



COMMISSION MEETING MINUTES  
October 27, 2020

<u>No.</u>	<u>Topic</u>	<u>Page</u>
	Call to Order	4
	Roll Call of HRSD Commission	4
1.	<a href="#"><u>Awards and Recognition</u></a>	4-5
a.	<a href="#"><u>Service Award</u></a>	4-5
b.	<a href="#"><u>Commending Resolution</u></a>	5
c.	<a href="#"><u>Virginia Initiative Plant Nutrient Reduction Improvements Project 2020 WEF Annual Operational and Design Project Excellence Award</u></a>	5
d.	<a href="#"><u>Water Resources Utility of the Future Today</u></a>	5
2.	<a href="#"><u>Consent Agenda</u></a>	6
a.	<a href="#"><u>Approval of Minutes</u></a>	6
b.	<a href="#"><u>Contract Awards</u></a>	6
c.	<a href="#"><u>Task Orders</u></a>	6
d.	<a href="#"><u>Sole Source</u></a>	6
3.	<a href="#"><u>Enabling Act Revisions</u></a>	7-8
4.	<a href="#"><u>Fiscal Year 2020 Comprehensive Annual Financial Report (CAFR)</u></a>	9
5.	<a href="#"><u>Diversity Procurement Report</u></a>	10
6.	<a href="#"><u>Nutrient Credit Management Policy</u></a>	11
7.	<a href="#"><u>Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration – Fort Monroe Authority Agreement</u></a>	12-13
8.	<a href="#"><u>Hampton Roads Bridge-Tunnel Expansion Project Nutrient Offset Agreement</u></a>	14
9.	<a href="#"><u>Boat Harbor Treatment Plant Pump Station Conversion Initial Appropriation and Task Order</u></a>	15-16



COMMISSION MEETING MINUTES  
October 27, 2020

<u>No.</u>	<u>Topic</u>	<u>Page</u>
10.	<a href="#"><u>Fleet Management Initial Appropriation</u></a>	17-18
11.	<a href="#"><u>Middlesex County Hartfield Sewer Collection System - Phase I Improvements New CIP and Initial Appropriation</u></a>	19
12.	<a href="#"><u>Middlesex County Saluda Sewer Collection System - Phase I New CIP and Initial Appropriation</u></a>	20
13.	<a href="#"><u>Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II Initial Appropriation and Task Order</u></a>	21-22
14.	<a href="#"><u>Norview Estabrook Division I, 18-Inch Force Main Replacement Phase II, Section 2; Norview Estabrook Division I, 12-Inch Force Main Replacement; and Norview Estabrook Division I, 18-Inch Force Main Replacement Phase III Initial Appropriation and Contract Award</u></a>	23-24
15.	<a href="#"><u>York River Treatment Plant Emergency Repairs New CIP and Initial Appropriation</u></a>	25
16.	<a href="#"><u>Lucas Creek Pump Station Replacement Property Acquisition – 808 Lipton Drive, Newport News</u></a>	26
17.	<a href="#"><u>Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition</u></a>	27
18.	<a href="#"><u>COVID-19 Wastewater Surveillance Study</u></a>	28
19.	<a href="#"><u>Capital Improvement Program Quarterly Update</u></a>	29
20.	<a href="#"><u>Unfinished Business</u></a>	29
21.	<a href="#"><u>New Business</u></a>	29
22.	<a href="#"><u>Commissioner Comments</u></a>	29
23.	<a href="#"><u>Public Comments Not Related to Agenda</u></a>	29



COMMISSION MEETING MINUTES  
October 27, 2020

<u>No.</u>	<u>Topic</u>	<u>Page</u>
24.	<a href="#">Informational Items</a>	30
a.	<a href="#">Management Reports</a>	30
b.	<a href="#">Strategic Planning Metrics Summary</a>	30
c.	<a href="#">Effluent Summary</a>	30
d.	<a href="#">Air Summary</a>	30
e.	<a href="#">Emergency Designation – York River Treatment Plant Headworks Effluent Pipe Rehabilitation</a>	30
25.	<a href="#">Closed Meeting</a>	31
26.	<a href="#">Reconvened Meeting</a>	32

**Attachments (13)**



COMMISSION MEETING MINUTES  
October 27, 2020

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	1-26
Lynch, Maurice P.	Commission Vice-Chair	1-26
Glenn, Michael E.	Commissioner	Absent
Lakdawala, Vishnu K.	Commissioner	1-26
Levenston, Jr., Willie	Commissioner	1-26
Rodriguez, Stephen C.	Commissioner	1-26
Taraski, Elizabeth	Commissioner	1-26
Ward, Molly Joseph	Commissioner	1-26

1. **Awards And Recognition**

**Action: Adopt commending Resolution**

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**Brief:**

**a. Service Awards**

Chair Elofson presented a service award to Ms. Ann Copeland who marked her 20<sup>th</sup> year of service with HRSD on October 11. Ann was hired in October 2000 as Project Manager with the Design & Construction Division of Engineering, the position she still holds today. Ann holds a Bachelor of Science degree in Civil Engineering from Virginia Tech and a Master of Science degree in Civil Engineering from Old Dominion University. She is a licensed Professional Engineer, certified as a Project Management Professional, and is recognized for managing multiple challenging Capital Improvement Projects throughout her career. She also serves on the Virginia Water Environment Association’s Education Committee, the Hampton Roads Planning District Commission Technical Review Committee, and several HRSD Design & Construction Standards subcommittees.

Ann is a dedicated member of the United Way of the Virginia Peninsula and due to her and other team members amicable service and contributions, HRSD received the first “Community Builder Award”, the first “Live United Impact Award” and multiple “Bronze Trailblazer Awards”. The United Way honors organizations by giving these awards to recognize increases in workplace campaigns by dollar amounts, participation,



COMMISSION MEETING MINUTES  
October 27, 2020

volunteering, commitment to serving others, and efforts supporting non-profit organizations working to improve the quality of life throughout the community.

**b. Commending Resolution**

Upon approval, the Commission Chair presented a commending [resolution](#) to Mr. Conway Sheild in recognition of serving as HRSD's Associate General Counsel for over 40 years.

**c. Other Awards**

**(1) Virginia Initiative Plant Nutrient Reduction Improvements Project 2020 WEF Annual Operational and Design Project Excellence Award**

HRSD, HDR and MEB General Contractors were recently honored by the Water Environment Federation (WEF) with the [2020 WEF Annual Operational and Design Project Excellence Award](#) for the Virginia Initiative Plant Nutrient Reduction Improvements Project. This award recognizes individuals and organizations that have made outstanding contributions to the water environment profession and pays tribute to excellence and innovation in the execution of projects and programs in the water sector. Facing a sanitary sewer overflow consent decree and stricter treatment limits, the \$161 million Virginia Initiative Plant Nutrient Reduction Improvements Project reduced nutrient discharges, expanded hydraulic capacity and replaced aging equipment.

**(2) Water Resources Utility of the Future Today**

HRSD was honored as a [Utility of the Future Today](#). In lieu of the customary in-person award ceremony at WEFTEC, an Award Ceremony video was posted on [YouTube](#) as part of the Utility Leaders event. This award recognized HRSD for exceptional performance and innovative and forward-thinking practices that are providing sustainable, efficient and value-added services to our region.

**[Attachment #1](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

2. **Consent Agenda**

**Action:** Approve the items listed in the Consent Agenda.

**Moved:** Stephen Rodriguez

**Seconded:** Willie Levenston

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:**

a. Approval of minutes from previous meeting.

b. Contract Awards

1. [Biosolids Hauling Services](#) \$1,551,250

2. [Cisco SmartNet Technical Support Services](#) \$1,233,650

3. [Middlesex Interceptor Force Main Phase I – Cooks Corner](#) \$1,235,100

c. Task Orders

1. [Climate Change Planning](#) \$592,000

2. [North Shore Gravity Sewer Improvements Phase I](#) \$361,245

d. Sole Source

1. [Jerome® Analyzers Maintenance Contract](#)

**Item(s) Removed for Discussion:** None

**[Attachment #2](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

3. **Enabling Act Revision**

**Action:** Approve the proposed revisions to the Enabling Act authorizing staff to work with the appropriate Senators and Delegates to introduce these proposed changes during the 2021 General Assembly Session.

**Moved:** Vishnu Lakdawala

**Seconded:** Stephen Rodriguez

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:** A draft of the proposed change to the [Enabling Act](#) is attached. As a result of the circuit court orders that added Accomack and Northampton Counties to the territory included within the Hampton Roads Sanitation District, the Enabling Act needs to be amended to add those counties. Typically, when we amend the Act for one specific purpose, we include other modifications necessary to update the Act. The following changes are proposed:

- § 1. Added Accomack and Northampton Counties and deleted the specific reference to the Town of Urbanna as it is a redundant reference in the next paragraph which specifies that towns in any county within the district are included unless otherwise specified.
- § 2. Modified residency requirements of Commissioners to include Accomack and Northampton. To keep communities with similar issues and character grouped together it is recommended to modify the Newport News residency requirement to include James City County and Williamsburg; the Hampton residency to include York County and Poquoson; and group all the small communities north of the James into a single residency requirement, insuring a Commissioner will bring the small community perspective to the table ([current residency map](#) and [proposed residency map](#)). Additionally, the specific reference to the Town of Urbanna for same reason as in § 1.
- § 8. (e) Adding reclamation, storage tanks, wells, nutrient removal and/or recovery facilities, energy recovery and green energy facilities to the definition of “sewage disposal system.”
- § 8. (f) Adding storage tanks to the definition of “sewer improvements.”
- § 8. (l) Adding a new subparagraph to define the term “associated water system.” The genesis of this concept is as we potentially assume operation and ownership of small community wastewater facilities, often the operation of the local water system is integrally connected. The most cost-effective solution may be for HRSD to assume operation and/or ownership of the water system along with the wastewater system. This would only be done as requested by the community and only within the limitations included here – serve less than 1,000 accounts that are also served by the sewage system.



COMMISSION MEETING MINUTES  
October 27, 2020

- Various sections – the term “associated water system” is added where needed.
- § 11. Condemnation section is reorganized with new language to address acquiring land contiguous to an existing treatment plant. As we continue to need land to construct advanced nutrient facilities the ability to acquire land contiguous to existing plants becomes more critical.
- § 22. Added the ability to pay for customer assistance programs with rates, fees and charges. Added household income as a potential basis for setting rates. Added language from rate policy for flat rate. Eliminated reference to customer owned submeters (deduct) meters.

**Discussion Summary:** Commissioner Lynch agreed the proposed residency is a good design and makes sense to group communities with similar issues. His term expires in June 2021 so the timing works out as well. Should this change be made by the General Assembly he expressed interest in serving again if the opportunity arose.

**[Attachment #3](#)**

**Public Comment:** None





COMMISSION MEETING MINUTES  
October 27, 2020

4. **Fiscal Year 2020 Comprehensive Annual Financial Report (CAFR)**

**Actions:**

- a. **Recognize the receipt of the Government Finance Officers Association (GFOA) of the United States and Canada Certificate of Achievement for Excellence in Financial Reporting for the CAFR for the fiscal year ended June 30, 2019.**
- b. **Accept the Finance Committee's Report regarding the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2020.**

**Moved:** Willie Levenston

**Seconded:** Elizabeth Taraski

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:** Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. The CAFR, prepared by the Finance Department, summarizes the operating revenues and expenses for the fiscal year ending each June 30. HRSD is required by its Trust Agreement to prepare and distribute its financial statements within 150 days following the close of the fiscal year, which is November 27. The GFOA of the United States and Canada presents a Certificate of Achievement for Excellence in Financial Reporting to government units and public employee retirement systems whose CAFRs achieve the highest standards in government accounting and financial reporting. During the summer and early fall, the Accounting and Finance Division staff works diligently to prepare year-end financial statements, which are audited by Cherry Bekaert LLP. In addition, they complete a rather substantial financial and statistical package, which is submitted to the GFOA for review and possible certification. The Accounting and Finance Division has received this certification annually since 1983 – an impressive achievement for 37 consecutive years.

Commissioners Lynch and Rodriguez were appointed as the Commission's Finance Committee in 2020 for fiscal year 2021. The Finance Committee, along with Commissioners Elofson, Lakdawala, Levenston, Taraski met with staff to review the [draft CAFR](#) on October 21, 2020. The Finance Committee provided their comments to the full Commission along with [briefings](#) by staff.

**Discussion Summary:** Committee Chair Rodriguez recapped the recent meeting held by the Finance Committee. During the October 21, 2020 Committee meeting, the internal auditors (SC&H), presented status of completed audits, reviewed audits in progress and discussed upcoming audits. Staff explained a meter error which resulted in an overbilling has been corrected and measures are now in place to prevent reoccurrence. This invalid data was deemed immaterial by the auditors and will not require a restatement of prior fiscal years. Staff is awaiting direction from the General Assembly on the proposed utility budget amendments which would provide relief for aging accounts receivable.

**[Attachment #4](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

5. **Diversity Procurement Report**

**Action:** No action required.

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

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

The following is a comparison of fiscal years 2018 to 2020 on total spend for Operating Contracts; Corporate VISA Card Transactions; and Capital Improvement Program (CIP) Agreements and Contracts compared to total spend with SWaM businesses:

Three Year Comparison of Spend Activity with SWaM Contractors and Suppliers			
Payment Type	Percentage SWaM Spend of Total Spend		
	FY-2018	FY-2019	FY-2020
Operating	19%	16%	16%
Corporate VISA Card	8%	7%	7%
Capital Improvement Program	25%	24%	33%
<i>Total</i>	23%	17%	28%

A [summary](#) of activities and [transaction charts](#) for the period of July 1, 2019 through June 30, 2020 are attached.

**[Attachment #5](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

6. **Nutrient Credit Management Policy**

**Action:** Adopt policy.

**Moved:** Stephen Rodriguez

**Seconded:** Vishnu Lakdawala

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:** Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual wasteload allocations. Such trades can be in the form of annual, term or perpetual transfers. A permanent transfer of credits can be achieved through the transfer of wasteload allocation under the “General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia” (“General Permit”).

HRSD, as a member of the Virginia Nutrient Credit Exchange Association (“Exchange”), participates in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay. Similarly, nutrient offset requirements can be accommodated through the transfer or acquisition of necessary wasteload allocation, contingent upon approval of the Virginia Department of Environmental Quality.

This [policy](#) provides guidelines for HRSD's engagement in private transactions that occur outside of the Exchange and in accordance with the rules and regulations that govern nutrient credit trading. The original policies ([Nutrient Credit Offsets](#) and [Nutrient Credit Trading](#)) were written in 2008 before Virginia’s nutrient trading program had fully matured. These policies have been [combined](#) into one policy to capture the varying opportunities and mechanisms for supporting compliance with the Chesapeake Bay Total Maximum Daily Load (TMDL) nutrient and sediment load reductions.

The table below identifies trades completed to date (including those under review by Commission today).

Trading Partner	From HRSD (lbs/yr)			To HRSD (lbs/yr)			Basin
	TN	TP	TSS	TN	TP	TSS	
Locality MS4 Agreements	81,044	19,168	8,932,902	-	-	-	James
Fort Monroe Authority	156	36	15,633	-	-	-	James
Chesapeake Tunnel Joint Venture	100	550	-	-	-	-	James
Jefferson Lab	1	1	61	-	-	-	James
City of Suffolk - G. Robert House	-	9,011	-	-	-	-	James
JH Miles	-	-	-	153,500	17,437	-	James
Hampton Roads Connector Partners	400	800	-	-	-	-	James
Locality MS4 Agreements	8,089	2,498	856,853	-	-	-	York
Jefferson Lab	-	-	-	5	-	5,545	York

**[Attachment #6](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

7. **Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration – Fort Monroe Authority Agreement**

**Action:** Approve the terms and conditions of the agreement with the Fort Monroe Authority (FMA) for provision of nutrient and sediment credits generated by SWIFT to meet FMA’s MS4 Chesapeake Bay TMDL reduction requirements 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:** Stephen Rodriguez

**Seconded:** Molly Ward

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**Brief:** At the August 23, 2016 meeting, the Commission approved the concept of providing nutrient and sediment credits to Hampton Roads localities to meet their Chesapeake Bay Total Maximum Daily Load (TMDL) reduction mandates. The Chesapeake Bay TMDL requires local governments to develop action plans to reduce nutrient and sediment discharges from storm water sources to the Chesapeake Bay.

This [agreement](#) builds upon that core concept to enter into a similar arrangement with the FMA. The FMA is a public body and political subdivision of the Commonwealth of Virginia. It owns and operates a municipal separate stormwater sewer system (“MS4”) authorized to discharge Total Nitrogen (TN), Total Phosphorus (TP) and Total Suspended Sediment (TSS) to the Chesapeake Bay watershed. Like each of HRSD’s Treatment Plants, the MS4 is subject to the Chesapeake Bay TMDL as derived from the Virginia WIP. The FMA MS4 is also subject to the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (“MS4 Permit”) issued by DEQ. Pursuant to the TMDL, WIP and MS4 Permit, it is anticipated that FMA will reduce MS4-related TN, TP and TSS discharges pursuant to FMA-developed and DEQ-approved TMDL Action Plans for each of three, five-year permit cycles. The FMA is currently in its second permit cycle which ends in 2023 with the third permit cycle ending in 2028. Residents of the FMA are citizens of Hampton.

HRSD’s SWIFT program will divert highly treated SWIFT Water away from local waters (i.e., Lower James and Lower York rivers). As a result, the SWIFT Program will significantly reduce HRSD’s nutrient and sediment inputs well beyond what is required to comply with its associated wasteload allocations, generating TN, TP, and TSS credits. In accordance with regulation, those credits can be applied as progress under MS4 Permits and associated TMDL Action Plans of Hampton Roads governmental entities such as the FMA. This is a fundamental premise for the SWIFT Program. HRSD is proceeding with the SWIFT Program, and FMA is supporting it, in large part based on reliance on these water quality trading-based benefits.



COMMISSION MEETING MINUTES  
October 27, 2020

The agreement was based upon the template previously established with other locality trading agreements. The basic terms are as follows:

- HRSD will provide term credits (on an annual basis) to meet 95% of the nutrient and sediment load reductions as calculated in accordance with the terms of the FMA's municipal separate storm sewer system (MS4) permit as of the effective date of the agreement. The annually requested TN, TP and TSS credits are approximately 156 lbs, 35 lbs, and 16,000 lbs, respectively.
- Term credits will transition to a permanent offset of wasteload allocation conditional upon DEQ approval once SWIFT is proven at scale no later than December 31, 2025.
- Credits can only be used to meet TMDL requirements.
- Regulatory changes or other related issues that impact the credits available from HRSD or required by the FMA shall be addressed through an amendment of this agreement if possible. If HRSD is unable to meet the FMA's credit demand, the FMA is solely responsible for meeting its own permit obligations.

[Attachment #7](#)

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

8. **Hampton Roads Bridge-Tunnel Expansion Project  
Nutrient Offset Agreement**

**Action:** Approve the terms and conditions of the nutrient offset agreement with the Hampton Roads Connector Partners (HRCP) 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:** Maurice Lynch  
**Seconded:** Elizabeth Taraski  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**Brief:** The HRCP is a joint venture of Dragados USA, Inc., HDR, Mott MacDonald, Vinci Construction Grands Projets, Dodin Campenon Bernard and Flatiron Constructors, Inc. that is expanding the Hampton Roads Bridge-Tunnel (“HRBT”) to ease congestion along the existing I-64 HRBT corridor. The project includes a new bridge-tunnel complex that will add four additional lanes of traffic. HRCP is in the process of obtaining Watershed General Permit coverage from the Virginia Department of Environmental Quality (DEQ) to authorize the discharge of TN and TP on a short-term basis for the period of construction.

The discharge associated with construction activities requires a temporary nutrient offset of 4,000 pounds per year (“lbs/yr”) of Total Nitrogen and 2,000 lbs/yr of Total Phosphorus for the duration of construction and is not anticipated to last more than five years.

Given that the HRBT Expansion is a regional initiative offering multi-jurisdictional benefits within the HRSD service area, the credit offset is offered at no cost. The HRCP is paying attorney fees for the drafting of the agreement. Other key [agreement](#) considerations include:

- Five-year term on agreement; renewable after five years as needed;
- Credit reverts back to HRSD once the discharger no longer needs it for the purpose of constructing the HRBT Expansion Project;
- In order to protect water quality, it is important that the HRCP meet all of its discharge permitted limitations associated with the HRBT Expansion. If the HRCP discharge is consistently violating permit conditions, HRSD reserves the right to withdraw its provision of credit.

**[Attachment #8](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

9. **Boat Harbor Treatment Plant Pump Station Conversion  
Initial Appropriation and Task Order (>\$200,000)**

**Actions:**

- a. **Appropriate total project funding in the amount of \$74,718,760.**
- b. **Approve a task order with AECOM Technical Services, Inc in the amount of \$1,279,294.**

**Moved:** Levenston

**Seconded:** Rodriguez

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**CIP Project:** BH015700

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with AECOM Technical Services, Inc	\$0
Total Value of Previous Task Orders	\$0
Requested Task Order	\$1,279,294
Total Value of All Task Orders	\$1,279,294
Revised Contract Value	\$1,279,294
Engineering Services as % of Construction	2.2%

**Project Description:** The Boat Harbor Treatment Plant will be converted to a pumping station, including equalization and headworks facilities while remaining in operation for wastewater treatment during conversion. The new infrastructure will be designed to meet HRSD's Integrated Plan requirements, resiliency standards, consider remote operation, and access in future conditions including sea level rise. The Commission approved the design-build Alternative Project Delivery method for this project in August 2020.

**Task Order Description:** This task order will involve the development of Bridging Documents, including a basis of design report, for procurement of design build services to complete the Boat Harbor Treatment Plant Pump Station Conversion project. The work also includes supporting HRSD in acquisition of an additional property for the pump station construction. The work will be coordinated with ongoing preliminary engineering design efforts at the Nansmond Treatment Plant.



COMMISSION MEETING MINUTES  
October 27, 2020

**Analysis of Cost:** The cost for this task order is based on a detailed estimate of labor hours and direct costs required to execute the negotiated scope of work. The total hours budgeted are appropriate for the scope proposed for this task. This task order will be issued as an amendment to the Professional Services Agreement with AECOM for SWIFT Full-Scale Implementation. The labor rates for each staff category in the proposed fee are consistent with the rate structure within the Agreement, as approved for FY2021. This proposed cost is in agreement with other similar projects. The proposed engineering services cost (which includes all potential additional services) is 2.2 percent of the construction cost. Compensation will be on a lump sum basis.

<b><u>Schedule:</u></b>	Preliminary design begins	November 2020
	Preliminary design approval and begin RFQ/RFP process	March 2021
	Selection of Design-Build firm / establish CCL	December 2021
	Detailed design development/Stipulated Fixed Final Price	August 2022
	Construction Completion	December 2025

**Attachment:** None

**Public Comment:** None





COMMISSION MEETING MINUTES  
October 27, 2020

10. **Fleet Management  
Initial Appropriation**

**Action:** Appropriate project funding in the amount of \$1,200,000.

**Moved:** Stephen Rodriguez

**Seconded:** Molly Ward

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**CIP Project: GN017700**

**Project Description** This project will provide for replacement of aging fleet vehicles and the purchase of additional vehicles to meet the needs of the organization for Fiscal Year 2021.

**Funding Description:** The initial appropriation for the project is based on cost estimates from vehicle manufacturers and state contracts. Funding for the additional fiscal years in the CIP will be requested each year. The amount provided in the CIP for the following two years are significantly higher due to the need to replace Sewer Flusher trucks, a Septage Truck and other fleet replacements.

Planned replacements for FY 2021 are included in the table below. Actual replacements may change within the total appropriation based on final purchase price, delivery schedule or other emerging needs.

Vehicle Number	Department	Vehicle Description	Vehicle Replacement Cost
2	Operations, South Shore Interceptor Operations	2004 Chevrolet Malibu Sedan	\$29,000
68	Finance, Customer Care	2011 Ford Escape Hybrid SUV	\$31,000
89	Water Quality, North Shore Pretreatment & Pollution Prevention (P3)	2009 GMC Savanna 2500 Cutaway Van with Enclosed Body	\$40,000
113	Operations, South Shore Carpentry Shop	1995 GMC 2500 Pickup with Utility Body	\$44,000
135	Operations, North Shore Interceptor Operations	2004 Chevrolet 2500 Utility Body Pickup Diesel	\$46,000
186	Operations, Electrical and Instrumentation (E&I)	2004 Ford E 350 Cargo Van	\$36,750
195	Operations, Boat Harbor Treatment Plant	2000 Ford F 250 HD Standard Pickup	\$35,000
218	Operations, Small Communities Division (SCD)	2012 Chevrolet 3500 Express Cargo Van	\$35,000
219	Operations, E&I	2012 Chevrolet 3500 Express Cargo Van	\$25,000



COMMISSION MEETING MINUTES  
October 27, 2020

Vehicle Number	Department	Vehicle Description	Vehicle Replacement Cost
260	Operations, SCD	2010 Ford F-250 4X4 Extended Cab Pickup Diesel	\$48,500
284	Operations, E&I	2002 Ford E350 Cargo Van	\$35,000
290	Operations, SCD	2007 Chevrolet 2500 4X4 Crew Cab Pickup	\$48,500
307	Operations, E&I	2003 Chevrolet 2500 Pickup-Utility	\$43,000
311	Operations, E&I	2005 E-350 Cargo Van Diesel	\$35,000
388	Operations, South Shore Interceptor Operations	2012 International/Vactor Sewer Flusher	\$591,000
New	Operations, E&I	2020 Nissan Kick	\$17,500
New	Operations, E&I	2020 Nissan Kick	\$17,500
New	Operations, E&I	2020 Nissan Kick	\$17,500
		Total	\$1,175,250

**Schedule:** Individual purchases will occur throughout the fiscal year.

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

11. **Middlesex County Hartfield Sewer Collection System - Phase I Improvements  
New CIP and Initial Appropriation**

**Actions:**

- a. **Approve a new CIP project (MP014410) for the Middlesex County Hartfield Sewer Collection System - Phase I Improvements.**
- b. **Appropriate total project funding in the amount of \$678,250.**

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**CIP Project:** MP014410

**Project Description:** This new project includes the design and construction of approximately 3,975 linear feet of 8-inch gravity sewer as part of Hartfield Service Area H # 1 sewer improvements and as defined in the 2019 Middlesex County Sewer Preliminary Engineering Report (PER). The gravity sewer will convey flows to a proposed pump station under the Middlesex Transmission Force Main Phase II – Urbanna to Mathews Transmission Force Main (MP013700) project. Future gravity system expansion beyond what has been identified as an existing development within the H #1 Service Area will be the responsibility of the development community and/or Middlesex County. Hence, all gravity mains constructed with this project shall be designed with adequate depth to allow for future logical system expansion and to maximize coverage within the boundaries of the H #1 Service Area. Middlesex County will reimburse HRSD for this project as described in the Sewer Extension Agreement approved by the Commission on May 26, 2020.

**Funding Description:** The total cost for this project is estimated at \$678,250 based on a Class 5 cost estimate prepared by Bowman Consulting Engineers under the 2019 Middlesex County Sewer (MP013200) project PER. A PER to evaluate the new collection system will be completed by Rummel, Klepper & Kahl, LLP using HRSD’s professional service agreement. The PER amendment will be negotiated following Commission approval of this project.

<b><u>Schedule:</u></b>	PER	October 2020
	Design	January 2020
	Bid	January 2022
	Construction	April 2022
	Project Completion	July 2024

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

12. **Middlesex County Saluda Sewer Collection System - Phase I  
New CIP and Initial Appropriation**

**Actions:**

- a. **Approve a new CIP project (MP014510) for the Middlesex County Saluda Sewer Collection System - Phase I.**
- b. **Appropriate total project funding in the amount of \$168,000.**

**Moved:** Maurice Lynch  
**Seconded:** Vishnu Lakdawala  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**CIP Project: MP014510**

**Project Description:** This new project includes the design and construction of approximately 850 linear feet of 8-inch gravity sewer to serve the Saluda Service Area S #1 and as defined in the 2019 Middlesex County Sewer Preliminary Engineering Report (PER). The new gravity sewer will connect to the existing gravity collection system at the intersection of Oakes Landing Road and Bowden Street. Future system expansion beyond what has been identified as an existing development within the remaining Saluda Service Area S #1 will be the responsibility of the development community and/or Middlesex County. Hence, all gravity mains constructed with this project shall be designed with adequate depth to allow for logical system expansion and to maximize coverage within the defined boundaries of the S #1 Service Area. Middlesex County will reimburse HRSD for this project as described in the Sewer Extension Agreement approved by the Commission on May 26, 2020.

**Funding Description:** The total cost for this project is estimated to be \$168,000 based on a Class 5 estimate prepared by Bowman Consulting Engineers under the 2019 Middlesex County Sewer (MP013200) project PER. A PER to evaluate the new collection system will be completed by Rummel, Klepper & Kahl, LLP (RK&K) using HRSD's professional service agreement. The PER fee will be negotiated following Commission approval of this project.

<b><u>Schedule:</u></b>	PER	October 2020
	Design	January 2020
	Bid	January 2022
	Construction	April 2022
	Project Completion	July 2024

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

13. **Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II Initial Appropriation and Task Order (>\$200,000)**

**Actions:**

- a. **Appropriate total project funding in the amount of \$263,024,806.**
- b. **Approve a task order with AECOM Technical Services, Inc in the amount of \$3,323,583.**

**Moved:** Elizabeth Taraski  
**Seconded:** Stephen Rodriguez  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**CIP Project: NP013820**

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with AECOM	\$0
Total Value of Previous Task Orders	\$0
Requested Task Order	\$3,323,583
Total Value of All Task Orders	\$3,323,583
Revised Contract Value	\$3,323,583
Engineering Services as % of Construction	1.59%

**Project Description:** The project will design and construct improvements to the Nansemond Treatment Plant to support reliable treatment of raw, screened wastewater from the Boat Harbor Treatment Plant Service Area and raw influent from the Nansemond Treatment Plant Service Area. A Capacity Study determined that nutrient removal and hydraulic upgrades would be required to treat both flows and loads to meet the targeted effluent concentrations. The scope includes equalization of primary effluent and upgrades to preliminary and secondary treatment, disinfection facilities, odor control system, effluent pump station and drain pump station. These improvements will be required to provide stable source water quality that meets the influent requirements of a full-scale SWIFT facility at the Nansemond Treatment Plant (subsequent project).

**Task Order Description:** This task order will provide preliminary design development services required for the procurement, detailed design, and construction of the Nansemond Treatment Plant Advanced Nutrient Reduction Improvements Phase II project. Commission approved the use of Design-Build alternative project delivery in August 2020. Work under this task order will advance the concepts identified in Phase I with sufficient detail to convey project intent and requirements to the proposing design-build teams. The deliverables from this task order will be complete Bridging Documents, including a Basis of Design Report, indicative drawings, and general requirements.



COMMISSION MEETING MINUTES  
October 27, 2020

**Analysis of Cost:** The cost for this task order is based on a detailed negotiated scope of work for preliminary design development services. The raw average labor rate for this project is \$48.04 per hour. The total hours budgeted are appropriate for the scope proposed for this task. This task order will be issued as an amendment to the Professional Services Agreement with AECOM for SWIFT Full-Scale Implementation. Hazen and Sawyer is a major subconsultant under the Agreement and will conduct a majority of the preliminary design work. The labor rates for each staff category in the proposed fee are consistent with the rate structure within the Agreement, as approved for FY2021. The cost for this task order reflects an engineering services fee to engineer's estimate of construction cost ratio of approximately 1.59 percent, which compares well with PER efforts for large HRSD treatment plant projects. Compensation will be on a time and materials basis.

<b><u>Schedule:</u></b>	Preliminary design begins	November 2020
	Preliminary design approval and begin RFQ/RFP process	April 2021
	Selection of Design-Build firm / establish CCL	January 2022
	Detailed design development/Stipulated Fixed Final Price	November 2022
	Construction Completion	September 2025

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

14. **Norview Estabrook Division I, 18-Inch Force Main Replacement Phase II, Section 2, Norview Estabrook Division I, 12-Inch Force Main Replacement, and Norview Estabrook Division I, 18-Inch Force Main Replacement Phase III Initial Appropriation and Contract Award (>\$200,000)**

**Actions:**

- a. **Appropriate total project funding for VP010920 in the amount of \$1,988,585.**
- b. **Appropriate total project funding for VP016500 in the amount of \$1,973,163.**
- c. **Appropriate total project funding for VP016700 in the amount of \$3,116,334.**
- d. **Award a contract to Rummel, Klepper and Kahl, LLP (RK&K) in the amount of \$248,184 (\$82,237 for VP010920; \$81,358 for VP016500; and \$84,589 for VP016700).**

**Moved:** Elizabeth Taraski

**Seconded:** Molly Ward

**Roll call vote:**

**Ayes:** 7

**Nays:** 0

**CIP Project:** VP010920, VP016500, VP016700

**Type of Procurement:** Competitive Negotiation

<b>Proposers</b>	<b>Technical Points</b>	<b>Recommended Selection Ranking</b>
Rummel, Klepper and Kahl, LLP	92.5	1
Gannett Fleming, Inc.	88.8	2
Michael Baker International	81.7	3

**Contract Description:** The contract is for engineering services for three Norview Estabrook Division I force main replacement projects, specifically for preparation of a Preliminary Engineering Report (PER) that will include all three projects under one document. A Public Notice was issued on August 2, 2020. Nine firms submitted proposals on September 2, 2020, and all nine firms were determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. Three firms were short listed, interviewed and technically ranked. The proposal submitted by RK&K was ranked by technical points to be highest qualified.



COMMISSION MEETING MINUTES  
October 27, 2020

**Project Description:** These projects will replace sections of the Norview Estabrook Division I 18-Inch and 12-Inch Force Mains in the City of Norfolk along LaSalle Avenue, Tidewater Drive, Chesapeake Boulevard and Robin Hood Road. Approximately 2,800 linear feet of 12-inch force main and 3,000 linear feet of 18-inch force main will be replaced under the three CIP projects. All existing force mains were constructed in the early 1950s and have reached the end of their useful service life. The projects are included in the Inflow and Infiltration (I/I) Abatement Rehabilitation – Phase 2, which is part of the Federal Consent Decree to address sanitary sewer overflows in the region.

**Funding Description and Analysis of Cost:** The total combined project cost estimate of \$7,078,082 includes approximately \$569,982 in pre-construction phase engineering related services, \$5,602,480 in construction phase costs, and \$905,620 of project contingency and is based on a Class 5 CIP-prioritization level estimate prepared by HRSD. RK&K will provide professional services including preliminary engineering report services, design services, pre-construction services, contract administration services, field engineering and inspection services, startup and testing services, operations and training services, and post-startup and certification services for these projects. A total combined fee in the amount of \$248,184 was negotiated for PER services. All other supplemental professional services to be provided by RK&K will be negotiated later. The fee is in agreement from other firms with similar projects.

<b>Schedule:</b>	PER	November 2020
	Design	May 2021
	Bid	August 2022
	Construction	November 2022
	Project Completion	November 2024

**Attachment:** None

**Public Comment:** None





COMMISSION MEETING MINUTES  
October 27, 2020

15. **York River Treatment Plant Emergency Repairs  
New CIP and Initial Appropriation**

**Actions:**

- a. **Approve a new CIP project (YR014400) for the York River Treatment Plant Headworks Effluent Pipe Rehabilitation**
- b. **Appropriate total project funding in the amount of \$3,500,000**

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston  
**Roll call vote:**

**Ayes:** 7      **Nays:** 0

**CIP Project:** YR014400

**Project Description:** On September 17, during a significant wet weather event emanating from the remnants of Hurricane Sally, the 60-inch pipe between the headworks and the primary clarifiers at the York River Treatment Plant failed. Hourly flow rates at the plant reached 24 mgd. Because of the nature of the spill, isolating the pipeline was very challenging. The spill lasted for several days ultimately resulting in a spill of approximately 6.8 million gallons. Staff worked non-stop to get the necessary measures in place to contain the flows. By September 20, the flow was contained at the spill point. Staff controlled the flow by bringing in 11 pumps and installing a temporary piping system to send the flow from the break point to the aeration tanks. Staff treated the repair efforts as an emergency. After initially isolating the flow, efforts to correct the problem required staff to utilize the services of the contractor Bridgeman Civil, Inc. By September 22, the contractor established a bypass piping system from the pre-aeration tank to the primary clarifier distribution chamber. The bypass consists of four pumps, controlled by water levels in the pre-aeration tanks, with the capability of pumping up to 30 million gallons per day.

**Funding Description:** The total cost for this project is estimated at \$3,500,000 based on a Class 5 cost estimate. The scope of this cost estimate includes costs of the initial bypass operation, costs associated with the long-term lease of equipment and fuel to run the bypass pumps, pipe inspection services and because of the poor condition of the pipe, the cost to replace the pipe. These estimates have been reviewed by staff and are considered reasonable. The proposed Commission action creates a new CIP project that will allow future costs as well as all costs already incurred against the Operations Department Budget for this emergency to be charged to the CIP project.

<b><u>Schedule:</u></b>	Emergency Declaration	September 2020
	Construction	November 2020
	Project Completion	April 2021

**Attachment:** None

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

16. **Lucas Creek Pump Station Replacement  
Property Acquisition – 808 Lipton Drive, Newport News**

**Action:** Approve the purchase of 808 Lipton Drive, Newport News, VA on behalf of Ted and Doris Ehrenfried, for \$268,000 in accordance with the terms and conditions of the Standard Purchase Agreement with, Robin Sutker, owner of subject property in Newport News, Virginia and authorize the General Manager to execute the forthcoming deed of bargain and sale upon approval of legal counsel.

**Moved:** Maurice Lynch  
**Seconded:** Willie Levenston

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

**CIP Project: JR010600**

**Project Description:** As part of a Regulatory Rehabilitation Phase II Project (deadline May 2025), a replacement pump station will be designed and constructed for the existing station located at 750 Old Lucas Creek Road in Newport News. The current pump station has reached the end of its useful life and several studies were conducted to evaluate rehabilitation of the current pump station versus replacing it. Replacement of the pump station was recommended to allow for a more open layout and improved flexibility. Additionally, replacing the pump station revealed a cost savings of at least \$1 million dollars. HRSD staff will work with the City of Newport News to vacate and acquire adjacent right of way in exchange for 750 Old Lucas Creek Road (current pump station site). This will ensure sufficient space to house the new pump station and accessory structures.

HRSD acquired [748 Old Lucas Creek Road](#) in June of 2020 from Ted and Doris Ehrenfried in connection with the Project. Because the original replacement housing was not suitable for them, HRSD worked with Mr. and Mrs. Ehrenfried until subject property was found.

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

**Analysis of Cost:** The cost of the acquisition will total \$268,000, per list price and negotiations with owner/agent.

**[Attachment #9](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

17. **Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition**

**Action:** Approve the purchase of a 23,290 square foot permanent easement and temporary easements totaling 20,272 square feet in the amount of \$40,000 in accordance with the terms and conditions of the Agreement and Deed of Easement with William Starling Wells, III (Landowner) (Tax Map: 21A-01-002) 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:** Vishnu Lakdawala

**Seconded:** Elizabeth Taraski

**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. HRSD has acquired 138 of the 167 temporary and permanent easements needed for this project.

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

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

**[Attachment #10](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

18. **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 monitoring of HRSD facilities from September 15 – October 20; general observations from monitoring at HRSD facilities; number of COVID-19 cases in Hampton Roads; normalized viral load at HRSD facilities; a spatial look at the last four weeks; and regional viral load.

Moving forward, staff will: continue weekly monitoring at the nine major treatment plants; continue to provide data to the Centers for Disease Control (CDC) supporting national collaboration of wastewater surveillance efforts; continue to provide current data to the Virginia Department of Health (VDH) for review; and will be presenting the data at the Hampton Roads Wastewater Surveillance working group at the Virginia State Board of Health meeting on December 3. Partnering with Virginia Department of Corrections to study wastewater load and infections in prisons is also underway.

**[Attachment #11](#)**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

19. **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, Asset Management Program including maturity score, interceptor risk assessment, spare parts inventory and plan for next six months; Providence Road Offline Storage Facility; Surry Hydraulic Improvements and Interceptor Force Main; Virginia Beach Boulevard Force Main Phase VI; Consent Decree/Sewer Rehabilitation Plan; and SWIFT program management.

[Attachment #12](#)

**Public Comment:** None

20. **Unfinished Business**

At the September 22, 2020 meeting, the Commission approved the award of a contract to Sands Anderson, PC for general legal counsel services. Mr. Henifin recognized staff from Sands Anderson participating in today's virtual meeting. Ms. Hansen said she is pleased to continue working with HRSD in her new position at Sands Anderson.

21. **New Business – None**

22. **Commissioner Comments – None**

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



COMMISSION MEETING MINUTES  
October 27, 2020

24. **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 - York River Treatment Plant Headworks Effluent Pipe Rehabilitation](#)

**Attachment #13**

**Public Comment:** None



COMMISSION MEETING MINUTES  
October 27, 2020

25. **Closed Meeting**

**Actions:** In accordance with Section 2.2-3712A of the Code of Virginia, a motion is needed that we go into a closed meeting to consider the following items as provided for in Section 2.2-3711A:

**Item a.** : Legal matters concerning probable litigation  
**Purpose** : Briefing and consultation  
**Specific Exemptions** : (Va. Code §2.2-3711.A7)

**Item b.** : Personnel matter  
**Purpose** : General Manager Annual Performance Review  
**Specific Exemptions** : (Va. Code §2.2-3711.A1)

**Moved:** Willie Levenston

**Seconded:** Molly Ward

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

**Brief:**

- a. Consultation with staff members pertaining to probable litigation, where such consultation or briefing in open meeting would adversely affect the negotiating or litigating posture of the public body.
- b. Discussion of performance of specific public officers, appointees or employees of any public body; and evaluation of performance where such evaluation will necessarily involve discussion of the performance of specific individuals.



COMMISSION MEETING MINUTES  
October 27, 2020

26. **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:** In accordance with the General Manager’s employment agreement, the Commission has reviewed the General Manager’s performance. In recognition of the continued strong performance of HRSD under the General Manager’s leadership, it is recommended his total compensation package be increased by 2.1 percent, effective November 1, 2020.

**Moved:** Lakdawala  
**Seconded:** Molly Ward

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

**Discussion Summary:**

**Attachment:** None

**Public Comment:** None

**Next Commission Meeting Date:** November 24, 2020

**Meeting Adjourned:** 11:28 a.m.

SUBMITTED:

APPROVED:

*Jennifer L. Cascio*

*Frederick N. Elofson*

\_\_\_\_\_  
Jennifer L. Cascio  
Secretary

\_\_\_\_\_  
Frederick N. Elofson, CPA  
Chair



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #1

Agenda Item 1. Awards and Recognition

- [Commending Resolution](#)
- [Virginia Initiative Plant Nutrient Reduction Improvements Project 2020 WEF Annual Operational and Design Project Excellence Award](#)
- [Water Resources Utility of the Future Today](#)



**RESOLUTION**

***Commending the Service of Associate General Counsel  
Conway H. Sheild, III***

**WHEREAS**, Conway H. Sheild, III has served the HRSD Commission with distinction as Associate General Counsel since 1978; and

**WHEREAS**, he continued the legacy of service from the firm of Jones, Blechman, Woltz & Kelly, P.C., which was originally appointed as associate counsel to HRSD in July of 1950; and

**WHEREAS**, he has enjoyed a distinguished career in Newport News as a partner, President and Chairman of the Board of the law firm of Jones, Blechman, Woltz & Kelly, P.C. and has served the Hampton Roads region through his participation on various boards, community groups and professional associations, including a term as President of the Newport News Bar Association and Virginia Bar Association; and

**WHEREAS**, during his tenure as Associate General Counsel he has provided outstanding legal advice and counsel to 43 Commissioners appointed by 11 Governors, four General Managers and three Commission Secretaries; and

**WHEREAS**, he coordinated numerous amendments to the HRSD Enabling Act and provided skilled legal counsel through the expansion of the District into the Middle Peninsula, Surry County and most recently the Eastern Shore; and

**WHEREAS**, he has been unwavering in his dedication to the environment, the Hampton Roads Region, and the Commonwealth of Virginia; now therefor, be it

**RESOLVED by the HRSD Commission** that it hereby commend Conway H. Sheild, III for his outstanding service as Associate General Counsel to the HRSD Commission and, be it

**RESOLVED FURTHER**, that the Secretary of the HRSD Commission prepare a copy of this resolution for presentation to Conway H. Sheild, III as an expression of the Commission's appreciation, esteem and best wishes.

*Adopted by the HRSD Commission on the twenty-seventh day of October 2020.*

A handwritten signature in black ink, appearing to read "Frederick N. Elofson".

Frederick N. Elofson, CPA  
HRSD Commission Chair



**WEF Project  
Excellence Award**

**Virginia Initiative  
Plant Nutrient Reduction  
Improvements Project**

HRSD



**Water Environment  
Federation®**  
the water quality people®

*Congratulations again, and we look  
forward to many more successes  
ahead!*

*Thanks for all you do,*

*WEF*

# CERTIFICATE OF RECOGNITION



October 2020

The partners of the Utility of the Future Today Recognition Program celebrate the progress and exceptional performance of

**Hampton Roads Sanitation District**

**Hampton Roads, Virginia**

Area of Performance:

**Water Reuse**

for innovative and forward-thinking practices that are providing sustainable, efficient, and value-added services to their community.

**Adam Krantz**  
Chief Executive Officer  
National Association of Clean  
Water Agencies



**Walter T. Marlowe, P.E., CAE**  
Executive Director  
Water Environment Federation



**Peter Gravett**  
Chief Executive Officer Water  
Research Foundation



**Patricia L. Sinicropi, JD**  
Executive Director  
WaterReuse Association



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #2

Agenda Item 2. Consent Agenda

## CONSENT AGENDA ITEM 2.b.1. – October 27, 2020

**Subject:** Biosolids Hauling Services  
Contract Award (>\$200,000)

**Recommended Action:** Award a blanket purchase contract for Biosolids Hauling Services to Agnutrients Inc. in the estimated amount of \$310,250 for year one with four annual renewal options and an estimated cumulative value in the amount of \$1,551,250.

**Type of Procurement:** Competitive Bid

Bidder	Bid Amount
Agnutrients Inc.	\$641,782

**HRSD Estimate:** \$468,858

**Contract Description:** This contract is an agreement for all materials, equipment, and labor to conduct hauling services from Nansemond Treatment Plant to various Foreign Biosolids treatment plants or to a local landfill to dispose of dewatered biosolids. Services include multiple pickups and deliveries during the day, everyday of the year. This contract allows for other non-incinerator plants to utilize this contract should the need arise.

**Analysis of Cost:** Costs were negotiated and is determined to be fair and reasonable based on previous contract pricing and other similar type services.

## CONSENT AGENDA ITEM 2.b.2. – October 27, 2020

**Subject:** Cisco SmartNet Technical Support Services  
Contract Award (>\$200,000)

**Recommended Action:** Award a contract for Cisco SmartNet Technical Support Services to Electronic Systems Inc. in the estimated amount of \$246,730 for year one with four annual renewal options and an estimated cumulative value in the amount of \$1,233,650.

**Type of Procurement:** Competitive Bid

<b>Bidder</b>	<b>Bid Amount</b>
Electronic Systems Inc	\$246,730
CDW Government LLC	\$255,971
Savant LTD	\$285,426
ConvergeOne	Non-Responsive
Encore Technology Group LLC	Non-Responsive

**HRSD Estimate:** \$255,465

**Contract Description:** This contract is an agreement for technical support services on Cisco equipment furnished with the SmartNet support feature. SmartNet provides total care support capabilities for all Cisco hardware used by the Information Technology Department.

**Analysis of Cost:** Costs are determined to be fair and reasonable based on the competitive solicitation results and previous annual contract pricing, which is a savings of over 3 percent.

## CONSENT AGENDA ITEM 2.b.3. – October 27, 2020

**Subject:** Middlesex Interceptor Force Main Phase I – Cooks Corner  
Contract Award (>\$200,000)

**Recommended Action:** Award a contract to Suffolk Utility Construction, Inc. in the amount of \$1,235,100.

**CIP Project: MP013600**

Budget	\$2,348,400
Previous Expenditures and Encumbrances	(\$323,296)
Available Balance	\$2,025,104

**Type of Procurement:** Competitive Bid

Bidder	Bid Amount
Suffolk Utility Construction, Inc.	\$1,235,100
Franklin Mechanical Construction, Inc.	\$1,621,950
Bridgeman Civil, Inc.	\$1,877,870
Gaston Brothers Utilities, Inc.	\$2,098,800

**Engineer Estimate:** \$1,804,481

**Contract Description:** In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. Four bids were received and evaluated based upon the requirements in the invitation for bid. Suffolk Utility Construction, Inc. is the apparent low bidder with a bid amount of \$1,235,100. The engineer, Jacobs, has reviewed the documentation provided by the low bidder and recommends award to Suffolk Utility Construction, Inc.

**Project Description:** The project includes the construction of a 1.8 mile transmission force main (TFM) from the Cooks Corner Service Area in Middlesex County to the existing Central Middlesex Treatment Plant. This is the first phase of the overall Middlesex Interceptor TFM project and will temporarily allow the conveyance and treatment of this portion of Middlesex County.

**Analysis of Cost:** The Engineer's Estimate was prepared in accordance with the guidelines of the Association for the Advancement of Cost Engineering. The estimate is consistent with the criteria for a Class I cost estimate. The apparent low bidder came in significantly lower than the Engineer's Estimate. The difference is attributed to a weak market and competition between the major equipment suppliers to sell products reducing the bids from contractors. McDonough Bolyard Peck (MBP) will conduct the construction administration and inspection (CA/CI) effort for this project. An amendment for CA/CI with MBP will be negotiated prior to construction and is anticipated to be less than \$200,000.

**Schedule:** Construction November 2020  
Project Completion October 2021



## CONSENT AGENDA ITEM 2.c.1. – October 27, 2020

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

**Recommended Action:** Approve a task order with CDM Smith, Inc. in the amount of \$592,000.

**CIP Project: GN017100**

Budget	\$3,000,000
Previous Expenditures and Encumbrances	(\$1,731,220)
Available Balance	<u>\$1,268,780</u>

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with CDM Smith, Inc.	\$828,000
Total Value of Previous Task Orders	\$902,000
Requested Task Order	\$592,000
Total Value of All Task Orders	\$1,494,000
Revised Contract Value	\$2,322,000

**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 equipment. 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 \$107,000 was negotiated and was considered to be appropriate for the next phase of the study. The second effort is for Work Order 5, Atlantic Treatment Plant (ATP) Facility Data Collection, Vulnerability Assessment and Mitigation Measure Evaluation. This task will collect facility data, perform a vulnerability assessment, and identify mitigation measures for the ATP building on the previous effort completed under Work Orders 3 and 4. A fee of \$485,000 was negotiated and was considered to be appropriate for the next phase of the study.

**Schedule:** Final Report

September 2021

## CONSENT AGENDA ITEM 2.c.2. – October 27, 2020

**Subject:** North Shore Gravity Sewer Improvements Phase I  
Task Order (>\$200,000)

**Recommended Action:** Approve a task order with Tetra Tech in the amount of \$361,245.

**CIP Project: GN014900**

Budget	\$5,639,906
Previous Expenditures and Encumbrances	(\$159,430)
Available Balance	<u>\$5,480,476</u>

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with Tetra Tech.	\$158,425
Total Value of Previous Task Orders	0
Requested Task Order	\$361,245
Total Value of All Task Orders	\$158,425
Revised Contract Value	\$519,670
Engineering Services as % of Construction	14%

**Project Description:** This project will provide for the rehabilitation or replacement of approximately 8,000 linear feet of HRSD-owned gravity sewer mainlines, associated lateral connections and 42 manholes at seven locations within the HRSD North Shore interceptor system. Condition assessment activities indicate that these assets present a material risk of failure due to sanitary sewer overflow, infiltration/inflow, and physical condition defects. This project is included in Phase Two of the U.S. EPA Consent Decree Rehabilitation Action Plan and must be completed by May 2025.

**Task Order Description:** This task order will provide design and bid phase services.

**Analysis of Cost:** The cost for this task order is based on a negotiated number of consulting hours and hourly rates. The engineering services as a percentage of construction cost is comparable to other rehabilitation projects of similar size and complexity and is considered to be reasonable for this effort.

<b><u>Schedule:</u></b> Design	November 2020
Bid	September 2021
Construction	January 2022
Project Completion	March 2023

CONSENT AGENDA ITEM 2.d.1. – October 27, 2020

**Subject:** Jerome® Analyzers Maintenance Contract  
Sole Source (>\$10,000)

**Recommended Actions:** Approve Ametek Arizona Instrument LLC as the provider of maintenance, service and repairs on Jerome® Analyzers for the Water Quality Department.

**Sole Source Justification:**

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

**Details:** Services include parts and labor for repairs, one annual calibration and replacement of one gold film sensor at the manufacturing facility. The Jerome® analyzers use patented sensors for accurate detection and measurement of low parts per billion detection level threshold hydrogen sulfide concentrations. Loaner instruments are available while analyzer is being serviced at a reduced cost.

The Commission previously approved limited sole source authority of annual warranty maintenance on Jerome® Analyzers for the Technical Services Division. This action supersedes previous actions and expands the scope to cover the Water Quality Department.

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #3

Agenda Item 3. Enabling Act Revisions

- [Proposed Changes](#)
- [Current Residency Map](#)
- [Proposed Residency Map](#)

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

Created: 1934 Acts of Assembly, c. 244 as Hampton Roads Sewage Disposal Commission  
Repealed: 1938 Acts of Assembly, c. 334; 1940 Acts of Assembly, c. 407

Created: 1936 Acts of Assembly, c. 353  
Repealed: 1938 Acts of Assembly, c. 334; 1940 Acts of Assembly, c. 407

Created: 1938 Acts of Assembly, c. 334 as Hampton Roads Sanitation Commission  
Repealed: 1940 Acts of Assembly, c. 407

Created: 1940 Acts of Assembly, c. 407  
Amended: 1946 Acts of Assembly, c. 353 Added § 4-b  
1956 Acts of Assembly, c. 471 Amended § 4  
Repealed: 1960 Acts of Assembly, c. 66

Created: 1960 Acts of Assembly, c. 66  
Amended: 1962 Acts of Assembly, c. 584 Amended § 11  
1964 Acts of Assembly, c. 520 Amended § 45  
1974 Acts of Assembly, c. 112 Amended §2  
1976 Acts of Assembly, c. 637 Amended § 2  
1977 Acts of Assembly, c. 271 Repealed § 20  
1987 Acts of Assembly, c. 30 Amended § 2  
1989 Acts of Assembly, c. 350 Amended § 2  
1990 Acts of Assembly, c. 153 Amended § 10  
1998 Acts of Assembly, c. 210 Amended §§ 1, 2  
2004 Acts of Assembly, c. 120 Amended §§ 1 thru 6, 10, 11, 13, 22, 32, 45, 48, 49  
2008 Acts of Assembly, c. 574 Amended §§8, 29, 35, 45  
2012 Acts of Assembly, c. 724 Amended §§4, 8 thru 10, 12-13, 21, 40  
2017 Acts of Assembly, c. 218 Amended §§ 1 and 2

**COMPILED BY:** HAMPTON ROADS SANITATION DISTRICT  
1434 Air Rail Avenue  
Virginia Beach, Virginia 23455

**REVISED:** March 2017  
Amendments effective through Virginia Acts of Assembly-2017 Session

**FOR NON-JUDICIAL USE ONLY -- FOR JUDICIAL USE SEE ACTS OF ASSEMBLY**

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

**Table of Contents**

§ 1. District .....	1
§ 2. Commission .....	1
§ 3. Officers of Commission, quorum .....	2
§ 4. Oath of office .....	2
§ 5. Commission compensation .....	2
§ 6. Commission meetings .....	3
§ 7. Validation of outstanding bonds .....	3
§ 8. Definitions:	
a. "District" .....	3
b. "Commission" .....	3
c. "sewage" .....	4
d. "industrial wastes" .....	4
e. "sewage disposal system" .....	4
f. "sewer improvements" .....	4
g. "sewerage system" .....	4
h. "cost" .....	4
i. "owner" .....	4
j. "bonds", "revenue bonds" .....	4
k. "pollution" .....	4
§ 9. Bonds not to constitute a debt or pledge of taxing power .....	5
§ 10. General powers of Commission .....	5
§ 11. Land acquisition .....	7
§ 12. Purposes for which bonds may be used .....	8
§ 13. Details of bonds .....	8
§ 14. Provisions of resolution or trust agreement .....	9
§ 15. Temporary bonds .....	9
§ 16. Issuance of bonds governed by Enabling Act .....	9
§ 17. Election not required .....	9
§ 18. No personal liability on bonds .....	9
§ 19. Issuance of notes or other obligations .....	9
§ 20. Issuance of bonds to be approved by State Corporation Commission (Repealed 1977, c.271) .....	9
§ 21. Trust Agreement .....	10
§ 22. Charges and revenues .....	10
§ 23. Publication of revised charges, jurisdiction of State Corporation Commission .....	11
§ 24. Required sewer connections .....	12
§ 25. Collection of charges .....	12
§ 26. Register of unpaid charges .....	12
§ 27. Collection of charges by others .....	12
§ 28. Disposition of revenues .....	13
§ 29. Trust funds .....	14
§ 30. Remedies .....	14

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

§ 31. Exemption from taxation.....	15
§ 32. No mortgage permitted.....	15
§ 33. Bonds eligible for investment.....	15
§ 34. Annual report to Governor and municipalities .....	15
§ 35. Change in method of treating sewage to be approved by the Virginia Department of Environmental Quality .....	16
§ 36. Availability of records of others.....	16
§ 37. Municipality withdrawing from District to treat sewage as requested by District...	16
§ 38. Municipality to pay as user, contracts with municipalities.....	16
§ 39. Powers conferred on municipalities supplemental.....	16
§ 40. Restrictions on municipalities .....	16
§ 41. Actions against others .....	17
§ 42. Boats exempt from Enabling Act .....	17
§ 43. Enabling Act violation a misdemeanor .....	17
§ 44. Prohibition against Commission members, etc. contracting with Commission .....	17
§ 45. Construction contracts.....	17
§ 46. No liability on municipalities for acts of Commission .....	17
§ 47. Commission employees and their compensation .....	18
§ 48. Addition of territory to District .....	18
§ 49. State Water Control Board powers not affected .....	18
§ 50. Enabling Act liberally construed .....	18
§ 51. Partial invalidity .....	19

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

*An Act validating the creation of the Hampton Roads Sanitation District, the appointment of the present members of the Hampton Roads Sanitation District Commission and all outstanding bonds issued by the Commission; authorizing the Commission to construct, improve, extend, maintain, repair and operate a sewerage system, to issue revenue bonds, notes or other obligations of the District, payable solely from the special funds provided by this act, for any of its authorized purposes, and to fix, revise, charge and collect rates, fees and other charges for the use of the sewerage system; providing that such obligations and such charges are subject to the approval of the State Corporation Commission; providing for the collection and enforcement of such charges; granting to the Commission power to acquire necessary real and personal property and to exercise the right of eminent domain; authorizing the Commission to restrain, enjoin or otherwise prevent the pollution of any waters within the District; providing that no debt of the Commonwealth or of any political subdivision thereof shall be incurred in the exercise of any of the powers granted by this act; exempting from taxes and assessments such sewerage system and such obligations and the income therefrom; providing for the addition of territory to the District; describing the powers and duties of the Commission in connection with the foregoing and the rights and remedies of the holders of such obligations issued under the provisions of this act; and to repeal certain acts. (1960, c. 66)*



**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

**As Amended through Virginia Acts of Assembly -- 2017 Session**

Be it enacted by the General Assembly of Virginia:

§ 1. The creation of the Hampton Roads Sanitation District is hereby ratified, validated and confirmed, and said District shall embrace all the territory within the Cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the Counties of *Accomack*, Gloucester, Isle of Wight, James City, King and Queen, King William, Mathews, Middlesex, *Northampton* and York, ~~and the Surry County of Surry~~, excluding the Town of Claremont; ~~and the Town of Urbanna~~. Territory may be added to the District as hereinafter provided in this act.

For the purpose of this section the territory of a county included within the District shall include all the territory lying within the boundaries of any town in the county unless otherwise specified.

Said District shall constitute a political subdivision of the Commonwealth established as a governmental instrumentality to provide for the public health and welfare. (1960, c. 66; 1998, c. 210; 2004, c. 120)

§ 2. The functions, affairs and property of the Hampton Roads Sanitation District shall be managed and controlled by a commission, known as the "Hampton Roads Sanitation District Commission," consisting of eight members appointed by the Governor. The Commission and the term of each such member shall continue until his successor shall be duly appointed and qualified. The successor of each such member shall be appointed for a term of four years and until his successor shall be duly appointed and qualified, except that any person appointed to fill a vacancy shall serve only for the unexpired term. Any member of the Commission shall be eligible for reappointment without limitation as to the number of terms that may be served. Members of the Commission may be suspended or removed by the Governor at his pleasure.

At the time of their appointment, one of the members of the Commission, and each of his successors, shall be residents of the territory in the District within the City of Norfolk, one of the members, and each of his successors, shall be residents of the territory in the District within the City of Virginia Beach, one of the members, and each of his successors, shall be residents of the territory in the District within the City of Newport News *or the City of Williamsburg or James City County*, one of the members, and each of his successors, shall be residents of the territory in the District within the City of Hampton *or the City of Poquoson or York County*, one of the members, and each of his successors, shall be residents of the territory in the District within the City of Chesapeake, one of the members, and each of his successors, shall be residents of the territory in the District within the City of Suffolk or Isle of Wight County, ~~or Surry County~~, one of the members, and each of his successors, shall be residents of the territory in the District within ~~the City of Williamsburg or James City County or York County or the City of Poquoson~~ *Accomack County or Northampton County* or Gloucester County or King William County or Mathews County or Middlesex County ~~or the Town of Urbanna~~, or King and Queen County, and one of the members, and each of his successors, shall be residents of the territory in the District within the City of Portsmouth. Any member who shall cease to reside within the territory from which he was appointed shall thereupon be disqualified from holding office as a member of the Commission and the vacancy thus created shall be filled by appointment by the Governor for the balance of

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

the unexpired term. (1960, c. 66; 1974, c. 112; 1976, c. 637; 1987, c. 30; 1989, c. 350; 1998, c. 210; 2004, c. 120)

§ 3. The Commission shall annually elect one of its members as chairman and another as vice chairman. The Commission shall appoint a secretary, who may or may not be a member of the Commission, and a treasurer, who shall not be a member of the Commission. The compensation of the secretary and of the treasurer shall be fixed by the Commission. The secretary and the treasurer shall serve at the pleasure of the Commission.

The secretary shall keep a record of the proceedings of the Commission and shall be custodian of all books, documents and papers filed with the Commission and of the minute book or journal of the Commission and of its official seal. He shall have authority to cause copies to be made of all minutes and other records and documents of the Commission and to give certificates under the official seal of the Commission to the effect that such copies are true copies, and all persons dealing with the Commission may rely upon such certificates.

Four members of the Commission shall constitute a quorum and the affirmative vote of four members shall be necessary for any action taken by the Commission. No vacancy in the membership of the Commission shall impair the right of a quorum to exercise all the rights and perform all the duties of the Commission. (1960, c. 66; 2004, c. 120)

§ 4. Each member of the Commission shall, before entering upon the discharge of his duties, take and subscribe the oath of office required by Article II, § 7, Constitution of Virginia (1971). Each such Commissioner shall be covered by a public official's liability policy in the amount of at least \$1,000,000. The premium of such insurance policies shall be paid by the Commission. (1960, c. 66; 2004, c. 120; 2012, c. 724)

§ 5. The members of the Commission shall receive no salary, but shall be paid their necessary traveling and other expenses incurred in attendance upon meetings of the Commission or while otherwise engaged in the discharge of their duties and the same sum per diem for each day or portion thereof in which they are engaged in the performance of such duties as is paid the members of the Commonwealth Transportation Board. (1960, c. 66; 2004, c. 120)

§ 6. Regular meetings of the Commission shall be held at least once every month at such time and place as the Commission shall from time to time prescribe. Special meetings of the Commission shall be held upon such notice as required by the Virginia Freedom of Information Act. (1960, c. 66; 2004, c. 120)

§ 7. All bonds heretofore issued by the Commission which are now outstanding are hereby ratified, validated and confirmed, and all acts and proceedings heretofore taken in connection with the authorization and issuance of said bonds are hereby ratified, validated and confirmed and said bonds shall constitute valid obligations of the District. (1960, c. 66)

§ 8. As used in this act the following words and terms shall have the following meanings, unless the context shall indicate another or different meaning or intent:

(a) The word "District" means the Hampton Roads Sanitation District hereinabove mentioned.

(b) The word "Commission" means the Hampton Roads Sanitation District Commission hereinabove mentioned, or if said Commission shall be abolished, the

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

board, body, commission or agency succeeding to the principal functions thereof or upon whom the powers given by this act to said Commission shall be conferred by law.

(c) The word “sewage” means the water-carried wastes created in and carried, or to be carried, away from residences, hotels, schools, hospitals, industrial establishments, commercial establishments or any other private or public building, together with such industrial wastes as may be present.

(d) The term “industrial wastes” means liquid or other wastes resulting from any processes of industry, manufacture, trade or business or from the development of any natural resource.

(e) The term “sewage disposal system” means and shall include any plant, system, facility or property used or useful or having the present capacity for future use in connection with the collection, treatment, purification, *reclamation* or disposal of sewage, including industrial wastes, or any integral part thereof, and, without limiting the generality of the foregoing definition, shall embrace treatment plants, pumping stations, *storage tanks*, intercepting sewers, force mains, gravity mains, laterals, reclaimed water distribution lines, *wells, nutrient removal and/or recovery facilities, energy recovery and green energy facilities*, and all necessary appurtenances and equipment, and shall include all lands, property, rights, rights of way, easements and franchises relating to any such system and deemed necessary or convenient for the operation thereof.

(f) The term “sewer improvements” shall embrace sewer mains, *storage tanks* and laterals for the reception of sewage from premises connected therewith and carrying such sewage to a sewage disposal system.

(g) The term “sewerage system” shall embrace sewage disposal systems, sewer improvements and all other real and personal property operated by the Commission for the purposes of this act.

(h) The word “cost” as applied to a sewage disposal system or to extensions or additions thereto or to sewer improvements shall include the cost of construction, the cost of all labor, materials, machinery and equipment, the cost of all lands, property, rights, rights of way, easements and franchises acquired, financing charges, interest prior to and during construction and, if deemed advisable by the Commission, for one year after completion of construction, cost of plans and specifications, surveys and estimates of cost and of revenues, cost of engineering and legal services, provisions for working capital and a reserve for interest, and all other expenses necessary or incident to determining the feasibility or practicability of such construction, administrative expense and such other expenses as may be necessary or incident to the financing herein authorized.

(i) The word “owner” shall include all individuals, copartnerships, limited liability companies, associations and corporations and also counties, cities, towns and other political subdivisions and all public agencies and instrumentalities.

(j) The word “bonds” or the words “revenue bonds” shall embrace revenue bonds, notes and other obligations of the District issued under the provisions of this act.

(k) The word “pollution” means the condition of water resulting directly or indirectly from any of the following acts:

- (1) contaminating such water;
- (2) rendering such water unclean or impure;
- (3) rendering such water injurious to public health, or unfit for public use;
- (4) rendering such water harmful for cattle, stock or other animals;

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

(5) rendering such water deleterious to, or unfit for, fish or shellfish, or fish or shellfish propagation, or aquatic animals, or plant life in such water;

(6) rendering such water unfit for commercial use; or

(7) rendering such water harmful to fish or shellfish used for human consumption.

*(l) The term "associated water system" means and shall include any plant, system, facility or property used or useful or having the present capacity for future use in connection with the treatment, purification or distribution of potable drinking water serving no more than 1,000 premises connected to a sewage disposal system and all necessary appurtenances and equipment, and shall include all lands, property, rights, rights of way, easements and franchises relating to any such system and deemed necessary or convenient for the operation thereof.*

(1960, c. 66; 2008, c. 574; 2012, c. 724)

§ 9. Revenue bonds issued under the provisions of this act shall not be deemed to constitute a debt of the Commonwealth of Virginia or of any county, city, town or political subdivision thereof, or a pledge of the faith and credit of the Commonwealth or of any county, city, town or political subdivision thereof, but such bonds shall be payable solely from the funds herein provided therefor from revenues. The issuance of revenue bonds under the provisions of this act shall not directly or indirectly or contingently obligate the Commonwealth or any county, city, town or political subdivision thereof to levy or to pledge any form of taxation whatever therefor. The text of such revenue bonds shall contain a statement substantially to the foregoing effect.

All expenses incurred in carrying out the provisions of this act shall be payable solely from funds provided under the provisions of this act and no liability or obligation shall be incurred by the Commission hereunder beyond the extent to which moneys shall have been provided under the provisions of this act. (1960, c. 66; 2012, c. 724)

§ 10. The Commission is hereby authorized and empowered:

(a) to adopt bylaws and to make rules and regulations for the management of its affairs and the conduct of its business;

(b) to adopt an official seal and alter the same at pleasure;

(c) to sue and to be sued;

(d) to construct, and to improve, extend, enlarge, reconstruct, maintain, equip, repair and operate a sewage disposal system or systems *with or without associated water systems*, enter within or without or partly within and partly without the corporate limits of the District, and to construct sewer improvements within the corporate limits of the District;

(e) to issue revenue bonds, notes or other obligations of the District for any of its authorized purposes, payable solely from the special funds provided under the authority of this act and pledged for their payment, all as provided in this act;

(f) to fix and collect rates, fees and other charges for the services and facilities furnished by any such sewage disposal system or sewer improvements *or associated water systems*, and to fix and collect charges for making connections with any such system or improvements;

(g) to acquire in the name of the District, either by purchase, lease, grant, or the exercise of the right of eminent domain, such lands, structures, property, rights, rights of way, easements, franchises and other interests in or relating to lands, including lands under water and riparian rights, and to acquire such personal property, as it may deem necessary in connection with the construction, improvement, extension, enlargement or

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

operation of any sewage disposal system or sewer improvements *or associated water systems*, and to hold and dispose of all real and personal property under its control;

(h) to employ, in its discretion, consulting engineers, attorneys, accountants, construction and financial experts, managers, and such other officers, employees and agents as may be necessary in its judgment, and to fix their compensation;

(i) to exercise jurisdiction, control and supervision over any sewage disposal system or systems or sewer improvements *or associated water systems* operated or maintained by the Commission and to make and enforce such rules and regulations for the maintenance and operation of any such sewage disposal system or systems or sewer improvements *or associated water systems* as may, in the judgment of the Commission, be necessary or desirable for the efficient operation of any such system or improvements and for accomplishing the purposes of this act;

(j) to enter on any lands, water or premises located within or without the District to make surveys, borings, soundings or examinations for the purposes of this act;

(k) to construct and operate trunk, intercepting or outlet sewers, sewer mains, laterals, conduits or pipelines in, along or under any streets, alleys, highways or other public places within or without the District; in so constructing its facilities, it shall see that the public use of such streets, alleys, highways, and other public places is not unnecessarily interrupted or interfered with and that such streets, alleys, highways and other public places are restored to their former usefulness and condition within a reasonable time; to this end the Commission shall cooperate with the Commonwealth Transportation Board and the appropriate officers of the respective counties, cities and towns having an interest in such matters;

(l) to restrain, enjoin or otherwise prevent any county, city, town or political subdivision and any person or corporation, public or private, from discharging into any waters within the District, any sewage, industrial wastes or other refuse which would contribute or tend to contribute to the pollution of such waters, and to restrain, enjoin or otherwise prevent the violation of any provision of this act or of any resolution, rule or regulation adopted pursuant to the powers granted by this act;

(m) to use and connect with any sewage disposal system or sewer improvement within the District and, if deemed necessary by the Commission to close off and seal any outlets and outfalls therefrom;

(n) subject to such provisions and restrictions as may be set forth in the resolution authorizing any revenue bonds or in the trust agreement hereinafter mentioned securing the same, to enter into contracts with the United States of America or any agency or instrumentality thereof, or with any county, city, town or political subdivision or any sanitary district, private corporation, copartnership, association or individual providing for or relating to the treatment and disposal of sewage;

(o) to receive and accept from the United States of America or any agency or instrumentality thereof grants for or in aid of the planning, construction or financing of any sewage disposal system or sewer improvements *or associated water system*, and to receive and accept contributions from any source of either money, property, labor or other things of value, to be held, used and applied only for the purposes for which such grants and contributions may be made;

(p) to make and enter into all contracts and agreements necessary or incidental to the performance of its duties and the execution of its powers under this act;

(q) to do and perform any acts and things authorized by this act under, through or

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

by means of its own officers, agents and employees, or by contracts with any persons;

(r) to execute any and all instruments and do and perform any and all acts or things necessary, convenient or desirable for the purposes of the Commission or to carry out the powers expressly given in this act; and

(s) to seek civil penalties or civil charges against owners who have been charged with violation of or found to be in violation of the pretreatment standards incorporated in the permit or other requirements of the District's approved industrial waste control program. The penalties which the District may seek, and the procedures to be followed by the District, shall be the same as those set forth for the State Water Control Board, as set forth in § 62.1-44.32 of the Code of Virginia.

1. For purposes of this subsection, the term "owner" shall include the definition contained in subsection (i) of § 8 and, in addition, any corporate officer designated in the permit issued by the District, if any.

2. With the consent of any owner who has violated a provision of this subsection, or is charged by the District with having violated the provision of this subsection, the District may provide, in an order issued by it against such owner, for the payment of civil charges for such violations in specific sums not to exceed those set forth in § [62.1-44.32](#) of the Code of Virginia for each violation. Each day of violation shall constitute a separate offense. Such civil charges shall be instead of any appropriate civil or criminal penalty imposed under the provisions of this subsection. (1960, c. 66; 1990, c. 153; 2004, c. 120; 2012, c. 724)

§ 11. (a) The Commission is hereby authorized and empowered to acquire by purchase, lease, grant or conveyance such lands, structures, property, rights, rights of way, easements, franchises and other interests in or relating to lands, including lands lying under water and riparian rights, as it may deem necessary or convenient for the construction and operation of any sewage disposal system or sewer improvements *or associated water system*, upon such terms and at such prices as may be considered by it to be reasonable and can be agreed upon between it and the owner thereof.

All public agencies and commissions of the Commonwealth with the approval of the Governor and all counties, cities, towns and political subdivisions, notwithstanding any contrary provision of law, are hereby authorized and empowered to lease, lend, grant or convey to the District at the request of the Commission upon such terms and conditions as may be mutually agreed upon, without the necessity for any advertisement, order of court or other action or formality, any real property which may be necessary or convenient to the effectuation of the authorized purposes of the Commission, including public highways and other real property already devoted to public use.

(b) The Commission is also hereby authorized and empowered to acquire by condemnation or eminent domain such lands, structures, property rights, rights-of-way, easements, franchises and other interests in or relating to lands, including lands lying under water and riparian rights, deemed necessary or convenient for the construction and operation of any sewage disposal system or sewer improvements *or associated water system*. The powers of condemnation or eminent domain conferred on the Commission by this act shall be exercised by the Commission pursuant to the provisions of Title 25.1, Chapter 1 through 4, inclusive, of the Code of Virginia, 1950, as now enacted or as hereafter amended or reenacted; provided, however, that the Commission may proceed *(i) for the procurement of lands, structures, property rights,*

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

*rights-of-way, easements, franchises and other interests in or relating to lands contiguous to the site of an existing sewage disposal system for construction and operation of an expanded sewage disposal system to meet new regulatory requirements including nutrient removal technology classified under § 10.1-2131 as eligible for partial grant funding from the Virginia Department of Environmental Quality, without regard to the provisions of § 15.2-4313 and § 25.1-106 of the Code of Virginia, 1950, as enacted or as hereafter amended or reenacted, when such expansion is to be funded in part or in whole by issuance of revenue bonds payable from the revenues of the District provided under this Act, and (ii) pursuant to the provisions of Article 7 (§ 33.1-89 et seq.) of Chapter 1 of Title 33.1 of the Code of Virginia, 1950, as enacted or as hereafter amended or reenacted, for the procurement of rights of way for sewer lines and sites for pumping stations.*

(c) Title to any property acquired by the Commission shall be taken in the name of the District.

(d) The Commonwealth with the approval of the Governor hereby consents to the use of any lands or property owned by the Commonwealth, including lands lying under water, which are deemed by the Commission to be necessary for the construction or operation of any sewage disposal system or sewer improvements *or associated water system*. (1960, c. 66; 1962, c. 584; 2004, c. 120)

§ 12. The Commission is hereby authorized to provide by resolution for the issuance, at one time or from time to time, of revenue bonds of the District for any one or more of the following purposes:

(a) refunding any bonds heretofore issued by the Commission and any revenue bonds, notes and other obligations issued under the provisions of this act and then outstanding, including the payment of any redemption premium thereon and any interest accrued or to accrue to the date of redemption thereof; provided, however, that no bonds issued after the effective date of this act shall be refunded at a net interest cost exceeding that of such bonds to be refunded unless, prior to the issuance of such refunding bonds, the Commission shall have determined that the issuance of such refunding bonds will be in the best interests of the District,

(b) paying the cost of a sewage disposal system or systems *or associated water system*,

(c) paying the cost of extensions and additions thereto, and

(d) paying the cost of sewer *or water* improvements. (1960, c. 66; 2012, c. 724)

§ 13. The principal of and the interest on revenue bonds issued under the provisions of this act shall be payable solely from the funds therein provided for such payment. The bonds of each issue shall be dated, shall mature at such time or times not exceeding 40 years from their date or dates, as may be determined by the Commission, shall bear interest at such time or times and at such rate or rates as may be determined by the Commission, and may be made redeemable before maturity, at the option of the Commission, at such price or prices and under such terms and conditions as may be fixed by the Commission prior to the issuance of the bonds. The Commission shall determine the form and the manner of execution of the bonds, including any interest coupons to be attached thereto, and shall fix the denomination or denominations of the bonds and the place or places of payment of principal and interest, which may be at any bank or trust company within or without the Commonwealth. In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

cease to be such officer before the delivery of such bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery, and any bond may bear the facsimile signature of, or may be signed by, such person or persons as at the actual time of the execution of such bond shall be the proper officer or officers to sign such bond although at the date of such bond such person or persons may not have been such officer or officers. The bonds may be issued in coupon or in registered form, or both, as the Commission may determine, and provision may be made for the registration of any coupon bonds as to principal alone and also as to both principal and interest, for the reconversion into coupon bonds of any bonds registered as to both principal and interest, and for the interchange of registered and coupon bonds. The Commission may sell such bonds in such manner, either at public or private sale, and for such price, as it may determine to be for the best interests of the District. (1960, c. 66; 2004, c. 120; 2012, c. 724)

§ 14. The proceeds of the bonds shall be disbursed in such manner and under such restrictions, if any, as the Commission may provide in the resolution authorizing the issuance of such bonds or in the trust agreement hereinafter mentioned securing the same. Such resolution or trust agreement may also contain such limitations upon the issuance of additional revenue bonds, and such provisions for accelerating the maturities of the bonds in the event of a default and for amending or supplementing such resolution or trust agreement, as the Commission may deem proper. (1960, c. 66)

§ 15. Prior to the preparation of definitive bonds, the Commission may, under like restrictions, issue interim receipts or temporary bonds, with or without coupons, exchangeable for definitive bonds when such bonds shall have been executed and are available for delivery. The Commission may also provide for the replacement of any bonds which shall become mutilated or shall be destroyed or lost. (1960, c. 66)

§ 16. Except as hereinafter provided in this act, bonds may be issued under the provisions of this act without obtaining the consent or approval of any department, division, commission, board, bureau or agency of the Commonwealth or of any district or other political subdivision of the Commonwealth, and without any other proceedings or the happening of any other conditions or things than those proceedings, conditions or things which are specifically required by this act. (1960, c. 66)

§ 17. It shall not be necessary to secure the approval by a majority vote of the qualified voters of the District voting in an election on the question of the issuance of any of such revenue bonds, and none of the limitations, restrictions or conditions which are contained in any other law on the amount of bonds or the manner of issuing bonds shall be applicable to revenue bonds issued under the provisions of this act. (1960, c. 66)

§ 18. Neither the members of the Commission nor any person executing any bonds or temporary bonds shall be liable personally on the bonds or temporary bonds or be subject to any personal liability or accountability by reason of the issuance thereof. (1960, c. 66)

§ 19. In addition to all other powers granted to the Commission by this act, the Commission is hereby authorized and empowered to provide for the issuance at one time or from time to time of notes or other obligations of the District, payable solely from revenues or other funds of the District, for any of its authorized purposes. All the provisions of this act which relate to bonds or revenue bonds shall apply to such notes



**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

or other obligations in so far as such provisions may be appropriate. (1960, c. 66)

§ 20. Repealed. (1960, c. 66; repealed 1977, c. 271)

§ 21. In the discretion of the Commission the revenue bonds of any issue may be secured by a trust agreement by and between the Commission and a corporate trustee, which may be any trust company or bank having the powers of a trust company within or without the Commonwealth. Any such trust agreement or the resolution providing for the issuance of such bonds may pledge or assign the revenues to be received, but shall not convey or mortgage any sewage disposal system or sewer improvements *or associated water system* or any part thereof. Any such trust agreement or resolution providing for the issuance of such bonds may contain such provisions for protecting and enforcing the rights and remedies of the bondholders as may be reasonable and proper and not in violation of law, including covenants setting forth the duties of the Commission in relation to the acquisition of property and the construction, improvement, extension, enlargement, reconstruction, maintenance, equipment, repair, operation and insurance of the properties of the District, and the custody, safeguarding and application of all moneys. Any such trust agreement may provide for or permit the issuance of additional bonds from time to time for the further extension of the sewerage system. If the Commission issues bonds that may be tendered for purchase by the holders thereof, any such trust agreement may provide that, for all purposes of the laws of the Commonwealth, the indebtedness of the District evidenced by such bonds shall not be deemed extinguished upon the purchase thereof by the District unless such bonds are delivered by the District to the trustee under such trust agreement with written instructions to cancel such bonds. It shall be lawful for any bank or trust company incorporated under the laws of the Commonwealth which may act as depository of the proceeds of bonds or of revenues to furnish such indemnifying bonds or to pledge such securities as may be required by the Commission. Any such trust agreement may set forth the rights and remedies of the bondholders and of the trustee, and may restrict the individual right of action by bondholders. In addition to the foregoing, any such trust agreement or resolution may contain such other provisions as the Commission may deem reasonable and proper for the security of the bondholders. All expenses incurred in carrying out the provisions of any such trust agreement or resolution may be treated as a part of the cost of operation.

No such trust agreement or resolution need be filed or recorded except in the records of the Commission. (1960, c. 66; 2012, c. 724)

§ 22. The Commission may, in the resolution providing for the issuance of revenue bonds or in the trust agreement securing the same, covenant to fix the rates, fees and other charges for the use of, and for the services and facilities furnished or to be furnished by, the sewage disposal system or systems and the sewer improvements, *or associated water system* if any, for which such bonds are to be issued, to be paid by the owner, tenant or occupant of each lot or parcel of land which may be connected with or may use any such sewage disposal system or sewer improvements *or associated water system*. The Commission may revise such rates, fees and charges from time to time. Such rates, fees and charges shall be so fixed and revised as to provide funds, with other funds available for such purposes, sufficient at all times (a) to pay the cost of maintaining, repairing and operating such sewage disposal system or systems *or associated water system* and such sewer improvements, if any, including reserves for such purpose and for renewals and replacements and necessary extensions and

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

additions to the sewerage system *or associated water system*; (b) to pay the principal of and the interest on such revenue bonds as the same shall become due and to provide reserves therefor, *(c) to pay costs associated with a customer assistance program* and ~~(d)~~ to provide a margin of safety for making such payments. The Commission shall charge and collect the rates, fees and charges so fixed or revised, and, except as hereinafter provided in this act, such rates, fees and charges shall not be subject to supervision or regulation by any department, division, commission, board, bureau or agency of the Commonwealth or of any district or other political subdivision of the Commonwealth.

Such rates, fees and charges shall be just and equitable and may be based or computed either upon the quantity of water used or upon the number and size of sewer connections or upon the number and kind of plumbing fixtures in use in the premises connected with the sewerage system or upon the number or average number of persons residing or working in or otherwise connected with such premises or upon the type or character of such premises or upon any other factor affecting the use of the facilities furnished or *upon household income or* upon any combination of the foregoing factors *or as a constant rate based upon average winter water used in premises of similar character*. Charges for services to premises, including services to manufacturing and industrial plants, obtaining all or a part of their water supply from sources other than a public water system may be determined by gauging or metering at the expense of the owner, tenant or occupant of such premises or in any other manner as directed and approved by the Commission. ~~Premises not discharging the entire volume of water into the sanitary sewers shall be allowed a reduction in the charges provided the customer installs facilities, in a manner satisfactory to the Commission, for measuring the volume either discharged or not discharged into the sanitary sewers.~~

The Commission shall fix and determine the time or times when and the place or places where such rates, fees and charges shall be due and payable and may require that such rates, fees and charges shall be paid in advance for periods of not more than six months. A copy of the schedules of all rates, fees and charges in effect shall at all times be kept on file at the principal office of the Commission, and such schedules shall at all reasonable times be open to public inspection.

In cases where the character of the sewage from any manufacturing or industrial plant, building or premises is such that it imposes an unreasonable burden upon any sewage disposal system, an additional charge may be made therefor, or the Commission may, if it deems it advisable, compel such manufacturing or industrial plant, building or premises to treat such sewage in such manner as shall be specified by the Commission before discharging such sewage into the sewerage system or prohibit the discharge, directly or indirectly, of such sewage into the sewerage system. (1960, c. 66; 2004, c. 120)

§ 23. Before any revision of the present schedule of rates, fees and charges shall become effective the Commission shall publish a copy thereof for four consecutive weeks in a newspaper of general circulation within the District. If, on or before the last publication, the governing body of any city or county constituting a part of the District or five hundred or more qualified voters residing within the District shall file a petition with the State Corporation Commission complaining of the proposed revision, the State Corporation Commission may by order suspend the placing in effect of such revision for a period not exceeding sixty days from the filing of any such petition during which time it

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

shall investigate whether such revision is just and equitable and in accordance with the provisions of this act. If the State Corporation Commission shall not enter an order suspending, approving or disapproving such revision within sixty days from the filing of any such petition, such revision shall be deemed to be in effect. The Commission or the party or parties filing a petition may appeal to the Supreme Court of Appeals from any such order as may be entered by the State Corporation Commission in the manner provided by law. (1960, c. 66)

§ 24. The owner, tenant, or occupant of each lot or parcel of land within the District which abuts upon a street or other public way containing a sanitary sewer served or which may be served by a sewage disposal system of the District and upon which lot or parcel a building shall have been constructed for residential, commercial or industrial use, shall, if so required by such reasonable rules and regulations as shall be promulgated by the Commission, connect such building with such sanitary sewer, and shall cease to use any other method for the disposal of sewage, sewage waste or other polluting matter. All such connections shall be made in accordance with rules and regulations which shall be adopted from time to time by the Commission, which rules and regulations may provide for a charge for making any such connection in such reasonable amount as the Commission may fix and establish. (1960, c. 66)

§ 25. In the event that the rates, fees or charges charged by the Commission for the services and facilities of any sewage disposal system or sewer improvements *or associated water system* by or in connection with any real estate or other property served shall not be paid as and when due, the owner, tenant or occupant, as the case may be, of such property shall, until such rates, fees and charges shall be paid, cease to dispose of sewage or industrial wastes originating from or on such property by discharge thereof directly or indirectly into the sewerage system, and if such owner, tenant or occupant shall not cease such disposal within two months thereafter, it shall be the duty of each county, city, town or other public corporation, board or body, private corporation or person supplying water to or selling water for use on, such property, within five days after receipt of notice of such facts from the Commission to cease supplying water to, and selling water for use on, such property. If such county, city, town or other public corporation, board or body, private corporation or person shall not within such time cease supplying water to, and selling water for use on, such property, the Commission may shut off the supply of water to such property and may disconnect such property from such sewage disposal system or sewer improvements, and for such purposes may enter on any lands, waters and premises of such county, city, town or other public corporation, board or body, private corporation or person.

If any rates, fees or charges for the services and facilities furnished by any sewage disposal system or sewer improvements *or associated water system* of the District shall not be paid within thirty days after the same shall become due and payable, the Commission may at the expiration of such thirty day period proceed to recover the amount of any such delinquent rates, fees or charges by any action, suit or proceeding permitted by law or in equity. (1960, c. 66)

§ 26. The Commission shall keep and preserve a complete register, or registers, open to public inspection, of all rates, fees and charges which have been charged by the Commission to the owners, tenants or occupants of any real estate for the use and services of any sewage disposal system or sewer improvements *or associated water system* and have become due and payable and have not been paid. Such register or

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

registers shall be kept in such place or places as the Commission shall determine.  
(1960, c. 66)

§ 27. The Commission and any county, city, town or other political subdivision in whole or in part embraced within the District or any privately or publicly owned water company are authorized to enter into a contract or contracts providing for the collection by such county, city, town or political subdivision or privately or publicly owned water company and payment over to the Commission of the rates, fees and charges charged by the Commission against the owners, tenants or occupants of real estate within such county, city, town or political subdivision or served by such privately or publicly owned water company, or providing for the payment to the Commission by such county, city, town or political subdivision or privately or publicly owned water company of a sum or sums of money in lieu of all or part of the rates, fees and other charges which would otherwise be charged by the Commission to the owners, tenants or occupants of real estate within such county, city, town or political subdivision or served by such privately or publicly owned water company. Such county, city, town or political subdivision or privately or publicly owned water company is vested with powers to do everything necessary or proper to carry out and perform every such contract, including the same powers with respect to rates, fees and other charges as are conferred by this act upon the Commission. The Commission is authorized to reduce ratably in accordance with such contract the rates, fees and other charges which would otherwise be charged by the Commission to the owners, tenants or occupants of real estate within such county, city, town or political subdivision or served by such privately or publicly owned water company, but nothing in this section or any such contract shall be construed to prevent the Commission from charging to and collecting from such owners, tenants or occupants of such real estate, in the same manner as provided for such rates, fees and other charges, any deficiency in any payment agreed to be made by such county, city, town or political subdivision or privately or publicly owned water company. (1960, c. 66)

§ 28. All revenues derived by the Commission from the sewage disposal system or systems or sewer improvements *or associated water system* financed or refinanced by the bonds of any issue or issues, except such part thereof as may be required to pay the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves therefor as may be provided in the resolution providing for the issuance of such revenue bonds or in the trust agreement securing the same, shall be set aside at such regular intervals as may be provided in such resolution or trust agreement and deposited to the credit of the following special funds:

(a) a sinking fund which is hereby pledged to, and charged with, the payment of the principal of and the interest on such bonds as the same shall become due, and the redemption price or the purchase price of bonds retired by call or purchase as therein provided, including the accumulation of a reserve for such purposes; such pledge shall be valid and binding from the time when the pledge is made, the revenues so pledged and thereafter received by the Commission shall immediately be subject to the lien of such pledge without any physical delivery thereof or further act, and the lien of such pledge shall be valid and binding as against all parties having claims of any kind in tort, contract or otherwise against the Commission or the District, irrespective of whether such parties have notice thereof; and

(b) a fund for anticipated renewals, replacements, extensions, additions and

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

extraordinary repairs of the sewerage system *or associated water system*.

The use and disposition of moneys to the credit of any such sinking fund shall be subject to such regulations as may be provided in the resolution authorizing the issuance of such revenue bonds or in the trust agreement securing the same, and, except as may otherwise be provided in such resolution or trust agreement, such sinking fund shall be a fund for the benefit of such bonds without distinction or priority of one over another. (1960, c. 66)

§ 29. All moneys received pursuant to the provisions of this act, whether as proceeds from the sale of bonds or as revenues, shall be deemed to be trust funds to be held and applied solely as provided in this act, and none of such moneys shall be required to be paid into the State treasury or into the treasury or to any officer of any county, city, town or other political subdivision. The Commission may provide for the payment of the proceeds of the sale of the bonds and the revenues to be received to a trustee, which shall be any trust company or bank having the powers of a trust company within or without the Commonwealth, which shall act as trustee of the funds, and hold and apply the same to the purposes of this act, subject to such regulations as this act and the Commission may provide. All such moneys shall be secured or shall be invested and reinvested, all as may be provided by the Commission.

With respect to contracts concerning interest rates, currency, cash flow and other basis, the District may enter into any contract that the Commission determines to be necessary or appropriate to place any obligation or investment of the District, as represented by bonds or the investment of their proceeds, in whole or in part, on the interest rate, cash flow or other basis desired by the Commission. Such contracts may include, without limitation, contracts commonly known as interest rate swap agreements, rate locks, forward purchase agreements and futures or contracts providing for payments based on levels of, or change in, interest rates. Such contracts or arrangements may be entered into by the District in connection with, or incidental to, entering into or maintaining any (i) agreement that secures bonds or (ii) investment, or contract providing for investment, otherwise authorized by law. These contracts and arrangements may contain such payment, security, default, remedy, and other terms and conditions as determined by the Commission, after giving due consideration to the creditworthiness of the counterparty or other obligated party, including any rating by any nationally recognized rating agency. (1960, c. 66; 2008, c. 574)

§ 30. Any holder of bonds issued under the provisions of this act or of any of the coupons appertaining thereto, and the trustee under any trust agreement, except to the extent the rights herein given may be restricted by such trust agreement or by the resolution providing for the issuance of such bonds, may either at law or in equity, by suit, action, injunction, mandamus or other proceedings, protect and enforce any and all rights under the laws of the Commonwealth or granted by this act or under such trust agreement or such resolution and may enforce and compel the performance of all duties required by this act or by such trust agreement or resolution to be performed by the Commission or by any officer, agent or employee thereof, including the fixing, charging and collecting of rates, fees and charges for the services and facilities furnished by any sewage disposal system or systems and any sewer improvements.

Such resolution or trust agreement may also provide for the appointment of a receiver in the event of a default, who may enter upon and take possession of any facilities or property operated by the Commission, any of the revenues from the

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

operation of which are pledged for the security of such bonds, and operate and maintain the same and fix, charge, collect and receive all rates, fees and other charges and other revenues thereafter arising from such operation in the same manner as the Commission itself might do, and shall deposit all moneys collected in a separate account and apply the same in accordance with the duties and contracts of the Commission in such manner as the court appointing such receiver shall direct. (1960, c. 66)

§ 31. The exercise of the powers granted by this act shall be in all respects for the benefit of the inhabitants of the Commonwealth and for the promotion of their safety, health, welfare, convenience and prosperity, and as the operation and maintenance of the sewerage system *or associated water system* by the Commission will constitute the performance of essential governmental functions, the Commission shall not be required to pay any taxes or assessments upon the sewerage system, *associated water system* or any property acquired or used by the Commission under the provisions of this act or upon the income therefrom; and the revenue bonds issued under the provisions of this act, their transfer and the income therefrom, including any profit made on the sale thereof, shall at all times be free and exempt from taxation by the Commonwealth and by any county, city, town or other political subdivision thereof. (1960, c. 66)

§ 32. The Commission shall have no power to mortgage, pledge, encumber or otherwise dispose of any part of the sewerage system *or associated water system* of the District, except such part or parts thereof as may be no longer necessary or useful for the purposes of the Commission; however, the Commission may enter into lease purchase and installment purchase agreements for equipment and fixtures and grant security interests therein. The provisions of this section shall be deemed to constitute a contract with the holders of bonds of the District. The sewerage system *and associated water systems, if any*, of the District shall be exempt from any and all liability which may be incurred by, or imposed upon, the Commission or any county, city, town or political subdivision. (1960, c. 66; 2004, c. 120)

§ 33. Any bonds issued pursuant to the authority of this act are hereby made securities in which all public officers and public bodies of the Commonwealth and all political subdivisions thereto, all insurance companies, trust companies, banking associations, investment companies, executors, administrators, trustees and other fiduciaries, savings banks and savings institutions, including savings and loan associations, in the Commonwealth, may properly and legally invest funds, including capital in their control or belonging to them. Such bonds are hereby made securities which may properly and legally be deposited with and received by any Commonwealth or municipal officer or any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations is now or may hereafter be authorized by law. (1960, c. 66)

§ 34. The Commission shall keep and preserve complete and accurate accounts and records of all moneys received and disbursed by it and of all of its business and operations and of all property and funds owned or managed by it or under its control, and shall prepare and transmit to the Governor and to the governing body of each county, city and town which is in whole or in part embraced within the District, annually and at such other times as the Governor shall require, complete and accurate reports as to the state and content of such accounts and records, together with such information with respect thereto as the Governor may require. (1960, c. 66)

§ 35. Any substantial change in the method used by the Commission for treating,

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

*reclaiming* and/or disposing of sewage and industrial wastes so as to prevent the pollution of any waters within the District, shall, before being finally adopted or used by the Commission, be approved by the Virginia Department of Environmental Quality as effective and satisfactory for the purpose intended. (1960, c. 66; 2008, c. 574)

§ 36. Each county, city, town or other political subdivisions in whole or in part embraced within the District and each privately or publicly owned water company shall, at the request of the Commission, make available to the Commission or the officers, agents or employees thereof, any or all maps, plans, specifications, records, books, accounts or other data or things deemed necessary by the Commission in the exercise of its powers and duties under this act. (1960, c. 66)

§ 37. Any county or city which shall have previously withdrawn from the District shall, if requested by the Commission, provide by its sewerage system for the treatment and disposal of sewage and industrial wastes arising in or discharged from the District and shall agree with the Commission to treat and dispose of such sewage and industrial wastes so delivered at the cost of such treatment and disposal; provided, however, the Commission shall pay to such county or city the cost of installing any additional sewerage facilities necessitated thereby within such county or city. If the parties do not agree upon such cost, such cost shall be determined upon petition to the State Corporation Commission which is hereby authorized and directed to make such determination. (1960, c. 66)

§ 38. Each county, city, town or other political subdivision shall promptly pay to the Commission all rates, fees and charges which the Commission may charge to it as owner, tenant or occupant of real estate. The Commission and any county, city, town or political subdivision in whole or in part outside of the District are authorized to enter into contracts providing for or relating to the treatment, *reclamation* and/or disposal of sewage or industrial wastes originating in such county, city, town or political subdivision, by means of any sewage disposal system or such other facilities as the Commission may determine to provide for such purpose, and such county, city, town or political subdivision is authorized to do everything necessary or proper to carry out and perform every such contract. (1960, c. 66)

§ 39. The powers conferred by this act on counties, cities, towns and political subdivisions are in addition and supplemental to the powers conferred by any other law and may be exercised by resolution of the governing bodies thereof without regard to the terms, conditions, requirements, restrictions or other provisions contained in any other law, general or special, or in any charter, except that where rates, fees and charges are fixed by a city or town, that power shall be exercised by ordinance. (1960, c. 66)

§ 40. No county, city, town or other political subdivision or person or corporation, public or private, shall discharge, or suffer to be discharged, directly or indirectly into any waters within the District any sewage, industrial wastes or other refuse which may or will cause or contribute to pollution of any such waters. No county, city, town or other political subdivision or person or corporation, public or private, shall discharge, or suffer to be discharged, directly or indirectly, into any sewage disposal system or any other facilities of or provided by the Commission, any matter or thing which is or may be injurious or deleterious to such sewage disposal system or other facilities. No county, city, town or other political subdivision or person or corporation, public or private, shall plan, construct or place in service any new sewer improvement in the District which will

**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

or may thereafter be served by the Commission's sewerage system and which will or may thereafter, in the opinion of the Commission, cause overloading of the sewerage system or the entrance into the sewerage system of excessive ground or surface water or other matter or thing which is injurious or deleterious to the sewerage system. In order to carry out the provisions of this paragraph every county, city, town or other political subdivision or person or corporation, public or private, if requested by the Commission to do so, shall furnish to the Commission plans and specifications for such sewer improvements and shall provide access for Commission inspection of all new sewer construction work as it proceeds and of all construction records and materials used. In addition to other powers granted the Commission, it shall have the right to refuse service to any new sewer extension or improvement constructed or operated in violation of this paragraph. (1960, c. 66; 2012, c.724)

§ 41. Any county, city, town or other political subdivision or person or corporation, public or private, may be restrained, enjoined or otherwise prevented from violating or continuing the violation of any provision of this act by injunction, mandamus or any other appropriate remedy at law or in equity, by any court of competent jurisdiction, upon action, bill, suit or other proceeding instituted by the Commission or by any attorney for the Commonwealth. (1960, c. 66)

§ 42. No violation of any provision of this act shall be deemed to occur by reason of the discharge of sewage from any boat or vessel while afloat or on a marine railway or in dry dock. (1960, c. 66)

§ 43. Any person violating any provision of this act shall be guilty of a misdemeanor and upon conviction shall be punished accordingly. (1960, c. 66)

§ 44. No member, officer, agent or employee of the Commission shall contract with the Commission or be interested, either directly or indirectly, in any contract with the Commission, or in the sale of any property, either real or personal, to the Commission. This section shall not prevent any member, officer, agent or employee of the Commission from granting to the Commission, for a nominal consideration, any right of way, easement or lease. (1960, c. 66)

§ 45. All construction contracts, except in cases of emergency, that the Commission may let for construction or materials in connection with such construction shall be let after public advertising and in accordance with the provisions of the Virginia Public Procurement Act (§ [2.2-4300](#) et seq. of the Code of Virginia), the Virginia Public-Private Education Facilities and Infrastructure Act of 2002 (§ 56-575.1 et seq. of the Code of Virginia), as well as all subsequent amendments and additions to Virginia public procurement law. The Commission is authorized, in its discretion, to do any and all such work by force account. (1960, c. 66; 1964, c. 520; 2004, c. 120; 2008, c. 574)

§ 46. No pecuniary liability of any kind shall be imposed upon any county, city, town or other political subdivision constituting any part of the District because of any act, agreement, contract, tort, malfeasance, misfeasance, or nonfeasance, by or on the part of the Commission or any member of the Commission, or any of its officers, agents and employees, except as otherwise provided in this act with reference to contracts and agreements between the Commission and any county city town or other political subdivision. (1960, c. 66)



**HAMPTON ROADS SANITATION DISTRICT COMMISSION  
ENABLING ACT**

§ 47. The Commission is authorized to appoint all agents and employees of the Commission, dismiss them, fix their salaries or remuneration, assign their positions and titles, define their respective powers and duties, and require them or any of them to give bond payable to the District in such penalty as shall be fixed by the Commission conditioned upon the faithful discharge of their duties. (1960, c. 66)

§ 48. The circuit court of the county or the corporation or circuit court of the city in which any territory proposed to be added to the District is located, upon receipt of a petition of the Commission or a petition of the governing body of the territory proposed to be added to the District or a petition signed by not less than 25 percent of the qualified voters residing within the limits of the territory proposed to be added to the District, or a petition signed by the owners of not less than 25 percent by area of the real property within the territory proposed to be added to the District, shall enter an order fixing the date and hour and place for a public hearing on the question of the addition of territory to the District, which order shall set forth a copy of the petition, excluding signatures, and shall describe the territory proposed to be added to the District.

A copy of such order shall be published once a week for three consecutive weeks in a newspaper of general circulation within the territory proposed to be added to the District to be designated by such court and posted in such public places within such territory as shall be designated by such court. The first of such publications and such posting shall occur not less than 30 days prior to the date fixed for such hearing.

At the time and place stated in such order, or to which an adjournment may be taken by the court, the court shall receive and hear any objections of interested persons to the addition of such territory to the District or to any defect in the petition and the court may then or thereafter grant such petition with such modifications, if any, as it may deem advisable and which do not enlarge the territory proposed to be added to the District. All such objections shall be made in writing, in person or by attorney, and filed with the court at or before the time or adjourned time of such hearing. Any such objections not so made shall be considered as waived.

If upon such hearing the court shall be of the opinion that any area proposed to be added to the District will not be benefited by the District, then said area shall not be included in the District. The order altering the boundaries of and enlarging the District shall prescribe the territory to be added to the District and fix the boundaries thereof.

From an order enlarging the District under the provisions of this section an appeal shall lie to the Supreme Court of Virginia in the manner provided by law. (1960, c. 66; 2004, c. 120)

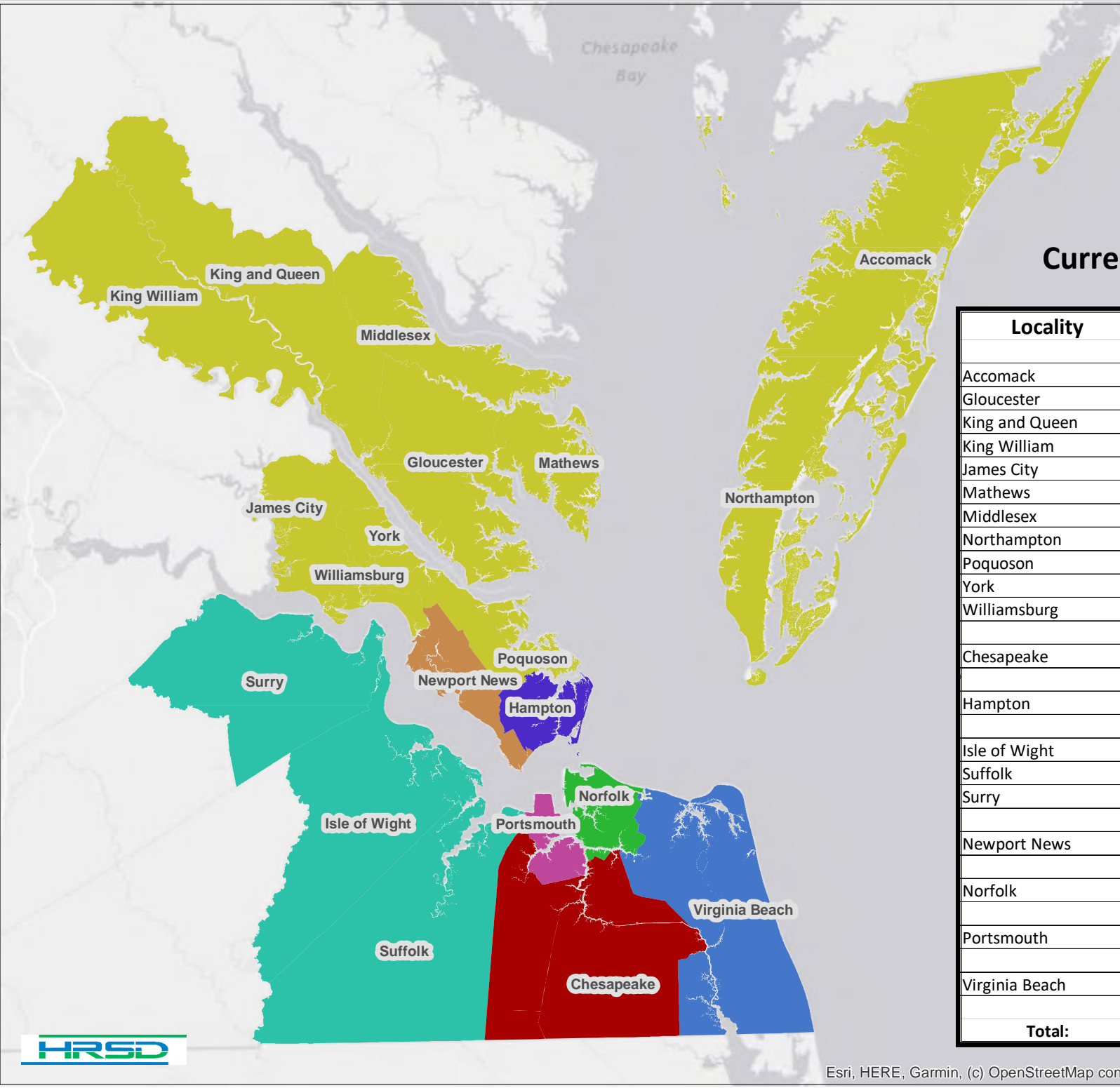
§ 49. Nothing in this act shall be construed to affect, impair, repeal or supersede in any way the powers of the State Water Control Board under the provisions of Chapter 3.1, Title 62.1, Code of Virginia, 1950, as amended. (1960, c. 66; 2004, c. 120)

§ 50. This act, being necessary for the welfare of the Commonwealth and its inhabitants, shall be liberally construed to effect the purposes thereof. (1960, c. 66)









§ 51. If any one or more sections, clauses, sentences or parts of this act shall be adjudged invalid, such judgment shall not affect, impair or invalidate the remaining provisions thereof, but shall be confined in its operation to the specific provisions held invalid, and the inapplicability or invalidity of any section, clause, sentence or part of this act in one or more instances or circumstances shall not be taken to affect or prejudice in any way its applicability or validity in any other instance. (1960, c. 66)



Chesapeake Bay



### Current Residency

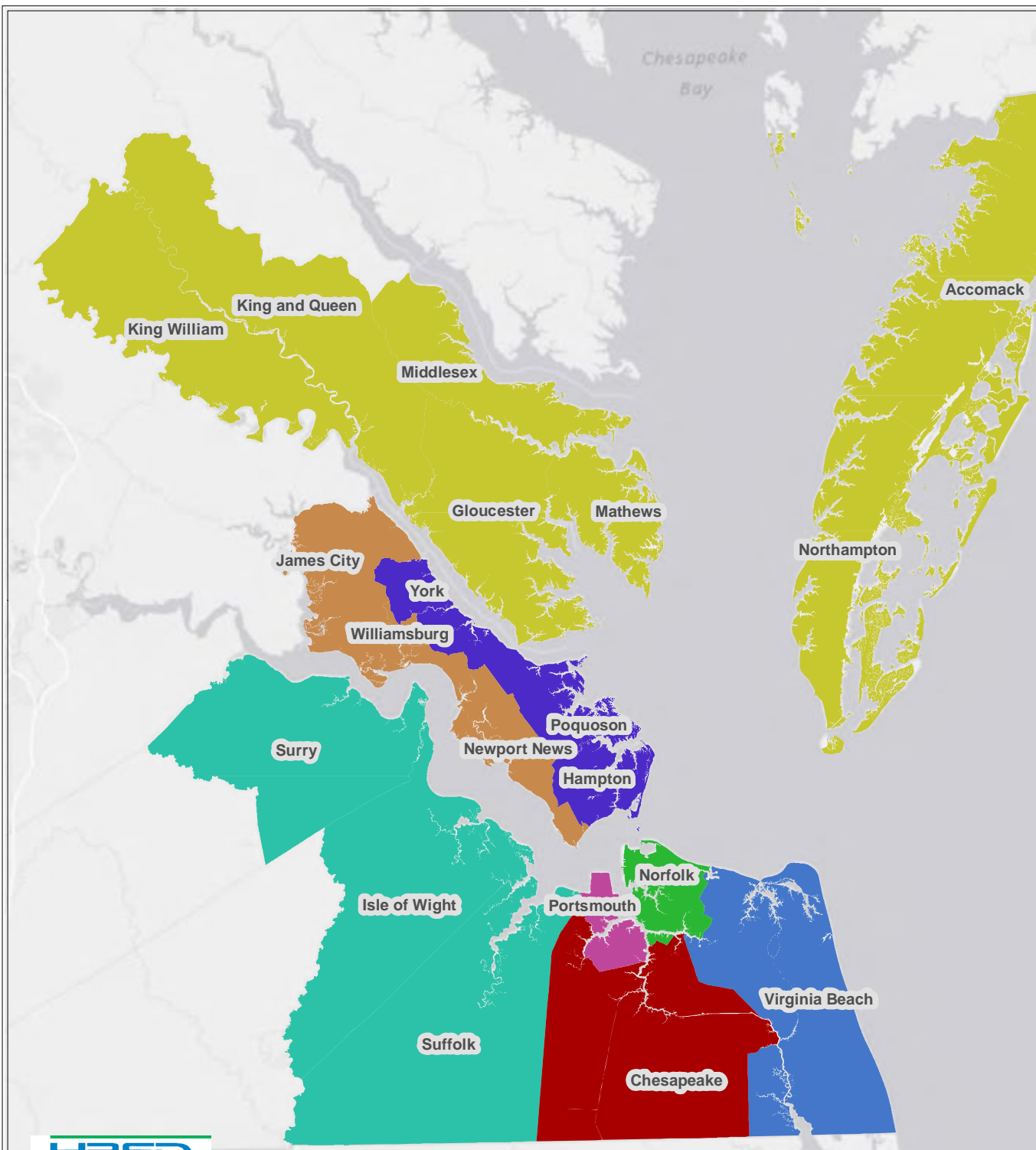
Locality	2019 Population	
Accomack	33,164	
Gloucester	36,858	
King and Queen	6,945	
King William	15,935	
James City	67,009	
Mathews	8,978	
Middlesex	10,959	
Northampton	12,398	
Poquoson	12,150	
York	65,187	(283,650)
Williamsburg	14,067	
Chesapeake	222,209	
Hampton	137,467	
Isle of Wight	35,270	
Suffolk	84,585	
Surry	7,058	(126,913)
Newport News	180,966	
Norfolk	242,803	
Portsmouth	95,595	
Virginia Beach	437,994	
<b>Total:</b>	<b>1,727,597</b>	





Chesapeake Bay

### Proposed Residency



Locality	2019 Population
Accomack	33,164
Gloucester	36,858
King and Queen	6,945
King William	15,935
Mathews	8,978
Middlesex	10,959
Northampton	12,398
Chesapeake	222,209
Hampton	137,467
Poquoson	12,150
York	65,187
Isle of Wight	35,270
Suffolk	84,585
Surry	7,058
James City	67,009
Newport News	180,966
Williamsburg	14,067
Norfolk	242,803
Portsmouth	95,595
Virginia Beach	437,994
<b>Total:</b>	<b>1,727,597</b>



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #4

Agenda Item 4. Fiscal Year 2020 Comprehensive Annual Finance Report (CAFR)

- [Presentation](#)
- [Draft CAFR](#)



Fiscal Year - 2020  
Comprehensive Annual Financial  
Report (CAFR)  
Unaudited

Jay Bernas, P.E.  
Chief Financial Officer

October 27, 2020

## Acknowledgements

- Lee Acors - Chief of Accounting
- Kassandra Pagan – Accounting Manager
- Kathy Stephanitsis - Accounting Manager
- Ramona Bradshaw - Accounting Manager
- Helen Mayhue - Financial Analyst
- Andrew Drumheller - Financial Analyst
- Donna Stinson - Business Analyst
- Anisea Burl - Accounts Payable Supervisor
- Charmaine Simmons - Accounts Payable Associate
- Ingrid Conde - Accounts Payable Associate
- Theresa Black - Accounts Payable Associate
- Danielle Raleigh - Accounting Coordinator
- Cherry Bekaert



**37** Consecutive Years

- Fiscal Year 2020 CAFR
  - BLUF (Bottom-Line Up Front)
  - Audit Update
  - Pension
  - Retiree Health Trust (OPEB)
  - Key Financial Policy Indicators
  - Conclusion

## FY2020 CAFR Highlights - Bottom Line Up Front (BLUF)


- August 2019 Refunding – Saved \$29.5 million NPV, saved \$3.8 million (gross) in FY20
- \$100 million Clean Water Loan – 1.15% for 20 years
- Two Ratings Upgrades: Moody's up to Aa1, S&P up to AA+
- Water consumption declining YOY (Year over Year)
- Revenues exceeded Expenses
- Total Debt Service Coverage = 2.81x
- Adjusted Days Cash on Hand = 304 days
- Total Days Cash on Hand = 517 days
- VRS Pension Funded Ratio = 88%
- Retirement Health Plan Funded Ratio = 92%



## Audit Update – Taussig Meter Error deemed Immaterial

- HRSD staff found invalid data when investigating billing Navy for saltwater inflow
- Resulted in over billing going back to 2012
- CAFR Impact
  - No restatement prior to FY20, immaterial
  - FY20 revenue reduced by \$4.0 million
    - \$2.7 million for FY2012 to FY2019
    - \$1.3 million for FY2020
- Navy has agreed to a \$4.0 million credit, estimated to take 12-16 months to expend
- Standard Operating Procedures (SOPs) developed, including additional oversight and trend deviation alerts

## VRS Pension Funded Ratio

Total Pension Liability	= \$245.7 million	Increased by \$7.4M due to lower return assumption
- Investment Value (Assets)	= \$216.6 million	
<b>Net Pension Liability (NPL)</b>	<b>= \$29.1 million</b> (up \$8.8M)	
<b>Funded Ratio</b>	<b>= 88.2%</b>  (down 2.9%)	



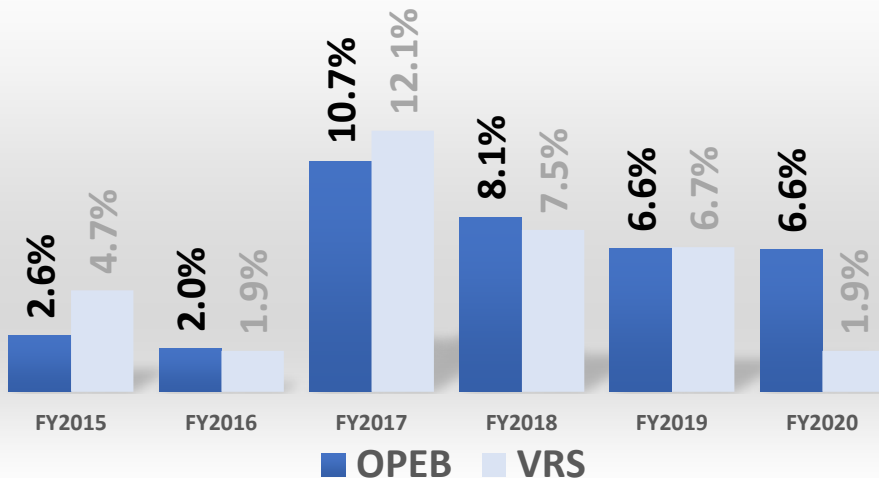
SOURCE: VRS annual reports and investment department data. NOTE: Investment return assumption was reduced from 7.5 percent in FY 2009 to 7.0 percent in FY 2010.



## Retiree Health Plan (RHP) Funded Ratio

Total OPEB Liability	= \$62.1 million (-\$3.6)
- Investment Value (Assets)	= \$56.9 million (+\$4.9)
<b>Net OPEB Liability (NPL)</b>	<b>= \$5.2 million (-\$8.5)</b>
<b>FY2020 RHP Funded Ratio</b>	<b>= 91.6% ↑ (+12.4%)</b>

RHP and VRS Annual Investment Returns



\* HRSD's assumed rate of return = 6.0%, 7.91% since inception

Median Funded Ratio = 47%



*\*FY21 Required Contribution = \$917k lower*

# Debt Service Coverage Ratio (DSCR) by Trust Agreement

## SENIOR TRUST AGREEMENT

**Total Debt Service Coverage Requirement** **FY 2020**

**Total Debt Service Coverage Ratio – Max Annual DS (Year 2023)\*** **2.44x**

Legal Coverage Requirement  1.00x

Debt Service Reserve Fund Test 1.35x

Fitch 2020 Medians	DSCR
--------------------	------

AAA	3.2
-----	-----

<b>AA</b>	<b>2.7</b>
-----------	------------

A	1.7
---	-----

All	2.4
-----	-----

<b>Large</b>	<b>2.4</b>
--------------	------------

## SUBORDINATE TRUST AGREEMENT/FINANCIAL POLICY

**Total Debt Service Coverage Requirement** **FY 2020**

**Total Debt Service Coverage Ratio – GAAP** **2.81x**

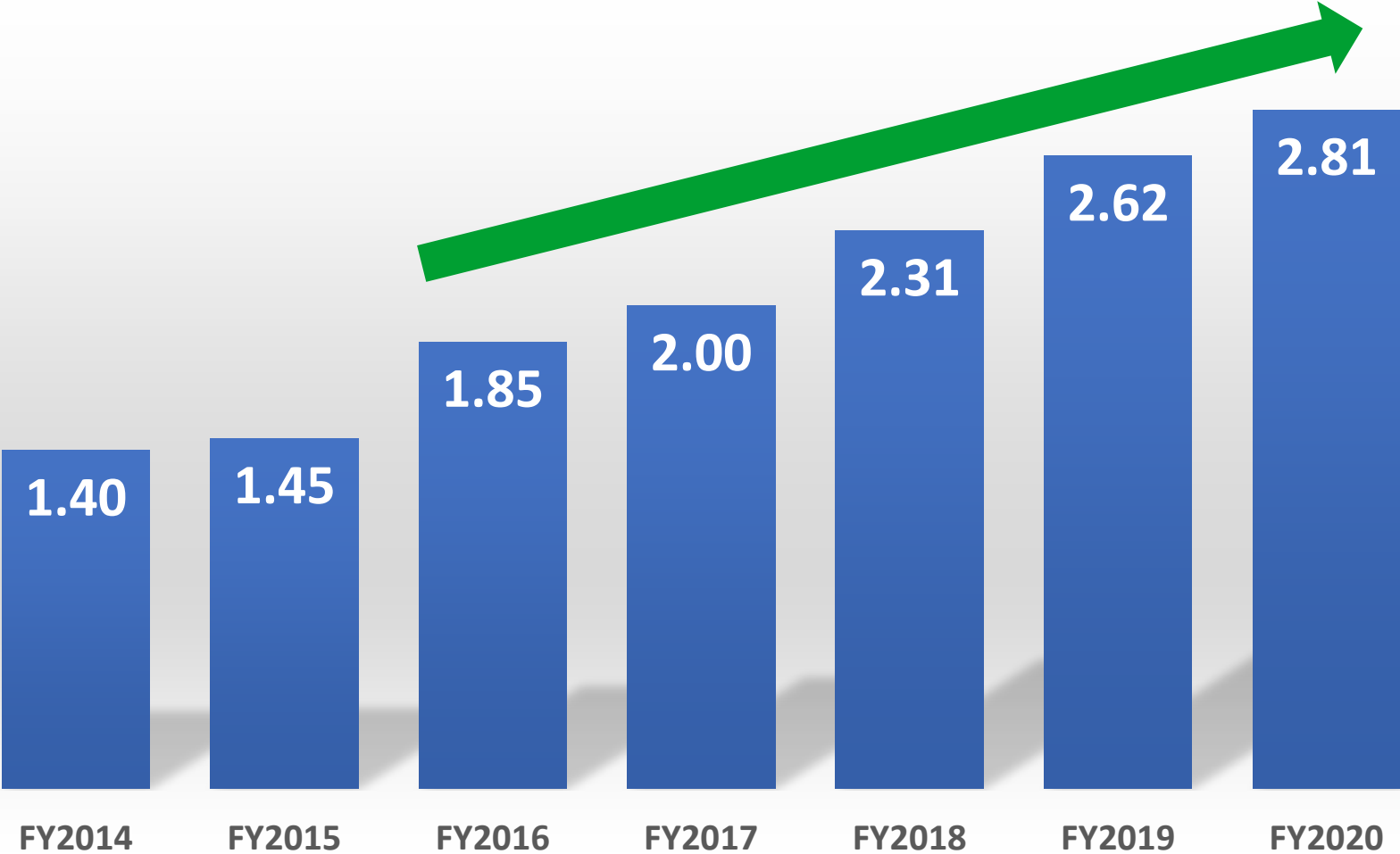
**Total Debt Service Coverage Ratio – Adjusted Cash Basis** **2.81x**

Financial Policy Requirement  1.40x

Legal Coverage Requirement 1.20x

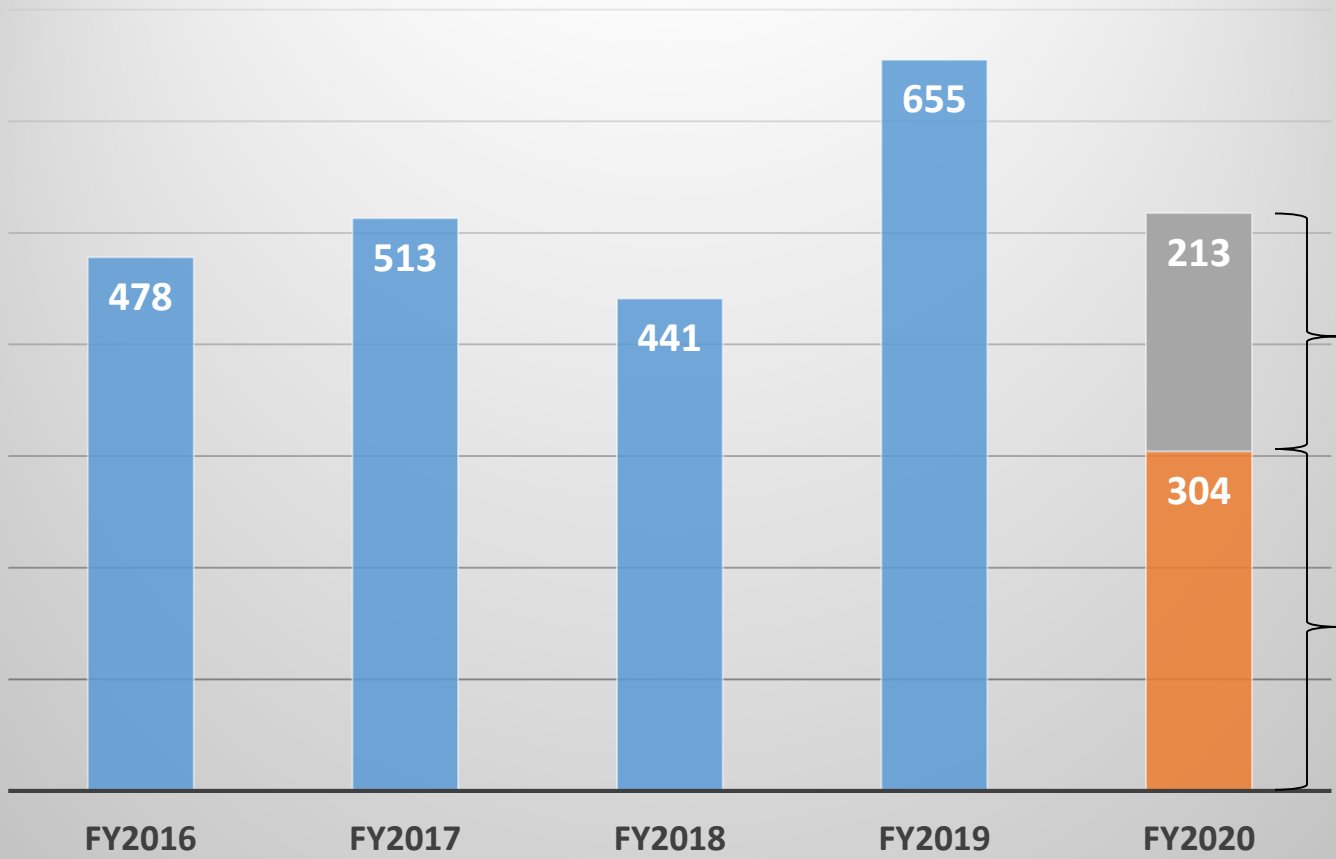
**FY20 Forecast =**  
**2.41x**

# Total Debt Service Coverage Trend



# Adjusted Days Cash on Hand (DCOH)

Adjusted Days Cash on Hand (days)



Fitch 2020 Medians	Total
AAA	617
<b>AA</b>	<b>555</b>
A	315
All	545
<b>Large</b>	<b>408</b>

Reserves and PAYGO for CIP

Adjusted Days Cash on Hand

Adjusted Days Cash on Hand Days Cash on Hand

Max Policy = 365 Days  
Min Policy = 270 Days

- Financial health is sound, but headwinds exist
  - Revenues will be impacted by COVID-19 related delinquencies
  - Expenses are stable
  - Pension and Retiree Health plans have high funded ratios
- On the Horizon
  - Debt Service Coverage will decline in FY2021 due to postponed rate increase
  - WIFIA Tranche 2 (\$400+ million)
  - Finalizing Consent Decree negotiations

- October 21, 2020 – Finance Committee Detailed Briefing
- October 27, 2020 – Commission Accepts the Finance Committee’s Report regarding the CAFR
- **Prior to November 27, 2020 - Final CAFR sent to the Commission and posted online (150 days after Fiscal Year End)**



---

Questions?

---



# Comprehensive Annual Financial Report

For the Fiscal Years Ended  
June 30, 2020 and 2019

*Hampton Roads Sanitation District  
(A Component Unit of the Commonwealth of Virginia)*





# HAMPTON ROADS SANITATION DISTRICT

COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR THE FISCAL YEARS ENDED JUNE 30, 2020

Draft

PREPARED BY THE FINANCE DEPARTMENT

# TABLE OF CONTENTS

COMPREHENSIVE ANNUAL FINANCIAL REPORT / HAMPTON ROADS SANITATION DISTRICT

## INTRODUCTORY SECTION

Transmittal Letter . . . . .	1
GFOA Certificate of Achievement . . . . .	3
Principal Officials . . . . .	4
Organizational Chart . . . . .	5
Map . . . . .	6
History . . . . .	7

## FINANCIAL SECTION

Independent Auditor Report . . . . .	10
Managements Discussion and Analysis (Unaudited) . . . . .	12

### Basic Financial Section

Statements of Net Position Assets . . . . .	18
Statements of Revenues, Expenses and Changes in Net Position . . . . .	20
Statements of Cash Flows . . . . .	21
Notes to Financial Statements . . . . .	22

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

Schedule of Changes in Net Pension Liability and Related Ratios . . . . .	58
Schedule of Employer Pension Contributions . . . . .	59
Schedule of Changes in Net RHP OPEB Liability and Related Ratios . . . . .	60
Schedule of RHP OPEB Contributions and Related Ratios . . . . .	61
Schedule of Employer's Share of Net GLI OPEB Liability and Related Ratios . . . . .	62
Schedule of Employer Group Life Insurance Contributions . . . . .	63
Schedule of Changes in Net HIC OPEB Liability and Related Ratios . . . . .	64
Schedule of Employer Health Insurance Credit Contributions . . . . .	65

## STATISTICAL SECTION (UNAUDITED)

Statistical Section Narrative . . . . .	68
Demographic and Other Miscellaneous Statistics . . . . .	70
Schedule of Operating Revenues, Expenses, Net Position by Component, and Debt Service Expenditures . . . . .	71
Objective Classification of Departmental Expenditures . . . . .	73
Ratios of Outstanding Debt by Type . . . . .	74
Rate Schedule - Wastewater Treatment Charges . . . . .	75
Rate Schedule - Wastewater Facility Charges . . . . .	76
Treatment Plant Operating Summary . . . . .	77

# TABLE OF CONTENTS

COMPREHENSIVE ANNUAL FINANCIAL REPORT / HAMPTON ROADS SANITATION DISTRICT

Ten Largest Customers .....	80
Ten Largest Employers .....	81
Comparison of Treated Flow to Billed Flow .....	82
Number of Employees by Identifiable Activity .....	83
<b>OTHER SUPPLEMENTAL SECTION (UNAUDITED)</b>	
Summary of Primary Bonded Debt Service .....	86
Budgetary Comparison Schedule .....	87
Notes to Budgetary Comparison Schedule .....	88
Schedule of Revenues, Expenditures, and Debt Service for Operations .....	89
Objective Classification of Departmental Expenditures for Operations .....	90
Department Summary of Expenditures .....	92

Draft

# Introductory Section





THIS PAGE INTENTIONALLY BLANK

Transmittal letter is not Available

Draft





Government Finance Officers Association

Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting

Presented to

**Hampton Roads Sanitation District  
Virginia**

For its Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

June 30, 2019

*Christopher P. Morill*

Executive Director/CEO

**Principal Officials**  
**June 30, 2020**

**COMMISSIONERS**

Frederick N. Elofson, CPA, Chair

Maurice P. Lynch, PhD, Vice-Chair

Michael E. Glenn

Vishnu K. Lakdawala, PhD

Willie Levenston, Jr.

Stephen C. Rodriguez

Elizabeth A. Taraski, PhD

Molly J. Ward

**COMMISSION SECRETARY**

Jennifer L. Cascio

**SENIOR STAFF**

Edward G. Henifin, PE  
General Manager

Jay A. Bernas, PE  
Director of Finance  
and Treasurer  
Steven G. de Mik, CPA  
Director of Operations

Charles B. Bott, PhD, PE  
Director of Water Technology  
And Research  
Paula A. Hogg  
Director of Talent Management

Donald C. Corrado  
Director of Information  
Technology  
Bruce W. Husselbee, PE  
Director of Engineering

James J. Pletl, PhD  
Director of Water Quality

Leila E. Rice, APR  
Director of  
Communications

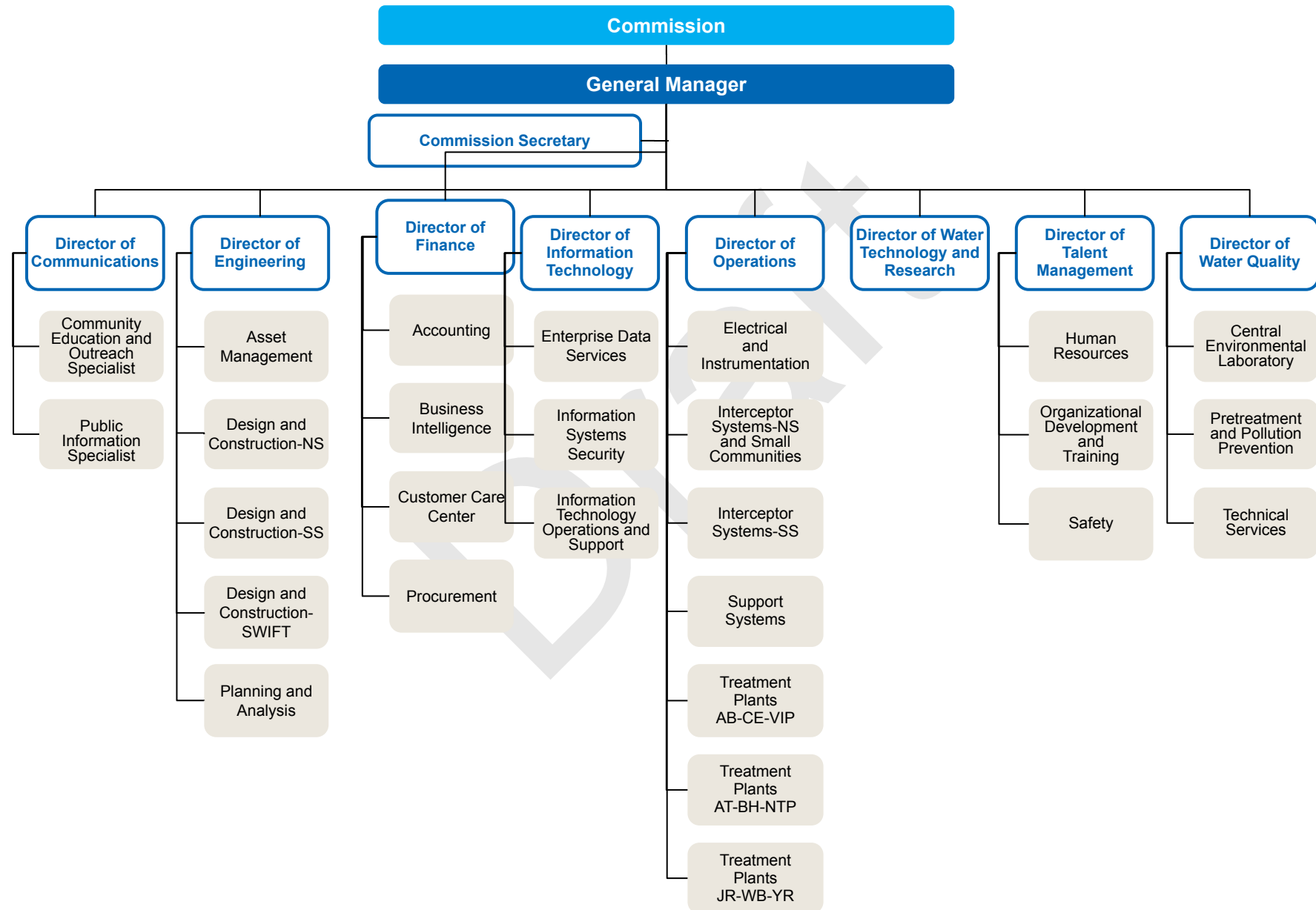
**COUNSEL**

Kellam, Pickrell, Cox & Anderson, PC  
General Counsel  
AquaLaw, PLC  
Special Counsel

Jones, Blechman, Woltz & Kelly, PC  
Associate Counsel  
Norton Rose Fulbright US, LLP  
Bond Counsel

# HRSD Organization Chart

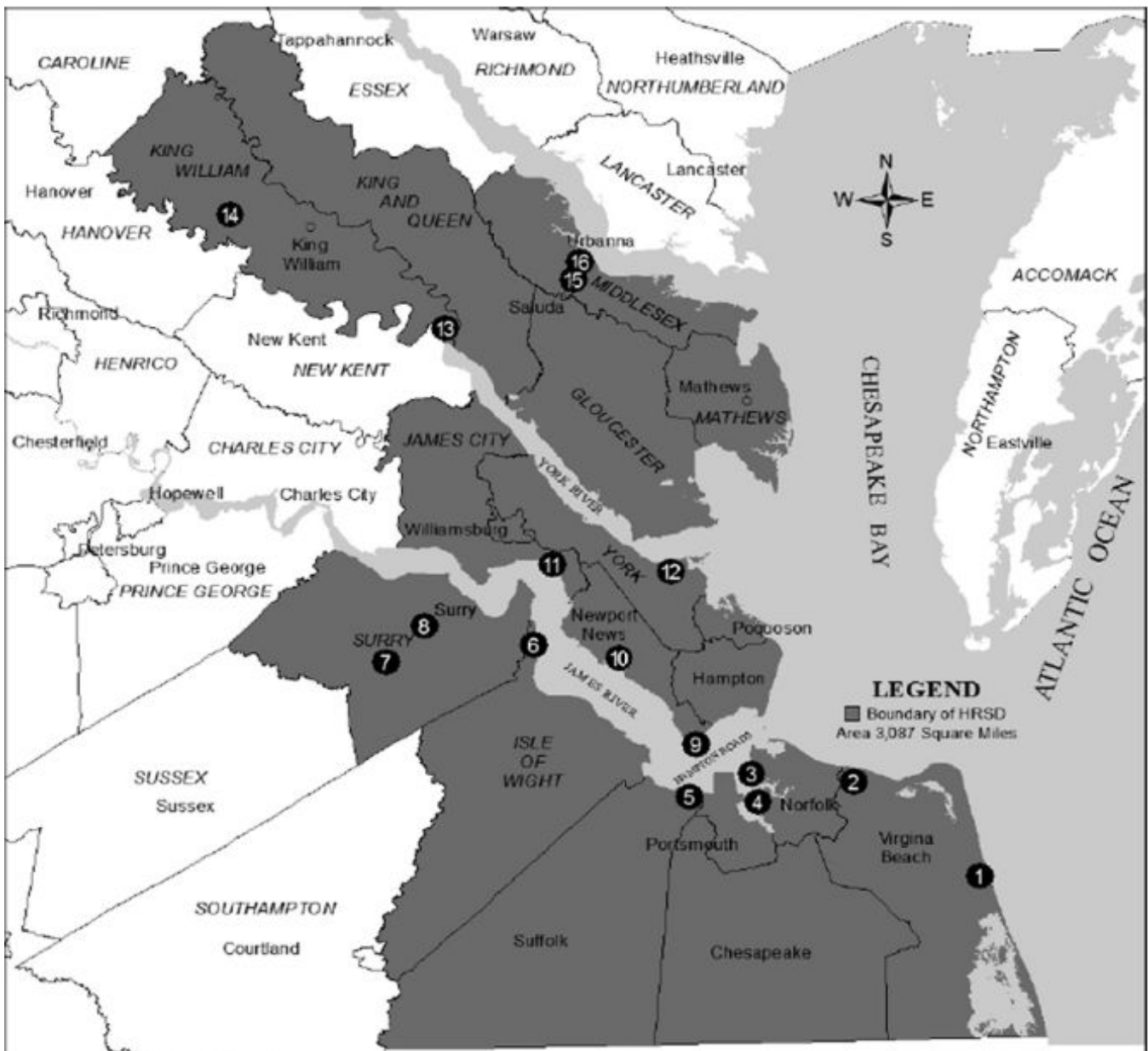
June 30, 2020



## HRSD Service Area A Political Subdivision of the Commonwealth of Virginia

Facilities include the following:

- |   |   |  |
|---|---|--|
| <ol style="list-style-type: none"> <li>1. Atlantic, Virginia Beach</li> <li>2. Chesapeake-Elizabeth, Va. Beach</li> <li>3. Army Base, Norfolk</li> <li>4. Virginia Initiative, Norfolk</li> <li>5. Nansemond, Suffolk</li> <li>6. Lawnes Point, Smithfield</li> <li>7. County of Surry</li> <li>8. Town of Surry</li> <li>9. Boat Harbor, Newport News</li> </ol> | <ol style="list-style-type: none"> <li>10. James River, Newport News</li> <li>11. Williamsburg, James City County</li> <li>12. York River, York County</li> <li>13. West Point, King William County</li> <li>14. King William, King William County</li> <li>15. Central Middlesex, Middlesex County</li> <li>16. Urbanna, Middlesex County</li> </ol> | <p style="text-align: center;">Serving the Cities of<br/>Chesapeake, Hampton,<br/>Newport News, Norfolk,<br/>Poquoson, Portsmouth, Suffolk,<br/>Virginia Beach, Williamsburg and the<br/>Counties of Gloucester,<br/>Isle of Wight, James City,<br/>King and Queen, King William,<br/>Mathews, Middlesex, Surry* and York</p> <p style="text-align: center;">*Excluding the Town of Claremon</p> |
|---|---|--|



## History of HRSD

June 30, 2020

HRSD can trace its beginnings to 1925 when the Virginia Department of Health condemned a large oyster producing area in Hampton Roads. The closure resulted in the Virginia General Assembly creating in 1927 a “Commission to Investigate and Survey the Seafood Industry of Virginia.” Other studies recommended a public body to construct and operate a sewage system in the area. HRSD was named after Hampton Roads, a ship anchorage used for five centuries located near the convergence of the James, Elizabeth and Nansemond Rivers, before they flow into the Chesapeake Bay in southeastern Virginia.

In 1934, the Virginia General Assembly created the Hampton Roads Sanitation Disposal Commission with instructions to plan the elimination of pollution in Hampton Roads. Recommendations were made to the General Assembly, which resulted in the Sanitary Districts Law of 1938, along with “an Act to provide for and create the Hampton Roads Sanitation District.” This Act required the qualified voters within HRSD to decide in a general election on November 8, 1938, if they favored creation of such a District. This referendum failed to gain a majority by about 500 votes out of nearly 20,000 votes cast. This led to a revision of the Act and another referendum was held on November 5, 1940, which resulted in a majority vote for the creation of the Hampton Roads Sanitation District.

The Enabling Act provides for HRSD to operate as a political subdivision of the Commonwealth of Virginia for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants. Its affairs are controlled by a Commission of eight members appointed by the Governor for four-year terms. Administration is under the direction of a General Manager, supported by department directors and their staffs.

HRSD began operations on July 1, 1946, using facilities acquired from the United States Government. The Warwick County Trunk Sewer, HRSD’s first construction project, began on June 26, 1946, and was funded by HRSD’s \$6.5 million Primary Pledge Sewer Revenue Bonds, dated March 1, 1946. The first treatment plant, the Army Base Plant, began operation on October 14, 1947. Since that time, the facilities of HRSD have grown to provide sanitary sewer service to all major population centers in southeastern Virginia. The population served has increased from nearly 288,000 in 1940 to about 1.7 million in 2020.

Throughout its rich history HRSD has earned many of its industry’s most prestigious awards. This tradition continued as the National Association of Clean Water Agencies (NACWA) presented Peak Performance Awards for outstanding compliance with National Pollutant Discharge Elimination System (NPDES) permits to the following HRSD treatment plants during the year ended June 30, 2020: Atlantic—Platinum Award (5 consecutive years of compliance), Boat Harbor—Platinum (18 consecutive years), James River—Platinum (6 consecutive years), Nansemond—Platinum (18 consecutive years), Virginia Initiative Plant—Platinum (24 consecutive years), Williamsburg—Platinum (25 consecutive years) and York River—Platinum (12 consecutive years).

Additional awards and honors received during the year ended June 30, 2020 include NACWA National Environmental Achievement Awards in the categories of Public Information and Education, and Workforce Development. HRSD also received the 2019 Oracle Construction and Engineering Excellence Award for Systems Integration in Public Infrastructure. The Virginia Initiative Plant was awarded the Virginia 2020 Pinnacle Award from the American Council of Engineering Companies for the plant’s Nutrient Reduction Improvements Project. HRSD was also awarded a Design-Build Institute of America National Award in the “Water/Wastewater” Category and an Honorable Mention in the “Best in Process” Category for the SWIFT Research Center. The SWIFT Program and SWIFT Research Center also earned the 2019 Engineering Achievement Award from the Engineers Club of Hampton Roads.



THIS PAGE INTENTIONALLY BLANK



# Financial Section

Independent Auditors' Report is not Available

Draft



## MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)

This narrative overview and analysis of the financial activities of the Hampton Roads Sanitation District (HRSD) for the fiscal years ended June 30, 2020 and 2019, is provided by HRSD's management. Readers of the accompanying financial statements are encouraged to consider this information in conjunction with that furnished in the letter of transmittal, which can be found on pages 1 through 3 of this report.

### FINANCIAL HIGHLIGHTS

- Total net position increased by \$88.2 million, or 11.3 percent, in 2020 as a result of this year's operations.
- Total revenues increased by \$15.7 million, or 4.9 percent. This increase is primarily attributable to higher wastewater revenue as a result of rate increases, offset by lower investment income due to market volatility.
- Operating expenses increased by \$9.2 million, or 4.3 percent, principally due to a \$3.3 million increase in personal services, a \$3.2 million increase in fringe benefits, a \$1.6 million increase in contractual services, and a \$1.2 million increase in bond cost of issuance.
- HRSD received \$0.6 million in contributions in 2020, primarily received from cost sharing joint venture projects with local jurisdictions..
- Restricted cash and cash equivalents decreased \$14.7 million, or 34.4 percent, primarily due capital construction activity. Unrestricted cash and cash equivalents and investments decreased \$43.9 million, or 15.4 percent, primarily due to utilizing bond proceeds instead of cash to fund capital construction.
- Net Property, Plant and Equipment had an increase of \$99.6 million, or 7.3 percent, primarily due to expansion of treatment plants and interceptor systems.

### OVERVIEW OF FINANCIAL STATEMENTS

HRSD's Basic Financial Statements are comprised of the financial statements and the notes to the financial statements. This report also contains required supplementary information and other supplementary information in addition to the Basic Financial Statements.

The Basic Financial Statements, found on pages 18 through 21 of this report, are designed to provide readers with a broad overview of HRSD's finances in a manner similar to a private sector business.

The Statements of Net Position, found on pages 18 and 19 of this report, present information on all of HRSD's assets, deferred outflows of resources, liabilities, and deferred inflows of resources; the difference between these components is reported as net position. Over time, changes in net position may serve as a useful indicator of whether the financial position of HRSD is improving or deteriorating.

The Statements of Revenues, Expenses and Changes in Net Position, found on page 20 of this report, present all of HRSD's revenues and expenses, showing how HRSD's net position changed during the year. All changes in net position are reported as soon as the underlying event takes place, thus giving rise to the changes, regardless of the timing of the cash flows. Thus, revenues and expenses are reported for some items that will only result in cash flows in future fiscal periods.

The Notes to Financial Statements, found on pages 22 through 53 of this report, provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the Basic Financial Statements and the related notes, this report also presents certain required supplementary information concerning HRSD's progress in funding its obligations to provide pension and other postemployment benefits to its employees.

Required Supplementary Information can be found beginning on page 58 of this report.

### FINANCIAL ANALYSIS

As noted earlier, net position may serve over time as a useful indicator of HRSD's financial position. Assets exceeded liabilities by \$869.9 million at June 30, 2020 and by \$781.7 million at June 30, 2019.

By far, the largest portion of HRSD's net position (74.3 percent and 63.3 percent at June 30, 2020 and 2019, respectively) reflects its net investment in capital assets (e.g. land, buildings, machinery and equipment) less any related debt used to acquire those assets still outstanding, net of unspent bond proceeds. HRSD uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although

HRSD's net investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, because the capital assets themselves cannot be liquidated to reduce these liabilities.

HRSD's net position is summarized in the following condensed Statements of Net Position as of June 30:

### HRSD's Condensed Statements of Net Position

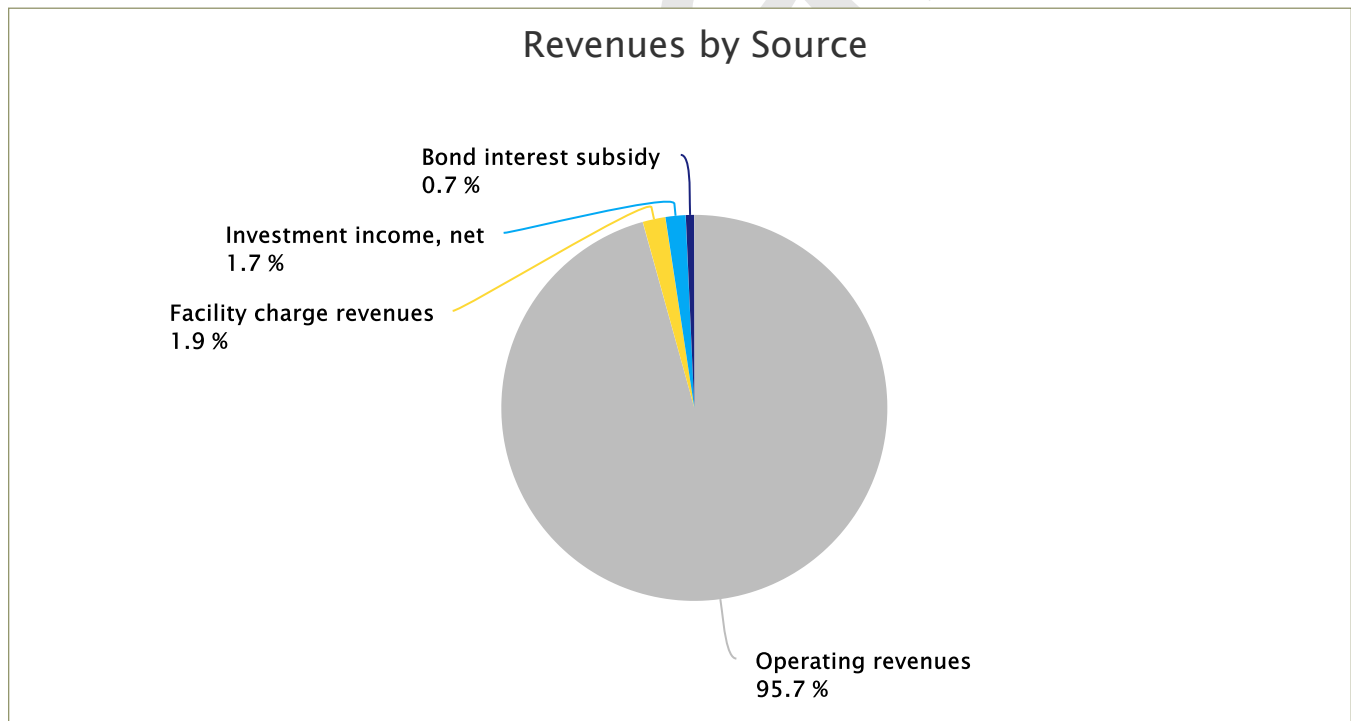
(in thousands)	2020	2019	2018	2020 vs. 2019	
				Dollars	Percent
Capital assets	\$ 1,457,955	\$ 1,358,327	\$ 1,321,644	\$ 99,628	7.3%
Current and noncurrent assets	337,233	399,840	357,699	(62,607)	(15.7%)
<b>Total assets</b>	<b>\$ 1,795,188</b>	<b>\$ 1,758,167</b>	<b>\$ 1,679,343</b>	<b>\$ 37,021</b>	<b>2.1%</b>
<b>Deferred outflows of resources</b>	<b>37,596</b>	<b>21,442</b>	<b>20,762</b>	<b>16,154</b>	<b>75.3%</b>
Long-term liabilities	\$ 791,706	\$ 847,928	\$ 850,928	\$ (56,222)	(6.6%)
Current liabilities	157,752	140,564	139,914	17,188	12.2%
<b>Total liabilities</b>	<b>\$ 949,458</b>	<b>\$ 988,492</b>	<b>\$ 990,842</b>	<b>\$ (39,034)</b>	<b>(3.9%)</b>
<b>Deferred inflows of resources</b>	<b>13,419</b>	<b>9,412</b>	<b>11,634</b>	<b>4,007</b>	<b>42.6%</b>
Net investment in capital assets	\$ 646,720	\$ 494,779	\$ 512,398	\$ 151,941	30.7%
Restricted for debt service	28,155	28,553	27,799	(398)	(1.4%)
Unrestricted	195,032	258,373	157,432	(63,341)	(24.5%)
<b>Total net position</b>	<b>\$ 869,907</b>	<b>\$ 781,705</b>	<b>\$ 697,629</b>	<b>\$ 88,202</b>	<b>11.3%</b>

At June 30, 2019 HRSD retained \$14.3 million in unspent bond proceeds. As of June 30, 2020, there were no unspent bond proceeds. The increase in capital assets and the corresponding decreases in current and noncurrent assets is primarily due to an increase in the utilization of cash to fund and complete capital improvement projects in FY20.

The changes in HRSD's net position can be determined by reviewing the following condensed Statements of Revenues, Expenses and Changes in Net Position:

**HRSD's Condensed Statements of Revenues, Expenses and Changes in Net Position**

(in thousands)	2020	2019	2018	2020 vs. 2019	
				Dollars	Percent
<b>Revenues:</b>					
Operating revenues	\$ 322,032	\$ 303,121	\$ 279,043	\$ 18,911	6.2%
Facility charge revenues	6,444	6,662	6,673	(218)	(3.3%)
Investment income, net	5,876	8,719	2,272	(2,843)	(32.6%)
Bond interest subsidy	2,205	2,308	2,330	(103)	(4.5%)
<b>Total revenues</b>	<b>336,557</b>	<b>320,810</b>	<b>290,318</b>	<b>15,747</b>	<b>4.9%</b>
<b>Operating expenses:</b>					
Wastewater treatment	122,393	117,189	116,982	5,204	4.4%
General and administrative	46,949	41,121	40,480	5,828	14.2%
Depreciation and amortization	51,383	53,225	52,349	(1,842)	(3.5%)
<b>Total operating expenses</b>	<b>220,725</b>	<b>211,535</b>	<b>209,811</b>	<b>9,190</b>	<b>4.3%</b>
<b>Non-operating expenses:</b>					
Bond issuance costs	1,290	53	1,061	1,237	2334.0%
Capital distributions to localities	-	-	311	-	-%
Disposal of capital assets	739	-	-	739	100.0%
Interest expense	26,179	27,964	20,226	(1,785)	(6.4%)
<b>Total non-operating expenses</b>	<b>28,208</b>	<b>28,017</b>	<b>21,598</b>	<b>191</b>	<b>0.7%</b>
<b>Total expenses</b>	<b>248,933</b>	<b>239,552</b>	<b>231,409</b>	<b>9,381</b>	<b>3.9%</b>
Income before capital contributions	87,624	81,258	58,909	6,366	7.8%
Capital contributions	578	2,818	4,626	(2,240)	(79.5%)
Change in net position	88,202	84,076	63,535	4,126	4.9%
Total net position - beginning, as restated	781,705	697,629	634,094	84,076	12.1%
<b>Total net position - ending</b>	<b>\$ 869,907</b>	<b>\$ 781,705</b>	<b>\$ 697,629</b>	<b>\$ 88,202</b>	<b>11.3%</b>



Operating revenues increased by \$18.9 million, or 6.2 percent, in 2020 and by \$24.1 million, or 8.6 percent, in 2019. The majority of these increases in both years are attributable to various rate increases in metered public wastewater services. Net Investment income decreased \$2.8 million in 2020, or 32.6 percent, primarily due to FY20 market volatility, compared to \$6.4 million increase, or 283.8 percent, in 2019, which was primarily due to higher interest rates and better investment returns on higher cash and investment balances.

Operating expenses increased by \$9.2 million, or 4.3 percent in 2020 and by \$1.7 million, or 0.8 percent, in 2019. Increases in 2020 were principally due to a \$1.6 million increase in contractual services, a \$3.3 million increase

in personal services, \$3.2 million increase in fringe benefits and a \$1.2 million increase in bond cost of issuance. Increases in 2019 were principally due to a \$2.0 million increase in contractual services and a \$1.3 million increase in major repairs, which was partially offset by a \$1.6 million decline in retirement expenses from the annual VRS Reconciliation.

In 2020 and 2019, HRSD received \$0.6 million and \$2.8 million, respectively, in capital contributions to help finance its capital improvement program.

## CAPITAL ASSETS AND DEBT ADMINISTRATION

### Capital Assets

At the end of 2020 and 2019, HRSD had approximately \$1.5 billion and \$1.4 billion, respectively, invested in a broad range of capital assets, including land, wastewater treatment plants, interceptor systems, pump stations, administrative and maintenance buildings, equipment and software. These amounts represent a net increase of \$99.6 million, or 7.3 percent in 2020 and a net increase of \$36.7 million, or 2.8 percent in 2019.

The following summarizes HRSD's capital assets, net of accumulated depreciation, as of June 30:

#### HRSD's Capital Assets

(in thousands)	2020	2019	2018
Land	\$ 12,229	\$ 12,174	\$ 12,174
Treatment plants	654,809	549,645	572,942
Interceptor systems	447,372	440,236	442,376
Buildings	27,305	29,617	31,186
Small community facilities	16,672	17,222	17,718
Office equipment	754	1,513	2,555
Automotive	1,716	1,941	2,092
Other equipment	4,309	6,007	8,171
Software and intangible assets	2,204	5,441	10,147
	1,167,370	1,063,796	1,099,361
Construction in progress	290,585	294,531	222,283
<b>Net property, plant and equipment</b>	<b>\$ 1,457,955</b>	<b>\$ 1,358,327</b>	<b>\$ 1,321,644</b>

The following summarizes the changes in capital assets for the years ended June 30:

(in thousands)	2020	2019	2018
Balance at beginning of year	\$ 1,358,327	\$ 1,321,644	\$ 1,255,952
Additions	156,518	17,661	143,807
Retirements	(1,819)	(1,050)	-
Depreciation and amortization	(51,382)	(53,226)	(52,349)
Accumulated depreciation retired	257	1,050	-
Net increase (decrease) in construction in progress	(3,946)	72,248	(25,766)
<b>Balance at end of year</b>	<b>\$ 1,457,955</b>	<b>\$ 1,358,327</b>	<b>\$ 1,321,644</b>

The largest increase in capital assets in the past two years has been in treatment plant construction and interceptor system construction, which includes pipeline replacements, pump station rehabilitations and other improvements to the infrastructure. HRSD's total capital expenditures were \$161.1 million during 2020 and \$95.7 million during 2019. The largest increase in FY20 was the completion of the Virginia Initiative treatment plant nutrient project and improvements to the Nansemond interceptor system. During 2019, HRSD invested significant funds in improvements to the Atlantic and Virginia Initiative treatment plants, the Atlantic and Chesapeake-Elizabeth interceptor systems, and the SWIFT program planning and development.

### Long Term Debt

At June 30, 2020, HRSD had a total of \$ 835.5 million in revenue bonds outstanding versus \$ 891.6 million in 2019. The decrease in total outstanding revenue bonds is primarily due to \$14 million reduction in principal and approximately \$36 million reduction in bond premium due to bond refunding in fiscal year 2020.

The following summarizes HRSD's outstanding debt principal at June 30:

**HRSD's Outstanding Debt**

(in thousands, net of premium)

	2020	2019	2018
Senior revenue bonds	\$ 214,212	\$ 313,340	\$ 332,141
Subordinate revenue bonds	597,745	512,168	485,468
<b>Total outstanding debt</b>	<b>\$ 811,957</b>	<b>\$ 825,508</b>	<b>\$ 817,609</b>

HRSD's financial strengths are reflected in its high credit ratings listed below:

Ratings Agency	Senior Debt	Subordinate Long-term	Subordinate Short-term
Standard & Poor's	AA+	AA	A-1+
Fitch Ratings	AA+	AA	F1+
Moody's Investors Service	Aa1	Aa2	n/a

The development of HRSD's Capital Improvement Program and its related debt programs are governed by revenue Trust Agreements. The Senior Trust agreement requires the senior debt coverage to be 1.2 times maximum annual debt service and total debt service coverage of 1.0 times maximum annual debt service, both on a Generally Accepted Accounting Principles (GAAP) basis. The Amended and Subordinate Trust agreement was amended in 2016 to account for future Consent Decree expenses related to Locality wet weather improvements that HRSD will not own. In the Amended Trust, Operating Expenses were redefined as shown below for the purposes of calculating an "Adjusted" debt service coverage on a cash basis:

"Operating Expenses" as defined by the Enabling Act and as used in the Senior Trust Agreement, operating expenses includes the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves therefore as may be provided in the resolution providing for the issuance or such revenue bonds or in the trust agreement securing the same. As defined in the Subordinate Trust Agreement, Operating Expenses includes those expenses required to pay the cost of maintaining, repairing and operating the Wastewater System, including, but not limited to, reasonable and necessary usual expenses of administration, operation, maintenance and repair, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the Wastewater System, insurance premiums, credit enhancement and liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, and deposits into a self-insurance program. Operating Expenses shall exclude allowance for depreciation and amortization and expenditures for extraordinary maintenance or repair or improvements. Operating Expenses shall also exclude expenses for improvements that will not be owned by HRSD but which will, in the reasonable determination of the Commission, as evidenced by a resolution thereof, maintain or improve the integrity of the Wastewater System.

The Amended and Subordinate Trust agreement requires total debt service coverage to be 1.2 times current year debt service on an Adjusted basis. HRSD's Financial Policy and operating and capital improvement plans were developed with the intent to maintain coverage ratios in excess of these requirements. HRSD's Financial Policy requires senior debt service coverage to be 1.5 times and total debt service coverage to be 1.4 times.

	Senior Debt Service Coverage		Total Debt Service Coverage	
	GAAP	Adjusted	GAAP	Adjusted
Senior Trust Agreement	1.20x (MADS)	None	1.00x (MADS)	None
Amended Subordinate Trust Agreement	None	None	None	1.20x (Current Year)
Financial Policy	None	1.50x (Current Year)	None	1.40x (Current Year)

More detailed information regarding HRSD's capital assets and long-term debt is presented in Notes 5 and 9, respectively.

**ECONOMIC FACTORS AND RATES**

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 112 million gallons per day (MGD) to approximately 110 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

Wastewater treatment rates for the 2020 fiscal year were increased by approximately 9 percent at the beginning of the year for the vast majority of HRSD customers. The increases are necessary to meet growing capital improvement needs and the increased cost of treatment operations. Facility charge revenues continued to decrease in 2020 primarily due to decrease in new construction activity across the region. Facility charge revenues comprised only 1.9 percent of HRSD's total revenues in 2020.

**CONTACTING HRSD'S FINANCIAL MANAGEMENT**

This financial report is designed to provide a general overview of HRSD's finances for all those with an interest. Questions concerning the information provided in this report or any requests for additional information should be addressed to the Director of Finance, 1434 Air Rail Avenue, Virginia Beach, Virginia 23455.

Draft

**STATEMENTS OF NET POSITION  
AS OF JUNE 30, 2020 AND 2019**

**ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

(in thousands)

	2020	2019
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 175,210	\$ 155,453
Cash and cash equivalents - Restricted	28,155	42,888
Accounts receivable, net	39,178	42,977
Other current assets	2,933	3,105
<b>TOTAL CURRENT ASSETS</b>	<b>245,476</b>	<b>244,423</b>
<b>NON-CURRENT ASSETS</b>		
Cash and cash equivalents	64,900	128,530
Inventory	26,857	26,887
	91,757	155,417
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>		
Land	12,229	12,174
Treatment plants	1,384,293	1,248,897
Interceptor systems	638,150	619,068
Buildings	48,081	49,132
Small community facilities	25,625	25,625
Office equipment	44,613	44,613
Automotive	19,127	18,540
Other equipment	37,517	36,887
Software and intangible assets	40,074	40,074
	2,249,709	2,095,010
Less: Accumulated depreciation and amortization	1,082,339	1,031,214
	1,167,370	1,063,796
Construction in progress	290,585	294,531
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>	<b>1,457,955</b>	<b>1,358,327</b>
<b>TOTAL NON-CURRENT ASSETS</b>	<b>1,549,712</b>	<b>1,513,744</b>
<b>TOTAL ASSETS</b>	<b>1,795,188</b>	<b>1,758,167</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred loss on debt refunding, net	24,029	13,745
Differences between expected and actual experience:		
OPEB plans	2,894	3,154
Pension plan	1,268	1,251
Changes of assumption:		
OPEB plans	312	-
Pension plan	5,764	-
Net difference between OPEB plans projected and actual earnings on OPEB plans investments	4	-
Change in proportion, OPEB plans	41	51
Contributions subsequent to the measurement date:		
OPEB plans	387	375
Pension plan	2,897	2,866
<b>TOTAL DEFERRED OUTFLOWS OF RESOURCES</b>	<b>37,596</b>	<b>21,442</b>
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>	<b>\$ 1,832,784</b>	<b>\$ 1,779,609</b>

(continued)

See Accompanying Notes to Financial Statements

**STATEMENTS OF NET POSITION  
AS OF JUNE 30, 2020 AND 2019**

**LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION**

(in thousands)

	2020	2019
<b>CURRENT LIABILITIES</b>		
Trade and contracts payable	\$ 37,454	\$ 25,526
Contract retention	7,626	4,164
Accrued salaries and wages	3,154	2,703
Current portion of bonds payable	35,906	34,950
Variable rate demand bonds	50,000	50,000
Current portion of compensated absences	6,160	5,888
Debt interest payable	8,875	11,402
Other liabilities	8,577	5,931
<b>TOTAL CURRENT LIABILITIES</b>	<b>157,752</b>	<b>140,564</b>
<b>LONG-TERM LIABILITIES</b>		
Compensated absences	2,410	2,201
Net OPEB liability	10,664	18,744
Net pension liability	29,059	20,304
Bonds payable	749,573	806,679
<b>TOTAL LONG-TERM LIABILITIES</b>	<b>791,706</b>	<b>847,928</b>
<b>TOTAL LIABILITIES</b>	<b>949,458</b>	<b>988,492</b>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Differences between expected and actual experience:		
OPEB plans	6,343	71
Pension plan	1,281	2,951
Changes of assumptions:		
OPEB plans	1,852	1,610
Pension plan	1,388	2,250
Net difference between projected and actual earnings on:		
OPEB plan investments	707	828
Pension plan investments	1,848	1,702
<b>TOTAL DEFERRED INFLOWS OF RESOURCES</b>	<b>13,419</b>	<b>9,412</b>
<b>NET POSITION</b>		
Net investment in capital assets	646,720	494,779
Restricted for debt service	28,155	28,553
Unrestricted	195,032	258,373
<b>TOTAL NET POSITION</b>	<b>869,907</b>	<b>781,705</b>
<b>TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>	<b>\$ 1,832,784</b>	<b>\$ 1,779,609</b>

See Accompanying Notes to Financial Statements



**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION  
FOR THE FISCAL YEARS ENDED JUNE 30, 2020 and 2019**

(in thousands)

	2020	2019
<b>OPERATING REVENUES</b>		
Wastewater treatment charges	\$ 318,585	\$ 299,323
Miscellaneous	3,447	3,798
<b>TOTAL OPERATING REVENUES</b>	<u>322,032</u>	<u>303,121</u>
<b>OPERATING EXPENSES</b>		
Wastewater treatment	122,393	117,189
General and administrative	46,949	41,121
Depreciation and amortization	51,383	53,225
<b>TOTAL OPERATING EXPENSES</b>	<u>220,725</u>	<u>211,535</u>
<b>OPERATING INCOME</b>	<u>101,307</u>	<u>91,586</u>
<b>NON-OPERATING REVENUES (EXPENSES)</b>		
Wastewater facility charges	6,444	6,662
Investment income	5,876	8,719
Bond interest subsidy	2,205	2,308
Bond issuance costs	(1,290)	(53)
Disposal of capital assets	(739)	-
Interest expense	(26,179)	(27,964)
<b>NET NON-OPERATING EXPENSES</b>	<u>(13,683)</u>	<u>(10,328)</u>
<b>INCOME BEFORE CAPITAL CONTRIBUTIONS</b>	<u>87,624</u>	<u>81,258</u>
<b>CAPITAL CONTRIBUTIONS</b>		
State capital grants received	-	2,444
Other capital contributions	578	374
<b>CAPITAL CONTRIBUTIONS</b>	<u>578</u>	<u>2,818</u>
<b>CHANGE IN NET POSITION</b>	88,202	84,076
<b>TOTAL NET POSITION - Beginning</b>	<u>781,705</u>	<u>697,629</u>
<b>TOTAL NET POSITION - Ending</b>	<u>\$ 869,907</u>	<u>\$ 781,705</u>

See Accompanying Notes to Financial Statements

**STATEMENTS OF CASH FLOWS**  
**FOR THE FISCAL YEARS ENDED JUNE 30, 2020 and 2019**

(in thousands)	2020	2019
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers		\$ 301,230
Other operating revenues		3,798
Cash payments to suppliers for goods and services		(108,500)
Cash payments to employees for services		(56,424)
Net cash provided by operating activities	-	140,104
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>		
Capital distributions to localities	-	-
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Wastewater facility charges		6,662
Acquisition and construction of property, plant and equipment		(92,514)
Proceeds from capital debt		35,040
Bond interest subsidy		2,308
Principal paid on capital debt		(27,141)
State capital grants		2,444
Other capital contributions		374
Bond issuance costs		(53)
Interest paid on capital debt		(34,764)
Net cash used in capital and related financing activities	-	(107,644)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchases of investments	-	-
Sales and maturities of investments		124,090
Interest and dividends on investments		9,166
Net cash provided by investing activities	-	133,256
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS AND CASH AND CASH EQUIVALENTS - RESTRICTED</b>		165,716
<b>CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT BEGINNING OF YEAR</b>		161,155
<b>CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT END OF YEAR</b>	<b>\$ -</b>	<b>\$ 326,871</b>
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities</b> (in thousands)		
Operating income		\$ 91,586
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization		53,225
(Increase) decrease in operating assets		
Accounts receivable		(1,069)
Inventory		630
Net change in other current assets		(523)
Increase (decrease) in operating liabilities		
Trade and contracts payable		1,128
Accrued salaries and wages		227
Compensated absences		(315)
Net change in other liabilities		466
OPEB liabilities		(1,269)
Pension liabilities		(3,982)
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<b>\$ -</b>	<b>\$ 140,104</b>
<b>Noncash Capital and Related Financing Activities:</b>		
Proceeds of refunding debt principal	\$ -	-
Refunding of debt principal	-	-
Accrual for capital expenditures		2,576
Amortization of premium		(7,712)
Amortization of deferred loss on bond refunding		(1,173)

See Accompanying Notes to Financial Statements

NOTES TO THE FINANCIAL STATEMENTS

**NOTE 1 GENERAL INFORMATION**

Organization and Administration

The Hampton Roads Sanitation District (HRSD) was created by the Virginia General Assembly in 1940, as a political subdivision of the Commonwealth of Virginia (the Commonwealth), to construct, maintain, and operate a wastewater treatment system in the Hampton Roads area. The Hampton Roads Sanitation District Commission (the Commission) is HRSD’s governing body and consists of eight members, appointed by the Governor. The Commission’s functions were updated by Chapter 66 of the Acts of the Assembly of Virginia of 1960, as amended. The administration of HRSD is under the direction of a General Manager, supported by eight department directors.

Regulatory Oversight

HRSD’s operations are subject to regulations established by the United States Environmental Protection Agency and the Virginia Department of Environmental Quality. HRSD currently meets all of its permit requirements. Changes in these regulations could require HRSD to modify its treatment processes and require additional capital investment and/ or incur additional costs.

Purpose of HRSD

HRSD was created for the specific purpose of abating pollution in the Hampton Roads area through the interception of wastewater outfalls, installation of interception service into new areas as necessary and providing treatment facilities. HRSD provides points of interception throughout the region. The responsibility of providing lateral sewers and subtrunk facilities to carry sewage from industries, residences and businesses is generally the responsibility of the local municipal governments.

Corporate Limits of HRSD

The geographical limits of HRSD include:

City of Chesapeake	City of Suffolk	King and Queen County
City of Hampton	City of Virginia Beach	King William County
City of Newport News	City of Williamsburg	Mathews County
City of Norfolk	Gloucester County	Middlesex County
City of Portsmouth	Isle of Wight County	Surry County*
City of Poquoson	James City County	York County

\*Excluding the Town of Claremont

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Reporting Entity

HRSD is a political subdivision of the Commonwealth and a government instrumentality. The Commission is granted corporate powers by the *Code of Virginia*. The Governor of the Commonwealth appoints the Commission members, who serve at his pleasure. HRSD is reported in the Commonwealth’s Comprehensive Annual Financial Report as a discretely presented component unit. The Commonwealth is not obligated to repay HRSD’s debt. HRSD derives its revenues primarily from charges for wastewater treatment services. HRSD has no taxing authority.

Basis of Accounting

The accompanying financial statements report the financial position and results of operations of HRSD in accordance with U.S. generally accepted accounting principles (GAAP). Because HRSD is a political subdivision of the Commonwealth, the preparation of HRSD’s financial statements are governed by the pronouncements of the Governmental Accounting Standards Board (GASB). These statements are prepared on an enterprise fund basis and present HRSD’s operating revenues and expenses in a manner similar to a private business, where the costs, including depreciation, of providing services to the general public on a continuing basis are financed or recovered primarily through user charges.

An enterprise fund, a proprietary fund type, is accounted for on an economic resources measurement focus. All assets and liabilities, whether current or noncurrent, associated with its activities are included on its statements of net position. Proprietary fund type operating statements present increases (revenues) and decreases (expenses) in fund equity. The financial statements are presented using the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred.

#### Budgetary Accounting and Control

HRSD operates in accordance with annual operating and capital budgets prepared on a basis of accounting that is different from generally accepted accounting principles. The operating budget is adopted by department, with budgetary controls exercised administratively by management at the department level. The General Manager is authorized to transfer funds among departments without further approval by the Commission. Appropriations lapse at the end of the fiscal year. The Capital Budget represents a ten-year plan. Funds for the Capital Budget are appropriated throughout a fiscal year on a project basis. Transfers among projects require approval by the Commission. Appropriations for these budgets continue until the purpose of the appropriation has been fulfilled.

#### Cash Equivalents

All short-term investments that are highly liquid are considered to be cash equivalents. Cash equivalents are readily convertible to cash, and at the day of purchase, have an original maturity date of no longer than three months. Current restricted cash and cash equivalents are for debt service payments payable within the next year. Money market investments include the VACo/VML Virginia Investment Pool's (VIP) 1-3 Year High Quality Bond Fund and Stable NAV Liquidity Pool, which are recorded at amortized cost, which approximates fair value. See Note 3 and Note 13 for additional discussion of cash and cash equivalent and investment valuations.

#### Investments

Investments, which consist of U.S. government obligations including agencies, FDIC-guaranteed corporate notes, other corporate notes and bonds, and municipal bonds, are reported at fair value. HRSD's investment practices are governed by its formal investment policy.

#### Allowance for Uncollectible Accounts

HRSD provides an allowance for estimated uncollectible accounts receivable based on its bad debt experience. The balance in the allowance for uncollectible accounts is considered by management to be sufficient to cover anticipated losses on reported receivable balances.

#### Inventory

Inventory is carried at the lower of cost or market value and consists primarily of operating and maintenance materials.

#### Property, Plant and Equipment

HRSD funds its capital improvement program through the issuance of debt and its own resources. The proceeds of debt are reported as restricted assets. Generally, for projects funded with both debt proceeds and other resources, it is HRSD's policy to use available debt proceeds to pay project expenditures prior to using its own resources.

Property, plant and equipment purchased or constructed are reported at cost, including interest cost on funds borrowed to finance the construction of major capital additions. The capitalization threshold is \$5,000. Donated assets are reported at acquisition value at the date of donation. Property, plant and equipment are depreciated using the straight-line method over the following estimated useful lives:

Treatment plants, buildings and facilities	30 years
Interceptor systems	50 years
Office furniture and equipment	5-10 years
Software and intangible assets	5-7 years
Automotive	5 years

Depreciation and amortization recognized on property, plant and equipment is an operating expense.

## NOTES TO THE FINANCIAL STATEMENTS

Deferred Outflows and Inflows of Resources

In addition to assets, the statements of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to future periods and so will not be recognized as an outflow of resources (expenses) until then. HRSD has six items that qualify for reporting in this category. The first is the deferred charge on refunding reported in the statements of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The second through fourth amounts are differences between expected and actual experience on the OPEB and pension plans; the net difference between OPEB expected and actual experience; and the change in proportion for OPEB plans. These differences will be recognized in pension expense in future reporting periods. The fifth and sixth deferred charges are for OPEB and pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2019 and 2018. These contributions will be recognized as reductions of the Net OPEB and Net Pension Liabilities during the years ended June 30, 2021 and 2020, respectively.

In addition to liabilities, the statements of net position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The three types of these items that HRSD has for the OPEB and pension plans are the differences between expected and actual experience, the changes of OPEB and pension assumptions, and the net difference between projected and actual earnings on OPEB and pension plan investments, which will be recognized in pension expense in future reporting periods.

Revenue Recognition

Generally, wastewater treatment charges are computed based on a user's water consumption. These charges are recognized as revenue when billed. Revenues earned but unbilled through June 30 of each fiscal year are accrued at year-end. Wastewater facility charges are computed based on a new connection's water meter size and potential for high strength pollutant discharges, and are recognized as revenue prior to the issuance of a building or operating permit.

Operating and Non-operating Revenues and Expenses Recognition

HRSD distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses result from providing services and producing and delivering goods in connection with HRSD's principal service of providing wastewater treatment. The majority of operating revenues are from wastewater treatment, but other associated miscellaneous income from other related services and charges are also included. Revenues and expenses not meeting the operating definition are reported as non-operating. These consist mainly of wastewater facility charges, investment income, capital contributions and interest expense.

Compensated Absences

All permanent employees earn leave upon starting a full-time position. The amount and type of leave earned is based upon the employee's date of hire and years of service and is expensed as employees earn the right to these benefits.

Permanent employees hired prior to January 1, 2014 earn from 15 to 27 days of annual leave per year. The maximum annual leave an employee may accumulate at year-end varies by the years of service, with the maximum being 54 days. An employee has a vested right to their annual leave when earned. These employees also earn eight hours per month of sick leave regardless of the number of years of service. The amount of sick leave that may be accumulated is unlimited. After five years of service with HRSD, an employee has vested rights to 35 percent of accumulated sick leave to a maximum of \$10,000. For these employees, long-term disability (LTD) insurance is an optional employee paid benefit that replaces part of their income if the employee suffers a serious illness or injury and can't work for an extended period of time.

Permanent employees hired after January 1, 2014 earn 8 hours of paid time off for each two-week pay period. Employees may use accumulated paid time off for any type of absence from work, subject to supervisor approval. The maximum paid time off an employee may accumulate at year-end is 208 hours. After five years of service with HRSD, an employee has vested rights to 50 percent of their accumulated paid time off at separation. For these employees, HRSD also provides a state mandated long-term disability (LTD) benefit since these employees are not eligible for disability retirement benefits through the Virginia Retirement System. The long-term disability benefit provides income replacement for employees who become disabled and unable to work for an extended period of time due to a non work-related or work-related condition (as determined under the Virginia Workers' Compensation

Act). Long-term disability benefits begin at the expiration of an additional state mandated employer paid short-term disability (STD) benefit period of 125 days.

#### Postemployment Benefits Other Than Pensions (OPEB)

HRSD employees participate in three postemployment benefits other than pensions (other postemployment benefits or OPEB) plans:

The HRSD Retiree Health Plan (RHP) is a single employer, defined benefit plan that provides health and dental benefit plans for eligible members through a self-funded plan administered by a third-party vendor. HRSD administers the Plan through the Hampton Roads Sanitation District Retiree Health Trust. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the RHP and additions to/deductions from the plan's fiduciary net position have been determined on the same basis as they are reported by the RHP. For this purpose, the RHP recognizes benefit payments when due and payable in accordance with the benefit terms.

The Virginia Retirement System (VRS) Political Subdivision Health Insurance Credit Program (HIC) is a multiple-employer, agent defined benefit plan that provides a credit toward the cost of health insurance coverage for retired political subdivision employees of participating employers. The Political Subdivision Health Insurance Credit Program was established pursuant to §51.1-1400 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. For purposes of measuring the net HIC OPEB liability, deferred outflows of resources and deferred inflows of resources related to the HIC OPEB, and the HIC OPEB expense, information about the fiduciary net position of the VRS HIC; and the additions to/deductions from the VRS HIC's fiduciary net position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

The VRS Group Life Insurance Program is a multiple employer, cost sharing plan, that provides coverage to state employees, teachers, and employees of participating political subdivisions. The Group Life Insurance Program was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Group Life Insurance Program is a defined benefit plan that provides a basic group life insurance benefit for employees of participating employers. For purposes of measuring the net Group Life Insurance Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Group Life Insurance Program OPEB, and Group Life Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Group Life Insurance program OPEB and the additions to/deductions from the VRS Group Life Insurance Program OPEB's fiduciary net position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

#### Pensions

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the VRS, which acts as a common investment and administrative agent for political subdivisions in the Commonwealth. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of HRSD's Retirement Plan and the additions to or deductions from HRSD's Retirement Plan's net fiduciary position have been determined on the same basis as they were reported to HRSD by VRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

#### Use of Estimates

The preparation of these financial statements requires management to make estimates and assumptions. These estimates affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from management's estimates.

#### New Accounting Pronouncement

During the fiscal year ended June 30, 2019, HRSD adopted GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, effective July 1, 2018. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period, and replaces the requirements of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which are superseded by this Statement. This Statement requires

NOTES TO THE FINANCIAL STATEMENTS

that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are applied prospectively, so no adjustment to net position was required.

Also during the fiscal year ended June 30, 2019, HRSD adopted GASB Statement No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements, effective July 1, 2018. This Statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings (for example, a government entering into a loan agreement with a lender) and direct placements (for example, a government issuing a debt security directly to an investor). Direct borrowings and direct placements have terms negotiated directly with the investor or lender and are not offered for public sale. The requirements of this Statement apply to the financial statements of all state and local governments.

**NOTE 3 DEPOSITS AND INVESTMENTS**

Deposits

*Custodial Credit Risk.* This risk is associated with the inability of a governmental entity to recover deposits from a financial institution in the event of a failure. At June 30, 2020 and 2019, the carrying values of HRSD’s deposits were \$24,703,000 and \$20,346,000, respectively, and the bank balances were \$21,883,000 and \$29,940,000, respectively. All of the bank balances at June 30, 2020 were covered by federal depository insurance or collateralized in accordance with the Virginia Security for Public Deposits Act (the Act). In accordance with the Act, the depository institution pledged collateral in the form of federal obligations with a fair value equal to 110 percent of HRSD’s deposits with a third party trustee in the name of the Treasurer of the Commonwealth. In the event that the banking institution fails, the Treasurer will take possession of the collateral, liquidate it and reimburse HRSD up to the value of its deposits. The State Treasury Board is responsible for monitoring compliance with the collateralization and reporting requirements of the Act and for notifying local governments of compliance by banks.

*Credit Risk.* HRSD invests in VACo/VML Virginia Investment Pool’s (VIP) 1-3 Year High Quality Bond Fund and Stable NAV Liquidity Pool. Oversight is provided by the VACo/VML Board of Trustees. HRSD’s investments in the VIP 1-3 Year High Quality Bond Fund and the VIP Stable NAV Liquidity Pool were rated AA+f/S1 and AAAM, respectively, by Standard & Poor’s.

Investments

At June 30, 2019, all funds were held as cash and cash equivalents.

The components of restricted cash and cash equivalents and investments at June 30 are as follows:

(in thousands)	2020	2019
Debt service	\$ 28,155	\$ 28,553
Revenue bond construction funds - current	-	14,335
Revenue bond construction funds - noncurrent	-	-
Total cash and cash equivalents - restricted	<u>\$ 28,155</u>	<u>\$ 42,888</u>

HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, US Bank. Investments are reported at fair value. HRSD's OPEB investment practices are governed by its formal investment policy.

The plan had the following investments and maturities at June 30:

(in thousands)	2020	2019
Domestic equity	\$ 21,315	\$ 20,355
International equity	10,605	10,896
Other growth	1,424	-
Fixed income	20,969	19,428
Other income	2,412	1,175
Money market	187	171
<b>Total Investments</b>	<b>\$ 56,912</b>	<b>\$ 52,025</b>

Fixed income investments have an average maturity of 6.9 years and an average credit quality of A. Other investments do not have a stated maturity or credit rating.

*Custodial Credit Risk.* For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustee, US Bank Trust Department, for its OPEB investments as recipient of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2020, the Trust Department of the US Bank held \$56,845,000 in investments in the Trustee's name for HRSD. The difference between reported and US bank valuation is the value of the Boyd Watterson security. US Bank Trust value is lagging as they update those funds when they receive notice.

**NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS**

An analysis of the allowance for uncollectible accounts for the years ended June 30:

(in thousands)	2020	2019
Balance, beginning of year	\$ 2,689	\$ 2,180
Add: Current provision for uncollectible accounts	2,236	2,976
Less: Charge-off of uncollectible accounts	(2,103)	(2,467)
Balance, end of year	\$ 2,822	\$ 2,689

HRSD's collection ratios for the years ended June 30, 2020 and 2019 were 99.3% and 99.2% percent, respectively.



NOTES TO THE FINANCIAL STATEMENTS

**NOTE 5 - PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment activity:

(in thousands)	Balance June 30, 2018	Additions	Transfers/ Retirements	Balance June 30, 2019	Additions	Transfers/ Retirements	Balance June 30, 2020
<b>Non-Depreciable Capital Assets</b>							
Land	\$ 12,174	-	-	\$ 12,174	\$ 55	-	\$ 12,229
Construction in progress	222,283	89,225	(16,977)	294,531	152,253	(156,199)	290,585
<b>Depreciable Capital Assets</b>							
Treatment plants	1,242,191	6,706	-	1,248,897	135,700	(304)	1,384,293
Interceptor systems	609,416	9,652	-	619,068	19,546	(464)	638,150
Buildings	49,132	-	-	49,132	-	(1,051)	48,081
Small community facilities	25,549	76	-	25,625	-	-	25,625
Office equipment	44,613	-	-	44,613	-	-	44,613
Automotive	18,986	603	(1,049)	18,540	587	-	19,127
Other equipment	36,589	298	-	36,887	630	-	37,517
Software and intangible assets	39,749	325	-	40,074	-	-	40,074
<b>Total</b>	<b>\$ 2,300,682</b>	<b>\$ 106,885</b>	<b>\$ (18,026)</b>	<b>\$ 2,389,541</b>	<b>\$ 308,771</b>	<b>\$ (158,018)</b>	<b>\$ 2,540,294</b>
Less accumulated depreciation and amortization							
Treatment plants	(669,249)	(30,003)	-	(699,252)	(30,232)	-	(729,484)
Interceptor systems	(167,040)	(11,792)	-	(178,832)	(11,946)	-	(190,778)
Buildings	(17,946)	(1,569)	-	(19,515)	(1,518)	257	(20,776)
Small community facilities	(7,831)	(572)	-	(8,403)	(550)	-	(8,953)
Office equipment	(42,058)	(1,042)	-	(43,100)	(759)	-	(43,859)
Automotive	(16,894)	(754)	1,049	(16,599)	(812)	-	(17,411)
Other equipment	(28,418)	(2,462)	-	(30,880)	(2,328)	-	(33,208)
Software and intangible assets -amortization	(29,602)	(5,031)	-	(34,633)	(3,237)	-	(37,870)
<b>Total</b>	<b>(979,038)</b>	<b>(53,225)</b>	<b>1,049</b>	<b>(1,031,214)</b>	<b>(51,382)</b>	<b>257</b>	<b>(1,082,339)</b>
<b>Net property, plant and equipment</b>	<b>\$ 1,321,644</b>	<b>\$ 53,660</b>	<b>\$ (16,977)</b>	<b>\$ 1,358,327</b>	<b>\$ 257,389</b>	<b>\$ (157,761)</b>	<b>\$ 1,457,955</b>

Additions include \$7,581,000 of capitalized interest during the year ended June 30, 2018. As described in Note 2, HRSD adopted GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period, effective July 1, 2018, therefore, no interest was capitalized in the fiscal year ending June 30, 2019.

**NOTE 6 - COMPENSATED ABSENCES**

The liability for vested annual, sick, paid time off and compensatory leave at June 30:

(in thousands)	Balance 6/30/18	Earned	Taken	Balance 6/30/19	Earned	Taken	Balance 6/30/20
Annual leave	\$ 4,889	\$ 3,409	\$ (3,454)	\$ 4,844	\$ 3,721	\$ (3,300)	\$ 5,265
Sick leave	2,829	1,408	(1,398)	2,839	1,747	(1,543)	3,043
Paid time off	686	756	(1,036)	406	1,173	(1,317)	262
<b>Total</b>	<b>8,404</b>	<b>\$ 5,573</b>	<b>\$ (5,888)</b>	<b>8,089</b>	<b>\$ 6,641</b>	<b>\$ (6,160)</b>	<b>8,570</b>
Less: Current liability	5,541			5,888			6,160
<b>Long-term liability</b>	<b>\$ 2,863</b>			<b>\$ 2,201</b>			<b>\$ 2,410</b>

**NOTE 7 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)**Plan Description

As discussed in Note 2, HRSD provides postemployment benefits other than pensions (OPEB) for its employees through three OPEB plans: the Hampton Roads Sanitation District Retiree Health Plan (RHP), a single employer defined benefit plan, and two plans administered by the Virginia Retirement System, the Group Life Insurance Plan (GLI), a multiple employer cost sharing plan, and the Political Subdivision Health Insurance Credit Plan (HIC), a multiple-employer, agent defined benefit plan.

RHP

The RHP was established and may be amended by the Commission. HRSD administers the RHP through the Hampton Roads Sanitation District Retiree Health Trust (the Trust), an irrevocable trust to be used solely for providing benefits to eligible retired employees and their beneficiaries (members) in the RHP. HRSD's contributions to the Trust are dedicated irrevocably to providing post-retirement health benefits, the RHP assets are exclusively dedicated to providing benefits to members, and the RHP assets of the Trust are not subject to the claims of HRSD creditors or the Plan administrator. Employer contributions are recorded in the year they are made. Investments are reported at market value based on published prices and quotations. The RHP does not issue stand-alone financial statements.

Eligible Employees

HRSD employees are eligible for benefits upon retirement provided the employee has 15 years of service with HRSD or 10 years of service with HRSD plus 10 years of service with another Virginia Retirement System (VRS) employer with a retiree health plan; are qualified for unreduced retirement benefits from VRS; and are enrolled in the HRSD Health Insurance Plan prior to retirement. Participating beneficiaries may continue coverage under the plan after the death of the retiree. Medicare eligible participants are required to enroll in both Medicare Part A and Part B, and may participate in a Medicare supplement plan. Members not eligible for Medicare may participate in a high deductible health plan.

Benefits provided

The RHP health plan provides medical and prescription services using both in network and out of network providers through a self-funded plan administered by a third-party vendor. HRSD purchases stop-loss insurance to limit its exposure to catastrophic medical costs. Members may elect to purchase dental and vision benefit plans at their own expense.

GLI

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS GLI upon employment. This plan is administered by the VRS, along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

In addition to the Basic Group Life Insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the Group Life Insurance Program OPEB.

The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits follows:

Eligible Employees

The Group Life Insurance Program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program. Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.

Benefit Amounts

The benefits payable under the Group Life Insurance Program have several components.

- Natural Death Benefit – The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.
- Accidental Death Benefit – The accidental death benefit is double the natural death benefit.
- Other Benefit Provisions – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:

## NOTES TO THE FINANCIAL STATEMENTS

- Accidental dismemberment benefit
- Safety belt benefit
- Repatriation benefit
- Felonious assault benefit
- Accelerated death benefit option

*Reduction in Benefit Amounts*

The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value.

*Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)*

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at \$8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and was increased to \$8,463 effective June 30, 2020.

HIC

All full-time, salaried permanent employees of participating political subdivisions are automatically covered by the VRS Political Subdivision Health Insurance Credit Program upon employment. This plan is administered by the VRS, along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia. Members earn one month of service credit toward the benefit for each month they are employed and for which their employer pays contributions to VRS. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering the spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

The specific information about the Political Subdivision Health Insurance Credit Program OPEB, including eligibility, coverage and benefits follows:

*Eligible Employees*

The Political Subdivision Retiree Health Insurance Credit Program was established July 1, 1993 for retired political subdivision employees of employers who elect the benefit and who retire with at least 15 years of service credit. Eligible employees of participating political subdivisions are enrolled automatically upon employment. They include full-time permanent salaried employees of the participating political subdivision who are covered under the VRS pension plan.

*Benefit Amounts*

The political subdivision's Retiree Health Insurance Credit Program provides the following benefits for eligible employees:

- At Retirement – For employees who retire, the monthly benefit is \$1.50 per year of service per month with a maximum benefit of \$45.00 per month.
- Disability Retirement – For employees who retire on disability or go on long-term disability under the Virginia Local Disability Program (VLDP), the monthly benefit is \$45.00 per month.

*Health Insurance Credit Program Notes:*

- The monthly Health Insurance Credit benefit cannot exceed the individual premium amount.
- No health insurance credit for premiums paid and qualified under the VRS Line of Duty Act Program (LODA), however, the employee may receive the credit for premiums paid for other qualified health plans.
- Employees who retire after being on long-term disability under VLDP must have at least 15 year of service credit to qualify for the health insurance credit as a retiree.

**Employees Covered by Benefit Terms**

As of the June 30, 2019 and 2018 actuarial valuation dates the following employees were covered by the benefit terms of the RHP:

	2019	2018
Beneficiaries currently receiving benefit payments	170	163
Active employees	734	719
Total	<u>904</u>	<u>882</u>

There are no inactive employees entitled to but not yet receiving plan benefits.

As of the June 30, 2018 and 2017 actuarial valuation dates the following employees were covered by the benefit terms of the HIC:

	2018	2017
Inactive members or their beneficiaries currently receiving benefit payments	240	229
Vested	-	6
Total Inactive Members	<u>240</u>	<u>235</u>
Active employees	790	780
Total	<u>1,030</u>	<u>1,015</u>

**Contributions**

RHP contribution requirements are actuarially determined. Funding is subject to approval by the Commission. Medicare-eligible members contribute \$45 per month for retiree-only coverage and from \$442 to \$460 per month for retiree and dependent coverage. Members not eligible for Medicare contribute \$120 per month for retiree-only coverage and from \$517 to \$535 per month for retiree and dependent coverage. HRSD funds the cost of coverage under the RHP by paying the difference between the contributions it requires retirees to make and the actuarially determined contribution (ADC). The current employer contribution rate is approximately 5 percent of annual covered payroll. HRSD contributed \$2,730,000 and \$2,993,000 to the RHP for the years ended June 30, 2020 and 2019, respectively.

The GLI contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the years ended June 30, 2019 and 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Group Life Insurance Program were \$276,000 and \$267,000 for the years ended June 30, 2020 and June 30, 2019, respectively.

The HIC contribution requirement for active employees is governed by §51.1-1402(E) of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. HRSD's contractually required employer contribution rate for the years ended June 30, 2020 and 2019 was 0.21% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Political Subdivision Health Insurance Credit Program were \$111,000 for year ended June 30, 2020 and \$108,000 for year ended June 30, 2019.

RHP OPEB Expenses and Deferred Outflows of Resources Related to RHP OPEB

HRSD recognized RHP OPEB expense of \$1,158,000 and \$1,966,000 for the years ended June 30, 2020 and 2019. HRSD reported deferred inflows of resources related to OPEB from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2020:		
Difference between expected and actual experience	\$ 2,568	\$ 6,288
Changes in assumptions	-	1,711
Net difference between projected and actual earnings on plan investments	-	604
	<u>\$ 2,568</u>	<u>\$ 8,603</u>
Year ended June 30, 2019:		
Difference between expected and actual experience	\$ 2,936	\$ -
Changes in assumptions	-	1,428
Net difference between projected and actual earnings on plan investments	-	677
	<u>\$ 2,936</u>	<u>\$ 2,105</u>

HRSD's measurement date is its fiscal year end so there are no deferred outflows of resources resulting from contributions subsequent to the measurement date. Other amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense in future reporting periods as follows:

Year Ended June 30,	(in thousands)
2021	\$ (903)
2022	(903)
2023	(730)
2024	(690)
2025	(655)
Thereafter	<u>(2,154)</u>
	<u>\$ (6,035)</u>

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB

At June 30, 2020 and 2019, HRSD reported liabilities of \$4,265,000 and \$3,981,000, respectively, for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liabilities were measured as of June 30, 2019 and June 30, 2018 and the total GLI OPEB liabilities used to calculate the Net GLI OPEB Liability were determined by actuarial valuations as of those dates. The covered employer's proportion of the Net GLI OPEB Liability was based on HRSD's actuarially determined employer contributions to the Group Life Insurance Program for the years ended June 30, 2019 and 2018 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2019 and 2018, HRSD's proportion was 0.26208% 0.26214%, respectively. For the years ended June 30, 2020 and 2019, HRSD recognized GLI OPEB expenses of \$109,000 and \$49,000, respectively. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2020 and 2019, HRSD reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2020:		
Differences between expected and actual experience	\$ 284	\$ 55
Net difference between projected and actual earnings on GLI OPEB program investments	-	88
Change in assumptions	269	129
Changes in proportion	41	1
Employer contributions subsequent to the measurement date	276	-
Total	<u>\$ 870</u>	<u>\$ 273</u>
Year ended June 30, 2019:		
Differences between expected and actual experience	\$ 195	\$ 71
Net difference between projected and actual earnings on GLI OPEB program investments	-	130
Change in assumptions	-	166
Changes in proportion	51	-
Employer contributions subsequent to the measurement date	267	-
Total	<u>\$ 513</u>	<u>\$ 367</u>

HRSD reported \$276,000 and \$267,000 as of June 30, 2020 and 2019, respectively, as deferred outflows of resources related to the GLI OPEB resulting from the HRSD's contributions subsequent to the measurement date which will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Years ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year ended June 30,	(in thousands)
2021	\$ 25
2022	26
2023	63
2024	94
2025	90
Thereafter	<u>24</u>
	<u>\$ 322</u>

NOTES TO THE FINANCIAL STATEMENTS

HIC OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to HIC OPEB

For the years ended June 30, 2020 and 2019, HRSD recognized Health Insurance Credit Program OPEB expense of \$106,000 and \$96,000, respectively. HRSD reported deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Health Insurance Credit Program from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2020:		
Differneces between expected and actual experience	\$ 42	\$ -
Net difference between projected and actual earnings on HIC OPEB program investments	-	11
Change in assumptions	43	12
Employer contributions subsequent to the measurement date	111	-
Total	<u>\$ 196</u>	<u>\$ 23</u>
Year ended June 30, 2019:		
Differneces between expected and actual experience	\$ 23	\$ -
Net difference between projected and actual earnings on HIC OPEB program investments	-	21
Change in assumptions	-	16
Employer contributions subsequent to the measurement date	108	-
Total	<u>\$ 131</u>	<u>\$ 37</u>

HRSD reported \$111,000 for FY 2020 and \$108,000 for FY 2019 as deferred outflows of resources related to the HIC OPEB resulting from HRSD's contributions subsequent to the measurement date which will be recognized as a reduction of the Net HIC OPEB Liability in the Fiscal Year ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB will be recognized in the HIC OPEB expense in future reporting periods as follows:

Year ended June 30,	(in thousands)
2021	\$ 6
2022	6
2023	13
2024	14
2025	14
Thereafter	8
	<u>\$ 61</u>

Actuarial Methods and Assumptions

The total RHP OPEB liabilities were based on actuarial valuations as of June 30, 2019 and 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2020 and 2019.

## Year Ended June 30, 2020:

Inflation	2.5 percent
Salary increases, including inflation	2.5 percent
Investment rate of return	6.0 percent, net of investment expenses, including inflation*

Mortality rates for the RHP are as follows:

Healthy Retirees	Pub-2010 General Retirees Headcount-wighted Mortality Projected with Fully Generational MP2019 Mortality Improvement Scale.
Disabled Retirees	Pub-2010 General Disabled Retirees Headcount-Weighted Mortality Projectes with Fully Generational MP2019 Mortality Improvement Scale.
Active Retirees	Pub-20210 General Employees Headcount-Weighted Mortality Projected with Fully Generational MP2019 Mortality Improvement Scale.

## Year Ended June 30, 2019:

Inflation	2.4 percent
Salary increases, including inflation	2.5 percent
Investment rate of return	6.0 percent, net of investment expenses, including inflation*

Mortality rates for the RHP are as follows:

Healthy Retirees	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.
Disabled Retirees	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014.

The total GLI and HIC OPEB liabilities were based on actuarial valuations as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019:

## Year Ended June 30, 2019:

Inflation	2.5 percent
Salary increases, including inflation *	3.5 percent - 5.35 percent
Investment rate of return	6.75 percent, net of investment expenses, including inflation*

Mortality tables and assumptions for GLI and HIC are as follows:

Pre-Retirement:	RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.
Post Retirement:	RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.
Post-Disablement:	RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of the OPEB liabilities.



NOTES TO THE FINANCIAL STATEMENTS

The actuarial assumptions used in the June 30, 2018 valuation was based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted terminations rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%
Discount Rate	Decrease rate from 7.00% to 6.75%
Mortality rates are as follows:	
Pre-retirement, postretirement healthy, and disabled	Updated to a more current mortality table - RP2014 projected to 2020
Pre-retirement, Postretirement healthy, and disabled	Updated to a more current mortality table - RP2014 Projected to 2020

**Long-Term Expected Rate of Return**

The long-term expected rate of return on RHP investments was determined using an economic building block approach that projects economic and corporate profit growth and takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity, and labor force growth. The returns presented here are geometric return projections based on long-term capital market assumptions. The asset target allocations are governed by its formal investment policy. The best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

June 30, 2020			
Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	7.40%	2.89%
International Developed Equity	15.00%	7.30%	1.10%
International Emerging Markets Equity	6.00%	7.40%	0.44%
Core Fixed	20.00%	4.90%	0.98%
Investment Grade Corporate Debt	10.00%	5.80%	0.58%
Emerging Markets Debt	5.00%	6.50%	0.33%
High Yield	5.00%	6.40%	0.32%
Total	<u>100.00%</u>		<u>6.64%</u>
		Inflation	<u>2.50%</u>
		* Expected arithmetic nominal return	<u>9.14%</u>

\* The above allocation provides a one-year return of 9.14%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

June 30, 2019

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	7.50%	2.93%
International Developed Equity	15.00%	7.40%	1.11%
International Emerging Markets Equity	6.00%	7.50%	0.45%
Core Fixed	20.00%	5.10%	1.02%
Investment Grade Corporate Debt	10.00%	6.10%	0.61%
Emerging Markets Debt	5.00%	6.70%	0.34%
High Yield	5.00%	6.60%	0.33%
Total	100.00%		6.79%
		Inflation	2.50%
		* Expected arithmetic nominal return	9.29%

\* The above allocation provides a one-year return of 9.29%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

The long-term expected rate of return on the GLI and HIC investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System's investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	34.00%	5.61%	1.91%
Fixed Income	15.00%	0.88%	0.13%
Credit Strategies	14.00%	5.13%	0.72%
Real Assets	14.00%	5.27%	0.74%
Private Equity	14.00%	8.77%	1.23%
MAPS - Multi-Asset Public Strategies	6.00%	3.52%	0.21%
PIP-Private Investment Partnership	3.00%	6.29%	0.19%
Total	100.00%		5.13%
		Inflation	2.50%
		* Expected arithmetic nominal return	7.63%

\* The above allocation provides a one-year return of 7.63%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

### Discount Rates

The discount rate used to measure the total OPEB liability for the RHP, as of June 30, 2019, was 6.0%. The projection of cash flows used to determine the discount rate assumes that HRSD contributions will be made in accordance with the funding plan established by an independent actuarial review.

The discount rate used to measure the total GLI and HIC liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the GLI and HIC will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly which was 100% of the actuarially determined contribution rate. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI and HIC fiduciary net position

NOTES TO THE FINANCIAL STATEMENTS

was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI and HIC liability.

**Change in Net OPEB Liability**

HRSD's Net OPEB Liability (NOL) as of June 30, 2020 for the RHP was measured as of June 30, 2020 using a June 30, 2019 valuation, which has been rolled forward to the June 30, 2020 measurement date.

RHP	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
(in thousands)			
<b>Balances at June 30, 2018</b>	<b>\$ 60,276</b>	<b>\$ 47,103</b>	<b>\$ 13,173</b>
Changes for the year - Increase (Decrease):			
Service cost	1,300	-	1,300
Interest	3,571	-	3,571
Changes of assumptions	(1,607)	-	(1,607)
Difference between expected and actual experience	3,302	-	3,302
Contributions - employer	-	2,993	(2,993)
Contributions - employee	-	-	-
Net investment income	-	3,078	(3,078)
Benefit payments, including refunds of employee contributions	(1,149)	(1,149)	-
Administrative expense	-	-	-
Other Charges	-	-	-
Net changes	5,417	4,922	495
<b>Balances at June 30, 2019</b>	<b>\$ 65,693</b>	<b>\$ 52,025</b>	<b>\$ 13,668</b>
Changes for the year - Increase (Decrease):			
Service cost	1,345	-	1,345
Interest	3,883	-	3,883
Changes of assumptions	(518)	-	(518)
Difference between expected and actual experience	(7,074)	-	(7,074)
Contributions - employer	-	2,730	(2,730)
Contributions - employee	-	-	-
Net investment income	-	3,343	(3,343)
Benefit payments, including refunds of employee contributions	(1,186)	(1,186)	-
Administrative expense	-	-	-
Other Charges	-	-	-
Net changes	(3,550)	4,887	(8,437)
<b>Balances at June 30, 2020</b>	<b>\$ 62,143</b>	<b>\$ 56,912</b>	<b>\$ 5,231</b>

HRSD's net Health Insurance Credit OPEB liability was measured as of June 30, 2019. The total Health Insurance Credit OPEB liability was determined by an actuarial valuation performed as of June 30, 2018, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019.

HIC	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
(in thousands)			
<b>Balances at June 30, 2017</b>	<b>\$ 1,931</b>	<b>\$ 870</b>	<b>\$ 1,061</b>
Changes for the year - Increase (Decrease):			
Service cost	26	-	26
Interest	130	-	130
Changes of assumptions	-	-	-
Difference between expected and actual experience	27	-	27
Contributions - employer	-	95	(95)
Net investment income	-	60	(60)
Benefit payments, including refunds of employee contributions	(133)	(133)	-
Administrative expense	-	(1)	1
Other changes	-	(5)	5
Net changes	50	16	34
<b>Balances at June 30, 2018</b>	<b>\$ 1,981</b>	<b>\$ 886</b>	<b>\$ 1,095</b>
Changes for the year - Increase (Decrease):			
Service cost	26	-	26
Interest	134	-	134
Changes of assumptions	50	-	50
Difference between expected and actual experience	26	-	26
Contributions - employer	-	108	(108)
Net investment income	-	56	(56)
Benefit payments, including refunds of employee contributions	(124)	(124)	-
Administrative expense	-	(1)	1
Other changes	-	-	-
Net changes	112	39	73
<b>Balances at June 30, 2019</b>	<b>\$ 2,093</b>	<b>\$ 925</b>	<b>\$ 1,168</b>

The net OPEB liability (NOL) for the Group Life Insurance Program represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement dates of June 30, 2019 and 2018, NOL amounts for the Group Life Insurance Program are as follows:

(in thousands)	2019	2018
Total GLI OPEB Liability	\$ 3,390,238	\$ 3,113,508
Plan Fiduciary Net Position	1,762,972	1,594,773
Net LGI OPEB Liability	<u>\$ 1,627,266</u>	<u>\$ 1,518,735</u>

Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability: 52.00% 51.22%

The total GLI OPEB liability is calculated by the VRS's actuary, and each plan's fiduciary net position is reported in the VRS's financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the VRS's notes to the financial statements and required supplementary information.

NOTES TO THE FINANCIAL STATEMENTS

Sensitivity of the Net OPEB Liabilities to Changes in the Discount Rate and Healthcare Cost Trend Rate

The following table presents the net RHP OPEB liability if it is calculated using a discount rate that is one percentage point lower (5.0%) or one percentage point higher (7.0%) than the current discount rate:

Discount Rate	1% Decrease (5.00%)	Current Discount Rate (6.0%)	1% Increase (7.00%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30,2020	\$ 16,184	\$ 5,231	\$ (3,471)
Year ended June 30,2019	25,007	13,668	4,617

The following table presents the net RHP OPEB liability if it is calculated using a healthcare cost trend rate that is one percentage point lower (2.2%) or one percentage point higher (4.2%) than the current healthcare cost trend rate:

Ultimate Trend	1% Decrease (3.00%)	Healthcare Cost Trend Rate (4.00%)	1% Increase (5.00%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30,2020	\$ (4,764)	\$ 5,231	\$ 18,151
Year ended June 30,2019	3,236	13,668	27,102

The following presents the net GLI OPEB liability using the discount rate of 6.75%, as well as what the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

Discount Rate	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
GLI Net OPEB Liability (in thousands)			
Year ended June 30,2020	\$ 5,603	\$ 4,265	\$ 3,180
Year ended June 30,2019	5,202	3,981	2,989

The following presents the net HIC OPEB liability using the discount rate of 6.75%, as well as what the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

Discount Rate	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
HIC Net OPEB Liability (in thousands)			
Year ended June 30,2020	\$ 1,391	\$ 1,169	\$ 979
Year ended June 30,2019	1,306	1,095	916

GLI Fiduciary Net Position and HIC Plan Data

GLI Fiduciary Net Position and HIC Plan Data is available in the separately issued VRS 2019 and 2018 Comprehensive Annual Financial Reports (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website <http://www.varetire.org/Pdf/Publications/2019-annual-report.pdf>. A copy of the 2018 VRS CAFR may be downloaded from the VRS website <http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf>. Both files can be received by requesting a copy in writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

## NOTE 8 – DEFINED BENEFIT PENSION PLAN

### Plan Description

HRSD employees participate in an agent multiple-employer defined benefit pension plan administered by the Virginia Retirement System (VRS). All full time, salaried permanent employees of HRSD are automatically covered by the Plan upon employment. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the Code of Virginia, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave and previously refunded service.

VRS administers three different benefit structures for covered employees – Plan 1, Plan 2 and the Hybrid Retirement Plan (HRP). The specific information for each plan is set out below:

- Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 1 if their membership date is before July 1, 2010 and they were vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced retirement benefit beginning at age 65 with at least five years of service credit or at age 55 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.
- Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 2 if their membership date is on or after July 1, 2010, and they were not vested as of January 1, 2013. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.
- The Hybrid Retirement Plan (HRP) combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window from January 1 through April 30, 2014. The employee's retirement benefit is funded through mandatory and voluntary contributions made by the employee and HRSD to both the defined benefit and the defined contribution components of the plan. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.

Members in Plan 1 and Plan 2 contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. HRSD makes a separate actuarially determined contribution to VRS for all covered employees. The retirement benefit for members in the HRP is funded through mandatory and voluntary contributions made by the member and HRSD to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.

Members in Plan 1 and Plan 2 earn creditable service for each month they are employed in a covered position, and vest when they have at least five years (60 months) of creditable service. Members in the HRP earn one month of service credit for each month they are employed in a covered position for the defined benefit component, and service credits are used to determine vesting for the employer contribution portion of the plan. HRP members are always 100% vested in the defined contributions they make, and upon retirement or leaving covered employment are eligible to withdraw employer contributions of 50%, 75%, or 100% after two, three, or four years of service, respectively.

The VRS Basic Benefit for Plan 1 and Plan 2 members, and the defined benefit component for HRP members, is a lifetime monthly benefit based on a retirement multiplier as a percentage of the member's average final compensation multiplied by the member's total service credit. Under Plan 1, average final compensation is the average of the member's 36 consecutive months of highest compensation. Under Plan 2 and the HRP, average final compensation is the average of the member's 60 consecutive months of highest compensation. The retirement multiplier for non-hazardous duty members in Plan 1 is 1.7%; in Plan 2 the multiplier is 1.7% for service earned, purchased or granted prior to January 1, 2013 and 1.65% after that date. The multiplier is 1% for members in the HRP. At retirement, members can elect the Basic Benefit, the Survivor Option, a Partial Lump-Sum Option Payment (PLOP) or the

NOTES TO THE FINANCIAL STATEMENTS

Advance Pension Option. A retirement reduction factor is applied to the Basic Benefit amount for members electing the Survivor Option, PLOP or Advance Pension Option or those retiring with a reduced benefit.

Retirees are eligible for an annual cost-of-living adjustment (COLA) effective July 1 of the second calendar year of retirement. Under Plan 1, the COLA cannot exceed 5%; under Plan 2 and for the HRP defined benefit component, the COLA cannot exceed 3%. During years of no inflation or deflation there is no COLA adjustment. The VRS also provides death and disability benefits.

VRS issues a publically available comprehensive annual financial report that includes financial statements and required supplementary information for VRS. A copy of that report may be downloaded from their website at <http://www.varetire.org/publications/index.asap> or obtained by writing to VRS at P.O. Box 2500, Richmond, Virginia 23218-2500.

Employees Covered by Benefit Terms

As of the June 30, 2018 and 2017 actuarial valuation dates, the following employees were covered by the benefit terms of the pension plan:

	2018	2017
Inactive Members or Their Beneficiaries Currently Receiving Benefits	385	369
Inactive Members		
Vested	97	105
Non-Vested	150	138
Active Elsewhere in VRS	78	80
Total Inactive Members	325	323
Active Members	790	780
Total	1,500	1,472

Contributions

The contribution requirement for active employees is governed by Section 51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5% of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5% member contribution may have been assumed by the employer. Beginning July 1, 2012, new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. HRSD’s contractually required contribution rate for the year ended June 30, 2020 was 6.02% of covered compensation. This rate is based on actuarially determined rates from actuarial valuations as of June 30, 2017.

These rates, when combined with employee contributions, are expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Employer contributions to the pension plan were \$2,897,000 and \$2,866,000 for the years ended June 30, 2020 and 2019, respectively.

Net Pension Liability

The net pension liability (NPL) is calculated separately for each employer and represents that particular employer’s total pension liability determined in accordance with GASB Statement No. 68, less that employer’s fiduciary net position. For HRSD, the net pension liability was measured as of June 30, 2019. The total pension liability used to

calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2018, rolled forward to the measurement date of June 30, 2019.

#### Actuarial Assumptions

The total pension liability as of June 30, 2020 for employees in HRSD's retirement plan was based on actuarial valuations as of June 30, 2018, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019. The actuarial valuations as of June 30, 2020 use the following assumptions:

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation*
Cost of living adjustments	2.25% to 2.50%

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, and a more conservative 6.75% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75% to simplify preparation of pension liabilities.

The actuarial valuation as of June 30, 2019 uses the following mortality assumptions:

- Mortality rates: 15% of deaths are assumed to be service related.
- Pre Retirement, RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.
- Post Retirement, RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.
- Post Disablement, RP-2014 Disability Mortality Rates projected with Scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2018 valuations were based on the results of an actuarial experience study for the period July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

- Mortality rates – Updated to a more current mortality table – RP-2014 projected to 2020.
- Retirement rates – Lowered rates at older ages and changed final retirement from 70 to 75.
- Withdrawal rates – Adjusted rates to better fit experience at each year age and service through 9 years of service.
- Disability rates – Lowered rates.
- Salary scale – No change.
- Line of duty disability – Increase rate from 14% to 20%.
- Discount Rate – Decrease rate from 7% to 6.75 %

#### Long-Term Expected Rate of Return

The long-term expected rate of return on pension system investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected real rates of return (expected returns, net of pension system investment expense and inflation) are developed for each major asset class. These ranges are combined to produce



NOTES TO THE FINANCIAL STATEMENTS

the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The asset target allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public equity	34.00%	5.61%	1.91%
Fixed income	15.00%	0.88%	0.13%
Credit strategies	14.00%	5.13%	0.72%
Real assets	14.00%	5.27%	0.74%
Private equity	14.00%	8.77%	1.23%
MAPS - Strategies	6.00%	3.52%	0.21%
PIP	3.00%	6.29%	0.19%
Total	100.00%		5.13%
		Inflation	2.50%
		* Expected arithmetic nominal return	7.63%

\* The above allocation provides a one-year return of 7.63%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2019, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017, actuarial valuations, whichever was greater. From July 1, 2019, on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability

(in thousands)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>Balances at June 30, 2017</b>	<b>\$ 218,232</b>	<b>\$ 196,157</b>	<b>\$ 22,075</b>
Changes for the year - Increase (Decrease):			
Service cost	3,825	-	3,825
Interest	14,952	-	14,952
Changes of assumptions	-	-	-
Difference between expected and actual experience	(101)	-	(101)
Contributions - employer	-	3,710	(3,710)
Contributions - employee	-	2,424	(2,424)
Net investment income	-	14,451	(14,451)
Benefit payments, including refunds of employee contributions	(9,249)	(9,249)	-
Administrative expense	-	(125)	125
Other changes	-	(13)	13
Net changes	9,427	11,198	(1,771)
<b>Balances at June 30, 2018</b>	<b>\$ 227,659</b>	<b>\$ 207,355</b>	<b>\$ 20,304</b>
Changes for the year - Increase (Decrease):			
Service cost	3,946	-	3,946
Interest	15,598	-	15,598
Changes of assumptions	7,378	-	7,378
Difference between expected and actual experience	760	-	760
Contributions - employer	-	2,866	(2,866)
Contributions - employee	-	2,468	(2,468)
Net investment income	-	13,739	(13,739)
Benefit payments, including refunds of employee contributions	(9,655)	(9,655)	-
Administrative expense	-	(137)	137
Other changes	-	(8)	8
Net changes	18,027	9,273	8,754
<b>Balances at June 30, 2019</b>	<b>\$ 245,686</b>	<b>\$ 216,628</b>	<b>\$ 29,058</b>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

Net Pension Liability (in thousands)	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Year ended June 30, 2019	\$ 62,624	\$ 29,058	\$ 2,307
Year ended June 30, 2018	51,048	20,304	(5,194)

NOTES TO THE FINANCIAL STATEMENTS

Pension Expenses and Deferred Outflows of Resources and Deferred Outflows of Resources Related to Pensions

HRSD recognized pension expense of \$3,454,000 and \$1,040,000 for the years ended June 30, 2020 and 2019, respectively. At June 30, 2020 and 2019, HRSD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2020:		
Differences between expected and actual experience	\$ 1,268	\$ 1,281
Changes of assumptions	5,764	1,388
Net difference between projected and actual earnings on plan investments	-	1,848
Employer contributions subsequent to the measurement date	2,897	-
Total	<u>\$ 9,929</u>	<u>\$ 4,517</u>
Year ended June 30, 2019:		
Differences between expected and actual experience	\$ 1,251	\$ 2,951
Changes of assumptions	-	2,250
Net difference between projected and actual earnings on plan investments	-	1,702
Employer contributions subsequent to the measurement date	2,866	-
Total	<u>\$ 4,117</u>	<u>\$ 6,903</u>

HRSD reported \$2,897,000 and \$2,866,000 as of June 30, 2020 and 2019, respectively, as deferred outflows of resources resulting from HRSD’s contributions subsequent to the measurement date, which will be recognized as reductions of the Net Pension Liability in the years ended June 30, 2021 and 2020, respectively. Other amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

(in thousands)	Decrease in Pension Expense
Year ended June 30,	
2021	\$ 625
2022	(974)
2023	1,725
2024	1,139
2025	-
Thereafter	-
	<u>\$ 2,515</u>

**NOTE 9 – LONG-TERM DEBT**

HRSD issues revenue bonds for various capital improvements including but not limited to wastewater treatment plants and interceptor system improvements. In addition to HRSD’s publicly issued revenue bonds, HRSD is indebted for bond issues payable to the Virginia Resources Authority (VRA) as administrator of the Virginia Water Facilities Fund. HRSD is required to adhere to and is in compliance with the rebate and reporting requirements of the federal regulations pertaining to arbitrage.

In fiscal year 2020, HRSD issued \$205,675,000 in subordinate wastewater revenue bonds, Series 2019A, along with \$66,355,000 in cash to partially refund a total of \$219,720,000 debt for Series 2014A, Series 2016A, Series 2017A and Series 2018A. The transaction resulted in a loss on refunding of \$11,689,000 which will be amortized over 29 years.

HRSD has \$50 million outstanding in subordinate variable rate demand bonds, Series 2016B, to partially finance its capital improvement plan. The bonds bear interest in either a Weekly Period or a Long-term Period, as defined. The

bonds were initially issued in a Weekly Interest Period and bear interest at a varying interest rate until, at HRSD's option, they are converted to the Long-term Period. Liquidity to pay the purchase price of the bonds that are tendered and not remarketed is provided by HRSD. Maturities of the principal and interest for these bonds are shown in the following table as if held to maturity. The bonds are subject to optional redemption by HRSD prior to their maturity. Through June 30 2020, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2020 and 2019 was 1.27% and 1.52%, respectively. The 2020 rate was used to calculate interest maturity amounts shown below.

All bonds are secured by the revenues of HRSD and are payable over the duration of that issue. A summary of activity for the years ended June 30:

(in thousands)	Balance at			Balance at				Balance at	Due within
	6/30/18	Additions	Deductions	6/30/19	Additions	Deductions	Transfer		
Series-2019A	\$ -	-	\$ -	\$ -	\$ 205,675	\$ -	\$ -	\$ 205,675	\$ 2,985
Series-2018A	63,185	-	(470)	62,715	-	(42,230)	-	20,485	1,035
Series-2017A	83,485	-	-	83,485	-	(11,430)	-	72,055	-
Series-2016A	233,490	-	(2,520)	230,970	-	(134,175)	-	96,795	4,160
Series-2016B VR	50,000	-	-	50,000	-	-	-	50,000	50,000
Series-2014A	111,345	-	(5,500)	105,845	-	(41,305)	-	64,540	6,080
Series-2012A	8,450	-	(2,680)	5,770	-	(2,815)	-	2,955	2,955
Series-2012	905	-	(305)	600	-	(310)	-	290	290
Series-2011FR	2,990	-	(1,465)	1,525	-	(1,525)	-	-	-
Series-2009B	123,940	-	(3,800)	120,140	-	(3,915)	-	116,225	4,040
Virginia Resources Authority									
Senior bonds	85,416	-	(5,356)	80,060	-	(2,405)	(47,163)	30,492	2,467
Subordinate bonds	54,403	35,040	(5,045)	84,398	29,238	(8,354)	47,163	152,445	8,174
	817,609	35,040	(27,141)	825,508	234,913	(248,464)	-	811,957	82,186
Unamortized bond premiums	73,833	-	(7,712)	66,121	-	(42,599)	-	23,522	3,720
Total	\$ 891,442	\$ 35,040	\$ (34,853)	\$ 891,629	\$ 234,913	\$ (291,063)	\$ -	\$ 835,479	\$ 85,906

#### Senior bonds outstanding at June 30, 2020:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-Term				
Series-2014A	\$ 111,345	\$ 64,540	\$ 6,080	\$ 58,460	\$ 10,944	5.00%	15 years	Jul 1, 2025
Series-2012A	130,480	2,955	2,955	-	148	5.00%	9 years	Jan 1, 2021
Series-2009B	134,725	116,225	4,040	112,185	76,127	4.71% - 5.87%	30 years	Nov 1, 2039
VRA - Metering	9,989	6,327	503	5,824	1,008	2.65%	20 years	Mar 1, 2031
VRA - WTP	5,727	3,622	297	3,325	442	2.05%	20 years	Mar 1, 2031
VRA - NTP	19,395	12,253	973	11,280	1,953	2.65%	20 years	Mar 1, 2031
VRA - JRTP	13,431	8,290	694	7,596	1,261	2.65%	20 years	Sep 1, 2030
Total		\$ 214,212	\$ 15,542	\$ 198,670	\$ 91,883			

NOTES TO THE FINANCIAL STATEMENTS

Maturities of senior bond principal and interest as of June 30, 2020:

(in thousands)		Principal	Interest
June 30,			
2021	\$	15,542	\$ 10,543
2022		14,771	9,778
2023		18,727	9,005
2024		19,539	8,110
2025		20,408	7,156
2026 - 2030		53,648	25,796
2031 - 2035		33,901	15,805
2036 - 2040		37,676	5,690
2041 - 2045		-	-
	\$	214,212	\$ 91,883

Subordinate revenue bonds outstanding at June 30, 2020:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-term				
Series-2019A	\$ 205,675	\$ 205,675	\$ 2,985	\$ 208,660	\$ 62,211	1.69-2.78%	20 Years	Feb 1, 2039
Series-2018A	63,185	20,485	1,035	21,520	7,995	5.00%	15 years	Oct 1, 2033
Series-2017A	83,485	72,055	-	72,055	45,883	3.50-5.00%	26 years	Oct 1, 2043
Series-2016A	246,845	96,795	4,160	100,955	35,678	3.00-5.00%	20 years	Aug 1, 2036
Series-2012	22,680	290	290	580	3	1.77-1.92%	8 years	Oct 1, 2020
VRA - BH Odor	2,380	241	160	401	8	3.50%	20 years	Sep 1, 2021
VRA - York River Reuse	2,476	377	150	527	10	1.70%	20 years	Sep 1, 2022
VRA - AB Aeration	1,759	283	112	395	7	1.70%	20 years	Oct 1, 2022
VRA - Ches-Eliz Off Gas	1,070	207	67	274	14	3.75%	20 years	Mar 1, 2023
VRA - AB Generator	1,235	445	70	515	29	2.00%	20 years	Apr 1, 2026
VRA - Atlantic Expansion	7,340	3,060	410	3,470	246	2.10%	20 years	Feb 1, 2027
VRA - Ches-Eliz Expan	40,330	16,730	2,243	18,973	1,347	2.10%	20 years	Jun 1, 2027
VRA - Williamsburg PS	1,605	710	89	799	61	2.10%	20 years	Jul 1, 2027
VRA - York River Expan	29,683	18,757	1,484	20,241	3,072	2.72%	20 years	Mar 1, 2031
VRA - Rodman	1,096	1,032	35	1,067	291	2.25%	25 years	Jun 1, 2043
VRA - Atlantic	-	49,467	-	49,467	15,094	2.25%	30 years	Mar 1, 2046
VRA - Ferguson	866	824	28	852	269	2.70%	30 years	Mar 1, 2042
VRA - Lucas	2,949	2,858	86	2,944	1,030	2.65%	30 years	Oct 1, 2044
VRA - BHTP Switchgear	-	6,025	-	6,025	1,034	1.85%	20 years	Dec 1, 2040
VRA - Orcutt Ave	-	6,409	100	6,509	3,961	2.85%	30 years	Feb 1, 2049
VRA - TP Dewatering	-	67	-	67	1	1.20%	20 years	Oct 1, 2040
VRA - Deep Creek IFM	-	13	-	13	-	1.20%	20 years	Dec 1, 2040
VRA - Huxley	-	801	-	801	32	1.20%	20 years	Aug 1, 2040
VRA - Group Loan	-	51	-	51	2	1.15%	22 years	Mar 1, 2042
VRA - ABTP *	50,000	34,675	2,460	37,135	4,809	2.05%	20 years	Sep 1, 2032
VRA - ATP *	6,318	4,540	300	4,840	808	2.51%	20 years	Feb 1, 2033
VRA - BHTP *	7,584	4,873	380	5,253	622	2.05%	20 years	Sep 1, 2031
		547,745	16,644	564,389	184,517			
						Variable (1.27% at June 30,2020)		
Series-2016B VR	50,000	50,000	50,000	100,000	16,576		30 years	Aug 1, 2046
Total		\$ 597,745	\$ 66,644	\$ 664,389	\$ 201,093			

The VRA bonds that do not show an issue amount have not closed as of June 30, 2020, therefore the principal amounts reflected represent draws through that date. The total eligible loan amount on these Subordinate VRA bonds is \$121,063,971, of which \$113,723,000 is available at June 30, 2020.

\* Debt was converted from Senior Debt to Subordinate debt in FY20.

## Maturities of subordinate bond principal and interest as of June 30, 2020:

(in thousands)

June 30,	Principal	Interest
2021	\$ 66,644	\$ 16,958
2022	20,065	16,401
2023	18,236	15,841
2024	18,488	15,329
2025	19,011	14,802
2026 - 2030	150,247	62,675
2031 - 2035	167,256	37,708
2036 - 2040	107,185	15,342
2041 - 2045	30,613	5,297
2046 - 2050	-	740
	<u>\$ 597,745</u>	<u>\$ 201,093</u>

HRSD defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the fund's financial statements. At June 30, 2020, the following defeased bonds from advance refunding are still outstanding:

Defeased In	Original Issue	Amount	Redemption
2014	Series 2012A	\$ 14,731,674	01/01/21
2016	Series 2012A	18,224,479	01/01/21
2017	Series 2012A	83,417,423	01/01/21
2017	Series 2016A	8,619,513	08/01/26
2019	Series 2014A	43,085,916	07/01/24
2019	Series 2016A	29,673,380	08/01/26
2019	Series 2016A	139,263,261	08/01/26
2019	Series 2017A	14,726,423	10/01/27
2019	Series 2018A	14,893,915	10/01/27
2019	Series 2018A	38,393,784	10/01/27
		<u>\$ 405,029,768</u>	

**NOTE 10 – NET POSITION**Restricted Portion of Net Position

*Restricted for debt service.* HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service. At June 30, 2020 and 2019, \$ 28,155,000 and \$ 28,553,000, respectively, were contained in the unrestricted net position.

Unrestricted Portion of Net Position

*Reserved for Improvement.* HRSD's Master Trust Agreement requires a reserve for improvements. There is no specific funding mechanism established by the Trust Agreement. At June 30, 2020 and 2019, \$367,000 and \$902,000, respectively, was contained in the unrestricted net position. HRSD was in compliance with all funding requirements of this reserve during the fiscal years ended June 30, 2020 and 2019.

*Reserved for Construction.* A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2020 and 2019, \$8,596,000 and \$37,452,000, respectively, was contained in the unrestricted net position.

NOTES TO THE FINANCIAL STATEMENTS

**NOTE 11 - RISK MANAGEMENT**

HRSD is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; employee dishonesty; injuries to employees; and natural disasters. HRSD purchases commercial insurance for specific types of coverage including property, liability, auto, crime, public officials and worker’s compensation. There were no significant reductions in insurance coverage from the prior year. Claim settlements and judgments not covered by commercial insurance are covered by operating resources. The amount of settlements did not exceed insurance coverage for each of the past three years. Claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.

HRSD has a self-insured health, dental and vision care benefits program for all employees. Claims processing and payments for all health care claims are made through third-party administrators. HRSD uses the information provided by the third-party administrators and a health care benefits consultant to aid in the determination of self-insurance reserves.

(In thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2019	\$ 4,216	\$ 12,875	\$ (12,801)	\$ 4,290
2020	4,290	11,922	(11,848)	4,364

**NOTE 12 – COMMITMENTS AND CONTINGENCIES**

On December 19, 2014, the Commonwealth of Virginia entered into a long-term State Consent Agreement (the “2014 Consent Agreement”) with 14 of the localities that HRSD serves. The 2014 Consent Agreement requires the localities to perform long-term management, operations and maintenance of their sewer systems in support of HRSD’s efforts to provide long-term regional wet weather wastewater capacity. HRSD is not a party to the 2014 Consent Agreement. Instead, HRSD’s obligation to provide regional wet weather sewer capacity is now solely imposed through its federal consent decree (the “Consent Decree”). HRSD entered into the Consent Decree with the Commonwealth and the United States Environmental Protection Agency (“EPA”).

The Consent Decree was entered by the federal district court for the Eastern District of Virginia (the “District Court”) on February 23, 2010. The Consent Decree has been amended four times, most recently on February 21, 2017 (the “Amended Consent Decree”).

The Amended Consent Decree has two major operative requirements. First, it requires HRSD to develop a Regional Wet Weather Management Plan (“RWWMP”) to control capacity-related sewer overflows within the 14 localities. However, through the third and fourth amendments, HRSD has now assumed responsibility for planning (in consultation with the 14 affected localities), designing, funding, and implementing the controls in both the localities’ systems and the HRSD system that will be contained in the approved RWWMP. Through this approach, HRSD estimates the regional ratepayers will achieve significantly reduced program costs than if each locality sought to address peak wet weather wastewater flows on its own. To facilitate these regional cost savings, the Amended Consent Decree extended the RWWMP submission deadline to October 1, 2017. To further facilitate this approach, the 14 affected localities entered into a Memorandum of Agreement with HRSD in 2014 in which they agreed to (1) cooperate with HRSD, (2) facilitate the construction of and accept ownership of any improvements which HRSD may need to construct in the localities’ systems, and (3) maintain the integrity of their systems to industry standards.

The Amended Consent Decree also requires HRSD to implement a total of 45 projects from its ten-year CIP. These 45 projects total approximately \$306 million. Accordingly, HRSD has timely and fully satisfied the requirement of the Amended Consent Decree to implement these 45 early action projects.

The Amended Consent Decree authorizes HRSD to submit the RWWMP as part of an Integrated Management Plan (“IMP”). HRSD intends to use the IMP approach to facilitate the timing and financing of both its RWWMP and its SWIFT Program. The SWIFT Program will assist the Commonwealth to meet its Chesapeake Bay nutrient reduction commitments and save HRSD’s 14 localities approximately \$1 to \$2 billion in avoided Chesapeake Bay-related stormwater control costs.

HRSD has agreed to a fifth amendment to its ongoing federal consent decree with the United States Environmental Protection Agency (“USEPA”) and the Commonwealth of Virginia (“Commonwealth”). The fifth amendment is expected to be lodged with the federal court in late 2020 and entered by the court in early 2021. The fifth amendment includes a schedule for wastewater system improvements that accommodates the SWIFT program. That schedule

requires that HRSD implement \$200 million worth of sewer overflow control projects between 2020 and 2030 and then another \$200 million in sewer overflow control projects between 2030 and 2040. These two sets of projects reflect further priority system improvements that HRSD is to implement along with the Project. The fifth amendment gives HRSD until 2032 to complete the SWIFT program. Finally, the fifth amendment provides that if HRSD does not fully implement the Project or delays full implementation past 2032 then EPA can require HRSD to accelerate some or all of the second group (\$200 million worth) of sewer overflow control projects to offset the avoided investment in the SWIFT program.

During FY-2018 HRSD paid \$15 million for a non-revocable option to purchase a parcel of land to construct one of the SWIFT facilities. The option must be exercised no earlier than January 1, 2023 and no later than December 31, 2023. An additional payment of \$15 million, adjusted from the date of the agreement to the date of settlement by the Consumer Price Index for All Urban Consumers, will be due at that time. Failure to exercise the option will result in forfeiture of the option fee.

In 2018, oystermen leasing oyster beds in the Nansemond River filed a petition for declaratory judgment against the City of Suffolk and the Borrower alleging that they had intentionally designed and operated their storm water system (Suffolk) and sanitary sewers (both) to discharge contaminants onto the oystermen's oyster beds (leased from the Virginia Marine Resources Commission), resulting in condemnation of their oysters by the Virginia Department of Health. In September 2019, the Suffolk Circuit Court granted demurrers filed by Suffolk and the Borrower and dismissed the oystermen's petition. On May 18, 2020, the Supreme Court of Virginia agreed to hear the oystermen's appeal. Briefing was completed by late July 2020, oral arguments are estimated to occur in late 2020.

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. As of June 30, 2020, HRSD has outstanding commitments for contracts in progress of approximately \$195,784,000.

### NOTE 13 – FAIR VALUE MEASUREMENTS

HRSD categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs.

Debt securities reported as investments are classified in Level 2 of the fair value hierarchy and are valued using the following approaches:

- U.S. Treasury securities are valued using quoted prices for identical or similar securities.
- All other investments are valued based on matrix pricing using observable data of securities with similar attributes.

#### HRSD

Investments reported as cash and cash equivalents are not included of the fair value hierarchy and are valued using the following approaches:

- SNAP Fund – money market mutual funds. HRSD's holdings of the PFM Prime Series (SNAP) fund units are valued at NAV, which is used as a practical expedient for fair value. There are no imposed redemption restrictions and the plan does not have any contractual obligations to further invest in the fund. The underlying investments of the fund are primarily short-term, high quality debt instruments including U.S. Treasuries, U.S. Agencies, U.S. Municipals, and repurchase agreements secured by U.S. Government Obligations. Underlying investments are measured at amortized cost, which approximates fair value. Underlying investments are measured at amortization cost, which approximates fair value. HRSD's total investment in SNAP as of June 30, 2020 was zero and \$14,335,000 as of June 30, 2019.



NOTES TO THE FINANCIAL STATEMENTS

- The Virginia Investment Pool Trust Fund (the “Trust” or “VIP”) is an Internal Revenue Code Section 115 governmental trust fund created under the Joint Exercise of Powers statute of the Commonwealth of Virginia to provide political subdivisions with an investment vehicle to pool their funds and to invest such funds into two or more investment portfolios under the direction and daily supervision of a professional fund manager. The Trust was established and created by the City of Chesapeake, Virginia, and the City of Roanoke, Virginia (the “Founding Participants”) and operates under the Trust Agreement as amended September 23, 2016. All deposits to VIP initially go into the Stable NAV Liquidity Pool, which serves both as a liquidity pool and as a sweep account for the 1-3 Year High Quality Bond Fund. HRSD’s total investment in VIP is \$64,900,000 in the 1-3 Year High Quality Bond Fund and \$178,660,000 in the Stable NAV Liquidity Pool as of June 30, 2020.

HRSD OPEB Trust Investments

The HRSD OPEB Trust has investments in mutual funds, cash, and cash equivalents on deposit with its trustee, USBank. HRSD categorizes its fair value measurements within the fair value hierarchy consistent with the approach described above.

<u>Balance at June 30, 2020</u> (in thousands)	Fair Value	Level 1	Level 2	Level 3
<b><u>Investments by Fair Value Level</u></b>				
Mutual Funds - Equity	\$ 31,920	\$ 5,018	\$ 26,902	\$ -
Mutual Funds - Fixed Income	22,393	5,963	16,430	-
Other Income	2,412			2,412
Total Investments by Fair Value Level	\$ 56,725	\$ 10,981	\$ 43,332	\$ 2,412

**Cash Equivalents Measured at Net Asset Value**

First American Government Obligation	187
--------------------------------------	-----

**Fiduciary Net Position of HRSD’s OPEB**

Plan as of June 30, 2020	\$ 56,912
--------------------------	-----------

**Balance at June 30, 2019**

(in thousands)	Fair Value	Level 1	Level 2	Level 3
<b><u>Investments by Fair Value Level</u></b>				
Mutual Funds - Equity	\$ 31,251	\$ 2,630	\$ 28,648	\$ -
Mutual Funds - Fixed Income	19,428	-	19,428	-
Other Income	1,175	-	-	1,175
Total Investments by Fair Value Level	\$ 51,854	\$ 2,630	\$ 48,076	\$ 1,175

**Cash Equivalents Measured at Net Asset Value**

First American Government Obligation	171
--------------------------------------	-----

**Fiduciary Net Position of HRSD’s OPEB**

Plan as of June 30, 2019	\$ 52,025
--------------------------	-----------

Additional information about HRSD’s OPEB Plan is in Note 7.

**Note 14 - Change in Accounting Principle**

As discussed in Note 2, HRSD adopted GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, effective July 1, 2018. The requirements of this Statement are applied prospectively, so no adjustment to net position was required.

**Note 15 - Subsequent Events**

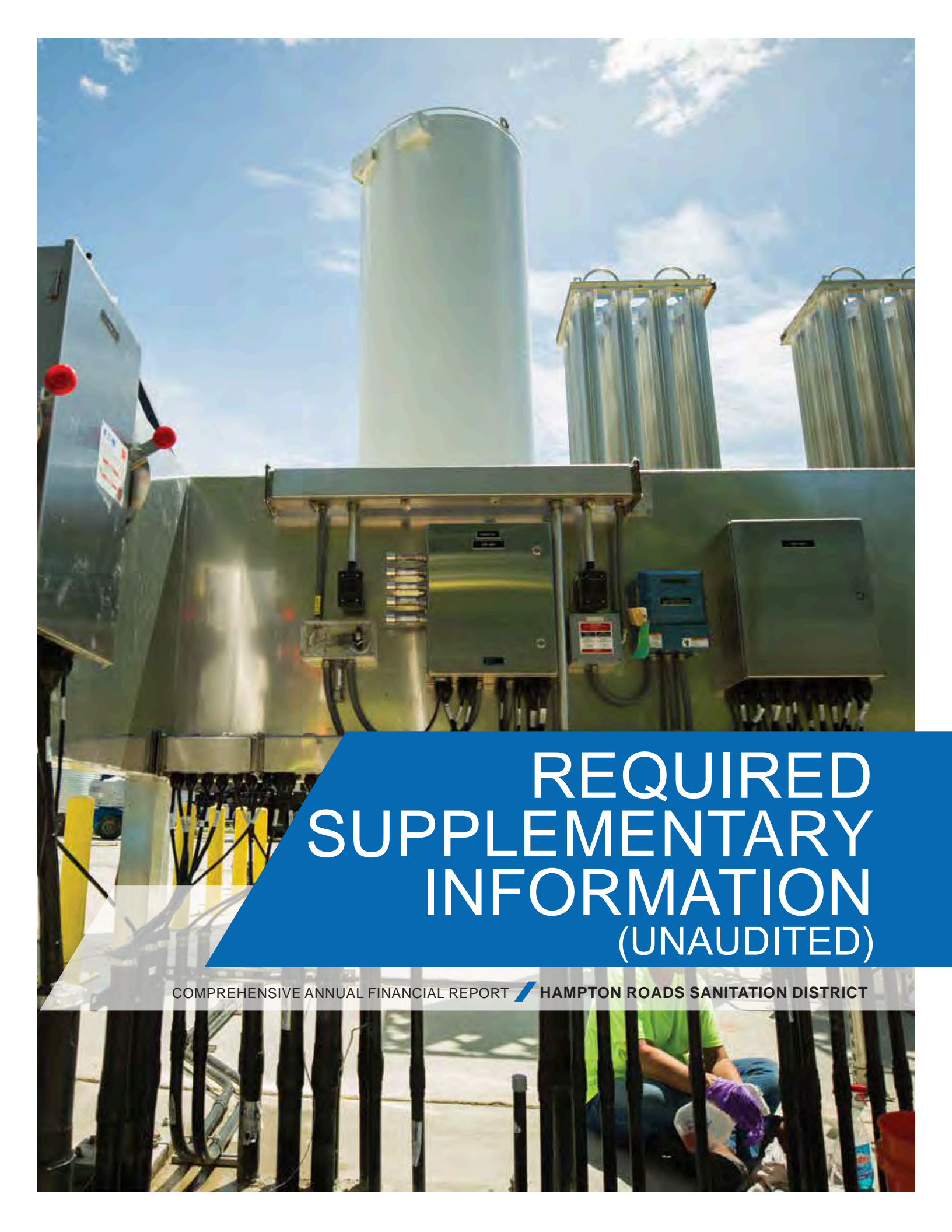
The WIFIA program, managed by the Environmental Protection Agency (EPA), accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects. WIFIA loans allow borrowers to lock-in a rate equivalent to the US Treasury rate plus one basis point at closing. HRSD submitted a Letter of Interest in 2019 and was approved to apply for the SWIFT program. Due to the long duration of the SWIFT program, a Master Financing Agreement (MFA) was required to allow for multiple loans (tranches). Each tranche will be a group of projects that have met environmental requirements. On September 28, 2020, HRSD executed an MFA that outlines the terms and conditions of the loans and caps the amount borrowed at \$1.048 billion. In addition, HRSD closed on the first tranche, which was \$225 million for approximately 34 years at a rate of 1.42%.

HRSD closed on a 20-year \$100 million loan at 1.15% from Virginia Clean Water Revolving Loan Fund on June 11<sup>th</sup>. This is the first programmatic loan in the history of the program, which funds a number of approved projects that provide substantial water quality benefits as opposed to an individual loan for each project.

HRSD filed a petition in the Circuit Court for the County of Northampton and County of Accomack pursuant to Section 48 of the Enabling Act seeking the Court's approval to add the counties to HRSD's territory. The Court held a public hearing on October 2, 2020 to receive and hear any objections and subsequently entered the order to add both counties to HRSD. The reasoning was; both counties were in support; no incorporated towns objected; regionalization of other services (solid waste, broadband) have been successful on the Shore; and HRSD had the ability to attract and retain talent needed to operate modern wastewater systems. In the coming months, HRSD will negotiate agreements with the towns and counties and develop a phased plan to consolidate the wastewater flow.



THIS PAGE INTENTIONALLY BLANK



# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

COMPREHENSIVE ANNUAL FINANCIAL REPORT / HAMPTON ROADS SANITATION DISTRICT

A photograph of a water treatment facility featuring several large, circular concrete tanks. The water in the tanks is a deep blue color. In the background, there are industrial structures and a clear blue sky with scattered white clouds. A large, semi-transparent teal graphic element is overlaid on the left side of the image, containing the text.

# Required Supplementary Information (Unaudited)



THIS PAGE INTENTIONALLY BLANK

**SCHEDULE OF CHANGES IN  
NET PENSION LIABILITY AND RELATED RATIOS**

(in thousands)	2019	2018	2017	2016	2015	2014
<b>Total pension liability</b>						
Service cost	\$ 3,946	\$ 3,825	\$ 4,145	\$ 4,025	\$ 4,115	\$ 3,943
Interest	15,598	14,953	14,750	13,872	13,559	12,907
Changes of benefit terms	-	-	-	-	-	-
Changes in assumptions	7,378	-	(3,975)	-	-	-
Differences between expected and actual experience	760	(101)	(3,175)	2,980	(4,910)	-
Benefit payments, including refunds of employee contributions	(9,655)	(9,250)	(8,475)	(8,161)	(8,446)	(6,607)
<b>Net change in total pension liability</b>	<b>18,027</b>	<b>9,427</b>	<b>3,270</b>	<b>12,716</b>	<b>4,318</b>	<b>10,243</b>
<b>Total pension liability - beginning</b>	<b>227,659</b>	<b>218,232</b>	<b>214,962</b>	<b>202,246</b>	<b>197,928</b>	<b>187,686</b>
<b>Total pension liability - ending (a)</b>	<b>\$ 245,686</b>	<b>\$ 227,659</b>	<b>\$ 218,232</b>	<b>\$ 214,962</b>	<b>\$ 202,246</b>	<b>\$ 197,929</b>
<b>Plan fiduciary net position</b>						
Contributions - employer	\$ 2,866	\$ 3,710	\$ 3,609	\$ 4,083	\$ 4,099	\$ 4,114
Contributions - employee	2,468	2,424	2,351	2,286	2,314	2,267
Net investment income	13,739	14,451	21,526	3,062	7,807	23,313
Benefit payments, including refunds of employee contributions	(9,655)	(9,250)	(8,475)	(8,161)	(8,446)	(6,607)
Administrative expense	(137)	(125)	(124)	(109)	(107)	(125)
Other	(8)	(12)	(19)	(1)	(2)	1
<b>Net change in plan fiduciary net position</b>	<b>9,273</b>	<b>11,198</b>	<b>18,868</b>	<b>1,160</b>	<b>5,665</b>	<b>22,963</b>
<b>Plan fiduciary net position - beginning</b>	<b>207,355</b>	<b>196,157</b>	<b>177,289</b>	<b>176,129</b>	<b>170,464</b>	<b>147,501</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 216,628</b>	<b>\$ 207,355</b>	<b>\$ 196,157</b>	<b>\$ 177,289</b>	<b>\$ 176,129</b>	<b>\$ 170,464</b>
<b>Net pension liability - ending (a) - (b)</b>	<b>\$ 29,058</b>	<b>\$ 20,304</b>	<b>\$ 22,075</b>	<b>\$ 37,673</b>	<b>\$ 26,117</b>	<b>\$ 27,465</b>
<b>Plan fiduciary net position as a percentage of the total pension liability (b)/(a)</b>	<b>88.17%</b>	<b>91.08%</b>	<b>89.88%</b>	<b>82.47%</b>	<b>87.09%</b>	<b>86.12%</b>
<b>Covered-employee payroll (c)</b>	<b>\$ 51,336</b>	<b>\$ 50,874</b>	<b>\$ 49,286</b>	<b>\$ 47,838</b>	<b>\$ 47,674</b>	<b>\$ 46,096</b>
<b>Net pension liability as a percentage of the covered-employee payroll ((a)-(b))/(c)</b>	<b>56.60%</b>	<b>39.91%</b>	<b>44.79%</b>	<b>78.75%</b>	<b>54.78%</b>	<b>59.58%</b>

This schedule is presented to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

**SCHEDULE OF EMPLOYER PENSION CONTRIBUTIONS  
FOR THE YEARS ENDED JUNE 30, 2011 THROUGH 2020**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2020	\$ 2,897,000	\$ 2,897,000	\$ -	\$ 53,085,000	5.46%
2019	2,866,000	2,866,000	-	51,336,000	5.58%
2018	3,635,000	3,635,000	-	50,874,000	7.15%
2017	4,326,000	4,326,000	-	49,286,000	8.78%
2016	4,222,000	4,222,000	-	47,838,000	8.83%
2015	4,207,000	4,207,000	-	47,674,000	8.82%
2014	4,107,000	4,107,000	-	46,096,000	8.91%
2013	4,075,000	4,075,000	-	45,044,000	9.05%
2012	4,580,000	4,580,000	-	42,166,000	10.86%
2011	4,438,000	4,438,000	-	40,462,000	10.97%

**Notes to Required Supplementary Information For the Year Ended June 30, 2020:**

**Changes of benefit terms -**

There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation.

**Changes of assumptions -**

The actuarial assumptions used in the June 30, 2018, valuation were based on the results of an actuarial experience study for the period from July 1, 2012, through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75 retirement
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Lowered rates
Salary Scale	No change
Line of Duty Disability	Increase rate from 14% to 15%
Discount Rate	Decreased rate from 7.00% to 6.75%

Information pertaining to Pensions can be found in Notes 2 and 8 to the financial statements.



**SCHEDULE OF CHANGES IN  
NET RHP OPEB LIABILITY AND RELATED RATIOS**

(in thousands)	2020	2019	2018	2017
<b>Total OPEB liability</b>				
Service cost	\$ 1,345	\$ 1,300	\$ 1,260	\$ 1,188
Interest	3,883	3,571	3,391	3,208
Changes in assumptions	(518)	(1,607)	-	-
Differences between expected and actual experience	(7,074)	3,302	-	-
Benefit payments, including refunds of employee contributions	(1,186)	(1,149)	(1,791)	(892)
<b>Net change in total OPEB liability</b>	<b>(3,550)</b>	<b>5,417</b>	<b>2,860</b>	<b>3,504</b>
<b>Total OPEB liability - beginning</b>	<b>65,693</b>	<b>60,276</b>	<b>57,416</b>	<b>53,913</b>
<b>Total OPEB liability - ending (a)</b>	<b>\$ 62,143</b>	<b>\$ 65,693</b>	<b>\$ 60,276</b>	<b>\$ 57,417</b>
<b>Plan fiduciary net position</b>				
Contributions - employer	\$ 2,730	\$ 2,993	\$ 2,729	\$ 2,558
Contributions - retirees	-	-	303	-
Net investment income	3,343	3,078	3,450	3,957
Benefit payments, including refunds of employee contributions	(1,186)	(1,149)	(1,791)	(892)
Administrative expense	-	-	(114)	(495)
<b>Net change in plan fiduciary net position</b>	<b>4,887</b>	<b>4,922</b>	<b>4,577</b>	<b>5,128</b>
<b>Plan fiduciary net position - beginning</b>	<b>52,025</b>	<b>47,103</b>	<b>42,526</b>	<b>37,398</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 56,912</b>	<b>\$ 52,025</b>	<b>\$ 47,103</b>	<b>\$ 42,526</b>
<b>Net OPEB liability - ending (a) - (b)</b>	<b>\$ 5,231</b>	<b>\$ 13,668</b>	<b>\$ 13,173</b>	<b>\$ 14,891</b>
<b>Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)</b>	<b>91.58%</b>	<b>79.19%</b>	<b>78.15%</b>	<b>74.07%</b>
<b>Covered-employee payroll (c)</b>	<b>\$ 53,085</b>	<b>\$ 52,070</b>	<b>\$ 50,874</b>	<b>\$ 49,286</b>
<b>Net OPEB liability as a percentage of the covered-employee payroll ((a)-(b))/(c)</b>	<b>9.85%</b>	<b>26.25%</b>	<b>25.89%</b>	<b>30.21%</b>

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

**Notes to Required Supplementary Information For the Year Ended June 30, 2020:**

Benefit changes:		None
Changes of assumptions:	Mortality	Updated to the latest Society of Actuaries (SOA) public sector experience study rates.
	Medical Trend	Developed using the SOA Long-Run Medical Cost Trend Model baseline assumption. The prior valuations used the SOA model as updated in November 2016 and included the impact of the Cadillac Tax. The current valuation uses the model as updated in September 2019 and does not include the impact of the Cadillac Tax.
Discount rate:	6/30/2019	6.00%

**SCHEDULE OF RHP OPEB CONTRIBUTIONS AND RELATED RATIOS  
FOR THE YEARS ENDED JUNE 30, 2011 THROUGH 2020**

Date	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2020	\$ 2,730,000	\$ 2,730,000	\$ -	\$ 54,318,000	5.03%
2019	2,993,000	2,993,000	-	52,070,000	5.75%
2018	2,729,000	2,729,000	-	50,874,000	5.36%
2017	2,558,000	2,558,000	-	49,286,000	5.19%
2016	2,178,000	2,178,000	-	47,838,000	4.55%
2015	2,177,000	2,177,000	-	47,674,000	4.57%
2014	2,244,000	2,244,000	-	46,096,000	4.87%
2013	2,102,000	2,102,000	-	45,032,000	4.67%
2012	2,231,000	2,231,000	-	43,213,000	5.16%
2011	2,196,000	2,196,000	-	40,553,000	5.42%

Actuarial cost method	Entry age normal
Amortization method	Level percent of pay, closed
Amortization period	An experience gain/loss base is created each year and amortized over a 15 year period
Asset valuation	Smoothed market value with phase-in, using a 5-year smoothing period
Assumed rate of inflation	2.20%
Medical cost trend :	
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years
Post Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.4% after 53 years
Salary increase rate	2.50%
Investments rate of return	6.00%
Mortality rates:	
Healthy	RP-2014 Mortality Table, Fully Generational, Projected with Scale MP-2014
Pre Medicare	5.3%, stable at 5.3% after 3 years and decreasing to 3.6% after 53 years

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

**SCHEDULE OF EMPLOYER’S SHARE OF  
NET GLI OPEB LIABILITY AND RELATED RATIOS  
FOR THE MEASUREMENT DATES OF JUNE 30, 2017 THROUGH 2019**

	2019	2018	2017
Employer’s Proportion of the Net GLI OPEB Liability	0.26208%	0.26214%	0.26016%
Employer’s Proportionate Share of the Net GLI OPEB Liability	\$ 4,265,000	\$ 3,981,000	\$ 3,915,000
Employer’s Covered Payroll	51,376,000	49,846,000	47,987,000
Employer’s Proportionate Share of the Net GLI OPEB Liability as a Percentage of its Covered Payroll	8.30%	7.99%	8.16%
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	52.00%	51.22%	48.86%

This schedule is intended to show information for 10 years. However, until a full ten-year trend is compiled, HRSD will present information for those years for which information is available.

In accordance with GAAP, Net Liability is reported using the measurement date, which is one year prior to the reporting date.

Draft

**SCHEDULE OF EMPLOYER GROUP LIFE INSURANCE CONTRIBUTIONS  
FOR THE YEARS ENDED JUNE 30, 2011 THROUGH 2020**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2020	\$ 276,000	\$ 276,000	\$ -	\$ 53,126,000	0.52%
2019	267,000	267,000	-	51,890,000	0.51%
2018	259,000	259,000	-	49,846,000	0.52%
2017	250,000	250,000	-	47,987,000	0.52%
2016	246,000	223,000	23,000	46,417,000	0.53%
2015	244,000	221,000	23,000	46,082,000	0.53%
2014	240,000	217,000	23,000	45,283,000	0.53%
2013	238,000	215,000	23,000	44,839,000	0.53%
2012	183,000	117,000	66,000	41,681,000	0.44%
2011	177,000	113,000	64,000	40,252,000	0.44%

**Notes to Required Supplementary Information For the Year Ended June 30, 2020:**

**Changes of benefit terms -**

There have been no actuarially material changes to the VRS benefit provisions.

**Changes of assumptions -**

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%
Discount Rate	Decreased rate from 7.00% to 6.75%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

**SCHEDULE OF CHANGES IN  
NET HIC OPEB LIABILITY AND RELATED RATIOS**

(in thousands)	2019	2018	2017
<b>Total OPEB liability</b>			
Service cost	\$ 26	\$ 26	\$ 27
Interest	134	130	129
Changes in assumptions	50	-	(22)
Differences between expected and actual experience	26	27	-
Benefit payments, including refunds of employee contributions	(124)	(133)	(94)
<b>Net change in total OPEB liability</b>	<b>112</b>	<b>50</b>	<b>40</b>
<b>Total OPEB liability - beginning</b>	<b>1,981</b>	<b>1,931</b>	<b>1,891</b>
<b>Total OPEB liability - ending (a)</b>	<b>\$ 2,093</b>	<b>\$ 1,981</b>	<b>\$ 1,931</b>
<b>Plan fiduciary net position</b>			
Contributions - employer	\$ 108	\$ 95	\$ 91
Net investment income	56	60	90
Benefit payments, including refunds of employee contributions	(124)	(133)	(94)
Administrative expense	(1)	(1)	(1)
Other	-	(5)	4
<b>Net change in plan fiduciary net position</b>	<b>39</b>	<b>16</b>	<b>90</b>
<b>Plan fiduciary net position - beginning</b>	<b>886</b>	<b>870</b>	<b>780</b>
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 925</b>	<b>\$ 886</b>	<b>\$ 870</b>
<b>Net OPEB liability - ending (a) - (b)</b>	<b>\$ 1,168</b>	<b>\$ 1,095</b>	<b>\$ 1,061</b>
<b>Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)</b>	<b>44.19%</b>	<b>44.72%</b>	<b>45.05%</b>
<b>Covered-employee payroll (c)</b>	<b>\$ 51,336</b>	<b>\$ 49,821</b>	<b>\$ 47,987</b>
<b>Net OPEB liability as a percentage of the covered-employee payroll ((a)-(b))/(c)</b>	<b>2.28%</b>	<b>2.20%</b>	<b>2.21%</b>

This schedule is intended to show information for 10 years. However, until a full ten-year trends compiled, HRSD will present information for those years for which information is available.

**SCHEDULE OF EMPLOYER HEALTH INSURANCE CREDIT CONTRIBUTIONS  
FOR THE YEARS ENDED JUNE 30, 2011 THROUGH 2020**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2020	\$ 111,000	\$ 111,000	\$ -	\$ 53,085,000	0.21%
2019	108,000	108,000	-	51,839,000	0.21%
2018	95,000	95,000	-	49,821,000	0.19%
2017	91,000	91,000	-	47,987,000	0.19%
2016	74,000	74,000	-	46,417,000	0.16%
2015	74,000	74,000	-	46,076,000	0.16%
2014	86,000	86,000	-	45,283,000	0.19%
2013	85,000	85,000	-	44,835,000	0.19%
2012	100,000	100,000	-	41,634,000	0.24%
2011	97,000	97,000	-	40,282,000	0.24%

**Notes to Required Supplementary Information For the Year Ended June 30, 2020:**

**Changes of benefit terms -**

There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation.

**Changes of assumptions -**

The actuarial assumptions used in the June 30, 2018, valuation were based on the results of an actuarial experience study for the period from July 1, 2012, through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%
Discount Rate	Decreased rate from 7.00% to 6.75%

Information pertaining to OPEB can be found in Notes 2 and 7 to the financial statements.

Unaudited – See accompanying independent auditors' report and notes to required supplementary information

Unaudited – See accompanying independent auditors' report and notes to required supplementary information



# Statistical Section (Unaudited)



THIS PAGE INTENTIONALLY BLANK



# INDEX TO STATISTICAL SECTION

COMPREHENSIVE ANNUAL FINANCIAL REPORT / HAMPTON ROADS SANITATION DISTRICT

This section of HRSD's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures and required supplementary information says about HRSD's overall financial health.

<b>Contents</b>	<b>Page</b>
<b>Demographic and Economic Information</b>	<b>70</b>
This schedule offers demographic and economic indicators to help the reader understand the environment within which HRSD's financial activities take place and to help make comparisons over time and with other governments.	
<b>Financial Trends</b>	<b>71</b>
These schedules contain trend information to help the reader understand how HRSD's financial performance and well-being have changed over time.	
<b>Debt Capacity</b>	<b>74</b>
This schedule presents information to help the reader assess the affordability of HRSD's current levels of outstanding debt and HRSD's ability to issue additional debt in the future.	
<b>Revenue Capacity</b>	<b>75</b>
These schedules contain information to help the reader assess the factors affecting HRSD's ability to generate revenue from rate payers.	
<b>Operating Information</b>	<b>77</b>
These schedules contain information about the HRSD's operations and resources to help the reader understand how the HRSD's financial information relates to the services HRSD provides and the activities it performs.	

**Sources:** Unless otherwise noted the information in these schedules is derived from the comprehensive annual financial reports and accounting records for the relevant year.

Unaudited – See accompanying independent auditors' report



THIS PAGE INTENTIONALLY BLANK

DEMOGRAPHIC AND OTHER MISCELLANEOUS STATISTICS

June 30, 2020

Date of Incorporation - 1940	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Area in Square Miles (1)	3,087	3,087	3,087	3,087	3,087	2,808	2,808	2,808	2,808	2,808
Present Service Area in Square Miles (1)	758	758	758	758	758	672	672	672	672	672
Treatment Plants (Major)	9	9	9	9	9	9	9	9	9	9
Plant Capacity (Millions of Gallons per Day)										
Army Base Plant, Norfolk	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Atlantic Plant, Virginia Beach	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
Boat Harbor Plant, Newport News	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Chesapeake-Elizabeth Plant, Virginia Beach	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
James River Plant, Newport News	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Nansemond Plant, Suffolk	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Virginia Initiative Plant, Norfolk	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Williamsburg Plant, James City County	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
York River Plant, York County	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Total Treatment Plants (Major) Capacity	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
Small Communities Treatment Plants	7	7	7	7	5	4	4	4	4	5
Small Communities Plant Capacity (Millions of Gallons per Day)										
Central Middlesex, Middlesex County	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.030
King William Plant, King William County	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Lawnes Point, Isle of Wight County (2)	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Mathews Plant, Mathews County (3)	-	-	-	-	-	-	-	-	-	0.100
Surry County (4)	0.065	0.065	0.065	0.065	-	-	-	-	-	-
Town of Surry (4)	0.060	0.060	0.060	0.060	-	-	-	-	-	-
Urbanna Plant, Middlesex County	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
West Point Plant, King William County	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
Total Small Communities Treatment Plants Capacity	1.000	1.000	1.000	1.000	0.875	0.825	0.825	0.830	0.830	0.930
Miles of Interceptor Systems (5)	541	541	542	542	540	536	532	531	531	532
Interceptor Pump Stations	88	87	88	88	89	88	83	83	83	83
Small Communities Pump Stations (5)	42	41	34	34	38	33	33	33	29	29
Maintenance Facilities	2	2	2	2	2	2	2	2	2	2
Number of Service Connections (in thousands)	478	476	473	473	470	467	465	462	460	458
Daily Average Treatment in Millions of Gallons	141	153	145	145	153	155	152	154	158	147
Bond Rating: Moody's										
Senior	Aa1	Aa1	Aa1	Aa1	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
Subordinate Long-term	Aa1	Aa2	Aa2	Aa2	-	-	-	-	-	-
Bond Rating: Standard & Poor's										
Senior	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AAA	AAA	AAA
Subordinate Long-term	AA+	AA+	AA	AA	AA	AA	AA	AA+	AA+	AA+
Subordinate Short-term	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+
Bond Rating: Fitch										
Senior	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Subordinate Long-term	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Subordinate Short-term	F1+	F1+	F1+	F1+	F1+	F1+	F1+	F1+	F1+	F1+

(1) HRSD added additional service areas in the counties of Isle of Wight and Surry

(2) Lawnes Point was acquired during the year ended June 30, 2017.

(3) The Mathews Treatment Plant has been closed. Wastewater from the area is now handled by the York River Treatment Plant.

(4) The Surry Plants were acquired during the year ended June 30, 2018.

(5) HRSD conducted evaluations of the system during the years ended June 30, 2009 and 2011 and revised the miles of pipes and the number of small community pump stations.

**SCHEDULE OF OPERATING REVENUES, EXPENSES, NET POSITION BY COMPONENT  
AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS**

(in thousands)

	2020	2019	2018	(adjusted) 2017	2016
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	\$ 318,585	\$ 299,323	\$ 275,539	\$ 254,961	\$ 234,020
Miscellaneous	3,447	3,798	3,504	3,669	3,861
<b>TOTAL OPERATING REVENUES</b>	<b>322,032</b>	<b>303,121</b>	<b>279,043</b>	<b>258,630</b>	<b>237,881</b>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	122,393	117,189	116,982	113,100	106,575
General and administrative	46,949	41,121	40,480	40,287	40,026
Depreciation	51,383	53,225	52,349	49,311	45,670
<b>TOTAL OPERATING EXPENSES</b>	<b>220,725</b>	<b>211,535</b>	<b>209,811</b>	<b>202,698</b>	<b>192,271</b>
<b>OPERATING INCOME</b>	<b>101,307</b>	<b>91,586</b>	<b>69,232</b>	<b>55,932</b>	<b>45,610</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	6,444	6,662	6,673	7,511	6,699
Investment income	5,876	8,719	3,654	2,287	1,563
Bond interest subsidy	2,205	2,308	2,330	2,275	2,399
Change in fair value of investments	-	-	(1,382)	(1,119)	750
Capital distributions to localities	-	-	(311)	(138)	(3,287)
Bond issuance costs	(1,290)	(53)	(1,061)	(42)	(1,713)
Disposal of capital assets	(739)	-	-	-	-
Interest expense	(26,179)	(27,964)	(20,226)	(22,630)	(21,631)
<b>NET NON-OPERATING REVENUES (EXPENSES)</b>	<b>(13,683)</b>	<b>(10,328)</b>	<b>(10,323)</b>	<b>(11,856)</b>	<b>(15,220)</b>
<b>INCOME (LOSS) BEFORE CONTRIBUTIONS</b>	<b>87,624</b>	<b>81,258</b>	<b>58,909</b>	<b>44,076</b>	<b>30,390</b>
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	-	2,444	2,502	7,462	14,389
Other capital contributions	578	374	2,124	1,136	-
<b>CHANGE IN NET POSITION</b>	<b>\$ 88,202</b>	<b>\$ 84,076</b>	<b>\$ 63,535</b>	<b>\$ 52,674</b>	<b>\$ 44,779</b>
<b>NET POSITION</b>					
Net Investment in capital assets	\$ 646,720	\$ 494,779	\$ 512,398	\$ 428,670	\$ 410,287
Restricted for debt service	28,155	28,553	27,799	22,701	23,798
Restricted for debt service reserve fund	-	-	-	-	-
Unrestricted	195,032	258,373	157,432	202,907	167,519
<b>TOTAL NET POSITION</b>	<b>\$ 869,907</b>	<b>\$ 781,705</b>	<b>\$ 697,629</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	\$ 28,595	\$ 33,592	\$ 36,488	\$ 35,837	\$ 38,198
Subordinate debt	\$ 30,416	\$ 28,313	\$ 20,633	\$ 23,603	\$ 17,068
Senior Debt Service Coverage (GAAP)	5.80	4.84	3.59	3.10	2.56
Subordinate Debt Service Coverage (GAAP)	5.46	5.74	6.36	5.09	5.72
Total Debt Service Coverage (GAAP)	2.81	2.62	2.03	1.93	1.77
Total Debt (Adjusted Cash Basis)	\$ 59,011	\$ 61,905	\$ 57,171	\$ 57,988	\$ 54,643
Total Debt Service Coverage (Adjusted Cash Basis)	2.81	2.62	2.30	2.00	1.85

**Notes:**

FY2016 - HRSD is showing Debt Service Coverage on both a GAAP basis and an Adjusted Cash basis to account for distributions to localities in accordance with its Amended Subordinate Trust Agreement Section 705(a) enacted in March 2016.

FY2018 - HRSD implemented GASB Statement 75 effective July 1, 2017, which requires recording net OPEB assets or liabilities and related deferred outflows and inflows of resources.

FY2019 - HRSD implemented GASB Statement 89 effective July 1, 2018, establishes accounting requirements for interest cost incurred before the end of a construction period.

(Continued)

**SCHEDULE OF OPERATING REVENUES, EXPENSES, NET POSITION BY COMPONENT  
AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS**

(in thousands)

	2015	(adjusted) 2014	(adjusted) 2013	2012	2011
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	\$ 221,626	\$ 211,538	\$ 199,318	\$ 194,817	\$ 183,526
Miscellaneous	3,935	3,643	3,297	2,996	3,890
<b>TOTAL OPERATING REVENUES</b>	<b>225,561</b>	<b>215,181</b>	<b>202,615</b>	<b>197,813</b>	<b>187,416</b>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	114,137	109,149	86,973	110,783	103,225
General and administrative	38,678	33,012	31,410	31,163	28,622
Depreciation	41,871	42,761	45,414	41,250	36,191
<b>TOTAL OPERATING EXPENSES</b>	<b>194,686</b>	<b>184,922</b>	<b>163,797</b>	<b>183,196</b>	<b>168,038</b>
<b>OPERATING INCOME</b>	<b>30,875</b>	<b>30,259</b>	<b>38,818</b>	<b>14,617</b>	<b>19,378</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	7,428	6,640	5,851	6,276	5,083
Investment income	1,695	1,872	1,705	1,681	1,699
Bond interest subsidy	2,444	2,364	2,602	2,602	2,602
Change in fair value of investments	(286)	(422)	(714)	(224)	(19)
Capital distributions to localities	-	-	-	-	-
Bond issuance costs	(768)	-	(658)	(2,206)	-
Disposal of capital assets	-	-	(1,649)	-	-
Interest expense	(22,958)	(25,650)	(24,330)	(22,760)	(20,516)
<b>NET NON-OPERATING REVENUES (EXPENSES)</b>	<b>(12,445)</b>	<b>(15,196)</b>	<b>(17,193)</b>	<b>(14,631)</b>	<b>(11,151)</b>
<b>INCOME (LOSS) BEFORE CONTRIBUTIONS</b>	<b>18,430</b>	<b>15,063</b>	<b>21,625</b>	<b>(14)</b>	<b>8,227</b>
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	16,519	13,888	10,172	14,806	16,097
Other capital contributions	3,000	-	-	-	-
<b>CHANGE IN NET POSITION</b>	<b>\$ 37,949</b>	<b>\$ 28,951</b>	<b>\$ 31,797</b>	<b>\$ 14,792</b>	<b>\$ 24,324</b>
<b>NET POSITION</b>					
Net Investment in capital assets	\$ 385,597	\$ 351,191	\$ 337,342	\$ 348,407	\$ 351,618
Restricted for debt service	22,070	24,064	23,843	15,736	14,896
Restricted for debt service reserve fund	44,118	45,207	-	-	-
Unrestricted	105,040	134,485	164,811	130,056	110,688
<b>TOTAL NET POSITION</b>	<b>\$ 556,825</b>	<b>\$ 554,947</b>	<b>\$ 525,996</b>	<b>\$ 494,199</b>	<b>\$ 477,202</b>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	\$ 43,842	\$ 47,331	\$ 37,574	\$ 33,023	\$ 28,257
Subordinate debt	\$ 13,091	\$ 14,112	\$ 11,243	\$ 13,694	\$ 10,640
Senior Debt Service Coverage (GAAP)	1.90	1.76	2.48	1.94	2.30
Subordinate Debt Service Coverage (GAAP)	6.36	5.92	8.27	4.67	6.10
Total Debt Service Coverage (GAAP)	1.46	1.36	1.91	1.37	1.67
Total Debt (Adjusted Cash Basis)	\$ -	\$ -	\$ -	\$ -	\$ -
Total Debt Service Coverage (Adjusted Cash Basis)	-	-	-	-	-

Notes:

FY2013 - HRSD implemented GASB Statement 65 effective July 1, 2012, which requires expensing bond issuance costs in the year incurred.  
- HRSD adjusted the financial records to include inventory assets.

FY2014 - HRSD implemented GASB Statements 68 and 71 effective July 1, 2014, which requires recording net pension assets or liabilities and related deferred outflows and inflows of resources.

Unaudited – See accompanying independent auditors' report

Unaudited – See accompanying independent auditors' report

**OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES  
FOR OPERATIONS - LAST TEN FISCAL YEARS**

(in thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Personal Services	\$ 59,666	\$ 56,336	\$ 55,160	\$ 53,401	\$ 51,801	\$ 52,357	\$ 50,538	\$ 49,361	\$ 47,319	\$ 44,284
Fringe Benefits	21,417	18,235	20,275	19,106	17,974	18,249	20,170	20,039	17,800	17,692
Repairs and Maintenance (1)	17,419	13,786	16,763	19,933	22,824	31,451	22,320	23,075	26,057	21,234
Materials and Supplies	9,364	9,314	8,865	8,310	7,843	4,343	5,764	5,700	6,143	8,381
Transportation	1,194	1,423	1,271	1,386	1,537	1,297	1,417	1,376	1,319	1,196
Utilities	12,584	12,749	11,968	11,523	11,249	10,503	11,126	12,295	12,027	11,026
Chemical Purchases	8,760	8,746	8,750	8,020	7,512	7,119	7,752	7,892	8,587	8,084
Contractual Services	33,748	32,123	30,165	26,977	21,573	15,127	14,222	13,993	12,312	11,118
Miscellaneous Expense	2,953	2,622	2,509	2,329	1,842	2,880	1,274	1,172	1,324	1,148
General (2)	2,237	2,976	1,736	2,402	2,446	9,489	7,578	6,487	6,852	7,684
Subtotal, Expense before Depreciation	169,342	158,310	157,462	153,387	146,601	152,815	142,161	141,390	139,740	131,847
Depreciation	51,383	53,225	52,349	49,311	45,670	41,871	42,761	45,414	41,250	36,191
Total Operating Expenses	\$ 220,725	\$ 211,535	\$ 209,811	\$ 202,698	\$ 192,271	\$ 194,686	\$ 184,922	\$ 186,804	\$ 180,990	\$ 168,038

(1) Includes Capital Improvement Program items expensed

(2) Includes bad debt expense

Unaudited – See accompanying independent auditors' report

**RATIOS OF OUTSTANDING DEBT BY TYPE**  
**June 30, 2020**

As of June 30,	No. Of Service Connections	(in thousands)			Total Outstanding Debt	Debt Per Service Connection
		Senior Revenue Bonds	Subordinate Revenue Bonds			
2020	478,000	\$ 219,776	\$ 615,703	\$ 835,479	\$ 1,748	
2019	476,000	326,531	565,098	891,629	1,873	
2018	473,000	349,313	542,129	891,442	1,885	
2017	470,000	458,255	388,529	846,784	1,802	
2016	467,000	476,734	402,560	879,294	1,883	
2015	465,000	649,202	99,195	748,397	1,609	
2014	462,000	656,503	109,850	766,353	1,659	
2013	460,000	670,272	120,231	790,503	1,718	
2012	458,000	510,951	128,335	639,286	1,396	
2011	457,000	450,335	110,661	560,996	1,228	

Note: Unamortized bond premiums are included in both senior and subordinate revenue bonds.

Draft

**RATE SCHEDULE  
WASTEWATER TREATMENT CHARGES  
LAST TEN FISCAL YEARS**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>Residential - Metered</b>										
Per CCF* (single step)	\$ 5.86	\$ 5.37	\$ 4.92	\$ 4.51	\$ 4.13	\$ 3.83	\$ 3.55	\$ 3.29	\$ 3.05	\$ 2.82
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
In excess of 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
<b>Minimum Charges</b>										
Per day	0.3	0.3	0.3	0.3	0.25	0.25	0.25	0.25	0.25	0.25
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	-	-	-
<b>Residential - Unmetered per 30-day period</b>										
Flat rate accounts	48.64	34.91	31.98	29.32	26.32	26.32	26.32	26.32	24.4	22.56
First toilet	-	-	-	-	-	-	-	-	-	-
Second toilet	-	-	-	-	-	-	-	-	-	-
Additional, each	-	-	-	-	-	-	-	-	-	-
<b>Non-Residential - Special Category</b>										
<b>Biochemical Oxygen Demand (BOD)</b>										
Excess over 282 mg/liter										
Per mg/liter per CCF	0.000129	0.000104	0.000091	0.000206	0.000485	0.000612	0.001558	0.002451	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	-	46.77	39.71
<b>Total Suspended Solids (TSS)</b>										
Excess over 261 mg/liter										
Per mg/liter per CCF	0.00063	0.000592	0.00052	0.000454	0.000448	0.000417	0.001244	0.001865	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	-	36.7	34.73
<b>Total Phosphorus (TP)</b>										
Excess over 6 mg/liter										
Per mg/liter per CCF	0.009871	0.009535	0.011569	0.011642	0.004361	0.004344	0.011714	0.01279	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	-	300.57	300.57
<b>Total Kjeldahl Nitrogen (TKN)</b>										
Excess over 47 mg/liter										
Per mg/liter per CCF	0.003378	0.003595	0.003156	0.00166	0.000917	0.000756	0.001752	0.002085	-	-
Per Hundred Pounds	-	-	-	-	-	-	-	-	74.51	63.39
Unusual wastes not covered by this schedule may be assigned a special rate.										
<b>Septic Tank Waste</b>										
Per gallon	0.1717	0.1697	0.13	0.1366	0.1362	0.1267	0.1258	0.1146	-	-
Per each 500 gallons or part thereof	-	-	-	-	-	-	-	-	48.57	44.46

\*CCF = 100 Cubic Feet (Approx. 748 gallons)  
Note: Rates can be adjusted by the Commission.

Unaudited – See accompanying independent auditors' report



**RATE SCHEDULE  
WASTEWATER FACILITY CHARGES  
LAST TEN FISCAL YEARS**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Residential	\$ 1,905	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	\$ 1,905	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715
3/4" Meter	4,210	4,830	4,830	4,830	4,830	4,830	4,830	4,510	2,885	2,605
1" Meter	7,410	8,170	8,170	8,170	8,170	8,170	8,170	7,630	5,370	4,850
1 1/2" Meter	16,645	17,260	17,260	17,260	17,260	17,260	17,260	16,130	13,035	11,780
2" Meter	30,505	30,510	30,510	30,510	29,420	29,420	29,420	27,490	24,420	22,065
3" Meter	73,810	70,800	70,800	70,800	67,350	63,600	62,270	58,180	59,140	53,440
4" Meter	138,445	128,660	128,660	128,660	122,400	115,580	106,060	99,110	110,860	100,175
6" Meter	36,960	298,610	298,610	298,610	284,070	268,250	224,650	209,920	268,675	242,780
8" Meter	634,710	542,680	542,680	542,680	516,260	487,510	382,670	357,580	503,350	454,835
10" Meter	1,038,525	862,550	862,550	862,550	820,560	774,860	587,820	540,610	819,310	740,340
12" Meter	1,554,120	1,259,520	1,259,520	1,259,520	1,198,210	1,131,490	-	-	-	-
14" Meter	2,186,505	1,734,700	1,734,700	1,734,700	1,650,250	1,558,360	-	-	-	-
16" Meter	2,940,135	2,289,010	2,289,010	2,289,010	2,177,580	2,056,330	-	-	-	-
Strength based facility charges: (per permitted pound)										
Biochemical Oxygen Demand (BOD) Excess over 250 mg/liter	-	-	-	-	-	\$ 728	\$ 987	\$ 928	-	-
Total Suspended Solids (TSS) Excess over 250 mg/liter	-	-	-	-	-	424	624	587	-	-
Total Phosphorus (TP) Excess over 6 mg/liter	-	-	-	-	-	8,420	5,846	5,502	-	-
Total Kjeldahl Nitrogen (TKN) Excess over 35 mg/liter	-	-	-	-	-	3,812	1,313	1,235	-	-

Notes:

One charge per connection.

HRSD eliminated strength based facility charges effective 7/1/2015.

**TREATMENT PLANT OPERATING SUMMARY**  
**LAST TEN FISCAL YEARS**  
**(Average Quantity per Day)**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>District Total</b>										
Flow (MGD)	140.9	152.6	145.2	152.9	155.1	152.2	154.0	157.9	147.1	144.4
Influent (1,000 lbs.)										
BOD	252.4	281.9	285.1	288.2	282.5	286.0	288.6	274.4	254.6	273.1
TSS	226.2	211.4	215.8	215.9	228.8	198.6	204.7	198.1	200.3	205.9
TP	6.6	6.6	6.8	7.0	6.9	8.6	6.8	6.6	6.7	7.0
TKN	47.0	47.6	47.2	46.4	45.7	45.8	47.9	48.9	48.3	49.8
Effluent (1,000 lbs.)										
BOD	8.0	8.2	7.5	8.9	9.8	9.9	9.6	9.3	7.5	9.3
TSS	7.1	7.4	6.7	9.4	9.3	8.9	9.1	9.3	10.5	9.2
TP	0.7	0.8	0.7	0.9	0.9	1.0	1.1	1.0	1.1	1.0
TKN	8.4	8.5	7.3	7.7	8.0	9.8	11.2	12.0	10.1	12.3
<b>Army Base Plant</b>										
Flow (MGD)	10.4	11.1	10.0	9.5	9.6	9.9	10.7	11.8	10.2	10.0
Influent (1,000 lbs.)										
BOD	16.0	16.6	16.3	13.2	13.3	16.4	19.0	18.5	17.4	16.9
TSS	16.9	13.9	14.0	11.7	13.3	12.5	14.2	14.4	13.7	12.9
TP	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
TKN	3.3	3.3	3.1	2.7	2.7	2.9	3.5	3.7	3.5	3.2
Effluent (1,000 lbs.)										
BOD	0.2	0.3	0.2	0.3	0.3	0.8	0.8	0.8	0.9	0.8
TSS	0.3	0.4	0.3	0.4	0.5	0.6	0.8	0.9	0.8	1.0
TP	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	0.1	2.1	2.6	2.8	2.5	2.3
<b>Atlantic Plant</b>										
Flow (MGD)	24.5	28.1	26.1	28.2	27.2	30.9	25.7	26.7	29.0	29.7
Influent (1,000 lbs.)										
BOD	49.3	58.2	56.7	53.2	55.6	66.6	52.7	51.3	56.0	58.6
TSS	35.5	39.3	36.6	38.7	38.5	42.9	37.3	36.4	43.8	46.9
TP	1.3	1.4	1.3	1.4	1.4	1.5	1.3	1.3	1.5	1.8
TKN	10.7	11.9	11.2	11.0	10.9	11.4	10.4	10.5	11.7	12.3
Effluent (1,000 lbs.)										
BOD	3.0	2.5	2.4	2.3	2.7	3.0	2.2	2.6	2.0	3.0
TSS	1.5	1.6	1.6	1.9	1.9	2.4	2.0	1.9	1.8	2.0
<b>Boat Harbor Plant</b>										
Flow (MGD)	13.6	15.8	14.2	13.9	15.6	14.4	14.9	15.5	13.6	12.6
Influent (1,000 lbs.)										
BOD	18.4	20.6	19.2	17.4	18.3	20.0	19.2	19.3	19.9	19.4
TSS	16.0	18.0	16.6	15.7	18.1	16.3	16.7	16.0	16.9	15.6
TP	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5
TKN	4.0	4.2	3.9	3.8	3.8	3.6	3.7	3.7	3.7	3.8
Effluent (1,000 lbs.)										
BOD	0.6	0.9	0.6	0.6	1.0	0.7	0.7	0.7	0.6	0.6
TSS	0.8	1.0	0.7	0.7	0.9	0.6	0.8	0.8	0.9	0.7
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	2.0	2.5	1.3	1.2	1.8	2.2	2.4	2.9	3.0	2.8

Unaudited – See accompanying independent auditors' report

**TREATMENT PLANT OPERATING SUMMARY  
LAST TEN FISCAL YEARS  
(Average Quantity per Day)**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>Chesapeake-Elizabeth Plant</b>										
Flow (MGD)	17.7	17.4	17.6	18.7	18.0	16.3	19.1	18.4	15.2	16.3
Influent (1,000 lbs.)										
BOD	32.5	38.1	37.2	35.4	35.2	30.2	38.7	32.1	24.8	30.1
TSS	26.5	24.6	26.8	26.6	26.1	22.9	26.6	25.1	21.0	22.6
TP	0.8	0.8	0.8	0.8	0.8	2.7	0.8	0.8	0.7	0.7
TKN	7.0	6.9	6.8	6.6	6.4	5.1	6.7	6.4	5.4	6.1
Effluent (1,000 lbs.)										
BOD	2.2	2.2	2.0	2.8	2.3	2.0	2.5	2.2	1.5	1.8
TSS	2.3	2.0	1.9	3.2	2.3	1.8	1.9	2.1	1.8	1.9
TP	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2
TKN	4.7	4.4	4.1	4.5	4.1	3.6	4.5	4.2	3.2	3.9
<b>James River Plant</b>										
Flow (MGD)	12.4	13.9	13.0	12.3	13.2	12.7	13.6	14.3	12.9	12.2
Influent (1,000 lbs.)										
BOD	24.0	25.8	26.8	25.5	24.4	25.7	27.5	25.5	25.3	26.2
TSS	17.4	18.7	19.3	17.4	17.8	18.0	19.4	19.2	19.0	19.8
TP	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6
TKN	4.7	4.7	4.8	4.3	4.2	4.0	4.2	4.4	4.4	4.4
Effluent (1,000 lbs.)										
BOD	0.5	0.4	0.3	0.4	0.4	0.3	0.5	0.7	0.7	0.9
TSS	0.4	0.4	0.4	0.4	0.5	0.4	0.6	0.8	0.8	0.9
TP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.5	0.3	0.4	0.5	0.4	0.4	0.2	0.6	0.5	2.3
<b>Nansemond Plant</b>										
Flow (MGD)	15.9	16.9	17.5	18.8	18.5	16.6	16.9	17.1	16.2	15.9
Influent (1,000 lbs.)										
BOD	32.5	33.0	31.9	40.7	35.8	28.5	29.0	27.0	23.7	27.9
TSS	46.5	37.2	33.4	40.3	38.4	21.9	23.1	22.9	22.6	22.6
TP	1.0	1.0	1.2	1.5	1.5	1.1	1.1	1.1	1.0	1.0
TKN	6.9	6.7	7.1	7.4	7.0	5.6	5.8	5.9	6.0	6.1
Effluent (1,000 lbs.)										
BOD	0.6	0.7	0.7	0.8	0.7	0.8	0.9	0.6	0.6	0.8
TSS	0.6	0.8	0.7	0.8	0.9	0.9	1.1	0.8	0.9	1.1
TP	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TKN	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.3	0.3	0.5
<b>Virginia Initiative Plant</b>										
Flow (MGD)	26.2	27.6	26.7	30.9	31.7	30.5	30.7	31.9	29.8	28.5
Influent (1,000 lbs.)										
BOD	37.0	40.4	47.5	50.1	50.4	47.5	45.8	45.8	42.3	42.8
TSS	35.4	23.2	30.0	31.3	32.0	30.2	30.6	31.6	32.3	31.8
TP	1.1	0.9	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1
TKN	7.1	6.8	7.0	7.3	7.4	7.1	7.4	7.5	7.6	7.3
Effluent (1,000 lbs.)										
BOD	0.5	0.6	0.8	1.2	1.7	1.9	1.4	0.9	0.8	0.7
TSS	1.0	0.7	0.7	1.4	1.9	1.6	1.7	1.4	1.5	1.1
TP	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
TKN	0.3	0.4	0.6	0.4	0.7	0.8	0.6	0.5	0.5	0.4

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
TREATMENT PLANT OPERATING SUMMARY  
LAST TEN FISCAL YEARS  
(Average Quantity per Day)**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>Williamsburg Plant</b>										
Flow (MGD)	7.5	8.6	7.7	8.0	8.6	8.4	9.2	8.9	9.1	8.6
Influent (1,000 lbs.)										
BOD	28.8	33.4	32.6	36.1	33.2	34.7	40.4	37.7	33.5	37.5
TSS	17.1	21.2	24.1	19.1	27.9	16.2	19.9	16.8	16.7	19.0
TP	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6
TKN	3.4	3.6	3.5	3.3	3.6	3.2	3.3	3.3	3.4	3.5
Effluent (1,000 lbs.)										
BOD	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
TSS	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.3
TP	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2
<b>York River Plant</b>										
Flow (MGD)	12.6	13.2	12.6	12.6	12.7	12.6	13.2	13.3	11.2	10.8
Influent (1,000 lbs.)										
BOD	13.8	15.8	16.8	16.7	16.3	18.2	17.9	17.2	13.3	15.5
TSS	14.7	15.4	15.0	15.1	16.7	16.9	16.4	15.7	14.1	14.3
TP	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.9	3.7	3.6	3.6	3.5	3.5	3.6	3.5	3.2	3.6
Effluent (1,000 lbs.)										
BOD	0.2	0.5	0.3	0.3	0.4	0.4	0.4	0.5	0.2	0.5
TSS	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3
TP	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.1	0.1

Note: HRSD implemented a surcharge for Total Kjeldahl Nitrogen (TKN) on July 1, 2007.  
Unaudited – See accompanying independent auditors' report

**TEN LARGEST CUSTOMERS  
CURRENT YEAR AND NINE YEARS AGO**

(in thousands)

Customer	Type	2020		2011	
		Amount	Percent	Amount	Percent
U.S. Navy - Norfolk Naval Base	Military Facility	\$ 8,834	2.8%	\$ 4,730	2.6%
Smithfield Foods	Meat Processor	4,153	1.3%	2,973	1.6%
Anheuser - Busch, Inc.	Brewery	3,393	1.1%	5,160	2.8%
Norfolk Redevelopment & Housing Authority	Housing Authority	2,740	0.9%	1,202	0.7%
Norfolk Naval Shipyard	Military Ship Repair	2,602	0.8%	-	-
City of Norfolk	Municipality	2,270	0.7%	1,561	0.9%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	2,267	0.7%	1,291	0.7%
U.S. Navy - Little Creek Amphibious Base	Military Facility	1,862	0.6%	925	0.5%
Oceana Naval Air Station / Dam Neck	Military Facility	1,671	0.5%	-	-
U.S. Air Force - Langley Air Force Base	Military Facility	2,064	0.6%	869	0.5%
U.S. Army - Fort Eustis	Military Facility	-	-	911	0.5%
City of Virginia Beach	Municipality	-	-	603	0.3%
<b>Total</b>		<b>\$ 31,856</b>	<b>10.0%</b>	<b>\$ 20,225</b>	<b>11.1%</b>

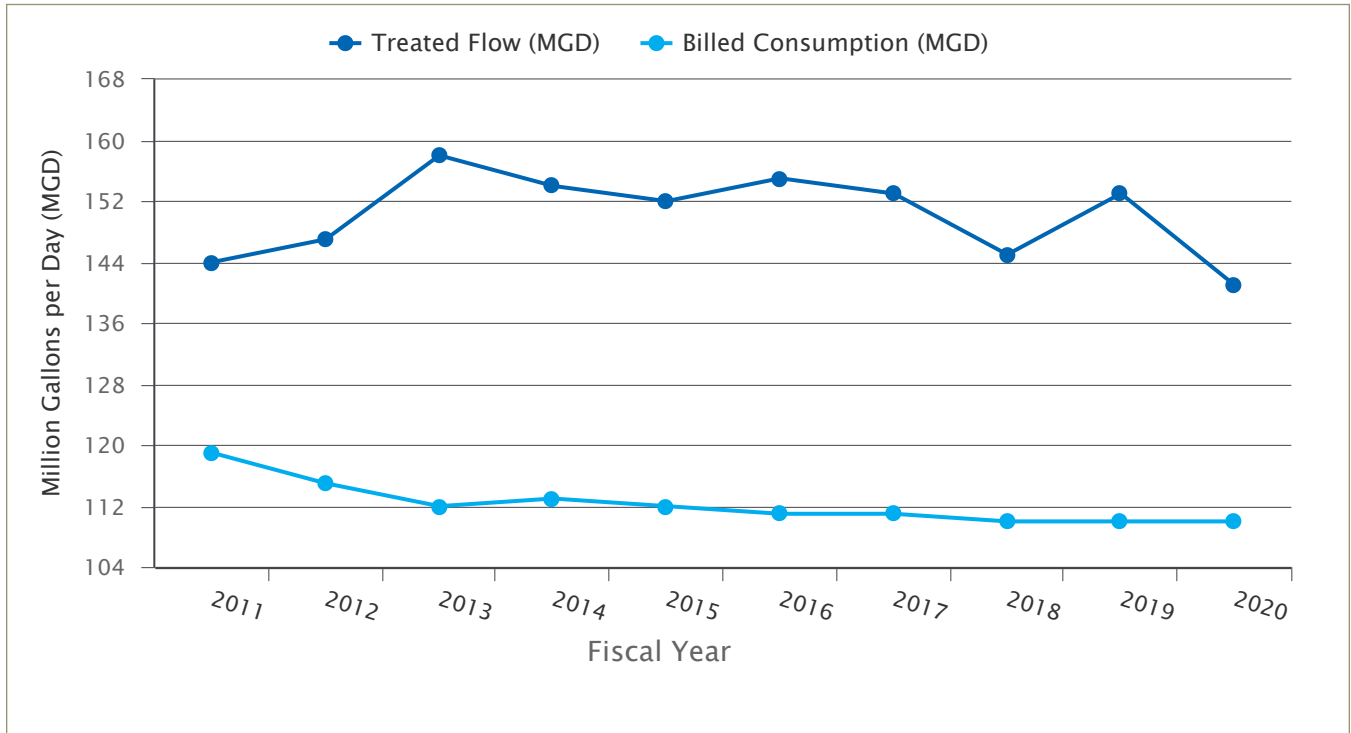
**WASTEWATER TREATMENT CHARGES  
TEN LARGEST EMPLOYERS  
CURRENT YEAR AND NINE YEARS AGO**

<u>Employer</u>	<u>Type</u>	2020			2011		
		Number of Employees	Rank	Percent of Regional Employment	Number of Employees	Rank	Percent of Regional Employment
Naval Station Norfolk	Military Facility	67,000	1	6.9%	68,000	1	7.3%
Oceana Naval Air Station	Military Facility	33,600	2	3.5%	9,300	8	1.0%
Joint Base Langley-Eustis	Military Facility	24,300	3	2.5%	11,000	5	1.2%
Huntington Ingalls Industries	Shipbuilding and Repair	24,000	4	2.5%	19,000	3	2.0%
Sentara Healthcare	Health Care Network	22,000	5	2.3%	17,000	4	1.8%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	14,400	6	1.5%	20,100	2	2.2%
Virginia Beach Public Schools	Public Schools	10,600	7	1.1%	10,000	6	1.1%
Norfolk Naval Shipyard	Military Ship Repair	8,500	8	0.9%	9,600	7	1.0%
Riverside Health System	Health Care Network	8,000	9	0.8%	6,500	10	0.7%
Virginia Beach City	Municipal government	7,000	10	0.7%	-	-	-%
Naval Support Activity/ Naval Medical Center	Military Facility	-		-%	8,700	9	0.9%
<b>Total</b>		<b>219,400</b>		<b>22.7%</b>	<b>179,200</b>		<b>19.2%</b>

## Sources:

Hampton Roads Economic Development Alliance  
Hampton Roads Statistical Digest  
Hampton Roads Business  
Confirmation with employers

**COMPARISON OF TREATED FLOW TO BILLED FLOW  
LAST TEN FISCAL YEARS**



<b>Year ended June 30,</b>	<b>Treated Flow (MGD)</b>	<b>Billed Consumption (MGD)</b>
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111
2017	153	111
2018	145	110
2019	153	110
2020	141	110

Unaudited – See accompanying independent auditors' report

**NUMBER OF EMPLOYEES BY IDENTIFIABLE ACTIVITY  
LAST TEN FISCAL YEARS**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>General Management</b>										
General Manager	1	1	2	3	3	3	3	3	4	4
Support Staff	1	1	1	1	1	1	1	1	1	1
Total General Management	2	2	3	4	4	4	4	4	5	5
<b>Communications</b>										
Communications	1	1	1	-	-	-	-	-	-	-
Support Staff	2	2	1	-	-	-	-	-	-	-
Total Communications	3	3	2	-	-	-	-	-	-	-
<b>Talent Management</b>										
Human Resources	6	6	6	6	5	5	5	5	5	6
Safety	3	3	3	3	3	-	-	-	-	-
Training	3	3	2	2	2	2	2	2	2	2
Support Staff	4	4	4	4	4	3	3	3	3	3
Total Talent Management	16	16	15	15	14	10	10	10	10	11
<b>Finance</b>										
Accounting & Finance	12	12	11	10	10	10	10	10	10	10
Customer Care Center	77	77	77	77	77	69	69	68	69	69
Procurement	10	10	10	10	10	9	9	9	7	7
Support Staff	3	3	3	3	2	3	3	3	3	3
Total Finance	102	102	101	100	99	91	91	90	89	89
<b>Information Technology</b>										
Information Technology	48	43	48	47	45	39	35	35	33	33
Support Staff	2	2	2	1	1	1	1	1	2	2
Total Information Technology	50	45	50	48	46	40	36	36	35	35
<b>Operations</b>										
Army Base Treatment Plant	34	34	34	34	31	32	32	32	32	32
Atlantic Base Treatment Plant	35	35	35	35	32	33	33	33	32	32
Boat Harbor Treatment Plant	35	35	35	35	32	33	33	33	33	33
Chesapeake-Elizabeth Treatment Plant	32	32	32	32	31	32	32	32	32	32
Interceptor System Maintenance	119	119	118	117	115	120	120	120	121	122
James River Treatment Plant	22	22	22	22	20	21	21	21	21	21
Maintenance Shops	74	73	71	70	83	86	86	86	86	86
Nansemond Treatment Plant	32	32	32	32	30	31	31	31	30	30
Virginia Initiative Plant	34	34	33	33	30	31	31	31	31	31
Williamsburg Treatment Plant	29	29	29	29	28	29	29	29	31	31
York River Treatment Plant	24	24	24	24	22	23	23	23	23	23
Small Communities Division	23	23	23	23	21	17	17	17	17	17
Support Staff	23	23	23	23	24	25	25	25	24	24
Total - Operations	516	515	511	509	499	513	513	513	513	514
<b>Engineering</b>										
Design and Construction	31	30	26	25	25	21	19	19	17	15
Support Staff	13	13	13	14	14	14	14	14	14	14
Total Engineering	44	43	39	39	39	35	33	33	31	29
<b>Water Quality</b>										
Pretreatment & Pollution Prevention	28	27	27	26	26	25	24	24	24	24
Technical Services	34	31	31	29	28	25	23	21	21	21
Laboratory	47	47	46	45	42	40	38	38	38	38
Support Staff	5	5	5	6	6	6	6	6	3	3
Total Water Quality	114	110	109	106	102	96	91	89	86	86
<b>Total Employees</b>	847	836	830	821	803	789	778	775	769	769

Unaudited – See accompanying independent auditors' report





# Other Supplemental Section (Unaudited)

Unaudited – See accompanying independent auditors' report



THIS PAGE INTENTIONALLY BLANK

**SUMMARY OF PRIMARY BONDED DEBT SERVICE**  
**June 30, 2020**

(in thousands)

As of June 30,	Senior Bonds			Subordinate	Total Debt
	Principal	Interest	Debt Service	Bonds Debt Service	
2021	\$ 15,542	\$ 10,543	\$ 26,085	\$ 83,602	\$ 109,687
2022	14,771	9,778	24,549	36,466	61,015
2023	18,727	9,005	27,732	34,077	61,809
2024	19,539	8,110	27,649	33,817	61,466
2025	20,408	7,156	27,564	33,813	61,377
2026	20,649	6,159	26,808	34,112	60,920
2027	7,842	5,476	13,318	47,354	60,672
2028	8,107	5,107	13,214	43,915	57,129
2029	8,383	4,725	13,108	43,857	56,965
2030	8,667	4,329	12,996	43,684	56,680
2031	8,501	3,918	12,419	44,679	57,098
2032	5,995	3,523	9,518	42,602	52,120
2033	6,225	3,165	9,390	40,771	50,161
2034	6,465	2,793	9,258	38,784	48,042
2035	6,715	2,406	9,121	38,128	47,249
2036	6,975	2,005	8,980	32,231	41,211
2037	7,245	1,588	8,833	31,984	40,817
2038	7,525	1,155	8,680	31,815	40,495
2039	7,815	705	8,520	17,107	25,627
2040	8,116	237	8,353	9,390	17,743
2041	-	-	-	9,387	9,387
2042	-	-	-	9,371	9,371
2043	-	-	-	9,315	9,315
2044	-	-	-	7,178	7,178
2045	-	-	-	659	659
2046	-	-	-	633	633
2047	-	-	-	107	107
2048	-	-	-	-	-
2049	-	-	-	-	-
2050	-	-	-	-	-
<b>Total</b>	<b>\$ 214,212</b>	<b>\$ 91,883</b>	<b>\$ 306,095</b>	<b>\$ 798,838</b>	<b>\$ 1,104,933</b>

Unaudited – See accompanying independent auditors' report

**BUDGETARY COMPARISON SCHEDULE**  
**June 30, 2020**

(in thousands)

	<u>Budget</u>		Actual	Variance under Amended Budget	Percent Variance
	Adopted	Amended			
<b>OPERATING BUDGET EXPENSES</b>					
General Management	\$ 460	\$ 503	\$ 480	\$ 23	4.6%
Communications	444	445	384	61	13.7%
Finance	14,567	14,832	13,934	898	6.1%
Information Technology	15,855	16,847	13,999	2,848	16.9%
Talent Management	2,515	2,549	2,320	229	9.0%
Operations	103,821	110,531	98,245	12,286	11.1%
Engineering	7,690	8,732	7,288	1,444	16.5%
Water Quality	14,778	15,707	14,577	1,130	7.2%
General	5,179	10,661	6,307	4,354	40.8%
Debt Service	63,895	60,205	60,301	(96)	-0.2%
TOTAL	229,204	241,012	217,835	\$ 23,177	9.6%
Transfer to CIP	108,341	108,341			
Transfer to Risk Management	260	260			
	\$ 337,805	\$ 349,613			
<b>Add:</b>					
Unbudgeted Depreciation and Amortization			51,383		
Unbudgeted Bad Debt Expense			2,237		
Capital Improvement Program Items Expensed			9,876		
<b>Less:</b>					
Capitalized Assets			305		
Debt Service			60,301		
TOTAL OPERATING EXPENSES			\$ 220,725		

Unaudited – See accompanying independent auditors' report

## NOTES TO BUDGETARY COMPARISON SCHEDULE

JUNE 30, 2020

### BUDGETARY HIGHLIGHTS

HRSD's Commission adopts an Annual Operating Budget that contains the day-to-day operating expenses of the District. The Operating Budget as adopted for FY 2020 was \$229,203,660 and contains personnel costs, fringe benefits, material and supplies, electricity, chemicals, insurance, contractual services, debt service and other miscellaneous expenses. There were several modifications to the Operating Budget during the year to reflect changes in spending patterns. All adjustments to the Annual Budget were from encumbrances carried forward or from transfers within or among departments.

### NOTE 1 – BUDGETARY ACCOUNTING AND CONTROL

#### Budget Preparation

HRSD prepares its Annual Budget under the provisions of its enabling legislation, used to establish rates, fees and other charges, and of Section 3.12 of the Master Trust Indenture, dated December 1, 1993, and the Trust Agreement, dated March 1, 2008. In accordance with those provisions, the following process is used to adopt the Annual Budget.

The process begins in late December with the issuance of the Annual Budget Instructions by the General Manager. Each department completes its Operating and Improvement Budgets by March 1 for the General Manager's review.

The HRSD Commission appoints a Finance Committee consisting of two Commissioners. The two Commissioners meet in early April to review the Budgets, which are presented by staff at the April Commission meeting. HRSD's Commission reviews these budgets at that meeting.

The final Annual Budget, which incorporates the Operating and Capital Budgets, is presented at the May Commission meeting for adoption. The Commission simultaneously adopts the budget and any resulting wastewater rate schedule. All rate adjustments must be publicly advertised four consecutive weeks before they can take effect.

The HRSD Commission approves any budget amendments during the ensuing year.

The 2008 Trust Agreement requires Debt Service Coverage of 1.20 times for senior and 1.00 times for total debt based on maximum annual debt service. The 2008 Subordinate Trust Agreement was amended in 2016 to account for Consent Decree expenses related to Locality wet weather improvements that HRSD will not own and requires total debt service coverage to be 1.2 times on an adjusted cash basis. The HRSD Commission has a policy of providing senior revenue and total revenue bonded debt service coverage ratios of not less than 1.5 and 1.4 times annual debt service on an adjusted cash basis, respectively.

#### Budget Accounting

The Annual Budget is prepared on a basis of accounting consistent with accounting principles generally accepted in the United States of America. No provision is provided, however, for non-cash items such as depreciation and bad debt expense. The FY 2020 Annual Budget consists of two parts: an operating budget that covers day-to-day operations and a capital budget that identifies all major capital project requirements over the next ten years. All operating budget amounts lapse at year-end. The Commission annually adopts only the first year of the capital budget. HRSD's Commission separately approves all contracts that are awarded under the capital budget.

**SCHEDULE OF REVENUES , EXPENDITURES AND  
DEBT SERVICE FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)	Budget Variance Percentage
<b>OPERATING REVENUE</b>				
Wastewater Treatment Charges	318,585	323,395	\$ (4,810)	(1%)
Miscellaneous	3,447	1,850	1,597	86%
<b>TOTAL OPERATING REVENUE</b>	<b>322,032</b>	<b>325,245</b>	<b>(3,213)</b>	<b>1%</b>
<b>CURRENT EXPENDITURES</b>				
General Management	480	503	23	5%
Communications	384	445	61	14%
Finance	13,934	14,832	898	6%
Information Technology	13,999	16,847	2,848	17%
Talent Management	2,320	2,549	229	9%
Operations	98,245	110,531	12,286	11%
Engineering	7,288	8,732	1,444	17%
Water Quality	14,577	15,707	1,130	7%
General	6,307	10,661	4,354	41%
<b>TOTAL CURENT EXPENDITURES</b>	<b>157,534</b>	<b>180,807</b>	<b>23,273</b>	<b>13%</b>
<b>EXCESS OF OPERATING REVENUES OVER EXPENDITURES</b>	<b>164,498</b>	<b>144,438</b>	<b>20,060</b>	<b>14%</b>
<b>NON-OPERATING REVENUE</b>				
Wastewater Facility Charge	6,444	6,160	284	5%
Interest Income	5,876	4,000	1,876	47%
Bond Interest Subsidy	2,205	2,400	(195)	(8%)
<b>TOTAL NON-OPERATING REVENUE</b>	<b>14,525</b>	<b>12,560</b>	<b>1,965</b>	<b>16%</b>
<b>INCOME BEFORE CAPITAL CONTRIBUTIONS</b>	<b>179,023</b>	<b>156,998</b>	<b>22,025</b>	<b>14%</b>
<b>CAPITAL CONTRIBUTIONS</b>				
State Capital Grants	578	-	578	100%
<b>AMOUNT AVAILABLE FOR DEBT</b>	<b>179,601</b>	<b>156,998</b>	<b>22,603</b>	<b>14%</b>
<b>DEBT EXPENDITURES</b>				
Principal & Interest	59,011	59,855	844	1%
Cost of Issuance	1,290	350	(940)	(269%)
<b>TOTAL DEBT EXPENDITURES</b>	<b>60,301</b>	<b>60,205</b>	<b>(96)</b>	<b>(0%)</b>
<b>AMOUNT AVAILABLE TO REINVEST</b>	<b>\$ 119,300</b>	<b>\$ 96,793</b>	<b>\$ 22,507</b>	<b>23%</b>

Unaudited – See accompanying independent auditors' report

**OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES  
FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

(in thousands)

	General Management	Communications	Finance	Information Technology	Talent Management	Operations
Personal Services	\$353	\$248	\$5,728	\$4,439	\$1,487	\$34,757
Fringe Benefits	78	89	2,377	1,451	580	14,791
Materials & Supplies	8	18	78	1,030	62	6,402
Transportation	6	8	7	10	25	1,087
Utilities	-	-	261	1,261	-	10,588
Chemical Purchases	-	-	-	-	-	8,760
Contractual Services	12	18	5,339	4,759	16	14,010
Major Repairs	-	-	-	830	-	6,653
Capital Assets	-	-	-	-	-	305
Miscellaneous Expense	23	3	144	219	150	892
	<b>\$480</b>	<b>\$384</b>	<b>\$13,934</b>	<b>\$13,999</b>	<b>\$2,320</b>	<b>\$98,245</b>

Draft

**OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES  
FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

(in thousands)

	Engineering	Water Quality	General	Total	Percent of Total	FY2020 Amended Budget	Variance Favorable/ (Unfavorable)
Personal Services	\$3,966	\$7,648	\$1,040	\$59,666	28%	\$59,170	\$(496)
Fringe Benefits	1,415	3,059	(2,423)	21,417	10%	24,732	3,315
Materials & Supplies	26	1,675	65	9,364	4%	8,840	(524)
Transportation	20	31	-	1,194	1%	1,579	385
Utilities	-	1	473	12,584	6%	12,774	190
Chemical Purchases	-	-	-	8,760	4%	10,979	2,219
Contractual Services	1,765	1,620	6,209	33,748	15%	45,970	12,222
Major Repairs	-	60	-	7,543	3%	11,268	3,725
Capital Assets	-	-	-	305	0%	459	154
Miscellaneous Expense	96	483	943	2,953	1%	5,036	2,083
	<u>\$7,288</u>	<u>\$14,577</u>	<u>\$6,307</u>	<u>\$157,534</u>	<u>72%</u>	<u>\$180,807</u>	<u>\$23,273</u>
Debt Service				59,011	27%	59,855	844
Cost of Issuance				1,290	1%	350	(940)
Total Debt Expenditures				<u>60,301</u>	<u>28%</u>	<u>60,205</u>	<u>(96)</u>
Total Department and Debt Expenditures				<u>\$217,835</u>	<u>100%</u>	<u>\$241,012</u>	<u>\$23,177</u>



**DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
<b>General Management</b>			
Personal Services	\$ 353	\$ 357	\$ 4
Fringe Benefits	78	81	3
Materials & Supplies	8	10	2
Transportation	6	7	1
Contractual Services	12	27	15
Miscellaneous Expense	23	21	(2)
<b>Subtotal</b>	<b>480</b>	<b>503</b>	<b>23</b>
<b>Communications</b>			
Personal Services	\$ 248	\$ 236	\$ (12)
Fringe Benefits	89	88	(1)
Materials & Supplies	18	46	28
Transportation	8	12	4
Contractual Services	18	33	15
Miscellaneous Expense	3	30	27
<b>Subtotal</b>	<b>384</b>	<b>445</b>	<b>61</b>
<b>Finance</b>			
Personal Services	\$ 5,728	\$ 6,067	\$ 339
Fringe Benefits	2,377	2,630	253
Materials & Supplies	78	71	(7)
Transportation	7	12	5
Utilities	261	304	43
Contractual Services	5,339	5,475	136
Miscellaneous Expense	144	273	129
<b>Subtotal</b>	<b>13,934</b>	<b>14,832</b>	<b>898</b>
<b>Information Technology</b>			
Personal Services	\$ 4,439	\$ 4,429	\$ (10)
Fringe Benefits	1,451	1,554	103
Materials & Supplies	1,030	1,287	257
Transportation	10	22	12
Utilities	1,261	1,205	(56)
Contractual Services	4,759	7,391	2,632
Major Repairs	830	665	(165)
Miscellaneous Expense	219	294	75
<b>Subtotal</b>	<b>13,999</b>	<b>16,847</b>	<b>2,848</b>

(Continued)

**DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2020**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
<b>Talent Management</b>			
Personal Services	\$ 1,487	\$ 1,530	\$ 43
Fringe Benefits	580	616	36
Materials & Supplies	62	59	(3)
Transportation	25	28	3
Contractual Services	16	54	38
Miscellaneous Expense	150	262	112
<b>Subtotal</b>	<b>2,320</b>	<b>2,549</b>	<b>229</b>
<b>Operations</b>			
Personal Services	\$ 34,757	\$ 34,503	\$ (254)
Fringe Benefits	14,791	15,418	627
Materials & Supplies	6,402	5,711	(691)
Transportation	1,087	1,448	361
Utilities	10,588	10,757	169
Chemical Purchases	8,760	10,979	2,219
Contractual Services	14,010	19,582	5,572
Major Repairs	6,653	10,532	3,879
Capital Assets	305	459	154
Miscellaneous Expense	892	1,142	250
<b>Subtotal</b>	<b>98,245</b>	<b>110,531</b>	<b>12,286</b>
<b>Engineering</b>			
Personal Services	\$ 3,966	\$ 3,983	\$ 17
Fringe Benefits	1,415	1,480	65
Materials & Supplies	26	24	(2)
Transportation	20	20	-
Contractual Services	1,765	3,041	1,276
Miscellaneous Expense	96	184	88
<b>Subtotal</b>	<b>7,288</b>	<b>8,732</b>	<b>1,444</b>
<b>Water Quality</b>			
Personal Services	\$ 7,648	\$ 7,815	\$ 167
Fringe Benefits	3,059	3,199	140
Materials & Supplies	1,675	1,614	(61)
Transportation	31	30	(1)
Utilities	1	3	2
Contractual Services	1,620	2,357	737
Major Repairs	60	71	11
Miscellaneous Expense	483	618	135
<b>Subtotal</b>	<b>14,577</b>	<b>15,707</b>	<b>1,130</b>
<b>General</b>			
Personal Services	\$ 1,040	\$ 250	\$ (790)
Fringe Benefits	(2,423)	(334)	2,089
Materials & Supplies	65	18	(47)
Utilities	473	505	32
Contractual Services	6,209	8,010	1,801
Miscellaneous Expense	943	2,212	1,269
<b>Subtotal</b>	<b>6,307</b>	<b>10,661</b>	<b>4,354</b>
<b>TOTAL DEPARTMENTAL EXPENDITURES</b>	<b>\$ 157,534</b>	<b>\$ 180,807</b>	<b>\$ 23,273</b>

Unaudited – See accompanying independent auditors' report



**HRSD**

Cleaning wastewater every day for a better Bay.

1434 Air Rail Avenue  
Virginia Beach, Virginia 23455  
[www.hrsd.com](http://www.hrsd.com)

*Printed on recycled paper using environmentally friendly ink.  
The photos used throughout this publication feature HRSD's Virginia Initiative Plant in Norfolk, Virginia.*

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #5

Agenda Item 5. Diversity Procurement Report

- [Summary of Activities](#)
- [Transaction Charts](#)

## HRSD DIVERSITY PROCUREMENT REPORT FISCAL YEAR 2020

PAYMENT TYPE	TOTAL OF ALL PAYMENT TRANSACTIONS <sup>1</sup>				TOTAL PAYMENTS MADE TO SWaM CONTRACTORS COMPARED TO HRSD's TOTAL PAYMENTS	
	ALL BUSINESS TYPES		SMALL, WOMEN-OWNED AND MINORITY-OWNED BUSINESSES (SWaM)		NO.	SPEND
	NO.	SPEND	NO.	SPEND		
<b>OPERATING</b>	6,547	\$50,051,772	1,287	\$7,931,099	20%	16%
<b>CORPORATE VISA CARD</b>	29,658	\$16,063,223	1,164	\$1,156,896	4%	7%
<b>CAPITAL IMPROVEMENT PROGRAM</b>	1,621	\$167,192,444	260	\$55,743,914 <sup>2</sup>	16%	33%
<b>TOTAL</b>	37,826	\$233,307,439	2,711	\$64,831,909	7%	28%

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

<sup>2</sup>Includes payments of \$15,544,461 made to SWaM subcontractors, as reported by HRSD's prime contractors.

### DIVERSITY PROCUREMENT PROGRAM ACTIVITIES

HRSD participated in several outreach opportunities throughout the year including:

- Christopher Newport University SWaM Fair in Newport News, VA
- City of Virginia Beach Minority Business Council Vendor Expo in Virginia Beach, VA
- The Institute for Public Procurement (NIGP) Products Expo in Austin, TX
- Virginia American Water Works Association (VA AWWA) and the Virginia Water Environment Association (VWEA) WaterJAM Vendor Expo in Virginia Beach, VA
- Virginia Association of State College and University Purchasing Professionals (VASCUUP®) SWaMfest in Richmond, VA
- SWIFT Industry Outreach Day in Newport News, VA

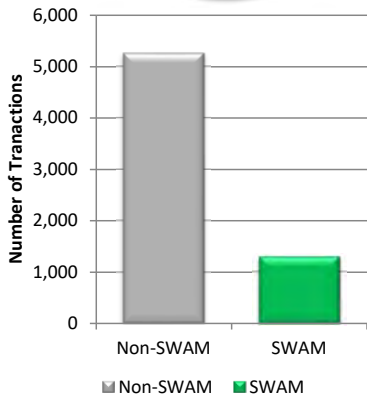
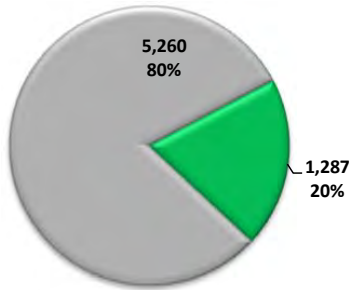
HRSD uses the Virginia Department of Purchases and Supply eProcurement Portal, eVA to advertise HRSD business opportunities to Suppliers, including SWaM businesses that have registered to do business with the Commonwealth of Virginia.

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

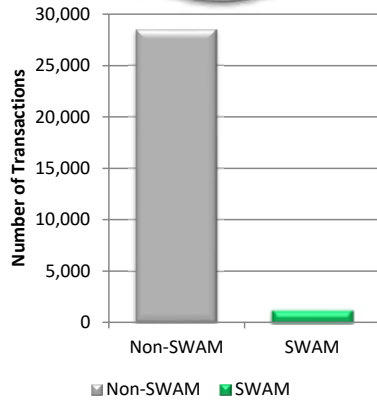
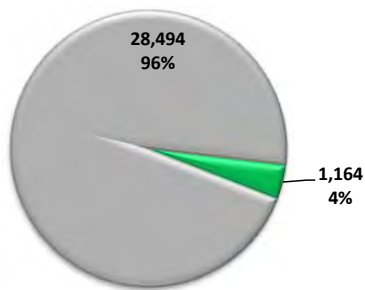
HRSD is a member of the Carolinas-Virginia Minority Supplier Development Council (CVMSDC). The CVMSDC certifies Minority Business Enterprises (MBEs), serves as a resource for corporations and government agencies searching for qualified suppliers, and sponsors networking and outreach events. The CVMSDC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

FY2020 Transaction Charts

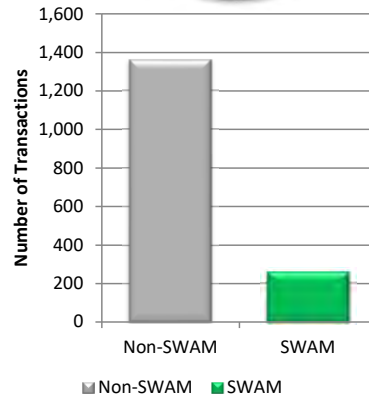
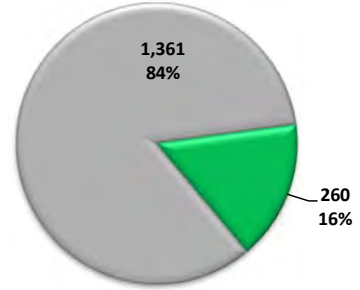
OPERATING



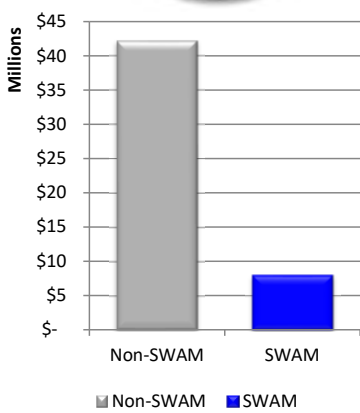
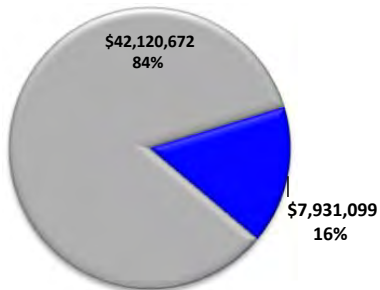
CORPORATE VISA CARD



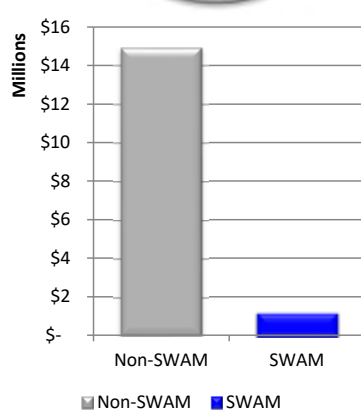
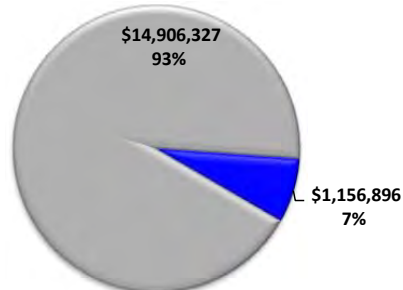
CAPITAL IMPROVEMENT PROGRAM



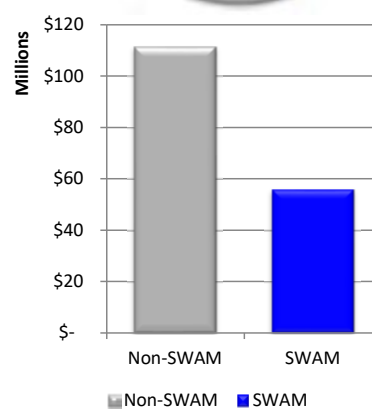
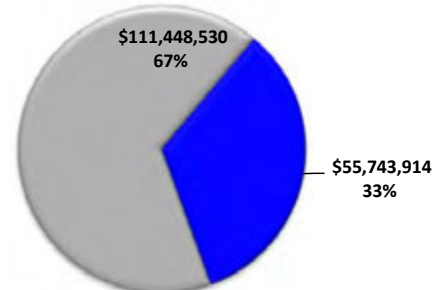
OPERATING



CORPORATE VISA CARD



CAPITAL IMPROVEMENT PROGRAM



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #6

Agenda Item 6. – Nutrient Credit Management Policy

- [Policy](#)
- [Redline](#)
- [Nutrient Credit Trading](#)
- [Nutrient Credit Offsets](#)

## **1.0 Purpose and Need**

Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual wasteload allocations (WLAs). HRSD, as a member of the Virginia Nutrient Credit Exchange Association (“Exchange”), participates in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay.

Trades can be in the form of annual, term or perpetual transfers. A permanent transfer of credits can be achieved through the transfer of allocation. Similarly, nutrient offset requirements can be accommodated through the transfer or acquisition of necessary allocation. All allocation transfers are contingent upon approval of the Virginia Department of Environmental Quality (DEQ) in accordance with the “General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia” (“General Permit”).

This policy provides guidelines for HRSD's engagement in trading agreements that occur outside of the Exchange and in accordance with the rules and regulations that govern nutrient and sediment credit trading and offsets.

This policy combines and replaces two existing policies: HRSD’s Nutrient Credit Offset Policy and HRSD Nutrient Credit Trading Policy.

## **2.0 Definitions**

*“Agreement”* means a private transaction for the trade of nutrient and sediment credits occurring outside of the Exchange. Agreements can provide for annual, term or perpetual credit trades or offset allocations.

*“Credit”* means the difference between (i) the wasteload allocation for a permitted facility specified as an annual mass load of the pollutant (total nitrogen (TN), total phosphorus (TP) or total suspended sediment (TSS)) and (ii) the monitored annual mass load of the pollutant (TN, TP or TSS) discharged from that facility, where clause (ii) is less than clause (i), and where the difference is adjusted by the applicable delivery factor and expressed as pounds per year of delivered total nitrogen load.



“*Offset*” means the voluntary transfer of a discharger’s waste load allocation or a portion of the allocation to a new or expanding facility located in the same Chesapeake Bay tributary.

“*Trading*” means the voluntary exchange of credits on an annual, term or perpetual basis between existing dischargers located in the same Chesapeake Bay tributary. Perpetual trades may be made permanent through the transfer of wasteload allocation or a portion of allocation.

“*Virginia Nutrient Credit Exchange Association, Inc. (Exchange)*” means the organization authorized by the Virginia General Assembly to manage a nutrient trading program.

“*Wasteload allocation (WLA)*” means a limit or cap on the amount of nitrogen and phosphorus that public and private point sources such as wastewater facilities may discharge into the Chesapeake Bay watershed.

### **3.0 Guiding Principles**

HRSD, because it is a member of the Exchange and has accepted Water Quality Improvement Fund grants, is obligated to provide its excess credits to the Exchange. While it has no obligation to do so, HRSD will consider entering into private trading or offset agreements if providing the allocation will not jeopardize HRSD’s WLA compliance. The following factors will be considered when evaluating trading and offset requests.

A. *Protection of HRSD 's interests and preservation of its ability to meet future needs*

HRSD's WLAs must remain sufficient to satisfy the projected growth. Any WLA reduction resulting from providing credits or an offset shall not create an unacceptably greater risk of non-compliance for HRSD.

B. *Regional benefits*

Trading and offset agreements should offer regional benefits (an impact across multiple jurisdictions) and/or support regional initiatives when possible.

C. *Environmental stewardship*

The trading partner must have a strong record of environmental protection and compliance with all relevant regulations.

D. *Cost to HRSD ratepayers*

Trades and offsets should provide the region with maximum environmental benefit at the lowest net cost to our ratepayers.

E. *Location*

Jurisdictions within HRSD's service area will have priority when multiple trading/offset requests are received.

F. *Magnitude*

The number of credits or allocation provided will be the minimum necessary to meet regulatory requirements.

G. *Limitations on Use*

The credits and/or offset allocations are only available to the party designated in the Agreement. Credits or allocations are not transferrable to any other person or entity.

H. *Cost Reimbursement*

Agreements will include a requirement for reimbursement for legal and administrative costs incurred by HRSD in developing these agreements. On a case-by-case basis, HRSD may additionally require reimbursement for costs associated with the generation of credits or offsets.

**COMMISSION ADOPTED POLICY**  
***Nutrient Credit Management***



Adopted: October 27, 2020

Revised:

Page 4 of 4

**4.0 Procedures**

Point source dischargers seeking to enter into a trading or offset Agreement with HRSD must make a request in writing to the Chief of Technical Services.

Based on the merits of the request, HRSD staff will make a recommendation to the HRSD Commission.

The request for an annual extension of an Agreement also must be made in writing at least 90 days prior to expiration of the Agreement, evaluated by HRSD staff and approved by the HRSD Commission.

**5.0 Responsibility and Authority**

The HRSD Director of Water Quality or his/her designee shall prepare a written evaluation of each trading request.

The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.

All regulations promulgated by the Virginia Department of Environmental Quality and procedures established by the Exchange shall be followed by HRSD in the implementation of this policy.

Approved:

A handwritten signature in black ink, appearing to read "Frederick N. Elofson".

Frederick N. Elofson, CPA  
Commission Chair

10/27/2020

Date

Attest:

A handwritten signature in blue ink, appearing to read "Jennifer L. Cascio".

Jennifer L. Cascio  
Commission Secretary

10/27/2020

Date

## 1.0 Purpose and Need

Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual waste-load allocations (WLAs). HRSD, as a member of the Virginia Nutrient Credit Exchange Association (“Exchange”), ~~will~~ participates in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay.

*Trades can be in the form of annual, term or perpetual transfers. A permanent transfer of credits can be achieved through the transfer of allocation. Similarly, nutrient offset requirements can be accommodated through the transfer or acquisition of necessary allocation. All allocation transfers are contingent upon approval of the Virginia Department of Environmental Quality (DEQ) in accordance with the “General Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia” (“General Permit”).*

This policy provides guidelines for HRSD's ~~participation~~ *engagement in trading agreements that occur outside of the Exchange and in accordance with* ~~within~~ the rules and regulations that govern nutrient credit trading *and offsets*.

## 2.0 Definitions

*“Agreement” means a private transaction for the trade of nutrient and sediment credits occurring outside of the Exchange. Agreements can provide for annual, term or perpetual credit trades or offset allocations.*

~~*“Class A Trades” means the purchase/sale of nutrient credits for a five-year period that may be extended annually. The seller of these rolling five-year credits is legally obligated to provide the allocation regardless of its compliance status. This type of trade is useful when a facility must maintain compliance while planning and constructing upgrades.*~~

~~*“Class B Trades” means the annual allocation of a point source discharger's unneeded credits to facilities that did not meet their waste load allocations so compliance can be achieved.*~~

*“Credit” means the difference between (i) the wasteload allocation for a permitted facility specified as an annual mass load of the pollutant (total nitrogen (TN), total phosphorus (TP) or total suspended sediment (TSS)) and (ii) the monitored annual mass load of the pollutant (TN, TP or TSS) discharged from that facility, where clause (ii) is less than clause (i), and where the difference is adjusted by the applicable delivery factor and expressed as pounds per year of delivered total nitrogen load.*

*“Offset” means the voluntary transfer of a discharger’s waste load allocation or a portion of the allocation to a new or expanding facility located in the same Chesapeake Bay tributary.*

"Virginia Nutrient Credit Exchange Association, Inc. (Exchange)" means the organization authorized by the Virginia General Assembly to manage a nutrient trading program.

"Waste-load allocation (WLA)" means a limit or cap on the amount of nitrogen and phosphorus that public and private point sources such as wastewater facilities may discharge into the Chesapeake Bay watershed.

### 3.0 **Guiding Principles**

HRSD, because it is a member of the Exchange and has accepted Water Quality Improvement Fund grants, is obligated to provide its excess credits *to the Exchange* for the annual Class B trades. While it has no obligation to do so, HRSD will consider entering into *private*~~Class A~~-trading agreements if providing the allocation will not jeopardize its WLA compliance. The following factors will be considered when evaluating ~~Class A~~-trading *and offset* requests.

- a. *Protection of HRSD's interests and preservation of its ability to meet future needs*

HRSD's WLAs must remain sufficient to satisfy the *projected* growth ~~projected in its Development Plan~~. Any WLA reduction resulting from providing credits *or an offset* shall not create an unacceptably greater risk of non-compliance for HRSD.

- b. *Regional benefits*

Trading *and offset* agreements should offer regional benefits (an impact across multiple jurisdictions) and/or support regional initiatives when possible.

- c. *Environmental stewardship*

The trading partner must have a strong record of environmental protection and compliance with all relevant regulations.

- d. *Cost to HRSD ratepayers*

Trades *and offsets* ~~shall~~*should* provide the region with maximum environmental benefit at the lowest net cost to our ratepayers.

- e. *Location*

Jurisdictions within HRSD's service area ~~shall~~*will* have priority when multiple trading/*offset* requests are received.

- f. *Magnitude*

The number of credits *or allocation* provided ~~shall~~*will* be the minimum necessary to meet regulatory requirements.

*g. Limitations on Use*

*The credits and/or offset allocations are intended solely for the use of the party designated in the Agreement. Credits or allocations are not transferrable to any other person or entity.*

*h. Cost Reimbursement*

*Agreements will include a requirement for reimbursement for legal and administrative costs incurred by HRSD in developing these agreements. On a case-by-case basis, HRSD may additionally require reimbursement for costs associated with the generation of nutrient credits or offsets.*

**4.0 Procedures**

- a. Point source dischargers ~~that wish to establish a Class A~~ *seeking to enter into a trading or offset A* agreement with HRSD must make a request in writing ~~to the General Manager~~ *to the Chief of Technical Services*.
- ~~b. The request shall document the steps taken to obtain credits from other sources.~~
- ~~e.b. HRSD staff will evaluate~~ *Based on* the merits of the request, *HRSD staff will* and make a recommendation to the HRSD Commission, ~~which must approve all Class A trades.~~
- ~~d.c.~~ The request for an annual extension of ~~an Class A trade~~ *Agreement* also must be made in writing *at least 90 days prior to expiration of the Agreement*, evaluated by HRSD staff and approved by the HRSD Commission.
- ~~e. Class B trading requests will be handled by the Exchange in accordance with their established procedures.~~

**5.0 Responsibility and Authority**

- a. The HRSD Director of Water Quality *or his/her designee* shall ~~be responsible for~~ *preparing* a written evaluation of each trading request.
- b. The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.
- c. All ~~nutrient trading~~ regulations promulgated by the Virginia Department of Environmental Quality and procedures established by the Exchange shall be followed by HRSD in the implementation of this policy.

# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Offsets

Date of Adoption: August 26, 2008

Date of Revision:

Page 1 of 3

### 1.0 Purpose and Need

Point source dischargers that desire to build a new facility or expand one that existed before July 1, 2005, must document how they plan to comply with the waste load allocation assigned to their tributary. One option for ensuring compliance is to obtain nutrient credit offsets from another discharger located in the same river basin. HRSD, as a member of the Virginia Nutrient Credit Exchange Association, will participate in a market-based trading and offset program to help achieve nutrient reduction goals for the Chesapeake Bay. The Virginia Department of Environmental Quality has not yet promulgated rules and regulations to govern offset trading. This policy provides guidelines for HRSD's participation offset agreements until the rules and regulations have been adopted.

### 2.0 Definitions

*"Nutrient Credit Offset"* means the voluntary transfer of a discharger's waste load allocation or a portion of the allocation to a new or expanding facility located in the same Chesapeake Bay tributary.

*"Virginia Nutrient Credit Exchange Association, Inc. (Exchange)"* means the organization authorized by the Virginia General Assembly to manage a nutrient trading program.

*"Waste load allocation (WLA)"* means a limit or cap on the amount of nitrogen and phosphorus that public and private point sources such as wastewater facilities may discharge into the Chesapeake Bay watershed.

### 3.0 Guiding Principles

HRSD will consider entering into offset agreements if providing the allocation will not jeopardize its WLA compliance. The following factors will be considered when evaluating offset requests.

- a. *Protection of HRSD's interests and preservation of its ability to meet future needs*  
HRSD's WLAs must remain sufficient to satisfy the growth projected in its Development Plan. Any WLA reduction resulting from providing credit offsets shall not create an unacceptably greater risk of non-compliance for HRSD.

# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Offsets

Date of Adoption: August 26, 2008

Date of Revision:

Page 2 of 3

- b. Regional benefits*  
Credit offset agreements should offer regional benefits (an impact across multiple jurisdictions) and/or support regional initiatives when possible.
- c. Environmental stewardship*  
The recipient must have a strong record of environmental protection and compliance with all relevant regulations.
- d. Cost to HRSD ratepayers*  
Offset agreements shall provide the region with maximum environmental benefit at the lowest net cost to our ratepayers.
- e. Location*  
Jurisdictions within HRSD's service area shall have priority when multiple requests are received.
- f. Magnitude*  
The number of credits provided shall be the minimum necessary to meet regulatory requirements.
- g. Duration of offset*  
HRSD prefers temporary offsets. Offset agreements shall specify the duration of the offset and shall last only long enough for the recipient to locate other permanent offsets or for HRSD to provide wastewater conveyance and treatment. Such offset agreements shall include a provision for modification or termination in response to relevant regulatory changes.
- h. Net environmental benefit*  
All other available options to minimize impact on the environment shall be evaluated by the requestor. This could include additional treatment, effluent reuse, discharge to HRSD for treatment or non-point source impact mitigation. For example, offsets will not be provided to increase nutrient loading to areas that may have limited assimilative capacity or may face greater nutrient discharge restrictions in the future.

### 4.0 Procedures

- a. Point source dischargers that wish to receive nutrient credit offsets from HRSD must make a request in writing to the General Manager.



# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Offsets

Date of Adoption: August 26, 2008

Date of Revision:

Page 3 of 3

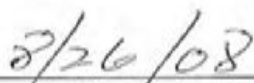
- b. The request shall document the steps taken to obtain credits from other sources.
- c. HRSD staff will evaluate the merits of the request and make a recommendation to the HRSD Commission, which must approve all nutrient credit offset agreements.

### 5.0 Responsibility and Authority

- a. The HRSD Director of Water Quality shall be responsible for preparing a written evaluation of each request.
- b. The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.
- c. Any nutrient trading regulations promulgated by the Virginia Department of Environmental Quality and procedures established by the Exchange shall be followed by HRSD in the implementation of this policy.


Approved:

  
\_\_\_\_\_  
R. Tyler Bland, III  
Commission Chairman

  
\_\_\_\_\_  
Date

Attest:

  
\_\_\_\_\_  
Jennifer L. Heilman  
Commission Secretary

  
\_\_\_\_\_  
Date

# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Trading

Date of Adoption: August 26, 2008

Date of Revision:

Page 1 of 3

### 1.0 Purpose and Need

Virginia regulations allow point source dischargers located within the same river basin to purchase or sell (trade) nutrient credits to facilitate compliance with annual waste load allocations. HRSD, as a member of the Virginia Nutrient Credit Exchange Association, will participate in a market-based trading program to help achieve nutrient reduction goals for the Chesapeake Bay. This policy provides guidelines for HRSD's participation within the rules and regulations that govern nutrient credit trading.

### 2.0 Definitions

*"Class A Trades"* means the purchase/sale of nutrient credits for a five-year period that may be extended annually. The seller of these rolling five-year credits is legally obligated to provide the allocation regardless of its compliance status. This type of trade is useful when a facility must maintain compliance while planning and constructing upgrades.

*"Class B Trades"* means the annual allocation of a point source discharger's unneeded credits to facilities that did not meet their waste load allocations so compliance can be achieved.

*"Virginia Nutrient Credit Exchange Association, Inc. (Exchange)"* means the organization authorized by the Virginia General Assembly to manage a nutrient trading program.

*"Waste load allocation (WLA)"* means a limit or cap on the amount of nitrogen and phosphorus that public and private point sources such as wastewater facilities may discharge into the Chesapeake Bay watershed.

### 3.0 Guiding Principles

HRSD, because it is a member of the Exchange and has accepted Water Quality Improvement Fund grants, is obligated to provide its excess credits for the annual Class B trades. While it has no obligation to do so, HRSD will consider entering into Class A trading agreements if providing the allocation will not jeopardize its WLA compliance. The following factors will be considered when evaluating Class A trading requests.

# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Trading

Date of Adoption: August 26, 2008

Date of Revision:

Page 2 of 3

- a. *Protection of HRSD's interests and preservation of its ability to meet future needs*  
HRSD's WLAs must remain sufficient to satisfy the growth projected in its Development Plan. Any WLA reduction resulting from providing credits shall not create an unacceptably greater risk of non-compliance for HRSD.
- b. *Regional benefits*  
Trading agreements should offer regional benefits (an impact across multiple jurisdictions) and/or support regional initiatives when possible.
- c. *Environmental stewardship*  
The trading partner must have a strong record of environmental protection and compliance with all relevant regulations.
- d. *Cost to HRSD ratepayers*  
Trades shall provide the region with maximum environmental benefit at the lowest net cost to our ratepayers.
- e. *Location*  
Jurisdictions within HRSD's service area shall have priority when multiple trading requests are received.
- f. *Magnitude*  
The number of credits provided shall be the minimum necessary to meet regulatory requirements.

### 4.0 Procedures

- a. Point source dischargers that wish to establish a Class A trading agreement with HRSD must make a request in writing to the General Manager.
- b. The request shall document the steps taken to obtain credits from other sources.
- c. HRSD staff will evaluate the merits of the request and make a recommendation to the HRSD Commission, which must approve all Class A trades.
- d. The request for an annual extension of a Class A trade also must be made in writing, evaluated by HRSD staff and approved by the HRSD Commission.

# COMMISSION ADOPTED POLICY



## Title: Nutrient Credit Trading

Date of Adoption: August 26, 2008

Date of Revision:

Page 3 of 3

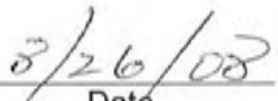
- e. Class B trading requests will be handled by the Exchange in accordance with their established procedures.

### 5.0 Responsibility and Authority

- a. The HRSD Director of Water Quality shall be responsible for preparing a written evaluation of each trading request.
- b. The HRSD General Manager will review the evaluation and present a recommendation to the HRSD Commission.
- c. All nutrient trading regulations promulgated by the Virginia Department of Environmental Quality and procedures established by the Exchange shall be followed by HRSD in the implementation of this policy.

Approved:

  
\_\_\_\_\_  
R. Tyler Bland, III  
Commission Chairman

  
\_\_\_\_\_  
Date

Attest:

  
\_\_\_\_\_  
Jennifer L. Heilman  
Commission Secretary

  
\_\_\_\_\_  
Date

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #7

Agenda Item 7. Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration –  
Fort Monroe Authority Agreement

## HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT FOR CHESAPEAKE BAY RESTORATION

**THIS HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT FOR CHESAPEAKE BAY RESTORATION** (this “Agreement”) is made this 27<sup>th</sup> day of October, 2020, by and between the Hampton Roads Sanitation District, a public body and political subdivision of the Commonwealth of Virginia (“HRSD”), and Fort Monroe Authority, a public body and political subdivision of the Commonwealth of Virginia (“FMA”) (each a “Party” and jointly the “Parties”).

### BACKGROUND

A. The HRSD Plants. HRSD owns and operates various wastewater treatment plants that are authorized to discharge the nutrients total nitrogen (“TN”) and total phosphorus (“TP”) as well as sediment as total suspended solids (“TSS”) to the Chesapeake Bay watershed (the “HRSD Plants”). The HRSD Plants have TN, TP and TSS waste load allocations assigned by the State Water Control Board and the Virginia Department of Environmental Quality (jointly, “DEQ”) pursuant to the Water Quality Management Planning Regulation, 9 VAC 25-720, and by the U.S. Environmental Protection Agency (“EPA”) pursuant to the Chesapeake Bay Total Maximum Daily Load (“TMDL”) and related Virginia Watershed Implementation Plan (“WIP”). The HRSD Plants are subject to the General Virginia Pollutant Discharge Elimination System (“VPDES”) Watershed Permit Regulation for TN and TP Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9 VAC 25-820, most recently reissued by DEQ effective February 8, 2017, as hereafter modified or reissued from time to time (the “Watershed General Permit”). Due to exceptional performance and current operating conditions, the HRSD Plants currently discharge less TN, TP and TSS than they are authorized to discharge under the Watershed General Permit while protecting Chesapeake Bay water quality and, therefore, HRSD has the ability to provide TN, TP and TSS credits on at least a temporary basis.

B. The FMA MS4. FMA owns and operates a municipal separate stormwater sewer system (“MS4”) authorized to discharge TN, TP and TSS to the Chesapeake Bay watershed. Like the HRSD Plants, the MS4 is subject to the Chesapeake Bay TMDL as derived from the Virginia WIP. The FMA MS4 is also subject to the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (“MS4 Permit”) issued by DEQ. Pursuant to the TMDL, WIP and MS4 Permit, it is anticipated that FMA will reduce MS4-related TN, TP and TSS discharges pursuant to FMA-developed and DEQ-approved TMDL Action Plans for each of three, five-year permit cycles, which are referred to as the First Bay TMDL Permit Cycle (5% Progress), Second Bay TMDL Permit Cycle (40% Progress), and Third Bay TMDL Permit Cycle (100% Progress). During 2020, FMA is in its Second Bay TMDL Permit Cycle.

C. The SWIFT Project. HRSD’s Sustainable Water Initiative For Tomorrow (“SWIFT”) Project was conceived with multiple benefits in mind for the Hampton Roads region. Aside from TMDL benefits, this innovative water purification project is designed to enhance the sustainability of the long-term groundwater supply and help address other environmental pressures such as sea level rise and saltwater intrusion. The SWIFT Project is intended to achieve these benefits by taking already-treated wastewater that would otherwise be discharged into the Chesapeake Bay watershed, purifying it through additional rounds of advanced water treatment to

meet drinking water standards, and injecting the resulting drinking quality water into the Potomac aquifer deep underground. With respect to TMDL benefits, SWIFT will result in a significant reduction in the total volume of HRSD discharge to the Chesapeake Bay watershed, to achieve greater environmental benefits with corresponding significant reductions of TN, TP and TSS discharges to the Chesapeake Bay watershed.

D. Legal Authority. Pursuant to Virginia Code § 62.1-44.19:21, FMA may acquire and use TN and TP credits for purposes of compliance with the Chesapeake Bay TMDL loading reductions of its MS4 Permit, including credits generated by the HRSD Plants by discharging less TN or TP than permitted under the Watershed General Permit. Pursuant to Virginia Code § 62.1-44.19:21.1, FMA may also acquire and use TSS credits for purposes of compliance with the Chesapeake Bay TMDL loading reductions of its MS4 Permit, including credits generated by the HRSD Plants by discharging less TSS than allocated under the Chesapeake Bay TMDL. With respect to all three parameters, it is recognized that this authority does not limit or otherwise affect the authority of DEQ to establish and enforce more stringent water quality-based effluent limitations in permits where such limitations are necessary to protect local water quality and, further, that the use of water quality credits does not relieve an MS4 permit holder of any requirement to comply with applicable local water quality-based limitations.

E. Redevelopment-Based MS4 TMDL Action Plan. FMA expects to achieve its Chesapeake Bay TMDL reduction goals more cost-effectively by utilizing HRSD-generated TN, TP and TSS credits before and during operation of the SWIFT Project in lieu of stormwater retrofit projects on a condensed 10-year schedule (*i.e.*, Second and Third Bay TMDL Permit Cycles) coupled with ongoing stormwater quality improvements from redevelopment projects, which are subject to TP reduction criteria (and associated TN and TSS reductions) under the applicable water quality design requirements of DEQ's Virginia Stormwater Management Program Regulation, 9VAC25-870-63.A.2. By aligning with the normal redevelopment cycle rather than scheduling retrofits prior to redevelopment activity, FMA's Chesapeake Bay TMDL Action Plan will also conserve scarce state and local resources for other important water quality projects.

F. Credit Trading Premise of SWIFT. For all of the above reasons and others, the ability to generate TN, TP, and TSS credits through the SWIFT Project and apply those credits as progress under MS4 Permits and associated TMDL Action Plans of Hampton Roads governmental entities such as FMA is a fundamental premise for the SWIFT Project. HRSD is proceeding with the SWIFT Project, and FMA is supporting it, in large part based on reliance on these water quality trading-based benefits.

## **AGREEMENT**

NOW, THEREFORE, in consideration of the foregoing premises (hereby incorporated as if fully set forth herein), the mutual covenants and conditions herein, and other good and valuable consideration, the receipt and sufficiency of which HRSD and FMA acknowledge, the Parties hereby agree as follows.

1. Annual Credit Transfers Prior to SWIFT Feasibility Determination. Prior to HRSD's determination of SWIFT Project feasibility as provided below, HRSD shall annually generate and transfer to FMA the quantity of water quality credits needed to meet FMA's

compliance requirements under its DEQ-Approved Chesapeake Bay TMDL Action Plan for its MS4, as provided below. This annual transfer shall be made by HRSD's execution and delivery to FMA of the Annual Water Quality Credit Transfer Form (Attachment B hereto) on or before May 20 immediately following each calendar year of HRSD's credit generation.

a. Determination of Total Reductions Needed. FMA shall determine the total TN, TP and TSS reductions required for its full MS4 implementation of the Chesapeake Bay TMDL and WIP as issued in December 2010, in accordance with the procedures established in its MS4 Permit and DEQ Guidance Memorandum 15-2005, Chesapeake Bay TMDL Special Condition Guidance (May 18, 2015).

b. Credit Demand Minimization Elements. FMA shall minimize its calculated reductions by (i) accurately mapping and delineating its existing MS4 service area, (ii) taking full credit for reductions achieved by stormwater projects and regulated redevelopment projects occurring prior to the effective date of FMA's MS4 Permit in effect as of the date of this Agreement, and (iii) other procedures or accounting measures reasonably available to FMA.

c. Credit Transfer Ceilings. HRSD's annual credit transfer obligations to FMA shall not exceed the lesser of (i) FMA's initial estimate of credit needs, or (ii) 95 percent of FMA's total calculated reductions determined in accordance with Subparagraphs 1.a. and 1.b. and set forth in a DEQ-approved Chesapeake Bay TMDL Action Plan, or (iii) the quantity of credits actually needed to meet such total calculated reductions. FMA's initial estimate of credit needs as of the date of this Agreement is set forth in Section 1 of Attachment A hereto. Following DEQ's approval of FMA's Chesapeake Bay TMDL Action Plan and subsequent acceptance of the credit needs by HRSD as consistent with the requirements of this Subparagraph 1.c., HRSD shall issue an update to Attachment A setting forth in Section 2 thereof HRSD's actual annual credit transfer obligation determined in accordance with this Subparagraph 1.c.

d. Term & Termination of Initial Credit Transfers. HRSD's annual credit transfer obligations to FMA under this Paragraph 1 shall expire upon (i) conversion to a permanent transfer of wasteload allocations as provided in Paragraph 2, (ii) termination as specifically authorized by any other provision of this Agreement, or (iii) December 31, 2036, whichever occurs first.

2. Permanent Transfer After SWIFT Feasibility Determination. Upon HRSD's determination that full-scale implementation of the SWIFT Project is feasible, HRSD shall permanently transfer to FMA the quantity of TN, TP and TSS waste load allocations set forth for its MS4 on Attachment A hereto, as updated and issued by HRSD in accordance with Paragraph 1 c.

a. Factors for Feasibility Determination. Feasibility shall be determined in HRSD's sole discretion taking into account (i) whether all required permits and approvals have been acquired in final, non-appealable form acceptable to HRSD including the federal Safe Drinking Water Act Underground Injection Control Permit, (ii) whether the first full-scale HRSD plant upgrade is online and performing as desired, (iii) whether full-scale implementation of the SWIFT Project is technically and financially feasible, and (iv) other material factors.



b. Timing for Feasibility Determination. Without limiting HRSD's discretion to determine whether full-scale SWIFT Project implementation is feasible or when to make such determination, it is the mutual goal of the Parties for HRSD to make such determination as soon as reasonably possible and not later than December 31, 2025, so as to preserve the maximum amount of time prior to the termination date for FMA to implement stormwater retrofit projects or other permit compliance measures that might be necessary should it be determined that the SWIFT Project is not feasible. The Parties acknowledge that a demonstration project is already underway at the Nansemond Treatment Plant located in the City of Suffolk.

3. Regulatory Plans & Approvals. In furtherance of the annual credit transfer and, when applicable, the permanent transfer contemplated by this Agreement, the Parties shall collaborate on appropriate submittals to and requests of DEQ, as follows; however, HRSD shall have no responsibility for the failure or refusal of DEQ or other governmental authority to approve such transfers.

a. FMA's TMDL Action Plan. For purposes of annual and, when applicable, permanent transfers, FMA shall each include in its Chesapeake Bay TMDL Action Plan a provision for the receipt and use of TN, TP and TSS credits from the HRSD Plants in the form set forth in Attachment C hereto (or such other form as may be mutually agreeable to FMA and HRSD).

b. HRSD Watershed General Permit Registration. For purposes of permanent wasteload allocation transfers, when applicable, HRSD shall modify its Watershed General Permit Registration and, if necessary, individual VPDES permits to reflect such transfers.

c. Virginia Chesapeake Bay TMDL WIP. HRSD and FMA shall collaborate to seek inclusion in any future modification or phase of Virginia's WIP of recognition of the SWIFT Project and the annual and, when applicable, permanent transfers contemplated by this Agreement.

4. Authorized Use of Credits. FMA agrees that its sole and limited use of the TN, TP, and TSS credits transferred under this Agreement shall be for the purpose of MS4 Permit compliance and Chesapeake Bay TMDL implementation and that it shall not transfer any portion of HRSD-generated credits (or waste load allocations, if applicable) to any other person or entity. In the event that FMA no longer requires some or all of the credits (or waste load allocations) for such use, they shall revert to HRSD and HRSD shall update and reissue Attachment A accordingly.

5. Mutual Cooperation. The Parties shall continue to cooperate with each other as reasonably necessary to confirm or bring about the transfers contemplated by this Agreement.

6. Permits & Approvals. If for any reason any federal, state, regional or local government or agency fails to issue any necessary permit, approval or other authorization for the SWIFT Project or the transfers contemplated by this Agreement, HRSD shall be excused from its performance hereunder.

7. Force Majeure. The obligations of HRSD, including its annual or permanent transfer obligations, shall be suspended while and as long as performance is prevented or impeded

by strikes, disturbances, riots, fire, severe weather, epidemic, pandemic, acts of war, acts of terrorism, acts of God, government action (other than by HRSD), major technical, engineering or construction related delays, or any other cause similar or dissimilar to the forgoing that is beyond the reasonable control of and not due to the gross negligence of HRSD.

8. Change in Law. In the event of any material change in applicable laws or regulations, the Parties shall work together to attempt to amend this Agreement to conform to such change, while maintaining as closely as practical the provisions and intent of this Agreement. If in any such event HRSD is unable to perform its transfer obligations as provided herein, FMA shall be solely responsible for otherwise meeting its TMDL and MS4 Permit obligations.

9. Significant Financial & Budgetary Constraints. Notwithstanding any other provision of this Agreement or any prior determination of feasibility of the SWIFT Project, HRSD reserves the right to terminate or renegotiate this Agreement in the event HRSD experiences significant financial or budgetary challenges which, in HRSD's opinion, would significantly impair its ability to perform its obligations hereunder. In such event, the Parties shall work together to attempt to amend this Agreement to accommodate such challenges, with the goal of providing annual credits to FMA (and to Hampton Roads entities with similar water quality credit agreements) as practical.

10. Credit Supply Constraints. Notwithstanding any other provision of this Agreement, to the extent that HRSD determines in its sole discretion that its available quantity of water quality credits (or allocations) is insufficient to meet the total MS4 Chesapeake Bay TMDL Action Plan compliance requirements of FMA and of all other Hampton Roads entities that are party or become party to a similar water quality credit agreement, HRSD's obligations hereunder shall be limited to transferring to FMA its pro rata share of HRSD's available credits based on pollutant-specific total credit needs of all such Hampton Roads entities. HRSD agrees to provide FMA with notice of its ability only to transfer a pro rata share of HRSD's available credits as promptly as possible but no later than 90 days after becoming aware of the event limiting HRSD's ability to meet the total credit needs of all such Hampton Roads entities. For clarity, HRSD shall assume no obligation under this Agreement to install, upgrade, improve, or significantly alter the operation of any portion of its sewerage system or treatment works for purposes of providing water quality credits (or allocations).

11. No Third-Party Beneficiaries. This Agreement is solely for the benefit of the Parties hereto and their permitted successors and assigns and shall not confer any rights or benefits on any other person or entity.

12. No Assignment. This Agreement, and the rights and obligations established hereunder, shall be binding upon and inure to the benefit of any successors of the Parties. However, no Party may transfer or assign this Agreement, or its rights or obligations hereunder, without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

13. Expenses; Commissions. Except as provided herein, each Party shall pay its own fees and expenses, including its own counsel fees, incurred in connection with this Agreement or any transaction contemplated hereby. The Parties represent and warrant to each other that they

have not dealt with any business broker or agent who would be entitled to a brokerage commission or finders fee as a result of this Agreement or any related transactions.

14. Governing Law; Venue; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement is a Virginia contract deemed executed and accepted in the City of Virginia Beach; and all questions with respect to any of its provisions shall be instituted, maintained, and contested in a court of competent jurisdiction in the City of Virginia Beach, Virginia. If any word or provision of this Agreement as applied to any Party or to any circumstance is adjudged by a court to be invalid or unenforceable, the same shall in no way affect any other circumstance or the validity or enforceability of any other word or provision.

15. No Waiver. Neither any failure to exercise or any delay in exercising any right, power or privilege under this Agreement by either Party shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege hereunder preclude the exercise of any other right, power or privilege. No waiver of any breach of any provision shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision, nor shall any waiver be implied from any course of dealing.

16. Entire Agreement; Amendments. 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.

17. Counterparts; Signatures; Copies. This Agreement may be executed in counterparts, both of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A facsimile or scanned signature may substitute for and have the same legal effect as an original signature. Any copy of this executed Agreement made by photocopy, facsimile or scanner shall be considered the original for all purposes.

18. Authorization. Each Party represents that its execution, delivery and performance under this Agreement have been duly authorized by all necessary action on its behalf, and do not and will not violate any provision of its charter or enabling legislation or result in a material breach of or constitute a material default under any agreement, indenture, or instrument of which it is a party or by which it or its properties may be bound or affected.

IN WITNESS WHEREOF, the Parties hereto have caused the execution of this Agreement as of the date first written above.

[SIGNATURES BEGIN ON NEXT PAGE]

**SIGNATURE PAGE OF HAMPTON ROADS WATER QUALITY CREDIT  
AGREEMENT FOR CHESAPEAKE BAY RESTORATION BY AND BETWEEN  
HRSD AND THE FORT MONROE AUTHORITY**

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

By: \_\_\_\_\_

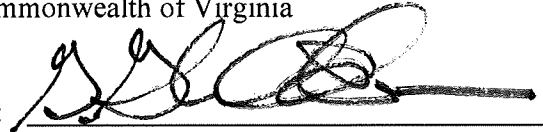


Edward G. Henifin  
General Manager

**SIGNATURE PAGE OF HAMPTON ROADS WATER QUALITY CREDIT  
AGREEMENT FOR CHESAPEAKE BAY RESTORATION BY AND BETWEEN  
HRSD AND THE FORT MONROE AUTHORITY**

**FORT MONROE AUTHORITY**, a public  
body and political subdivision of the  
Commonwealth of Virginia

By: \_\_\_\_\_



G. Glenn Oder  
Executive Director

**HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION  
ATTACHMENT A**

**Water Quality Credit Needs for Second & Third Bay TMDL Permit Cycles**

*Section 1: Initial Estimate of Credit Needs (lbs/yr)  
[As Estimated by FMA as of the date of this Agreement]*

	<b>James River Basin</b>		
<b>Parameter</b>	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles
<b>TN</b>	57.31	98.67	155.98
<b>TP</b>	10.54	24.70	35.24
<b>TSS</b>	4,438.55	11,193.94	15,632.89

*Section 2: FMA-Calculated and HRSD-Accepted Credit Needs (lbs/yr)  
Under DEQ-Approved TMDL Action Plan and Subparagraph 1.c. of this Agreement  
[As Accepted by HRSD After DEQ Approval of FMA's TMDL Action Plan]\**

	<b>James River Basin</b>		
<b>Parameter</b>	2 <sup>nd</sup> Permit Cycle	3 <sup>rd</sup> Permit Cycle	Total Both Cycles
<b>TN</b>	57.31	98.67	155.98
<b>TP</b>	10.54	24.70	35.24
<b>TSS</b>	4,438.55	11,193.94	15,632.89

\* DEQ approved FMA's TMDL Action Plan prior to the date of this Agreement. Section 2 is complete.

**HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION  
ATTACHMENT B**

**Annual Water Quality Credit Transfer Form**

*Instructions: To be completed and executed by HRSD and delivered to FMA on or before each May 20 immediately following the calendar year of credit generation by HRSD.*

By execution and delivery of this Annual Credit Transfer Form, HRSD transfers the following water quality credits in the amounts specified to FMA in accordance with, and for the specific and limited purposes of, the Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration.

Transferor: Hampton Roads Sanitation District

Transferee (MS4): Fort Monroe Authority

Year Credits Generated: \_\_\_\_\_

Date Credits Transfer: \_\_\_\_\_

River Basin	TN (lbs/yr)	TP (lbs/yr)	TSS (lbs/yr)
James			

Signed (for HRSD): \_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_

**HAMPTON ROADS WATER QUALITY CREDIT AGREEMENT  
FOR CHESAPEAKE BAY RESTORATION  
ATTACHMENT C**

**Draft Provision for the Use of HRSD-Generated Water Quality Credits for  
MS4 Chesapeake Bay TMDL Action Plan Development**

The intent of this plan is the generation and use of TN, TP and TSS credits before and during operation of the SWIFT Project in collaboration with HRSD pursuant to the Hampton Roads Water Quality Credit Agreement for Chesapeake Bay Restoration to which FMA and HRSD are signatories. This compliance method is in lieu of more traditional stormwater retrofit projects, which may not be feasible to execute on a condensed 10-year schedule (i.e., Second and Third Bay TMDL Permit Cycles). Not only does this method have the advantage of more reliably meeting the MS4 Permit's short deadlines, but it is also beneficial to the public in that it will meet FMA's Chesapeake Bay TMDL reduction goals more cost-effectively than otherwise possible. This component of the plan is fully in accordance with Virginia Code §62.1-44.19:21 (TN and TP) and §62.1-44.19:21.1 (TSS). The quantity of reduction credits from the SWIFT Project that are allocated to this TMDL Action Plan for the James River Basin are 155.98 lbs/yr TN, 35.24 lbs/yr TP, and 15,632.89 lbs/yr TSS.



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #8

Agenda Item 8. – Hampton Roads Bridge Tunnel Expansion Project Nutrient Offset Agreement

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

**THIS NUTRIENT OFFSET AGREEMENT** (this “Agreement”) made this 29 day of October, 2020, by and between the Hampton Roads Sanitation District (“HRSD”) and Hampton Roads Connector Partners (“HRCP”) (each a “Party” and jointly the “Parties”).

**BACKGROUND**

A. HRSD. HRSD owns and operates various wastewater treatment plants that are authorized to discharge the nutrients total nitrogen (“TN”) and total phosphorus (“TP”) to the James River in the Chesapeake Bay watershed (the “HRSD Plants”). The HRSD Plants have TN and TP waste load allocations (the “HRSD James River Basin Allocations”) assigned by the State Water Control Board and the Virginia Department of Environmental Quality (jointly, “DEQ”) pursuant to the Water Quality Management Planning Regulation, 9 VAC 25-720, and by the U.S. Environmental Protection Agency (“EPA”) pursuant to the Chesapeake Bay Total Maximum Daily Load (“TMDL”). The HRSD Plants are subject to the General Virginia Pollutant Discharge Elimination System (“VPDES”) Watershed Permit Regulation for TN and TP Discharges and Nutrient Trading in the Chesapeake Bay Watershed in Virginia, 9 VAC 25-820, most recently reissued by DEQ effective February 8, 2017, as hereafter modified or reissued from time to time (the “Watershed General Permit”).

B. HRCP. HRCP is an unincorporated joint venture of Dragados USA, Inc., Vinci Construction Grands Projets, Inc., Dodin Campenon Bernard Inc., and Flatiron Constructors, Inc. that is expanding the Hampton Roads Bridge-Tunnel (“HRBT”) to ease congestion along the existing I-64 HRBT corridor. The project includes a new bridge-tunnel complex that will add two new twin-lane tunnels to accommodate four additional lanes of traffic. HRCP is in the process of obtaining Watershed General Permit coverage from DEQ to authorize the discharge of TN and TP on a short-term basis for the period of construction.

C. Offset Authority. Through exceptional performance and current operating conditions at the HRSD Plants, HRSD discharges less TN and TP than the HRSD Plants are authorized to discharge under the Watershed General Permit while protecting Chesapeake Bay water quality and, therefore, HRSD currently has the ability to provide TN and TP offset allocations on a temporary basis to offset the nutrient loading associated with the construction process for the HRBT Expansion Project. Pursuant to Code of Virginia section 62.1-44.19:12 *et seq.*, 9 VAC 25-720-40 A, and 9 VAC 25-820-70, Part II A 1 b and B 1 a, HRSD is authorized to transfer in its discretion, and HRCP is authorized to acquire with HRSD’s consent, a portion of the HRSD James River Basin Allocations to satisfy HRCP’s temporary offset obligation under the Watershed General Permit.

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

**AGREEMENT**

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein, and for other good and valuable consideration, the receipt and sufficiency of which the Parties acknowledge, the Parties agree as follows.

1. Transfer of Offset Allocations. Beginning for the compliance year which starts January 1, 2020 and for each compliance year thereafter through and including compliance year 2025, HRSD hereby transfers from its HRSD James River Basin Allocations to HRCP, and HRCP hereby accepts, temporary allocations of 4,000 pounds per year (“lbs/yr”) of TN and 2,000 lbs/yr of TP (the “Offset Allocations”). HRSD shall have no obligation to extend the availability of the Offset Allocations beyond December 31, 2025 but may elect to do so in its discretion following a request for such an extension from HRCP. Any such extension shall be in writing as an amendment to this Agreement pursuant to Paragraph 18 below. Notwithstanding the other provisions of this Paragraph 1, this Agreement and the Offset Allocations transfer are expressly contingent upon the continued ability of HRSD to provide the Offset Allocations with its current facilities and technology and under current operating conditions, other existing nutrient trading agreements, and current laws and regulations including without limitation the HRSD James River Basin Allocations. If, by any order, law, regulation or changes thereto, such ability ceases, HRSD’s obligation to provide the Offset Allocations shall cease and this Agreement shall be renegotiated pursuant to Paragraph 17.

2. No Monetary Cost for Offset Allocations. In consideration of the unique circumstances described above, including the temporary nature of the offset need during construction of this important regional project benefiting HRSD’s ratepayers, there shall be no monetary cost charged by HRSD to HRCP for the Offset Allocations supplied under this Agreement.

3. Limitation on Use of Offset Allocations. HRCP agrees that its sole and limited use of the Offset Allocations shall be for the HRBT Expansion Project discharges under the Watershed General Permit and that it shall not transfer any portion of the Offset Allocations to any other person or entity. In the event that HRCP’s operations for any compliance year generate nutrient credits as a result of discharging less TN or TP than the Offset Allocations, HRCP shall, upon request of HRSD, transfer such credits to HRSD for HRSD’s use or exchange for that compliance year.

4. HRCP’s Watershed General Permit Registration. HRCP agrees that any Watershed General Permit Registration Statement and any related offset plan that it submits to DEQ under the provisions of the Watershed General Permit shall be consistent with the provisions of this Agreement, including but not limited to the temporary nature of the Offset Allocations.

5. HRSD’s Exchange Compliance Plan Modification. HRSD is a member of the Virginia Nutrient Credit Exchange Association, Inc. (the “Nutrient Exchange”) and a participant in the Exchange Compliance Plan previously submitted by the Nutrient Exchange to DEQ

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

pursuant to the Watershed General Permit. During the next annual update of the Exchange Compliance Plan, HRSD shall request that the Nutrient Exchange modify such plan with respect to the HRSD James River Basin Allocations to make appropriate revisions consistent with the temporary Offset Allocations provided under this Agreement.

6. HRCP's Regulatory Compliance. Recognizing the importance of complying with all applicable VPDES discharge permit requirements and of HRSD's mission to prevent discharges contributing to water pollution in the Hampton Roads region, HRCP agrees that HRSD shall have the right to terminate this Agreement if in its sole discretion HRSD determines that (a) HRCP routinely or frequently fails to comply with its VPDES discharge permit requirements and (b) HRCP is not working or has not worked with DEQ in a reasonable and timely manner to correct such failures.

7. Term and Survival. This Agreement shall be effective as of the date first shown above and shall terminate on December 31, 2025. Notwithstanding the preceding sentence, if either Party fails to perform a material obligation hereunder, and fails to cure such failure to perform within sixty (60) days of written notice from the non-defaulting Party, the non-defaulting Party may terminate this Agreement upon written notice to the other Party. HRSD shall be under no obligation to provide, or continue to provide, the Offset Allocations after termination and, upon termination, all Offset Allocations transferred under this Agreement shall revert to HRSD.

8. Permits and Approvals. HRSD shall have no responsibility for or as a result of the failure or refusal of DEQ or any other governmental authority to approve the transfer of the Offset Allocations contemplated under this Agreement.

9. Mutual Cooperation. The Parties shall continue to cooperate with each other in any manner reasonably necessary to confirm or bring about the transfer of the Offset Allocations as provided herein.

10. No Assignment. HRCP shall not transfer or assign this Agreement, or its rights or obligations hereunder, except to the Virginia Department of Transportation, without the prior written consent of HRSD, which consent may be withheld in HRSD's sole discretion.

11. No Third-Party Beneficiaries. This Agreement is solely for the benefit of the Parties hereto and their permitted successors and assignees and shall not confer any rights or benefits on any other person.

12. Expenses. Each Party shall pay its own fees and expenses, including its own counsel fees, incurred in connection with this Agreement or any transaction contemplated hereby, except that within ten (10) days of the date of this Agreement HRCP shall reimburse HRSD's counsel and administrative fees for developing this agreement in the amount of \$5,000 by check made payable to HRSD. Notwithstanding any other provision of this agreement, HRCP's failure to pay such amount by such deadline shall entitle HRSD to immediately terminate this Agreement in its sole discretion.

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

13. Brokerage Commissions. The Parties represent and warrant to each other that they have not dealt with any business broker or agent who would be entitled to a brokerage commission or finders fee as a result of this Agreement or any related transactions. Each Party agrees, to the extent permitted under law and without waiving sovereign immunity, to indemnify and hold the other harmless from any and all claims for commissions of broker's or finder's fees claiming by, through or under the indemnifying Party, including any losses related to any such claim.

14. Notices. All notices, requests, demands, claims and other communications hereunder shall be in writing, shall be delivered in person or by mail (first class postage pre-paid), or overnight delivery and shall be deemed given when delivered in person or, if not delivered in person, when received (or delivery is refused) by the Party to whom such notice, request, demand, claim or other communication is directed, at the following address, or at such other address as a Party shall designate by written notice to the other Party:

If to HRCP:                    Jose Ignacio Martin Alos  
   HRCP Project Executive  
   240 Corporate Boulevard, Suite 400  
   Norfolk, VA 23502

If to HRSD:                    General Manager  
   Hampton Roads Sanitation District  
   1434 Air Rail Avenue  
   Virginia Beach, VA 23455-3002

with a copy to the Director of Water Quality at the same address.

15. Governing Law; Venue; Severability. This Agreement shall be construed in accordance with and governed for all purposes by the laws of the Commonwealth of Virginia. This Agreement is a Virginia contract deemed executed and accepted in the City of Virginia Beach; and all questions with respect to any of its provisions shall be instituted, maintained, and contested in a court of competent jurisdiction in the City of Virginia Beach, Virginia or the U.S. District Court for the Eastern District of Virginia, Norfolk Division. If any word or provision of this Agreement as applied to any Party or to any circumstance is adjudged by a court to be invalid or unenforceable, the same shall in no way affect any other circumstance or the validity or enforceability of any other word or provision.

16. No Waiver. Neither any failure to exercise or any delay in exercising any right, power or privilege under this Agreement by either Party shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege hereunder preclude the exercise of any other right, power or privilege. No waiver of any breach of any provision shall be deemed to be a waiver of any preceding or succeeding breach of the same or any other provision, nor shall any waiver be implied from any course of dealing.

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

17. Change in Law. In the event of any material change in applicable laws or regulations, the Parties shall work together to amend this Agreement to conform to such change, while maintaining as closely as practical the provisions and intent of this Agreement. If in any such event HRSD is unable to transfer the Offset Allocations as provided herein, HRCF shall be solely responsible for otherwise meeting its offset requirement under the Watershed General Permit.

18. Entire Agreement; Amendments. 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.

19. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument. The Parties further agree that a facsimile, scanned or electronic signature may substitute for and have the same legal effect as an original signature, and that any copy of this executed Agreement made by photocopy, facsimile or scanner shall be considered an original.

IN WITNESS WHEREOF, the Parties hereto have caused the execution of this Agreement as of the date first written above.

**HAMPTON ROADS SANITATION DISTRICT**

By:   
\_\_\_\_\_  
Edward G. Henifin  
General Manager

[SIGNATURES CONTINUE ON FOLLOWING PAGE]

**NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT**

SIGNATURE PAGE OF NUTRIENT OFFSET AGREEMENT FOR  
I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION PROJECT

**HAMPTON ROADS CONNECTOR  
PARTNERS**

By:



---

Jose Ignacio Martin Alos  
HRCP Project Executive

[END OF SIGNATURES]

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #9

Agenda Item 16. Lucas Creek Pump Station Replacement Property Acquisition

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



REAL ESTATE INFORMATION NETWORK INC.
STANDARD PURCHASE AGREEMENT ("AGREEMENT")



THIS AGREEMENT is made this 10/6/2020 (date),
between HRSD ("Buyer"),
ROBIN SUTKER ("Seller"),
Maxwell Realty LLC ("Selling Firm") (132660 MLS Office No.)
and Garrett Realty Partners ("Listing Firm") (6070 MLS Office No.)

1. AGREEMENT TO SELL PROPERTY: Pursuant to the terms of this Agreement, Buyer agrees to buy and Seller agrees to sell all that certain piece, parcel or lot of land and all improvements and fixtures on such land described as follows: LEGAL DESCRIPTION:
4 WAR RIV EST 02 also known as
808 Lipton Drive
Newport News VA 23608
(Street address / City / State / Zip code)
including, but not limited to, those items listed and described in paragraph 15 (collectively, "Property").

2. DEPOSIT: The deposit (the "Deposit") shall be in the amount of Two Thousand and 00/100 Dollars (\$ 2,000.00) and paid by [ ] personal check, [ ] federal wire transfer, [X] certified bank check, [ ] Automated Clearing House (ACH), or [ ] other Maxwell Realty LLC ("Escrow Agent"). The Deposit shall apply as a credit to Buyer at settlement.

Buyer [ ] has paid the Deposit to the Escrow Agent or [X] will pay the Deposit to the Escrow Agent within two (2) business days of the "Ratification Date". For purposes of this Agreement, ratification ("Ratification") shall mean the date ("Ratification Date") of communication of final written acceptance by Buyer and Seller of all the terms of this Agreement, not the date of removal or expiration of any contingencies.

If Buyer fails to pay the Deposit set forth above or if any check or other funds paid by Buyer are dishonored, Escrow Agent shall promptly provide written notice of such to Buyer and Seller. In such case, Buyer shall be in breach of this Agreement and Seller may, at Seller's option, terminate this Agreement by written notice to Buyer in which event neither Buyer or Seller shall have any further liability to the other.

3. PURCHASE PRICE: The Purchase Price of the Property is as follows:
\$ 268,000.00 (Two Hundred Sixty-Eight Thousand (Dollars)
("Purchase Price") and shall be paid as follows:

\$ Down payment by cashier's or certified check or wire transfer to the settlement agent due at settlement;
\$ By loan to be obtained by Buyer;
and
\$ 268,000.00 By cash or other financing terms if applicable:

VA Funding Fee, FHA MIP or Conventional PMI to be financed as applicable. If private party financing or assumption, then the appropriate addendum is attached and shall become a part of this Agreement.

This Purchase Agreement was fully ratified by Buyer and Seller as of:
10/06/2020
(RATIFICATION DATE)
SIGNATURE: Emily A. Lewis
[X] LISTING AGENT OR [ ] SELLING AGENT

44 **4. SETTLEMENT EXPENSES:** Except as otherwise stated below, Seller shall pay (i) all expenses of deed preparation,  
45 the grantor's tax on the deed, appraiser reinspection fees, and all expenses, if any, for removal of title defects and  
46 (ii) those fees charged by lender for the specified financing which, by law, Buyer is not permitted to pay. Except as  
47 otherwise stated herein, all expenses incurred by Buyer in connection with this purchase, including without limitation,  
48 title examination fees and title insurance premiums, survey costs (including elevation certificate if required by lender),  
49 insurance premiums, discount points (unless prohibited by law), prepaids, recording costs and fees of Buyer's  
50 attorney or settlement agent, shall be paid by Buyer. The amount of seller contributions to Buyer's expenses, if any,  
51 shall be inclusive of those fees charged by lender for specified financing which, by law, Buyer is not permitted to  
52 pay. Any agreed upon seller contributions to Buyer's expenses shall not include any compensation, commission,  
53 fees, charges or other amounts payable to Selling Firm unless such payment is specifically agreed to in writing by  
54 Seller in this Agreement.

55  
56  
57


58 **5. DEPOSIT:**

59 **A.** Unless otherwise agreed in writing by Buyer and Seller, if the Deposit is received by Escrow Agent prior to the  
60 Ratification Date, the Escrow Agent shall place the Deposit in an escrow account by the end of the fifth (5<sup>th</sup>)  
61 business banking day following the Ratification Date. If the Deposit is received by the Escrow Agent after the  
62 Ratification Date, the Escrow Agent shall place the Deposit in an escrow account by the end of the fifth (5<sup>th</sup>)  
63 business banking day following Escrow Agent's receipt of the Deposit. If Escrow Agent is the Listing Firm or the  
64 Selling Firm, the Deposit shall be held and applied in conformity to the Regulations of the Virginia Real Estate  
65 Board. Escrow Agent may place the Deposit in an interest-bearing account. All interest, if any, which accrues  
66 with respect to the Deposit, shall become the sole and exclusive property of Escrow Agent. Buyer and Seller  
67 waive any and all right or entitlement to such interest.

68 **B.** The Deposit shall remain in escrow until settlement or termination. In the event that the transaction does not  
69 close, Escrow Agent shall hold the Deposit in escrow until (i) Buyer and Seller have agreed in a written  
70 agreement as to the disposition of the Deposit and the Deposit shall be returned to the agreed-upon party as  
71 provided in such written agreement; (ii) the Deposit is successfully interpleaded into a court of competent  
72 jurisdiction pursuant to this section; (iii) a court of competent jurisdiction orders such disbursement of the  
73 Deposit; or (iv) the Escrow Agent releases the Deposit to the principal to the transaction who is entitled to receive  
74 the Deposit in accordance with the clear and explicit terms of this Agreement. Except as provided in the clear  
75 and explicit terms of this Agreement, Escrow Agent shall not be required to make a determination as to the party  
76 entitled to receive the Deposit.

77 At the option of a broker, written notice may be sent by the broker that release of such funds shall be made  
78 unless a written protest is received from the principal who is not receiving the funds by such broker within 15  
79 days of the date of such notice. Notice of disbursement shall be given to the parties to the transaction in  
80 accordance with the Agreement.

81 **C.** If the Property is foreclosed upon while this Agreement is pending, the terms of Section 54.1-2108.1 of the Code  
82 of Virginia shall apply to the disbursement of the Deposit. Foreclosure shall be considered a termination of this  
83 Agreement, and absent any default by Buyer, the Deposit shall be disbursed to Buyer.

84 **6. LOAN APPLICATION / LOAN DENIAL / INTENT TO OCCUPY:**

85 **A. LOAN APPLICATION:**

86 **i.** Unless otherwise indicated below, within seven (7) days of ratification of this Agreement, Buyer shall apply  
87 for the specified financing from \_\_\_\_\_  
88 \_\_\_\_\_(Name of Lender)  
89 and authorize and pay for a credit report, appraisal or other requirements of such lender. If this Agreement  
90 is contingent on any inspection of the Property in paragraph 14D, the deadline for Buyer to authorize the  
91 lender to order the appraisal is extended to three (3) days after removal of the Property Inspection  
92 Contingency. **Should Buyer wish to change lenders, Buyer must obtain written permission from**  
93 **Seller.**

94  
95  
96


97 ii. Buyer shall, promptly, diligently and in good faith, undertake each and every action necessary to obtain such  
98 financing. Buyer's failure to do so shall constitute a default of this Agreement. Except as otherwise provided  
99 in the Agreement, Buyer shall pay all costs associated with obtaining the financing. Buyer's failure to have  
100 available for settlement the cash required by this Agreement, including but not limited to down payment,  
101 closing costs, and prepaids, shall constitute a default of this Agreement.

102 Buyer has the responsibility to lock in the interest rate and discount points with respect to such loan(s).

103 iii. Buyer authorizes lender to keep Listing Firm and Selling Firm apprised of progress and status of loan  
104 approval, including verification that appraisal has been authorized by Buyer and confirmation of receipt of  
105 the appraisal. Should the appraisal indicate an appraised value less than the Purchase Price and/or require  
106 repairs, Buyer instructs lender to deliver a copy of the appraisal, applicable portions of the appraisal or  
107 affidavit as to value and/or repairs, to Listing Firm upon Seller's request.

108 iv. Buyer's failure to comply with the provisions of paragraph 6A shall constitute a default of this  
109 Agreement and Seller shall have the right to terminate this Agreement.

110 B. **LOAN DENIAL: Buyer authorizes lender to notify Seller, Listing Firm and Selling Firm of loan or**  
111 **assumption denial.** If Buyer's loan or assumption application is denied, Buyer shall, within three (3) days of  
112 any communication of denial to Buyer, provide written notice of such denial to Seller, Listing Firm and Selling  
113 Firm. At Seller's request, Buyer shall provide Seller a copy of the lender's denial notice and any additional  
114 documentation confirming the validity of such loan denial as is reasonably requested by Seller. Provided that  
115 such denial was not the result of Buyer's default, including Buyer's failure to act in good faith to obtain the  
116 financing or failure to have available for settlement the cash required by the terms of this Agreement, either  
117 Buyer or Seller shall have the right to terminate this Agreement. In the event of such termination: (i) all parties  
118 shall execute the appropriate release agreement; (ii) the Deposit shall be refunded to Buyer in accordance with  
119 paragraph 5B of this Agreement; and (iii) no party to this Agreement shall have any further rights against or  
120 obligations to any other party to this Agreement. Buyer's failure to send the written notice of denial within such  
121 three (3) day time period shall constitute a default under this Agreement. Seller may terminate this Agreement  
122 in the event of Buyer's default for failure to send the written notice of denial or in the event that loan denial was  
123 the result of Buyer's default. The rights and remedies set forth in this paragraph shall be in addition to the rights  
124 and remedies specified in paragraph 18.

125 C. **INTENT TO OCCUPY:** Buyer  **DOES** /  **DOES NOT** intend to occupy the Property as Buyer's principal  
126 residence.

127 **7. REPRESENTATIONS:**

128 A. Unless otherwise specified in this Agreement, Buyer represents that neither this Agreement nor the financing is  
129 dependent or contingent on the sale, settlement, lease or refinancing of other real property.

130 B. Buyer acknowledges that Seller is relying upon all of Buyer's representations, including, without limitation, the  
131 accuracy of the financial information given by Buyer to Seller, Selling Firm or Listing Firm. If Buyer makes any  
132 deliberate misrepresentation or material omission which results in Buyer's inability to obtain approved financing  
133 then Buyer shall be deemed to be in default. Except as provided in paragraph 6B, Buyer shall notify Seller,  
134 Listing Firm and Selling Firm in writing within three (3) days of Buyer's actual notice of the occurrence of any  
135 material adverse change in Buyer's financial condition which prevents Buyer from obtaining the specified  
136 financing under this Agreement. Buyer's failure to give notice of the material adverse change required above  
137 shall constitute a default under the terms of this Agreement. Within three (3) days of receipt of written notice of  
138 the material adverse change from Buyer, Seller shall notify Buyer in writing of Seller's election to: (i) proceed to  
139 closing based upon a modification to this Agreement acceptable to Seller and Buyer; (ii) require that Buyer  
140 deliver an acceptable First Right of Refusal Agreement; or (iii) terminate this Agreement. The rights and  
141 remedies set forth in this paragraph shall be in addition to the rights and remedies specified in paragraph 18.

142 C. Except as expressly provided below, Seller represents that Seller (i) owns good and marketable fee simple title  
143 to the Property, (ii) has the right to transfer the Property without obtaining the consent or approval of any other  
144 party, including, without limitation, judgment creditors, lienholders, or other lenders, or any court including  
145 bankruptcy court or court having jurisdiction with respect to the distribution of marital property, (iii) if necessary,  
146 has or will have sufficient cash or other liquid funds to make any payments required to be made in order to pay  
147 all brokerage fees due and transfer the Property without any liens attaching to the Property, and (iv) will be in a  
148 position to transfer title to the Property to Buyer free and clear of all liens, leases and tenancies except as  
149 expressly provided in this Agreement. Seller further represents and warrants that this Agreement is the valid and  
150 binding obligation of Seller and that the party executing this Agreement on behalf of the Seller (in the event  
151 Seller is not an individual) has the authority to execute and deliver this Agreement on behalf of the Seller.

152  
153  
154  
155  
156

**Exceptions:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

157  
158  
159  
160  
161  
162  
163  
164  
165  
166

**D.** Except as noted below, Seller represents and warrants that Seller is not a nonresident alien, foreign estate, foreign trust, foreign partnership or foreign corporation as those terms are defined in the Internal Revenue Code and applicable United States Treasury Regulations, including Internal Revenue Code Sections 1445 and 1446. Buyer understands that if the Seller is a nonresident alien, foreign estate, foreign trust, foreign partnership or foreign corporation as those terms are defined in the Internal Revenue Code and applicable United States Treasury Regulations, including Internal Revenue Code Section 1445 and 1446, Buyer may be responsible for collecting and filing tax withholding on Seller's behalf as required under such regulations. Legal counsel should be consulted. \_\_\_\_\_

167

**E. Seller also represents and warrants that (Check appropriate box):**

168  
169  
170  
171  
172  
173  
174  
175  
176

- The Property is not served by an onsite septic system.**
- The Property is served by an onsite septic system that is not subject to a waiver.**
- The Property is served by an onsite septic system that has been granted a waiver which is not transferable to Buyer. Buyer has received from Seller the Disclosure Regarding Validity of Septic System Operating Permit as required by §32.1-164.1:1 of the Code of Virginia, a copy of which is attached to this Agreement. A copy of the Onsite Sewage (Septic) Addendum is attached and shall become a part of this Agreement.**
- Other (enter the applicable exemption for transfer subject to waiver pursuant to §32.1-164.1:1.C. of the Code of Virginia) \_\_\_\_\_**

177  
178  
179  
180  
181  
182  
183  
184  
185

**F.** If any representation by Seller is materially untrue, Seller shall be deemed to be in default under the terms of this Agreement and Buyer shall have the right to terminate this Agreement, whereupon the Deposit shall be paid to Buyer, in accordance with paragraph 5B, and Buyer shall have all of its rights as the non-defaulting party under paragraph 18. Additionally, if settlement does not occur as a result of Seller's misrepresentations and Buyer incurs any expense relative to appraisal and property inspection, Seller will be deemed liable for such expense and Buyer may, in addition to its other rights under this Agreement, recover such expense, including reasonable attorney's fees, from Seller.

\_\_\_\_\_  
\_\_\_\_\_

186  
187  
188

**8. SETTLEMENT / POSSESSION:** Settlement to be on or before 11/4/2020 ("Settlement Date"). **The Settlement Date may be extended by \_\_\_\_\_ days (if blank, the parties deem the extension to be 10 days) solely for the purpose of:**

189  
190

- i. processing and closing the specified loan in compliance with applicable law and/or**
- ii. correcting any defects reported by a title examiner.**

191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203

**The Settlement Date shall be deemed to include any extension ONLY as provided for in (i) or (ii) above.** If through no fault of Seller settlement has not occurred by the Settlement Date, then Seller, at Seller's option, may terminate this Agreement by written notice to Buyer. If through no fault of Buyer settlement has not occurred by the Settlement Date, then Buyer, at Buyer's option, may terminate this Agreement by written notice to Seller. Nothing contained herein shall be construed to limit, in any way, any other legal remedy or right Seller, Buyer, Listing Firm and/or Selling Firm may have for either party's failure to close on or before Settlement Date or at any time thereafter. Possession of the Property shall be given at settlement unless otherwise agreed to in writing by Buyer and Seller. At settlement, Seller shall execute and deliver (i) the Deed (defined below), (ii) a mechanic's lien affidavit acceptable to Buyer's title insurance company and (iii) such certificates or agreements as may be required by state and federal authorities for tax and residency purposes. Seller and Purchaser agree to release and hold harmless Listing Firm, Selling Firm, the officers, directors and employees, and any real estate broker or salesperson employed by or affiliated with the Listing Firm or Selling Firm from any delay or expense caused by such delay in settlement due to regulatory or legal requirements.

Initials: Buyer aw / Seller RS / \_\_\_\_\_

204 Choice of Settlement Agent: Chapter 10 (§55.1-1000 et seq.) of Title 55.1 of the Code of Virginia provides that the  
205 Buyer has the right to select the settlement agent to handle the closing of this transaction. The settlement agent's  
206 role in closing this transaction involves the coordination of numerous administrative and clerical functions relating to  
207 the collection of documents and the collection and disbursement of funds required to carry out the terms of the  
208 contract between the parties. If part of the purchase price is financed, the lender for the Buyer will instruct the  
209 settlement agent as to the signing and recording of loan documents and the disbursement of loan proceeds. No  
210 settlement agent can provide legal advice to any party to the transaction except a settlement agent who is engaged  
211 in the private practice of law in Virginia and who has been retained or engaged by a party to the transaction for the  
212 purpose of providing legal services to that party.

213 Variation by agreement: The provisions of Chapter 10 (§ 55.1-1000 et seq.) of Title 55.1 of the Code of Virginia may  
214 not be varied by agreement, and rights conferred by this chapter may not be waived. The Seller may not require the  
215 use of a particular settlement agent as a condition of the sale of the Property.

216 Escrow, closing and settlement service guidelines: The Virginia State Bar issues guidelines to help settlement agents  
217 avoid and prevent the unauthorized practice of law in connection with furnishing escrow, settlement or closing  
218 services. As a party to a real estate transaction, the Buyer is entitled to receive a copy of these guidelines from the  
219 settlement agent, upon request, in accordance with the provisions of Chapter 10 (§ 55.1-1000 et seq.) of Title 55.1  
220 of the Code of Virginia.

221 Buyer and Seller each authorize their respective attorneys, lenders and/or the settlement agent, to furnish prior to  
222 the Settlement Date to all parties including, Listing Firm and Selling Firm, complete copies of the draft and final  
223 closing disclosure/settlement statement for the sale of the Property, including the HUD-1 settlement statement, the  
224 TILA-RESPA settlement statement, the ALTA settlement statement combined, the Seller Closing Disclosure (Seller's  
225 CD) and/or the Buyer's Closing Disclosure (Buyer's CD).

226 **9. DEED AND TITLE:**

227 **A.** Except as expressly provided in writing, representations and warranties made by Seller herein and all other  
228 provisions of this Agreement shall be deemed merged into the deed delivered at settlement and shall not survive  
229 settlement, unless otherwise provided herein. Seller shall convey marketable and insurable title to the Property  
230 by general warranty deed, unless otherwise specified below, subject to any easements, covenants and  
231 restrictions of record, which do not adversely affect the use of the Property for residential purposes. Title to the  
232 Property shall be conveyed (i) free and clear of all liens, tenancies and encumbrances of every kind except those  
233 stated herein, and (ii) with marketable and insurable access to a publicly dedicated road.

234 **Property to be deeded in Ted Ehrenfried and Doris Ehrenfried.**

235 [Empty rectangular box for property details]

237 **B.** Buyer will be required to purchase a lender's title insurance policy if the Buyer is obtaining a loan secured by the  
238 Property. Buyer may, at Buyer's expense, purchase an owner's title insurance policy which insures Buyer's title  
239 to the Property, subject to the terms of such policy. The coverage afforded by such title insurance would be  
240 governed by the terms of the policy and any exceptions to the policy, and the premium for obtaining such title  
241 insurance coverage will be determined by its coverage and the title insurer. Buyer may purchase either  
242 "standard" or "enhanced" coverage which coverages have differing rates. Buyer authorizes Buyer's lender(s), if  
243 any, to include a quote for a premium for an owner's title insurance policy in the Loan Estimate based on  
244 enhanced coverage. Buyer understands that nothing in this Purchase Agreement obligates Buyer to obtain any  
245 owner's title insurance coverage at any time, including at Closing, and that the availability of enhanced coverage  
246 is subject to underwriting criteria of the title insurer. Buyer should consult Buyer's attorney with respect to  
247 obtaining owner's title insurance.

248 **C.** Buyer, at Buyer's expense,  **WAIVES/**  **DESIRES** a survey and, if appropriate, elevation certificate of the  
249 Property by a licensed surveyor. Notwithstanding the foregoing, in the event Buyer's lender and/or title company  
250 requires a survey and/or an elevation certificate, Buyer shall, at Buyer's expense, obtain such survey and/or  
251 elevation certificate prior to settlement.

252  
253  
254

Initials: Buyer aw / Seller RS / Page 5 of 14

255 **10. PRORATIONS / ESCROW:**

256  **A.** If new financing, or cash sale, all real property taxes, insurance, rents, interest, and appropriate homeowner's  
257 association and/or condominium fees or dues and other reserves and assessments shall be prorated as of  
258 Settlement Date.

259  **B.** If an assumption, all real property taxes, all insurance (if allowed), rents, interest, and appropriate homeowner's  
260 association and/or condominium fees or dues and other reserves, if any, shall be  **PRORATED** or  **CURRENT**  
261 **AND TRANSFERRED GRATIS** as of Settlement Date.

262 **11. VA/FHA/CONVENTIONAL FINANCING OR CASH CONTINGENCY:** If noted below, Buyer's obligations under this  
263 Agreement are conditioned upon the applicable contingency: **(Check A, B, C or D, as applicable)**

264  **A. VA FINANCING:** It is expressly agreed that, notwithstanding any of the provisions of this Agreement, Buyer  
265 shall not incur any penalty by forfeiture of earnest money or otherwise be obligated to complete the purchase of the  
266 Property described by the Agreement if the agreed purchase price or cost exceeds the reasonable value of the  
267 Property established by the Veterans Administration. Buyer shall, however, have the privilege and option of  
268 proceeding with the consummation of this Agreement without regard to the amount of the reasonable value  
269 established by the Department of Veterans Affairs. The Veteran Buyer certifies that Buyer intends to occupy the  
270 Property as Buyer's primary residence.

271  **B. HUD/FHA FINANCING:** It is expressly agreed that, notwithstanding any other provisions of this Agreement,  
272 Buyer shall not be obligated to complete the purchase of the Property described herein or to incur any penalty by  
273 forfeiture of earnest money deposits or otherwise unless Buyer has been given in accordance with HUD/FHA or VA  
274 requirements a written statement issued by the Federal Housing Commissioner, Veterans Administration or a Direct  
275 Endorsement Lender setting forth the appraised value of the Property (excluding closing costs) of not less than  
276 \$\_\_\_\_\_. Buyer shall, however, have the  
277 privilege and option of proceeding with consummation of this Agreement without regard to the amount of the  
278 appraised valuation. The appraised valuation is arrived at to determine the maximum mortgage the Department of  
279 Housing and Urban Development will insure. HUD does not warrant the value or the condition of the Property. The  
280 Buyer should satisfy himself/herself that the price and condition of the Property are acceptable.

281  **C. CONVENTIONAL FINANCING:** It is expressly agreed that, notwithstanding any other provisions of this  
282 Agreement, Buyer shall not incur any penalty by forfeiture of the Deposit or otherwise be obligated to complete the  
283 purchase of the Property if the Purchase Price exceeds the value established by the appraiser ("Appraised Value")  
284 and Seller does not agree to reduce the Purchase Price to the Appraised Value. Buyer shall have the privilege and  
285 option of proceeding to settlement without regard to the Appraised Value. In the event the Purchase Price exceeds  
286 the Appraised Value and Seller or Listing Firm notifies Buyer or Selling Firm that Seller agrees to reduce the  
287 Purchase Price to the Appraised Value, then this Agreement will remain in force and settlement shall occur as  
288 specified in paragraph 8 of this Agreement.

289  **D. CASH:** Buyer  **DOES** /  **DOES NOT** wish to order an appraisal. If Buyer wishes to order an appraisal,  
290 the appraisal must be paid for and ordered within seven (7) days after ratification of this Agreement or three (3) days  
291 after removal of the property inspection contingency referenced in paragraph 14D or the appraisal contingency shall  
292 be waived by Buyer. Notwithstanding any other provisions in this Agreement, Buyer reserves all rights outlined in  
293 paragraph 11C above in the event the Appraised Value is less than the Purchase Price.

294 **12. PROPERTY CONDITION:** With the exception of the rights reserved by Buyer pursuant to paragraph 14 and subject  
295 to any inspections provided for in paragraph 13, Buyer represents that Buyer has inspected the Property and accepts  
296 the Property in its present condition except noted as follows:

297 \_\_\_\_\_  
298 \_\_\_\_\_  
299 \_\_\_\_\_

300 Seller shall repair or replace the above noted items, in a workmanlike manner, at Seller's expense prior to the walk  
301 through inspection. Buyer acknowledges that Buyer has not relied upon any representation or warranty made by  
302 Listing Firm, Selling Firm or Seller not expressly set forth in this Agreement with respect to the condition of the  
303 Property. **Seller shall deliver the Property at settlement, or as otherwise provided, in substantially the same**  
304 **condition as of the date of this Agreement, and except as provided in paragraph 15, free of personal**  
305 **property, debris and trash. Seller assumes, until settlement, all risks of loss or damage to the Property by**  
306 **fire, windstorm, casualty or other hazards.**

307 **13. INSPECTIONS/REPAIRS/TREATMENTS/CAP:** Seller shall be responsible for the cost of repairs referenced in this  
308 paragraph 13 in a total amount not to exceed 1 % (if blank, the parties deem the amount to be  
309 1%) of the Purchase Price ("the Cap"). Seller will remain obligated to make repairs arising under this paragraph 13A  
310 (Appraisal and Required Repairs), B (Wood Destroying Insect Infestation / Moisture / Inspection / Repairs), or C  
311 (Drinking Water and Septic) up to the amount of the Cap even if such repair is waived by Buyer as part of the  
312 Property Inspection Contingency Removal Addendum. If the total estimated costs of the repairs described in  
313 paragraphs 13 A, B, C, and D collectively exceed the Cap, then Buyer alone, or Seller alone, or Buyer and Seller  
314 jointly can agree to pay the excess. If neither party agrees to pay the excess amount and an acceptable alternative  
315 agreement cannot be reached, then this Agreement shall be terminated, all parties shall execute a release  
316 agreement, and the Deposit shall be refunded in full to Buyer.

317 **A. APPRAISAL AND REQUIRED REPAIRS:** Subject to the Cap, Seller shall make any repairs required by Lender  
318 as a result of the appraisal, or as may be required by governmental agencies, prior to the walk through  
319 inspection.

320 **B. WOOD DESTROYING INSECT INFESTATION (WDII) / MOISTURE INSPECTION/REPAIRS:**

321 **1. INSPECTION / REPORTS:**  BUYER /  SELLER shall obtain and authorize delivery at  BUYER'S  
322 /  SELLER'S expense, an approved Wood Destroying Insect Infestation Inspection Report and a  
323 Moisture Inspection Report, (collectively referred to as the "Reports") and any re-inspection reports if  
324 required, from a licensed pest control operator. The Wood Destroying Insect Infestation Inspection Report  
325 shall show whether the Property's principal dwelling, garage, and the following additional structures

326 \_\_\_\_\_  
327 \_\_\_\_\_ are free of visible wood destroying insect  
328 infestation with no visible unrepaired damage from said infestation. The Moisture Inspection Report shall  
329 show whether readily accessible areas of the foundation and understructure, including crawl space, sill  
330 plates, joists, sub-flooring and substructure support timbers are free of standing water, visible moisture  
331 damage and wood destroying fungi. The Reports must be obtained and delivered to settlement agent, within  
332 Seven ( 7 ) days after ratification of this Agreement. If  
333 new VA financing is involved, Seller shall reimburse Buyer for the cost of the original termite/moisture  
334 inspection, if paid by Buyer.

335 If the Reports are not obtained and delivered within the above time frame, the other party shall have the  
336 right to order the Reports at the expense of the party initially obligated to obtain the Reports. The obligation  
337 to reimburse the cost of obtaining the Reports by the other party shall not exceed \$ 100.00.

338 **2. TREATMENT:** Treatment, if required, shall be performed by the company issuing the Reports. Cost of  
339 treatment shall be at Seller's expense, subject to the Cap.

340 **3. REPAIRS:** Seller shall correct in a workmanlike manner, at Seller's expense, subject to the Cap, all standing  
341 water and damage identified in the Reports prior to the walk through inspection. The selection of the  
342 company to make any repairs, if required, shall be at the Seller's discretion. Buyer reserves the right to have  
343 the required repairs re-inspected at or prior to walk-through to ensure repairs were completed in a  
344 workmanlike manner.

345 **C. DRINKING WATER AND SEPTIC:**

346 **1. DRINKING WATER:** The Property is served by (Check One):

347  **PUBLIC / PRIVATE** utilities supplying drinking water, OR

348  **WELL / CISTERN** providing potable drinking water.

349  BUYER /  SELLER shall obtain prior to the walk through inspection at  BUYER'S /  
350  SELLER'S expense, a test confirming the water is safe for human consumption from the appropriate  
351 governmental authority or from an acceptable private company, indicating that the well water is safe  
352 for human consumption. If the water is found unsafe for human consumption, and the Property is  
353 not served by another potable water source (i.e. city water line), Seller shall remedy prior to the walk  
354 through inspection all defects and provide a test confirming the water is safe for human consumption  
355 at Seller's expense, subject to the Cap.

356  
357  
358  
359  
360  
361  
  
362  
363  
364  
365  
366  
  
367  
368  
369  
  
370  
371  
372  
373  
374  
375  
376  
  
377  
378  
  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
  
396  
397  
398  
399  
400  
401

**2. SEPTIC:**

If the Property is served by a septic system  BUYER /  SELLER shall obtain prior to the walk through inspection at  BUYER'S /  SELLER'S expense, a written statement addressed to Buyer from a septic installer, operator or evaluator licensed by the Commonwealth of Virginia (a "Septic Inspector"), indicating the condition of the system and any malfunction or noncompliance with applicable ordinances and regulations.

The inspection  SHALL/  SHALL NOT include pumping the septic system at the expense of the responsible party above prior to the walk through inspection. However, in the event the Septic Inspector requires that the septic system be pumped prior to the inspection of the septic system, the responsible party identified above shall pay to pump the septic system. Any required pumping of the septic system shall apply to the cap.

If the septic system is found defective or in noncompliance with applicable governmental regulations by the Septic Inspector, Seller shall repair and correct all defects prior to the walk through inspection at Seller's expense, subject to the Cap.

**D. WALK THROUGH INSPECTION:** Buyer reserves the right to have a walk through inspection prior to settlement to determine the Property is in substantially the same condition as of the date of this Agreement, and all appliances, heating and cooling equipment, plumbing and electrical systems, and all other equipment ("Walk Through Items") are in working order at time of settlement or possession, whichever occurs first.  BUYER /  SELLER shall be responsible for providing all utilities required for such inspection. Subject to the Cap, Seller shall repair all non-working Walk Through Items at Seller's expense unless waived. Neither Listing Firm nor Selling Firm shall be responsible for determining that the Walk Through Items are in working order.

**14. CONTINGENCIES:** This Agreement shall be contingent upon the following conditions and those noted in the attached contingency addendum/addenda, if any:

**A. CONDOMINIUM:** Buyer and Seller acknowledge that the Property (check as applicable):

1.  IS NOT in a community subject to the Virginia Condominium Act (the "Condo Act").
2.  IS a resale of a Condominium Unit which currently has mandatory monthly fees of approximately \$ \_\_\_\_\_ and is subject to the Condo Act and the Condominium Addendum is attached to and shall become part of this Agreement. **Buyer's rights under this paragraph may not be waived.**
3.  WILL BE in a community subject to the Condo Act in the event of a conversion or new construction.
  - (i) Until delivery to Buyer of a current Public Offering Statement for the Condominium, this Agreement shall constitute a nonbinding reservation agreement only and creates no obligation on the part of Buyer and is subject to cancellation without penalty by Buyer in Buyer's sole discretion in accordance with Section (ii) below.
  - (ii) Upon delivery to Buyer of a current Public Offering Statement, Buyer shall be deemed to have entered into a binding purchase agreement subject to Buyer's right to cancel within five (5) days after delivery. If Buyer elects to cancel, Buyer may do so by written notice given in accordance with paragraph 23, within the five (5) day period. Such cancellation shall be without penalty, and the Deposit shall be promptly refunded in its entirety, without interest. **Buyer's rights under this paragraph may not be waived.**
4.  IS a resale of a condominium unit in a condominium consisting of 3 or fewer units and as such is exempt from the requirements in the Condo Act relating to a resale certificate and/or a public offering statement. Prior to executing this Agreement, Buyer is advised to address all concerns relating to the Property being a condominium unit, including without limitation and by way of explanation, issues related to hazard and liability insurance, current and proposed maintenance and repairs, common expenses, restrictions and agreements contained in the documents creating the condominium and similar items.

Initials: Buyer aw / Seller RS /



402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445

**B. PROPERTY OWNERS' ASSOCIATIONS:** Buyer and Seller acknowledge that the Property (check one):

- 1.  **IS NOT** in a community subject to the Virginia Property Owners' Association Act (the "POA Act").
- 2.  **IS** in a community which currently has mandatory monthly fees of approximately \$\_\_\_\_\_ and is subject to the POA Act. The Property Owners' Association Addendum is attached to and shall become part of this Agreement. **Buyer's rights under this paragraph may not be waived.**

**C. CO-OPERATIVE:**

- 1.  **IS NOT** in a community subject to the Virginia Real Estate Cooperative Act (the "Co-Op Act").
- 2.  **IS** a Cooperative Unit which currently has mandatory monthly fees of approximately \$\_\_\_\_\_ and is subject to the Co-Op Act and the Cooperative Interest Addendum is attached to and shall become part of this Agreement.

**D. PROPERTY INSPECTIONS:** Buyer may request, at Buyer's expense, the following inspections:

- 1. **PROPERTY INSPECTION:** An inspection of the Property at Buyer's cost to determine the condition of the Property. Buyer  **WAIVES** /  **DESIRES** an inspection to be performed on the Property at Buyer's expense. If Buyer desires a property inspection, the REIN Property Inspection Contingency Addendum is attached and shall become part of this Agreement. Should Buyer elect to waive the property inspection, Buyer understands that a home inspector will not be permitted to conduct, or perform a property inspection at Walk-Through beyond the terms of paragraph 13D.
- 2. **EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):**  **N/A**  
An inspection and moisture test of the EIFS (Exterior Insulation & Finish System or synthetic stucco) by a qualified professional with experience in this field provided that, in the event the property is a condominium unit, the right to inspect may be limited by rights of other unit owners or the condominium association. Buyer  **WAIVES** /  **DESIRES** an EIFS inspection to be performed on the Property. If Buyer desires an EIFS inspection, the Property Inspection Contingency Addendum is attached and shall become part of this Agreement.
- 3. **LEAD-BASED PAINT DISCLOSURE:**  **N/A – Property was not constructed prior to 1978.**  
A risk assessment or inspection of the Property to determine the presence of lead-based paint and/or lead-based paint hazards. The Residential Lead-Based Paint Hazard Reduction Act of 1992 requires Seller to make disclosures with respect to the presence of lead-based paint and/or lead-based paint hazards in properties built prior to 1978. This Act does not apply to properties built in 1978 and later. In the event the Property was built prior to 1978, Seller and Buyer acknowledge that a copy of the signed Disclosure of Information on Lead-Based Paint and/or Lead-Based Paint Hazards is attached to this Agreement. Buyer  **WAIVES** /  **DESIRES** a risk assessment or inspection be performed on the Property. If Buyer desires a risk assessment or inspection of the Property, then a copy of the Property Inspection Contingency Addendum is attached and shall become a part of this Agreement.
- 4. **OTHER INSPECTIONS:** If Buyer desires Other Inspections, the Property Inspection Contingency Addendum is attached and shall become a part of this Agreement.

**E. OTHER CONTINGENCIES:**


446 **15. ITEMS TO CONVEY:** All fixtures constituting a part of the "Property" and any personal property which convey as  
447 specifically described in the Agreement or as noted below are included in the Purchase Price and shall be transferred  
448 free of liens:

- 449 Appliances:
- 450  Gas Range
  - 451  Electric Range
  - 452  Microwave Oven
  - 453  # \_\_\_\_\_ Refrigerator(s)
  - 454  Dishwasher
  - 455  Ice Maker (Standalone)
  - 456  Freezer
  - 457  Clothes Dryer
  - 458  Clothes Washer
  - 459  # \_\_\_\_\_ Garbage Disposal(s)

- 460 Windows:
- 461  Blinds
  - 462  Curtains/Drapes
  - 463  Hardware

- Equipment:
- Furnace Humidifier
  - Water Softener
  - Well Pump & Equipment
  - Sump Pump
  - # \_\_\_\_\_ Window A/C Unit(s)
  - # All Smoke Alarm(s)
  - Playground Equipment
  - # All Ceiling Fan(s)
  - Satellite Dish & Hardware

- Other:
- # 1 Trash Container(s)
  - # 1 Recycling Container(s)
  - Fuel in Tanks (Oil, Propane)

- Dock, Pool and Hot Tub:
- Floating Dock
  - # \_\_\_\_\_ Boat Lift(s)
  - Pool
  - Pool Equipment
  - Pool Cover
  - Hot Tub
  - Hot Tub Equipment
  - Hot Tub Cover

- Fireplace:
- Screen
- Doors
- Equipment / Tools
- Gas Logs
- Wood Stove

465  # \_\_\_\_\_ Garage Door Opener(s) and # \_\_\_\_\_ Remote(s)

466 **ADDITIONAL ITEMS / NOTES:**

467 \_\_\_\_\_

468 \_\_\_\_\_

469 \_\_\_\_\_

470 \_\_\_\_\_

471 **16. CONFIRMATIONS AND DISCLOSURES:** Buyer and Seller acknowledge by their initials below receipt of their REIN  
472 Consumer Disclosure Information Form prior to entering into this Agreement as well as the following disclosures.

473 **Neither Seller, Real Estate Information Network Inc. ("REIN"), Listing Firm, Selling Firm, nor their employees**  
474 **or agents will be held responsible for Buyer's failure to have investigated and evaluated the impact of any**  
475 **of the disclosures made in this Agreement on the Property, including those additional disclosures on the**  
476 **Consumer Disclosure Information Form.**

477 **A. CONFIRMATION OF BROKERAGE RELATIONSHIP:** The parties confirm in connection with this transaction  
478 that Listing Firm and Selling Firm have represented the party or parties indicated below. Notwithstanding the  
479 provisions of paragraph 17 of this Purchase Agreement relating to the payment of brokerage fees, the parties  
480 agree that one of the following may apply:  
481 **(Check appropriate box.)**

- 482  1. Listing Firm, Selling Firm, and their salesperson(s) represent Seller as their client. Buyer is a customer/  
483 unrepresented party and their salesperson(s) represent Seller as their client. Buyer **has signed the**  
484 **Disclosure of Brokerage Relationship to Unrepresented Party form.**
- 485  2. Listing Firm and its salesperson(s) represent Seller. Selling Firm and its salesperson(s) represent Buyer.
- 486  3. Listing Firm and its salesperson(s) represent Seller. Selling Firm and its salesperson(s) represent  
487 neither Buyer nor Seller.
- 488  4. The Parties confirm that Selling Firm and its salesperson(s) represent Buyer as their client. Seller is a  
489 customer/unrepresented party and **has signed the Disclosure of Brokerage Relationship to**  
490 **Unrepresented Party form.**
- 491  5. Listing Firm and its salesperson(s) represent both Buyer and Seller as DUAL AGENTS OR DUAL  
492 REPRESENTATIVES, by mutual agreement. **Buyer and Seller have signed the Disclosure of Dual**  
493 **Agency or Dual Representation in a Residential Real Estate Transaction Form attached.**
- 494  6. Listing Firm and its broker represent both Buyer and Seller as DESIGNATED AGENTS OR  
495 DESIGNATED REPRESENTATIVES, by mutual agreement. **Buyer and Seller have signed the**  
496 **Disclosure of Designated Agents or Representatives in a Residential Real Estate Transaction**  
497 **Form attached.**

Initials: Buyer aw / Seller RS /

498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550

7. Buyer and Seller acknowledge that no brokerage relationship exists with any agent involved in this transaction. Both Buyer and Seller are unrepresented customers.

**B. AIRCRAFT NOISE ZONE / ACCIDENT POTENTIAL ZONE DISCLOSURE:  N/A**

Aircraft noise and/or accident zones are subject to change. If the Property is located in the cities of Norfolk, Virginia Beach, Chesapeake or Hampton, Buyer and Seller hereby acknowledge that as of the date of this Agreement current maps indicate the Property is located in an Aircraft Noise Zone and/or Aircraft Accident Potential Zone \_\_\_\_\_ (or similar designations). Noise attenuation measures for new residential construction or modifications to nonconforming structures may be required and height restrictions may have been imposed in accordance with city ordinances. The Real Estate Transfer Disclosure for Properties Located in a Locality in Which a Military Air Installation is Located is attached, as required by § 55.1-704 of the Code of Virginia.

**C. VIRGINIA RESIDENTIAL PROPERTY DISCLOSURE ACT:** The Virginia Residential Property Disclosure Act (the "Act") requires sellers of residential real property to disclose to buyers certain information known to the sellers regarding the condition of the property to be purchased. Seller and Buyer acknowledge that a Residential Property Disclosure Statement, attached hereto, has been provided by Seller to Buyer prior to ratification of this Agreement and if the Property is an exempted property pursuant to § 55.1-702 of the Act then this paragraph does not apply.

**D. AGENCY INTEREST DISCLOSURE:** Except as otherwise disclosed below neither Listing Agent nor Selling Agent, any member of such agent's family, or such agent's firm, any member of such firm, or any entities in which such agent has an ownership interest is acquiring or attempting to acquire, or is selling the Property. Except as disclosed below, neither Seller nor Buyer is a licensed real estate agent:


**E. MEGAN'S LAW DISCLOSURE:** Buyer(s) should exercise whatever due diligence they deem necessary with respect to information on any sexual offenders registered under Chapter 23 (§ 19.2-387 et seq.) of Title 19.2 whether the owner proceeds under subdivision 5 of subsection B of § 55.1-703. Such information may be obtained by contacting your local police department or the Department of State Police, Central Criminal Records Exchange, at 804-674-2000 or <http://sex-offender.vsp.virginia.gov/sor>.

**F. MECHANICS LIEN:** Virginia law (§ 43-1 et seq.) permits persons who have performed labor or furnished materials for the construction, removal, repair or improvement of any building or structure to file a lien against the Property. This lien may be filed at any time after the work is commenced or the material is furnished, but not later than the earlier of (i) ninety (90) days from the last day of the month in which the lien or last performed work or furnished materials or (ii) ninety (90) days from the time the construction, removal, repair or improvement is terminated. Seller warrants that all bills related to any repairs or improvements made to the Property have been paid or will be paid by Seller from the proceeds at settlement. AN EFFECTIVE LIEN FOR WORK PERFORMED PRIOR TO THE DATE OF SETTLEMENT MAY BE FILED AFTER SETTLEMENT. LEGAL COUNSEL SHOULD BE CONSULTED.

**G. SQUARE FOOTAGE/ACREAGE AND/OR OTHER PROPERTY MEASUREMENTS:** Any representation of square footage, acreage and/or other property measurements are approximate, subject to variation based on method of measurement, and should be independently confirmed by Buyer. Buyer acknowledges and agrees that Buyer has undertaken any and all investigations Buyer desires with respect to obtaining measurements of the Property, including the square footage of the rooms, the acreage of the lot or the other measurements related to the Property and finds any and all such measurements to be acceptable and shall not use the size, acreage or square footage of the Property as the basis for any termination of this Agreement. Buyer agrees to waive, release and discharge all parties to this Agreement, including REIN, from any and all claims that the square footage, acreage or other measurements of the Property were incorrectly stated in any literature concerning the Property generated by REIN's MLS Systems, including Listing and / or Tax reports.

**H. DEFECTIVE DRYWALL:** If a Seller of residential real property has actual knowledge that the real property being sold has "Defective Drywall", Section 55.1-705 of the Code of Virginia requires Seller to provide a written

551 disclosure to Buyer that the Property has "Defective Drywall". "Defective Drywall" is defined in Section 36-156.1  
552 of the Code of Virginia. The Defective Drywall Disclosure Statement is attached to this Agreement as required  
553 by §55.1-705 of the Code of Virginia, if applicable.

554 **I. PENDING BUILDING OR ZONING VIOLATIONS:** Unless disclosed in writing below Seller has no actual  
555 knowledge that the Property has pending enforcement actions pursuant to the Uniform Statewide Building Code.  
556 Section 55.1-706 of the Code of Virginia states that if the Seller of a residential dwelling unit has actual  
557 knowledge of any pending enforcement actions pursuant to the Uniform Statewide Building Code that affect the  
558 safe, decent, sanitary living conditions of the Property of which the Seller has been notified in writing by the  
559 locality, or any pending violation of the local zoning ordinance that the violator has not abated or remedied under  
560 the zoning ordinance, within a time period set out in the written notice of violation from the locality or established  
561 by the court of competent jurisdiction, the Seller shall provide to a prospective Purchaser a written disclosure  
562 that so states. Such disclosure shall be provided to the Purchaser on a form provided by the Real Estate Board  
563 on its website.

564 **J. PROPERTY PREVIOUSLY USED TO MANUFACTURE METHAMPHETAMINE:** If a Seller of residential real  
565 property has actual knowledge that the Property being sold (1) was previously used to manufacture  
566 methamphetamine and (2) has not been cleaned up in accordance with state guidelines, the Seller is required  
567 to provide a written disclosure to Buyer in accordance with Section 55.1-708 of the Code of Virginia. Pursuant  
568 to Section 32.1-11.7 of the Code of Virginia, the Virginia Board of Health established Guidelines for Cleanup of  
569 Residential Property Used to Manufacture Methamphetamine. If applicable, the Disclosure Statement for  
570 Residential Property Previously Used to Manufacture Methamphetamine is attached to this Agreement as  
571 required by the Code of Virginia.

572 **17. BROKERAGE FEE:** Selling Firm and Listing Firm are intended to be, and are, third party beneficiaries of this  
573 Agreement with respect to payment of the brokerage fee and are entitled to payment at settlement as provided by  
574 separate agreement(s). The settlement agent shall disburse the brokerage fee to Listing Firm and Selling Firm at  
575 settlement.

576 **18. DEFAULT:** Subject to the provisions of paragraph 19 below, if either party defaults under this Agreement, the  
577 nondefaulting party may pursue, in such party's discretion, all remedies available to the nondefaulting party at law  
578 or in equity. In the event of default, Escrow Agent shall pay the Deposit to the nondefaulting party in accordance  
579 with paragraph 5B and the nondefaulting party shall have the right to pursue such other rights and remedies against  
580 the defaulting party as the nondefaulting party may have, both legal and equitable. All of the rights and remedies  
581 hereunder are cumulative. The defaulting party shall be liable for the brokerage fee due Listing Firm and Selling  
582 Firm. In any action arising from or related to this Agreement, including, but not limited to, any suit to secure the  
583 release of the Deposit from escrow, the prevailing party shall be entitled to receive from the non-prevailing party or  
584 parties, reasonable attorneys' fees, costs (including expert fees) and expenses incurred by such prevailing party.

585 **19. DISPUTE RESOLUTION:** Prior to initiating any litigation, the parties agree any dispute or claim arising out of, or  
586 relating to, this Agreement, the breach of this Agreement or the services provided in connection with this Agreement,  
587 shall be submitted to mediation. Disputes shall include, by way of illustration and not limitation, claims arising from  
588 misrepresentations made by the parties to this Agreement in connection with the sale, purchase, financing, condition  
589 or other aspects of the Property, including, allegations of concealment, misrepresentation, negligence and/or fraud.

590 The following matters are excluded from mediation under the preceding paragraph: (a) judicial or non-judicial  
591 foreclosure or other action or proceeding to enforce a deed of trust, mortgage, or land contract; (b) an unlawful  
592 detainer action; (c) the filing or enforcement of a mechanics lien; (d) any matter which is within the jurisdiction of a  
593 probate court; or (e) violation of a state's real estate license laws. The filing of a judicial action to enable the recording  
594 of a notice of pending action, or other provisional remedies, shall not constitute a waiver of the right to mediate under  
595 this provision, nor shall it constitute a breach of the duty to mediate. If the parties cannot reach a mutually agreeable  
596 settlement through mediation, they are free to arbitrate or litigate their dispute as if the mediation never took place.  
597 The terms and provisions of this paragraph 19 shall survive settlement and conveyance of title to the property for a  
598 period of five (5) years from the date of this Agreement pursuant to the terms of § 8.01-246 of the Code of Virginia  
599 of 1950, as amended.

600 **20. OTHER PROVISIONS:**  
601 Email is an acceptable form of communication.

602 \_\_\_\_\_  
603 \_\_\_\_\_  
Initials: Buyer aw / Seller RS /

604 **21. NON ASSIGNMENT:** This Agreement may not be assigned by Buyer without the written consent of Seller.

605 **22. TAX-DEFERRED EXCHANGE:** In the event Buyer or Seller desires to effect a tax-deferred exchange in connection  
606 with the conveyance of the Property, Buyer and Seller agree to cooperate in effecting such exchange. The  
607 exchanging party shall be responsible for all costs associated with such exchange. A non-exchanging party shall  
608 assume no additional liability with respect to such tax-deferred exchange. Buyer and Seller shall execute additional  
609 documents, including assignment of this Contract at no cost to the non-exchanging party, as shall be required to  
610 give effect to this provision.

611 **23. NOTICES:** Except as provided below, all notices required to be sent to Seller under this Agreement shall be sent to  
612 Listing Firm and all notices to be sent to Buyer shall be sent to Selling Firm. Except as provided below, all notices  
613 required to be sent under this Agreement shall be given in accordance with one of the following methods; (a) hand  
614 delivery; (b) United States mail, postage prepaid, provided that the sender retains sufficient proof of mailing, which  
615 may be either a United States postal certificate of mailing or a certificate of service prepared by the sender confirming  
616 such mailing; (c) electronic means provided that the sender retains sufficient proof of the electronic delivery, which  
617 may be an electronic receipt of delivery, a confirmation that the notice was sent by facsimile, or a certificate of service  
618 prepared by the sender confirming the electronic delivery; or (d) overnight delivery using a commercial service or  
619 the United States Postal Service. Notices given pursuant to the Property Owners' Association Addendum to  
620 Purchase Agreement, the Condominium Addendum to Purchase Agreement or the Cooperative Interest Addendum  
621 to Purchase Agreement shall be given in accordance with their terms. The addresses set forth below each parties  
622 name shall be the address for notice to such party unless such party subsequently gives notice in accordance with  
623 this paragraph of a different address to be used for such party.

624 **24. MISCELLANEOUS:** Paragraph headings and section headings of this Agreement are inserted for convenience only  
625 and shall not be deemed to constitute a part of this Agreement. **The term "day" shall be deemed to mean any**  
626 **day of the week, Monday through Sunday, both inclusive regardless of legal or religious holiday. The term**  
627 **"business banking day" shall mean Monday through Friday, except federal holidays.** "Day" shall mean 12:00  
628 a.m. (midnight) until 11:59 p.m. Eastern Time. Any agreed upon timeframe shall begin at 12:00 a.m.(midnight) after  
629 the event triggering the commencement of the timeframe and end at 11:59 p.m. Any changes must be made by  
630 written amendment. This Agreement and any exhibits, addenda, modifications or amendments may be executed  
631 i) in any number of counterparts and by facsimile or other electronic means, except with respect to digital signatures,  
632 and ii) by different parties in separate counterparts, each of which when so executed and delivered shall be deemed  
633 original, but all such counterparts shall constitute but one and the same instrument. To the extent any handwritten  
634 or typewritten terms in this Agreement conflict with, or are inconsistent with the printed terms of this Agreement, the  
635 handwritten or typewritten terms shall control. This Agreement is executed under seal. The terms of this Agreement  
636 and the addenda, exhibits, modifications or amendments referenced herein or which reference this Agreement  
637 constitute the entire agreement and there are no other agreements between the parties. Seller and Buyer both  
638 authorize Listing Firm and/or Selling Firm to disclose financial information related to the sale of the Property,  
639 including information related to settlement expenses (but not personal financial information) to the multiple listing  
640 service and/or real estate appraisers. The waiver by Seller of any terms, conditions, or provisions of this Agreement  
641 shall not be construed as a waiver of any other or subsequent term, condition or provision of this Agreement. If any  
642 term, condition, or provision of this Agreement is declared illegal or invalid for any reason by a court of competent  
643 jurisdiction, the remaining terms, conditions and provisions of the Agreement shall, nevertheless, remain in full force  
644 and effect.

OPTIONAL – if both Buyer and Seller initial below, digital signatures are acceptable for use in this transaction. If both Buyer and Seller do not initial below, digital signatures are not acceptable for use in this transaction. The following language is included for the sole purpose of determining the parties' agreement to accept digital signatures and is not required to be completed if the parties do not agree to accept digital signatures.

**EXPRESS AGREEMENT TO CONDUCT TRANSACTION USING DIGITAL SIGNATURES:** IN ACCORDANCE WITH THE UNIFORM ELECTRONIC TRANSACTIONS ACT (§ 59.1-479 ET SEQ. OF THE CODE OF VIRGINIA), BUYER AND SELLER CHOOSE TO ACCEPT DIGITAL SIGNATURES AS ORIGINAL DURING THE COURSE OF THIS TRANSACTION AND UNDERSTAND THAT AGREEING TO ACCEPT DIGITAL SIGNATURES FROM THE OTHER PARTY DOES NOT COMMIT THEM TO USING DIGITAL SIGNATURES EXCLUSIVELY. BY INITIALING BELOW, THE PARTIES AGREE TO USE DIGITAL SIGNATURES:

Buyer aw / Seller RS /

Initials: Buyer aw / Seller RS /

645  
646  
647

THIS PROPERTY IS OFFERED WITHOUT RESPECT TO RACE, COLOR, RELIGION, SEX, HANDICAP,  
FAMILIAL STATUS, SOURCE OF FUNDS, ELDERLINESS, OR NATIONAL ORIGIN.

THIS IS A LEGALLY BINDING AGREEMENT; IF NOT UNDERSTOOD, SEEK LEGAL ADVICE.

648 BUYER(S) SIGNATURE(S): *Ayanna Williams* 10/06/2020  
649 HRSD (Date)  
10/6/2020 4:33:31 PM EDT

650 \_\_\_\_\_ (Date)  
651 \_\_\_\_\_ (Date)

652 BUYER(S) Address: \_\_\_\_\_

653 \_\_\_\_\_  
654 SELLING AGENT SIGNATURE: *Willard G. Maxwell* 10/06/2020  
655 Willard G. Maxwell (Date)  
10/6/2020 4:22:51 PM EDT

656 Selling Firm Name: Maxwell Realty LLC

657 Selling Firm Address: 359 Beechmont Dr. Newport News VA 23608

658 REIN ID# 132660 VA License# 0226030550

659 Selling Agent Name: Willard G. Maxwell

660 REIN ID# 65907 VA License# 0225239522

661 SELLER(S) SIGNATURE(S): *Robin Suther* 10/06/2020  
662 ROBIN SUTKER (Date)  
10/6/2020 5:10:16 PM EDT

663 \_\_\_\_\_ (Date)  
664 \_\_\_\_\_ (Date)

665 SELLER(S) Address: \_\_\_\_\_

666 \_\_\_\_\_  
667 LISTING AGENT SIGNATURE: *Emily A. Lewis* 10/06/2020  
668 Emily A. Lewis (Date)  
10/6/2020 5:10:01 PM EDT

669 Listing Firm Name: Garrett Realty Partners

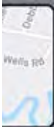
670 Listing Firm Address: 11864 Canon Blvd. #103 Newport News VA 23606

671 REIN ID# 6070 VA License# 0226012875

672 Listing Agent Name: Emily A. Lewis

673 REIN ID# 64386 VA License# 0225238806





Google

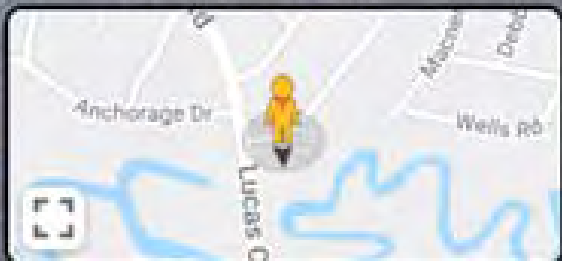


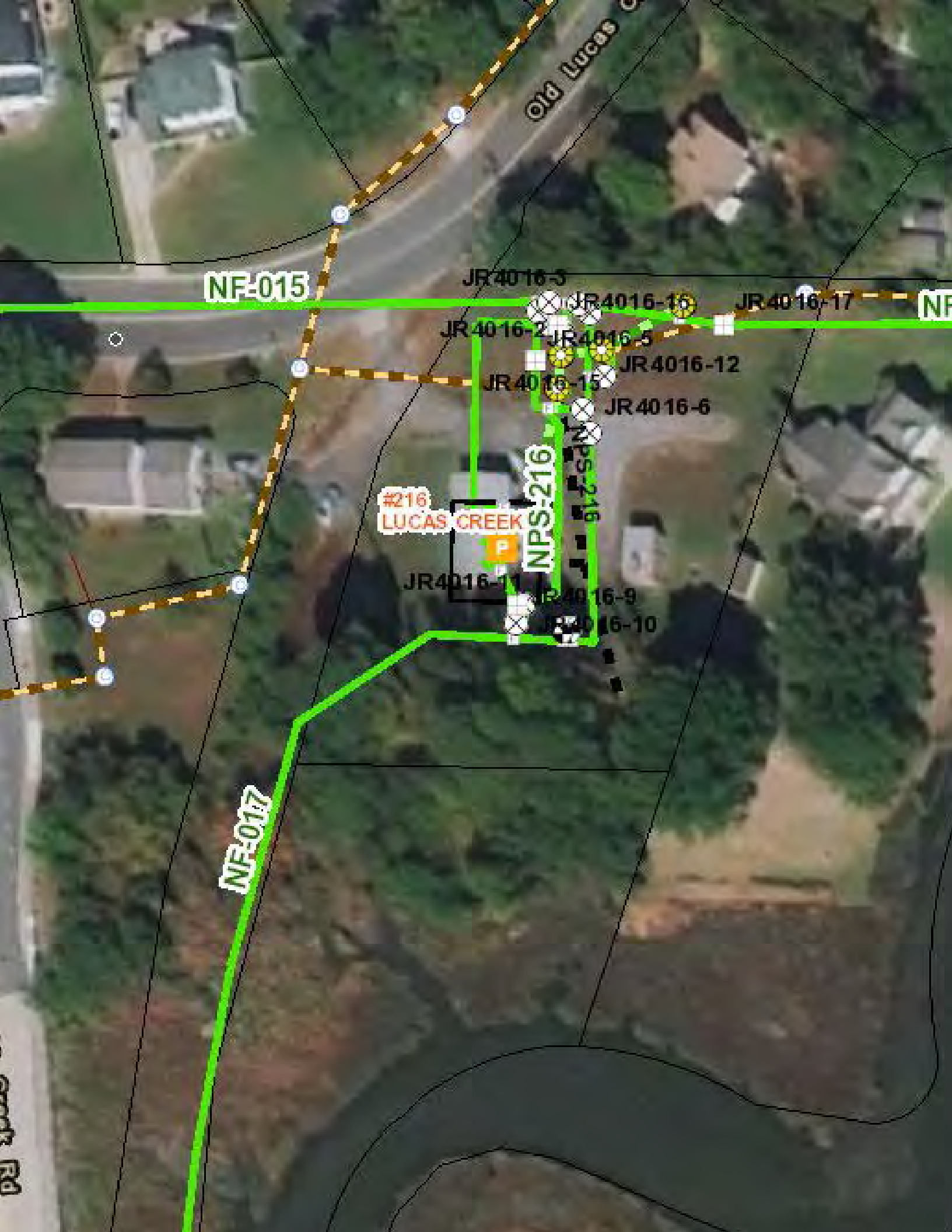
Image capture: Aug 2015 © 2020 Google United States Term



Google

Street View





Old Lucas C

NF-015

NF

JR4016-1

JR4016-15

JR4016-17

JR4016-2

JR4016-3

JR4016-12

JR4016-15

JR4016-6

#216  
LUCAS CREEK

NPS-216

NPS-216

JR4016-11

JR4016-9

JR4016-10

NF-017

County Rd

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #10

Agenda Item 17. – Surry Hydraulic Improvements and Interceptor Force Main Easement Acquisition

- [Deed of Easement](#)
- [Agreement](#)
- [Plat](#)

PREPARED BY AND RETURN TO:

HRSD

Attn: Real Estate Department

1434 Air Rail Avenue

Virginia Beach, Virginia 23471-0911

Tax ID: 21A-01-002

### DEED OF EASEMENT

THIS DEED OF EASEMENT, made this 21 day of July, 2020, by and among **WILLIAM STARLING WELLS III, 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," and a Temporary Construction Easement which shall cease and terminate upon completion of said improvements and alterations on the lands of the **GRANTOR**, said Permanent Easement and Temporary 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 "20' H.R.S.D. PERMANENT UTILITY EASEMENT 0.534 ACRES 23,290 SQUARE FOOT AND A VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT 0.001 ACRES 56 SQUARE FOOT AND A VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT 0.464 ACRES 20,216 SQUARE FOOT", as shown on that certain plat entitled, "PLAT SHOWING EASEMENT TO BE ACQUIRED FROM WILLIAM STARLING WELLS III BY HAMPTON ROADS SANITATION DISTRICT FOR SURRY COUNTY MARINA FORCE MAIN COBHAM DISTRICT SURRY COUNTY, VIRGINIA", made by W. M. Naulty, Surveyor, dated January 22, 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 same property conveyed to William S. Wells, Jr. by GSF Investments, LLC, a Virginia limited liability company, by Deed dated August 1, 2016 and recorded in the County of Isle of Wight Clerk's Office as Instrument Number 163425. The said William S. Wells, Jr. devised the said property to William Starling Wells, III in Will Book 190000033 recorded in the County of Isle of Wight Clerk's Office.

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:**

William S. Wells III  
William Starling Wells III

STATE OF Virginia  
CITY/COUNTY OF York, to-wit:

The foregoing instrument was acknowledged before me this 20 day of July, 2020, by William Starling Wells III.

[Signature]  
Notary Public

My Commission Expires: August 31, 2023  
Registration Number: 7855679

**PROJECT PARCEL NO. 140**  
**PROPERTY OF: WILLIAM STARLING WELLS**  
**PROPERTY ADDRESS: PAGAN RDG**  
**OWNER ADDRESS: 109 KINGS GRANT DRIVE**  
**YORKTOWN, VA 23692**  
**PIN: 21A-01-002**

**AREA TABLE**

20' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.534 ACRES 23,290 SQUARE FOOT
TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.001 ACRES 56 SQUARE FOOT
TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.464 ACRES 20,216 SQUARE FOOT
<b>TOTAL TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED</b>	<b>0.465 ACRES 20,272 SQUARE FOOT</b>

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S18°07'24"W	36.53'
L2	S33°32'11"E	33.16'
L3	S4°48'39"W	42.82'
L4	N79°31'44"W	16.17'
L5	S9°22'45"W	49.76'
L6	N9°22'45"E	68.70'
L7	S79°48'21"E	16.30'
L8	N4°48'39"E	35.00'
L9	N33°32'11"W	32.28'
L10	N9°06'24"E	18.16'
L11	N18°07'24"E	26.94'

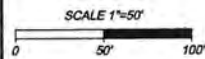
**NOTES:**

- 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.

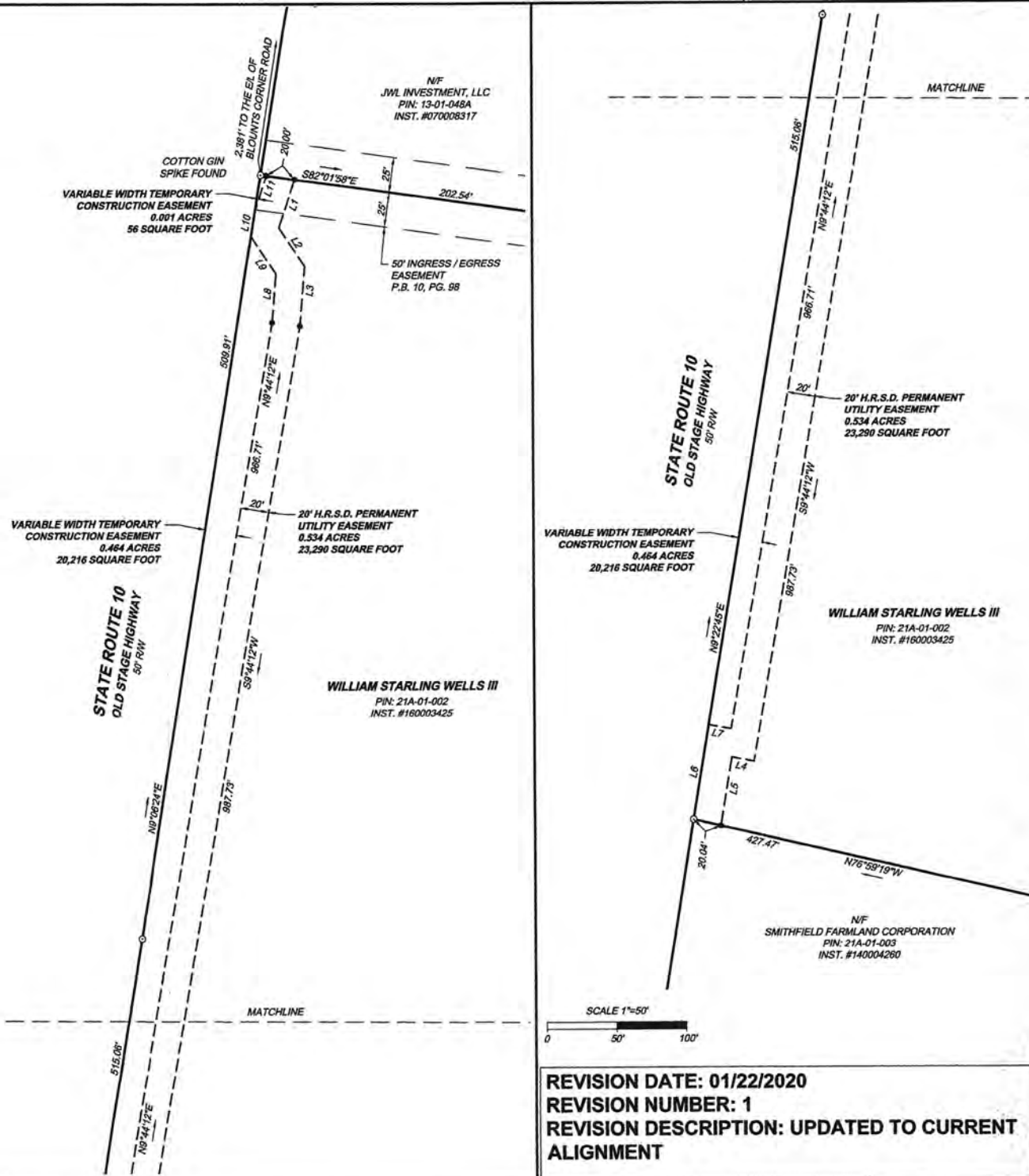


PLAT SHOWING EASEMENT TO BE ACQUIRED FROM  
**WILLIAM STARLING WELLS III**  
 BY HAMPTON ROADS SANITATION DISTRICT FOR ISLE OF WIGHT COUNTY MARINA FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA

SCALE 1"=50' JANUARY 22, 2020  
 JN: 42958-903-21A-01-002  
 W.M. NAULTY, SURVEYOR  
 4701 OWENS WAY, SUITE 900  
 PRINCE GEORGE, VIRGINIA 23875



**REVISION DATE: 01/22/2020**  
**REVISION NUMBER: 1**  
**REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT**



**AGREEMENT**

**THIS AGREEMENT**, made this 21 day of July 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 **WILLIAM STARLING WELLS, III**, whose mailing address is 109 Kings Grant Drive, Yorktown, Virginia 23692 (“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 WELLS WILLIAM STARLING III” and dated January 10, 2020 and containing 23,290 SQ. FT. (0.534 acres) more or less land for proposed HRSD permanent utility easement and containing 56 SQ. FT. (0.001 acres), more or less land for the proposed HRSD temporary construction easement and containing 20,216 SQ. FT. (0.464 acres), more or less land for the proposed HRSD temporary construction easement; and being part of the same property conveyed to William S. Wells, Jr. by GSF Investments, LLC, a Virginia limited liability company, by Deed dated August 1, 2016 and recorded in the County of Isle of Wight Clerk's Office as Instrument Number 163425. The said William S. Wells, Jr. devised the said property to William Starling Wells, III in Will Book 190000033 recorded in the County of Isle of Wight Clerk's Office.

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: FORTY THOUSAND AND 00/100 DOLLARS (\$40,000.00)** 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.

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 any trees that are cut down due to the project will have all stumps removed, debris discarded and area reseeded.

HRSD or its contractor hereby agrees to replace/reconstruct any portions of the fence that is taken down to allow access to the property.

**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 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:**

William S. Wells  
William Starling Wells, III

STATE OF Virginia  
COUNTY OF York, to-wit:

I, Keli Evans, a Notary Public in and for the County of York, in the State of Virginia, whose term of office expires on August 31, 2020, do hereby certify that William Starling Wells, III, 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 21 day of July, 2020.

Keli Evans  
Notary Public

My Commission Expires: August 31, 2023  
Registration Number: 7855679

**PROJECT PARCEL NO. 140**  
**PROPERTY OF: WILLIAM STARLING WELLS**  
**PROPERTY ADDRESS: PAGAN RDG**  
**OWNER ADDRESS: 109 KINGS GRANT DRIVE**  
**YORKTOWN, VA 23692**  
**PIN: 21A-01-002**



**AREA TABLE**

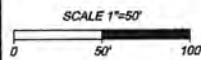
20' H.R.S.D. PERMANENT UTILITY EASEMENT TO BE ACQUIRED	0.534 ACRES 23,290 SQUARE FOOT
TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.001 ACRES 56 SQUARE FOOT
TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED	0.464 ACRES 20,216 SQUARE FOOT
<b>TOTAL TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED</b>	<b>0.465 ACRES 20,272 SQUARE FOOT</b>

**LINE TABLE**

LINE	BEARING	LENGTH
L1	S18°07'24"W	36.53'
L2	S33°32'11"E	33.16'
L3	S4°48'39"W	42.62'
L4	N79°31'44"W	16.17'
L5	S9°22'45"W	49.76'
L6	N9°22'45"E	68.70'
L7	S79°48'21"E	16.30'
L8	N4°48'39"E	35.00'
L9	N33°32'11"W	32.26'
L10	N9°06'24"E	18.16'
L11	N18°07'24"E	26.94'

**NOTES:**

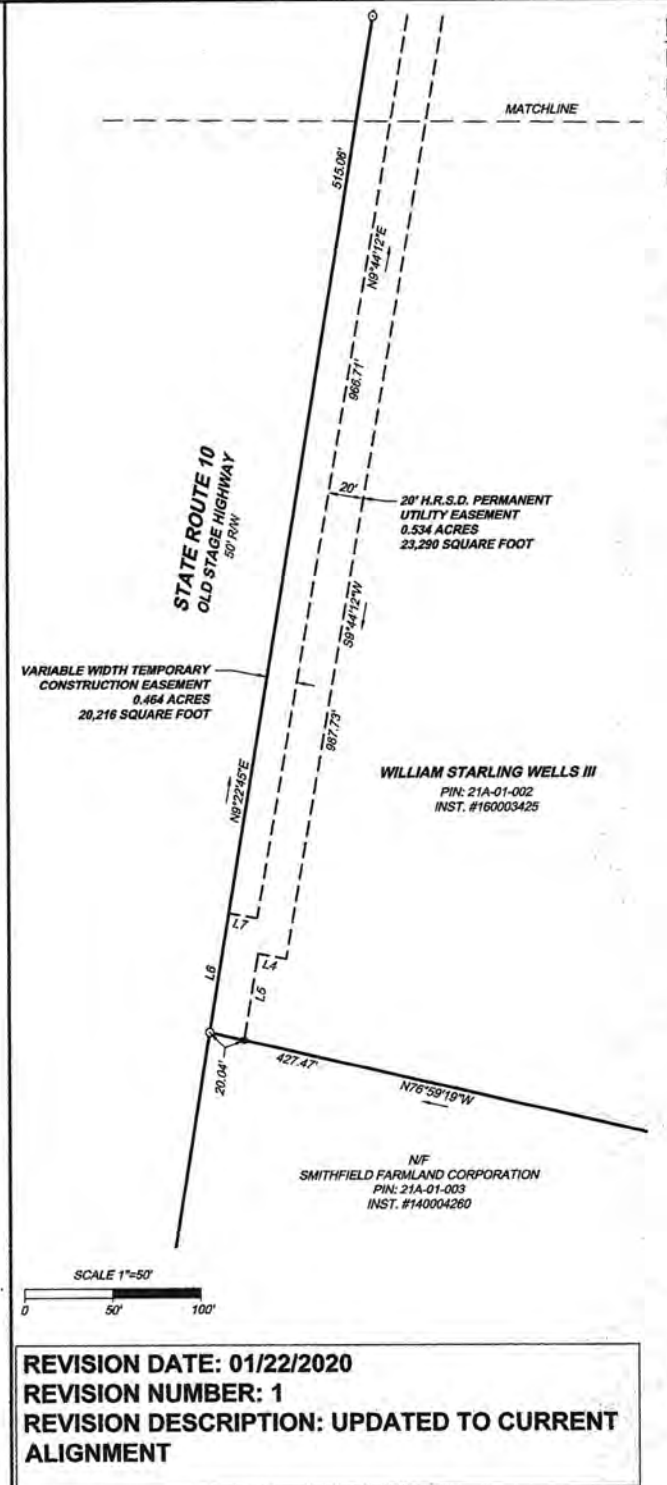
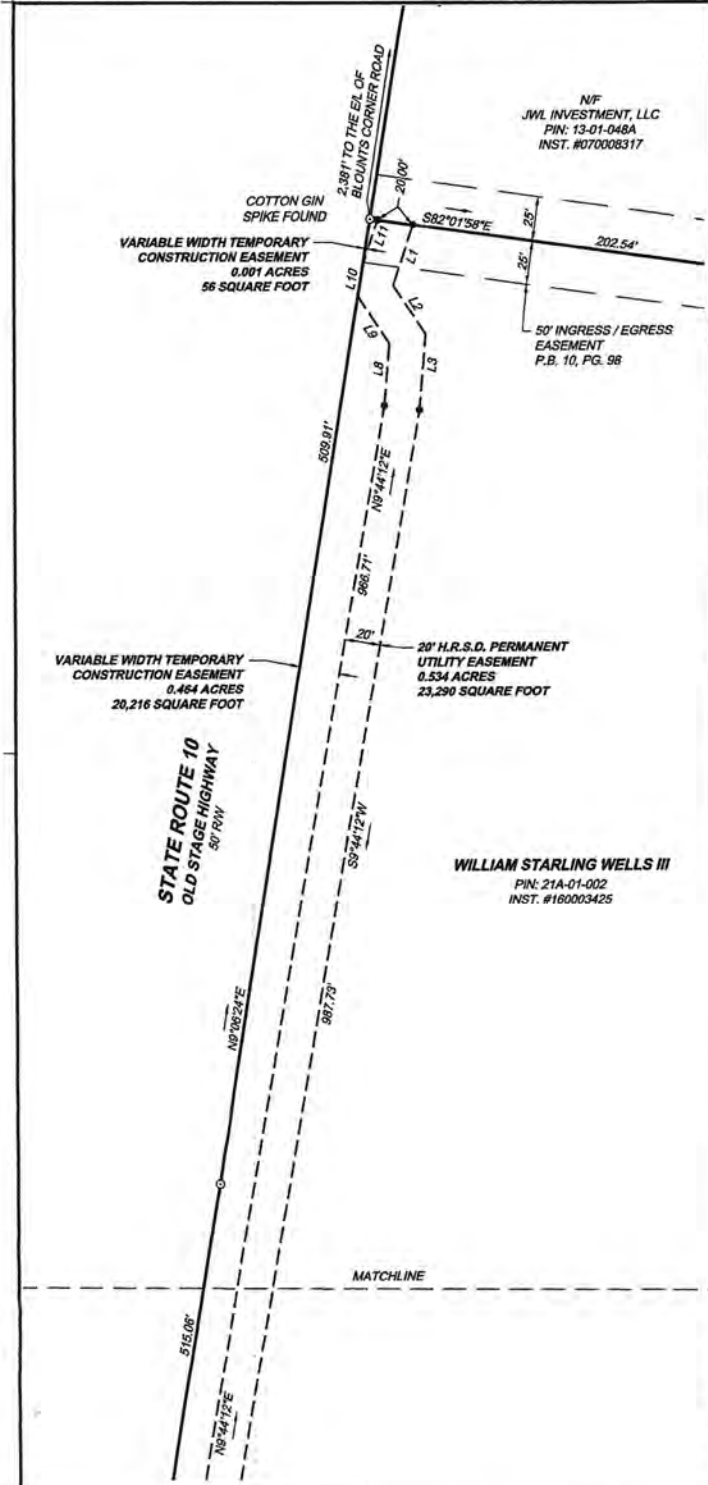
1. PROPERTY LINES AND RIGHT OF WAY INFORMATION SHOWN IS BASED ON PLATS, DEEDS OR RECORD AND ACTUAL FILED MEASUREMENTS. ONLY THE BOUNDARIES SHOWN HAVE BEEN SURVEYED FOR THIS PROJECT.
2. THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THIS PROPERTY
3. EASEMENTS SHALL BE ACQUIRED BY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



**REVISION DATE: 01/22/2020**  
**REVISION NUMBER: 1**  
**REVISION DESCRIPTION: UPDATED TO CURRENT ALIGNMENT**



PLAT SHOWING EASEMENT TO BE ACQUIRED FROM  
**WILLIAM STARLING WELLS III**  
 BY HAMPTON ROADS SANITATION DISTRICT FOR ISLE OF WIGHT COUNTY MARINA FORCE MAIN HARDY DISTRICT ISLE OF WIGHT COUNTY, VIRGINIA  
 SCALE 1"=50' JANUARY 22, 2020  
 JN: 42956-903-21A-01-002  
 W.M. NAULTY, SURVEYOR  
 4701 OWENS WAY, SUITE 900  
 PRINCE GEORGE, VIRGINIA 23875



HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #11

Agenda Item 18. COVID-19 Wastewater Surveillance Study Presentation

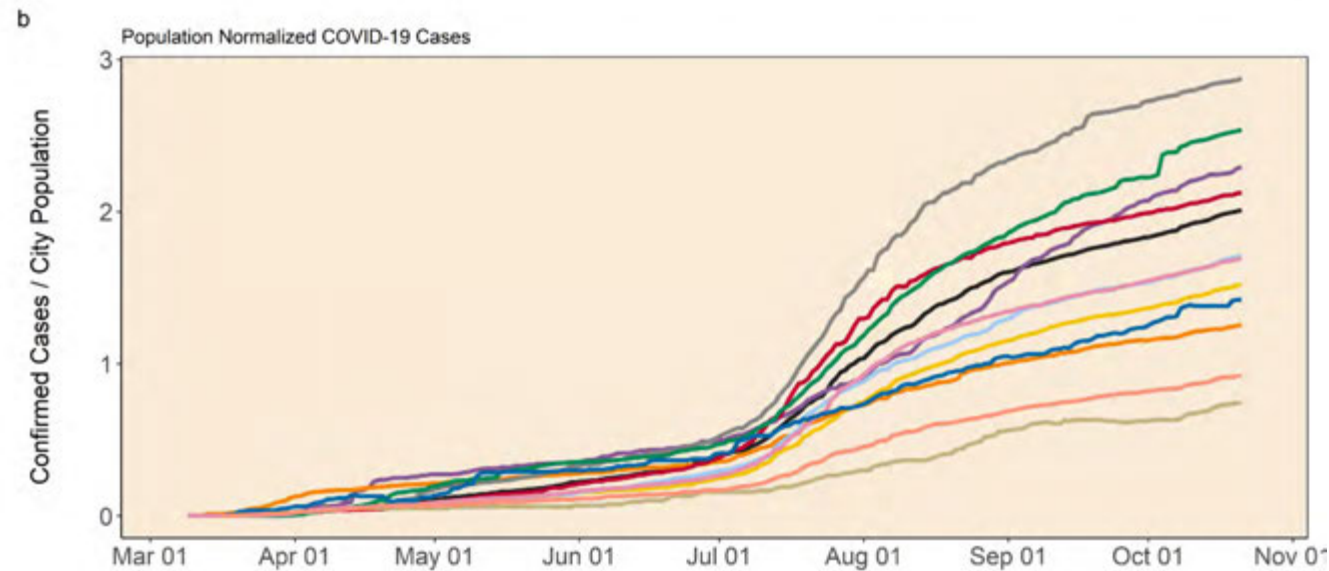
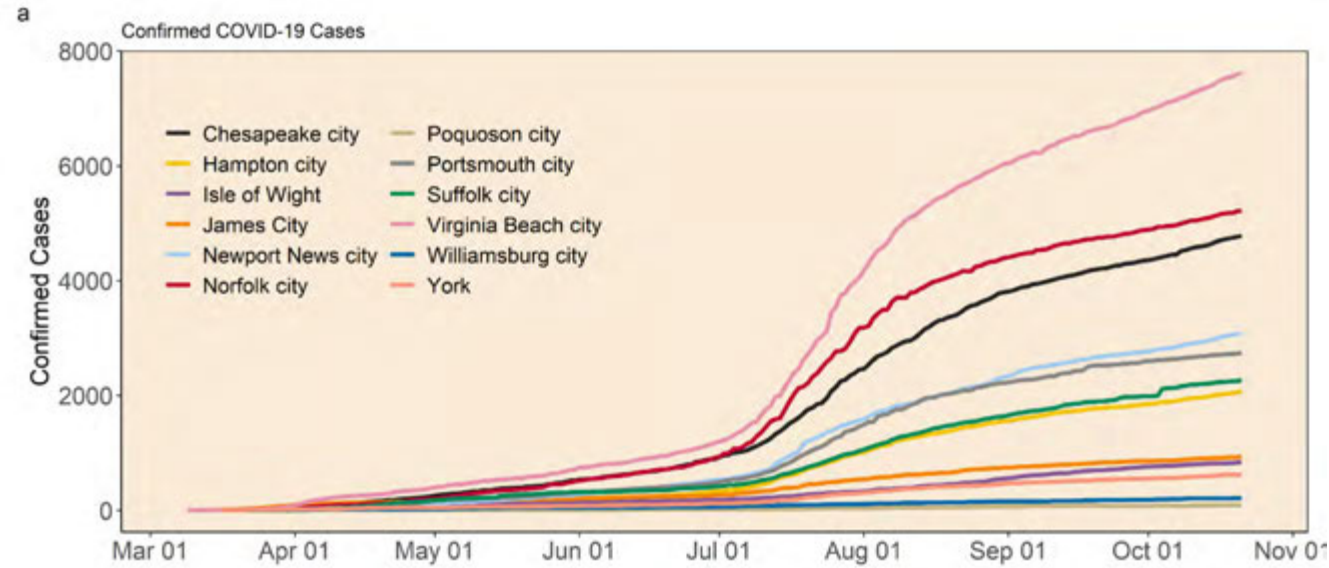


# COVID-19 Surveillance: Research Update

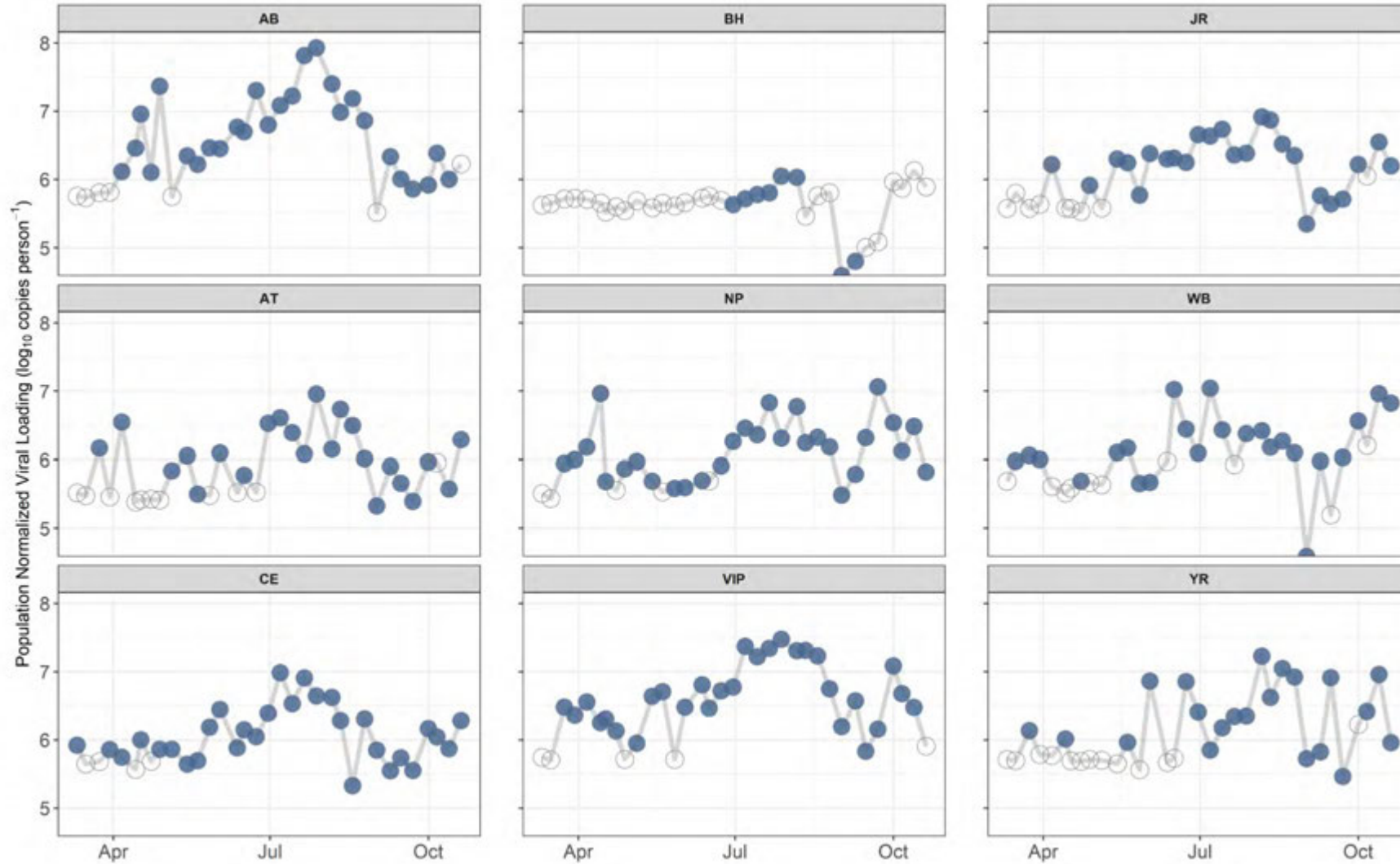
October 27, 2020

- Weekly samples have continued since the last update (9/22)
- New data presented here: 9/15 - 10/20
- General observations;
  - Steadily increasing viral load for Sept.
  - Smaller scale decrease and leveling off beginning early Oct.
  - Recent wastewater loads similar to what we saw in mid June

# COVID-19 Cases in Hampton Roads

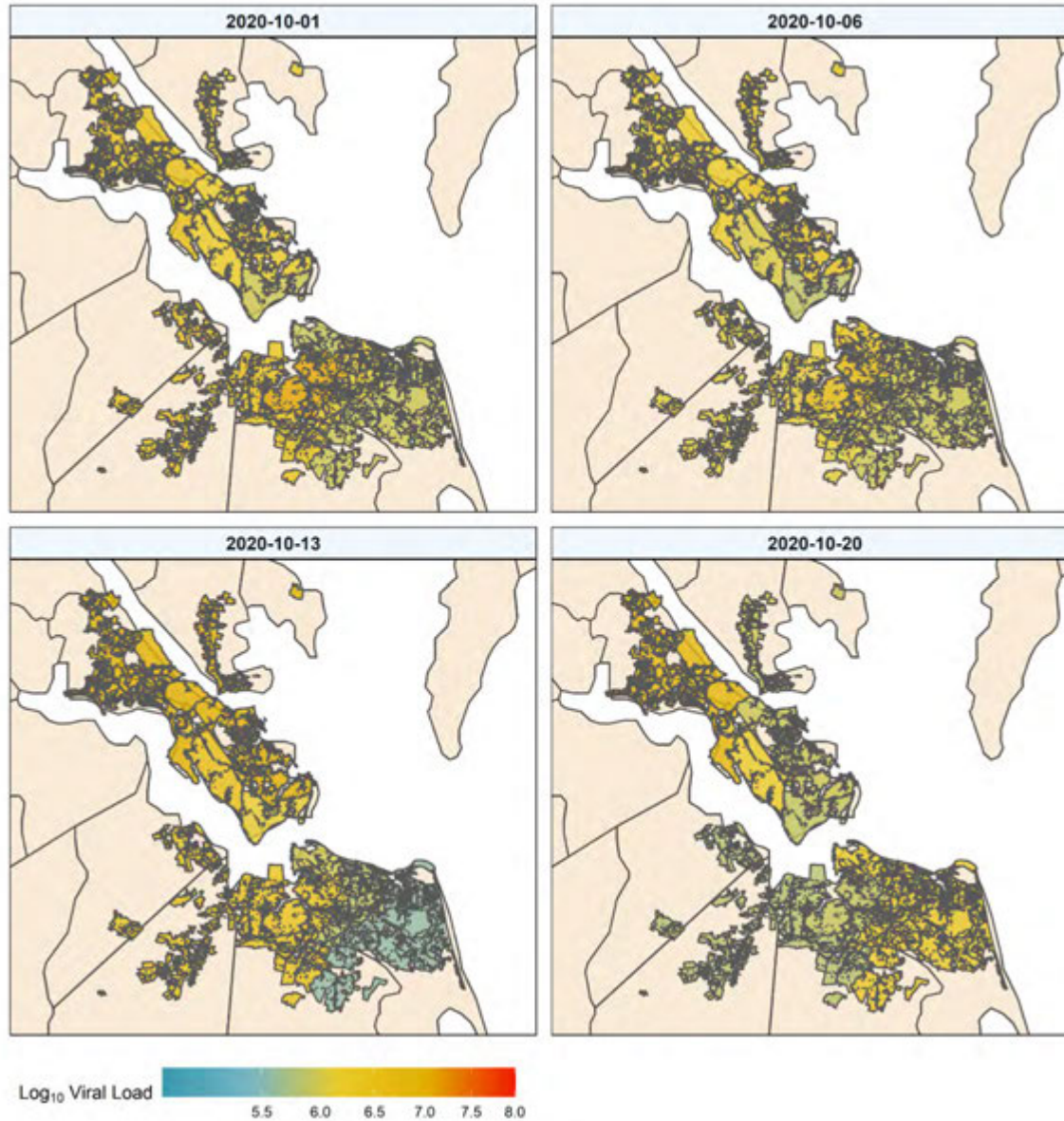


# Normalized Viral Load at HRSD Facilities

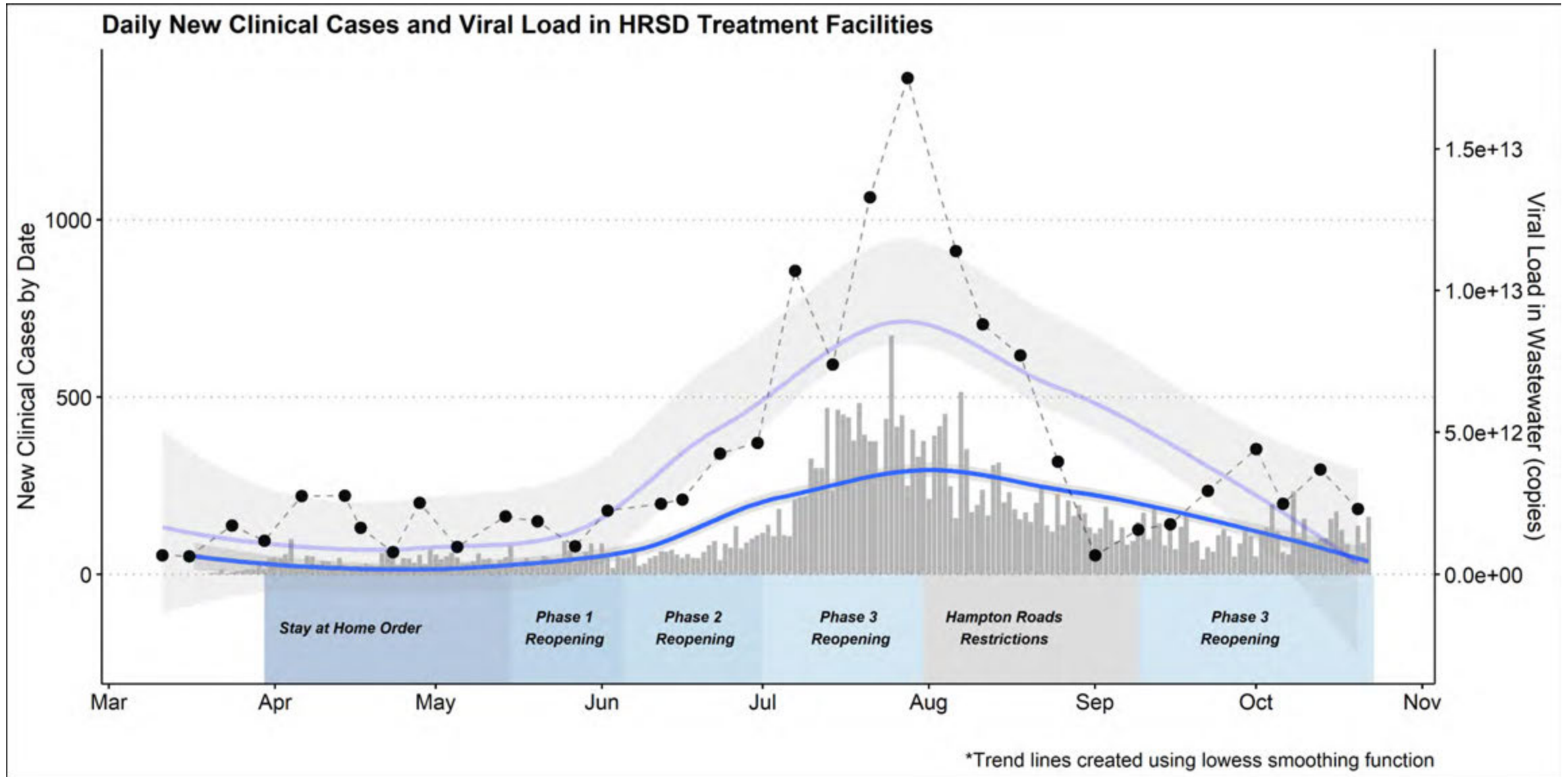




## A Spatial Look at the Last 4 Weeks



# Regional Wastewater Signal and Clinical Cases



- Continue weekly monitoring of 9 major facilities
- Continue to provide data to VDH and CDC
- Hampton Roads Wastewater Surveillance Working Group
  - Presenting at VA State Board of Health meeting 12/3
- Partnering with VA DOC to study wastewater load and infections in prisons

HRSD Commission Meeting Minutes  
October 27, 2020

Attachment #12

Agenda Item 19. Capital Improvement Program Quarterly Update Presentation



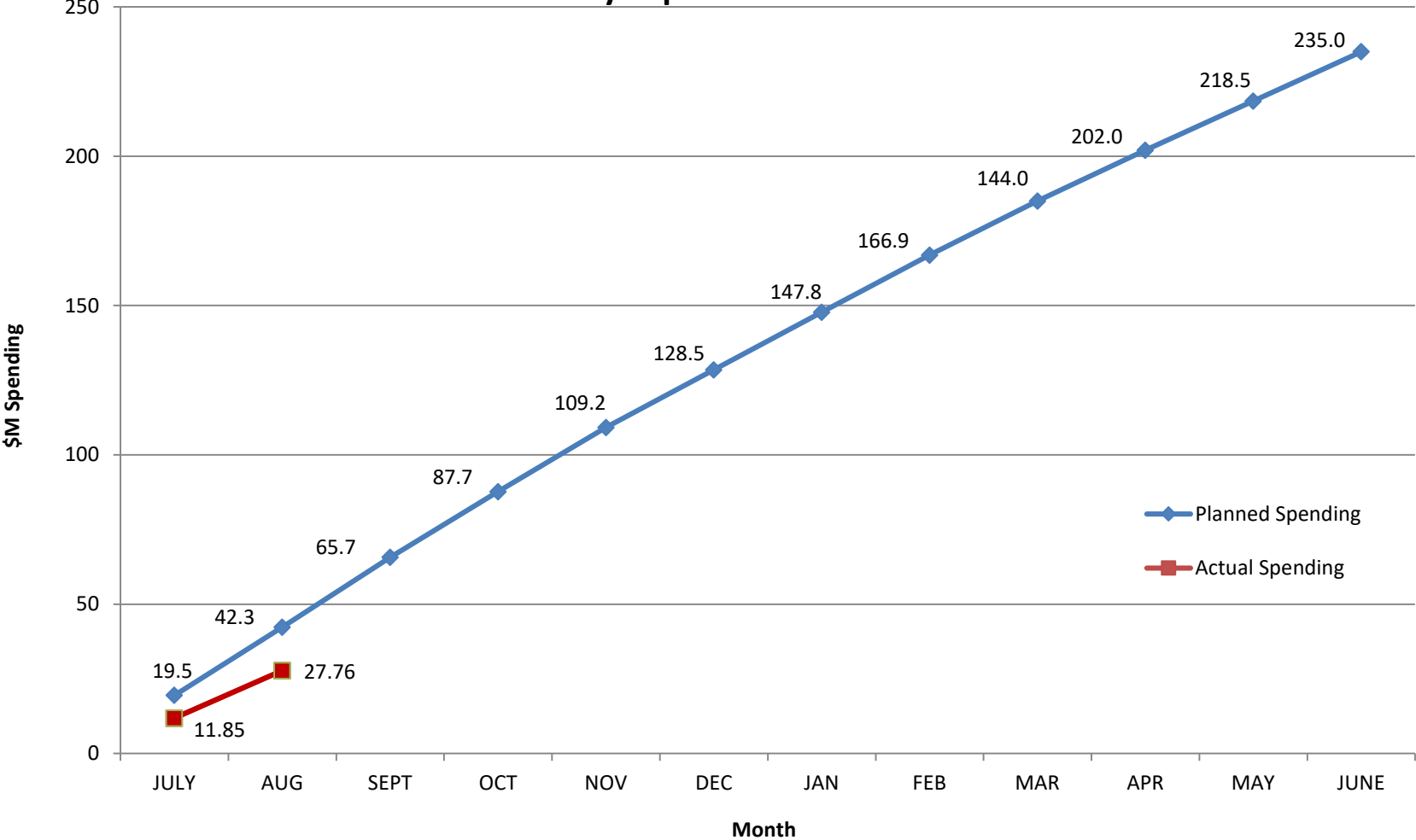
# Capital Improvement Program Commission Briefing

October 27, 2020

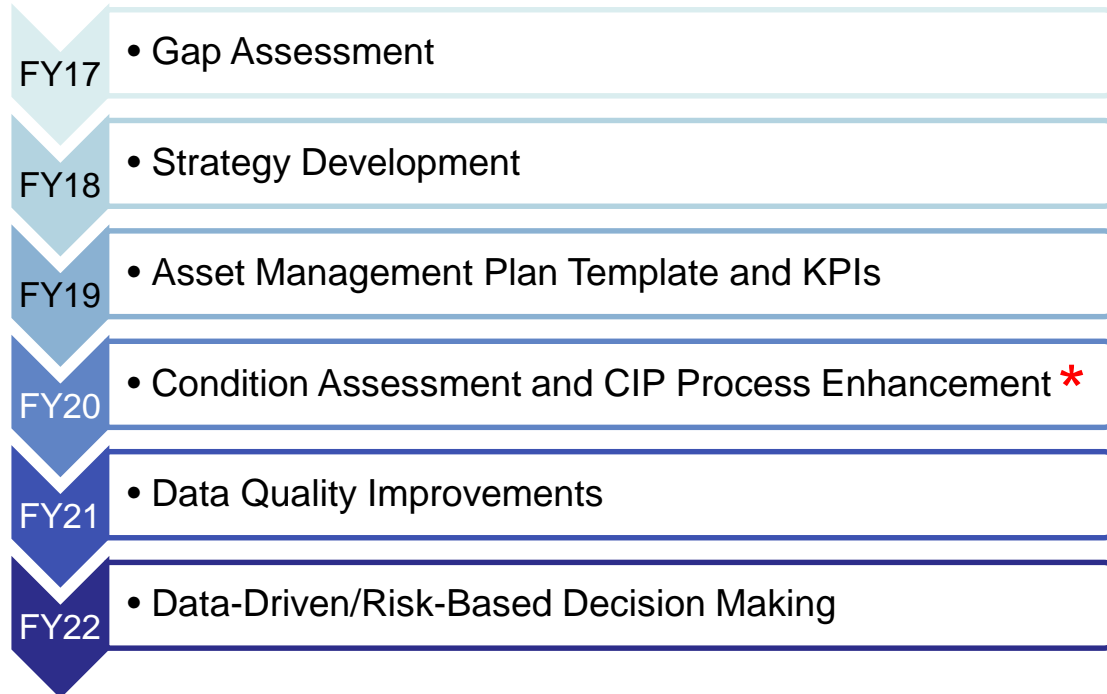
- CIP Expenditures for FY-2021
- Asset Management Program Update
- Consent Decree/Sewer Rehabilitation Plan – Project Status
- Significant Project Updates
- Focus:
  - SWIFT Program Management Efforts

# CIP Expenditures for FY-2021

## FY2021 Capital Improvement Program Cumulative Monthly Expenditures & Reimbursements



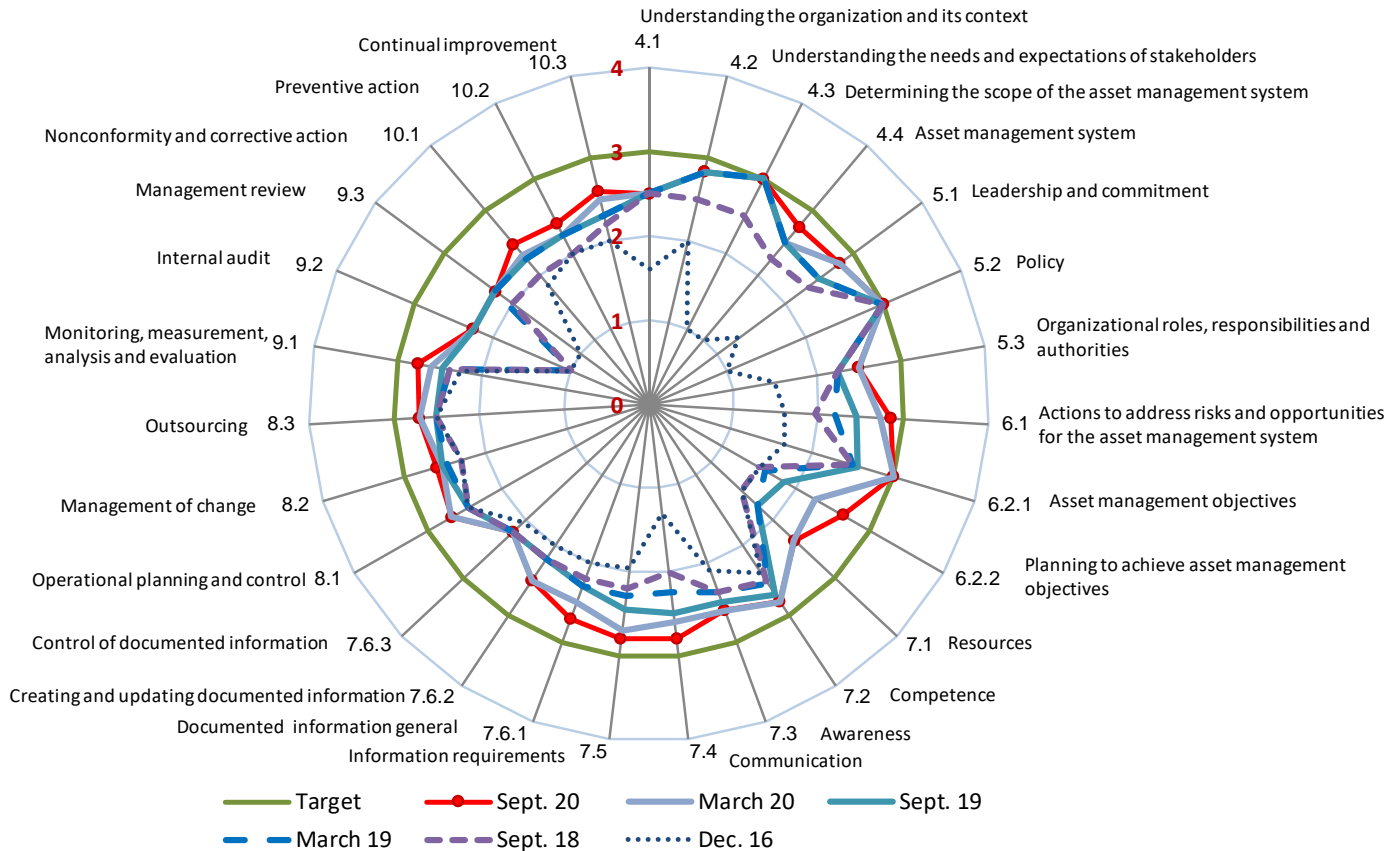
# Asset Management Program Roadmap



\* Approximately 6 months behind schedule



# ISO 55001 Asset Management Maturity Score

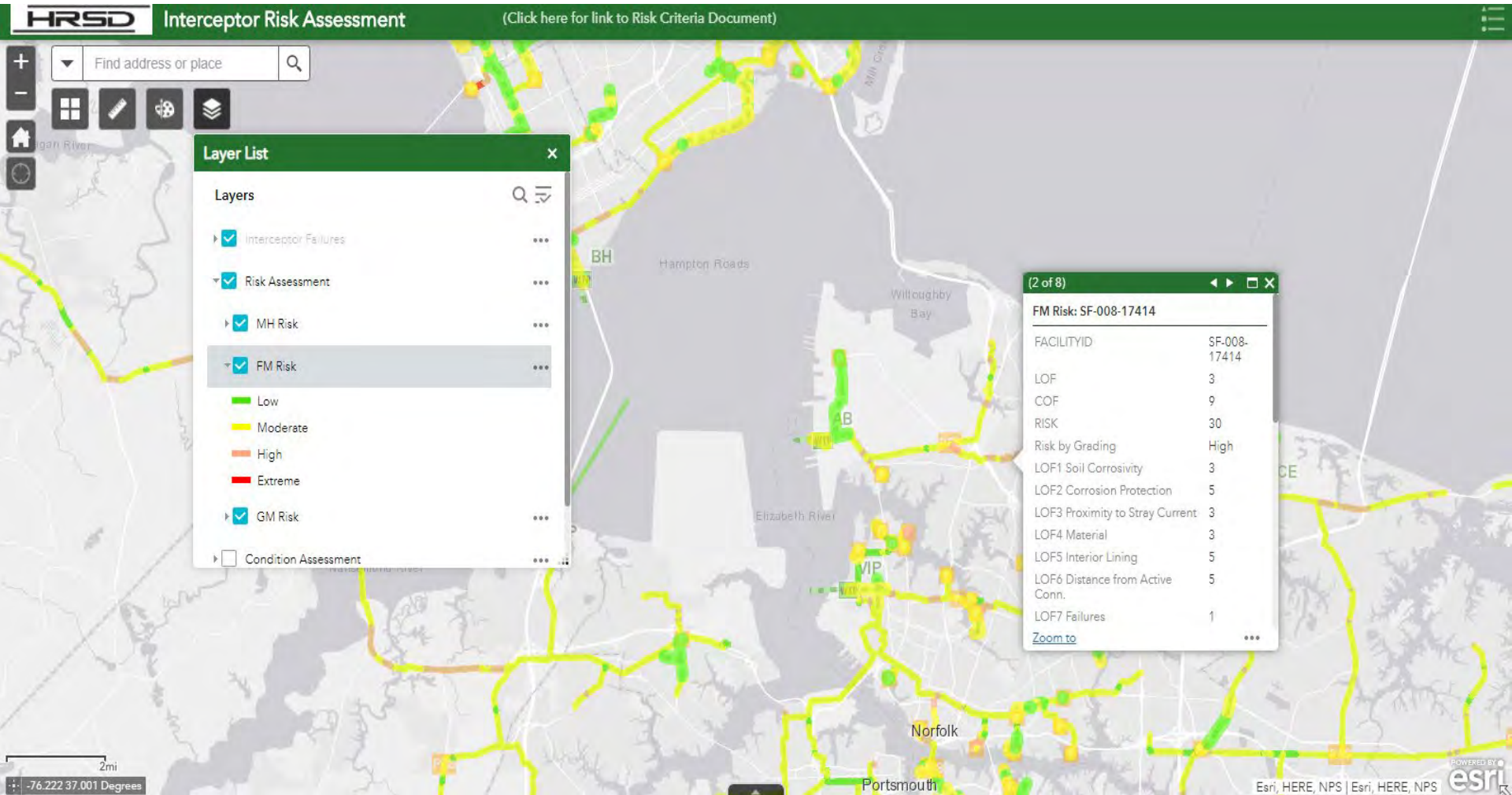


Assessment Date	Average Score
December 16	1.7
September 18	2.2
March 19	2.3
September 19	2.4
March 20	2.6
September 20	2.6

**Key:**

Score	Maturity Level
0	Innocent
1	Aware
2	Developing
3	Competent
4	Optimizing / Excellent

# Interceptor Risk Assessment Map



- ERP/CMMS Interface helps keep count and cost information accurate
- Annual audit process has been very successful w/ minimal deficiencies
- Implemented a purchasing module that interfaces with ERP to streamline the requisition approval process
  - Eliminated shadow systems
  - Ensured consistency and accuracy
- Developed SOP:
  - Periodic counts
  - Updating cost information and supporting documentation
  - Condition assessment (just because we have it doesn't mean it's usable when needed)
  - Surplus procedures for parts that are no longer needed if associated assets were disposed

---

## Plan for Next 6 Months

---

- Complete condition and criticality assessments at the treatment plants.
- Update replacement cost data.
- Use Replacement Planning Model to forecast rehabilitation and replacement costs for the remaining treatment plants.
- Complete implementation of enhanced capital prioritization process for CIP projects, including finalizing the guidance document.
- Review Predictive Maintenance pilot Study at JRTP and develop strategy for improving preventive maintenance at all plants.
  - Run-to-fail
  - Reduce PMs for low risk assets
  - Incorporate predictive technologies to assess condition and performance
- Initiate TP yard pipe mapping and criticality assessments to prioritize condition assessment and replacement planning.
- Start incorporating Interceptor Risk Assessment to Power BI AMP and RPM

# Providence Road Offline Storage Facility

## Engineers:

Kimley Horn / RK&K

## Design-Build Team:

- Hazen & Sawyer
- Crowder Construction

## Schedule Completion:

April 2021

## Project Value: \$32M

## Funding:

HRSD Revenue Bond



# 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:**

May 2021

**Project Value: \$28.5M**

**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

## 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	Construction	\$7,076,681
BH014800	Jefferson Avenue Extension Gravity Improvements	<b>Complete</b>	\$3,067,392
BH015000	Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements	Complete	\$9,048,588
CE010400	Independence Boulevard Pressure Reducing Station Modifications	Construction	\$4,127,452
CE011700	Western Trunk Force Main Replacement	Construction	\$4,286,000
GN011700	Pump Station Generators and Standby Pump Upgrades	Construction	\$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	\$3,219,388
GN015100	Arctic Avenue Pump Station and Newtown Road Pump Station Electrical Improvements	Complete	\$364,708
JR012100	Huxley to Middle Ground Force Main Extension	Construction	\$5,185,885
NP011300	Suffolk Interceptor Force Main Section I Main Line Valving Replacement	<b>Construction</b>	\$2,198,783
NP012600	Deep Creek Interceptor Force Main Replacement	Construction	\$6,233,000
WB012200	North Trunk Force Main Part B Replacement	Complete	\$1,881,712

## 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	\$3,701,385
AT011520	Shipp's Corner Pressure Reducing Station Modifications	Proposed	\$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	<b>Design</b>	\$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

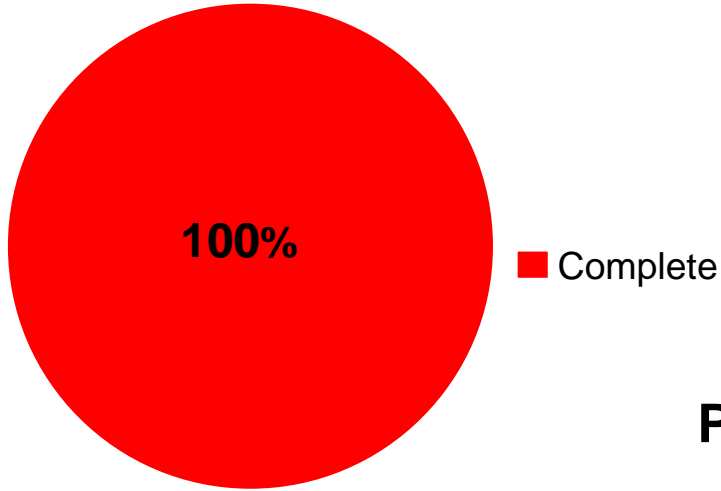
## Consent Decree/Sewer Rehabilitation Plan Project Updates (Phase 2)

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	Construction	\$9,089,000
VP010920	Norview Estabrook Division I 18-Inch Force Main Replacement Phase II, Section 2	Proposed	\$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	Proposed	\$1,973,163
VP016700	Norview-Estabrook Division I 18-Inch Force Main Replacement Phase III	Proposed	\$3,116,334
VP017100	Central Norfolk Area Gravity Sewer Improvements	Proposed	\$3,469,837
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

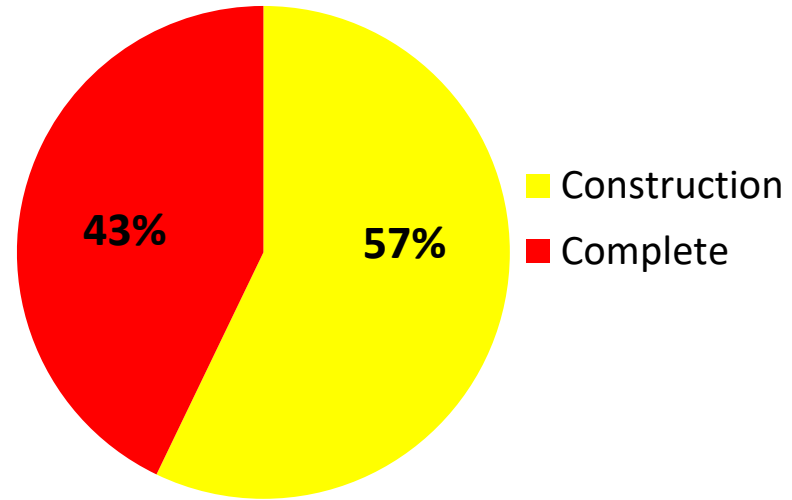
\$289,820,103

# Consent Decree/Sewer Rehabilitation Plan Project Updates

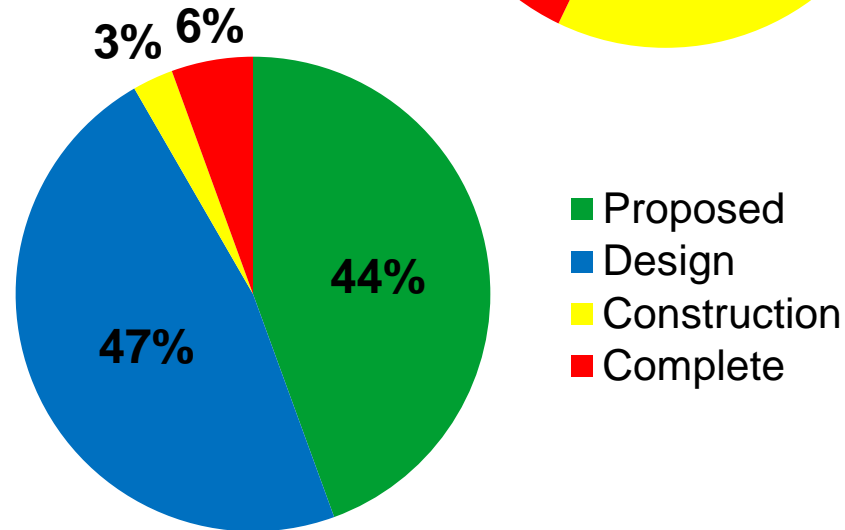
## Phase 0



## Phase 1



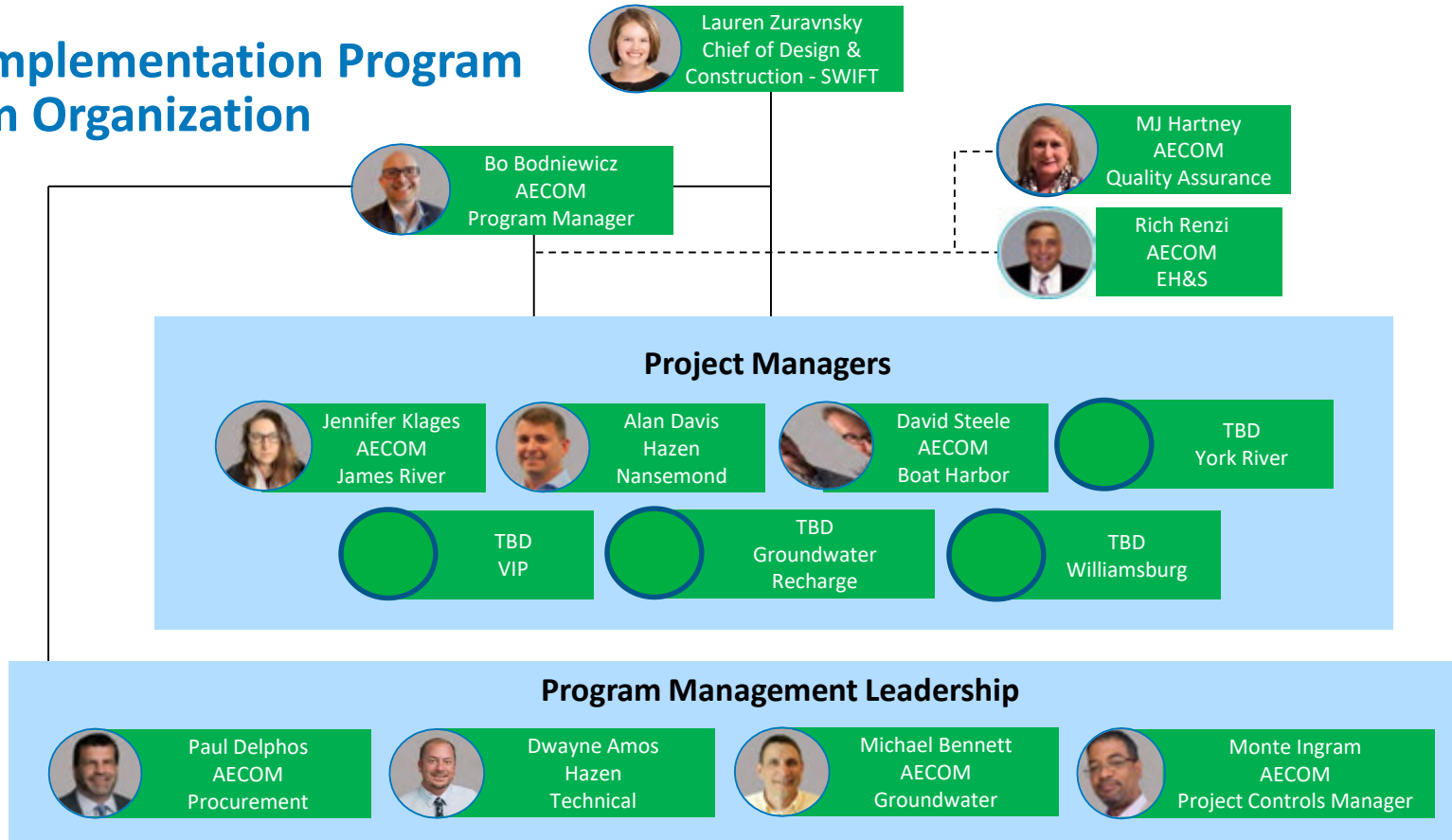
## Phase 2



## Program Management Team



# Full Scale Implementation Program (FSIP) Team Organization

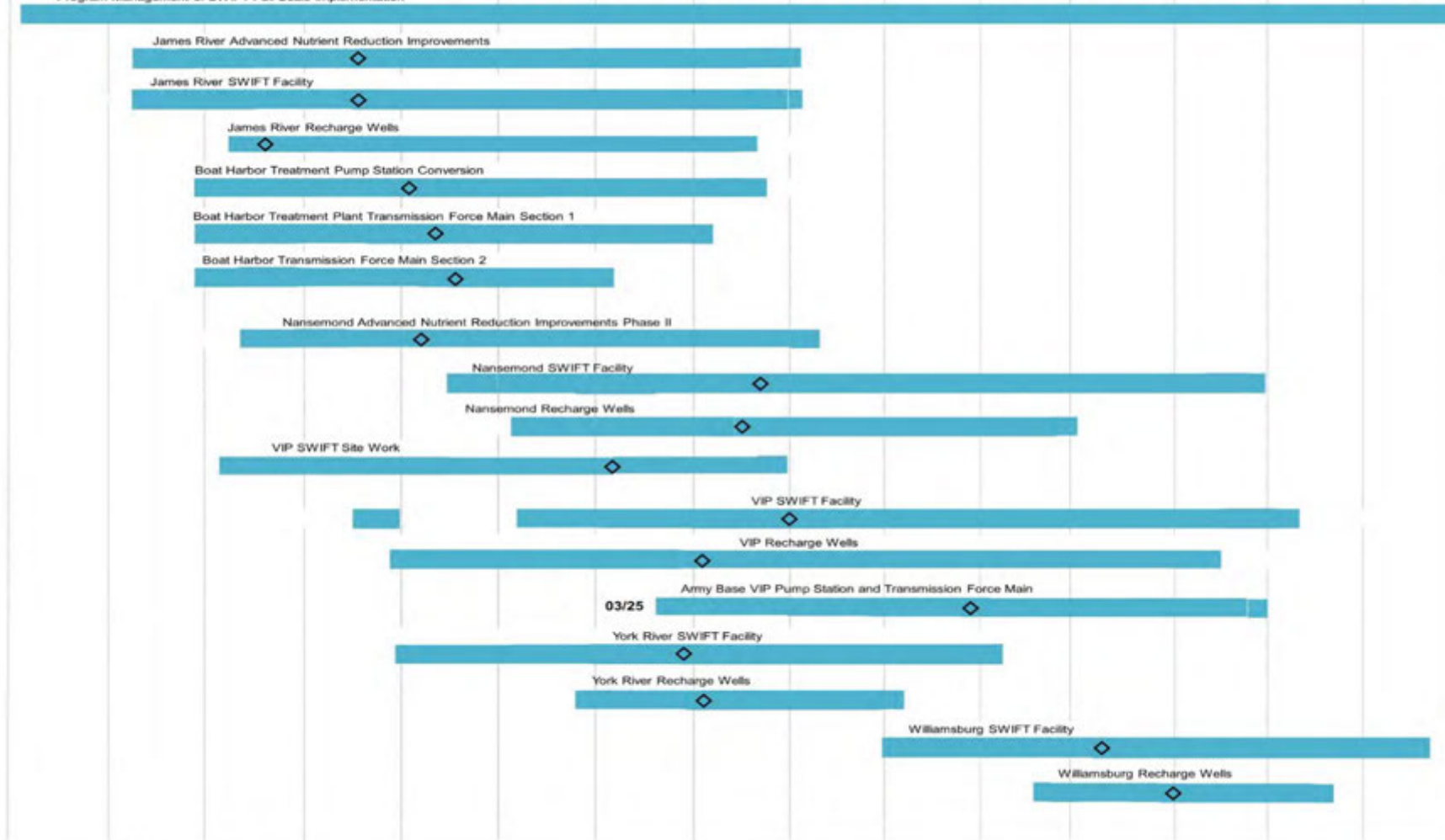




Data Date: September 30, 2020

CAL YR	CY19				CY20				CY21				CY22				CY23				CY24				CY25				CY26				CY27				CY28				CY29				CY30				CY31				CY32				CY33			
HRSD	2019				2020				2021				2022				2023				2024				2025				2026				2027				2028				2029				2030				2031				2032				2033			
	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr

Program Management of SWIFT Full Scale Implementation



◇ Construction NTP





## SWIFT Major Project Summary

CIP Reference #	Project Name	FY21 Capital Project Budget	Project Status
GN016360	James River SWIFT Facility*	\$216 M	D-B Team Selection
JR013400	James River Advanced Nutrient Reduction Improvements*	\$194 M	D-B Team Selection
GN016344	James River Land Improvements	\$2 M	Engineer Selection
GN016361	James River Recharge Wells	\$33 M	Concept Design
NP013820	Nansemond Advanced Nutrient Reduction Improvements - Phase II	\$263 M	Concept Design
BH015700	Boat Harbor Treatment Plant Pump Station Conversion	\$75 M	Concept Design
BH015710	Boat Harbor Treatment Plant Transmission Force Main – Section 1	\$79 M	Concept Design
BH015720	Boat Harbor Treatment Plant Transmission Force Main – Section 2	\$20 M	Concept Design
GN016370	York River SWIFT Facility	\$193 M	WW Upgrades Underway
GN016371	York River Recharge Wells	\$32 M	Future
GN016380	Nansemond SWIFT Facility	\$346 M	Future
GN016381	Nansemond Recharge Wells	\$56 M	Future
GN016392	Virginia Initiative Plant SWIFT Site Work	\$47 M	Future
GN016390	Virginia Initiative Plant SWIFT Facility	\$383 M	Future
GN016391	Virginia Initiative Plant Recharge Wells	\$86 M	Future
AB011800	Army Base to VIP Pump Station and Transmission Force Main	\$60 M	Future
GN016350	Williamsburg SWIFT Facility	\$138 M	Future
GN016351	Williamsburg Recharge Wells	\$28 M	Future

\* Combined effort

## SWIFT Program Internal Audit



1. Third-Party Monitoring
2. Processes
3. People
4. Project Management Plan (PMP)
5. WIFIA Funding

---

Questions?

---

AGENDA ITEM 24. 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 Declarations - York River Treatment Plant Headworks Effluent Pipe Rehabilitation](#)



---

October 20, 2020

Re: General Manager's Report

Dear Commissioners:

High flows in the regional wastewater system from the remnants of Hurricane Sally made September a challenging month. The two major spills were unavoidable and a reminder of how challenging it is to operate a large regional sewer system. It is easy to take our normal operations for granted but conveying 150 million gallons of wastewater across more than 3,000 square miles each day is a big challenge fraught with risk. At any given time, a critical component could fail resulting in a significant loss of wastewater into the environment. We design and build redundancy into our system wherever possible, but there are many segments of the interceptor system and several locations within each treatment plant where redundancy is cost prohibitive. As a result, we rely on high levels of preventative maintenance, robust condition assessment and asset management-based renewal and replacement. We also rely heavily on our skilled and professional staff to respond quickly when failures do occur to minimize the impact and restore normal system operations rapidly.

Considering the challenges, our record is amazing. The Planning and Analysis Division of the Engineering Department prepares an annual report of our sanitary sewer overflows. The Fiscal Year [2020 report](#) reflects a typical year, one without a major tropical storm or an unusually challenging pipe break or mechanical failure. Unfortunately, we get little recognition for this amazing record. In contrast we get a lot of attention on those unusual events where we have a large spill.

I take the negative press associated with a large spill very personally. Our staff work tremendously hard, in difficult and dangerous conditions, to minimize the impact of each of these events only to see the negative coverage in local media. So, while the general public may not be appreciative or even recognize their efforts, I am proud to be associated with such talented and dedicated people and I know you are as well.

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



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

1. **Treatment Compliance and System Operations:** Multiple overflows associated with a few significant rain events during September are detailed in the Operations Department monthly report. The Surry County Treatment Plant experienced two permit exceedances for copper concentrations. Staff is still investigating the cause. All other plants met permit for the month. Other highlights for the month can be found in the attached monthly reports.
  
2. **Internal Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted) with HRSD personnel:
  1. Several Water Infrastructure Finance and Innovation Act (WIFIA) reviews with staff as we prepared for closing
  2. Evaluation of the proposals in response to the request for interest in performing General Counsel services
  3. A meeting to review issues related to citizen complaints on the Huxley Force Main project in Newport News
  4. Several meetings to explore alternatives to the DEQ approach for Watershed Implementation Plan Phase III (WIP 3)
  5. An interview by our internal audit firm regarding succession planning
  6. Weekly meetings of all HRSD leaders (everyone with direct reports) via Zoom to provide information and guidance on HRSD COVID-19 response
  7. A meeting to discuss Navy discharges to the Army Base Treatment Plant
  8. A meeting to discuss focus of the community commitment plan for the SWIFT program
  9. A meeting to review property and siting of the Tabb PRS
  10. A meeting to discuss plans for the WIFIA check presentation event
  11. A meeting to discuss a plan for resuming collection activity
  12. The architectural review of the Willard Avenue pump station
  13. Welcomed participants to each Courageous Conversation session

C. **External Communications:** I participated in the following meetings/activities (all virtual unless otherwise noted):

1. Two meetings of the small group tasked with reviewing assumptions and alternatives for Virginia to meet the Chesapeake Bay Total Maximum Daily Load (TMDL) WIP 3 obligations
2. The monthly meeting of the Hampton Roads Planning District Commission (HRPDC) Director of Utilities Committee (DUC)
3. Recorded a short video focused on SWIFT and forward focused infrastructure investment for use during United for Infrastructure
4. The quarterly meeting of the Potomac Aquifer Recharge Oversight Committee
5. Two meetings with members of the US EPA Environmental Financial Advisory Board (EFAB) to discuss upcoming presentations
6. A meeting to plan a presentation for the ESRI Water Conference and actual recording of the presentation
7. The quarterly members meeting for the Virginia Municipal Wastewater Agencies (VAMWA)
8. Chaired the US Water Alliance's One Water Council
9. The quarterly meeting of the Virginia Forever executive board
10. A meeting with the United Way as we kicked off the 2020 campaign
11. Presented the latest SWIFT groundwater modeling results to representatives from James City Service Authority
12. A meeting with NACWA staff in preparation for the Excellence in Management award reviews
13. Two planning meetings for an upcoming WEF workshop
14. Participated as a discussant in an Aspen Institute convening on water affordability

D. **Consent Decree Update:** The Commonwealth has signed off on the Fifth Amendment. The Amendment is at DOJ and EPA for final signatures before lodging with the Norfolk District Court. We anticipate final signatures and approval by the judge before year end.

There will be a closed session to review my performance at the October meeting. I will provide a self-assessment via email on Friday to assist you in this process. I look forward to receiving your feedback.

The meeting next week will be another fully electronic meeting using Skype as we have done since April. 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, October 27, 2020.**

Respectfully submitted,

Ted Henifin, P.E.  
General Manager



TO: General Manager  
 FROM: Director of Communications  
 SUBJECT: Monthly Report for September 2020  
 DATE: October 8, 2020





A. Publicity and Promotion

HRSD and/or SWIFT were mentioned or featured in 24 news stories and editorials on topics that included:

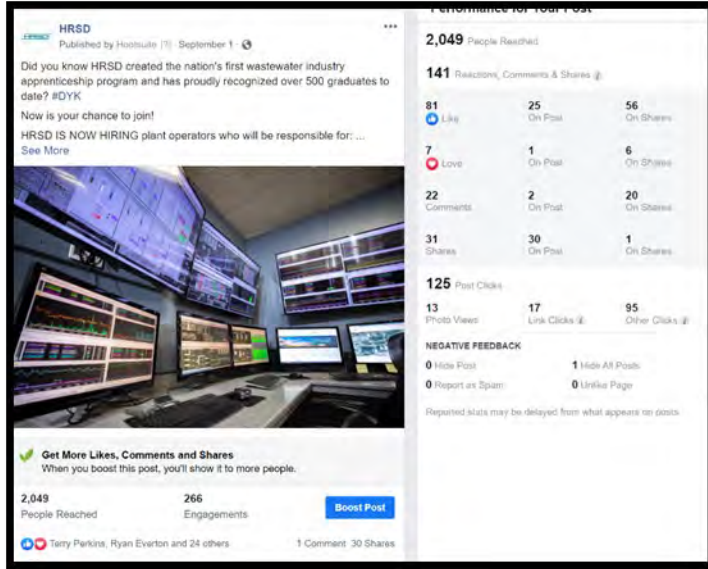
1. Water Environment Federation (WEF) and Water Research Foundation (WRF) honors received by HRSD
2. Water bill increases and utility disconnection moratorium stories
3. Sewage overflows into Shingle Creek in Suffolk and Back Creek in York County
4. Hearings on the Eastern Shore to join HRSD
5. Letters to the Editor highlighting Infrastructure Week

B. Social Media and Online Engagement

1. Metrics

Social Media Metrics September 2020				
METRIC	 FACEBOOK	 LINKEDIN	 TWITTER	 YOUTUBE
Number of Posts *number of published posts	28 +6	2 -3	20 -1	1:35 average view duration
Number of Followers/Likes *total number of fans	1,368 +18	5,037 +28	491 +20	196 +8
Engagement *sum of reactions comments and shares	801 -342	79 -159	84 -59	1,481 unique viewers +1,063
Traffic *total clicks on links posted	134 -128	82 -276	65 -1	5.2% click through +8%

## 2. Top posts on Facebook, Twitter and YouTube



Top Facebook post



Top Tweet

Video	View Count	Impressions	Views
1. What is Asset Management? Celebrating Infrastructure Week at HRSD Sep 14 2022	1:56 (71.1%)	555	555
2. The Wastewater Treatment Process 08/22 2017	1:33 (49.5%)	444	444
3. HRSD's Woodstock Park Wet Weather Storage Tank 03/23 2017	0:51 (61.3%)	121	121
4. SWIFT Research Center: What is the Potomac Aqueduct? Jan 8 2015	1:56 (12.0%)	87	87
5. HRSD Providence Road Storm Program Feb 11 2020	1:04 (56.7%)	84	84
6. 2018 Pollution Prevention Award Winners	2:21 (64.3%)	71	71
7. HRSD Thank You Video Feb 26 2016	1:15 (55.5%)	65	65
8. HRSD Employee Testimonials - Robert Jan 9 2017	0:17 (30.2%)	48	48
9. SWIFT Research Center Ribbon Cutting Ceremony, May 2018 Jul 1 2018	1:51 (53.2%)	28	28
10. Career at HRSD Oct 22 2012	1:44 (68.6%)	24	24

Top videos

## 3. Impressions and Visits

- Facebook: 17,951 page impressions, 13,930 post impressions reaching 12,435 users and Facebook engagement of 801 (629 reactions, 111 shares and 61 comments).
- Twitter: 14,700 tweet impressions; 241 profile visits and 50 mentions
- HRSD.com/SWIFTVA.com: 843 page visits
- LinkedIn Impressions: 3,593 page impressions and 1,591 post impressions

- e. YouTube: 2,213 views
- f. Next Door unique impressions: 449 post impressions
- g. Blog Posts: 3
  - (1) [WANT TO WORK FOR WATER? Become a Pretreatment and Pollution Prevention Specialist \(P3 Specialist\)](#)
  - (2) [HRSD's Asset Management is getting SMART](#)
  - (3) [Rebuilding Better Through Innovation: Providence Road Projects](#)
- h. Construction Project Page Visits – 1,556 total visits (not including direct visits from home page, broken down as follows:
  - (1) 1,151 visits to individual pages
  - (2) 405 to the status page

B. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Websites

- 1. News Releases/Traffic Advisories/Construction Notices: 12 (three construction notices, one Commission meeting notice, one public meeting notice, one traffic advisory, six news releases)
- 2. Advertisements: 0
- 3. Project Notices: 8 (via door hanging and mailings, reaching approximately 833 residents)
- 4. Project/Community Meetings: 0
- 5. New Project Web Pages /Videos: 1 new project page for [Patrick Henry Pump Station Sewer Connection](#)

C. Special Projects and Highlights

- 1. Director participated in the Water and Wastewater Leadership Program's Foundations of Finance courses (previously postponed during in-person attendance due to the emergence of COVID-19).
- 2. Director participated in Hampton Roads Planning District Commission (HRPDC) Regional Public Information subcommittee regional COVID messaging coordination and development meetings.

3. Director and staff continue to work with SWIFT program management to finalize the SWIFT Research Center virtual tour.
4. Director provided media response to inquiries related to sanitary sewer overflows that accompanied the remnants of Hurricane Sally as it passed through the region.
5. Director participated in coordination meetings with the US EPA Office of Water and regional office to schedule and plan a Water Infrastructure Finance and Innovation Act (WIFIA) check presentation event.
6. Staff attended the HRPDC askHRGreen water awareness and all hands meetings.
7. Staff participated in meetings with Virginia Beach Schools and Hampton City Schools to discuss an upcoming art contest open to Virginia Beach Schools students and to explore virtual collaboration opportunities with Hampton City Schools.

D. Internal Communications

1. Director participated in the following internal meetings and events:
  - a. Weekly Leadership and COVID-19 meetings
  - b. SWIFT Community Commitment planning meetings
  - c. James River Land Improvements selection team meetings and interviews
  - d. Outreach planning meetings for several projects including Larchmont Sewer Improvements, 16<sup>th</sup> & 16<sup>th</sup> Street and Woodstock Park
  - e. Architectural Review meeting for Willard Avenue Pump Station
  - f. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
2. Director conducted biweekly communications department status meetings and weekly one-on-one staff check-in meetings.

E. Metrics

1. Educational and Outreach Activities: 1
  - a. 9/24/20 – Virtual presentation on SWIFT to Old Dominion University American Society of Civil Engineers (ASCE)
2. Number of Community Partners: 1
  - a. Old Dominion University
3. Additional Activities Coordinated by Communications Department: 0

4. Monthly Metrics Summary

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>September 2020</b>
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	12.58
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	19.25
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1

5. Annual Metrics Summary

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>FY-2020</b>
M-5.1	Name Recognition (Survey Results)	Percentage	53%

Respectfully,

Leila Rice, APR  
Director of Communications

TO: General Manager  
FROM: Director of Engineering  
SUBJECT: Engineering Monthly Report for September 2020  
DATE: October 14, 2020

A. General

1. Capital Improvement Program (CIP) spending for the second month of Fiscal Year (FY) 2021 was below the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	14.71	27.76
Plan	22.80	42.30

2. Members of the Engineering Department were actively involved in the recent virtual WaterJAM Conference September 13-17. This conference is a joint partnership between the state American Water Works Association and the Virginia Water Environment Association (VWEA). Members of the Engineering Department presented and/or co-authored technical papers and acted as presenters at two workshops during the conference. The virtual nature of the conference created some interesting outcomes and allowed attendees to listen to prerecorded technical sessions over a longer period. HRSD's involvement at this conference is an excellent way to stay current on technical issues, share our knowledge to the industry and give back to the profession.
3. Staff actively participated in a national program known as United for Infrastructure. This initiative focuses public attention on the challenges of providing needed infrastructure investment in all areas of our society. This year's program was delayed due to COVID-19 and was held September 14-21. HRSD was engaged through a series of outreach activities including the creation of a [video](#) focusing on Asset Management, social media and blog posts and a [Letter to the Editor](#) that was published on a number of news outlets. The Communications Department provided valuable support to engage external stakeholders in this important initiative.

## B. Asset Management Division

1. Staff completed revisions on two sections of HRSD's Corrosion Protection Program. The revision to HRSD's Cathodic Protection Standards and Details included the proper use of high-density polyethylene (HDPE) and bolt material requirements. Staff also revised the HRSD Protective Coatings specification. Both changes will be incorporated into HRSD's Design and Construction Standards which is used for both internal maintenance and large-scale CIP projects.
2. Staff completed an initiative to share asset condition information using HRSD's Geographic Information System (GIS). The GIS will be used to highlight the risk score of every interceptor system pipe segment. A color code scheme is used to highlight asset risk from green (low) to red (extreme). The risk score is based on the following likelihood of failure factors:
  - Soil corrosivity
  - Corrosion protection
  - Proximity to stray current
  - Material of construction
  - Internal protective lining
  - Distance from active connection

The information is now available to all of HRSD and will assist staff for maintenance of these assets and for future CIP project selection.

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

1. The Surry Hydraulic Improvements and Interceptor Force Main project continue to be very challenging. Real estate acquisition continues and we have acquired the needed easements from 93 property owners. Construction work on the section of pipeline from the Marina to the main line on Virginia Route 10 continues. Construction of the needed pump stations is underway, although work on the interceptor force main has yet to begin. Negotiations for the U.S. Army Corps Wetland Permit continues and is the last hurdle to begin the interceptor force main. It is anticipated that this permit will be issued in October. This permit delay has impacted the overall project schedule which has slipped. The current expected completion is now planned for March 2023. Negotiations with Virginia Department of Environmental Quality to finalize the Consent Decree schedule are underway based on the current plan.

2. The Virginia Beach Boulevard Force Main Phase VI construction continues. The contractor is using three separate crews to install this pipeline project. Work is underway on Southern Boulevard, Parker Lane and North Lynnhaven Road. The trenchless crossing of London Bridge Creek continues. A micro-tunneling installation technique is being used to install a 60-inch diameter steel casing pipe. Inside this casing pipe, the contractor will install a 42-inch diameter HDPE carrier pipe. The most challenging part of the project will involve work on Virginia Beach Boulevard in the vicinity of Great Neck Road. This work will begin later this year. The contractor is on schedule to finish the project by mid-2021.
3. Earth Data has been selected as the Professional Services Consultant for the Recharge and Monitoring Well Program. An initial program kick-off meeting was held and a scoping meeting was conducted to review the James River full-scale well project. The needed regulatory approval associated with the Underground Injection Control (UIC) permit has been outlined with the consultant. An approach to manage the numerous well installation contracts was outlined. Earth Data is now being integrated into the larger SWIFT Program Team through various meetings and correspondence.

D. Planning & Analysis Division

1. As a result of the Central Norfolk Area Gravity Sewer Improvements CIP project, staff has been discussing the possibility of transferring some of HRSD's existing gravity sewer assets to the City of Norfolk. HRSD plans to improve this gravity sewer system located in an area surrounded by existing City gravity sewer system. It makes sense to consider turning this sewer system over to the City once improvements are completed and is part of a larger review of City and HRSD assets to determine the proper ownership of sewer assets aligned with current roles and responsibilities. Further discussions are needed and if successful, a Transfer of Asset Agreement will be prepared for Commission approval.
2. Staff completed documenting HRSD's Maintenance, Operation and Management (MOM) Program metrics for FY 2020. The information will be summarized in an annual report. The MOM Plan must be updated every three years with the next revision planned for publication by July 1, 2021. Review Teams have been created and meetings are underway.



E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 7
  - a. 09/09/2020 – WaterReuse Symposium presentation entitled, Programmatic Delivery Considerations for HRSD’s SWIFT Program.
  - b. 09/14/2020 – WaterJAM workshop entitled, One Water.
  - c. 09/14/2020 – WaterJAM workshop entitled, Collaborative Project Delivery.
  - d. 09/15/2020 – WaterJAM presentation entitled, Dynamic Asset Management Toward Improved Decision-Making.
  - e. 09/15/2020 – WaterJAM presentation entitled, What’s Your Infrastructure GPA? HRSD’s Letter Grading Method for Assessing Asset Condition and Performance.
  - f. 09/16/2020 – WaterJAM presentation entitled, Leveraging Visualization Tools for Effective Project Delivery.
  - g. 09/16/2020 - Breaking Bad: Lessons Learned Connecting to Aged Concrete Pressure Pipe
2. Number of Community Partners: 2
  - a. WaterReuse Association
  - b. Virginia Water Environment Association
3. Number of Research Partners: 0
4. Monthly Metrics Summary:

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>September 2020</b>
M-1.4a	Total Training Hours per Full Time Employee (44) - Current Month	Hours / #FTE	3.17
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	4.45
M-5.2	Educational and Outreach Events	Number	7
M-5.3	Number of Community Partners	Number	2
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, P.E.  
Bruce W. Husselbee, P.E.

TO: General Manager  
FROM: Director of Finance  
SUBJECT: Monthly Report for September 2020  
DATE: October 14, 2020

A. General

1. Staff closed on the \$1.048 billion Master Financing Agreement and \$225 million First Tranche of the Water Infrastructure Finance and Innovation Act (WIFIA) loan on September 28. The rate of the First Tranche was locked at 1.42 percent for 34 years. The EPA Administrator is scheduled to attend the WIFIA check award event on October 13.
2. The State Corporation Commission (SCC) service cut-off moratorium ends on October 5. Many localities in the region are waiting for direction from the General Assembly as the utility budget amendments advance in the House and Senate. A conference committee is expected to be tasked with resolving the differences between the two amendments. HRSD's 90+ Day Aging accounts receivable (i.e., amount that is 90 days past the due date) increased by \$850,000 month over month to \$8.6 million. This amount is slightly over double the amount as this time last year. With the lack of a stimulus deal and suspended cut-offs, the delinquent amounts continue to grow and HRSD's bill is likely one of many that goes unpaid.
3. Cumulative billed water consumption bounced back from the previous months' decline, but this was likely due to the large number of bills that went out in September. A few large localities are behind on billing and have begun to send estimated bills due to contracted meter reading delays. This is likely to impact our water consumption trend as adjustments will be required when the bills are read. Almost 100,000 more bills went out in September compared to the previous months. **Billed** wastewater revenues are above budget and in-line with the previous year. Fees continue to be lower due to the shut-off moratorium. Miscellaneous revenue increased by \$361,000 from our annual credit card rebate. Facility Charges are above budget with the strong regional housing market. Interest Income will lag this fiscal year as the interest rate has declined to 0.20 percent with the Federal Reserve holding rates to near zero. Expenses are generally in-line with budget with debt service payments higher due to biannual timing of bond series due dates.

## B. Interim Financial Report

### 1. Operating Budget for the Period Ended September 30, 2020

	Amended Budget	Current YTD	Current YTD as % of Budget (25% Budget to Date)	Prior YTD as % of Prior Year Budget
<b>Operating Revenues</b>				
Wastewater	\$ 312,218,000	\$ 85,207,775	27%	27%
Surcharge	1,522,000	439,121	29%	30%
Indirect Discharge	3,200,000	790,114	25%	31%
Fees	3,020,000	490,968	16%	26%
Municipal Assistance	700,000	164,276	23%	22%
Miscellaneous	1,165,000	450,708	39%	13%
<b>Total Operating Revenue</b>	<b>321,825,000</b>	<b>87,542,962</b>	<b>27%</b>	<b>27%</b>
<b>Non Operating Revenues</b>				
Facility Charge	6,160,000	2,208,755	36%	29%
Interest Income	1,510,000	255,468	17%	42%
Build America Bond Subsidy	2,292,000	-	0%	47%
Other	610,000	160,034	26%	22%
<b>Total Non Operating Revenue</b>	<b>10,572,000</b>	<b>2,624,257</b>	<b>25%</b>	<b>36%</b>
<b>Total Revenues</b>	<b>332,397,000</b>	<b>90,167,219</b>	<b>27%</b>	<b>27%</b>
Transfers from Reserves	28,765,873	21,576,912	75%	25%
<b>Total Revenues and Transfers</b>	<b>\$ 361,162,873</b>	<b>\$ 111,744,131</b>	<b>31%</b>	<b>27%</b>
<b>Operating Expenses</b>				
Personal Services	\$ 60,952,502	\$ 16,032,463	26%	27%
Fringe Benefits	24,945,953	6,242,911	25%	26%
Materials & Supplies	9,663,402	1,709,081	18%	17%
Transportation	1,579,254	225,636	14%	18%
Utilities	13,019,361	2,590,772	20%	20%
Chemical Purchases	10,500,337	1,839,054	18%	20%
Contractual Services	51,831,008	8,392,323	16%	16%
Major Repairs	13,076,208	1,245,881	10%	10%
Capital Assets	867,079	148,196	17%	0%
Miscellaneous Expense	3,721,391	881,942	24%	32%
<b>Total Operating Expenses</b>	<b>190,156,495</b>	<b>39,308,259</b>	<b>21%</b>	<b>21%</b>
<b>Debt Service and Transfers</b>				
Debt Service	61,407,822	22,177,343	36%	35%
Transfer to CIP	109,338,556	38,123,721	35%	25%
Transfer to Risk management	260,000	65,001	25%	25%
<b>Total Debt Service and Transfers</b>	<b>171,006,378</b>	<b>60,366,065</b>	<b>35%</b>	<b>29%</b>
<b>Total Expenses and Transfers</b>	<b>\$ 361,162,873</b>	<b>\$ 99,674,324</b>	<b>28%</b>	<b>25%</b>

## 2. Notes to Interim Financial Report

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

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

Transfers represent certain budgetary policy designations as follows:

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

## 3. Reserves and Capital Resources (Cash and Investments Activity) for the Period Ended September 30, 2020

### HRSD - RESERVE AND CAPITAL ACTIVITY

September 30, 2020

	General Reserve			Capital		
	General	Debt Service	Risk Mgmt Reserve	Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Unrestricted	Unrestricted	Unrestricted	Restricted
<b>Beginning - July 1, 2020</b>	<b>\$ 198,874,822</b>	<b>\$ 28,154,541</b>	<b>\$ 3,759,535</b>	<b>\$ 15,266,324</b>	<b>\$ 22,209,680</b>	<b>\$ -</b>
<b>Current Year Sources of Funds</b>						
<b>Current Receipts</b>	83,496,367					
Capital Grants					-	
VRA Draws					10,614,914	
Bond Proceeds (includes interest)						
Days Cash on Hand Transfer In					14,385,444	
Transfers In	-		65,001		23,738,277	
<b>Sources of Funds</b>	<b>83,496,367</b>	<b>-</b>	<b>65,001</b>	<b>-</b>	<b>48,738,635</b>	<b>-</b>
<b>Total Funds Available</b>	<b>\$ 282,371,189</b>	<b>\$ 28,154,541</b>	<b>\$ 3,824,536</b>	<b>\$ 15,266,324</b>	<b>\$ 70,948,315</b>	<b>\$ -</b>
<b>Current Year Uses of Funds</b>						
Cash Disbursements	67,590,823				49,903,551	
Days Cash on Hand Transfer Out	14,385,444					
Transfers Out	23,803,278					
<b>Uses of Funds</b>	<b>105,779,545</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>49,903,551</b>	<b>-</b>
<b>End of Period - September 30, 2020</b>	<b>\$ 176,591,644</b>	<b>\$ 28,154,541</b>	<b>\$ 3,824,536</b>	<b>\$ 15,266,324</b>	<b>\$ 21,044,764</b>	<b>\$ -</b>

#### 4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended September 30, 2020

##### HRSD - PROJECT ANALYSIS

September 30, 2020

Classification/ Treatment Service Area	Appropriated Funds	Expenditures	Expenditures	Total		
		prior to 7/1/2020	Year to Date FY2021	Project Expenditures	Encumbrances	Available Funds
Administration	31,697,240.00	15,301,431.50	2,968,785.38	18,270,216.88	8,299,639.61	5,127,383.51
Army Base	154,434,000.00	123,095,232.07	-	123,095,232.07	2,368,191.36	28,970,576.57
Atlantic	111,997,296.00	76,544,195.42	498,159.42	77,042,354.84	6,333,813.55	28,621,127.61
Boat Harbor	103,618,738.00	35,819,298.70	751,959.25	36,571,257.95	18,793,780.91	48,253,699.14
Ches-Eliz	164,257,309.00	66,918,183.23	10,904,284.87	77,822,468.10	45,640,157.20	40,794,683.70
James River	262,016,867.00	38,408,568.24	1,211,043.89	39,619,612.13	3,941,390.46	218,455,864.41
Middle Peninsula	59,315,026.00	10,774,476.73	337,286.25	11,111,762.98	5,890,141.23	42,313,121.79
Nansemond	73,237,979.00	23,950,304.43	2,840,975.17	26,791,279.60	12,982,830.22	33,463,869.18
Surry	45,747,598.00	10,882,588.12	580,786.85	11,463,374.97	27,913,438.98	6,370,784.05
VIP	287,822,592.00	178,722,716.75	707,054.78	179,429,771.53	3,370,930.88	105,021,889.59
Williamsburg	34,145,622.00	17,684,307.54	3,699,690.81	21,383,998.35	10,516,215.51	2,245,408.14
York River	54,904,843.00	25,878,632.35	355,160.11	26,233,792.46	1,344,179.35	27,326,871.19
General	645,537,050.00	155,536,569.21	2,909,302.87	158,445,872.08	41,323,603.39	445,767,574.53
	<u>2,028,732,160.00</u>	<u>779,516,504.29</u>	<u>27,764,489.65</u>	<u>807,280,993.94</u>	<u>188,718,312.65</u>	<u>1,032,732,853.41</u>

#### 5. Debt Management Overview

##### HRSD - Debt Outstanding (\$'000's)

September 30, 2020

	Principal Aug 2020	Principal Payments	Principal Draws	Principal Sept 2020	Interest Payments
<b>Fixed Rate</b>					
Senior	\$ 208,132	\$ (1,226)	\$ -	\$ 206,906	\$ (393)
Subordinate	549,519	(2,351)	4,284	551,452	(1,245)
<b>Variable Rate</b>					
Subordinate	50,000	-	-	50,000	(5)
<b>Line of Credit</b>					
<b>Total</b>	<u>\$ 807,651</u>	<u>\$ (3,577)</u>	<u>\$ 4,284</u>	<u>\$ 808,358</u>	<u>\$ (1,643)</u>

##### HRSD- Series 2016VR Bond Analysis

October 2, 2020

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.52%	0.55%	0.03%
Minimum	0.01%	0.01%	0.00%
As of 10/02/20	0.11%	0.09%	-0.02%

\* Since October 20, 2011 HRSD has averaged 55 basis points on Variable Rate Debt

## 6. Financial Performance Metrics for the Period Ended September 30, 2020

### HRSD - UNRESTRICTED CASH

September 30, 2020

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

		Days Cash on	
		Hand	Days Cash on Hand
Total Unrestricted Cash	\$ 216,727,268		416
Risk Management Reserve	\$ (3,824,536)	(7)	409
Reserve	\$ (15,266,324)	(29)	380
Capital (PAYGO only)	\$ (21,044,764)	(40)	340
Adjusted Days on Cash	\$ 176,591,644		340

Risk Management Reserve as a % of Projected Claims Cost is 25% YTD compared to 25% Policy Minimum  
Adjusted Days Cash on Hand Policy Minimum is 270-365 days.

### HRSD - SOURCES OF FUNDS

September 30, 2020

Primary Source	Beginning	YTD	YTD	YTD	Ending	Allocation of	Credit Quality	Current
	Market Value				Market Value			
	July 1, 2020	Contributions	Withdrawals	Income Earned	Sept 30, 2020	Funds		Yield
BAML Corp Disbursement Account	7,339,242	125,117,344	120,773,487	5,966	11,689,065	6.9%	N/A	0.55%
VIP Stable NAV Liquidity Pool	178,660,390	10,000,000	30,000,000	112,913	158,773,303	93.1%	AAAm	0.22%
<b>Total Primary Source</b>	<b>\$ 185,999,632</b>	<b>\$ 135,117,344</b>	<b>\$ 150,773,487</b>	<b>\$ 118,879</b>	<b>\$ 170,462,368</b>	<b>100.0%</b>		

VIP Stable NAV Liquidity Pool equalled Va Local Government Investment Pool (the market benchmark) performance at 0.22% in the month of September.

Secondary Source	Beginning	YTD	YTD	YTD	Ending	Ending Cost	LTD	Yield to
	Market Value				Market Value			
	July 1, 2020	Contributions	Withdrawals	Income Earned & Realized G/L	Sept 30, 2020		Mkt Adj	at Market
VIP 1-3 Year High Quality Bond Fund	64,899,667	-	3,263	246,361	65,027,478	62,979,637	2,047,841	0.23%
<b>Total Secondary Source</b>	<b>\$ 64,899,667</b>	<b>\$ -</b>	<b>\$ 3,263</b>	<b>\$ 246,361</b>	<b>\$ 65,027,478</b>	<b>\$ 62,979,637</b>	<b>\$ 2,047,841</b>	

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 0.07% in the month of September.

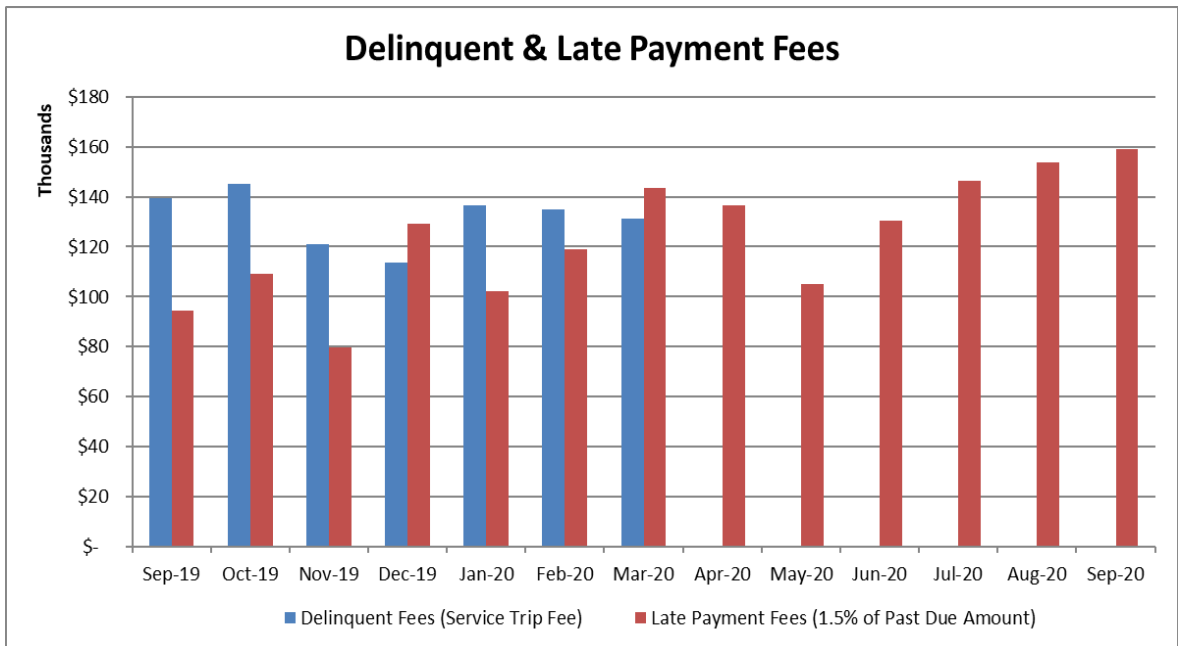
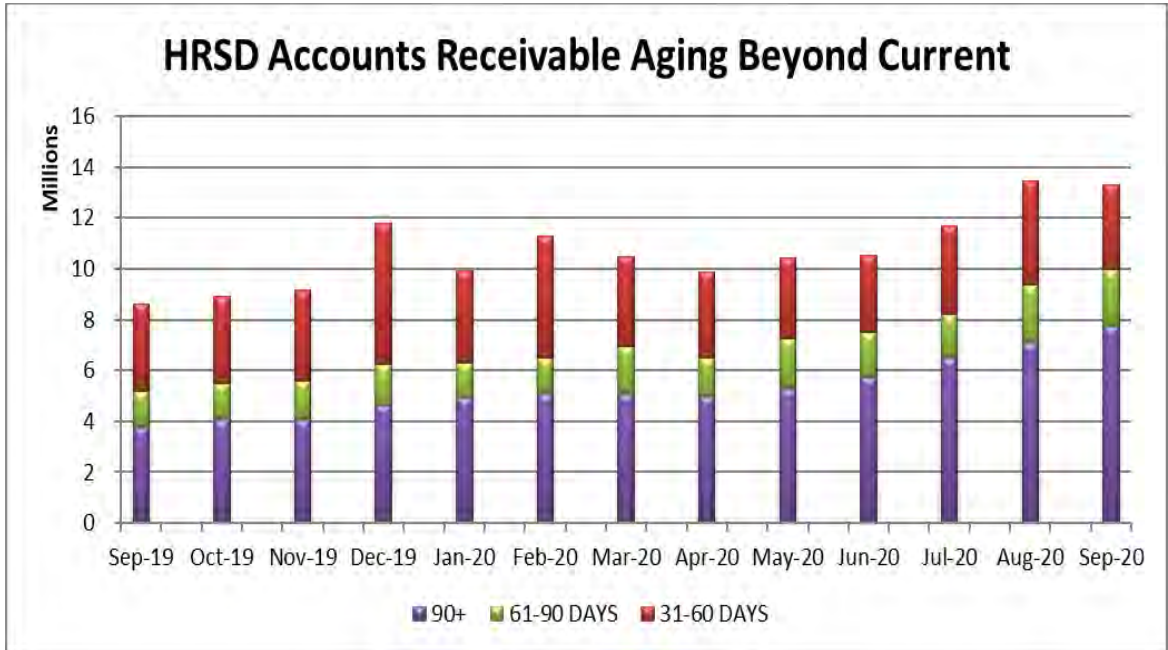
	Total	Fund Alloc
Total Primary Source	\$ 170,462,368	72.4%
Total Secondary Source	\$ 65,027,478	27.6%

## 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	-	N/A	18,952	N/A	18,966	N/A
Nov	22,937	-	N/A	23,092	N/A	23,160	N/A
Dec	27,268	-	N/A	27,518	N/A	27,383	N/A
Jan	31,818	-	N/A	32,101	N/A	31,920	N/A
Feb	36,287	-	N/A	36,005	N/A	36,236	N/A
March	39,495	-	N/A	40,108	N/A	40,223	N/A
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

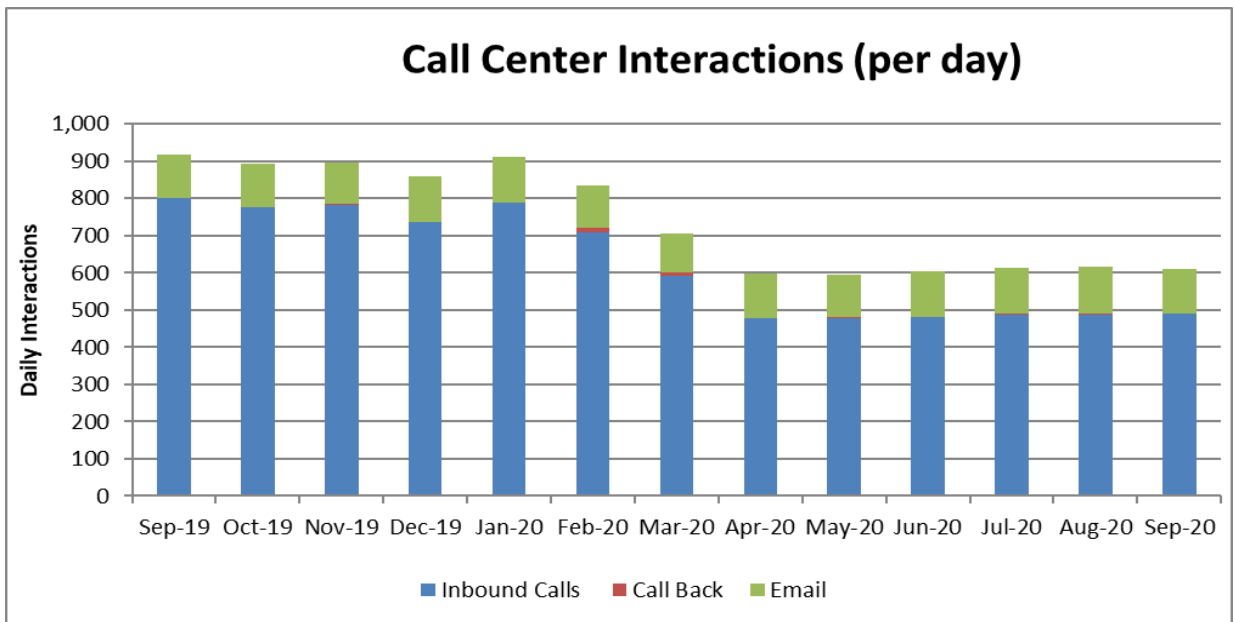
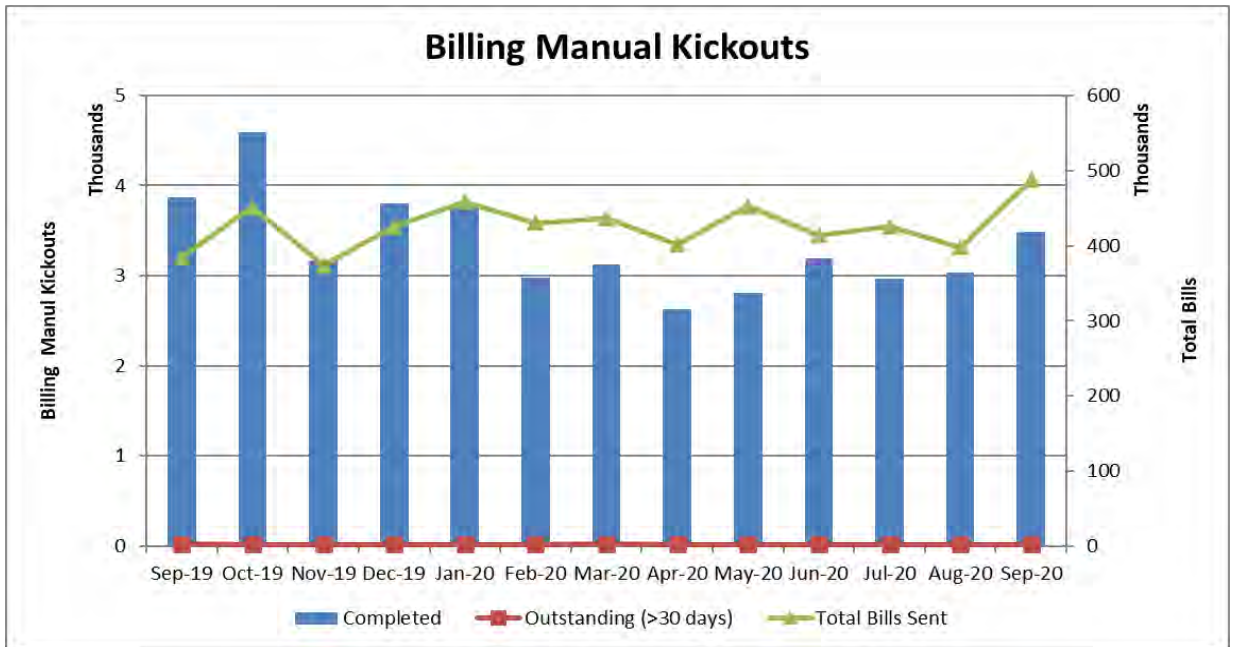
C. Customer Care Center

1. Accounts Receivable Overview



Apr-Sep 20 Field Activity was suspended late March in response to COVID-19

## 2. Customer Care Center Statistics



Customer Interaction Statistics	Apr	May	Jun	Jul	Aug	Sep
Calls Answered within 3 minutes	97%	95%	97%	97%	98%	95%
Average Wait Time (seconds)	0:22	0:28	0:18	0:26	0:17	0:28
Calls Abandoned	3%	4%	3%	3%	3%	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
<b>Total</b>	<b>6</b>	

\***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	September 2020
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	1.82
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	3.85
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	108%
	General Reserves	Percentage of Operating Budget less Depreciation	108%
	Liquidity	Days Cash on Hand	416 Days
	Accounts Receivable (HRSD)	Dollars	\$33,323,871
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	26%

#### 4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2020
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	*
M-4.3	Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow	*
M-4.4	Affordability	6.5 CCF Monthly Charge/Median Household Income <sup>1</sup>	*
M-4.5	Operating Cost/MGD	Total Operating Expense /365/5-Year Average Daily Flow	*
	Billed Flow	Percentage of Total Treated	*
	Senior Debt Coverage	Cash Reserves/ Senior Annual Debt Service	*
	Total Debt Coverage		*

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

Respectfully,

*Jay A. Bernas*

Jay A. Bernas, P.E.

Director of Finance

<sup>1</sup> Median Household Income is based on the American Community Survey (US Census) for Hampton Roads

TO: General Manager  
FROM: Director of Information Technology  
SUBJECT: Information Technology Department Report for September 2020  
DATE: October 14, 2020

A. General

1. Staff continues working with Microsoft to determine the optimal configuration of cloud-based and on-premises infrastructure to meet HRSD's operational needs. The process of migrating Office 365, SharePoint Online, Exchange eMail, and Teams to the cloud is ongoing, with completion slated for early 2021.
2. The newly established Cybersecurity Division has engaged Gartner Consulting to assist in the development of an IT security and governance master plan to effectively standardize policy, procedure, and execution of IT operations throughout the organization.
3. A new server platform for condition assessment video files was installed and configured, further facilitating asset management activities and decisions relating to pipeline maintenance and replacement.
4. The StackVision continuous air quality monitoring and data acquisition server was successfully upgraded as part of HRSD's ongoing technology refresh program.
5. IT staff successfully relocated networking and telecommunications equipment at the King William small communities facility to accommodate renovation of the administrative and laboratory spaces.
6. IT is conducting a thorough review and assessment of all enterprise networking assets and infrastructure to identify potential areas for improvement, enhancement, and savings. This includes potential consolidation of existing resources as well as further leveraging off-site and cloud solutions.

B. Strategic Planning Metrics Summary

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

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>September 2020</b>
M-1.4a	Training During Work Hours Per Full-Time Employee (50) – Current Month	Total Training Hours / # FTE	5.45
M-1.4b	Total Training During Work Hours Per Full-Time Employee (50) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	6.45
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,  
*Don Corrado*

TO: General Manager

FROM: Director of Operations

SUBJECT: Operations Report for September 2020

DATE: October 9, 2020

A. Overview

During the morning hours of September 17th, the remnants of Hurricane Sally moved across Hampton Roads. Multiple rain gauge sites captured more than 5 inches of rain, with a few recordings upwards of 6 inches. Rain gauges on the North and South Shores reached 1-25 year rainfall recurrence interval while some of the Small Communities Division sites reached a 2-5 year rainfall recurrence interval.

Plant flows for the major treatment plants are summarized as follows

Treatment Plant	Design Flow	September Monthly Average Flow	September 18 Peak Hour Flow	September 18 – Average Daily Flow
Army Base	18	12.00	44.82	29.42
Atlantic	54	25.89	66.57	44.38
Boat Harbor	25	15.74	58.17	40.27
Chesapeake Elizabeth	24	18.55	56.32	35.87
James River	20	12.52	15.93	15.47
Nansemond	30	17.86	46.33	34.15
Williamsburg	22.5	9.64	36.16	21.18
Virginia Initiative	40	27.59	75.38	63.04
York River	15	14.93	46.39	36.64

B. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. Despite heavy rainfall from the remnants of Hurricane Sally, only one Sanitary Sewer Overflow (SSO) occurred on the NS this month at the North Avenue Pump Station (PS) in Newport News. An estimated 84 gallons of sewage was lost.

- b. Notwithstanding the positive response of the NS system during periods of heavy wet weather, staff mobilized and provided quick response to manage a pipeline failure at the York River Treatment Plant (YRTP). Highlights of the YRTP pipeline failure are in the YRTP section of this report.
- c. There were two odor complaints and 22 system alarms this month. The odor complaints occurred at Bridge Street Pump Station and the Coliseum Tank were quickly resolved. The system alarms were mostly in response to the remnants of Hurricane Sally and the rain event on September 17-18. All system alarms were promptly resolved.

## 2. South Shore (SS) Interceptor Systems

- a. There were seven SSOs on the SS this month:
  - (1) On September 2, during an intense rainfall event, staff discovered a four-inch hole in the pipeline leading to Suffolk PS. Staff used the station standby pump to lower the wet well level which, subsequently, lowered the upstream system surcharge. Staff then used a fast-setting cementitious compound to repair the hole. The spill released approximately 2,700 gallons into Shingle Creek.
  - (2) On September 16, staff was installing a fitting at the Arctic Avenue PS in Virginia Beach. Staff inadvertently removed the discharge pipe instead of the suction pipe, spilling approximately 13,000 gallons into a nearby storm drain.
  - (3) On September 18, the remnants of Hurricane Sally caused four SSOs in the South Shore system:
    - (a) At the Suffolk PS, high downstream pressures locked out the pumps. Staff attempted to start the standby pump, but the pump would not prime. Staff also discovered another hole on the upstream siphon pipeline. These compounding issues resulted in approximately 2.5 million gallons spilling into Shingle Creek.
    - (b) At the Seay Avenue PS in Norfolk, the station's pumps and standby pump couldn't keep up with the high flows in the Norfolk system. As a result, approximately 6,600 gallons were released into the Elizabeth River.

- (c) At the Park Avenue PS in Chesapeake, the station's pumps couldn't keep up with the high flows in the Chesapeake system. Approximately 99,600 gallons spilled in the upstream gravity system and into storm drains leading to the Elizabeth River.
    - (d) At Chesapeake Boulevard PS in Norfolk, the station's pumps couldn't keep up with the high flows in the Norfolk system and approximately 300,000 gallons were released into Wayne Creek, a tributary of the Lafayette River.
  - (4) On September 19, the City of Norfolk reported a force main failure near the intersection of Robin Hood Road and East Bonner Road. Staff isolated the force main and removed a severely corroded fitting and installed a new tapping saddle and air vent. The failure released approximately 84,000 gallons into a nearby storm drain that drains to Wayne Creek.
- b. On September 11, staff received a complaint about odors near the Park Avenue PS in Chesapeake. Staff inspected and found the odors coming from an influent city manhole. Staff sealed the manhole with a sealant and checked the influent pump station pipeline and reported no other issues.
- c. There were seven interceptor complaints reported this month. One issue was associated with the City of Chesapeake Public Utilities Department and two were with City of Norfolk Utilities.
- d. Staff responded to and resolved 20 system alarms this month.

## C. Major Treatment Plant Operations

### 1. Army Base Treatment Plant (ABTP)

On September 18 heavy rains from Hurricane Sally caused an overflow at the primary clarifier influent channel resulting in a loss of 800 gallons of wastewater. Staff placed an additional primary in service.

### 2. Atlantic Treatment Plant (ATP)

- a. The Thermal Hydrolysis Process (THP) start up continues to present challenges. The pH levels on the Thermal Hydrolyzed Solids Digesters continued to decline. Staff added Soda Ash to both

Digesters which helped to correct and stabilize the Digesters. Work continued in the Fats, Oils and Grease facility. Water testing of the facility is set for early November.

- b. Digester 3 was taken offline, cleaned and will be turned over to the contractor so piping modifications can be made to the digester gas lines.

### 3. Boat Harbor Treatment Plant (BHTP)

- a. Heavy rains from Hurricane Sally resulted in an overflow at the secondary clarifier distribution box. To alleviate the overflow, staff opened an out-of-service secondary clarifier drain, and slightly opened the influent gate to the secondary clarifier, allowing the extra flow to go down the plant drain system, relieving the pressure on the distribution box and stopping the overflow. Once the influent flow dropped low enough, the secondary clarifier was taken back out of service, drained, and cleaned. The secondary clarifier was out of service for an on-going coatings project.
- b. High plant influent flows caused the activated biosolids to become diluted. Staff decided to stop nitrification efforts and return to traditional high rate biological phosphorus removal treatment.
- c. Staff completed the installation of the new polymer system for Chemically Enhanced Primary Treatment (CEPT). This polymer system will allow for better control of the polymer dosing and flow pacing to more efficiently dose polymer according to the plant influent flow.

### 4. Chesapeake-Elizabeth Treatment Plant (CETP)

Staff repaired the brush drive systems for band-screens #2 & #3.

### 5. James River Treatment Plant (JRTP)

An hourly flow rate of 46 million gallons per day (mgd) was recorded during the rain events on September 17 and 18. Staff adjusted tanks in service and processes to handle the additional flow with no issues.

### 6. Nansemond Treatment Plant (NTP)

- a. Pressure testing and leak detection work is ongoing for the Sodium Hydroxide feed line to the Struvite Recovery Facility. Contractors



pressure-tested the line and did not find a leak; however, staff continues to see evidence of a leak and are testing to identify the location.

- b. Staff put Secondary Clarifier #5 in service on September 11 with the new Hydrograv Adapt inlet installed. Performance testing will take place over the next few months, and if successful, this equipment may lead to considerable cost savings with future SWIFT construction projects. Secondary Clarifiers #2 & #3 were taken out of service and will be cleaned and inspected.
- c. SWIFT Research Center (SWIFT RC)
  - (1) The total volume of SWIFT recharge into the Potomac aquifer for the month of September was 24.3 MG (81 percent Recharge Time).
  - (2) Contractors installed new granular activated carbon (GAC) media on September 10 after staff repaired the bottom of the GAC vessel #1.

## 7. Virginia Initiative Plant (VIP)

There were two odor control events. One occurred when the outlet hydrogen sulfide levels were higher than 2 parts per million at the headworks odor control station, and another occurred when staff temporarily deactivated the same system.

## 8. Williamsburg Treatment Plant (WBTP)

- a. In response to the heavy rains on September 17 and 18, staff adjusted tanks in service and processes to handle the additional flow with no issues.
- b. One reportable wastewater event occurred when the short outfall was used during an extreme weather event on September 29. Hourly flow rates reached 42 mgd. Approximately 250,000 gallons of treated, final effluent was discharged using the short outfall.
- c. Staff continued work on modifications to aeration tank #3 by constructing new fiberglass baffle walls and installing a larger nitrified recycle line. These are improvements to the modifications made a few years ago.

- d. A contractor completed replacement work on the #3 raw influent screen surface with six-millimeter lamella. Staff reinstalled the screen and placed it back in service. The six-millimeter lamella should prevent rags from binding on the screen while providing good screening removal.

## 9. YRTP

- a. On September 17, the 60-inch pipe between the headworks and the primary clarifiers failed. Because of the nature of the spill, isolating the pipeline was very challenging. The spill lasted for several days ultimately resulting in a total spill volume of approximately 6.8 million gallons. Staff worked non-stop to get the necessary measures in place to contain the flows. By September 20, the flow was contained at the spill point. Staff controlled the flow by bringing in 11 pumps and installing a temporary piping system to send the flow from the break point to the aeration tanks. Thanks to staff's actions and high tidal conditions, water quality monitoring of Back Creek showed improved conditions as early as September 21. By September 22 a contractor established a by-pass piping system from the pre-aeration tank to the primary clarifier distribution chamber. The bypass consists of four pumps, controlled by water levels in the pre-aeration tanks, with the capability of pumping up to 30 mgd. A second significant rain event on September 30 resulted in another hourly flow rate of 24 mgd; however, there were no issues with bypass pumping setup. Inspection of the ruptured pipe revealed significant corrosion at the top of the pipe. A plan is being developed to replace the pipe.
- b. Testing of nutrient removal through filtration on the pilot plant continued. There was good growth of annamox bacteria on filter media. Partial denitrification with annamox shows promise for being a good operating strategy when combined with controls on the aeration tanks. Results during winter conditions still need to be determined.

## 10. Incinerator Operations Events Summary

Total Hydrocarbon (THC) monthly averages (not to exceed 100 parts per million) were met by all five plants with incinerators. Certified THC for the month exceeded 90% for all five facilities.

There was one deviation from the required minimum operating parameters and 12 minor (<60 minute) non-reportable bypass events. There were ten uses of the emergency bypass stack at ABTP. The process continues to

be challenged by process-related (draft and temperature) issues that result in the loss of the ID fan.

Stack testing was successfully performed at VIP on September 22.

C. Small Communities (SC)

1. Middle Peninsula Small Communities Treatment and Collections

a. Collection Systems

- (1) On September 10, an overflow occurred at manholes on Rappahannock Avenue in Urbanna as a result of heavy rainfall (6.4 inches) on top of already saturated ground conditions. 2,160 gallons was unrecovered and flowed to the Rappahannock River via storm drains. On September 17, an overflow occurred out of manholes on Rappahannock Avenue in Urbanna as a result of heavy rainfall (3.3 inches) stemming from remnants of Hurricane Sally. 210 gallons were unrecovered and flowed to the Rappahannock River via storm drains. Staff cleaned the gravity line from the Rappahannock Street PS to the Bonner Street PS.
- (2) On September 16, staff received an odor complaint coming from manholes outside a business in King William. Staff continues to replace the carbon media at the manhole behind the business while working on a longer-term solution to the high H<sub>2</sub>S system conditions.

b. West Point Treatment Plant (WPTP)

- (1) On September 15, staff installed a bypass pump to allow for the repair of a final effluent pump. The discharge hose on the bypass pump ruptured, releasing approximately 20,077 gallons of fully treated final effluent. 2,800 gallons were recovered; the remaining 17,270 gallons of final effluent soaked into the ground.
- (2) On September 18 an overflow occurred out of the influent equalization pond because of heavy rainfall. 31,080 gallons was unrecovered and soaked into the ground and flowed into the West Point Creek.

## 2. Small Communities – Surry Systems

- a. There were five SSOs this month all because of long duration, high intensity rainfall events. Four occurred at Dendron PS 1B on September 9, 12, 18 and 29. Parts of the Surry service area experience over 12-inches of rainfall during the month with numerous flash flood warnings. CCTV data on the publicly owned portion of Dendron system revealed no major inflow and infiltration (I&I) contributions. The fifth SSO occurred at the Town of Surry TP on September 18. The total estimated quantity of lost sewage was just under 25,000 gallons.
- b. There were two permit exceedances for copper concentrations at the Surry County TP the week of September 9-12. There were no known contributing equipment or process issues. Staff is investigating the effectiveness of the chemicals used at the TP as well as possible sources of copper in the collection system. A table summarizing the permit limits and reported values is as follows:

Week	Parameter	Permit Limit	Reported Value
9/6-9/12	Copper Weekly Maximum Concentration	5.9	5.95
9/6-9/12	Copper Monthly Average Concentration	5.9	5.95

## 3. Small Communities – Lawne’s Point

Staff established a system this month whereby the ponds can automatically be drained of rainwater. This process eliminates the need for the expensive and time-intensive treatment that was necessary when HRSD took ownership of the TP and ponds. With the recent heavy rains, the ponds were almost full. Staff lowered pond #1 over 4 feet in just 10 days of operation.

## D. Support Systems

### 1. Automotive

The upgrade of the NS Main Complex fuel system is complete.

## E. Electrical & Instrumentation (E&I)

1. Staff replaced an Uninterrupted Power Supply (UPS) for the business network at ATP. Staff also installed an additional UPS to provide a redundant power source. The failure caused communication issues on the

Supervisory Control and Data Acquisition (SCADA), Operations (OPS), and IT network.

2. Staff continues to work with contractors in preparation for the closure of CETP. Significant progress was made at Independence Pressure Reducing Station (PRS).
3. Staff re-wrote the Clarified Recycle (CRCY) control logic for pumps #4, 5, & 6 for the Hydrograv project within the Ovation DCS at the NTP. The new changes include a new mode of control that allows the staff to enter a percentage of Effluent Flow for each of the #4 and #5 Secondary Clarifiers that the CRCY pumps pull from. A feature was also added to enable CRCY pump #5 to be selectable between the #4 and #5 Secondary Clarifier.
4. Staff coordinated removal of the transformer owned by Dominion Energy and replaced it with a privately owned transformer at YRTP. The new privately owned transformer's tap changer failed and was shipped back to the manufacturer for repairs. A contractor installed a temporary transformer until the new, permanent transformer's repairs are complete.
5. Staff installed an ultrasonic Flow Meter to measure the amount of water discharged from the holding ponds at Lawnes Point.
6. Staff and contractors installed "muster reader" card swipes at all HRSD work centers. The card swipes are to document an employee's acknowledgement that they are not experiencing COVID-19-related symptoms and are safe to enter the work center.
7. Staff responded to 34 SCADA communication failures and 14 Telog communication failures.

#### F. Water Technology and Research

The partial denitrification-anammox (PdNA) moving bed biofilm reactor (MBBR) pilot at James River Treatment Plant (JRTP) includes two reactors with the objective of evaluating startup and loading conditions comparing the use of biofilm carriers from the main plant integrated fixed-film activated sludge (IFAS) process with virgin carriers. The performance of this pilot has been much better than expected, with anammox establishment on the preliminary biofilm reactor within 50 days and full ammonia removal within about 90 days.



## H. Strategic Measurement Data

### 1. Education and Outreach Events: 1

9/14/2020: Germano Salazar-Benites from SWIFT RC participated as speaker at the Great Debate: Reverse osmosis-based vs. Carbon-based Treatment for Potable Reuse as part of the WateReuse Symposium

### 2. Community Partners: 3

- a. Chesapeake Bay Foundation – oyster cage maintenance at BHTP for oyster gardening program
- b. United Way
- c. DOE Jefferson Lab

### 3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2020
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (526) – Current Month	Hours / FTE	2.07
M-1.4b	Total Training During Work Hours per FTE (526) – Cumulative Year-to-Date	Hours / FTE	6.88
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	31,558.25
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	60%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	18%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	22%
M- 4.1a	Energy Use: Treatment *reported for August 2020	kWh/MG	2,402

Item #	Strategic Planning Measure	Unit	September 2020
M-4.1b	Energy Use: Pump Stations *reported for August 2020	kWh/MG	137
M-4.1c	Energy Use: Office Building *reported for August 2020	kWh/MG	107
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	3

Respectfully submitted,  
Steve de Mik  
 Director of Operations



TO: General Manager  
FROM: Director of Talent Management (TM)  
SUBJECT: Monthly Report for September 2020  
DATE: October 14, 2020

A. Talent Management Executive Summary

1. Recruitment

Summary

New Recruitment Campaigns	8
Job Offers Accepted – Internal Selections	2
Job Offers Accepted – External Selections	2
Average Days to Fill Position	52

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

- a. Continued addressing suspected employee COVID-19 cases and potential close contact exposures based on Virginia Department of Health (VDH) guidelines. In September, 25 employees were quarantined due to direct exposures (external), household exposures or due to COVID-19 symptoms; two employees had confirmed positive tests and six employees quarantined following personal travel. There was no direct exposure to HRSD employees and there have been no work-related cases.
- b. Human Resources (HR) and Safety staff, assisted by the Operations Project Manager, deployed *HRSD's Infectious Disease Preparedness and Response Plan* based on Virginia Occupation Safety and Health Administration's (VOSHA's) Emergency Standard: *Infectious Disease Prevention: SARS-CoV-2 Virus That Causes COVID-19*. 855 employees completed the training in September.
- c. HR and Electrical and Energy Management staff added additional Computer Coordinated Universal Retrieval Entry (CCURE) system badge readers as previously determined to meet the deadline of October 1, 2020 for daily employee acknowledgement of COVID-19 Health assessments.
- d. Safety completed COVID-19 Risk Assessments for all work centers to identify risk levels for positions and tasks to evaluate risk control

measures and to establish maximum occupancy limits of common areas to meet physical distancing requirements.

### 3. HR Policies

- a. An HR Business Partner worked with the Operations Project Manager to convert compliance training on the Equal Employment Opportunity policy and the new Whistleblower Policy into the Rise 360 platform.
- b. HR and Accounting staff partnered to ensure all employees eligible for the Internet Allowance based on the Remote Work policy and Director designations received their allowance.
- c. Several HR policies were updated and posted on SharePoint including Hours of Work, Family Medical Leave, Operations During Severe Weather, Paid Time Off, Professional Development, and Safety Apparel.

4. HR staff along with the Organizational Development consultant, Hicks-Carter-Hicks (HCH), conducted the first of several sessions intended for hiring managers: *Interviewing Skills: Hiring the Right Person for the Job*.

5. HR staff provided information to the Finance Department for the EPA Water Infrastructure Finance and Innovation Act (WIFIA) Loan Application.

6. HCH facilitated three *Courageous Conversation* sessions. These conversations will continue into October as an initial step for HRSD to enter focused conversations on diversity, equity and inclusion and to discuss racial tensions in the world.

### 7. Wellness Program

- a. Wellness conducted nine virtual wellness meetings with treatment plants. The Wellness Specialist provided a health education presentation and wellness updates and assisted employees with wellness program requirements.
- b. A four-week pilot of *10-Minute Virtual Mindful Meditation* sessions were offered on Wellness Wednesdays. Sessions were recorded and uploaded to the Wellness SharePoint page. A survey was conducted through SharePoint. Based on feedback, mindful meditations will continue through October.

c. Participation

<b>Year Eight Participation Activities</b>	<b>Unit</b>	<b>September 2020</b>	<b>Year to Date (March 2020–February 2021)</b>
Biometric Screenings	Number	1	70
Preventive Health Exams	Number	4	104
Preventive Health Assessments	Number	14	100
Coaching Calls	Number	0	0
Online Health Improvement Programs	Number	26	90
Web-MD Online Health Tracking	Number	57	803
Challenges	Number	0	256
Fit-Bit Promotion	Number	2	49

d. Preparations continued for October Flu and Tetanus Clinics.

8. The 2020-2021 Apprenticeship Year has begun. Several meetings were conducted to prepare for the new year. Seventy percent of classes were successfully converted to the Canvas online learning environment.
9. ODT staff worked on several Request for Proposals: Student Information Systems, Attendance Applications, and an Assessment Application to enhance online learning capabilities.
10. Mishaps and Work-Related Injuries Status to Date (OSHA Recordable)

	<b><u>2019</u></b>	<b><u>2020</u></b>
<b>Mishaps</b>	37	23
<b>Lost Time Mishaps</b>	6	1
<i>Numbers subject to change pending HR review of each case.</i>		

11. Safety Division Monthly Activities

Safety Training Classes	9
Work Center Safety Inspections	10
Reported Accident Investigations	2
Construction Site Safety Evaluations	28
Contractor Safety Briefings	5

Hot Work Permits Issued	20
Confined Space Permits Issued/Reviewed	165
Occupational Health Testing	220
Industrial Hygiene Monitoring Events	3

B. Monthly Strategic Planning Metrics Summary

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

Item #	Strategic Planning Measure	Unit	September 2020
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.0 %
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.5%
M-1.4a	Total Training Hours Per Full Time Employee (17) – September	Total Training Hours/ FTE	2.71
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	6.97
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Community Partners	Number	0

Respectfully submitted,  
**Paula A. Hogg**  
 Director of Talent Management

TO: General Manager  
FROM: Director of Water Quality (WQ)  
SUBJECT: Monthly Report for September 2020  
DATE: October 14, 2020

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed one civil penalty this month.

**Spivey Rentals, Incorporated – Chesapeake**

An Enforcement Order was issued to Spivey Rentals, Incorporated in August 2020 for an unauthorized discharge which occurred at the Chesapeake Elizabeth Treatment Plant on July 18, 2020. The Order contained an invoice for a \$2,500 Civil Penalty. The operator of Spivey Rentals, Incorporated, truck number 330 was attempting to unclog the discharge port on the vehicle when the blockage was cleared, resulting in a 1,200-gallon spill of untreated wastewater at the plant's waste receiving station. An estimated 600 gallons was not recovered and entered the environment through a storm drain on the plant site. A Show-Cause Meeting was held on August 11, 2020 after issuing the Notice of Violation. The Enforcement Order was accepted and the Civil Penalty was paid in full on September 8, 2020.

2. The Water Quality/Operations Quality Assurance (QA) Manager worked with the Technical Services Division (TSD) and P3 to develop goals and milestones for implementation of QA Initiatives related to Standard Operating Procedures (SOP) development, training documentation and demonstration of capability. These initiatives will be incorporated into TSD and P3 as policies and will include documented training and follow-up through implementation.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported the following activities for the month of September:
  - a. In collaboration with Wellness, the SEA group introduced the Bingo Challenge, an interactive way to participate in numerous community cleanup activities and awareness events. The deadline for completing the challenge has been extended to Friday, October 30.

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 Spotsylvania County, Northumberland County, Westmoreland County, and 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 July 1 and September 30, 2020 are attached.
3. The [Municipal Assistance Invoice Summary](#) for the third quarter of the 2020 calendar year is attached.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
  - a. P3 staff trained Seaford Yacht Club staff on the usage of the Boater Pump-Out carts.
2. Community Partners: 3
  - a. American Red Cross
  - b. City of Norfolk
  - c. Hampton Roads Planning District Commission
3. Odor Complaints: 4
  - a. September 11 - An odor complaint was received by South Shore Operations regarding odors from Park Avenue pump station in Chesapeake. Operations responded and only identified odor from a manhole in the street in front of the station. The manhole was sealed, eliminating that source of odors. TSD visited the site again and no odors were observed coming from the station; no further complaints have been received.
  - b. September 16 - Small Communities Division (SCD) and TSD received a complaint regarding odors at manholes from Tibbs Auto Sales in King William. SCD and TSD continue to replace the carbon media at the manhole behind Tibbs while working together on a longer-term solution to the high H<sub>2</sub>S system conditions. A Bioxide trial at Kennington pump station is planned to mitigate sulfide generation in the system downstream including Mr. Tibbs' location. Mr. Tibbs is aware of all the

efforts to control the sulfides and odors at his business. He will continue to notify HRSD of any odor problems that he observes.

- c. September 16 - A resident near HRSD's Bridge Street pump station in Hampton contacted North Shore Operations with an odor complaint. Operations and TSD responded and no sources of H<sub>2</sub>S or other odors were identified coming from the station at the time of investigation. The wind was blowing easterly all day, putting the complainant directly in the path of any potential odors from the station. Operations had been working at the station earlier in the day performing routine maintenance and cleaning that could have allowed odors to escape and generate the complaint. Mrs. Cox, the complainant, was informed of the work done and working status of the station's odor control system. She was pleased with HRSD's immediate response and honest assessment of what probably occurred.
- d. September 28 - North Shore Operations received an odor complaint regarding odors from the Coliseum storage facility in Hampton. The carbon odor control system media was exhausted and was being replaced. Once that work was done, H<sub>2</sub>S and odors were being controlled and no further complaints have been received.

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2020
M-1.4a	Training During Work Hours Per Full Time Employee (118) (Current Month)	Total Hours / # FTE	4.47
M-1.4b	Total Training During Work Hours Per Full Time Employee (118) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	13.14
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	5:15,220
M-3.2	Odor Complaints	#	4
M-3.4	Pollutant Removal	Total Pounds Removed	45,886,779

Item #	Strategic Planning Measure	Unit	September 2020
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	16%
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	3
	Average Daily Flow	Total MGD for all Treatment Plants	155.56
	Pretreatment Related System Issues	#	0

5. Annual Metrics

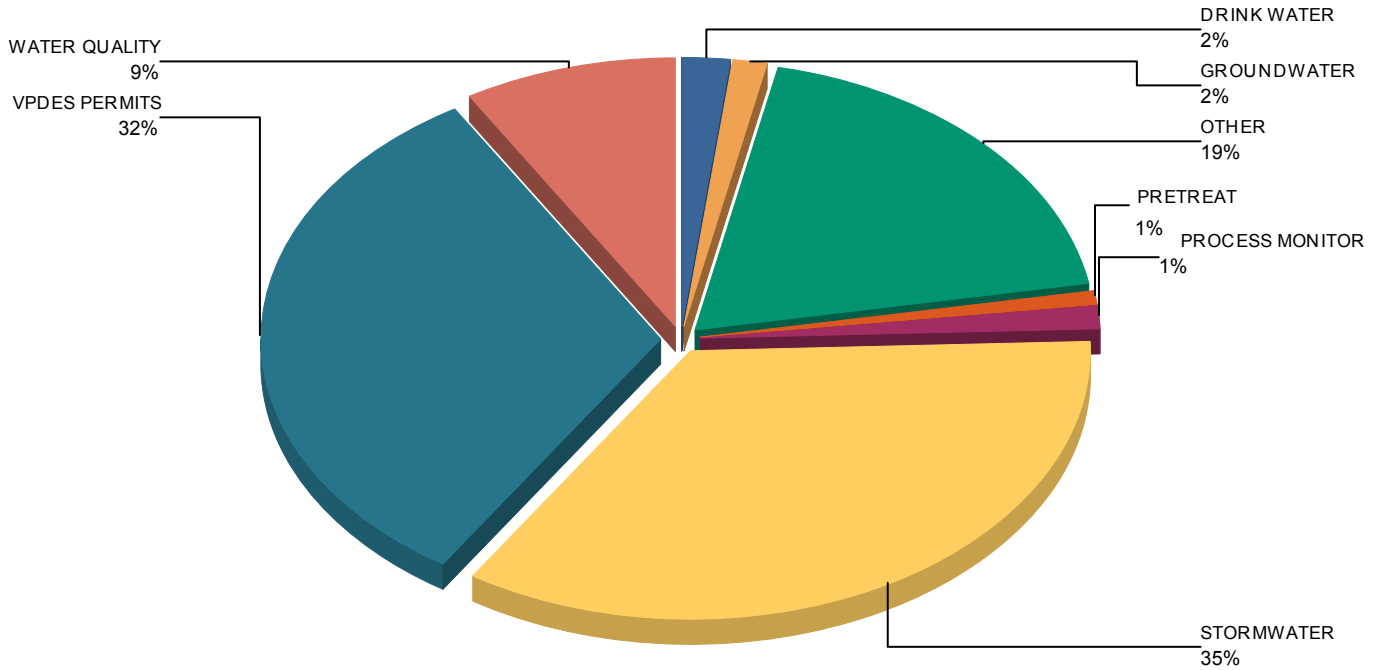
Item #	Strategic Planning Measure	Unit	FY-2020
<b>M-3.3</b>	<b>Carbon Footprint</b>	<b>Tons per MG</b>	<b>1.70</b>
M-4.2	R & D Budget	Percentage of Total Revenue	1.3%
M-5.4	Value of Research	Number	143%
M-5.5	Number of Research Partners	Number	32
	Rolling 5 Year Average Daily Flow	MGD	149.84
	Rainfall reported at Norfolk International Airport	Inches	48.49"

Respectfully submitted,  
*James Plett, PhD*  
 Director of Water Quality



# Municipal Assistance Billed Reimbursements per Service From 07/01/2020 to 09/30/2020

## Attachment 1



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

# Municipal Assistance Invoice Summary

## From 7/1/2020 - 9/30/2020

<b>Municipality</b>	<b>Reimbursements</b>
Accomack County	\$2,573.72
Buckingham County	\$372.63
Chesapeake Public Works	\$2,274.66
City of Chesapeake	\$3,967.84
City of Emporia	\$224.16
City of Hampton	\$5,428.93
City of Lynchburg	\$689.81
City of Norfolk	\$3,690.26
City of Portsmouth	\$6,349.12
City of Suffolk	\$2,548.13
City of Virginia Beach	\$7,660.39
Frederick County	\$440.83
HRPDC	\$56,859.25
Hanover County	\$812.80
James City County Service Authority	\$1,108.80
King George County	\$4,480.20
New Kent County	\$5,953.29
Northampton County WWTP	\$1,198.43
Northumberland Co. - Callao WWTP	\$1,380.65
Prince William County	\$25,018.03
Rivanna Water and Sewer Authority	\$5,685.98
St Brides Corr Ctr WWTP	\$1,492.46
Stafford County	\$98.80
Town of Cape Charles	\$4,955.79
Town of Lawrenceville	\$666.85
Town of Round Hill	\$138.87
Upper Occoquan Service Authority	\$1,665.77
Virginia Department of Health	\$15,855.02
Westmoreland County	\$684.65
<b>Totals:</b>	<b><u>\$164,276.12</u></b>



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***

---

### **SWIFT Program Management Plan**

- **Tasks Completed (September 2020)**
  - Finalized draft audit report
  - Communicated draft report to Management for review
  
- **Upcoming Tasks (October 2020)**
  - Discuss and resolve any feedback or comments provided by Management
  - Finalize report

### **Fleet Services**

- **Tasks Completed (September 2020)**
  - Completed Fieldwork Procedures
  - Began drafting the audit report
  
- **Upcoming Tasks (October 2020)**
  - Validate preliminary fieldwork observations
  - Finalize draft audit report
  - Communicate draft report to Management for review

### **Succession Planning**

- **Tasks Completed (September 2020)**
  - Scheduled and conducted department level interviews
  - Begin drafting the audit report
  
- **Upcoming Tasks (October 2020)**
  - Conduct remaining department level interview (IT)
  - Collect succession planning related data metrics and support
  - Communicate draft report to Management for review

### **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. A specific completion date has not been identified at this time.



**Upcoming Projects (FY2021)**

A Contract Management Audit (Procurement-Non-Engineering) is planned to be initiated in October/November 2020 (Q4, CY2020).

**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	September 2020	11	2	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	August 2020	8	3	11
Engineering Procurement	4/20/18	In process	4	4	8
Corporate Governance: Ethics Function	3/21/18	August 2020**	3	2	5
Treatment Plant Operations	10/15/18	July 2021	5	4	9
Customer Care Division*	7/26/19	August 2020**	0	4	4
Safety Division*	9/12/19	September 2020	0	3	3
Permitting*	2/4/20	August 2020**	0	2	2
Payroll*	3/27/20	November 2020	0	3	3
Pollution Source Control*	6/2/20	February 2021	0	8	8
<b>Totals</b>			58	36	94

\*SC&H has not yet performed formal follow-up procedures for the implementation status of these MAPs. Actual status may vary within the associated process areas and will be updated upon follow-up.

\*\*SC&H is preparing follow-up procedure documentation to be sent.

**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	*
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		*
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	2408
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	*
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%	*
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	*
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%	*
	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%	*
	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%	*

\*to be reported

**Monthly Updated Metrics**

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21 Aug-20	FY-21 Sep-20
	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	153.9	155.6
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	106%	108%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	107%	108%
	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	\$31,279,646	\$33,323,871
	Aging Accounts Receivable	Percentage of receivables greater than 90 days		21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	25%	26%	
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	4	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	3:10147	5:15220
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	3	4
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	31,577,760	45,886,779
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	17%	15%	16%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	4	9
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	11	9

**EFFLUENT SUMMARY FOR SEPTEMBER 2020**

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	12.00	67%	1	2.1	1	1	0.72	0.77	3.7	3.6	NA	NA	3
ATLANTIC	25.89	48%	9	7.6	3	1	NA	NA	NA	NA	NA	NA	3
BOAT HARBOR	15.74	63%	8	5.1	4	1	0.62	0.47	13	17	NA	NA	7
CENT. MIDDLESEX	0.012	48%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	18.55	77%	13	8.6	12	2	0.69	1.2	29	32	NA	NA	19
JAMES RIVER	14.93	75%	5	2.6	2	2	0.28	0.36	9.8	8.8	NA	NA	1
KING WILLIAM	0.071	71%	<2	<1.0	NA	<1	0.050	0.036	0.64	1.3	0.48	NA	NA
NANSEMOND	17.86	60%	4	4.3	4	1	0.68	0.76	3.8	3.7	NA	NA	0
SURRY, COUNTY	0.073	113%	3	<1.0	NA	1	NA	NA	NA	NA	<0.50	<0.10	0
SURRY, TOWN	0.082	137%	3	13	NA	54	NA	NA	NA	NA	1.1	0.16	NA
URBANNA	0.069	69%	4	10	2	3	6.4	5.0	12	17	NA	0.14	NA
VIP	27.59	69%	2	2.3	3	1	1.0	0.63	5.3	3.5	NA	NA	0
WEST POINT	0.535	89%	20	18	10	7	2.5	2.6	15	16	NA	NA	0
WILLIAMSBURG	9.64	43%	4	3.4	5	13	0.75	0.64	1.9	2.6	NA	NA	4
YORK RIVER	12.52	83%	1	2.7	1	12	0.27	0.28	2.8	4.5	NA	NA	4
	<u>155.56</u>												

	% of Capacity
North Shore	64%
South Shore	61%
Small Communities	84%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY20		YTD	Projection CY20	
	%	Lbs	%	%	Lbs	%
James River	60%	3,801,425	83%	56%	258,077	81%
York River	53%	219,992	76%	56%	16,107	83%
Rappahannock	168%	NA	NA	710%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY20 to Date: 5:15,220  
Pounds of Pollutants Removed in FY20 to Date: 45,886,779  
Pollutant Lbs Discharged/Permitted Discharge FY20 to Date: 16%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	10.09"	7.63"	10.33"
Normal for Month	5.50"	6.06"	4.52"
Year to Date Total	57.77"	41.72"	47.34"
Normal for YTD	40.65"	39.98"	38.27"

**AIR EMISSIONS SUMMARY FOR SEPTEMBER 2020**

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	10	29	100	0
BOAT HARBOR	0	0	0	n/a	0	0	0	0	17	100	0
CHES-ELIZ	0	0	0	0	0	0	0	0	13	90	0
VIP	0	0	0	n/a	0	0	1	2	42	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	19	97	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:	4
HRSD Odor Scrubber H2S Exceptions:	5

AGENDA ITEM 24.e. – October 27, 2020

**Subject:** York River Treatment Plant Headworks Effluent Pipe Rehabilitation  
Emergency Declaration

**Recommended Action:** No action is required. Information Only

**Brief:** On September 17, 2020, during a significant wet weather event emanating from the remnants of Hurricane Sally, the 60-inch pipe between the headworks and the primary clarifiers at the York River Treatment Plant failed. Hourly flow rates at the plant reached 24 mgd. Because of the nature of the spill, isolating the pipeline was very challenging. The spill lasted for several days ultimately resulting in a spill of approximately 6.8 million gallons. Staff worked non-stop to get the necessary measures in place to contain the flows. By September 20, the flow was contained at the spill point. Staff controlled the flow by bringing in 11 pumps and installing a temporary piping system to send the flow from the break point to the aeration tanks. By September 22, a contractor established a by-pass piping system from the pre-aeration tank to the primary clarifier distribution chamber. The bypass consists of four pumps, controlled by water levels in the pre-aeration tanks, with the capability of pumping up to 30 million gallons per day.

An emergency declaration to stop the flow of screened plant influent flow into Back Creek by constructing a by-pass around the failed headworks effluent pipe was authorized on September 23, 2020.

The estimated cost of this work is \$3,500,000.