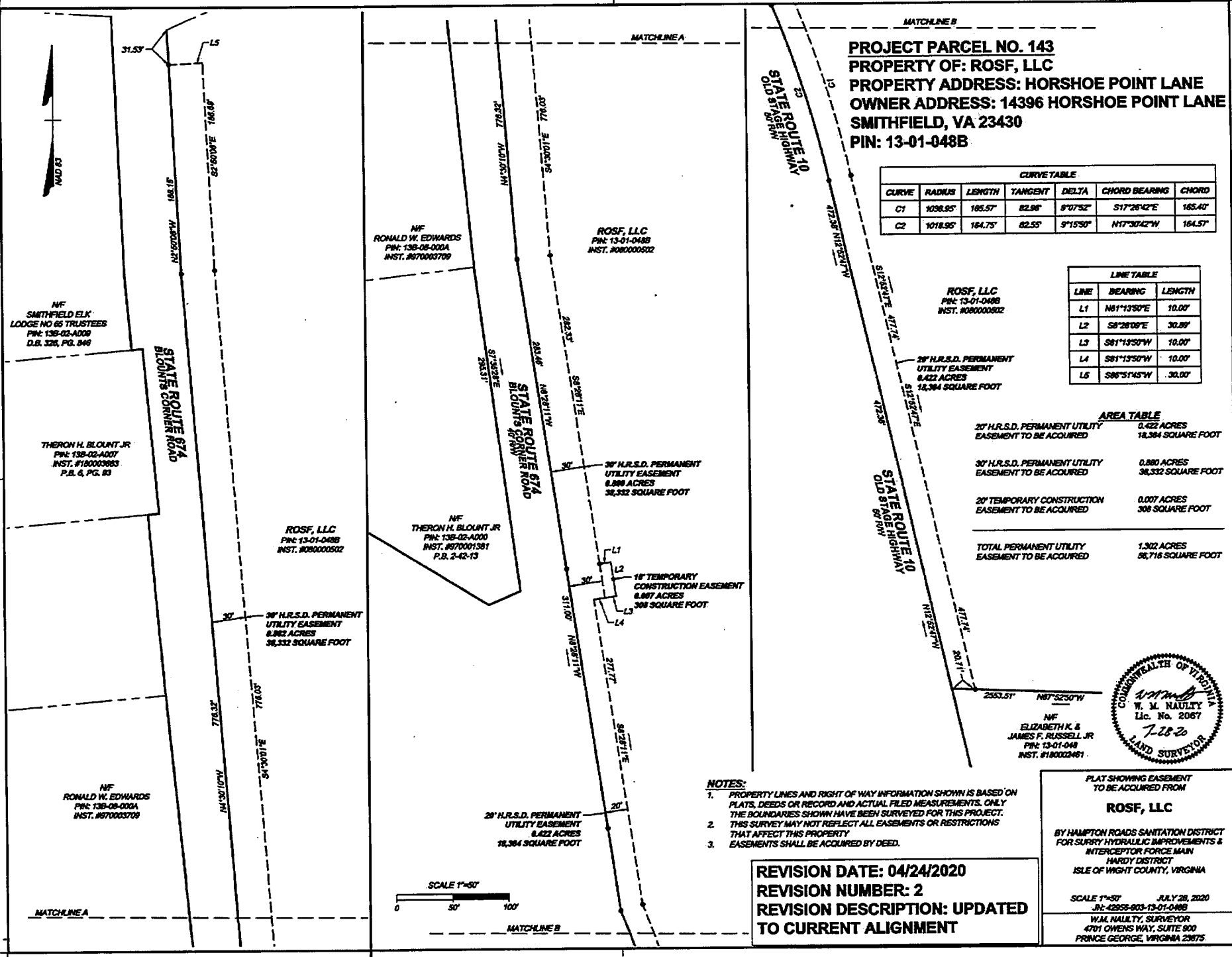
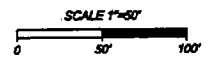


NF
 ELIZABETH K. &
 JAMES F. RUSSELL, JR.
 PIN: 13-01-048
 INST. #18002461

- NOTES:**
1. PROPERTY LINES AND RIGHT OF WAY INFORMATION SHOWN IS BASED ON PLATS, DEEDS OR RECORD AND ACTUAL FILED MEASUREMENTS. ONLY THE BOUNDARIES SHOWN HAVE BEEN SURVEYED FOR THIS PROJECT.
 2. THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THIS PROPERTY
 3. EASEMENTS SHALL BE ACQUIRED BY DEED.

REVISION DATE: 04/24/2020
REVISION NUMBER: 2
REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT

PLAT SHOWING EASEMENT TO BE ACQUIRED FROM
ROSF, LLC
 BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA
 SCALE 1"=50' JULY 28, 2020
 JN-42958-603-13-01-048B
 W.M. NAULTY, SURVEYOR
 4701 OWENS WAY, SUITE 900
 PRINCE GEORGE, VIRGINIA 23867



PREPARED BY AND RETURN TO:

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

Tax ID: 13-01-048B

DEED OF EASEMENT

THIS DEED OF EASEMENT, made this 6 day of JANUARY, ²⁰²¹ 2020, by and among **ROSF, LLC, A VIRGINIA LIMITED LIABILITY COMPANY, GRANTOR**, (whether one or more) and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

WITNESSETH:

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

All that certain permanent utility easement located in the County of Isle of Wight, Virginia, shown and designated as "A 20' H.R.S.D. PERMANENT UTILITY EASEMENT 0.422 ACRES 18,384 SQUARE FOOT AND 30' H.R.S.D. PERMANENT UTILITY EASEMENT 0.880 ACRES 38,322 SQUARE FOOT AND A 20' TEMPORARY CONSTRUCTION EASEMENT 0.007 ACRES 308 SQUARE FOOT", as shown on that certain plat entitled, "PLAT SHOWING EASEMENT TO BE ACQUIRED FROM ROSF, LLC BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA", made by W. M. Naulty, Surveyor, dated July 28, 2020, a copy of which plat is attached hereto and made a part hereof, to which reference is here made.

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

It being part of the property conveyed to ROSF, LLC, a Virginia limited liability company by Joseph W. Luter, III, by Deed dated October 25, 2007 and recorded in the County of Isle of Wight Clerk's Office in as Instrument Number 080502.

This easement is subject to the following conditions and provisions:

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

B. Any disturbance of the premises by the **GRANTEE** or its contractor will be restored by the **GRANTEE** as nearly as practicable. This includes paving, fences, backfilling of trenches, grass, reseeding, replacing or replanting landscaping, and removal of trash or debris.

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

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

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

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

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

H. **GRANTEE'S** grant under this instrument from **GRANTOR** shall not allow it, its successors or assigns to assign, convey or sell any right, title and interest into the said easement for any purpose, and **GRANTEE'S** usage herein is limited to the delineated purpose for which **GRANTEE** has been conveyed these rights.

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

GRANTOR:

ROSF, LLC,
a Virginia limited liability company

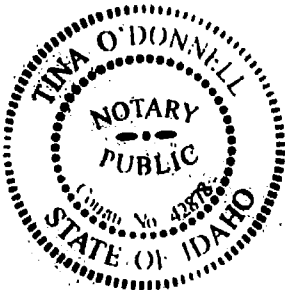
[Signature]
MANAGER
Title

STATE OF Idaho
CITY/COUNTY OF Blaine, to-wit:

The foregoing instrument was acknowledged before me this 6 day of January, 2020, by Joseph Wite of ROSF LLC, a Virginia limited liability company.

Tina O'Donnell
Notary Public

My Commission Expires: 11.26.25
Registration Number: 42878



MATCHLINE B

PROJECT PARCEL NO. 143
PROPERTY OF: ROSF, LLC
PROPERTY ADDRESS: HORSHOE POINT LANE
OWNER ADDRESS: 14396 HORSHOE POINT LANE
SMITHFIELD, VA 23430
PIN: 13-01-048B

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ROSF, LLC
 PIN: 13-01-048B
 INST. #080000502

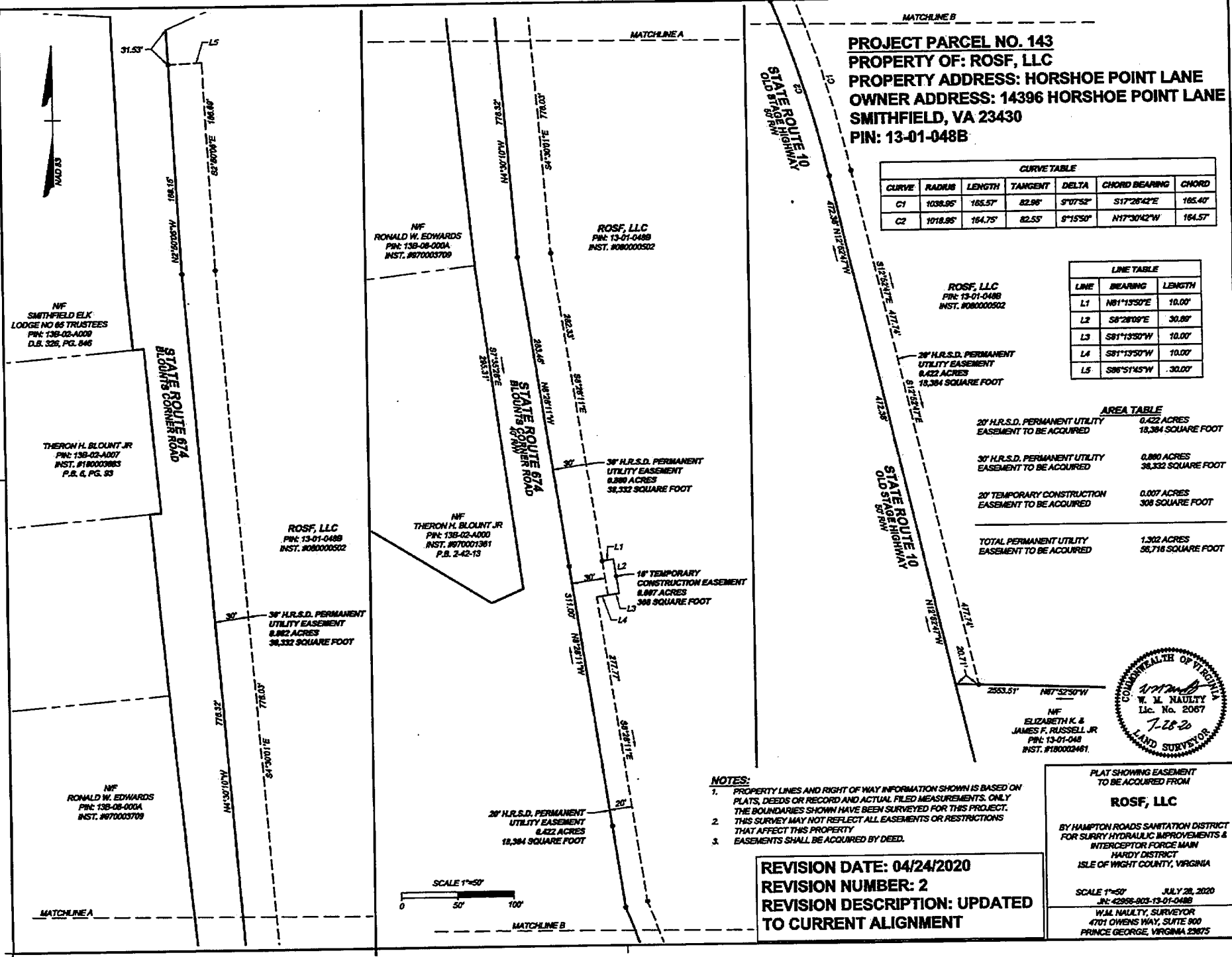
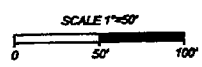
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20' TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.007 ACRES 308 SQUARE FOOT
TOTAL PERMANENT UTILITY EASEMENT TO BE ACQUIRED	1.302 ACRES 56,716 SQUARE FOOT

COMMONWEALTH OF VIRGINIA
 W. M. NAULTY
 Lic. No. 2067
 7-28-20
 LAND SURVEYOR

- NOTES:**
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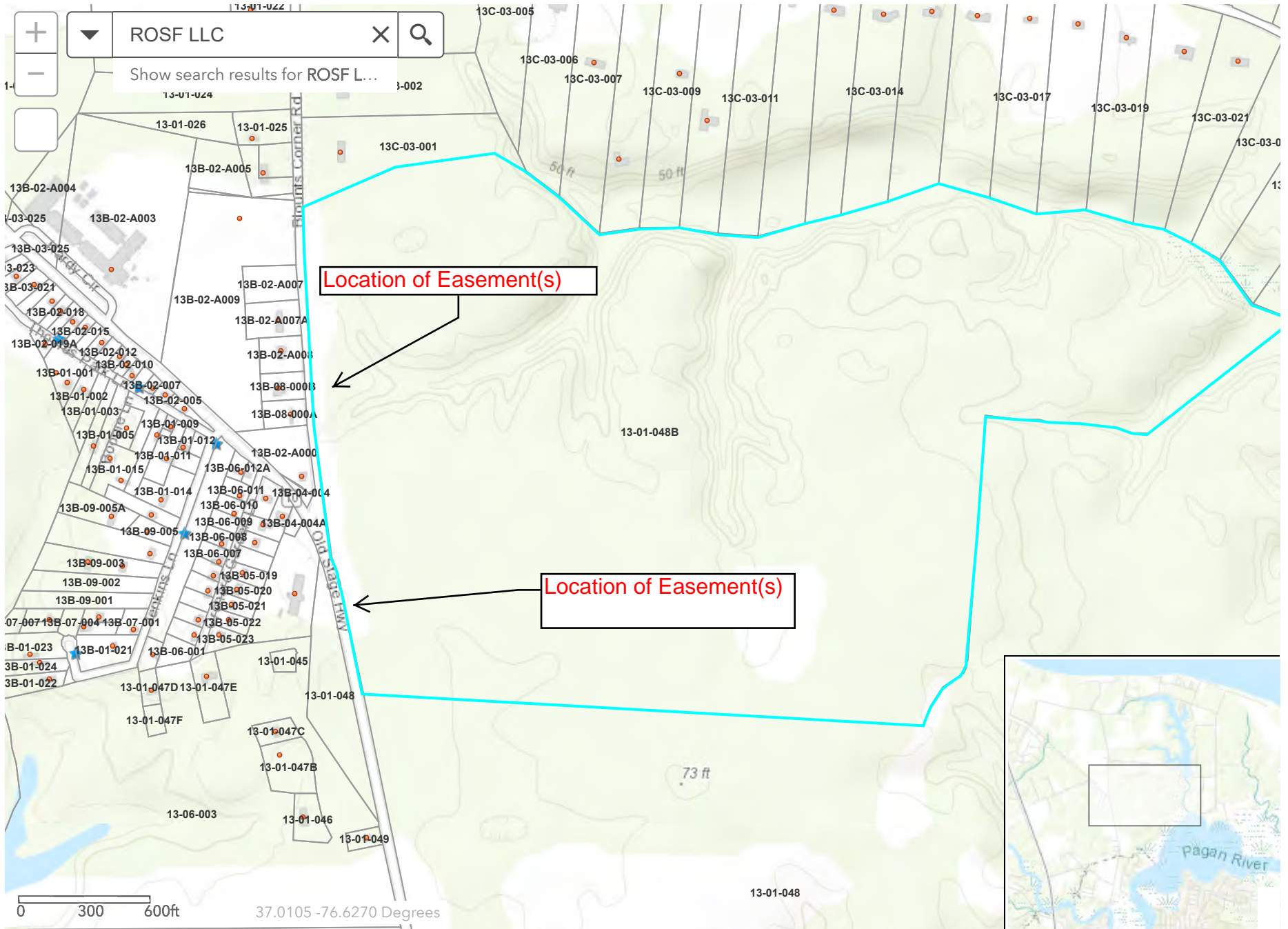
REVISION DATE: 04/24/2020
REVISION NUMBER: 2
REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT

PLAT SHOWING EASEMENT TO BE ACQUIRED FROM
ROSF, LLC
 BY HAMPTON ROADS SANITATION DISTRICT FOR SLURRY HYDRAULIC IMPROVEMENTS & INTERCEPTOR FORCE MAIN HARDY DISTRICT ISLE OF WRIGHT COUNTY, VIRGINIA
 SCALE 1"=50' JULY 28, 2020
 J.C. 42956-903-13-01-048B
 W.M. NAULTY, SURVEYOR
 4701 OWENS WAY, SUITE 900
 PRINCE GEORGE, VIRGINIA 23075



MATCHLINE A

MATCHLINE B



HRSD Commission Meeting Minutes
April 27, 2021

Attachment #8

Agenda Item 12. West Point Pump Station #4 Improvements and Wet Well
Rehab Property Acquisition – 475 Thompson Avenue, West Point

- [Agreement](#)
- [Deed \(forthcoming\)](#)
- [Plat](#)
- [Facility Map](#)

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 2nd day of May, 2021, by and between **BERTRAM, CARLIE W.**, 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 one thousand [1,000 +/-] square feet in area, being a part of 475 Thompson Avenue, West Point, Virginia Beach, Virginia, Tax Map 6A4-1-96F, 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 expanding and improving the adjacent pump station site located on Thompson Avenue and identified as Tax Map 63A4-1-96A.
- 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 Thousand Dollars (\$4,000.00), 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
Real Estate Manager
P.O. Box 5911
Virginia Beach, Virginia 23471-0911

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

Seller: Carlie W. Bertram
475 Thompson Avenue
West Point, VA 23181

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)

Purchase and Sale Agreement dated 5/8/21 of Tax Map: 63A4-1-96F
Between HRSD and Carlie W. Bertram - West Point PS#4 Rehab and Improvements

SELLER:

CARLIE W. BERTRAM

Carlie W. Bertram
(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 27, 2021. [This Agreement is expressly subject to approval by the HRSD Commission]

HAMPTON ROADS SANITATION DISTRICT

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

Purchase and Sale Agreement dated 5/2/21 of Tax Map: 63A4-1-96F
Between HRSD and Carlie W. Bertram - West Point PS#4 Rehab and Improvements

EXHIBIT A

(Legal description forthcoming)






Purchase and Sale Agreement dated 5/2/21 of Tax Map: 63A4-1-96F
Between HRSD and Carlie W. Bertram - West Point PS#4 Rehab and Improvements

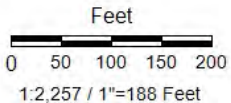
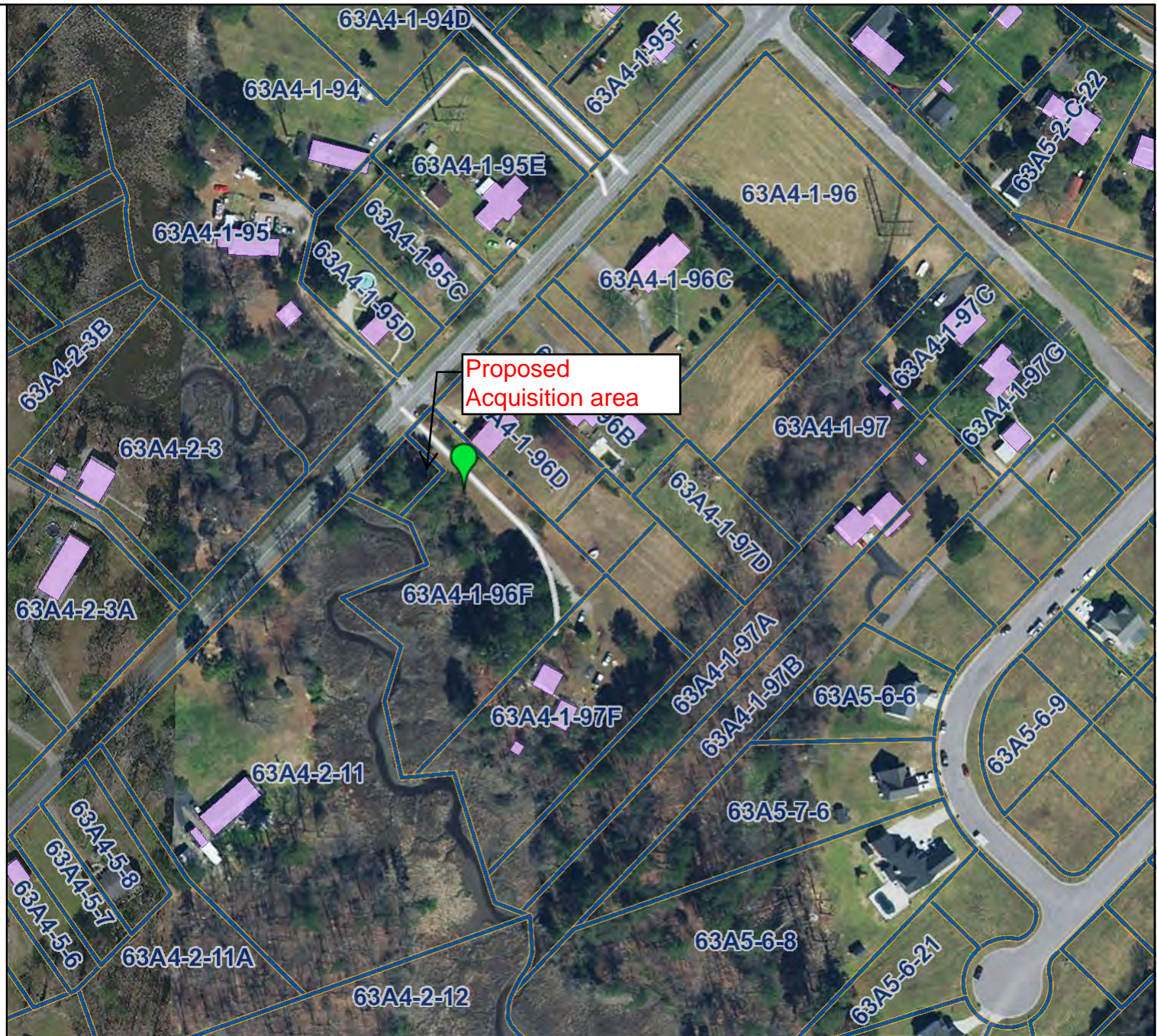
EXHIBIT B

(Boundary Line or Resub Plat forthcoming)

Town of West Point, Virginia

Legend

-  Town Boundary
-  Parcel Boundaries
-  Building Footprints
-  Hidden WestPoint_Streets 2257
-  Driveways



Title:

Date: 4/18/2021

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

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #9

AGENDA ITEM 13. – Establishment of the Virginia Oyster Ground Closures Fund Agreement

**OYSTER FISHERY FINANCIAL ASSISTANCE
PROGRAMMATIC AGREEMENT**

This **OYSTER FISHERY FINANCIAL ASSISTANCE PROGRAMMATIC AGREEMENT** (the “Agreement”) is entered into by and between the VIRGINIA MARINE RESOURCES COMMISSION, an agency of the Commonwealth of Virginia (“VMRC”) and the HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia (“HRSD”) (each a “Party” and collectively the “Parties”) and is effective as of August 1, 2021.

WHEREAS, the Virginia General Assembly created HRSD in response to a public health crisis that resulted in the closure of a significant portion of the local shellfishing grounds due to contamination by untreated sewage discharged to the local waterways throughout Hampton Roads in 1925. Since that time HRSD has successfully intercepted the direct pipe discharges and re-directed all sewage to regional wastewater treatment plants and thereby has eliminated the chronic problem of untreated sewage polluting our local waterways; and

WHEREAS, while the chronic pollution problem due to the regular discharge of untreated wastewater has been eliminated, other chronic sources of pollution (primarily stormwater runoff or legacy pollutants in the waterbody) continue to limit access to some waterways for shellfish harvest. Occasionally, other issues create acute, short-term impact to waterways throughout the region. These include runoff from yards, fields, farms, streets, and undeveloped lands after heavy rainfall, overflows from sanitary sewers due to extreme storms, and the unanticipated failure of sanitary sewer infrastructure. These acute impacts typically lead to temporary prohibitions on the harvesting of shellfish as ordered by the Virginia Department of Health (“VDH”); and

WHEREAS, in recent history, VDH, due to varying causes, has ordered a few extended prohibitions on the harvesting of shellfish in certain locations in the waters of the Commonwealth. Extended prohibitions can create economic hardship on Virginia’s watermen. The oyster fishery is a critical industry and an important part of the economy, culture, and history of Virginia; and

WHEREAS, as a result of unanticipated, unpredictable, and unpreventable internal corrosion, an HRSD sewer force main suffered a failure on or about January 4, 2021 and discharged untreated sewage into the James River in Newport News, Virginia (hereinafter referred to as the “JR Sewage Spill”); and

WHEREAS, VDH issued an emergency shellfish closure of portions of the James River and its tributaries on January 5, 2021 that was extended through April 13, 2021 (hereinafter referred to as the “JR Closure Period”) for portions of the James River and its tributaries to protect public health as a result of this discharge; and

WHEREAS, as a result of this extended emergency closure, some shellfish harvest was lost creating a potential economic hardship for certain individuals working in the closed area of the James River; and

WHEREAS, given the role HRSD has valued playing in protecting Virginia’s shellfish industry throughout HRSD’s history, HRSD desires to work with VMRC, and VMRC desires to assist HRSD, to offer relief from economic hardships directly related to the emergency closure of the James River during the JR Closure Period through the Oyster Fishery Financial Assistance Program established herein (the “Program”).

NOW, THEREFORE, for and in consideration of the covenants and promises contained herein, the sufficiency of which is hereby acknowledged, VMRC and HRSD agree as follows:

1. Eligibility Screening by VMRC. VMRC will screen potential applicants for eligibility to participate in the Program and the potential financial assistance thereunder, as follows.

a. VMRC will identify potential applicants by reviewing VMRC records to identify licensees who either hold oyster ground leases or who have harvested off public grounds in the JR Closure Area.

b. For each identified licensee, VMRC will review and evaluate the licensee’s prior applicable three-year average harvest (bushels) during the same date range (January 5 through April 13) for each year as the JR Closure Period (the “Reference Periods”).

c. Licensees in the affected area but have no recorded harvest during at least one Reference Period will not be eligible.

d. Licensees who hold oyster leases in the affected area and have recorded harvest during at least one Reference Period but who were not planning to harvest in the JR Closure Area during the JR Closure Period (as determined by good faith attestation by the licensee as part of the individual agreement described below) will not be eligible.

e. For each licensee identified by VMRC as potentially eligible, VMRC will estimate the harvest loss due to the JR Spill. This loss estimate shall take into account the three-year average harvest for the three Reference Periods and the degree to which such average was actually lost in 2021 (eligible) or delayed (ineligible) taking into account harvest records from the prior three years (2018-2020) and from 2021. VMRC shall calculate potential financial assistance assuming a fair market value for harvest loss.

f. VMRC will transmit the results of the above screening process to HRSD in a mutually agreed format including the name, address, phone number, and financial assistance due.

2. Eligibility Confirmation by HRSD. HRSD will review the results of the screening process and respond to VMRC with questions and clarifications. The Parties intend to work

together to attempt to resolve any outstanding eligibility issues promptly. Only licensees with eligibility and amounts confirmed by HRSD shall be included in the application packet distribution phase described below.

3. Application Packet Distribution by HRSD. HRSD will print and mail application packets via certified mail to the potential applicants as confirmed by HRSD. Each such application packet will consist of the following:

a. A letter prepared and provided by HRSD hereto explaining the Program noting that the funds would be income to the applicant for purposes of federal and state income taxation utilizing the list provided by VMRC of applicant's names and financial assistance amounts the applicant would receive if submitted.

b. A blank IRS Form W-9 (Request for Taxpayer Identification Number and Certification).

c. A completed (other than signatures) Oyster Fishery Financial Assistance Agreement ("Financial Assistance Agreement") prepared and provided by HRSD including HRSD's commitment to pay the applicable financial assistance amount upon receipt of a properly completed application package and the applicant's liability waiver and release.

d. An envelope addressed to HRSD for the applicant's use in sending the completed application packet to HRSD.

4. Application Processing & Other Obligations of HRSD.

a. HRSD will prepare and distribute the individual Financial Assistance Agreements based on confirmed eligibility.

b. For each properly completed application packet submitted to and accepted by HRSD, HRSD will (i) pay to the applicant the previously-determined financial assistance amount and (ii) issue an IRS Form 1099-Miscellaneous to the applicant and provide such information to the IRS as required by law.

5. Other Conditions & Limitations.

a. The Parties understand that this Agreement and any financial assistance provided by HRSD to an applicant pursuant to an individual Financial Assistance Agreement as provided herein represents a desire of VMRC and HRSD to help those impacted by the JR Closure Period and is not to be construed as an admission of liability or legal responsibility on the part of HRSD. HRSD affirmatively and expressly denies any and all legal liability to any of applicant, potential applicant, or other person or entity for any losses or damages of any kind incurred as a result of the JR Closure Period.

b. The Parties further acknowledge that this Agreement is unique and exclusive to the JR Sewage Spill and the resulting JR Closure Period. The execution and implementation of this Agreement or individual Financial Assistance Agreements does not commit HRSD to implementing any type of financial assistance program or claim settlement process for any other closures on the James River or any other waterway within or without the Commonwealth.

c. Nothing expressed or referred to in this Agreement shall be construed to give any person or entity other than the Parties to this Agreement any legal or equitable right, remedy, or claim under or with respect to this Agreement.

d. Neither Party may transfer or assign this Agreement, or its rights or obligations hereunder, without the prior written consent of the other Party, which may be withheld in that Party's sole discretion.

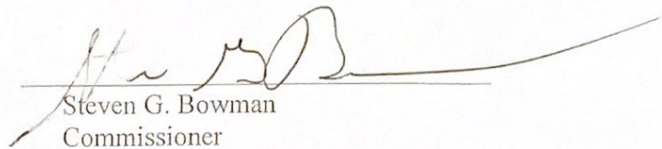
e. This Agreement contains the entire agreement between the Parties as to the subject matter hereof and supersedes all previous written and oral negotiations, commitments, proposals and writings. No amendments may be made to this Agreement except by a writing signed by both Parties.

[SIGNATURES BEGIN ON NEXT PAGE]

SIGNATURE PAGE OF
OYSTER FISHERY FINANCIAL ASSISTANCE PROGRAMMATIC AGREEMENT
BY AND BETWEEN VMRC AND HRSD


VIRGINIA MARINE RESOURCES
COMMISSION, an agency of the
Commonwealth of Virginia

By: _____


Steven G. Bowman
Commissioner

HAMPTON ROADS SANITATION
DISTRICT, a public body and political
subdivision of the Commonwealth of Virginia

By: _____


Edward G. Henifin
General Manager

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #10

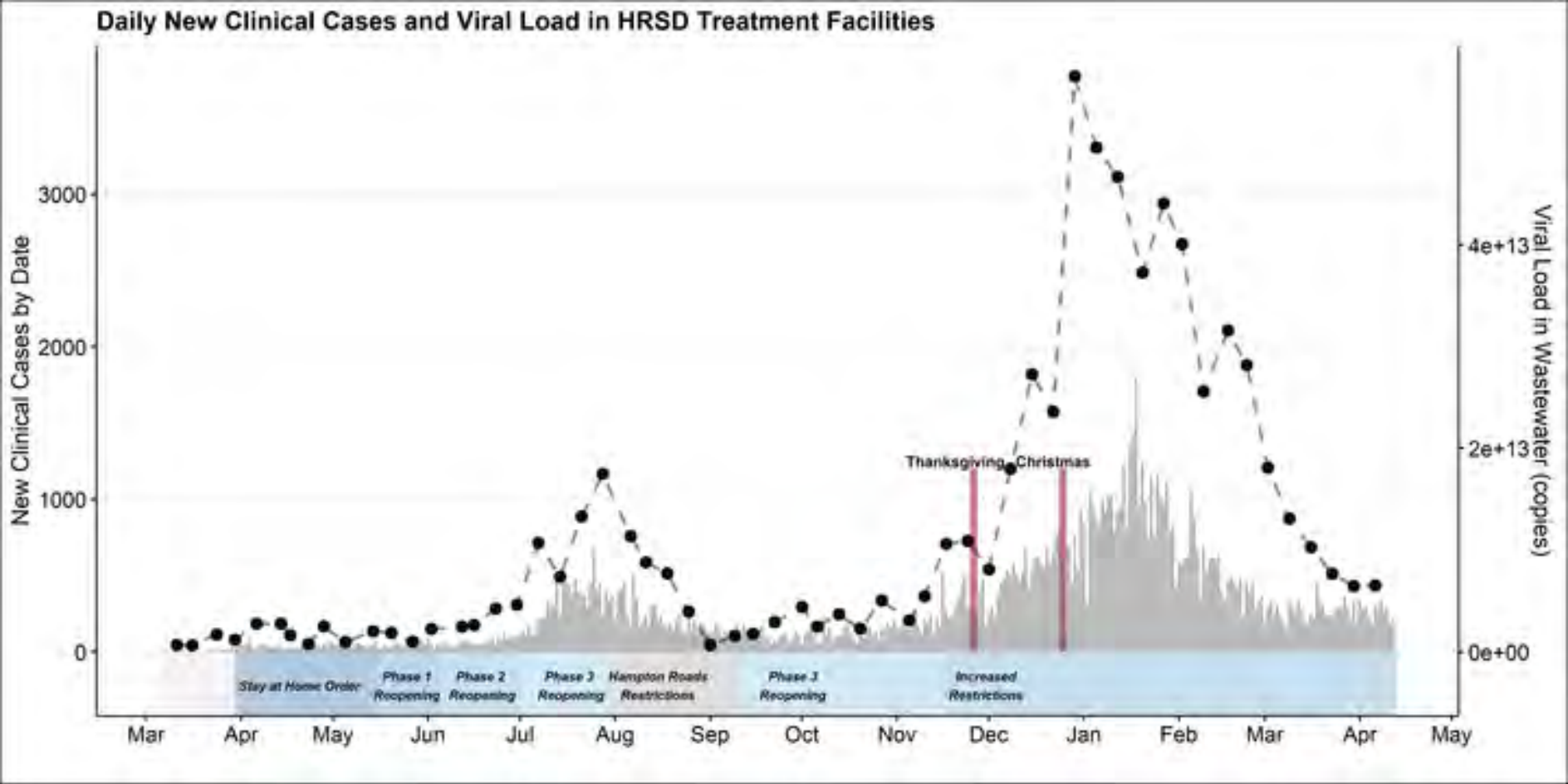
Agenda Item 14. COVID-19 Wastewater Surveillance Study Presentation



Wastewater Surveillance Update

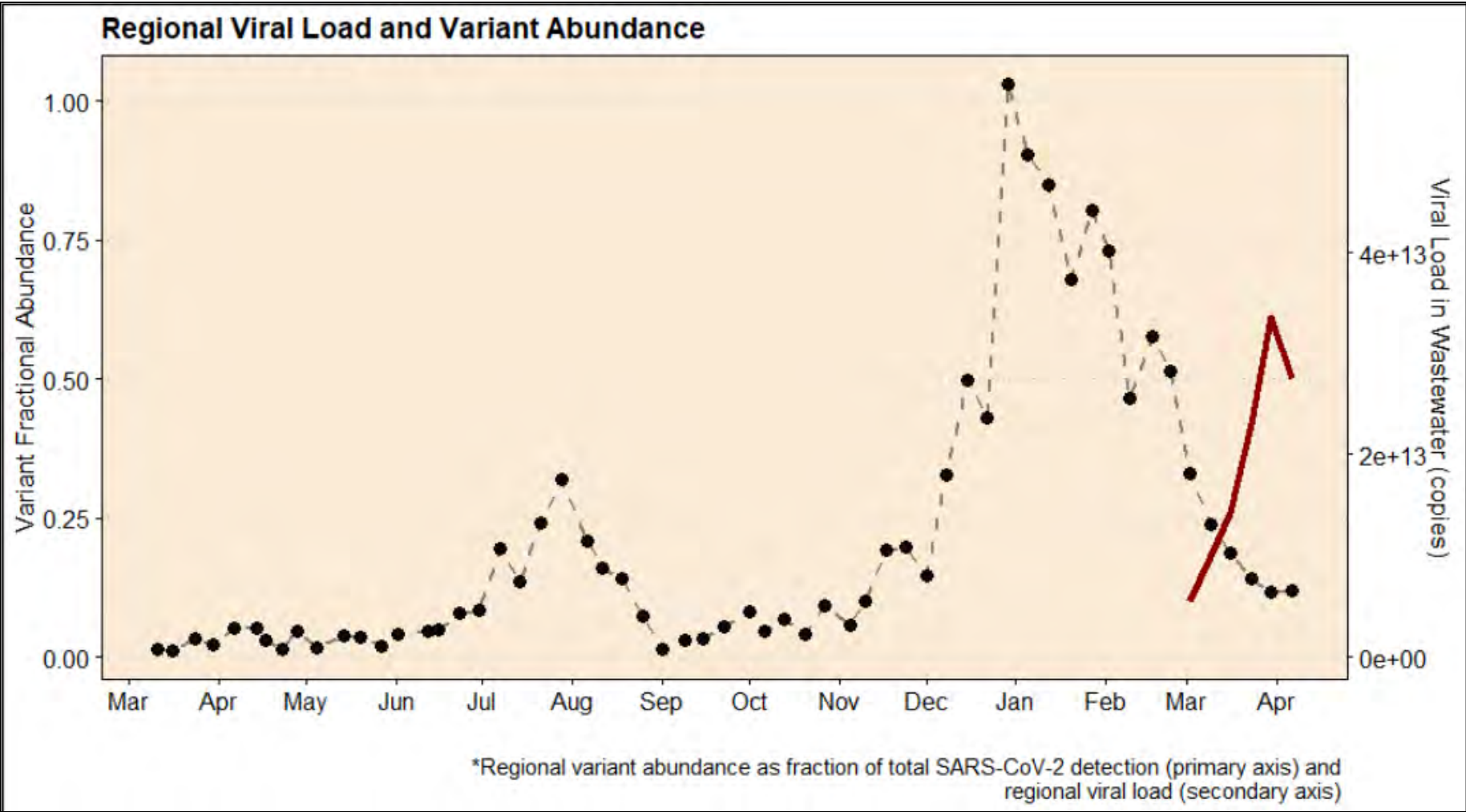
4/27/21

Regional Trends



No significant increase in regional SARS-CoV-2 through 4/20

Decrease in total COVID-19, Increase in Variants of Concern



Wastewater Sensitivity—Moving Forward

	Min. Infected Individ. Required to be Detected	Fraction Necessary
AB	149	2/1000
AT	330	9/10000
BH	198	2/1000
CE	249	1/1000
JR	186	1/1000
NP	224	1/1000
VIP	366	2/1000
WB	107	2/1000
YR	182	2/1000

- Data upload to National Wastewater Surveillance System
- Finalizing Variant of Concern visualizations/analysis
- Continuing COVID-19 analysis for
 - Department of corrections
 - Norfolk State University
 - VA municipalities

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #11

Agenda Item 15. Capital Improvement Program Update



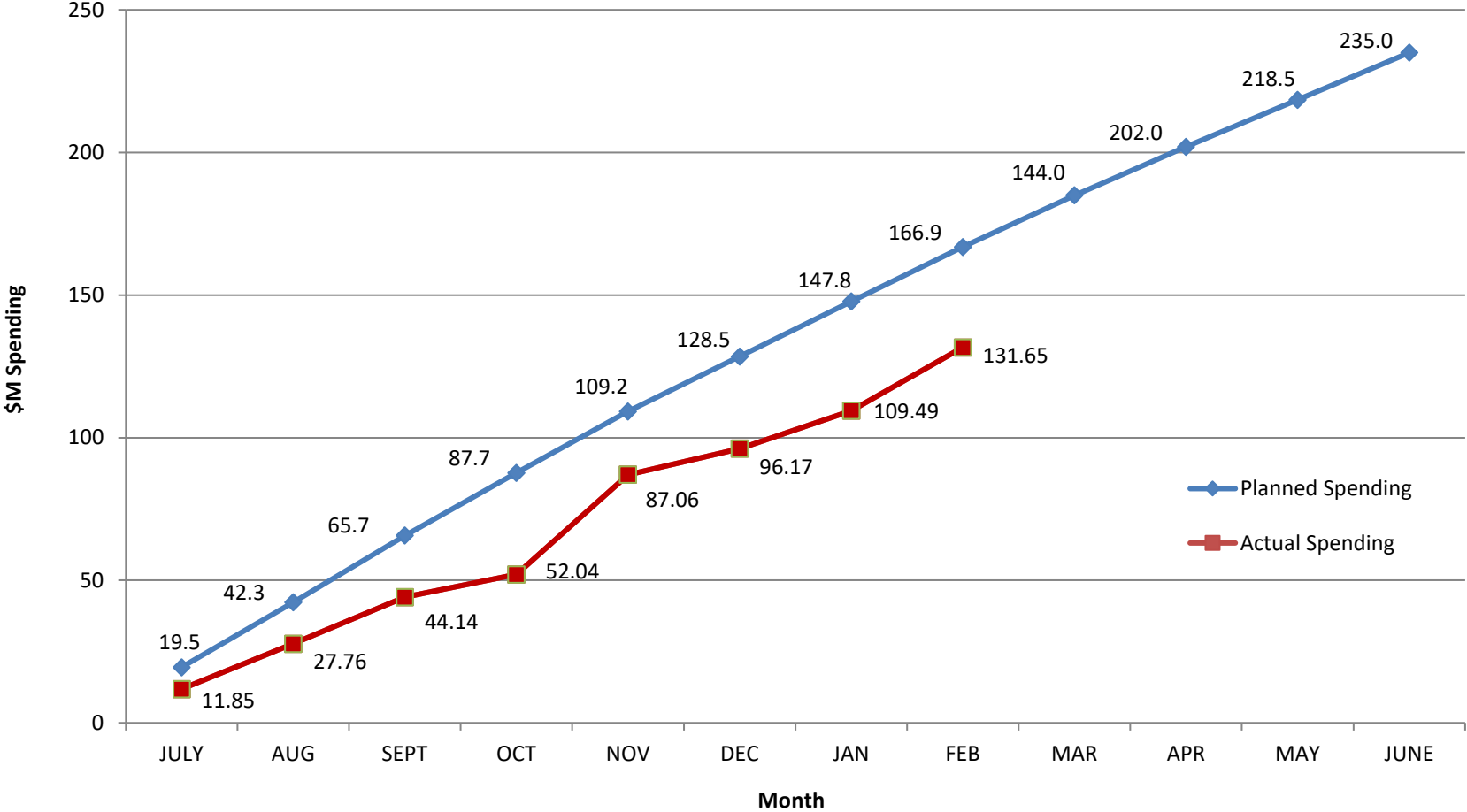
Capital Improvement Program Commission Briefing

April 27, 2021

- CIP Expenditures for FY-2021
- Asset Management Program Update
- Consent Decree/Sewer Rehabilitation Plan – Project Updates
- Significant Project Updates
- Focus: Atlantic Treatment Plant – Thermal Hydrolysis Process & FOG Facility

CIP Expenditures for FY-2021

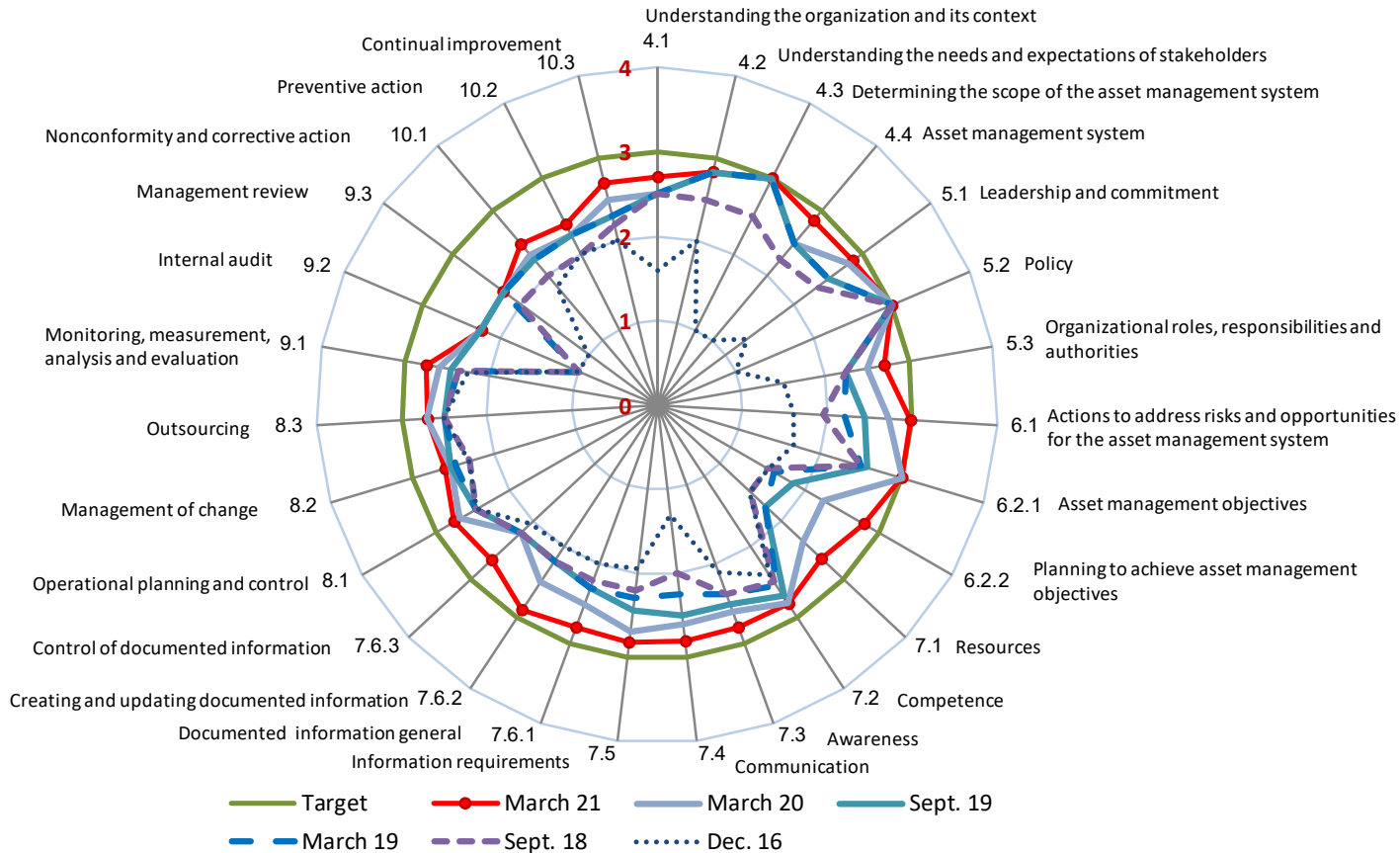
FY2021 Capital Improvement Program Cumulative Monthly Expenditures & Reimbursements



Asset Management Program Roadmap



ISO 55001 Asset Management Maturity Score



Assessment Date	Average Score
December 16	1.7
September 18	2.2
March 19	2.3
September 19	2.4
March 20	2.6
September 20	2.6
March 21	2.7

Key:

Score	Maturity Level
0	Innocent
1	Aware
2	Developing
3	Competent
4	Optimizing / Excellent

Remaining ISO 55001 Assessment Gaps

- Goal for Asset Management Program is to be compliant with ISO 55001 requirements, but not certified.
- Maturity score for compliance is in the range of 2.5 to 3.0
- Remaining gaps include:
 - Updating HRSD Strategic Plan developed in 2010
 - Defining roles and responsibilities, and identifying resource needs to sustain asset management (planned for end of program)
 - Finalizing the Treatment Plant Asset Management Plans
 - Using risk and condition data to optimize preventive maintenance
- Gaps remaining for documentation, internal audit and management review are lower priority, required mainly for certification.

Progress October 2020 to March 2021

- Continued internal AM Program communications
 - Issued Asset Management Strategy as a web version
 - Completed internal survey #4
 - Issued Flyer #5 on investment
- Continued asset surveys, plant pipe mapping and risk assessments at remaining plants
- Updated the Business Continuity Plan to incorporate infectious disease into the plan. Draft sent to internal auditors.
- Scored risk for new proposed projects in the CIP based on the new risk criteria. Completed guidance documents for using the new business case process and prioritization tool.
- Commenced development of an interceptor asset database for archiving line files.

Plan for Next 6 Months

- Ongoing AM communications to organization.
- Complete condition and risk assessments at the treatment plants.
- Update the Asset Management Plans with remaining treatment plant inventory, condition, risk and replacement cost data.
- Use Replacement Planning Model to forecast rehabilitation and replacement costs for the remaining treatment plants.
- Complete maintenance optimization tasks to inform changes to preventative maintenance schedules.
- Complete AM Plan implementation!

Surry Hydraulic Improvements and Interceptor Force Main

Engineers:

Bowman & HDR Engineering

Design-Build Team:

- RK&K & Timmons
- MEB

Schedule Completion:

November 2022 (substantial)
March 2023 (final)

Project Value: \$40.1M

Funding:

HRSD Revenue Bond



Virginia Beach Boulevard Force Main Phase VI

Engineer:

Kimley Horn

Contractor:

Bridgeman Civil

Schedule Completion:

June 2021

Project Value: \$28.5M

Funding:

HRSD Revenue Bond



Hampton Trunk A and B Replacement

Engineers:

Whitman Requardt & Assoc.

Contractor:

Tidewater Utility Construction

Schedule Completion:

April 2022

Project Value: \$19.2M

Funding:

HRSD Revenue Bond



Consent Decree/Sewer Rehabilitation Plan – Project Updates

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

Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 0)

CIP	Project Name	Project Status	Total CIP Cost
GN014300	North Shore Operations Unvented High Spot Correction	Complete	\$945,486
VP012100	State Street Pump Station Electrical Modifications	Complete	\$2,158,629

\$3,104,115

Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 1)

CIP	Project Name	Project Status	Total CIP Cost
BH012700	Hampton Trunk Sewer Extension Division B - Claremont Force Main Replacement	Complete	\$4,715,273
BH014700	Boat Harbor Outlet Sewer Improvements	Complete	\$7,076,681
BH014800	Jefferson Avenue Extension Gravity Improvements	Complete	\$2,685,508
BH015000	Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements	Complete	\$9,135,588
CE010400	Independence Boulevard Pressure Reducing Station Modifications	Complete	\$4,124,269
CE011700	Western Trunk Force Main Replacement	Construction	\$4,286,000
GN011700	Pump Station Generators and Standby Pump Upgrades	Complete	\$7,106,000
GN012130	Manhole Rehabilitation-Replacement Phase I and North Shore Siphon Chamber Rehabilitation Phase I	Construction	\$10,853,969
GN012140	Pump Station Wet Well Rehabilitation Phase I	Complete	\$3,133,962
GN015100	Arctic Avenue Pump Station and Newtown Road Pump Station Electrical Improvements	Complete	\$364,708
JR012100	Huxley to Middle Ground Force Main Extension	Complete	\$5,185,885
NP011300	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	Construction	\$2,198,783
NP012600	Deep Creek Interceptor Force Main Replacement	Complete	\$6,507,109
WB012200	North Trunk Force Main Part B Replacement	Complete	\$1,881,712

\$69,368,904

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

CIP	Project Name	Project Status	Total CIP Cost
AB010000	Army Base 24-Inch and 20-Inch Transmission Main Replacements	Design	\$27,343,000
AT011510	Shipp's Corner Interim Pressure Reducing Station	Complete	\$3,691,148
AT011520	Shipp's Corner Pressure Reducing Station Modifications	Design	\$1,826,426
AT011900	Great Bridge Interceptor Extension 16-Inch Replacement	Proposed	\$5,571,253
AT013000	Washington District Pump Station Area Sanitary Sewer Improvements	Design	\$2,496,266
AT013100	South Norfolk Area Gravity Sewer Improvements	Design	\$11,371,000
AT013200	Dozier's Corner Pump Station and Washington District Pump Station Flooding Mitigation Improvements	Proposed	\$320,016
BH014000	West Avenue and 35th Street Interceptor Force Main Replacement	Design	\$4,404,011
BH014500	Ivy Home-Shell Road Sewer Extension Division I Replacement	Design	\$2,243,200
BH014600	46th Street Diversion Sewer Rehabilitation Replacement	Design	\$11,470,682
BH014900	Hampton Trunk Sewer Extension Division K Gravity Improvements	Design	\$4,644,400
BH015900	Bloxoms Corner Force Main Replacement	Design	\$3,495,808
CE011300	Birchwood Trunk 24-Inch 30-Inch Force Main at Independence Boulevard Replacement Phase II	Proposed	\$1,161,500
CE011600	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements	Proposed	\$2,218,033
CE012000	Poplar Hall Davis Corner Trunk 24-Inch Gravity Sewer Improvements (I-264 VDOT Betterment)	Complete	\$111,320
GN010730	Horizontal Valve Replacement Phase III	Proposed	\$1,211,064

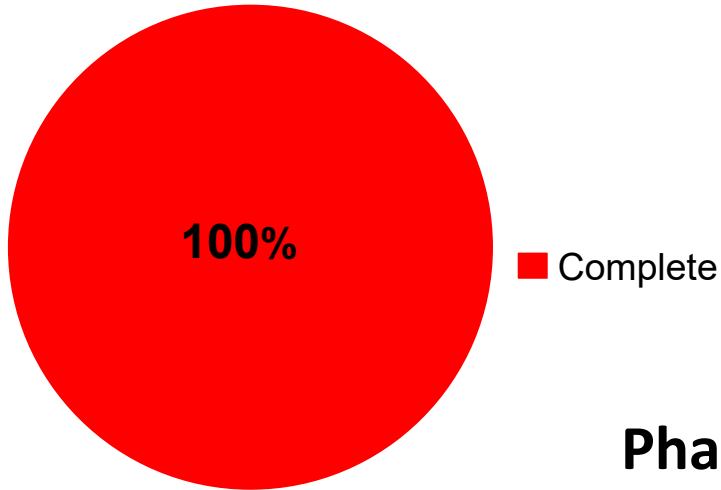
Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

CIP	Project Name	Project Status	Total CIP Cost
GN014900	North Shore Gravity Sewer Improvements Phase I	Design	\$5,639,906
GN015000	South Shore Gravity Sewer Improvements Phase I	Proposed	\$929,820
GN015300	Interceptor System Valve Improvements Phase I	Proposed	\$3,259,305
GN015400	South Shore Aerial Crossing Improvements	Proposed	\$332,484
JR010600	Lucas Creek Pump Station Upgrade	Design	\$2,595,000
NP010620	Suffolk Pump Station Replacement	Design	\$12,049,000
NP012400	Western Branch Sewer System Gravity Improvements	Proposed	\$3,465,832
NP012500	Shingle Creek and Hickman's Branch Gravity Sewer Improvements	Complete	\$9,089,000
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	Design	\$1,988,585
VP014010	Ferebee Avenue Pump Station Replacement	Design	\$5,852,747
VP014020	Sanitary Sewer Project 1950 12 Inch Force Main and 24 and 18 Inch Gravity Replacement	Design	\$7,179,000
VP014700	Ingleside Road Pump Station Replacement	Design	\$3,810,449
VP014800	Lee Avenue-Wesley Street Horizontal Valve Replacement	Proposed	\$1,791,901
VP015320	Larchmont Area Sanitary Sewer Improvements	Design	\$38,734,000
VP015400	Lafayette Norview-Estabrook Pump Station Replacements	Design	\$18,495,895
VP016500	Norview-Estabrook Division I 12-Inch Force Main Replacement	Design	\$1,973,163
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	Design	\$3,116,334
VP017100	Central Norfolk Area Gravity Sewer Improvements	Construction	\$7,480,000
VP018000	Park Avenue Pump Station Replacement	Design	\$5,955,271
YR010300	Foxridge Sanitary Sewer System Sections 1, 4 & 5 Gravity and Woodland Road Fox Hill Road Gravity Sewer Rehabilitation	Proposed	\$3,884,807

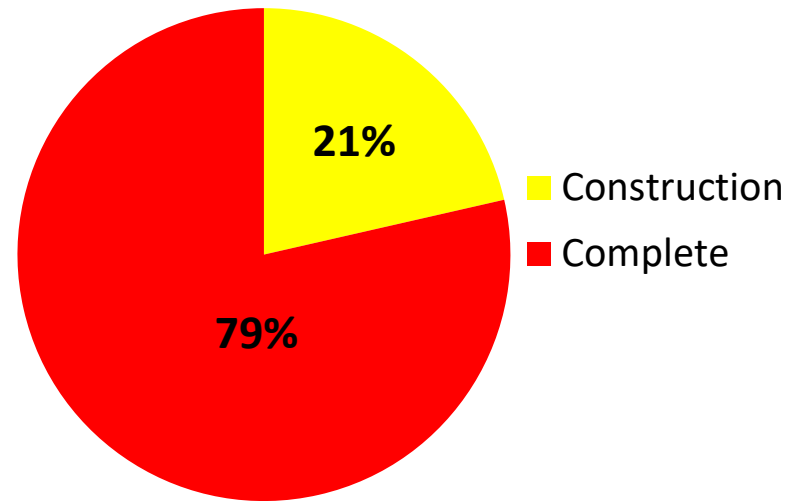
\$285,913,254

Consent Decree/Sewer Rehabilitation Plan Project Updates

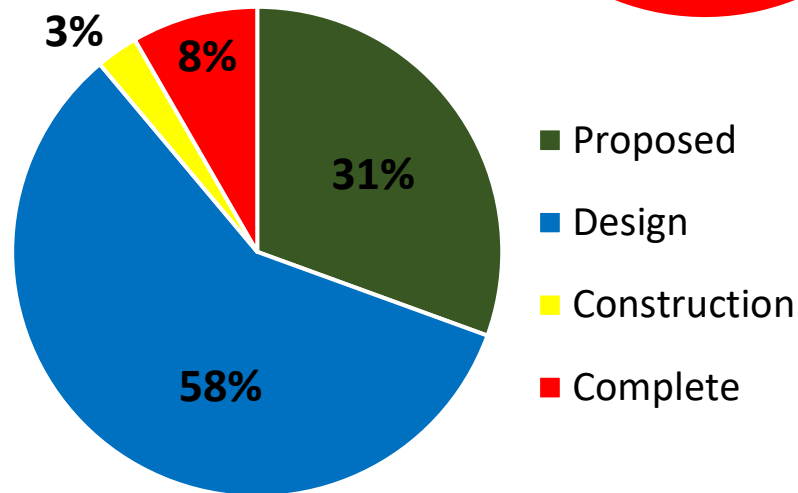
Phase 0



Phase 1



Phase 2



Atlantic Treatment Plant – Thermal Hydrolysis Process & FOG Facility

Program Description: This project will implement a thermal hydrolysis process (THP) at the Atlantic Treatment Plant to produce Class A Biosolids. The project will include a new Pre-Dewatering Building, thermal hydrolysis equipment, fire-tube boiler, final dewatering improvements, and distributed control system (DCS) programming. The facilities will be sized to handle the additional solids loading resulting from the closure of the Chesapeake-Elizabeth Treatment Plant. This project will also provide a facility to receive Fats, Oils and Grease (FOG) waste loads of highly variable concentration and quality. This facility will be capable of receiving FOG loads from indirect dischargers, properly pretreating the loads, and feeding the FOG to the digesters.

Engineer: HDR Engineering/Brown & Caldwell

Construction Manager: Crowder Construction

Program Budget: THP Project = \$64.2M, FOG Project = \$6.8M
Total = \$71M



Financial Summary:

Study Costs: \$1.53M
Engineering Costs: \$13.48M
Construction Costs: \$53.60M
Equipment Pre-Purchase: \$2.21M
Miscellaneous Costs: \$59K
Total: \$71M

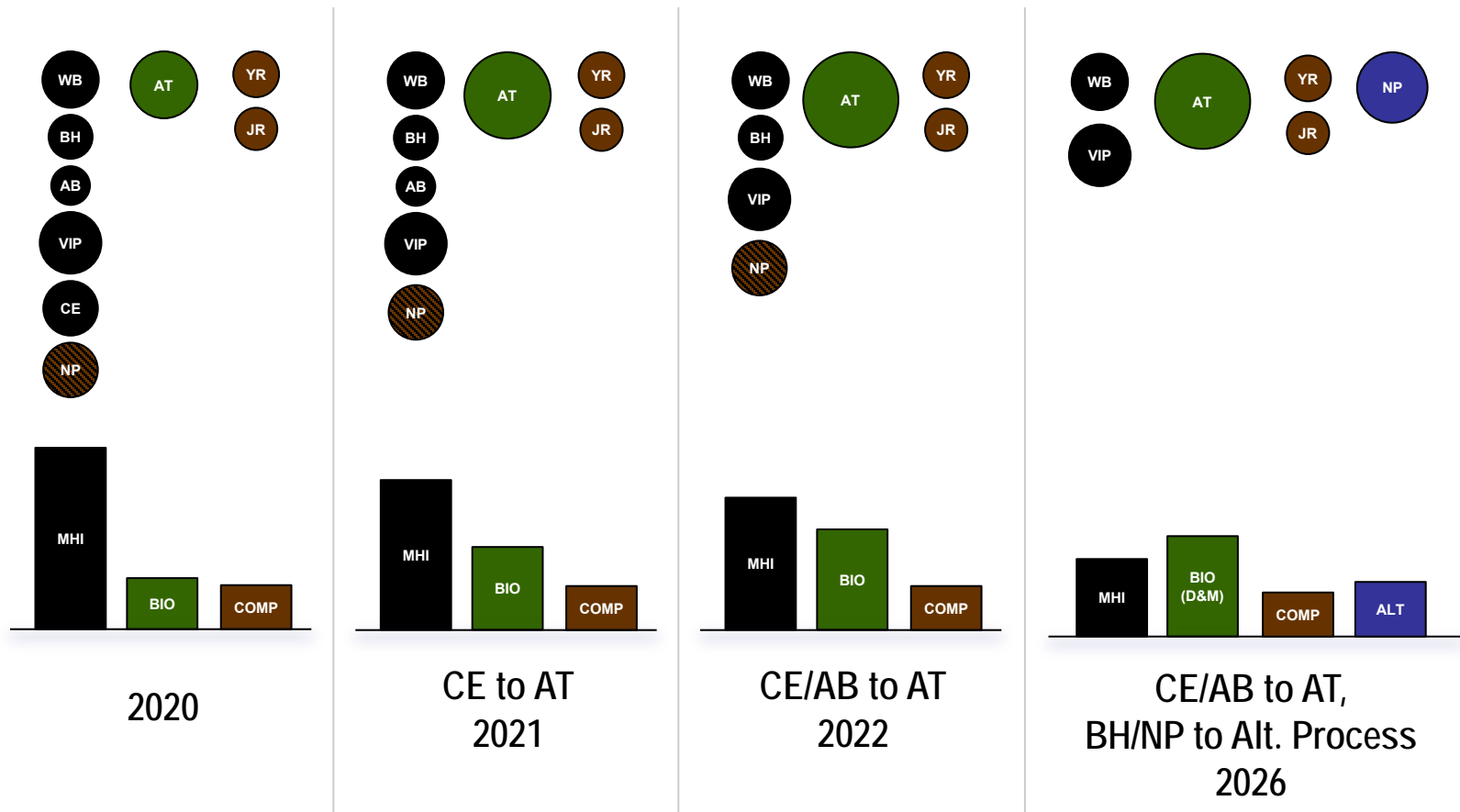
Change Order Summary:

- 7 change orders (\$5.5M – 11% of contract value)
- Additional scope items (\$4M – Owner requested changes)

Schedule Summary:

Planning:	July 2013 – Jan. 2015 (1.5 years)
Design:	Jan. 2015 – Jan. 2017 (2 years)
Construction:	June 2017 – Aug. 2021 (4.5 years)
	Note: Project start-up & testing took a full year
Complete:	Sept. 2021 (8 years)

Biosolids Management at HRSD



Atlantic Treatment Plant – Thermal Hydrolysis Process & FOG Facility

HRSD's First CMAR Project:

- Highly complicated mechanical project
- Need for collaboration with contractor during design
- New equipment in existing space
- Assigned the contractor all pre-purchased equipment
- First CAMBI project of this size in the U.S.
- Start-up/testing procedure was very complex and took one year to complete (60 truckloads of biosolids from DC Water)



Atlantic Treatment Plant – Thermal Hydrolysis Process & FOG Facility

Project Challenges with Cake Storage Hopper:

- Leaking slide gate seals
- Tripping of motor for conveyors
- Excessive deflection of leveling conveyors
- Corrosion of frame



Atlantic Treatment Plant – Thermal Hydrolysis Process & FOG Facility

Project Outcomes:

- Class A vs. Class B product
- Improve product odor and limit product storage (15% solids vs. 25%)
- Increase biosolids processing capacity at Atlantic (40 DT/day vs. 93 DT/day)
- Fewer trucks leaving plant site



Questions?

HRSD Commission Meeting Minutes
April 27, 2021

Attachment #12

AGENDA ITEM 20. Informational Items

a. Management Reports

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

b. [Strategic Planning Metrics Summary](#)

c. [Effluent Summary](#)

d. [Air Summary](#)

e. [Emergency Declaration – SWIFT Research Center Backflush Pump and Well Rehabilitation](#)



April 20, 2021

Re: General Manager's Report

Dear Commissioners:

Flows to our treatment plants returned to normal levels after last month's record flows. Plant and system performance also significantly improved with no permit exceedances and only a few small overflows. Perhaps 2020 is finally behind us.

COVID continues to impact HRSD with 34 quarantines and 5 confirmed employee cases in March. We have been encouraging employees to get vaccinated and have had a good response. I remain concerned about managing a partially vaccinated workforce going forward. The Virginia *Final Permanent Standard for Infectious Disease Prevention of the SARS-CoV-2 Virus That Causes COVID-19* became effective at the end of March. While we have been operating in compliance with this standard, the standard does not address requirements for fully vaccinated employees. Vaccination is not even mentioned in the standard. Our goal is always employee safety, but once people are fully vaccinated it appears many of the required COVID preventative measures may be overly restrictive and unnecessary for fully vaccinated individuals. Adjustments to operations, including minimizing rotations among crews that must travel in the same vehicle or work regularly in situations where maintaining distancing is not possible has been one of the difficult challenges. We continue to seek guidance but as these are permanent, adopted standards, the hope of any quick changes to accommodate vaccinated employees is very thin.

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

- A. **Treatment Compliance and System Operations:** All plants met permit and there were three small releases, in each case soaking into the ground.
- B. **Internal Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted) with HRSD personnel:
 - 1. The monthly status review of the Consent Decree Rehabilitation Phase I projects
 - 2. A discussion of CIP projects and targets for budget planning
 - 3. One new employee orientation session
 - 4. A review of SPSA leachate options
 - 5. Discussions regard the Potomac Aquifer Recharge Oversight Committee monitoring role
 - 6. A meeting to prepare for the Hampton Planning Commission consideration of the Willard Avenue Pump Station
 - 7. A meeting to discuss CIP project needs at Army Base Treatment Plant
 - 8. A meeting to review the proposed FOG rate for FY 2022



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9. Two meetings to discuss options for addressing damage claims by watermen
10. A meeting to discuss public outreach planning for SWIFT at James River Treatment Plant
11. A review of the financial forecast for FY 2022

C. **External Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted):

1. The monthly Hampton Roads Planning District Commission meeting of the Director of Utilities Committee
2. Several meetings discussing and refining the US EPA Workforce grant in partnership with the Workforce Council and WHRO
3. Participated in a recorded technical session for the WaterReuse Symposium
4. Attended the virtual meeting of the Newport News City Council on March 9 where HRSD's bid for easements to support JRTP SWIFT was opened publicly
5. Multiple calls with the Deputy Secretary of Natural Resources and the Deputy Commissioner for the VMRC to discuss impacts of emergency closures
6. A meeting of the Elizabeth River Project's Sea Level Rise subcommittee
7. The Elizabeth River Project's fundraising celebration for the new Resilience Lab in Norfolk
8. The City of Hampton's March meeting of the Planning Commission
9. The quarterly meeting of the Eastern Virginia Groundwater Management Committee
10. The March 23rd in person meeting of the Newport News City Council
11. The March meeting of the US Water Alliance's One Water Council
12. Two updates with leaders on the Eastern Shore about HRSD activities
13. A meeting of the Water Agency Leaders Alliance

D. **Consent Decree Update:** No change. The Commonwealth has signed off on the Fifth Amendment. I confirmed that EPA has also signed off on the Fifth Amendment, but we are still waiting for DOJ final signatures before lodging with the Norfolk District Court. We continue to anticipate final signatures soon but do not expect the judge to approve until first quarter 2021.

I started a Diversity, Equity, and Inclusion (DEI) certificate program through the University of South Florida last month. This is a seven-week MOOC (massive open online course) with an enrollment of 130,000, including Leila Rice and Paula Hogg. The course has been thought provoking and very engaging and will inform our thinking on DEI initiatives going forward.

The meeting next week will be another fully electronic meeting using Zoom. The Governor has extended the declared state of emergency indefinitely and as such we will continue to meet in this fashion until that executive order is lifted.

The leadership and support you provide are the keys to our success as an organization. Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth, and the environment. **I look forward to seeing you (virtually) on Tuesday, April 27, 2021.**

Respectfully submitted,

Ted Henifin, P.E.
General Manager

TO: General Manager
 FROM: Director of Communications
 SUBJECT: Monthly Report for March 2021
 DATE: April 6, 2021





A. Publicity and Promotion

HRSD and/or SWIFT were mentioned or featured in eight news stories on topics that included:

1. Cleaning wastewater with electrons – Jefferson Lab studies how HRSD could do it
2. Newport News City Council approves sale of 9.4 acres of Riverview Farm Park to HRSD for SWIFT
3. HRSD tracking COVID-19 in wastewater – update story
4. Exmore joins HRSD for wastewater treatment

B. Social Media and Online Engagement

1. Metrics

Social Media Metrics March 2021				
*Imagine A Day Without Water October 21 METRIC	 FACEBOOK	 LINKEDIN	 TWITTER	 YOUTUBE
Number of Posts *number of published posts	22 +1	3 -4	20 -1	1:59 average view duration
Number of Followers/Likes *total number of fans	1,589 +18	5,237 +27	546 +2	215 +1
Engagement *sum of reactions comments and shares	652 +263	152 -132	32 +0	937 unique viewers +209
Traffic *total clicks on links posted	135 +92	189 -318	140 +106	3.9% click through +0.6%

2. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post

Post Details

HRSD
March 3

Sharing this awesome photo from Elizabeth River Project showcasing the filtering power of oysters! The first photo shows oysters placed in a tank of dirty water at 9AM. The second photo was taken at 11AM. The third photo was taken at 1PM 🙄

6,576 People Reached
763 Engagements

Boost Post

28 Shares

Like Comment Share

Performance for Your Post

6,576 People Reached

331 Reactions, Comments & Shares

190 Likes	15 On Post	175 On Shares
19 Loves	5 On Post	14 On Shares
24 Wows	2 On Post	22 On Shares
70 Comments	0 On Post	70 On Shares
28 Shares	28 On Post	0 On Shares

432 Post Clicks

33 Photo Views	0 Link Clicks	399 Other Clicks
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NEGATIVE FEEDBACK

0 Hide Post	0 Hide All Posts
0 Report as Spam	0 Unlike Page

Reported stats may be delayed from what appears on posts.

b. Top Tweet

Top Tweet earned 1,126 impressions

In case you missed it, SWIFT was listed as a Game Changer in the 2021 Report Card for America's Infrastructure! Read more here: ow.ly/Tzvp50DU7MR @ASCEGovRel #gamechanger #ICYMI pic.twitter.com/PvAPno014a

1 Reply 2 Retweets 7 Likes

View Tweet activity View all Tweet activity

c. Top YouTube Videos

(1) [The Wastewater Treatment Process](#) (535 views)

(2) [What is Asset Management? HRSD Celebrates Infrastructure Week | United for Infrastructure](#) (94 views)

- (3) [What is Asset Management? Celebrating Infrastructure Week with HRSD](#) (92 views)
- (4) [HRSD Atlantic Treatment Plant Cambi Tour](#) (64 views)
- (5) [SWIFT Research Center: What is the Potomac Aquifer?](#) (92 views)

3. Impressions and Visits

- a. Facebook: 18,489 page impressions, 15,687 post impressions reaching 15,156 users and Facebook engagement of 652 (464 reactions, 84 shares and 104 comments)
- b. Twitter: 17,600 tweet impressions; 793 profile visits and 13 mentions
- c. HRSD.com/SWIFTVA.com: 1,116 page visits
- d. LinkedIn Impressions: 5,069 page impressions reaching and 3,104 post impressions
- e. YouTube: 1,154 views
- f. Next Door unique impressions: 1,327 post views from 5 targeted neighborhood postings
- g. Blog Posts: 0
- h. Construction Project Page Visits – 1009 total visits (not including direct visits from home page, broken down as follows:
 - (1) 627 visits to individual pages
 - (2) 382 to the status page

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

- 1. News Releases/Traffic Advisories/Construction Notices: 9 (all construction notices and/or notices to neighbors)
- 2. Advertisements: 0
- 3. Project Notices: 11 (via door hanging and emailing, reaching approximately 198 residents)
- 4. Project/Community Meetings: 1 (Virtual presentation for Norfolk Luxembourg Pump Station held on March 4 via Zoom – 11 citizen participants)
- 5. New Project Web Pages /Videos: 4

[Lafayette, Norview & Estabrook Area Pump Station Improvements](#) (has a subpage for the four pump station areas)

- [Chesapeake Boulevard Pump Station Replacement](#)

- [City of Norfolk Pump Station Rehabilitation](#)
- [City Park Pump Station Replacement](#)
- [Luxembourg and Ashland Circle Pump Station Replacements](#)

D. Special Projects and Highlights

1. Director and staff participated in additional planning meetings with the City of Virginia Beach Parks & Recreation staff for the upcoming official opening of Woodstock Park and the new skatepark atop HRSD's offline storage facility.
2. Director participated in the Hampton Roads Planning District Commission Regional Public Information Subcommittee meeting.
3. Director continues to support and consult the Water Research Foundation (WRF) WaterReuse initiative in developing communications best practices documents related to establishing water reuse exhibits. This month, director, joined by the Chief of Design and Construction-SWIFT were interviewed by WRF to discuss how the SWIFT Research Center came together from a communications and outreach development standpoint.
4. Director began a 14-hour certification training titled, "Diversity, Equity, and Inclusion (DEI) in the Workplace" which is being offered free of charge by the University of Southern Florida Muma College of Business. The sessions attended thus far have been impactful and educational, offering numerous additional resources for further professional development.
5. Staff participated in the Hampton Roads Planning District Commission (HRPDC) askHRGreen Water Awareness and FOG meetings.

E. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. Weekly Leadership and COVID-19 meetings
 - b. Community outreach planning and update meetings related to several projects, including Larchmont Area Sanitary Sewer improvements and South Norfolk projects at Ferebee and Park.
 - c. Engineering Design and Construction meeting
 - d. Capital Improvement Program (CIP) Review Meeting
 - e. Management, Operations and Maintenance (MOM) Program update review meetings
 - f. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
 - g. Multiple meetings for finalizing artist and muralist selection for Atlantic Treatment Plant beautification project
 - h. Planning meetings with staff for Virginia Water and Wastewater Professionals Day
 - i. Video planning meetings for the Woodstock Park Improvement Project
 - j. James River Treatment Plant land improvements concept workshop
 - k. Water Quality recruitment committee meeting

2. Director conducted biweekly communications department status meetings and weekly one-on-one and team check-in meetings.
3. Staff attended project progress meetings and presentation and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities (all virtual unless otherwise noted): 1
 - a. Self-guided SWIFT Virtual Tours – four views (represents survey access at the beginning of each tour but does not necessarily represent the actual number of people who may have been watching/participating in the virtual tour at the time)
 - b. 03/09/21 – Virtual SWIFT Tour and presentation given to the Norfolk Rotary Club
2. Number of Community Partners: 3
 - a. City of Portsmouth Public Schools
 - b. City of Virginia Beach Public Schools
 - c. Norfolk Rotary Club
3. Additional Activities Coordinated by Communications Department: 2
 - a. Water Bottles for Virginia Beach Public Schools
 - b. Outreach materials for Portsmouth Public Schools
4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	10.17
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	56.33
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	3

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for March 2021
DATE: April 9, 2021

A. General

1. Capital Improvement Program (CIP) spending for the eighth month of Fiscal Year (FY) 2021 was above the planned spending target:

CIP Spending (\$M):

	Current Period	FYTD
Actual	22.16	131.65
Plan	19.10	166.90

2. The COVID-19 pandemic began impacting HRSD one year ago. The following initiatives were implemented, and the following status update highlights the efforts to keep critical functions moving forward:
 - Staff continues a “work from home” status. Administrative support is still available at both Operations Centers to address mail delivery, visitor needs and other miscellaneous issues at each location. Staff has adjusted well to the remote work model with few issues. Meetings, consultant interviews and information sharing sessions via SKYPE, Microsoft Teams and Zoom have all been used effectively.
 - Consultants working for HRSD have also been able to be productive using remote networking technology. Efforts such as Pre-Bid Meetings and monthly construction Progress Meetings are being handled remotely.
 - Construction contractors have adjusted to the CDC protocols in place to keep employees healthy and safe. The construction community has a strong desire to keep employees productive and employed. Early concerns over project delays from contractors because of vendors, suppliers and other subcontractors being impacted by supply chain issues have been minimal.
 - Real Estate efforts in some cases, including the acquisition of fee simple property and easements continue to experience delays due to restrictions at some local courts. Property owners are also reluctant to meet to negotiate possible sale of property or sign needed legal documents. These factors continue to slow the property acquisition process on some projects.
3. The Engineering Department oversees an intern employment program to assist with several technical tasks. The interns are typically college sophomores, juniors or seniors studying Engineering or a related science field. We currently have six interns employed to assist the Engineering Department. These interns typically work 20 hours per week and assist in the following areas:
 - Pressure, flow, and rainfall data analysis
 - Plan reviews for future development
 - Asset data input and review
 - Other support as needed

This program has been mutually beneficial to HRSD and the students since these individuals provide an important service to HRSD and the students gain valuable experience to help them in their careers. This program has been very successful over the years with many interns gaining full-time employment in the engineering field after graduation.

B. Asset Management Division

1. A kick-off meeting was held to discuss a new initiative to gain a better understanding of the impacts of hydrogen sulfide (H₂S) gas on HRSD's force main system. A model known as the Wastewater Aerobic/Anaerobic Transformation Sewer (WATS) will be used to identify potential H₂S hot spots. These hot spots have historically caused internal corrosion of force mains. The challenge is to find these locations prior to the pipeline failing. Engineering is working with both Operations and Water Quality to conduct this study. To calibrate the model, gas samples will be taken from air vents in two pilot areas including Smithfield and Nansemond.
2. Condition assessment efforts continue at several locations determined to be high-risk within the interceptor sewer system. Seven locations will be assessed in FY 2021. Four assessments are complete, and the data indicates that many of these pipe segments show areas of concern. The focus is on ferrous pipe segments (both cast-iron and ductile-iron). Due to the inability to isolate flow in these areas, the pipe is being inspected from the outside. This requires the use of a contractor with specialized equipment. Results of this assessment will help HRSD plan needed CIP projects and better design pipelines in the future.

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

1. Construction of the Williamsburg Treatment Plant Generator and Switchgear Replacement project continues. Temporary generators are needed to take the existing system off-line to bring the new electrical systems into service. Several shutdowns are required to start and energize the new electrical equipment once the temporary generators are activated. This is a challenging process that requires close coordination with plant staff. The project is going well and remains on schedule with work anticipated for completion in July.
2. The Virginia Department of Transportation (VDOT) project to improve Laskin Road in Virginia Beach includes the relocation of a section of the HRSD Atlantic Trunk Interceptor Force Main. This project has finally reached the construction phase with design work taking many years to complete. The contractor managing the road project is also constructing the relocation of both water and sewer utilities. This is a difficult project in a very congested section of Virginia Beach. The contractor has struggled to satisfactorily test the newly installed force main. HRSD has required the use of an experienced design consultant to provide construction inspection services during the relocation. These challenges highlight the difficulty of having others administer work for HRSD. We remain very engaged with this project to ensure the newly installed pipeline will meet our standards and provide an asset that will meet our longevity expectations.

3. We have finally completed the contract negotiations for the James River SWIFT and Advanced Nutrient Reduction Improvements project. There were numerous issues to consider as part of the final negotiations including terms and conditions, insurance requirements and liability limits. The Design-Build Comprehensive Agreement was signed on March 23rd and the Notice to Proceed was issued on March 25th. A Project Kick-Off Meeting and Partnering Session will be scheduled soon to begin this effort.

D. Planning & Analysis Division

1. Staff continues to review Federal Facilities Infiltration & Inflow submissions which were an outcome of HRSD's Consent Order with the USEPA to reduce sanitary sewer overflows in the region. This review is needed to be sure the numerous federal facilities that discharge into the regional sewer system are following the guidelines set for jurisdictions and HRSD. The review is phased so that the federal facilities in the region can comply with the requirements and to allow time for HRSD to review and approve the numerous plans that are required. HRSD has approved 68 submissions to date, with an anticipated 64 submissions yet to be received from federal facilities in the region.
2. Staff began reviewing the process used to handle Development Service requests from outside the organization. These requests can relate to a wide variety of issues including proposed development, flow/pressure certificates, connections to existing pipes and construction on or near our infrastructure. HRSD's interns play an important role in the review of these requests, and a formal process is used to track and respond to the requests. This review is needed to be sure requests are processed in an accurate and timely fashion.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 2
 - a. 03/01/2021 – Virtual Panel Discussion at the WateReuse Conference on water reuse trends.
 - b. 03/11/2021 – Virtual Presentation to the Old Dominion University - American Society of Civil Engineers Student Chapter on project delivery.
2. Number of Community Partners: 2
 - a. WateReuse Foundation
 - b. Old Dominion University – American Society of Civil Engineers Student Chapter
3. Number of Research Partners: 1
 - a. Water Research Foundation

4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Total Training Hours per Full Time Employee (44) - Current Month	Hours / #FTE	1.09
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	14.69
M-5.2	Educational and Outreach Events	Number	2
M-5.3	Number of Community Partners	Number	2
M-5.4	Number of Research Partners	Number	1

Bruce W. Husselbee, P.E.

Bruce W. Husselbee, PhD, PE

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for March 2021
DATE: April 14, 2021

A. General

1. Water consumption jumped up 3.9 percent compared to the budget forecast. This is driving billed Wastewater Revenues higher than expected. Miscellaneous Revenue is higher due to the \$725,352 Pharmacy rebate received in March, \$75,000 higher than expected. Facility Charges continue to ramp up as the Hampton Roads residential market remains hot. The Internal Revenue Service is behind on all Build America Bond Subsidies. Personal Services (salaries) are in-line with budget, but Fringe Benefits are slightly below due to lower-than-expected medical costs. All other expenses remain below budget on a cash basis but expect funds to be encumbered before the end of the fiscal year. At the end of the third fiscal quarter (75 percent target), revenues are at 77 percent and expenses are at 71 percent.
2. Staff continues to work through some of the Phase 1 COVID-19 Municipal Utility Relief applications manually. Approximately \$7.2 million was applied to attested accounts from the \$8.7 million initially awarded by the Commonwealth with \$200 thousand under review, leaving approximately \$1.3 million available for Phase 2 which should begin this summer. \$4.1 million of the \$7.2 million was applied to HRSD accounts with the remainder going to Locality water and sewer accounts.
3. After most of the Municipal Utility Relief funds were applied in January, the accounts receivable greater than 61 days in March and April are rising again. Hopefully, the recently approved stimulus bills and continued employment growth will help stop this concerning trend.

B. Interim Financial Report

1. Operating Budget for the Period Ended March 31, 2021

	Amended Budget	Current YTD	Current YTD as % of Budget (75% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 312,218,000	\$ 240,914,984	77%	76%
Surcharge	1,522,000	1,234,964	81%	82%
Indirect Discharge	3,200,000	2,401,152	75%	86%
Fees	3,020,000	(406,850)	-13%	81%
Municipal Assistance	700,000	492,532	70%	62%
Miscellaneous	1,165,000	1,552,355	133%	86%
Total Operating Revenue	321,825,000	246,189,137	76%	76%
Non Operating Revenues				
Facility Charge	6,160,000	5,840,740	95%	77%
Interest Income	1,510,000	446,955	30%	128%
Build America Bond Subsidy	2,292,000	-	0%	47%
Other	610,000	436,496	72%	84%
Total Non Operating Revenue	10,572,000	6,724,191	64%	88%
Total Revenues	332,397,000	252,913,328	76%	76%
Transfers from Reserves	28,765,873	25,170,766	88%	75%
Total Revenues and Transfers	\$ 361,162,873	\$ 278,084,094	77%	76%
Operating Expenses				
Personal Services	\$ 60,952,502	\$ 45,912,594	75%	79%
Fringe Benefits	24,945,953	18,101,194	73%	75%
Materials & Supplies	9,663,402	6,325,797	65%	68%
Transportation	1,579,254	720,646	46%	57%
Utilities	13,019,361	9,111,083	70%	72%
Chemical Purchases	10,500,337	5,858,431	56%	59%
Contractual Services	51,831,008	26,663,959	51%	51%
Major Repairs	13,076,208	4,789,163	37%	42%
Capital Assets	867,079	231,215	27%	23%
Miscellaneous Expense	3,721,391	2,334,947	63%	109%
Total Operating Expenses	190,156,495	120,049,029	63%	67%
Debt Service and Transfers				
Debt Service	61,407,822	52,249,063	85%	82%
Transfer to CIP	109,338,556	85,600,275	78%	75%
Transfer to Risk management	260,000	195,003	75%	75%
Total Debt Service and Transfers	171,006,378	138,044,341	81%	78%
Total Expenses and Transfers	\$ 361,162,873	\$ 258,093,370	71%	72%

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended March 31, 2021

HRSD - PROJECT ANALYSIS

March 31, 2021

Classification/ Treatment Service Area	Appropriated Funds	Expenditures	Expenditures	Total		
		prior to 7/1/2020	Year to Date FY2021	Expenditures	Encumbrances	Available Funds
Administration	47,227,240	15,313,091	9,825,475	25,138,566	3,073,640	19,015,034
Army Base	155,448,800	123,095,232	312,807	123,408,039	2,020,494	30,020,267
Atlantic	113,833,722	76,561,802	3,744,584	80,306,386	6,948,385	26,578,951
Boat Harbor	262,090,388	36,048,636	12,454,068	48,502,704	13,595,430	199,992,254
Ches-Eliz	164,907,309	67,782,112	30,813,381	98,595,493	27,122,278	39,189,538
Eastern Shore	14,000,000	-	26,871	26,871	64,630	13,908,499
James River	309,704,973	38,156,333	4,082,382	42,238,715	219,742,407	47,723,851
Middle Peninsula	70,391,456	10,777,028	2,018,143	12,795,171	10,252,682	47,343,603
Nansemond	347,091,385	23,061,497	14,136,492	37,197,989	9,651,530	300,241,866
Surry	47,505,027	10,875,464	8,459,736	19,335,200	22,080,196	6,089,631
VIP	304,192,874	178,705,768	3,717,335	182,423,103	2,518,179	119,251,592
Williamsburg	34,145,622	17,684,308	7,554,556	25,238,864	6,899,490	2,007,268
York River	76,430,343	25,864,189	4,132,740	29,996,929	3,806,535	42,626,879
General	755,539,055	155,776,300	32,482,568	188,258,868	294,684,281	272,595,906
	<u>\$ 2,702,508,194</u>	<u>\$ 779,701,760</u>	<u>\$ 133,761,138</u>	<u>\$ 913,462,898</u>	<u>\$ 622,460,157</u>	<u>\$ 1,166,585,139</u>

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's)

March 31, 2021

	Principal			Interest	
	Feb 2021	Principal Payments	Principal Draws	Mar 2021	Payments
Fixed Rate					
Senior	199,911	(1,241)	-	198,670	(377)
Subordinate	552,422	(2,378)	6,437	556,481	(1,269)
Variable Rate					
Subordinate	50,000	-	-	50,000	(1)
Line of Credit	-	-	-	-	(27)
Total	<u>\$ 802,333</u>	<u>\$ (3,619)</u>	<u>\$ 6,437</u>	<u>\$ 805,151</u>	<u>\$ (1,674)</u>

HRSD- Series 2016VR Bond Analysis

April 2, 2021

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.43%	0.52%	0.09%
Minimum	0.01%	0.01%	0.00%
As of 04/02/21	0.07%	0.07%	0.00%

* Since October 20, 2011 HRSD has averaged 52 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended March 31, 2021

HRSD - UNRESTRICTED CASH

March 31, 2021

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

		Adjust Days	
		Cash on Hand	Days Cash on Hand
Total Unrestricted Cash	\$ 177,917,026		342
Risk Management Reserve	\$ (3,954,538)	(8)	334
Capital (PAYGO only)	\$ (5,229,049)	(10)	324
Adjusted Days on Cash	\$ 168,733,439		324

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, 2021

Primary Source	Beginning	YTD			Ending	Allocation of Funds	Credit Quality	Current Mo Avg Yield
	Market Value	Contributions	Withdrawals	Income Earned	Market Value			
	July 1, 2020				March 31, 2021			
BAML Corp Disbursement Account	7,339,242	365,301,549	351,480,124	22,453	21,183,120	16.3%	N/A	0.55%
VIP Stable NAV Liquidity Pool	178,660,390	10,000,000	80,000,000	206,719	108,867,109	83.7%	AAAm	0.11%
Total Primary Source	\$ 185,999,632	\$ 375,301,549	\$ 431,480,124	\$ 229,172	\$ 130,050,229	100.0%		

VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.01% in the month of March.

Secondary Source	Beginning	YTD			Ending	LTD Mkt Adj	Yield to Maturity at Market	
	Market Value	Contributions	Withdrawals	Income Earned & Realized G/L	Market Value			
	July 1, 2020				March 31, 2021	Ending Cost		
VIP 1-3 Year High Quality Bond Fund	64,899,667	-	9,703	572,944	65,080,006	63,299,795	1,780,211	0.20%
Total Secondary Source	\$ 64,899,667	\$ -	\$ 9,703	\$ 572,944	\$ 65,080,006	\$ 63,299,795	\$ 1,780,211	

VIP 1-3 Year High Quality Bond Fund out performed ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.01% in the month of March.

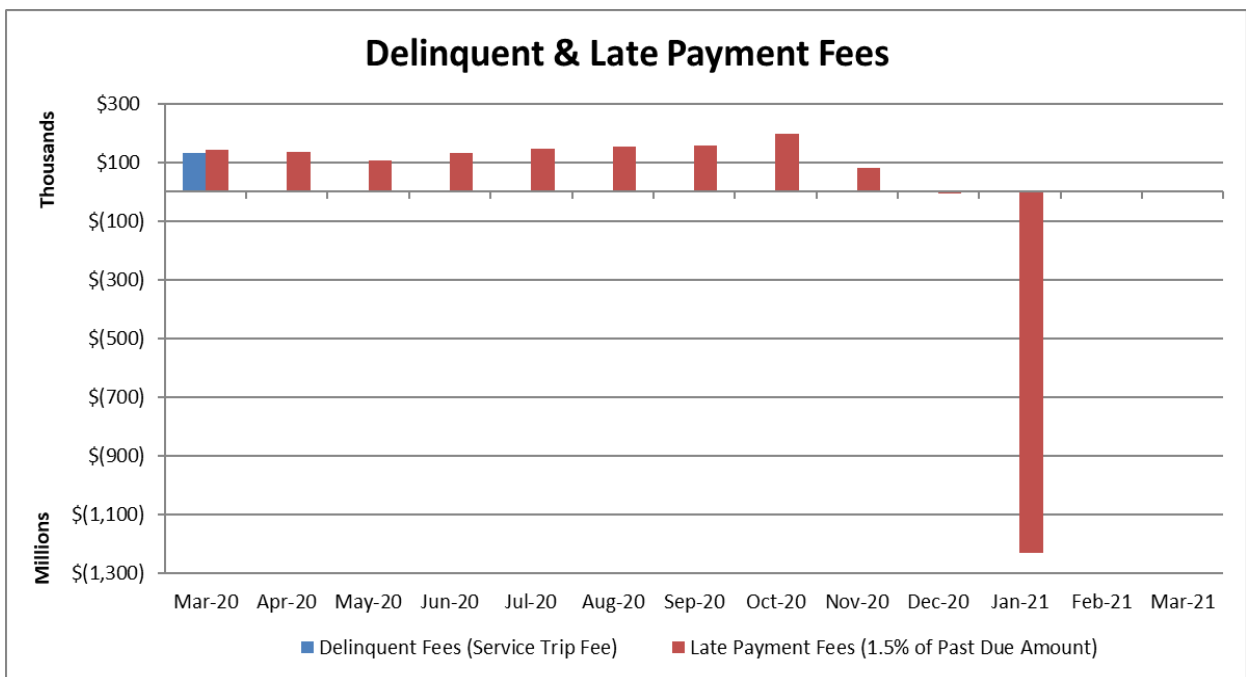
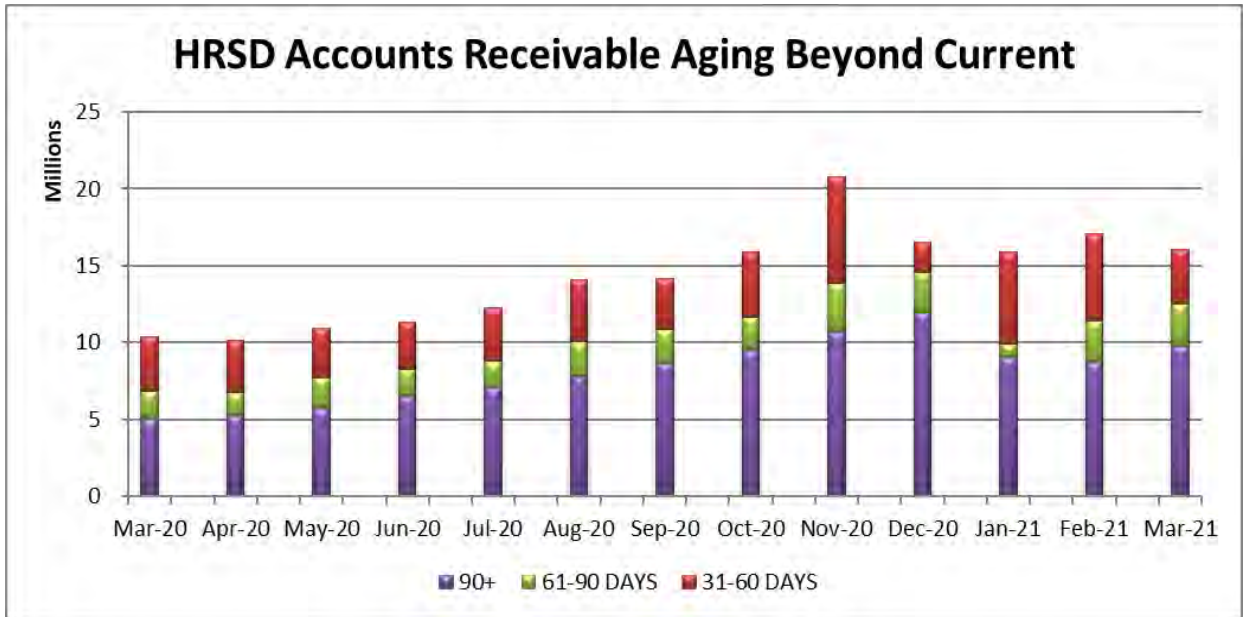
	Total	Fund Alloc
Total Primary Source	\$ 130,050,229	66.6%
Total Secondary Source	\$ 65,080,006	33.4%
TOTAL SOURCES	\$ 195,130,235	100.0%

7. Summary of Billed Consumption

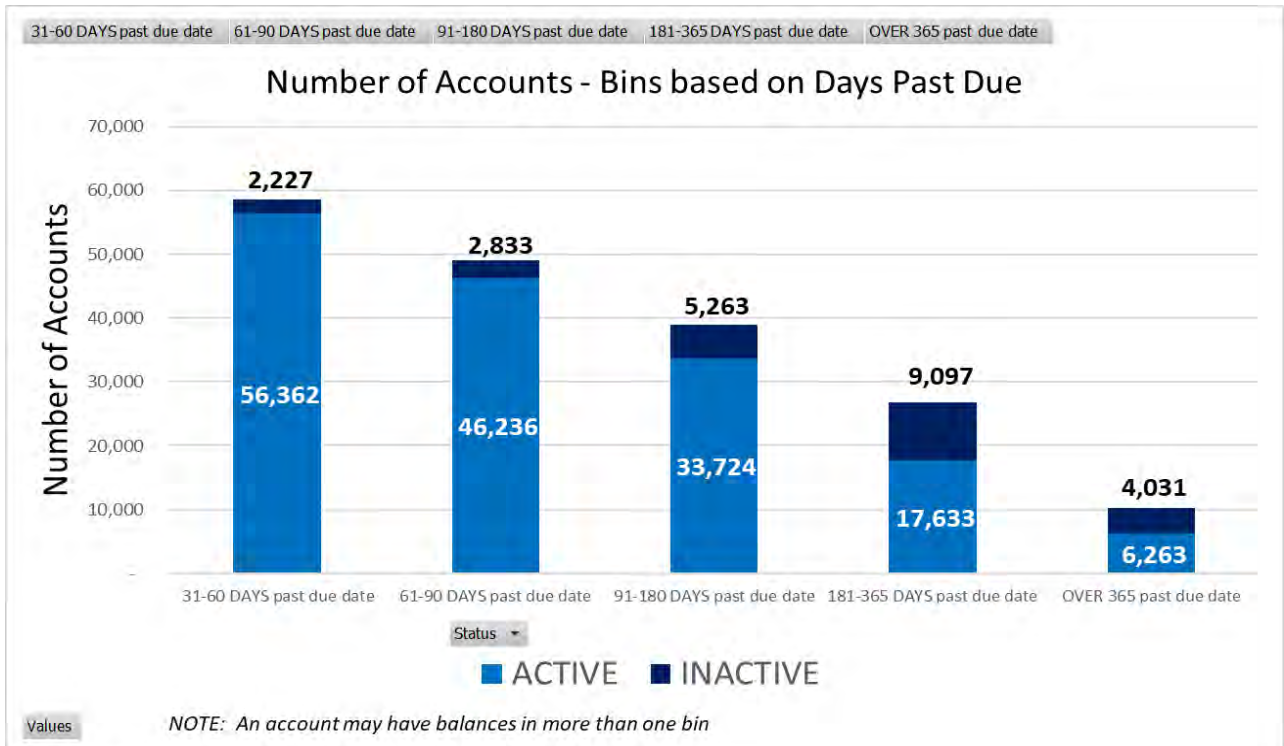
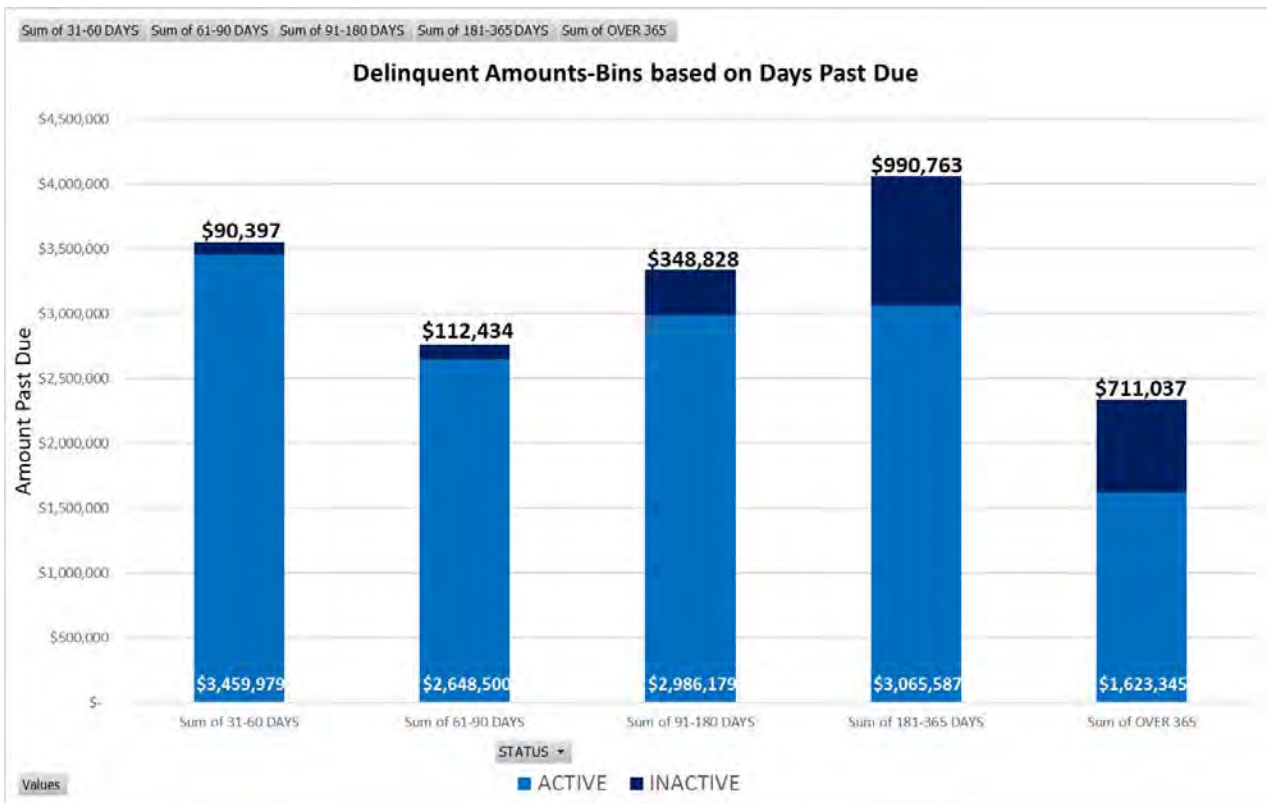
Summary of Billed Consumption (,000s ccf)							
Month	FY2021 Cumulative Budget Estimate	FY2021 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2020 Actual	From FY2020	Cumulative 3 Year Average	From 3 Year Average
July	5,086	4,751	-6.6%	5,114	-7.1%	5,045	-5.8%
Aug	10,047	9,459	-5.8%	9,944	-4.9%	10,026	-5.7%
Sept	14,477	14,335	-1.0%	14,354	-0.1%	14,389	-0.4%
Oct	18,951	18,863	-0.5%	18,952	-0.5%	18,966	-0.5%
Nov	22,937	21,192	-7.6%	23,092	-8.2%	23,160	-8.5%
Dec	27,268	27,614	1.3%	27,518	0.3%	27,383	0.8%
Jan	31,818	32,477	2.1%	32,101	1.2%	31,920	1.7%
Feb	36,287	36,067	-0.6%	36,005	0.2%	36,236	-0.5%
March	39,495	41,017	3.9%	40,108	2.3%	40,223	2.0%
Apr	43,441	-	N/A	44,246	N/A	44,387	N/A
May	47,762	-	N/A	48,397	N/A	48,604	N/A
June	52,222	-	N/A	52,535	N/A	52,869	N/A

C. Customer Care Center

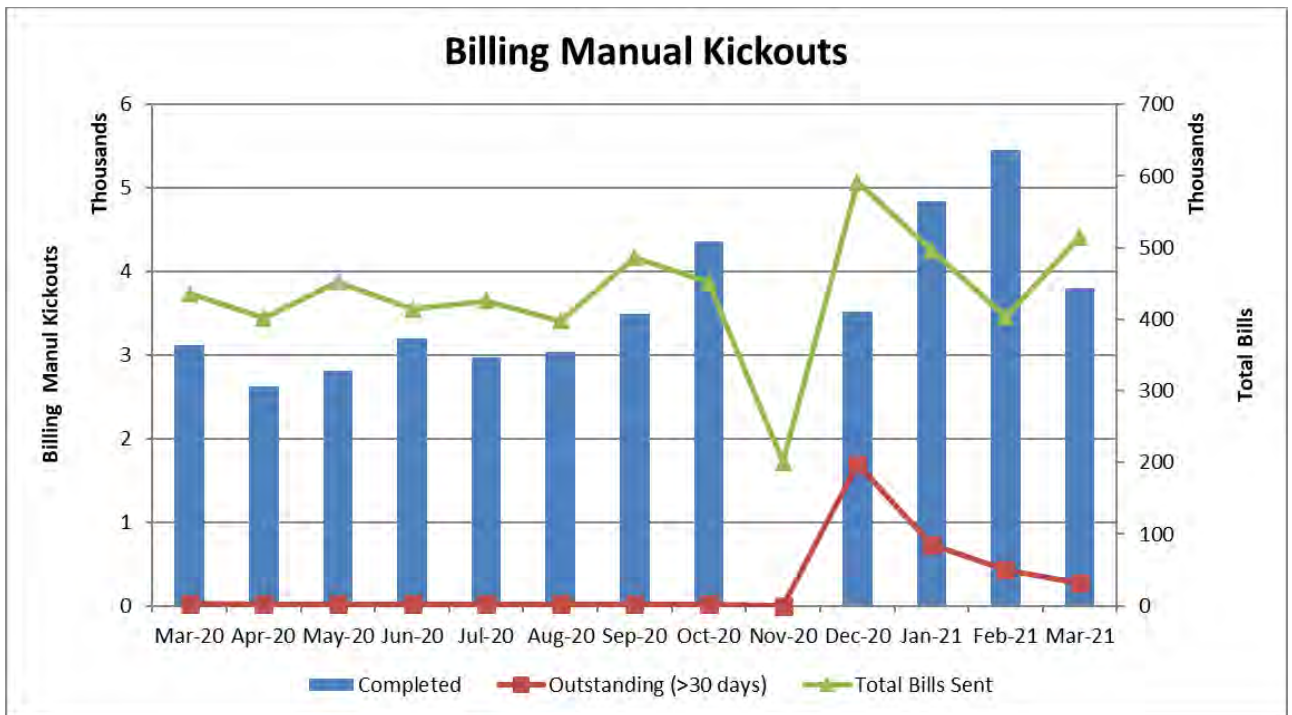
1. Accounts Receivable Overview



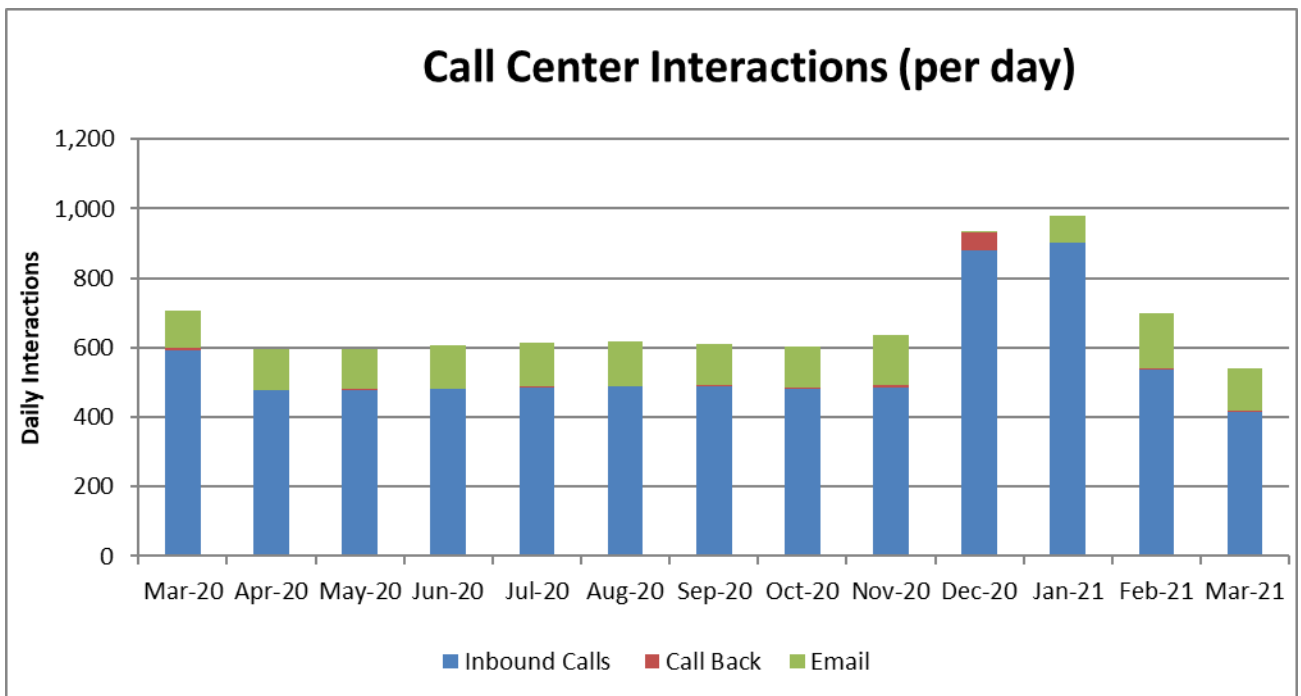
Apr 20-Mar 21 Field Activity was suspended late March 2020 in response to COVID-19.



2. Customer Care Center Statistics



November data not available due to Ransomware attack



Customer Interaction Statistics	Oct	Nov	Dec	Jan	Feb	Mar
Calls Answered within 3 minutes	95%	86%	30%	41%	90%	97%
Average Wait Time (seconds)	0:25	0:37	378	803	0:48	0:26
Calls Abandoned	3%	8%	28%	39%	7%	3%

D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	3	One transaction was caught by the card holder and two transactions were caught by the bank immediately.
September	3	Three caught by card holder
October	2	Caught by bank immediately
November	0	
December	0	
January	1	Caught by bank immediately
February	0	
March	0	
Total	9	

***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: 0
2. Community Partners: 0
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	0.23
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	6.59
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	103%
	General Reserves	Percentage of Operating Budget less Depreciation	104%
	Liquidity	Days Cash on Hand	342 Days
	Accounts Receivable (HRSD)	Dollars	\$31,799,579
	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 2021
DATE: April 14, 2021

A. General

1. Customer Care and ITD participated in the project kickoff for the Promise Pay solution initiative, which will provide financially distressed customers additional ways to create payment plans and make alternate payment arrangements.
2. As the new Water Quality Services Building nears completion, staff are finishing up the configuration and testing of the network connections and equipment in the new building.
3. Staff continues work on the upcoming migration of Microsoft Exchange, Outlook, Office 365, and other applications to the cloud. Initial testing is underway, with all members of the IT Department transitioning to the cloud, early next month.
4. In March, the IT Help Desk staff completed over 490 work orders, ensuring availability of computing resources to those working locally and remotely.
5. Installation and testing of the new scale system discharge ticketing system (at each of the treatment plants that accept septic discharge) is anticipated to be complete by mid-April. The upgraded version of the Carlton Scales system facilitates the automation of weighing, calculating, recording, and transmitting the relevant data to other platforms responsible for tracking and billing of the associated treatment services.
6. Staff is exploring several software tools and processes aimed at more efficient tracking and management of IT and IT-related projects in the current decentralized workforce environment.

B. Strategic Planning Metrics Summary

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

3. Metrics Summary:

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Training During Work Hours Per Full-Time Employee (50) – Current Month	Total Training Hours / # FTE	0.18
M-1.4b	Total Training During Work Hours Per Full-Time Employee (50) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	9.05
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 2021
DATE: April 10, 2021

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. The Supervisory Control and Data Acquisition (SCADA) project continues to progress well. Final site demonstration testing was completed this month.
- b. Contractors continue installing the new force main from Jebbs Place to Anderson Park in Hampton. The force main is anticipated to be completely installed, pressure tested and activated in April, allowing for the removal of the above ground pipe in that section.

2. South Shore (SS) Interceptor Systems

- a. There was one Sanitary Sewer Overflow (SSO) reported this month. On March 11, staff reported an overflow at the Taussig Boulevard Pump Station discharge manhole on Naval Station Norfolk. While there was evidence of other surcharged manholes downstream, staff could not find a blockage. Staff inspected and cleaned the pipelines to ensure unimpeded flow. The overflow resulted in an SSO and spilled approximately 32,000 gallons into a grass field near the manholes.
- b. On March 16, staff received a call from a motorist driving on Virginia Beach Boulevard near the intersection of Virginia Beach Boulevard and Lynnhaven Parkway about vehicle damage due to project construction. Staff reported the issue to the Design and Construction Project Manager and to the Contractor. On March 18, staff received a call from a motorist driving on Cedar Road near the intersection of Cedar Road and Cahoon Parkway about vehicle damage due to a displaced valve lid. Staff investigated and found all valve and air vents lids in the area to be in place and sealed.
- c. On March 15, staff spent a significant amount of time implementing a 5.9 million gallon per day (MGD) diversion from the Chesapeake-Elizabeth Treatment Plant (CETP) to the Atlantic Treatment Plant (ATP). The diversion is the second of four flow diversions needed to close CETP before the end of the calendar year.
- d. Staff spent a significant amount of time on the SCADA site demonstration testing.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. On March 24, while staff was draining the #1 secondary clarifier, the drain valve was opened too widely, resulting in a 300-gallon overflow at a manhole in the plant drain system.
- b. Staff built and installed a new vortex breaker for Aeration tank #3. The vortex breaker will reduce the amount of entrained air going to the second anoxic zone of the biological nutrient removal (BNR) system and should reduce the amount of carbon needed.

2. Atlantic Treatment Plant (ATP)

- a. On March 17, there was a small foam overflow at a manhole next to a drain pump station. The spill was quickly corrected and all the foam was recovered and returned to the drain.
- b. On March 11, staff received an offsite odor complaint. Staff worked with the Water Quality Department to help identify and correct the issue.
- c. The Virginia Occupational Health and Safety Administration (VOSHA) inspected the contractor installing the final dewatering centrifuge this month. While on site, VOSHA issued a citation to HRSD for a floor drain cover that was removed while staff was flushing the floor drain. Staff removed the hose from the drain and showed the inspector that the cover seals the hole. Staff from the Safety Division was present during the inspection and requested an informal meeting to dispute the citation.
- d. Plant staff performed the first comprehensive annual thermal hydrolysis process (THP) preventive maintenance procedure. This is an extensive, week-long process where all equipment associated with the THP was taken offline, cleaned, and inspected. All safety valves and gaskets were replaced, and repairs were made to equipment as needed.

3. Boat Harbor Treatment Plant (BHTP)

Staff inspected, tightened, and repaired the center column seal on secondary clarifiers 4, 3, and 1. The lower amount of rainfall this month contributed to lower incoming flows, allowing staff to take all 3 tanks out of service with minimal process impacts.

4. Chesapeake-Elizabeth Treatment Plant (CETP)

- a. Staff determined that the hydrogen sulfide (H₂S) sensors failed after an extended period of operation wherein invalid data was generated. It is unknown if the scrubbers provided proper control of sulfides from March 10 through March 22. Staff replaced and calibrated new sensors and placed them into service. Scrubber pH levels were 9.2-9.7 prior to sensor replacement and 10 after replacement, indicating a close to normal operation and control of sulfides; but it is unknown whether an H₂S exception condition existed prior to replacement.

- b. Staff built a protective shield for personnel to use while pressure washing the band screens. This shield protects the employee from over spray and screen debris during the weekly cleaning activity.

5. James River Treatment Plant (JRTP)

- a. Staff replaced two primary solids pumps, installed a new hypochlorite feed pump, and refurbished the carbon feed system so it can be used for nutrient removal testing.
- b. Staff continued work on the centrate pipeline from the centrate pump vault to the centrate equalization tanks, installing above ground piping and pipe supports near primary clarifier #1.

6. Nansemond Treatment Plant (NTP)

- a. Staff completed repair work on secondary clarifier #5 and returned it to service on March 8.
- b. Staff resumed sodium hydroxide pumping to the struvite recovery facility on March 29. Pumping was down due to frozen lines, requiring staff to transfer the chemical manually.
- c. Sustainable Water Initiative for Tomorrow (SWIFT) Research Center (RC)
 - (1) There was no recharge of the SWIFT Potomac aquifer in March due to the rehabilitation of the recharge well and the installation of the backflush pump.
 - (2) After completing the video survey inspection, it was decided to re-swab screens #3 and #4 since significant siltation was found.
 - (3) To better understand the impact of rehabilitating the well, the flow going into each screen at the well was verified before and after the rehab work using a flowmeter log device. This information will be used to determine whether injectivity was recovered.
 - (4) The new backflush pump will be installed the first week of April and recharge operations are expected to resume the second week.

7. Virginia Initiative Plant (VIP)

- a. There was one reportable event for H₂S greater than 2 parts per million (ppm) at the main odor control system due to a low second stage scrubber pH level. The pH levels dropped when the caustic system did not react quickly enough to increase pH when higher H₂S loading occurred.
- b. Contractors completed extensive hearth repairs on the standby furnace in preparation for its return to service in May.

8. Williamsburg Treatment Plant (WBTP)

- a. There was one noise complaint this month related to the generator and switchgear replacement construction project that required the use of a diesel generator to operate a portion of the plant while electrical upgrades were made. The temporary generator was in a box with sound attenuation and operated intermittently for approximately 21 days between February 24 and the end of March. Staff and contractors are evaluating further measures to reduce the noise in the future. No further complaints were received.
- b. The contractor continued coordinating with staff to conduct several tie-ins of various sections of the plant to the new switchgear. Some of the tie-ins required diverting flow to empty tanks, temporary losses of power to sections of the plant, and the use of generators while the contractor pulled cable and made connections.
- c. Discharge of Fats, Oils, and Grease (FOG) to the WBTP was suspended so staff could remove FOG from the system tanks for inspection and repairs. Haulers were notified that FOG receiving may not resume until May.
- d. The amount of solids needed to be removed was beyond the normal capacity of the incinerator. A contractor was used to haul solids to a disposal site to get secondary solids under control and improve secondary clarifier settling.

9. York River Treatment Plant (YRTP)

- a. Staff de-scaled the digester heat exchanger tubes and removed struvite from the centrifuge centrate pipe.
- b. The replacement of approximately 300 linear feet of corroded 60-inch headworks effluent pipe from the headworks to the primary clarifier distribution chamber continued. Concrete cured and forms were removed on the new influent structure at the primary distribution chamber.

10. Incinerator Operations Events Summary

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all five plants with incinerators with THC continuous emissions monitoring valid data captured of greater than 98 percent. There was one deviation from the required minimum operating parameters and five minor bypass events (<60 minute).

C. Small Communities (SC)

1. Middle Peninsula Small Communities Treatment and Collections

a. West Point Treatment Plant (WPTP) and Collections

- (1) On March 29, digested sludge was released when staff closed the wrong valve after pouring a drying bed, causing the bed to overflow. Staff closed the digester drain valve, placed sand berms around the area for containment, utilized a septage truck to recover solids and limed the area.

Approximately 500 gallons were released, with 400 gallons recovered. The remaining 100 gallons soaked into the ground.

- (2) The tertiary filter startup occurred this month. Multiple issues are still being worked out, but the majority of plant flow was passing through the filter by the end of the month.

b. King Williams Treatment Plant (KWTP) and Collections

- (1) Staff performed a clean-in-place on treatment train #2 this month. Staff made several set point changes to the equalization pumped flow and filtrate flow allowing the plant to process more flow than at any time before, resulting in decreased pump and haul costs. Staff reconditioned reuse pump #1 and returned it to service.
- (2) Total flow for the month of March was 2.203 MGD, of which 1.640 MG was pumped to Nestle-Purina as reuse/reclaimed water and 0.560 MG was effluent flow to the outfall.

2. Small Communities – Surry Systems

- (1) There was one SSO on March 9, when a contractor struck the 6-inch force main at 10303 Rolfe Highway while installing fiber optic cable. Although staff from the Sussex Service Authority (SSA) had marked the force main where the break occurred, the pipe had an offset in that location and the marks were off by approximately 10 feet. The system was isolated and SSA was able to complete the repairs. In total, 2,500 gallons were spilled and 450 gallons were recovered.
- (2) The wet well hatches at Dendron Pump Station (PS) #2A, Town PS #6 and Town PS #7 were repaired.

D. Electrical & Instrumentation (E&I)

1. Staff installed instrumentation for measuring flow in the redesigned effluent weir at ABTP. The new design concept utilizes the distributed control system (DCS) for calculating the flow based on level instead of the meters doing the calculation.
2. Staff replaced the Motor Control Center (MCC) for an odor control system at the ABTP. The project required significant coordination with plant staff, several shutdowns, and temporary wiring to ensure the odor control system remained in service throughout construction.
3. Staff continues to work with contractors, to complete several Pressure Reducing Station (PRS) upgrades in preparation for the CETP closure. Site inspections for various phases of the project were completed and Atlantic PRS pump controls were programmed and tested by staff.
4. On March 10, a scheduled outage occurred to connect unit substations (US) 2 & 3 to the new switchgear for providing power for the sludge dewatering and gravity belt thickener buildings at the WBTP. On March 24, a scheduled outage occurred to install generators to provide power for the Non-Potable Water (NPW), Recycle, Chemical

building and Odor B while the US 1 was being replaced. On March 31, a scheduled outage was planned to provide power to the new US 1, but it was canceled due to inclement weather. It is anticipated that US 1 will be connected to the new switchgear by mid-April.

5. Staff built, programmed, tested, and delivered a Variable Frequency Drive (VFD) and control panel for a contractor to install as part of the rehabilitation project at the Bagby PS.

E. Water Technology and Research

HRSD has taken ownership of the Riverside Treatment Plant in Nassawadox on the Eastern Shore. According to the service agreement, this plant will continue to be operated by Riverside staff until the plant is permanently closed. There have been issues in recent years with meeting ammonia and copper permit limits, and staff initiated a program to assist the plant operator/manager with getting back into compliance and ensuring successful operation and maintenance of the facility for the next two years.

F. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	4	2	4	3	3	3	4	4	3			
2.7	# of PS Annual PMs Performed (SS)	5	7	5	5	5	3	4	5	4			
2.7	# of Backup Generator PMs Performed (Target is 4.6)	7	15	6	17	10	5	7	9	15			
2.8	# of FM Air Release Valve PMs Performed (NS)	114	42	187	264	182	186	161	43	185			
2.8	# of FM Air Release Valve PMs Performed (SS)	220	243	200	316	108	152	249	163	309			
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	9,394	3,605	5,057	6,050	1,467	3,320	2,062	4,862	3,404			
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	10,686	2,217	1,100	6,245	3,687	3,370	1,876	756	759			
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	0	0	0	0	0	0	0	3,589			

G. Strategic Measurement Data

1. Education and Outreach Events: 0
2. Community Partners: 4
 - a. Chesapeake Bay Foundation-oyster cage maintenance at BHTP for oyster garden project
 - b. Jefferson Lab
 - c. Old Dominion University (ODU)
 - d. United Way Williamsburg House
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (526) – Current Month	Hours / FTE	1.83
M-1.4b	Total Training During Work Hours per FTE (526) – Cumulative Year-to-Date	Hours / FTE	14.21
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	34,845.93
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	66.43%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	10.07%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	23.50%
M- 4.1a	Energy Use: Treatment *reported for February 2020	kWh/MG	2,088
M-4.1b	Energy Use: Pump Stations *reported for February 2020	kWh/MG	190
M-4.1c	Energy Use: Office Building *reported for February 2020	kWh/MG	68

Item #	Strategic Planning Measure	Unit	March 2021
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	4

Respectfully submitted,
Steve de Mik
Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for March 2021

DATE: April 14, 2021

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	7
Job Offers Accepted – Internal Selections	13
Job Offers Accepted – External Selections	11
Average Days to Fill Position	90

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

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

Description	March 2021	Total (March 2020-March 2021)
Quarantines due to illness or direct exposure (household or external)	28	317
Work Related Quarantines	3	25
Personal Travel Quarantines	3	48
Confirmed Employee COVID-19 Cases	5	63
Work Related COVID-19 Cases	0	1
Contractor COVID-19 Cases on HRSD Work Sites*	1	11

*No direct exposure to HRSD employees

- b. Continued working with Safety to update HRSD's Infectious Disease Preparedness and Response Plan based on Virginia Occupational Safety and Health Administration's Permanent Standard
- c. Updated the Temporary Policy, Employee Return to Work following Personal Travel based on new Center of Disease Control (CDC) guidelines
- d. Addressed questions related to the COVID-19 Vaccine Policy
- e. Reviewed COVID-19 Guidelines for Contractors Working On-site at HRSD for potential updates
- f. Continued contacting medical providers to plan future on-site vaccination clinics and coordinated employee vaccination appointments with local clinics

- g. Worked with North Shore (NS) and South Shore Interceptor Systems (SSIS) and Small Communities to define COVID-19 protocols prior to crew rotation
 - h. Worked with Information Technology (IT) on updating the SharePoint COVID-19 Resources page
3. Benefits and Compensation
- a. TM and Finance staff worked on the following with HRSD's Benefit consultant:
 - (1) 2021/2022 medical, vision and dental plan renewal including changes and cost projections
 - (2) Implementation of voluntary supplemental health care plan options
 - (3) Implementation of changes to Flexible Spending Account and COBRA changes based on the *Consolidated Appropriations Act* and *American Rescue Plan Act*
 - (4) Development of a new Open Enrollment Guide
 - b. Finance and TM staff completed evaluation of a \$15 per hour minimum wage on full time and part time positions.
4. HR staff continued working with Chesapeake-Elizabeth Treatment Plant (TP) employees regarding the closure plan to address questions and conduct individual retirement planning meetings.
- 5.. The Human Resources (HR) Business Analyst worked with HR, Accounting, and Information Technology staff to review Enterprise Resource Planning (ERP) Affordable Care Act reports. The electronic reports were submitted to the IRS prior to the March 31st deadline.
6. Wellness Program
- a. Participation

Year Eight Participation Activities	Unit	March 2021	Year to Date (March 2021–February 2022)
Biometric Screenings	Number	182	182
Preventive Health Exams	Number	154	154
Preventive Health Assessments	Number	24	24
Online Health Improvement Programs	Number	36	36
Web-MD Online Health Tracking	Number	25	25
Challenges: W.M. Jordon Team to Team Weight Loss Challenge	Number	15	15
Fit-Bit Promotion	Number	6	6

- b. The *W.M. Jordon Team to Team Weight Loss Challenge* wrapped up with 15 participants losing a total of 83 pounds over two months, a 2.6% weight loss. The *Chesapeake Bay Walk the Watershed Challenge* was promoted and is scheduled to begin April 5th.
 - c. The Wellness Specialist worked with Optima Health to identify participants who earned the lowest health plan deductible and wellness incentives. Communications regarding lowest deductible, incentives and/or appeal forms were sent to employees and spouses.
 - d. The Wellness Specialist conducted a virtual Mindful Meditation on Gratitude.
7. Organization Development and Training (OD&T)
- a. Continued working with the OD&T consultant on:
 - (1) Evaluation of online training for an introductory Supervisory Knowledge and Information Program (SKIP)
 - (2) Development of a virtual coaching program
 - (3) Work with HRSD Leadership on several diversity and inclusion actions and strategies as a follow-up to *Courageous Conversations*.
 - b. The Facilitator team conducted the fourth Leadership and Management Academy (LAMA) workshop, *Emotional Intelligence*. Participants continued working on their capstone project, *Employee Burnout*.
 - c. OD&T staff and Workplace Facilitators began development of a virtual *Your Role in Quality* workshop utilizing new software to simulate training skills for preview during the next YRIQ workshop.
7. Apprenticeship Program
- a. Progress was made with on-going improvements and work began on the following new improvements:
 - (1) Maintenance Operator Curriculum review
 - (2) Wastewater Lab Video – Sampling and Analytical Balancing
 - (3) Virginia Beach Public Schools- Apprenticeship tracks
 - b. The quarterly Apprenticeship Committee meeting was held to discuss current and prior terms, course development within the learning management system, curriculum evaluations, Student Success Skills and Mentorship programs, instructor vacancies and feedback from the Apprenticeship Representatives.
 - c. Staff gathered information and worked with the Hampton Roads Workforce Council and WHRO on an Environmental Protection Agency (EPA) Workforce Grant application to establish a Pre-Apprenticeship Summer Intensive Program for local high school students in economically challenged areas.

8. Staff participated in the following external activities:
 - a. The OD&T Manager worked with the Water Environment Federation (WEF) Utility Management subcommittee on an article, *The Importance of Organizational Culture in Stressful Times*, for publication in the WEF magazine.
 - b. The Safety Manager attended the Quarterly Former Nansemond Ordnance Depot meeting with an HRSD Project Manager to present information regarding restoration of the shoreline on the HRSD Nansemond TP adjacent property.
 - c. The Safety Manager attended virtual meetings with the Board for Global Environmental Health and Safety Credentialing to update the job task analysis for the Certified Industrial Hygienist Program.
 - d. An HR Business partner attended the monthly Virginia Water Environment Association/ American Water Works Association Diversity Task Force meeting.
 - e. An HR Business partner attended the monthly Hampton Roads Society of Human Resources Management (HR-SHRM) Board of Directors meeting.
10. The Safety Division continued conducting respirator fit testing and coordinating medical screenings and onsite physicals for work centers to meet Respiratory Protection Program requirements.

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

	<u>2020</u>	<u>2021</u>
Mishaps	32	9
Lost Time Mishaps	8	4
<i>Numbers subject to change pending HR review of each case.</i>		

12. Safety Division Monthly Activities

Safety Training Classes	23
Work Center Safety Inspections	10
Reported Accident Investigations	4
Construction Site Safety Evaluations	20
Contractor Safety Briefings	4
Hot Work Permits Issued	15
Confined Space Permits Issued/Reviewed	200
Industrial Hygiene Monitoring Events	6

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (3)
 - a. 03/08/2021 – Virtual interview panel for City of Portsmouth Assistant Director
 - b. 03/11/2021 Virtual Hampton University career event
 - c. 03/31/2021 - Eastern Virginia Medical School (EVMS) - Masters in Public Health Program - *Public Health Pathways: Virtual Career, Internship & Postgraduate Education Fair*
2. Community Partners: (3)
 - a. City of Portsmouth
 - b. Hampton University
 - c. EVMS
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2021
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.23
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.12
M-1.4a	Total Training Hours Per Full Time Employee (17)	Total Training Hours/ FTE	2.53
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	21.64
M-5.2	Educational and Outreach Events	Number	3
M-5.3	Community Partners	Number	3

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for March 2021
DATE: April 13, 2021

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed no civil penalties this month.
2. The Director and members of the Technical Services Division (TSD) and P3 staff met with a representative of the College of William and Mary's Law School Virginia Coastal Policy Center to answer questions regarding the Virginia Department of Environmental Quality's interests in adding the waters of Hampton Roads to the list of no discharge zones (NDZ) for the Chesapeake Bay. A NDZ prohibits the release of human waste from recreational and commercial vessels. TSD has experience with this topic from a research vessel perspective and P3 oversees HRSD's boater education and pump-out program. Designating Hampton Roads waters as NDZs is not expected to impact HRSD operations. There will be budget and legislative issues for the state because pump out facilities are not always available across Hampton Roads and enforcement of such a rule with marinas and boat users will require additional state employees.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported the following activities for the month of March.
 - a. Metrics Team: Continued a campaign to compile data from across HRSD work centers to gain an understanding of what is being recycled and/or specially disposed of across work centers.
 - b. Community Cleans Ups Team: Planned and coordinated four community cleanup events scheduled for the month of April. Each event will last two hours. Received HRSD QST approval for a raffle of four hours of Administrative leave for each of the four events to those who volunteer their time. Received approval from the Wellness Program to apply a Wellness credit to all who volunteer their time. The team will partner with the Earth Day team in a cleanup at Fort Monroe in Hampton for the annual event.
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

1. HRSD provided sampling and analytical services to the Town of Lawrenceville, Northumberland County, Westmoreland County, and to Harrisonburg Rockingham Regional Sewer Authority to support monitoring required for their respective Virginia Pollution Discharge Elimination System (VPDES) permits.

2. The [Municipal Assistance Billed Reimbursements](#) per service collected between January 1 and March 31, 2021 is attached.
3. The [Municipal Assistance Invoice Summary](#) for the first quarter of the 2021 calendar year is attached.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Community Partners: 5
 - a. American Red Cross
 - b. Hampton Roads Planning District Commission
 - c. Virginia Building and Code Officials Association
 - d. Virginia Department of Housing and Community Development
 - e. Virginia Health Department
3. Noise Complaint: 1

HRSD Customer Service received a noise complaint from a Williamsburg resident who lives near the Williamsburg Treatment Plant, which has an ongoing construction project. This project requires disconnection of the plant from the grid power and the use of a diesel engine generator to operate the plant while needed electrical work is completed. Plant operations identified that the generator needs to be operated 24/7 from February 24 to March 10 (~ 14 days) and then another seven days at the end of March. The generator is in a box with sound attenuation provided. HRSD staff and the contractors are investigating other options to further reduce noise from the generator. No further complaints have been received.

4. Pretreatment Related System Issues: 1

03/16/2021 – North Shore P3 staff was notified of a white substance entering a manhole in West Point. P3 staff responded and observed the substance, though there was no indication of it actively entering. It is estimated that one quart of the substance was present. Investigation revealed that three buildings discharge to the manhole, two of which are vacant. Interviews with the third building's representative indicated that work was being performed in one of the vacant buildings earlier in the day. It is suspected that this work (possibly painting) led to the source of the white substance in the manhole. P3 requested that Small Communities staff continue to monitor the manhole and notify P3 if conditions change. Treatment was not impacted.

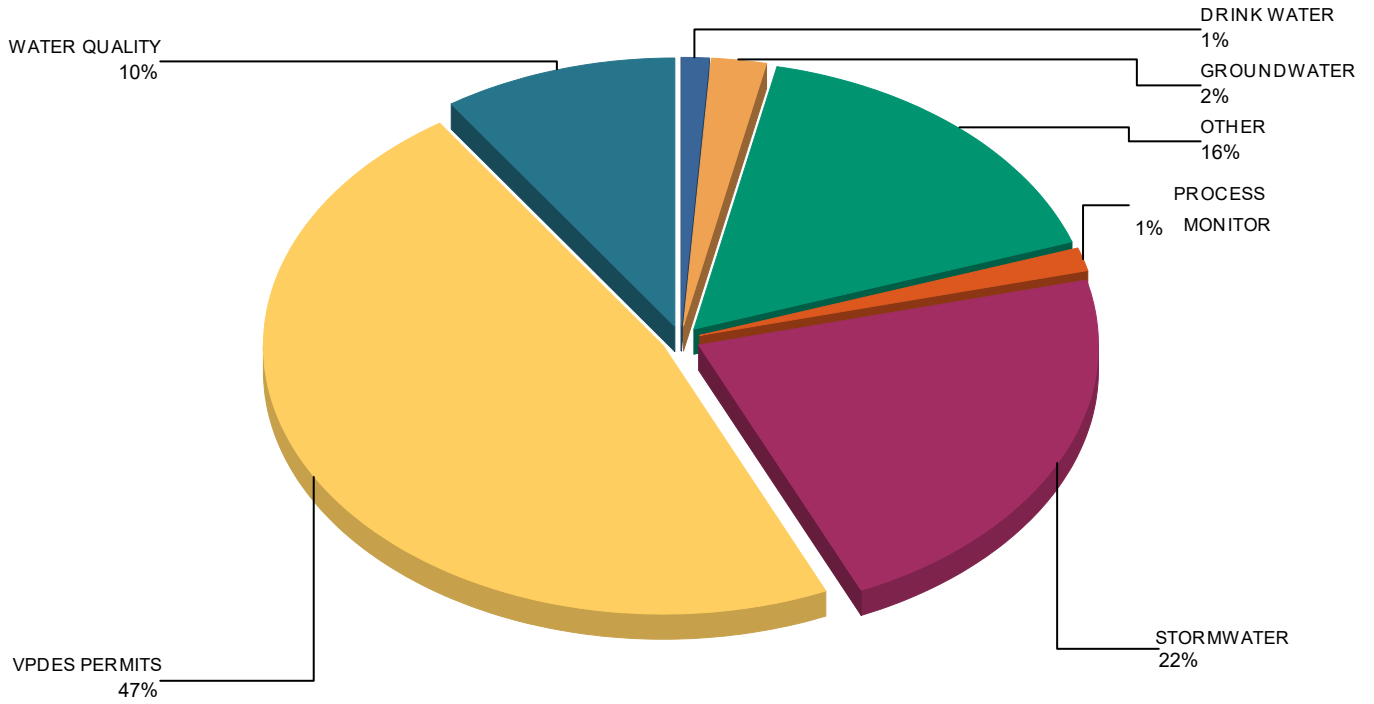
5. Monthly Metrics

Item #	Strategic Planning Measure	Unit	March 2021
M-1.4a	Training During Work Hours Per Full Time Employee (118) (Current Month)	Total Hours / # FTE	7.03
M-1.4b	Total Training During Work Hours Per Full Time Employee (118) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	38.83
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	20:45,659
M-3.2	Odor Complaints	#	0
M-3.4	Pollutant Removal	Total Pounds Removed	137,611,234
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	22%
M-5.2	Educational and Outreach Events	#	0
M-5.3	Community Partners	#	5
	Average Daily Flow	Total MGD for all Treatment Plants	155.96
	Pretreatment Related System Issues	#	1

Respectfully submitted,
James Plett, PhD
 Director of Water Quality

Municipal Assistance Billed Reimbursements per Service From 01/01/2021 to 03/31/2021

Attachment 1



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

Municipal Assistance Invoice Summary

From 01/01/2021 - 03/31/2021

Municipality	Reimbursements
Accomack County	\$5,219.25
Buckingham County	\$945.98
Chesapeake Public Works	\$970.04
City of Chesapeake	\$5,596.12
City of Emporia	\$205.53
City of Fredericksburg	\$665.62
City of Hampton	\$3,282.04
City of Newport News	\$1,567.75
City of Norfolk	\$3,210.32
City of Portsmouth	\$6,313.28
City of Roanoke	\$1,045.85
City of Suffolk	\$3,174.72
City of Virginia Beach	\$4,261.70
Fort Eustis	\$7,812.64
Frederick County	\$6,795.61
Harrisonburg Rockingham RSA	\$12,241.21
HRPDC	\$48,622.79
Hanover County	\$4,768.52
METRO Wastewater Reclamation Dist	\$370.50
New Kent County	\$12,316.82
Northampton County WWTP	\$2,555.00
Northumberland Co. - Callao WWTP	\$3,219.41
Rivanna Water and Sewer Authority	\$6,574.72
Spotsylvania County	\$22,360.88
St Brides Corr Ctr COVID	\$22,295.00
St Brides Corr Ctr WWTP	\$3,589.94
Stafford County	\$184.74
Town of Cape Charles	\$11,597.87
Town of Lawrenceville	\$1,899.48
Virginia Department of Health	\$4,983.32
Western VA Water Authority	\$6,834.75
Westmoreland County	\$1,774.07
Totals:	<u>\$217,255.47</u>



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 (MAP) monitoring.

I. Projects in Process

Succession Planning

- **Upcoming Tasks (April 2021)**
 - Finalize report

WIFIA Compliance

- **Tasks Completed (March 2021)**
 - Held and conducted initial kick-off meeting
 - Received and reviewed WIFIA Master Agreement and WIFIA Loan Agreement
 - Drafted compliance requirements
 - Met with project stakeholder to present in-process deliverables
- **Upcoming Tasks (April 2021)**
 - Draft compliance related procedures
 - Conduct follow-up meetings as necessary
 - Continue to draft and refine in-process deliverables

Emergency Repairs

- **Tasks Completed (March 2021)**
 - Conducted Entrance Meeting
 - Requested initial documentation to review
- **Upcoming Tasks (April 2021)**
 - Receive and review process and background documentation
 - Scheduled and conduct process interviews
 - Begin documenting process flowcharts and risk and control matrices

Business Continuity and Disaster Recovery (Audit Fieldwork Complete/ Management Response in Process)

- HRSD management has communicated its continued progress to develop a plan to address the recommendations included in the BC/DR report. SC&H will continue to work with HRSD process owners and management to finalize the audit report, incorporating management action plans.

II. Management Action Plan (MAP) Monitoring

SC&H is performing on-going 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
D&C: CIP Project Management	5/11/16	Closed	13	0	13
Biosolids Recycling	10/8/16	Pending Permit	7	1	8
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ ProCard	8/23/17	In process	8	3	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	January 2021	3	2	5
Treatment Plant Operations	10/15/18	July 2021	5	4	9
Customer Care Division	7/26/19	December 2022	2	2	4
Safety Division	9/12/19	February 2022	0	3	3
Permitting	2/4/20	April 2021	0	2	2
Payroll	3/27/20	April 2021	0	3	3
Pollution Source Control	6/2/20	January 2022	3	5	8
SWIFT Program	2/24/2021	February 2022	0	12	12
Fleet Services	2/24/2021	February 2022	0	17	17
Totals			69	54	123

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
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%
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%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	85%	63%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60
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
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	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8	1.6
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%
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
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%	25%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7
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
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
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102
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%
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
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%
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
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%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32
	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
	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
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%
	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%
	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%

*to be reported

Monthly Updated Metrics															FY-21	FY-21
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	Feb-21	Mar-21
	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	214.5	156.0
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	0	1
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	101%	103%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	102%	104%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,900,803	\$27,335,100	\$31,630,351	\$31,799,579
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	28%	31%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	11	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	9:60879	19:40586	20:45659
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	11	0
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	122,710,046	137,611,234
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	22%	22%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	16	9
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	12	17

EFFLUENT SUMMARY FOR MARCH 2021

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	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	9.51	53%	4	4.6	1	1	0.19	0.71	3.7	5.2	NA	NA	0
ATLANTIC	26.78	50%	17	15	2	1	NA	NA	NA	NA	NA	NA	8
BOAT HARBOR	15.55	62%	6	9.6	3	1	0.54	0.38	20	17	NA	NA	2
CENT. MIDDLESEX	0.008	33%	<2	5.0	1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	16.75	70%	26	23	7	4	1.6	1.3	32	29	NA	NA	15
JAMES RIVER	15.42	77%	4	4.9	1	1	0.38	0.40	5.6	6.3	NA	NA	3
KING WILLIAM	0.071	71%	<2	<1.0	NA	<1	0.031	0.027	1.8	3.5	1.5	NA	NA
NANSEMOND	17.66	59%	4	5.4	1	1	0.85	0.69	4.2	5.2	NA	NA	0
SURRY, COUNTY	0.051	78%	2	3.5	NA	<10	NA	NA	NA	NA	<0.50	NA	0
SURRY, TOWN	0.072	120%	4	12	NA	5	NA	NA	NA	NA	0.61	<0.10	NA
URBANNA	0.049	49%	1	5.0	2	3	0.41	0.64	13	13	NA	0.06	NA
VIP	29.39	73%	2	2.3	1	1	0.15	0.41	2.7	3.8	NA	NA	2
WEST POINT	0.737	123%	22	22	1	2	2.0	1.9	14	12	NA	NA	0
WILLIAMSBURG	9.16	41%	6	5.1	5	2	0.30	0.35	6.6	5.4	NA	NA	1
YORK RIVER	14.75	98%	0	0.40	1	1	0.18	0.18	4.2	5.6	NA	NA	1
	<u>155.96</u>												

	% of Capacity
North Shore	67%
South Shore	60%
Small Communities	99%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY21		YTD	Projection CY21	
	%	Lbs	%	%	Lbs	%
James River	22%	3,809,224	84%	20%	271,888	86%
York River	27%	267,800	93%	18%	16,111	83%
Rappahannock	18%	NA	NA	4%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY21 to Date: 20:45,659
Pounds of Pollutants Removed in FY21 to Date: 137,611,234
Pollutant Lbs Discharged/Permitted Discharge FY21 to Date: 22%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	4.32"	1.98"	4.43"
Normal for Month	3.82"	3.28"	3.48"
Year to Date Total	14.16"	12.23"	14.67"
Normal for YTD	10.24"	9.36"	9.80"

AIR EMISSIONS SUMMARY FOR MARCH 2021

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	3	51	99	0
BOAT HARBOR	0	1	0	n/a	0	0	0	0	11	99	0
CHES-ELIZ	0	0	0	0	0	0	0	0	15	98	0
VIP	0	0	0	n/a	0	0	0	1	12	99	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	23	99	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:	0
HRSD Odor Scrubber H2S Exceptions:	3

AGENDA ITEM 20.e.1. – April 27, 2021

Subject: SWIFT Research Center (RC) – Backflush Pump and Well Rehabilitation
Emergency Declaration

Recommended Action: No action is required. Information Only

Brief: On December 25, 2020 the backflush pump had a catastrophic failure and because of it, Recharge operations at the SWIFT Research Center were interrupted. After removing and inspecting the pump, it was decided to repair/replace the backflush pump bowls and shaft. Additionally, recharge well injectivity had declined prior to this failure and due to the anticipated delay in repairing the pump, it was decided to immediately proceed with a full rehabilitation at the well without delay.

An emergency declaration was authorized on February 10, 2021. This emergency was declared to:

- Remove of all the backflush pump components (by Sydnor)
- Repair/replace and reinstall the backflush pump (A.C Schultes)
- Fully rehabilitate the recharge well (A.C Schultes)

The estimated cost of this work is \$223,000 and will be funded from the SWIFT RC operations budget.