



COMMISSION MEETING MINUTES  
October 31, 2017

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Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-19
Lynch, Maurice P.	Commission Vice-Chair	1-19
Glenn, Michael E.	Commissioner	1-19
Lakdawala, Vishnu K.	Commissioner	1-19
Levenston, Jr., Willie	Commissioner	1-19
Rodriguez, Stephen C.	Commissioner	1-19
Taraski, Elizabeth	Commissioner	1-19
Templeman, Ann	Commissioner	2-19

1. **CONSENT AGENDA**

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

**Moved:** Vishnu Lakdawala **Ayes:** 7  
**Seconded:** Willie Levenston **Nays:** 0

**Brief:**

- a. Approval of minutes from previous meeting.
- b. Contract Awards
  - 1. [Wastewater Pump and Haul Services Contract](#) \$257,727
- c. Task Orders
  - 1. [Western Trunk Force Main Replacement](#) \$222,626
- d. Change Orders
  - 1. [Center Avenue Pump Station Service Area I/I Remediation](#) \$399,965
  - 2. [Customer Care and Billing \(CC&B\) Managed Services Software Support Contract Extension](#) \$150,000
- e. Sole Source
  - 1. [American R/D Valve Replacement Parts](#)

**Attachment #1:** [Consent Agenda](#)

**Public Comment:** None



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2. **LUCAS CREEK – WOODHAVEN INTERCEPTOR FORCE MAIN REPLACEMENT (IFM)  
PHASE I  
PUBLIC HEARING ON DETERMINATION OF PUBLIC NEED FOR EASEMENT  
ACQUISITION**

**Action:** Conduct public hearing.

**CIP Project:** JR013100

**Project Description:** This project involves the replacement of approximately 5,800 linear feet of force main along Lucas Creek Road from just north of the intersection of Thorncliff Drive and Warwick Boulevard to a location 900 feet west of the intersection of Warwick Boulevard and Lucas Creek Road. As part of the project, HRSD will require a 2,350 square foot temporary easement and a 2,520 square foot permanent utility easement from Living Faith Christian Center, a church located at 14901 Warwick Boulevard, Newport News, Virginia.

In accordance with Section 15.2-1903.B of the Code of Virginia, the Commission must hold a public hearing to determine public need prior to acquisition actions that may result in condemnation.

The [CIP location map](#), an [acquisition plat](#) and a [facilities orientation map](#) are provided for clarification purposes.

Staff provided a short overview for the Commission and the public immediately prior to the Public Hearing.

**Discussion Summary:** Chair Elofson opened the public hearing by asking if there was any member of the public who wished to address the Commission. No member of the public desired to address the Commission. The public hearing was closed.

**Attachment #2:** [CIP Location Map, Acquisition Plat and Facilities Orientation Map](#)

**Public Comment:** None





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3. **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, 2016.**
- b. **Accept the Finance Committee's Report regarding the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017.**

<b><u>Moved:</u></b>	Stephen Rodriguez	<b><u>Ayes:</u></b>	8
<b><u>Seconded:</u></b>	Willie Levenston	<b><u>Nays:</u></b>	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. 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 KPMG LLC. 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 34 consecutive years.

Commissioners Lynch and Rodriguez were appointed as the Commission's Finance Committee in 2017 for the fiscal year 2018. The Finance Committee, along with Commissioners Elofson, Lakdawala, Levenston and Templeman, met with staff and the independent auditors, KPMG LLP, to review the CAFR and associated audit information on October 19, 2017. An electronic draft version of the CAFR was provided by separate transmittal. A printed copy was made available at the Commission Meeting. The Finance Committee provided their comments to the full Commission along with briefings by staff.

**Discussion Summary:** Commissioner Rodriguez, Committee Chair, summarized the Finance Committee meeting held on October 19, 2017. During the Finance Committee meeting the internal auditors presented the results of the inventory management and Procurement (Finance) ProCard Management audits. Upcoming audits include Procurement (Engineering); IT network security/cybersecurity; Corporate governance: ethics; Operations (Treatment Plants); Finance (Customer Care billing, mail center & payments, accounts receivable and delinquent accounts).



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The Committee also reviewed the Annual Audit Report and financial items of interest including a discussion on affordability.

Commissioner Rodriguez also stated that KPMG expects to issue a clean opinion, which indicates no significant deficiencies or material weaknesses were found during their review.

**Attachment #3:** [CAFR and PowerPoint Presentation](#)

**Public Comment:** None



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4. **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; biosolids hauling services; and technology services.

The following is a comparison of fiscal years 2015 to 2017 on total spend for Operating and Improvement 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-2015	FY-2016	FY-2017
Operating	20%	22%	28%
Corporate VISA Card	13%	15%	13%
Capital Improvement Program	21%	38%	38%
<i>Total</i>	20%	33%	33%

A [summary](#) of activities and [transaction charts](#) for the period of July 1, 2016 through June 30, 2017 are attached.

**Discussion Summary:** Staff is unaware of any upcoming federal mandates for diversity guidelines, targets and goals.

**Attachment #4:** [Summary and Transaction Charts](#)

**Public Comment:** None



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5. **RODMAN AVENUE PUMP STATION WET WELL REHABILITATION  
VIRGINIA CLEAN WATER REVOLVING LOAN FUND (VCWRLF)**

**Action:** Approve the terms and conditions of the resolution authorizing the issuance of a subordinate wastewater revenue bond, not to exceed \$1,095,595 in principal amount, for the purpose of providing funds, with other available money to pay the costs of certain improvements for the Rodman Avenue Pump Station Wet Well Rehabilitation; fixing the principal installment maturity dates; the interest rate; the redemption provisions and certain other details of the bond; directing the authentication and delivery of the bond; and authorizing the execution of a financing agreement with the Virginia Resources Authority.

**Moved:** Stephen Rodriguez

**Ayes:** 8

**Seconded:** Maurice Lynch

**Nays:** 0

**Brief:** The VCWRLF provides subsidized interest rates for local governments for projects that improve water quality or prevent future problems. The Virginia Resources Authority (VRA) manages the loans and the Department of Environmental Quality administers the program and policy aspects of the fund on behalf of the State Water Control Board (SWCB). On December 12, 2016, the SWCB approved seven HRSD projects to receive subsidized interest rates that vary based on the term and project type. The loans require adhering to Davis-Bacon wages and using American Iron and Steel, which increases total project cost. Staff determined that the interest savings far outweigh the potential increased project costs.

The attached [resolution](#) for the Rodman Avenue Pump Station Wet Well Rehabilitation is scheduled to close in November. The loan amount is set at a not-to-exceed amount of \$1,095,595 at three percent for 25 years. The rate is based on a 1.25 percent subsidy for a 25-year loan. The interest savings compared to HRSD issuing debt in the open market is estimated at \$140,000. These documents have been reviewed by bond and local counsel.

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

**Public Comment:** None



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6. **RODMAN AVENUE PUMP STATION WET WELL REHABILITATION  
ADDITIONAL APPROPRIATION AND CONTRACT AWARD (>\$200,000)**

**Actions:**

- a. **Appropriate additional funding in the amount of \$307,958.**
- b. **Award a contract to Shaw Construction Corporation in the amount of \$864,000.**

**Moved:** Vishnu Lakdawala  
**Seconded:** Willie Levenston

**Ayes:** 8  
**Nays:** 0

**CIP Project:** VP017300

Budget	\$1,026,000
Previous Expenditures and Encumbrances	(\$304,958)
Available Balance	\$721,042
Proposed Contract Award to Contractor	(\$864,000)
Proposed Contingency	(\$165,000)
Project Shortage/Requested Additional Funding	(\$307,958)
Revised Total Project Authorized Funding	\$1,333,958

**Type of Procurement:** Competitive Bid

<b>Bidder</b>	<b>Bid Amount</b>
Shaw Construction Corporation	\$864,000
T.A. Sheets General Contractors, Inc.	\$1,071,600
MEB General Contractors, Inc.	\$1,238,700

**Engineer Estimate:** \$1,249,000

**Project Description:** This project will rehabilitate the wet well at the Rodman Avenue Pump Station, the influent manhole, and the influent line. This project will also install a sluice gate, an exhaust fan, and a grinder in the wet well.

**Funding Description:** The original CIP project estimate did not anticipate significant site improvements, replacement of wet well top slab or relocation of the emergency bypass system. The original CIP estimate also did not include the purchase of the adjacent property and demolition of the existing structure. This funding request includes a \$165,000 contingency which includes \$75,000 to accommodate unforeseen conditions and \$90,000 for the purchase of the adjacent property.



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**Contract Description and Analysis of Cost:** This contract is for construction of the wet well rehabilitation. The project was advertised on September 10, 2017 and three bids were received on October 10, 2017. Shaw Construction Corporation has recently completed a number of similar projects for HRSD. This familiarity with the work and the ability to use similar construction equipment allowed for a very competitive price from this contractor. The design engineer, Whitman, Requardt and Associates, LLP, evaluated the bids and recommends award to the lowest responsive and responsible bidder, Shaw Construction Corporation, in the amount of \$864,000.

<b><u>Schedule:</u></b>	PER	March 2014
	Design	October 2014
	Bid	September 2017
	Construction	November 2017
	Project Completion	June 2018

**Attachment:** None

**Public Comment:** None



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7. **RODMAN AVENUE PUMP STATION WET WELL REHABILITATION  
207 CHOATE STREET, PORTSMOUTH, VA  
ACQUISITION OF REAL PROPERTY FOR A PUBLIC PURPOSE**

**Actions:**

- a. **Accept the terms and conditions of the Purchase Agreement with the Bank of New York Mellon/FKA The Bank of New York, (Seller).**
- b. **Accept the general terms and conditions the Purchase Agreement and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and as approved by counsel.**

**Moved:** Willie Levenston  
**Seconded:** Ann Templeman

**Ayes:** 8  
**Nays:** 0

**CIP Project:** VP017300

**Project Description:** The property located at 207 Choate Street in Portsmouth is adjacent to the existing HRSD Rodman Avenue Pump Station. The property is currently available and listed at \$72,000. The pump station may have several years of life remaining; however, purchasing the adjacent site now will ensure a suitable site is available when this pump station reaches the end of its service life.

Future replacement of the Rodman Avenue Pump Station at the current site would be problematic in part due to three large-diameter (City) water transmission mains running parallel to the existing site. Replacement at this location would also require bypass pumping of 36-inch and 12-inch gravity sewer lines for the duration of the project. At 2017 rental rates, four months pump rentals would cover the asking price of the adjacent property.

**Agreement Description:** The [Purchase Agreement](#) is attached and upon approval, the conveyance Deed will be forthcoming. The final attached [Deed](#) was reviewed by HRSD staff and legal counsel before execution. [Facilities orientation maps](#) are also provided for clarification purposes.

**Analysis of Cost:** HRSD is offering the list price of \$72,000, which is \$51,680 below the current City assessment.

**Discussion Summary:** The property located at 207 Choate Street is vacant and is not in occupiable condition.

**Attachment #6:** [Purchase Agreement, Deed and Facilities Orientation Maps](#)

**Public Comment:** None



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8. **MORRISON AVENUE PUMP STATION  
1240A GATEWOOD ROAD, NEWPORT NEWS, VIRGINIA (PARCEL ID#: 246000403)  
INITIAL APPROPRIATION AND ACQUISITION OF REAL PROPERTY FOR A PUBLIC  
PURPOSE**

**Actions:**

- a. **Appropriate funding in the amount of \$260,000.**
- b. **Accept the general terms and conditions of a Contract of Purchase with Russell and Rosemary Baker, owners of subject property in Newport News, Virginia, and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and as approved by counsel.**

**Moved:** Maurice Lynch  
**Seconded:** Vishnu Lakdawala

**Ayes:** 8  
**Nays:** 0

**Project Description:** Mr. and Mrs. Baker currently reside next to Morrison Avenue Pump Station in Newport News. Due to their location, elevation, and the installation of a diesel pump approximately 10 years ago they have complained of numerous noise, vibration, drainage, and sewage backup issues. To date, HRSD and the City of Newport News have been unable to effectively resolve the complaints.

Because a resolution to the Baker's complaints proved lengthy, challenging, and potentially expensive to resolve, staff determined that purchase of the Baker's property would be the best solution to this issue. In addition, staff will be able to utilize this property for expansion and upgrades to the existing pump station site. The City of Newport News has also agreed to contribute \$20,500 to relocation costs in an effort to settle this matter.

**Funding Description:** The funding request includes \$250,000 for the purchase price of the property and \$10,000 for closing costs and moving expenses.

The [Purchase Agreement](#) is attached and a Deed will be forthcoming upon execution of the agreement. The Deed will be reviewed by HRSD staff and legal counsel before execution. A [facilities orientation map](#) is also provided for clarification purposes.

**Discussion Summary:** The home was built in 1951, prior to the construction of the pump station.

**Attachment #7:** [Purchase Agreement and Facilities Orientation Maps](#)

**Public Comment:** None





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9. **BRIDGE STREET SIPHON AND VENT RELOCATION REPLACEMENT  
ADDITIONAL APPROPRIATION AND AGREEMENT ADDENDUM**

**Actions:**

- a. **Appropriate additional funding in the amount of \$100,000.**
- b. **Approve the terms and conditions of Addendum No. 1 with the City of Hampton for reimbursement of construction costs associated with project Change Order work and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.**

**Moved:** Ann Templeman  
**Seconded:** Elizabeth Taraski

**Ayes:** 8  
**Nays:** 0

**CIP Project: BH013400**

Budget	\$795,000
Previous Expenditures and Encumbrances	(\$632,033)
Available Balance	\$162,967
Proposed Agreement Amendment	(\$175,571)
Proposed Contingency	(\$87,396)
Project Shortage/Requested Additional Funding	(\$100,000)
Revised Total Project Authorized Funding	\$895,000

**Project Description:** This project evaluated and is providing rehabilitation of the existing Bridge Street siphon pipelines due to the replacement of the Bridge Street Bridge. The construction of the new bridge requires the installation of a new siphon vent that will be located on the new bridge; installation of a temporary sanitary sewer line bypass; rehabilitation of the existing 30-inch and 24-inch siphons, and rehabilitation of the two siphon vaults. Design of the replacement bridge was completed in April 2013. The City of Hampton issued a Notice to Proceed to the contractor on July 27, 2016. HRSD is a third party to the contract between the City of Hampton and the bridge contractor.

**Funding Description and Analysis of Cost:** It became necessary for the City of Hampton to issue several Change Orders related to the HRSD portion of the work due to changes in site conditions and changes in design. The additional work is detailed in the attached Addendum No. 1 to the Agreement. These expenses exceed the remaining balance of the project budget. Additional funding is being requested to pay for the work described in the attached Addendum No. 1 and to fund the contingency budget. The estimated cost for this project is based on actual expenditures and encumbrances plus \$87,396 contingency.



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**Agreement Description:** The [attached Addendum](#) amends the original [Agreement](#) between HRSD and the City of Hampton executed on May 11, 2016. This Addendum has been reviewed by HRSD legal counsel and the City of Hampton's legal counsel.

**Attachment #8:** [Addendum and Agreement](#)

**Public Comment:** None



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10. **WATER QUALITY SERVICES BUILDING - PHASE II  
INITIAL APPROPRIATION AND ALTERNATIVE PROJECT DELIVERY**

**Actions:**

- a. **Appropriate total project funding in the amount of \$9,800,000.**
- b. **Approve the Design-Build project delivery method for the Water Quality Services Building – Phase II.**

**Moved:** Stephen Rodriguez  
**Seconded:** Willie Levenston

**Ayes:** 8  
**Nays:** 0

**CIP Project: AD012200**

**Project Description:** This new project will demolish the existing Meekins Building and construct a new building to house the Technical Services Division (TSD) and Pretreatment & Pollution Prevention (P3) Division. This new building will be approximately 24,000 square feet of space.

**Funding Description:** The total cost for the project is estimated to be \$9,800,000. The construction estimate was prepared by the HRSD on-call architectural firm of Guernsey Tingle and includes a 15 percent construction contingency, two percent contractor's contingency and 10 percent owner's contingency. Initial funding also includes Guernsey Tingle fees for preliminary design (to 30 percent) and owner representation through project completion.

**Brief:** The Water Quality Division has identified the need for current and future space expansion for the TSD, P3 and Central Environmental Laboratory (CEL). All three divisions have experienced growth in functional needs and personnel to meet those needs, resulting in a space deficit. All three divisions are projecting continued growth generating demand for additional space for personnel, vehicles and equipment. In 2016 the HRSD on-call architectural-mechanical-electrical firm of Guernsey Tingle was commissioned to prepare a study to evaluate current facilities in regard to current and projected needs. The report includes current needs through the end of 2018 and future needs beyond 2018, with each of the three Water Quality divisions providing input.

Subsequent meetings were held with Water Quality Department staff and it was determined the best course of action is to relocate the TSD and P3 Divisions from their current space and renovate the space for use by the CEL. From the recommendations in the PER, Option "E" was selected which includes demolition of the existing Meekins Building, constructing a new facility on the existing Meekins site to house TSD and P3 and expansion of the CEL into the vacated space currently occupied by TSD and P3. The new building will be designed to a LEED Silver standard to match other recently completed administrative facilities.



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Time is of the essence in moving forward; therefore, this request is for the use of the Design-Build Delivery method. Design-Build offers numerous advantages to HRSD including: establishing a Contract Cost Limit (CCL) early in the process; the ability to work collaboratively with the designers and contractors to stay within budget; and the ability to accelerate the overall completion of the new building. The architectural firm of Guernsey Tingle will complete the conceptual design, based on the April 2017 study and will assume the Owner's Agent role to assist HRSD with the selection process leading up to a contract with the successful Design-Build firm.

<b><u>Schedule:</u></b>	30% design begins	November 2017
	Completion of the Meekins Building inventory	December 2017
	Design for HRSD review	March 2018
	30% design approval and begin RFQ/RFP process	April 2018
	Selection of Design-Build firm/establish CCL	August 2018
	60% design development/Guaranteed Maximum Price	March 2019
	Completion of WQ Building construction	March 2020

**Discussion Summary:** Commissioner Glenn expressed concern over the 25 percent contingency fee. Staff explained at the 60 percent design stage, the guaranteed maximum price (GMP) will be further refined and a construction cost limit (CCL) will be locked in, which will lower the contingency.

**Attachment:** None

**Public Comment:** None



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11. **CENTRAL ENVIRONMENTAL LABORATORY – PHASE II  
INITIAL APPROPRIATION**

**Action:** Appropriate total project funding in the amount of \$2,784,638.

<b><u>Moved:</u></b>	Maurice Lynch	<b><u>Ayes:</u></b>	8
<b><u>Seconded:</u></b>	Vishnu Lakdawala	<b><u>Nays:</u></b>	0

**CIP Project:** AD012300

**Project Description:** This new project includes renovation of existing Technical Services Division (TSD) and Pretreatment and Pollution Prevention (P3) Division spaces to meet the future space needs of the Central Environmental Laboratory (CEL) as outlined in the April 2017 Water Quality Space Study, Option E, prepared by Guernsey Tingle Architects. The CEL Division has an immediate need for an additional 2,700 square feet of space and an ultimate need for an additional 7,300 square feet of space. Anticipated future growth of the CEL will require 28,618 square feet, a 34 percent increase over the current 21,359 square feet. Renovation of the existing TSD and P3 areas will result in approximately 30,312 square feet of useable space meeting and exceeding future need.

**Funding Description:** The total cost for the project is estimated at \$2,784,638. The construction estimate was prepared by Guernsey Tingle and includes a 15 percent construction contingency. Initial funding also includes estimated Guernsey Tingle fees for all phases of design and construction through project completion. An additional contingency of \$250,000 was added to meet unforeseen needs.

<b><u>Schedule:</u></b>	PER (30%)	November 2017
	Design	March 2019
	Bid	January 2020
	Construction	March 2020
	Project Completion	March 2021

**Attachment:** None

**Public Comment:** None



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12. **CAPITAL IMPROVEMENT PROGRAM (CIP)  
QUARTERLY UPDATE**

**Action:** No action required.

**Brief:** Implementing the CIP continues to be a significant challenge as we address numerous regulatory requirements, SWIFT Program implementation and the need to replace aging infrastructure. Staff provided a briefing describing the status of the CIP, financial projections, projects of significance and other issues affecting the program.

**Attachment #9:** [PowerPoint Presentation](#)

**Public Comment:** None

13. **UNFINISHED BUSINESS – None**

14. **NEW BUSINESS**

Mr. Henifin stated that McGuire Woods provided an initial report indicating it highly unlikely there will be infringement issues with trademarking the SWIFT logo and the term “SWIFT Water” (the definition of wastewater treated to meet drinking water standards). McGuire Woods counsel will move forward with the next step to Trademark.

Commissioner Lynch asked if provisions were being made to divert some SWIFT Water for those who may want to purchase it for direct reuse. Mr. Henifin stated moving this water is very expensive and HRSD has no plans to use SWIFT Water for any direct reuse (potable or non-potable).



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15. **COMMISSIONER COMMENTS**

Commissioner Rodriguez asked if there had been discussions with Northern Virginia to partner, or receive grants or other funding for the SWIFT project since their area would also benefit from recharging the aquifer. Mr. Henifin stated the Eastern Virginia Groundwater Management Committee is looking at state policy and the value of water.

Commissioner Lynch commented on the Innovation session he attended at the WEFTEC conference. He said he was pleased to see every recommendation made during the session has already been implemented at HRSD. He said HRSD is leading innovation, not only in water quality issues, but in many other areas.

Commissioner Glenn also remarked on HRSD's excellent reputation among the WEFTEC participants.

Commissioner Taraski commended Mr. Husselbee on his session on recruiting and retaining employees. She stated it was well managed and the results were very interesting.

Commissioner Rodriguez thanked Mr. Henifin for coordinating the WEFTEC session for public officials and for continuing to provide educational opportunities for the governing body on national policies. He said after hearing the various presentations at WEFTEC he feels HRSD is not only doing it right, but doing what is right for the future.

16. **PUBLIC COMMENTS NOT RELATED TO AGENDA – None**

17. **INFORMATIONAL ITEMS**

**Action:** No action required.

**Brief:** The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Effluent Summary](#)
- d. [Air Summary](#)
- e. [Emergency Declaration - Sanitary Sewer System Portsmouth Virginia Western Diversion Force Main \(SF-218\)](#)

**Attachment #10:** [Informational Items](#)

**Public Comment:** None



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18. **CLOSED MEETING**

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

- a. Acquisition of real property located in the City of Norfolk for a public purpose [Specific Exemption: Va. Code §2.2-3711.A3]
- b. Acquisition of real property located in the City of Portsmouth for a public purpose [Specific Exemption: Va. Code §2.2-3711.A3]
- c. Actual litigation [Specific Exemption: Va. Code §2.2-3711.A7]
- d. Personnel matter – General Manager Annual Performance Review [Specific Exemption: Va. Code §2.2-3711.A1]

**Moved:** Willie Levenston  
**Seconded:** Stephen Rodriguez

**Ayes:** 8  
**Nays:** 0

**Brief:**

Items a. and b. – Discussion or consideration of the acquisition of real property for a public purpose of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body.

Item c. – Consultation with legal counsel and briefing by staff members pertaining to actual litigation, where such consultation or briefing in open meeting would adversely affect the negotiating or litigating posture of the public body.

Item d. – 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.

**Roll call vote to return to Open Session:**

**Ayes:** 8      **Nays:** 0





COMMISSION MEETING MINUTES  
October 31, 2017

19. **RECONVENED MEETING**

**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 2.5 percent, effective November 1, 2017.

**Moved:** Vishnu Lakdawala  
**Seconded:** Stephen Rodriguez

**Ayes:** 8  
**Nays:** 0

**Attachment:** None

**Public Comment:** None

**Next Commission Meeting Date:** November 28, 2017 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455.

**Meeting Adjourned:** 11:37 a.m.

SUBMITTED:

APPROVED:

---

Jennifer L. Cascio  
Secretary

---

Frederick N. Elofson, CPA  
Chair

HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #1

AGENDA ITEM 1. – Consent Agenda

## CONSENT AGENDA ITEM 1.b.1 – October 31, 2017

**Subject:** Wastewater Pump and Haul Services Contract  
Contract Award (>\$200,000)

**Recommended Action:** Award a blanket purchase contract for pump and haul services to Atlantic Heating and Cooling Service Inc. in the estimated amount of \$51,545 for year one with four annual renewal options and an estimated cumulative value in the amount of \$257,727.

**Type of Procurement:** Competitive Negotiation

<b>Proposers</b>	<b>Technical Points</b>	<b>Recommended Selection Ranking</b>
Atlantic Heating and Cooling Service Inc.	87	1
HEPACO LLC	73	2
Millers Septic Service, Inc.	Non-responsive	

**Contract Description:** This contract is an agreement for wastewater pump and haul services on an as-needed basis for HRSD and/or multiple jurisdiction locations. Services include collection and hauling of liquid waste between HRSD treatment plants to designated wastewater collection systems to assist with system management during normal and emergency conditions.

In accordance with HRSD competitive negotiation procedures, the Procurement Division advertised and solicited proposals from potential Offerors. A total of three proposals were received and two were evaluated based upon the requirements of the Request for Proposal. Independent interviews were held with the two top ranked Offerors to negotiate a fair and reasonable cost. The proposal submitted by Atlantic Heating and Cooling Services Inc. (AHC) was ranked by technical points to be highest qualified.

The proposal submitted by AHC includes dedicated waste water pumping and hauling trucks allowing for a faster response time to HRSD requests for service. AHC has a large fleet of vacuum trucks and tankers and a robust roster of drivers strategically placed throughout Hampton Roads, Richmond and surrounding areas.

Millers Septic Service, Inc. was evaluated as non-responsive for not including the required pricing schedule with the online proposal.

## AGENDA ITEM 1.c.1 – October 31, 2017

**Subject:** Western Trunk Force Main Replacement  
Task Order (>\$200,000)

**Recommended Action:** Approve a task order with AECOM in the amount of \$222,626.

**CIP Project:** CE011700

Budget	\$4,286,000
Previous Expenditures and Encumbrances	(\$110,601)
Available Balance	<u>\$4,175,399</u>

<b>Contract Status:</b>	<b>Amount</b>
Original Contract with AECOM	\$110,040
Total Value of Previous Task Orders	\$0
Requested Task Order	\$222,626
Revised Contract Value	\$332,666
Engineering Services as % of Construction	18%

**Project Description:** The Western Trunk Force Main Replacement project will abandon in place 7,500 linear feet of 20-inch asbestos concrete pipe (SF-015) along Diamond Springs Road and reconnect multiple stations to the existing 48-inch PCCP force main (SF-016).

**Task Order Description and Analysis of Cost:** This task order will provide design phase services following recommendations approved in the Preliminary Engineering Report. A total fee of \$222,626 was negotiated which is reasonable for this work. The Preliminary Engineering Report places the project construction cost estimate at \$1.2 million. Based on that construction cost estimate and excluding Additional Services, the design phase labor fee is 18 percent of the estimated construction cost, which is high compared to completed pipeline replacement projects such as Atlantic Trunk Force Main Replacement (15 percent), Effingham Interceptor Force Main Replacement (10 percent) and South Trunk Sewer Section B and C Replacement (12 percent). These historical projects have a higher construction cost as compared to the subject project because they included replacing the entire pipe, whereas this work is limited to reconnections and abandonment, which skews the percentage comparison.

<b><u>Schedule:</u></b>	PER	October 2017
	Design	November 2018
	Bid	March 2019
	Construction	March 2021
	Project Completion	May 2021

## CONSENT AGENDA ITEM 1.d.1. – October 31, 2017

**Subject:** Center Avenue Pump Station Service Area I/I Remediation  
Contract Change Order (>25%)

**Recommended Action:** Approve a change order with Branscome, Incorporated in the amount of \$399,965.

**CIP Project: JR010100**

Budget	\$5,308,000
Previous Expenditures and Encumbrances	<u>(\$4,336,707)</u>
Available Balance	\$971,293

<b>Contract Status:</b>	Amount	Cumulative % of Contract
Original Contract with Branscome	\$2,923,353	
Total Value of Previous Change Orders	\$334,054	11.5%
Requested Change Order No. 6	\$399,965	
Total Value of All Change Orders	\$734,019	25.1%
Revised Contract Value	\$3,657,372	

Time (Additional Calendar Days)		180
---------------------------------	--	-----

**Project Description:** The project included the construction of a new pump station on North Avenue to replace an existing pump station located on Center Avenue in Newport News. Work also included the installation of a new force main, rehabilitation of existing gravity sewer mains, abandonment of existing sewer mains, and demolition of the existing pump station.

**Change Order Description and Analysis of Cost:** This change order includes the demolition of the existing pump station, abandonment of associated piping, and the installation of a section of force main. All this work was part of the original contract (2013) but was not executed due to operational delays, stormwater modeling efforts, and installation of provisions to mitigate flooding at the new pump station.

An independent cost estimate from our Prompt Repairs contractor (T.A. Sheets) was evaluated. The cost estimates from both contractors were consistent and higher than anticipated. However, since the majority of the work under the original contract awarded in 2013 was completed and the contractor de-mobilized, additional costs are associated with mobilization, equipment and materials. It is also significant to note that the work will require permits from the City of Newport News and Virginia Department of Environmental Quality (VDEQ). Therefore, we recommend approval of this change order. The cost of this change order is based on negotiated costs with Branscome Incorporated.

**Schedule:** Construction November 2017  
Project Completion April 2018

## CONSENT AGENDA ITEM 1.d.2. – October 31, 2017

**Subject:** Customer Care and Billing (CC&B) Managed Services Software Support  
Contract Extension  
Contract Change Order (>25% or \$50,000)

**Recommended Action:** Approve a change order with Oracle America, Inc. in the amount of \$150,000 and extend the CC&B Managed Services Software Support contract through November 20, 2018.

<b>Contract Status:</b>	<b>Amount</b>	<b>Cumulative % of Contract</b>
Original Contract with Oracle America, Inc.	\$50,000	
Total Value of Previous Change Orders	\$151,236	302%
Requested Change Order No. 11	\$150,000	
Total Value of All Change Orders	\$301,236	602%
Revised Contract Value	\$351,236	

Time (Additional Calendar Days)	365	
---------------------------------	-----	--

**Project Description:** Support Services for the CC&B software include support for daily operation; custom code, interfaces, plug-ins, reports, web self-service; creation of future custom modifications and interfaces; integration and implementation of fixes and new software creation; on-site support; performance tuning and environmental impact analysis; version upgrade support and other services as needed.

**Change Order Description:** This change order is to extend the contract period one year through November 20, 2018 and add \$150,000 to the contract to cover additional services as needed for the CC&B Managed Services Software Support Contract. The cost of this change order is based on the estimated usage of services for an additional one year at the current fixed hourly rates. Extension will allow for time to complete a competitive negotiation and transition of services if needed.

## CONSENT AGENDA ITEM 1.e.1. – October 31, 2017

**Subject:** American R/D Valve Replacement Parts  
Sole Source (>\$10,000)

**Recommended Action:** Approve Atlantic Valve as the provider of replacement valve parts for American R/D valves in use at HRSD.

### **Sole Source Justification:**

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

**Details:** Product includes the custom bevel gear for the American R/D valves located on the interceptor mainline located in the Princess Anne area of Virginia Beach. The valves are critical for isolating the line during emergency events.

This is the final two replacements on five valves being replaced by South Shore Interceptors.

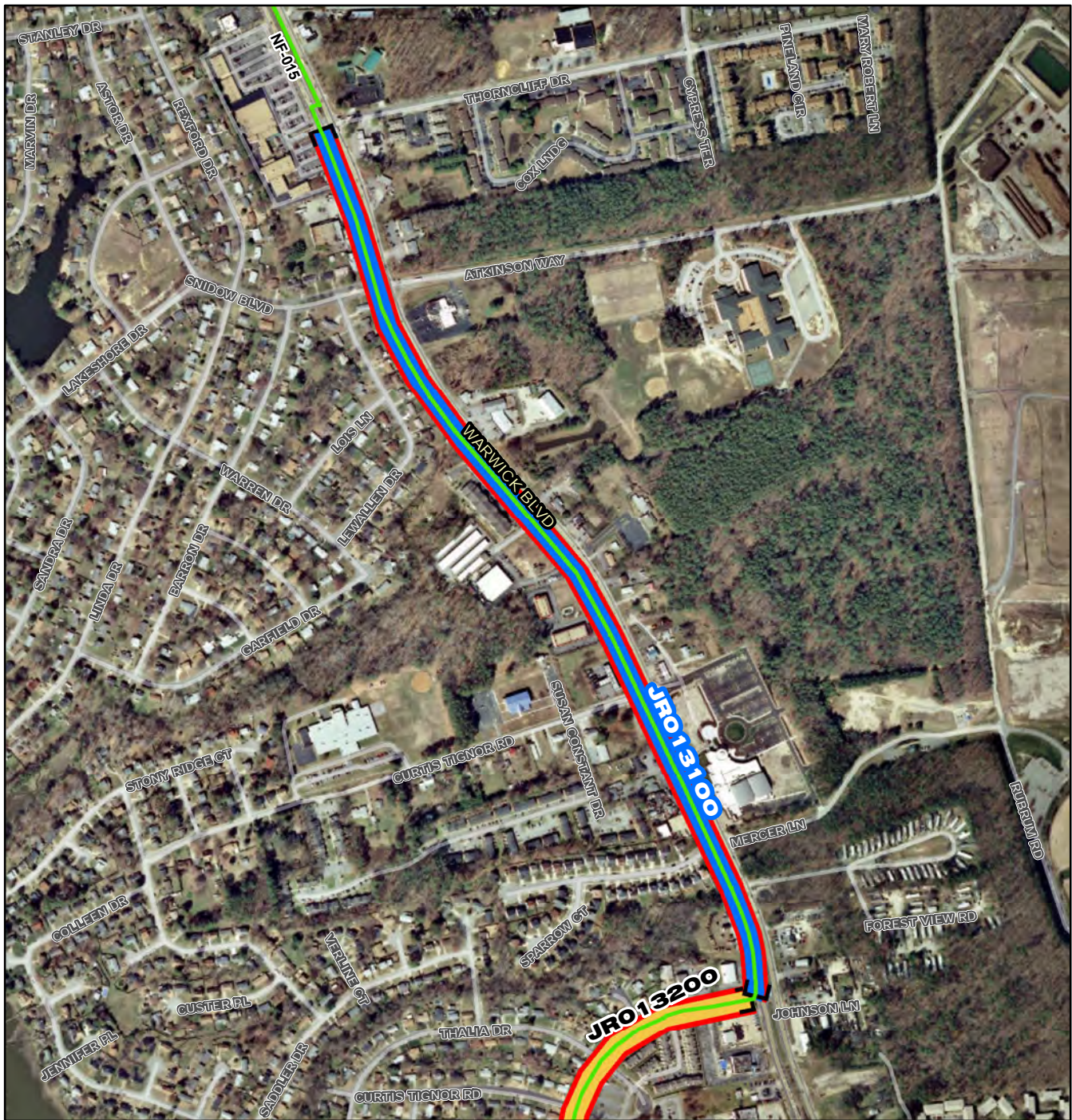
HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #2





AGENDA ITEM 2. - Lucas Creek – Woodhaven Interceptor Force Main Replacement (IFM)  
Phase I  
Public Hearing On Determination Of Public Need For Easement Acquisition

- [CIP Location Map](#)
- [Acquisition Plat](#)
- [Facilities Orientation Map](#)















# JRO13100

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

## Legend

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

0 255 510 1,020 1,530 2,040 Feet

# JRO13100

## Lucas Creek-Woodhaven Interceptor Force Main Replacement Phase I



## CIP Location



Newport News



NOTES:

1. MERIDIAN SOURCE IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM 1983 (SOUTH ZONE) NAD83 (1993) HARN. COORDINATE VALUES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET.
2. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE MAY NOT SHOW ALL EASEMENTS OR MATTERS THAT MAY AFFECT THIS PROPERTY.
3. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY AND THEREFORE PARCEL AREAS SHOWN ARE APPROXIMATE AND TAKEN FROM PLATS AND DEEDS OF RECORD.

NOW OR FORMERLY  
TUY QUOC NGUYEN  
& ANH LUCILE T. N. NGUYEN  
(D.B. 2082, P. 1003)  
(INST.#140011234-PLAT)  
PARCEL ID 087000506

PERMANENT DRAINAGE EASEMENT  
(STATE PROJECT 0060-121-  
110 RW-201 C-501)

15' DRAINAGE EASEMENT  
(D.B. 1192, P. 1591-PLAT)

N87°30'11"E 202.39' N.R.

10' DRAINAGE AND  
UTILITY EASEMENT  
(P.B. 7, P. 184)

PROPERTY OF  
TRUSTEE'S FOR THE LIVING  
FAITH CHRISTIAN CENTER  
(INST.# 070030606)

LOT 1  
BEECHMONT GARDENS  
SECTION FIVE  
(P.B. 7, P.184)  
PARCEL ID 087000507

VARIABLE WIDTH  
TEMPORARY  
CONSTRUCTION  
EASEMENT

VARIABLE WIDTH HRSD  
PERMANENT UTILITY  
EASEMENT TO BE  
ACQUIRED

WARWICK BOULEVARD -  
ROUTE 60  
(VARIABLE WIDTH RIGHT-OF-WAY)

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N08°48'58"W	30.10'
L2	N34°45'24"E	41.34'
L3	N10°14'36"W	78.32'
L4	N79°45'24"E	29.17' N.R.
L5	N79°45'24"E	19.95' N.R.
L6	N10°14'36"W	46.46'
L7	N34°45'24"E	34.23'
L8	N08°48'58"W	31.36'
L9	S81°11'02"W	15.00'
L10	S81°11'02"W	20.00'
L11	S08°48'58"E	23.37'
L12	S34°45'24"W	1.43'
L13	S79°45'24"W	23.40'

N: 3,580,328.908  
E: 12,051,995.489

NOW OR FORMERLY  
SHERRI L. LEE  
(INST.# 120001010)

LOTS 2 & 3  
BEECHMONT GARDENS  
SECTION FIVE  
(P.B. 7, P. 184)  
PARCEL ID 087000508

N08°49'22"W 176.92'

N: 3,580,154.080  
E: 12,052,022.623

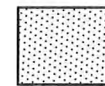
REVISIONS

1	01/11/17	CLIENT REVISIONS
2	06/27/17	NEW EASEMENT LOCATION

CURVE TABLE						
CURVE	RADIUS	ARC	DELTA	TANGENT	CHORD	CHORD BEARING
C1	1,352.40'	63.03'	02°40'14"	31.52'	63.03'	S11°34'43"E



DENOTES AREA OF VARIABLE WIDTH  
PERMANENT UTILITY EASEMENT TO BE  
ACQUIRED.



DENOTES AREA OF VARIABLE WIDTH  
TEMPORARY CONSTRUCTION EASEMENT.  
AREA = 2,350 S.F. OR 0.054 AC.

AREA TABLE		
	SQUARE FEET	ACRES
TOTAL PARCEL	33,529	0.770
PERMANENT UTILITY EASEMENT TO BE ACQUIRED	2,520	0.058
RESIDUAL PARCEL	31,009	0.712



PLAT SHOWING  
VARIABLE WIDTH PERMANENT UTILITY  
EASEMENT  
TO BE ACQUIRED FROM  
TRUSTEE'S FOR THE  
LIVING FAITH CHRISTIAN CENTER

BY  
HAMPTON ROADS SANITATION DISTRICT  
FOR  
LUCAS CREEK-WOODHAVEN INTERCEPTOR  
FORCE MAIN REPLACEMENT  
NEWPORT NEWS, VIRGINIA

SCALE 1"=30'

NOVEMBER 7, 2016

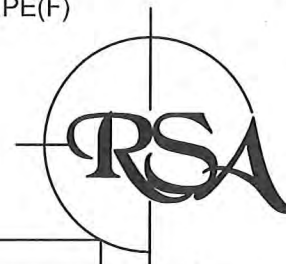
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FAX:(757)499-9136

362 McLAWS CIRCLE, SUITE 1  
WILLIAMSBURG, VIRGINIA 23185  
TEL:(757)903-4695  
FAX:(757)903-4469



0 30 60 90 FEET

GRAPHIC SCALE

SHEET 1 OF 1







HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #3

AGENDA ITEM 3. - Comprehensive Annual Financial Report (CAFR)

- [CAFR](#)
- [PowerPoint](#)

# Comprehensive Annual Financial Report

FOR THE FISCAL YEARS ENDED JUNE 30, 2017 AND 2016

*Hampton Roads Sanitation District*  
(A Component Unit Of The Commonwealth Of Virginia)



**HRSD**

Ensuring future generations  
inherit clean waterways



**HAMPTON ROADS SANITATION DISTRICT**  
*(A Component Unit of the Commonwealth of Virginia)*

**COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**For the fiscal years ended  
June 30, 2017 and 2016**

**Prepared by:  
Finance Department**

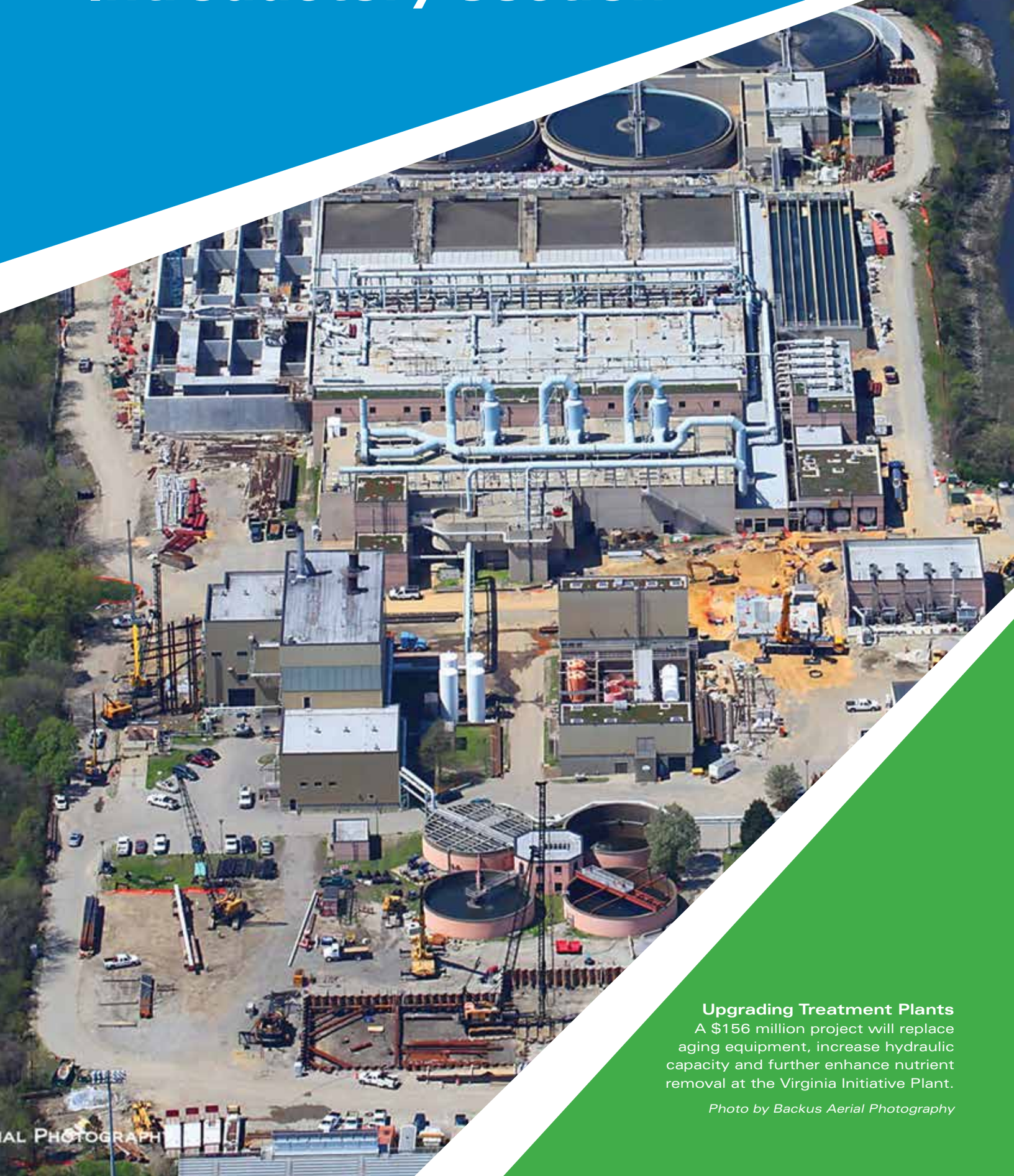
# HAMPTON ROADS SANITATION DISTRICT

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# Introductory Section



## Upgrading Treatment Plants

A \$156 million project will replace aging equipment, increase hydraulic capacity and further enhance nutrient removal at the Virginia Initiative Plant.

*Photo by Backus Aerial Photography*



October 31, 2017

HRSD Commission  
Virginia Beach, Virginia

Dear Commissioners:

Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. This report fulfills that requirement for the fiscal year ended June 30, 2017.

HRSD's management assumes full responsibility for the completeness and reliability of information contained in this report, based on a comprehensive framework of internal control it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements.

KPMG LLP, Certified Public Accountants, has issued an unmodified ("clean") opinion on HRSD's financial statements for the year ended June 30, 2017. The independent auditors' report is located at the front of the financial section of this report.

Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview and analysis of the basic financial statements. The MD&A, which complements this letter of transmittal, should be read in conjunction with it.

## **PROFILE OF HRSD**

HRSD is an independent political subdivision of the Commonwealth of Virginia (the Commonwealth) created by referendum on November 5, 1940. HRSD was established to abate water pollution in the Hampton Roads area by providing a system of interceptor mains and wastewater treatment plants.

Approximately 1.7 million individuals, more than one-fifth of Virginia's population, reside in HRSD's service area, which is located in the southeastern corner of the Commonwealth. HRSD's territory of approximately 3,100 square miles encompasses nine cities, nine counties and several large military facilities. A brief history of HRSD is provided on page 8. HRSD is required by its enabling act to meet its obligations by charging user fees for its wastewater treatment services; no taxing authority is authorized by the enabling act. Currently, HRSD provides service and bills to approximately 470,000 service connections.

A board of eight commissioners (the Commission), appointed by the Governor of Virginia, governs HRSD. Commission members, who serve four-year staggered terms, can be reappointed without limitation and may be suspended or removed by the Governor at his pleasure. The Commission appoints a General Manager, who appoints the senior staff.

HRSD owns and operates 13 treatment plants. The nine major plants in Hampton Roads have design capacities ranging in size from 15 to 54 million gallons per day (MGD). Five of the major plants are

located south of the James River and four are north of the James River (see map on page 7). The combined capacity of these nine plants is approximately 249 MGD. HRSD's five small rural treatment plants have a combined capacity of almost one MGD.

HRSD maintains 540 miles of pipelines ranging from six inches to 66 inches in diameter. Interceptor pipelines, along with 89 pump stations in Hampton Roads, interconnect into two independent systems, one south of the James River and one north of the James River. The system allows some flow diversions to provide for maintenance or emergency work. HRSD owns and maintains 33 pump stations on the Middle Peninsula.

## **LOCAL ECONOMY**

HRSD's service area includes nearly all of the Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (MSA). It is the ninth largest MSA in the southeastern United States and the thirty-seventh largest in the nation. Unlike many metropolitan areas, Hampton Roads' population nucleus is not confined to one central city. Instead, the approximately 1.7 million residents are spread among several cities and counties. Virginia Beach is the most populous city in the Commonwealth, with Norfolk and Chesapeake second and third, respectively. Suffolk is the largest city by land area. Unemployment rates remain below national averages in the region, which has a civilian labor force of 830,400.

The regional economy is supported by one of the highest military concentrations in the nation, diverse manufacturing and service sectors, shipbuilding and repair work, international port activities and tourism. Several state and private colleges and a large healthcare infrastructure also lend stability to the region.

A diverse customer base allows HRSD to maintain stable revenues. The ten largest customers account for only 9.7 percent of wastewater revenues for fiscal year 2017. In addition, HRSD's 2017 revenues contained only limited reliance (2.8 percent) on new customer connections.

## **LONG-TERM FINANCIAL PLANNING**

HRSD's Financial Policy helps it maintain its solid fiscal health. Budgetary principles include using ongoing revenues to pay for ongoing expenses, and establishing annual cash contribution goals of at least 15 percent of budgeted capital costs. Under the Financial Policy, senior debt service coverage and total adjusted debt service coverage ratios should not be less than 1.5 and 1.4 times annual debt service, respectively. Operating and ten-year capital improvement budgets are adopted annually. Included in the operating budget is a long-range financial forecast, which is guided by projections of operating and capital needs and the aforementioned Financial Policy requirements.

## **MAJOR INITIATIVES**

HRSD continues its ambitious \$2.4 billion, ten-year Capital Improvement Program. Regulatory requirements to reduce nutrient discharges, initiatives to ensure appropriate wet weather capacity exists within the regional sanitary sewer system, major plant upgrades and replacements of interceptor

pipelines drive the capital program. Major projects are currently under construction at the Army Base Treatment Plant and the Virginia Initiative Plant.

To minimize the impacts of its capital investments on ratepayers, HRSD continues to pursue grant opportunities when available. In 2017, HRSD received approximately \$8.6 million in grant reimbursements for improvements to several of its treatment plants.

## **AWARDS AND ACKNOWLEDGMENTS**

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to HRSD for its comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2016. This was the 34th consecutive year that HRSD has received this prestigious award. In order to be awarded a Certificate of Achievement, HRSD must publish an easily readable and efficiently organized CAFR that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current CAFR continues to meet the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The preparation of this CAFR was made possible by the dedicated service of the entire Department of Finance staff. All members of the department have our sincere appreciation for their contributions to the preparation of this report. Credit must also be given to the Commission for their support for maintaining the highest standard of professionalism in the management of HRSD's finances.

Respectfully submitted,



Edward Henifin, P.E.  
General Manager



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



Carroll L. Acors, CPA  
Chief of Accounting



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, 2016**



Executive Director/CEO

# Principal Officials

June 30, 2017

---

## **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

Ann W. Templeman

## **COMMISSION SECRETARY**

Jennifer L. Cascio

## **SENIOR STAFF**

Edward G. Henifin, PE  
General Manager

Jay A. Bernas, PE  
Director of Finance  
and Treasurer

Charles B. Bott, PhD, PE  
Director of Water Technology  
And Research

Donald C. Corrado  
Director of Information  
Technology

Steven G. de Mik, CPA  
Director of Operations

Paula A. Hogg  
Director of Talent Management

Phillip L. Hubbard, PE  
Special Assistant for  
Compliance Assurance

Bruce W. Husselbee, PE  
Director of Engineering

James J. Pletl, PhD  
Director of Water Quality

Leila E. Rice  
Director of  
Communications

## **COUNSEL**

Kellam, Pickrell, Cox & Anderson, PC  
General Counsel

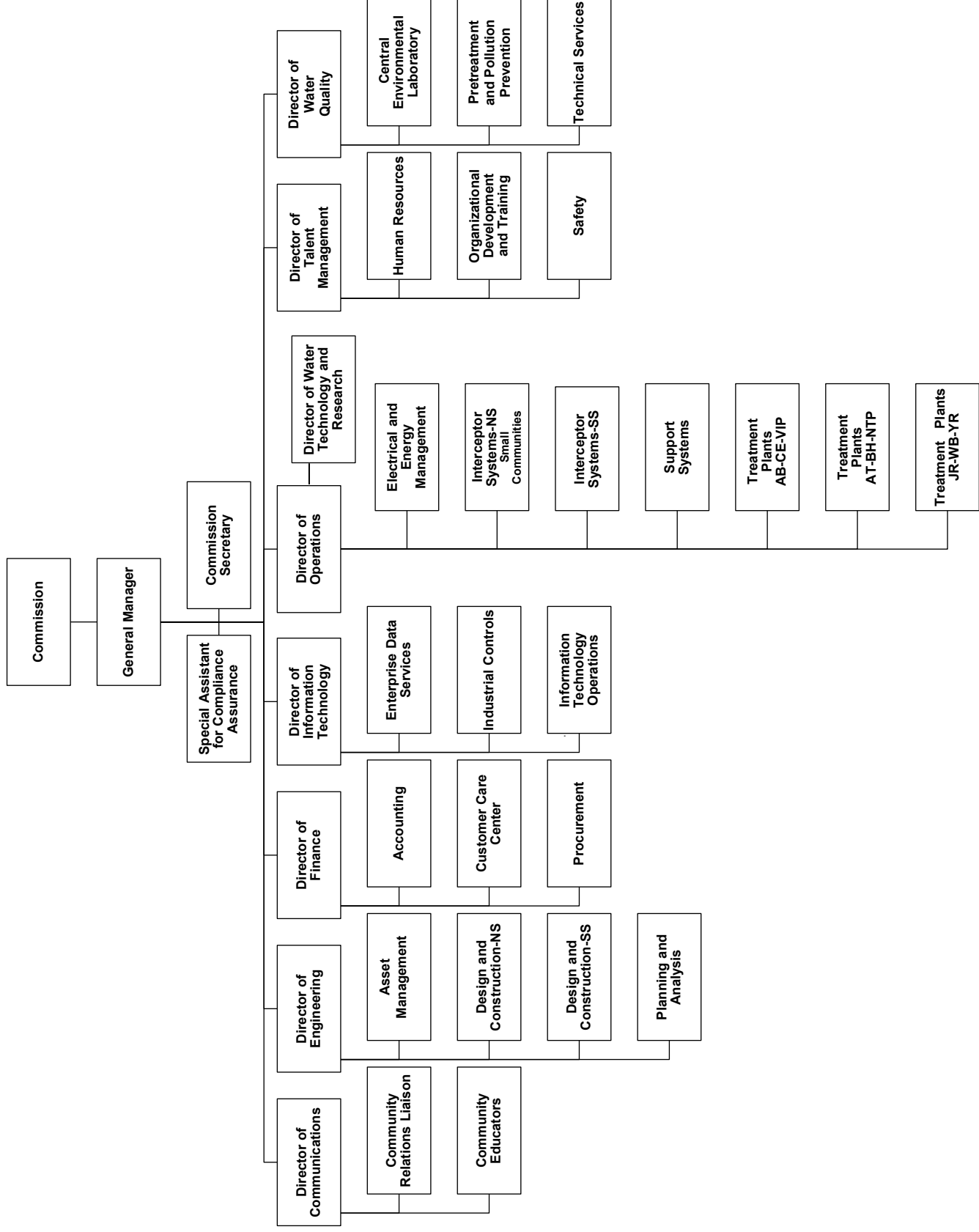
Jones, Blechman, Woltz & Kelly, PC  
Associate Counsel

AquaLaw, PLC  
Special Counsel

Norton Rose Fulbright US, LLP  
Bond Counsel

# HRSD Organization Chart

June 30, 2017



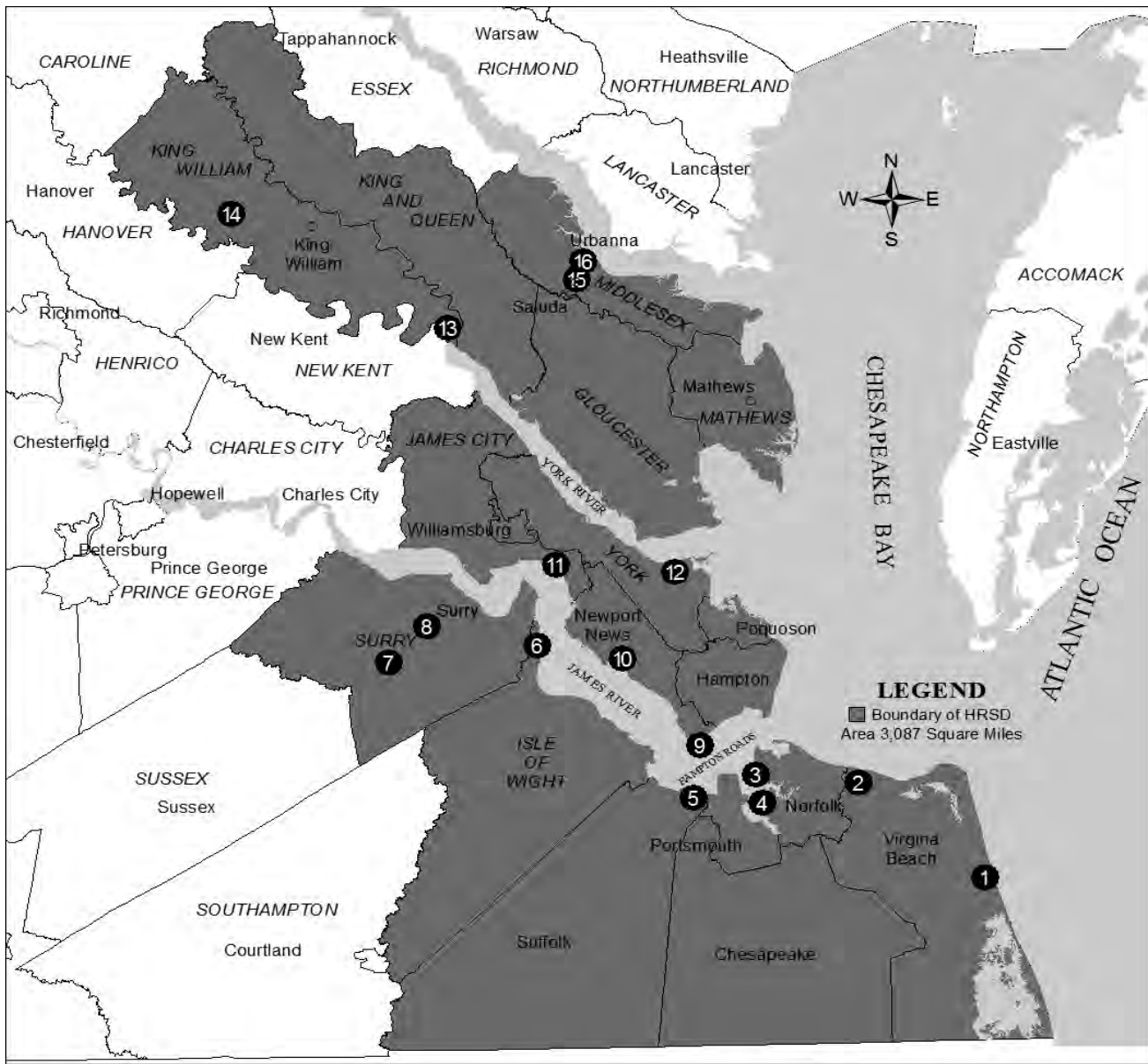
# HRSD Service Area

A Political Subdivision of the Commonwealth of Virginia

Facilities include the following:

1. Atlantic, Virginia Beach
2. Chesapeake-Elizabeth, Va. Beach
3. Army Base, Norfolk
4. Virginia Initiative, Norfolk
5. Nansemond, Suffolk
6. Lawnes Point, Smithfield
7. County of Surry
8. Town of Surry
9. Boat Harbor, Newport News
10. James River, Newport News
11. Williamsburg, James City County
12. York River, York County
13. West Point, King William County
14. King William, King William County
15. Central Middlesex, Middlesex County
16. Urbanna, Middlesex County

Serving the Cities of  
Chesapeake, Hampton,  
Newport News, Norfolk,  
Poquoson, Portsmouth, Suffolk, Virginia  
Beach, Williamsburg and the Counties  
of Gloucester,  
Isle of Wight, James City,  
King and Queen, King William,  
Mathews, Middlesex, Surry\* and York  
\*Excluding the Town of Claremont



05/2017

# History of HRSD

June 30, 2017

---

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 2017.

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 every HRSD treatment plant during calendar year 2016. The major treatment plants received the following awards in recognition of their outstanding permit compliance status: Atlantic—Gold, Boat Harbor—Platinum (15 consecutive years), Chesapeake-Elizabeth—Silver, James River—Gold, Nansemond—Platinum (15 consecutive years), Virginia Initiative Plant—Platinum (21 consecutive years), Williamsburg—Platinum (22 consecutive years) and York River—Platinum (9 consecutive years). Three treatment plants in the Small Communities Division, Central Middlesex, King William and West Point, earned Silver Awards while Urbanna received a Gold Award.

HRSD's other Fiscal Year 2017 honors included the Virginia Section American Water Works Association 2017 Public Information Award for Community Relations, large division for SWIFT Community Education and Outreach. In addition, HRSD earned National Environmental Achievement Awards (NEAA) in the following categories: Operations and Environmental Performance for *Molecular Tools for Environmental Management*; Research and Technology for *An International Collaboration: The InDENSE® Process*; Public Information & Education, Education Program for *Living the Legacy*; and Water Resources Utility of the Future for *Sustainable Water Initiative for Tomorrow (SWIFT)*.



# Financial Section



## Building New Pipelines

Microtunneling is one of the methods used to replace 6,000 linear feet of pipe in Downtown Norfolk installed in the 1940s.

*Photo by Will Gibson, PE, AECOM Project Manager*



KPMG LLP  
Suite 1900  
440 Monticello Avenue  
Norfolk, VA 23510

## **Independent Auditors' Report**

The Commissioners  
Hampton Roads Sanitation District:

We have audited the accompanying financial statements of the Hampton Roads Sanitation District (HRSD), a component unit of the Commonwealth of Virginia, as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise HRSD's basic financial statements for the years then ended as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of HRSD as of June 30, 2017 and 2016, and the changes in its financial position and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.



## **Other Matters**

### *Required Supplementary Information*

U.S. generally accepted accounting principles require that Management's Discussion and Analysis on pages 11 through 15 and the Schedule of Changes in Net Pension Liability and Related Ratios on page 39, the Schedule of Employer Contributions and notes to required supplementary information on page 40, and the Schedule of Funding Progress on page 41 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Supplementary and Other Information*

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise HRSD's basic financial statements. The Introductory Section, Statistical Section and Other Supplemental Section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Operating Expenses, Net Position by Component, and Debt Service Expenditures is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

The Introductory Section, the remaining schedules in the Statistical Section, and the Other Supplemental Section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

*KPMG LLP*

November 15, 2017

## **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 year ended June 30, 2017 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 \$52.7 million, or 8.8 percent, in 2017 as a result of this year's operations.
- Total revenues increased \$20.3 million, or 8.1 percent. This increase is primarily attributable to wastewater revenue rate increases.
- Operating expenses increased \$10.4 million, or 5.4 percent, principally due to a \$5.4 million increase in contractual services and a \$3.6 million increase in depreciation expense, which was primarily due to the completion of major expansions of treatment plants and interceptor systems in 2016 and 2017.
- Non-operating expenses decreased \$3.8 million, or 14.3 percent, primarily due to a \$3.1 decrease in capital distributions to localities.
- HRSD received \$7.5 million in capital grants from the Commonwealth of Virginia in 2017 to help finance its capital improvement program.
- Restricted cash and cash equivalents decreased \$68.9 million, or 75.2 percent, primarily because \$67.8 million in bonds that were restricted for construction in 2016 were used to build capital asset. Unrestricted cash and cash equivalents and investments increased \$23.9 million, or 12.5 percent, primarily as a result of increased cash flows from wastewater rate increases.
- Net Property, Plant and Equipment increased \$55.5 million, or 4.6 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 16 through 19 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 16 and 17 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 18 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 20 through 38 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 post employment benefits to its employees.

Required Supplementary Information can be found beginning on page 39 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 \$654.3 million at June 30, 2017 and by \$601.6 million at June 30, 2016.

By far, the largest portion of HRSD's net position (65.5 percent and 68.2 percent at June 30, 2017 and 2016, 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)	2017	2016	2015	2017 vs. 2016	
				Dollars	Percent
Capital assets	\$ 1,255,952	\$ 1,200,404	\$ 1,101,351	\$ 55,548	4.6%
Current assets and noncurrent assets	310,534	357,804	291,573	(47,270)	-13.2%
<b>Total assets</b>	<b>\$ 1,566,486</b>	<b>\$ 1,558,208</b>	<b>\$ 1,392,924</b>	<b>\$ 8,278</b>	<b>0.5%</b>
<b>Deferred outflows of resources</b>	<b>\$ 30,822</b>	<b>\$ 25,638</b>	<b>\$ 16,587</b>	<b>\$ 5,184</b>	<b>20.2%</b>
Long-term liabilities	\$ 805,685	\$ 826,393	\$ 724,251	\$ (20,708)	-2.5%
Current liabilities	134,353	147,339	118,035	(12,986)	-8.8%
<b>Total liabilities</b>	<b>\$ 940,038</b>	<b>\$ 973,732</b>	<b>\$ 842,286</b>	<b>\$ (33,694)</b>	<b>-3.5%</b>
<b>Deferred inflows of resources</b>	<b>\$ 2,992</b>	<b>\$ 8,510</b>	<b>\$ 10,400</b>	<b>\$ (5,518)</b>	<b>-64.8%</b>
Net investment in capital assets	\$ 428,670	\$ 410,287	\$ 385,597	\$ 18,383	4.5%
Restricted for debt service	22,701	23,798	22,070	(1,097)	-4.6%
Restricted for debt service reserve fund	-	-	44,118	-	-
Unrestricted	202,907	167,519	105,040	35,388	21.1%
<b>Total net position</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 52,674</b>	<b>8.8%</b>

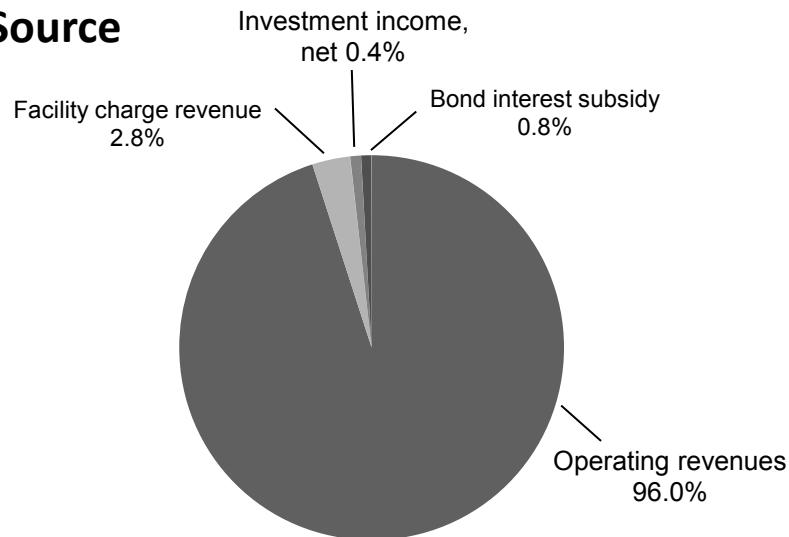
At June 30, 2017 HRSD had no unspent bond proceeds and at 2016 retained \$67.8 million of unspent bond proceeds. The increase in capital assets and the corresponding changes in current assets and noncurrent investments from 2015 through 2017 are primarily the result of issuing bonds in 2015 and 2016 and using these proceeds to fund capital improvements.

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)	2017	2016	2015	2017 vs. 2016	
				Dollars	Percent
Operating revenues	\$ 258,630	\$ 237,881	\$ 225,561	\$ 20,749	8.7%
Facility charge revenues	7,511	6,699	7,428	812	12.1%
Investment income, net	1,168	2,313	1,409	(1,145)	-49.5%
Bond interest subsidy	2,275	2,399	2,444	(124)	-5.2%
<b>Total revenues</b>	<b>269,584</b>	<b>249,292</b>	<b>236,842</b>	<b>20,292</b>	<b>8.1%</b>
Operating expenses:					
Wastewater treatment	113,100	106,575	114,137	6,525	6.1%
General and administrative	40,287	40,026	38,678	261	0.7%
Depreciation and amortization	49,311	45,670	41,871	3,641	8.0%
Total operating expenses	202,698	192,271	194,686	10,427	5.4%
Non-operating expenses:					
Bond issuance costs	42	1,713	768	(1,671)	-97.5%
Capital distributions to localities	138	3,287	-	(3,149)	-95.8%
Interest expense	22,630	21,631	22,958	999	4.6%
Total non-operating expenses	22,810	26,631	23,726	(3,821)	-14.3%
<b>Total expenses</b>	<b>225,508</b>	<b>218,902</b>	<b>218,412</b>	<b>6,606</b>	<b>3.0%</b>
Income before capital contributions	44,076	30,390	18,430	13,686	45.0%
Capital contributions	8,598	14,389	19,519	(5,791)	-40.2%
Change in net position	52,674	44,779	37,949	7,895	17.6%
Total net position - beginning	601,604	556,825	518,876	44,779	8.0%
<b>Total net position - ending</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 52,674</b>	<b>8.8%</b>

## Revenues By Source



Operating revenues increased 8.7 percent in 2017 and 5.5 percent in 2016. The majority of these increases are attributable to various rate increases in metered public wastewater services. Facility charge revenues increased \$0.8 million, or 12.1 percent, in 2017 due to an increase in new construction activity across the region after decreasing \$0.7 million, or 9.8 percent, in 2016.

Operating expenses increased 5.4 percent in 2017 and decreased 1.2 percent in 2016. Increases in 2017 were principally due to a \$5.4 million increase in contractual services and a \$3.6 million increase in depreciation expense. Decreases in 2016 were principally due to a \$5.3 million decrease in capital improvement asset expense, partially offset by a \$3.8 million increase in depreciation expense.

In 2017 and 2016, HRSD received \$8.6 million and \$14.4 million, respectively, in capital grants to help finance its capital improvement program.

## CAPITAL ASSETS AND DEBT ADMINISTRATION

### Capital Assets

At the end of 2017 and 2016, HRSD had approximately \$1.3 billion and \$1.2 billion, respectively, invested in a broad range of capital assets, including wastewater treatment plants, interceptor mains, pump stations, automotive, administrative and maintenance buildings, and office and computer software and equipment. These amounts represent a net increase of \$55.5 million, or 4.6 percent, in 2017 and \$99.1 million, or 9.0 percent, in 2016.

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

### HRSD's Capital Assets

(in thousands)	2017	2016	2015
Land	\$ 12,174	\$ 12,174	\$ 12,160
Treatment plants	543,616	557,145	446,624
Interceptor systems	368,666	351,828	329,271
Buildings	32,345	30,428	32,758
Small community facilities	18,288	18,649	15,446
Office equipment	3,774	5,314	6,909
Automotive	2,070	1,935	1,501
Other equipment	10,344	11,002	11,484
Software and intangible assets	16,616	21,108	15,817
	1,007,893	1,009,583	871,970
Construction in progress	248,049	190,821	229,381
<b>Net property, plant and equipment</b>	<b>\$ 1,255,942</b>	<b>\$ 1,200,404</b>	<b>\$ 1,101,351</b>

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

(in thousands)	2017	2016	2015
Balance at beginning of year	\$ 1,200,404	\$ 1,101,351	\$ 1,013,958
Additions	47,631	183,283	96,191
Retirements	-	-	(508)
Depreciation and amortization	(49,311)	(45,670)	(41,871)
Accumulated depreciation retired	-	-	508
Net increase (decrease) in construction in progress	57,228	(38,560)	33,073
<b>Balance at end of year</b>	<b>\$ 1,255,952</b>	<b>\$ 1,200,404</b>	<b>\$ 1,101,351</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. During 2017, HRSD invested significant funds in improvements to the Virginia Initiative and York River treatment plants, the Nansemond interceptor system, and the SWIFT Research facility. During 2016, HRSD invested significant funds in improvements to the Army Base and Virginia Initiative treatment plants and the Nansemond, Virginia Initiative and Williamsburg interceptor systems.

### Long-Term Debt

At June 30, 2017, HRSD had a total of \$846.8 million in revenue bonds outstanding versus \$879.3 million in 2016, a decrease of 3.7 percent. This decrease is due to payments on existing senior and subordinate debt.

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

### HRSD's Outstanding Debt

(in thousands, net of premium)	2017	2016	2015
Senior revenue bonds	\$ 429,165	\$ 444,616	\$ 609,005
Subordinate revenue bonds	350,347	361,463	99,195
<b>Total outstanding debt</b>	<b>\$ 779,512</b>	<b>\$ 806,079</b>	<b>\$ 708,200</b>

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

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	Aa2	n/a	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 GAAP basis. One of the reasons the Amended and Subordinate Trust agreement was amended in 2016 was to account for future Consent Decree expenses related to Locality wet weather improvements that HRSD will not own. In the amended trust, Operating Expenses was 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 therefor as may be provided in the resolution providing for the issuance of 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 Maximum Annual Debt Service (MADS) 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 8, respectively.

### **ECONOMIC FACTORS AND RATES**

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 114 million gallons per day (MGD) to approximately 112 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

In 2017, wastewater revenues increased as a result of planned rate increases needed, in large part, to fund HRSD's capital improvement program. Facility charge revenues, which are generally dependent on new growth and economic expansion, increased \$0.8 million, or 12.1 percent, in 2017 after decreasing \$0.7 million, or 9.8 percent, in 2016. Facility charge revenues comprised only 2.8 and 2.7 percent, respectively, of HRSD's total revenues in both 2017 and 2016.

Wastewater treatment rates for the 2017 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.

It is anticipated that the average residential customer bill will rise by less than \$2.67 per month in fiscal year 2018.

### **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.



**HAMPTON ROADS SANITATION DISTRICT**  
**STATEMENTS OF NET POSITION**  
**AS OF JUNE 30, 2017 AND 2016**

**ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

(in thousands)

	2017	2016
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	\$ 92,076	\$ 68,314
Cash and cash equivalents - Restricted	22,701	48,952
Investments	14,260	18,544
Accounts receivable, net	39,627	38,796
Accrued interest	447	288
Other current assets	3,644	7,188
<b>TOTAL CURRENT ASSETS</b>	<b>172,755</b>	<b>182,082</b>
<b>NON-CURRENT ASSETS</b>		
Cash and cash equivalents - Restricted	-	42,607
Investments	109,427	105,009
Inventory	28,352	28,106
	<b>137,779</b>	<b>175,722</b>
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>		
Land	12,174	12,174
Treatment plants	1,184,198	1,170,180
Interceptor systems	525,473	498,952
Buildings	48,735	45,359
Small community facilities	25,529	25,305
Office equipment	44,613	44,612
Automotive	18,180	17,342
Other equipment	36,066	34,011
Software and intangible assets	39,624	39,027
	1,934,592	1,886,962
Less: Accumulated depreciation and amortization	926,689	877,379
	1,007,903	1,009,583
Construction in progress	248,049	190,821
<b>NET PROPERTY, PLANT AND EQUIPMENT</b>	<b>1,255,952</b>	<b>1,200,404</b>
<b>TOTAL NON-CURRENT ASSETS</b>	<b>1,393,731</b>	<b>1,376,126</b>
<b>TOTAL ASSETS</b>	<b>1,566,486</b>	<b>1,558,208</b>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred loss on debt refunding	19,501	21,416
Differences between expected and actual experience	2,404	-
Net difference between projected and actual earnings on pension plan investments	4,591	-
Pension contributions subsequent to measurement date	4,326	4,222
<b>TOTAL DEFERRED OUTFLOWS OF RESOURCES</b>	<b>30,822</b>	<b>25,638</b>
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>	<b>\$ 1,597,308</b>	<b>\$ 1,583,846</b>

(continued)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT**  
**STATEMENTS OF NET POSITION**  
**AS OF JUNE 30, 2017 AND 2016**

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

(in thousands)

	2017	2016
<b>CURRENT LIABILITIES</b>		
Trade and contracts payable	\$ 21,573	\$ 32,718
Contract retention	6,527	7,742
Accrued salaries and wages	2,211	1,906
Current portion of bonds payable	31,895	32,421
Variable rate demand bonds	50,000	50,000
Current portion of compensated absences	5,279	4,672
Debt interest payable	11,803	10,818
Other liabilities	5,065	7,062
TOTAL CURRENT LIABILITIES	<u>134,353</u>	<u>147,339</u>
<b>LONG-TERM LIABILITIES</b>		
Compensated absences	3,124	3,403
Net pension liability	37,673	26,117
Bonds payable	764,888	796,873
TOTAL LONG-TERM LIABILITIES	<u>805,685</u>	<u>826,393</u>
<b>TOTAL LIABILITIES</b>	<u>940,038</u>	<u>973,732</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Differences between expected and actual experience	2,992	3,951
Net difference between projected and actual earnings on pension plan investments	-	4,559
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>2,992</u>	<u>8,510</u>
<b>NET POSITION</b>		
Net investment in capital assets	428,670	410,287
Restricted for debt service	22,701	23,798
Unrestricted	202,907	167,519
TOTAL NET POSITION	<u>654,278</u>	<u>601,604</u>
<b>TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION</b>	<u><u>\$ 1,597,308</u></u>	<u><u>\$ 1,583,846</u></u>

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**FOR THE FISCAL YEARS ENDED JUNE 30, 2017 and 2016**

(in thousands)

	2017	2016
<b>OPERATING REVENUES</b>		
Wastewater treatment charges	\$ 254,961	\$ 234,020
Miscellaneous	3,669	3,861
TOTAL OPERATING REVENUES	<u>258,630</u>	<u>237,881</u>
<b>OPERATING EXPENSES</b>		
Wastewater treatment	113,100	106,575
General and administrative	40,287	40,026
Depreciation and amortization	49,311	45,670
TOTAL OPERATING EXPENSES	<u>202,698</u>	<u>192,271</u>
<b>OPERATING INCOME</b>	<u>55,932</u>	<u>45,610</u>
<b>NON-OPERATING REVENUES (EXPENSES)</b>		
Wastewater facility charges	7,511	6,699
Investment income	2,287	1,563
Bond interest subsidy	2,275	2,399
Change in fair value of investments	(1,119)	750
Capital distributions to localities	(138)	(3,287)
Bond issuance costs	(42)	(1,713)
Interest expense	(22,630)	(21,631)
NET NON-OPERATING EXPENSES	<u>(11,856)</u>	<u>(15,220)</u>
INCOME BEFORE CAPITAL CONTRIBUTIONS	<u>44,076</u>	<u>30,390</u>
<b>CAPITAL CONTRIBUTIONS (DISTRIBUTIONS)</b>		
State capital grants received	7,462	14,389
Other capital contributions	1,136	-
CAPITAL CONTRIBUTIONS	<u>8,598</u>	<u>14,389</u>
<b>CHANGE IN NET POSITION</b>	52,674	44,779
<b>TOTAL NET POSITION - Beginning</b>	<u>601,604</u>	<u>556,825</u>
<b>TOTAL NET POSITION - Ending</b>	<u><u>\$ 654,278</u></u>	<u><u>\$ 601,604</u></u>

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT**  
**STATEMENTS OF CASH FLOWS**  
**FOR THE FISCAL YEARS ENDED JUNE 30, 2017 and 2016**

(in thousands)

	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Cash received from customers	\$ 256,532	\$ 235,808
Other operating revenues	3,669	3,861
Cash payments to suppliers for goods and services	(105,998)	(102,740)
Cash payments to employees for services	(52,768)	(51,006)
Net cash provided by operating activities	<u>101,435</u>	<u>85,923</u>
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>		
Capital distributions to localities	<u>(138)</u>	<u>(3,287)</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Wastewater facility charges	7,511	6,699
Acquisition and construction of property, plant and equipment	(110,822)	(137,316)
Proceeds from capital debt	-	150,022
Bond interest subsidy	2,275	2,399
Principal paid on capital debt	(26,568)	(28,181)
State capital grants	10,658	17,367
Other capital contributions	1,136	-
Bond issuance costs	(42)	(1,713)
Interest paid on capital debt	(31,416)	(26,600)
Net cash used in capital and related financing activities	<u>(147,268)</u>	<u>(17,323)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchases of investments	(97,549)	(181,239)
Sales and maturities of investments	96,296	180,011
Interest and dividends on investments	2,128	1,512
Net cash provided by investing activities	<u>875</u>	<u>284</u>
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	(45,096)	65,597
<b>CASH AND CASH EQUIVALENTS, AT BEGINNING OF YEAR</b>	159,873	94,276
<b>CASH AND CASH EQUIVALENTS, AT END OF YEAR</b>	<u><u>\$ 114,777</u></u>	<u><u>\$ 159,873</u></u>

**Reconciliation of Operating Income to Net Cash Provided by Operating Activities**

(in thousands)

Operating income	\$ 55,932	\$ 45,610
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	49,311	45,670
(Increase) decrease in operating assets		
Accounts receivable	(831)	(658)
Inventory	(246)	(553)
Net change in other current assets	348	(372)
Increase (decrease) in operating liabilities		
Trade and contracts payable	(654)	(3,255)
Accrued salaries and wages	305	424
Compensated absences	328	371
Net change in other liabilities	(1,997)	1,938
Pension liabilities	(1,061)	(3,252)
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<u><u>\$ 101,435</u></u>	<u><u>\$ 85,923</u></u>
<b>Noncash Capital and Related Financing Activities:</b>		
Proceeds of refunding debt principal	\$ -	\$ 170,785
Refunding of debt principal	-	(170,785)
Accrual for capital expenditures	(10,491)	(304)
Amortization of premium	(5,943)	(4,360)
Amortization of deferred loss on bond refunding	(1,915)	(1,433)

See Accompanying Notes to Financial Statements

# **HAMPTON ROADS SANITATION DISTRICT**

## **NOTES TO FINANCIAL STATEMENTS**

### **JUNE 30, 2017 and 2016**

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#### **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 seven 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 Poquoson	Isle of Wight County	Surry County*
City of Portsmouth	James City County	York County
*Excluding the Town of Clarendon		

#### **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 revenue bond proceeds held for construction of assets within the next 12 months, as well as cash restricted for debt service payments payable within the next year. Money market investments include accounts that are invested in government securities and are valued at net asset value (NAV) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), which is measured at amortized cost. See Notes 3 and 12 for additional discussion of cash and cash equivalent and investment valuations. Noncurrent restricted cash and cash equivalents are revenue bond proceeds held for the construction of noncurrent assets expected to be spent after 12 months (see Note 3).

Investments

Investments, which consist of U.S. government obligations including agencies, FDIC-guaranteed corporate notes and 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.

### 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 four 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 and third amounts are differences between expected and actual experience and the net difference between projected and actual earnings on pension plan investments, which will be recognized in pension expense in future reporting periods. The fourth is pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2016 and 2015. These contributions will be recognized as a reduction of the Net Pension Liability during the years ended June 30, 2018 and 2017, 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. HRSD has two types of this item, the differences between expected and actual experience and the net difference between projected and actual earnings on 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 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.

## 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.

## **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, 2017 and 2016, the carrying values of HRSD's deposits were \$21,904,000 and \$47,891,000, respectively, and the bank balances were \$25,325,000 and \$48,864,000, respectively. All of the bank balances at June 30, 2017 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 overnight in money market accounts that are invested in government securities and the PFM Funds Prime Series – SNAP Fund Class (SNAP) and in the Commonwealth of Virginia Local Government Investment Pool (LGIP), for which oversight is provided by the Treasury Board of Virginia. As of June 30, 2017 and 2016, HRSD had deposits in Merrill Lynch's FFI Government Fund and Fidelity's Government Money Market Fund that were rated AAAM by Standard & Poor's. HRSD's investment in the LGIP was rated AAAM by Standard & Poor's.

### Investments

As of June 30, HRSD had the following investments and maturities:

		<u>Investment Maturities (in years)</u>		
		Fair Value	Less Than 1	1-3
<b>As of June 30, 2017</b>				
<u>Investment Type</u>				
U.S. Treasury Securities	\$	38,809	\$ -	\$ 38,809
Federal Agency Notes / Bonds		33,688	-	33,688
Certificates of Deposit		12,110	7,207	4,903
Commercial Paper		2,424	2,424	-
Corporate Notes / Bonds		24,913	3,503	21,410
Municipal Bonds		2,166	-	2,166
Supranationals		9,577	1,126	8,451
<b>Total</b>	<b>\$</b>	<b>123,687</b>	<b>\$ 14,260</b>	<b>\$ 109,427</b>
<b>As of June 30, 2016</b>				
<u>Investment Type</u>				
U.S. Treasury Securities	\$	57,220	\$ 7,792	\$ 49,428
Federal Agency Notes / Bonds		23,471	1,000	22,471
Certificates of Deposit		9,704	-	9,704
Commercial Paper		9,752	9,752	-
Corporate Notes / Bonds		19,815	-	19,815
Supranationals		3,591	-	3,591
<b>Total</b>	<b>\$</b>	<b>123,553</b>	<b>\$ 18,544</b>	<b>\$ 105,009</b>



**Interest Rate Risk.** In accordance with its investment policy, HRSD manages its exposure to declines in fair values by limiting the weighted average maturity of various portfolios in a manner that meets HRSD's liquidity needs.

**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 for its investments, The Bank of New York Trust Department, as recipient of all investment transactions on a delivery versus pay basis. The Trustee may not be a counterparty to the investment transaction. At June 30, 2017 and 2016, the Trust Department of the Bank of New York held approximately \$123,687,000 and \$123,553,000, respectively, in investments in the Trustee's name for HRSD.

**Credit Risk.** HRSD's Trust Agreement permits HRSD to invest in investment instruments that are authorized by the Commonwealth. HRSD's investment securities using the Standard & Poor's credit quality ratings scale are presented below:

As of June 30, 2017

Standard & Poor's Credit Rating by Investment Type

<u>Investments</u>	AAA	AA+	AA	AA-	A+	A-1+	A-1	Total
(in thousands)								
U.S. Treasury Securities	\$ -	\$ 38,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,809
Federal Agency Notes / Bonds	-	33,688	-	-	-	-	-	33,688
Certificates of Deposit	-	-	-	9,608	-	2,502	-	12,110
Commercial Paper	-	-	-	-	-	-	2,424	2,424
Corporate Notes / Bonds	3,015	5,245	1,867	12,581	2,205	-	-	24,913
Municipal Bonds	-	-	-	-	2,166	-	-	2,166
Supranationals	9,577	-	-	-	-	-	-	9,577
<b>Total Investments</b>	<b>\$ 12,592</b>	<b>\$ 77,742</b>	<b>\$ 1,867</b>	<b>\$ 22,189</b>	<b>\$ 4,371</b>	<b>\$ 2,502</b>	<b>\$ 2,424</b>	<b>\$ 123,687</b>

As of June 30, 2016

Standard & Poor's Credit Rating by Investment Type

<u>Investments</u>	AAA	AA+	AA	AA-	A-1+	A-1	Total
(in thousands)							
U.S. Treasury Securities	\$ -	\$ 57,220	\$ -	\$ -	\$ -	\$ -	\$ 57,220
Federal Agency Notes / Bonds	-	23,471	-	-	-	-	23,471
Certificates of Deposit	-	-	-	4,727	4,977	-	9,704
Commercial Paper	-	-	-	-	-	9,752	9,752
Corporate Notes / Bonds	3,047	2,851	1,326	12,591	-	-	19,815
Supranationals	3,591	-	-	-	-	-	3,591
<b>Total Investments</b>	<b>\$ 6,638</b>	<b>\$ 83,542</b>	<b>\$ 1,326</b>	<b>\$ 17,318</b>	<b>\$ 4,977</b>	<b>\$ 9,752</b>	<b>\$ 123,553</b>

**Concentration of Credit Risk.** HRSD's investment policy includes a maximum exposure for each individual issuer for its permitted investment categories. U.S. Treasury obligations, collateralized bank deposits, money market funds and local government investment pools, however, are not subject to these issuer limits. Federal agency obligations and repurchase agreements are limited to 35 percent per issuer. Municipal obligations, commercial paper, and bankers acceptances are limited to 5 percent per issuer. Corporate notes and negotiable certificates of deposit are limited to 3 percent per issuer.

The change in fair value for the years ended June 30 is calculated as follows:

(in thousands)	2017	2016
Fair value of investments, end of year	\$ 123,687	\$ 123,553
Add: Proceeds of investments sold or maturing during the year	96,296	180,011
Less: Cost of investments purchased during the year	(97,549)	(181,239)
Less: Fair value of investments, beginning of year	(123,553)	(121,575)
Change in fair value of investments	<u>\$ (1,119)</u>	<u>\$ 750</u>

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

(in thousands)	2017	2016
Debt service	\$ 22,701	\$ 23,798
Revenue bond construction funds - current	-	25,154
Revenue bond construction funds - noncurrent	-	42,607
Total cash, cash equivalents and investments - restricted	<u>\$ 22,701</u>	<u>\$ 91,559</u>

#### NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

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

(in thousands)	2017	2016
Balance, beginning of year	\$ 2,282	\$ 1,949
Add: Current provision for uncollectible accounts	2,402	2,446
Less: Charge-off of uncollectible accounts	(2,239)	(2,113)
Balance, end of year	<u>\$ 2,445</u>	<u>\$ 2,282</u>

HRSD's collection ratio for the years ended June 30, 2017 and 2016 was 99.1 percent for each year.

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

Property, plant and equipment activity for the years ended June 30 was as follows:

(in thousands)	Balance 6/30/15	Additions	Transfers/ Retirements	Balance 6/30/16	Additions	Transfers/ Retirements	Balance 6/30/17
<u>Non-Depreciable Capital Assets</u>							
Land	\$ 12,160	\$ 14	\$ -	\$ 12,174	\$ -	\$ -	\$ 12,174
Construction in progress	229,381	108,420	(146,980)	190,821	101,957	(44,729)	248,049
<u>Depreciable Capital Assets</u>							
Treatment plants	1,036,055	134,125	-	1,170,180	14,018	-	1,184,198
Interceptor systems	467,277	31,675	-	498,952	26,521	-	525,473
Buildings	45,296	63	-	45,359	3,376	-	48,735
Small community facilities	22,551	2,754	-	25,305	224	-	25,529
Office equipment	44,364	248	-	44,612	1	-	44,613
Automotive	16,217	1,125	-	17,342	838	-	18,180
Other equipment	31,976	2,035	-	34,011	2,055	-	36,066
Software and intangible assets	27,783	11,244	-	39,027	598	(1)	39,624
Total	<u>\$ 1,933,060</u>	<u>\$ 291,703</u>	<u>\$ (146,980)</u>	<u>\$ 2,077,783</u>	<u>\$ 149,588</u>	<u>\$ (44,730)</u>	<u>\$ 2,182,641</u>
Less accumulated depreciation and amortization							
Treatment plants	(589,431)	(23,604)	-	(613,035)	(27,547)	-	(640,582)
Interceptor systems	(138,006)	(9,119)	-	(147,125)	(9,683)	-	(156,808)
Buildings	(13,489)	(1,441)	-	(14,930)	(1,451)	-	(16,381)
Small community facilities	(6,154)	(502)	-	(6,656)	(585)	-	(7,241)
Office equipment	(37,455)	(1,843)	-	(39,298)	(1,541)	-	(40,839)
Automotive	(14,716)	(691)	-	(15,407)	(703)	-	(16,110)
Other equipment	(20,492)	(2,517)	-	(23,009)	(2,712)	-	(25,721)
Software and intangible assets -amortization	(11,966)	(5,953)	-	(17,919)	(5,089)	1	(23,007)
Total	<u>(831,709)</u>	<u>(45,670)</u>	<u>-</u>	<u>(877,379)</u>	<u>(49,311)</u>	<u>1</u>	<u>(926,689)</u>
Net property, plant and equipment	<u>\$ 1,101,351</u>	<u>\$ 246,033</u>	<u>\$ (146,980)</u>	<u>\$ 1,200,404</u>	<u>\$ 100,277</u>	<u>\$ (44,729)</u>	<u>\$ 1,255,952</u>

Additions include \$5,743,000 and \$6,135,000 capitalized interest June 30, 2017 and 2016, respectively.

## NOTE 6 - COMPENSATED ABSENCES

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

(in thousands)	Balance			Balance			Balance
	<u>6/30/15</u>	<u>Earned</u>	<u>Taken</u>	<u>6/30/16</u>	<u>Earned</u>	<u>Taken</u>	<u>6/30/17</u>
Annual leave	\$ 4,841	\$ 3,216	\$ (3,063)	\$ 4,994	\$ 3,384	\$ (3,326)	\$ 5,052
Sick leave	2,687	1,312	(1,288)	2,711	1,416	(1,348)	2,779
Paid time off	<u>176</u>	<u>515</u>	<u>(321)</u>	<u>370</u>	<u>807</u>	<u>(605)</u>	<u>572</u>
Total	7,704	<u>\$ 5,043</u>	<u>\$ (4,672)</u>	8,075	<u>\$ 5,607</u>	<u>\$ (5,279)</u>	8,403
Less: Current liability	<u>2,696</u>			<u>4,672</u>			<u>5,279</u>
Long-term liability	<u>\$ 5,008</u>			<u>\$ 3,403</u>			<u>\$ 3,124</u>

## NOTE 7 - DEFINED BENEFITS PLANS

### Post-Retirement Health Benefit Plan

#### Plan Description

HRSD provides other postemployment benefits (OPEB) for its employees through the Hampton Roads Sanitation District Retiree Health Plan (the Plan), a single employer defined benefit plan. The Plan was established and may be amended by the Commission. HRSD administers the Plan 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 Plan. HRSD's contributions to the Trust are dedicated irrevocably to providing post-retirement health benefits, the Plan assets are exclusively dedicated to providing benefits to members, and the Plan 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 Plan does not issue stand-alone financial statements.

HRSD's plan provides two different health and dental benefit plans for eligible members. Members become eligible for benefits provided the retired HRSD employee has 15 years of service with HRSD or 10 years of service with HRSD plus 10 years of service with a 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 members may participate in a Medicare supplement plan. Members not eligible for Medicare may participate in a high deductible health plan.

#### Funding Policy

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 shares the cost of coverage under the plan with participating retirees by paying the difference between the contributions it requires retirees to make and the annual required contribution (ARC). The current contribution rate is 5 percent of annual covered payroll.

## Annual OPEB Cost

HRSD's annual OPEB cost is calculated based on an actuarially determined ARC. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. Information related to the HRSD's annual OPEB cost, ARC, actual contributions, and changes to the net OPEB obligation is as follows:

(in thousands)					Percentage of	
Fiscal Year Ended	ARC	Actuarial Adjustment	Annual OPEB Cost	Annual ARC Contributed	Net OPEB Obligation	
2017	\$ 2,558	\$ -	\$ 2,558	100%	\$ -	
2016	\$ 2,178	\$ -	\$ 2,178	100%	\$ -	
2015	\$ 2,177	\$ -	\$ 2,177	100%	\$ -	

## Funded Status and Funding Progress

The funded status of the plan as of June 30, 2017 and 2016 was as follows:

(in thousands)	2017	2016
Actuarial accrued liability (AAL)	\$ 49,303	\$ 45,337
Actuarial value of plan assets	42,468	39,272
Unfunded actuarial accrued liability (UAAL)	<u>\$ 6,835</u>	<u>\$ 6,065</u>
Funded ratio (actuarial value of plan assets/AAL)	86.1%	86.6%
Annual covered payroll (active plan members)	\$ 49,286	\$ 47,838
UAAL as a percentage of covered payroll	13.9%	12.7%

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the possibility of occurrence of events far into the future. Examples include assumptions about future employment, investment returns, mortality and healthcare cost trends. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

## Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by HRSD and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The information presented in the required supplemental schedules was determined as part of the actuarial valuations at the dates indicated. The actuarial value of plan assets is equal to fair value.

Additional information at June 30, 2017, the date of the most recent valuation, follows:

Actuarial cost method	Projected unit credit method
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
Actuarial assumptions:	
Discount Rate	6%
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
Assumed rate of inflation	2.2%

## **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 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.aspx> 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, 2015 and 2014 actuarial valuation dates, the following employees were covered by the benefit terms of the pension plan:

	<u>2015</u>	<u>2014</u>
Inactive Members or Their Beneficiaries Currently Receiving Benefits	343	301
Inactive Members		
Vested	107	103
Non-Vested	141	180
Active Elsewhere in VRS	<u>77</u>	<u>81</u>
Total Inactive Members	325	364
Active Members	<u>752</u>	<u>759</u>
Total	<u><u>1,420</u></u>	<u><u>1,424</u></u>

#### 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, 2017 and 2016 were 7.70% and 8.96% of covered compensation. These rates are based on actuarially determined rates from actuarial valuations as of June 30, 2015 and 2014.

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 \$4,327,000 and \$4,222,000 for the years ended June 30, 2017 and 2016, respectively.

#### Net Pension Liability

HRSD's net pension liability as of June 30, 2017 and 2016 was measured as of June 30, 2016 and 2015, respectively. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2015 and 2014, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2016 and 2015.

## Actuarial Assumptions

The total pension liability as of June 30, 2017 and 2016 for employees in HRSD's retirement plan was based on actuarial valuations as of June 30, 2015 and 2014, 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, 2016 and 2015, respectively.

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	7%, net of pension plan investment expense, 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 7.0%. 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 7% to simplify preparation of pension liabilities.

Mortality rates: 14% of deaths are assumed to be service related

Pre Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 4 years and females set back 2 years

Post Retirement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set forward 1 year

Post Disablement, RP-2000 Employee Mortality Table Projected with Scale AA to 2020 with males set back 3 years and no provision for future mortality improvement

The actuarial assumptions used in the June 30, 2015 and 2014 valuations were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2012. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Update mortality table
- Decrease in rates of service retirement
- Decrease in rates of disability retirement
- Reduce rates of salary increase by 0.25% per year

## 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 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
U.S. Equity	19.50%	6.46%	1.26%
Developed Non-U.S. Equity	16.50%	6.28%	1.04%
Emerging Market Equity	6.00%	10.00%	0.60%
Fixed Income	15.00%	0.09%	0.01%
Emerging Debt	3.00%	3.51%	0.11%
Rate Sensitive Credit	4.50%	3.51%	0.16%
Non-Rate Sensitive Credit	4.50%	5.00%	0.23%
Convertibles	3.00%	4.81%	0.14%
Public Real Estate	2.25%	6.12%	0.14%
Private Real Estate	12.75%	7.10%	0.91%
Private Equity	12.00%	10.41%	1.25%
Cash	1.00%	-1.50%	-0.02%
Total	<u>100.00%</u>		<u>5.83%</u>
		Inflation	<u>2.50%</u>
	* Expected arithmetic nominal return		<u>8.33%</u>

\* Using stochastic projection results provides an expected range of real rates of return over various time horizons. Looking at one year results produces an expected real rate of 8.33% but also has a high standard deviation, which means there is high volatility. Over larger time horizons the volatility declines significantly and provides a median return of 7.44%, including expected inflation of 2.50%.

#### Discount Rate

The discount rate used to measure the total pension liability, as of June 30, 2016 and 2015, was 7.0%. The projection of cash flows used to determine the discount rate assumed that VRS 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. Through the fiscal year ending June 30, 2018, the rate contributed by the HRSD for the retirement plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2018 on, participating employers are assumed 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)
Balances at June 30, 2014	\$ 197,928	\$ 170,464	\$ 27,464
Changes for the year - Increase (Decrease):			
Service cost	4,115	-	4,115
Interest	13,559	-	13,559
Difference between expected and actual experience	(4,910)	-	(4,910)
Contributions - employer	-	4,099	(4,099)
Contributions - employee	-	2,314	(2,314)
Net investment income	-	7,807	(7,807)
Benefit payments, including refunds of employee contributions	(8,446)	(8,446)	-
Administrative expense	-	(107)	107
Other changes	-	(2)	2
Net changes	4,318	5,665	(1,347)
Balances at June 30, 2015	202,246	176,129	26,117
Changes for the year - Increase (Decrease):			
Service cost	4,025	-	4,025
Interest	13,872	-	13,872
Difference between expected and actual experience	2,980	-	2,980
Contributions - employer	-	4,083	(4,083)
Contributions - employee	-	2,286	(2,286)
Net investment income	-	3,062	(3,062)
Benefit payments, including refunds of employee contributions	(8,161)	(8,161)	-
Administrative expense	-	(109)	109
Other changes	-	(1)	1
Net changes	12,716	1,160	11,556
Balances at June 30, 2016	\$ 214,962	\$ 177,289	\$ 37,673

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

Net Pension Liability (in thousands)	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
June 30, 2016	\$ 67,989	\$ 37,673	\$ 12,576
June 30, 2015	\$ 55,532	\$ 26,117	\$ 1,774

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

HRSD recognized pension expense of \$3,126,000 and \$863,000 for the years ended June 30, 2017 and 2016, respectively. At June 30, 2017 and 2016, HRSD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(in thousands)	
Year ended June 30, 2017:		
Differences between expected and actual experience	\$ 2,404	\$ 2,992
Net difference between projected and actual earnings on plan investments	4,591	-
Employer contributions subsequent to the measurement date	4,326	-
	<u>\$ 11,321</u>	<u>\$ 2,992</u>
Year ended June 30, 2016:		
Differences between expected and actual experience	\$ -	\$ 3,951
Net difference between projected and actual earnings on plan investments	-	4,559
Employer contributions subsequent to the measurement date	4,222	-
	<u>\$ 4,222</u>	<u>\$ 8,510</u>

HRSD reported \$4,326,000 and \$4,222,000 as of June 30, 2017 and 2016, 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, 2018 and 2017, 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:

Year ended June 30, 2017:	(in thousands)
2018	\$ 332
2019	332
2020	(2,268)
2021	(2,301)
2022	(98)
Thereafter	-
Year ended June 30, 2016:	(in thousands)
2017	\$ 2,749
2018	2,749
2019	2,749
2020	148
2021	115
Thereafter	-

## NOTE 8 – 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.

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, 2017, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2017 and 2016 was 0.82% and 0.38%, respectively. The 2017 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 is as follows:

(in thousands)	Balance at 6/30/15	Additions	Deductions	Balance at 6/30/2016	Additions	Deductions	Balance at 6/30/2017	Due within One year
Series-2016A	\$ -	\$ 246,845	\$ -	\$ 246,845	\$ -	\$ (3,525)	\$ 243,320	\$ 2,400
Series-2016B VR	-	50,000	-	50,000	-	-	50,000	50,000
Series-2014	111,345	-	-	111,345	-	-	111,345	-
Series-2012 A	111,915	-	(19,760)	92,155	-	(2,480)	89,675	2,580
Series-2012 Subordinate	8,955	-	(4,925)	4,030	-	(2,825)	1,205	300
Series-2011FR	32,545	-	(26,785)	5,760	-	(1,360)	4,400	1,410
Series-2011VR	25,000	-	(25,000)	-	-	-	-	-
Series-2009B	134,725	-	(3,505)	131,220	-	(3,590)	127,630	3,690
Series-2008	113,410	-	(104,945)	8,465	-	(3,000)	5,465	5,465
Series-2003	4,645	-	(4,645)	-	-	-	-	-
Virginia Resources Authority								
Senior bonds	100,420	-	(4,749)	95,671	-	(5,021)	90,650	5,235
Subordinate bonds	65,240	-	(4,652)	60,588	-	(4,767)	55,821	4,882
	708,200	296,845	(198,966)	806,079	-	(26,568)	779,511	75,962
Unamortized bond premiums	40,197	42,244	(9,226)	73,215	-	(5,943)	67,272	5,933
Total Bonds Outstanding	<u>\$ 748,397</u>	<u>\$ 339,089</u>	<u>\$ (208,192)</u>	<u>\$ 879,294</u>	<u>\$ -</u>	<u>\$ (32,511)</u>	<u>\$ 846,783</u>	<u>\$ 81,895</u>

A summary of the senior bonds outstanding at June 30, 2017 is as follows:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-Term				
Series 2014	\$ 111,345	\$ 111,345	\$ -	\$ 111,345	\$ 41,408	5.00%	15 years	July 1, 2029
Series 2012A	130,480	89,675	2,580	87,095	69,129	4.00 - 5.00%	30 years	January 1, 2044
Series-2011FR	45,705	4,400	1,410	2,990	269	3.00 - 4.00%	8 years	November 1, 2019
Series-2009B	134,725	127,630	3,690	123,940	96,873	4.51 - 5.81%	30 years	November 1, 2039
Series-2008	223,170	5,465	5,465	-	218	4.00 - 5.07%	10 years	April 1, 2018
VRA - Metering	9,989	7,758	465	7,293	1,578	2.65%	20 years	March 1, 2031
VRA - WTP	5,727	4,476	279	4,197	696	2.05%	20 years	March 1, 2031
VRA - NTP	19,395	15,024	899	14,125	3,056	2.65%	20 years	March 1, 2031
VRA - JRTP	13,431	10,267	642	9,625	2,013	2.65%	20 years	September 1, 2030
VRA - ABTP	50,000	41,763	2,315	39,448	7,198	2.05%	20 years	September 1, 2032
VRA - BHTP	7,584	5,967	357	5,610	961	2.05%	20 years	September 1, 2031
VRA - ATP	6,318	5,395	278	5,117	1,188	2.31%	20 years	February 1, 2033
Total		<u>\$ 429,165</u>	<u>\$ 18,380</u>	<u>\$ 410,785</u>	<u>\$ 224,587</u>			

Maturities of senior bond principal and interest as of June 30, 2017 are as follows:

(in thousands)

June 30,	Principal	Interest
2018	\$ 18,380	\$ 19,046
2019	18,801	18,237
2020	19,520	17,457
2021	18,682	16,673
2022	17,977	15,842
2023-2027	112,462	64,980
2028-2032	104,196	41,143
2033-2037	57,451	23,034
2038-2042	51,105	7,537
2043-2047	10,591	638
	<u>\$ 429,165</u>	<u>\$ 224,587</u>

A summary of the subordinate revenue bonds outstanding at June 30, 2017 is as follows:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-term				
Series-2016A	\$ 246,845	\$ 243,320	\$ 2,400	\$ 240,920	\$ 171,537	3.74%-5.00%	27 years	August 1, 2043
Series-2012 Sub	22,680	1,205	300	905	42	1.19% - 1.92%	8 years	October 1, 2020
Disinfection	6,490	1,305	420	885	81	3.50%	20 years	March 1, 2020
BH Odor	2,380	690	144	546	62	3.50%	20 years	September 1, 2021
York River Reuse	2,476	811	142	669	42	1.70%	20 years	September 1, 2022
AB Aeration	1,759	608	106	502	31	1.70%	20 years	October 1, 2022
Ches-Eliz Off Gas	1,070	393	60	333	49	3.75%	20 years	March 1, 2023
AB Generator	1,235	648	66	582	63	2.00%	20 years	April 1, 2026
Atlantic Expansion	7,340	4,241	385	3,856	483	2.10%	20 years	February 1, 2027
Ches-Eliz Expansion	40,330	23,183	2,106	21,077	2,641	2.10%	20 years	June 1, 2027
Williamsburg PS	1,605	965	83	882	115	2.10%	20 years	July 1, 2027
York River Expansion	29,683	22,977	1,369	21,608	4,806	2.72%	20 years	March 1, 2031
		300,346	7,581	292,765	179,952			
Series-2016B VR	50,000	50,000	50,000	-	10,111	Variable (0.82% at June 30, 2017)	30 years	August 1, 2046
Total		<u>\$ 350,346</u>	<u>\$ 57,581</u>	<u>\$ 292,765</u>	<u>\$ 190,063</u>			

Maturities of subordinate bond principal and interest as of June 30, 2017 are as follows:

(in thousands)

June 30,	Principal	Interest
2018	\$ 57,582	\$ 12,903
2019	7,826	12,656
2020	8,085	12,399
2021	9,235	12,101
2022	10,687	11,735
2023-2027	47,035	54,172
2028-2032	66,724	43,075
2033-2037	99,900	22,530
2038-2042	29,040	7,165
2043-2047	14,232	1,327
	<u>\$ 350,346</u>	<u>\$ 190,063</u>

## NOTE 9 – NET POSITION

### Restricted Portions of Net Position

*Restricted for debt service and restricted for debt service reserve fund.* HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service and, if needed, for a debt service reserve fund. No funds were required for the debt service reserve fund during the fiscal years ended June 30, 2017 and 2016.

### 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, 2017 and 2016, \$902,000 and \$2,065,000, 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, 2017 and 2016.

*Reserved for Construction.* A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2017 and 2016, \$37,452,000 and \$12,525,000, respectively, was contained in the unrestricted net position.

## NOTE 10 - 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. Certain health claims expenses paid on behalf of each employee during a single policy year are covered by excess loss insurance with a specific stop-loss limit of \$250,000. HRSD also maintains an aggregate insurance policy whereby total medical claims costs in excess of 125 percent of expected costs are subject to reimbursement. 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.

Changes in HRSD's claims liability for fiscal years 2016 through 2017 are as follows:

(in thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2016	\$ 4,316	\$ 10,326	\$ (10,646)	\$ 3,996
2017	\$ 3,996	\$ 9,704	\$ (10,345)	\$ 3,355

## NOTE 11 – COMMITMENTS AND CONTINGENCIES

HRSD is party to a federal consent decree with the federal and state governments (the Consent Decree), which requires HRSD to evaluate the wet weather capacity of the regional sewer system, including collection systems owned by 14 of the localities which HRSD serves in the Hampton Roads area. Based upon that evaluation, HRSD, in consultation with the localities, has developed a regional wet weather management plan (RWWMP) for submittal to the federal and state environmental agencies for their approval. The recommended plan includes an implementation schedule, identifies the attainable level of wet weather capacity in individual areas of the region and/or on a region-wide basis, and summarizes the major projects and programs that must be implemented in order to achieve the specified level of regional wet weather capacity.

HRSD and the localities believe that addressing wet weather capacity issues from a regional perspective will result in the most affordable and cost-effective approach for ratepayers throughout the region. Toward that end, HRSD and the localities entered into a legally binding Memorandum of Agreement in March of 2014 (the MOA). The MOA commits HRSD to (1) develop the RWWMP in consultation with the localities, (2) fund the approved plan through a regional rate imposed on all regional ratepayers, (3) design and construct the necessary improvements, and (4) assume responsibility for wet weather capacity throughout the region in each area once the RWWMP is implemented. In exchange, the localities have 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.

HRSD has also developed an Integrated Management Plan (IMP). The IMP includes a combination of projects that will improve water quality of the Chesapeake Bay. The first project will be the Sustainable Water Initiative for Tomorrow (SWIFT) initiative, which will allow HRSD to reduce nitrogen, phosphorus and total suspended solids. This program is estimated to cost \$1 billion and may take approximately 10 years to implement. During this time HRSD will be investing approximately \$200 million in additional wet weather capacity-related sewer overflow controls between now and 2030. After 2030, the IMP commits HRSD to submit a Final Remediation Plan which may call for full implementation of the RWWMP, a subset of priority projects from the scenario with the greatest environmental benefits, investments in emerging environmental issues including sea level rise adaptation, or some combination of these or other regional environmental priorities. While speculative at this time, those needs could cost upwards of \$1 billion over a 20-25 year period (through 2055). HRSD has submitted the IMP to the federal and state governments for approval.

The Consent Decree and MOA also contemplate that the localities' obligation to maintain the integrity of their sewer systems to industry standards was embodied in a State administrative order. Management currently believes that HRSD is on schedule to complete these projects.

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. At June 30, 2017, HRSD has outstanding commitments for contracts in progress of approximately \$113,977,000.

## **NOTE 12 – 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.

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.
- Local Government Investment Pool (LGIP) – HRSD holdings of the Virginia LGIP fund units are valued at amortized cost based on their qualification under GASB 79 as being managed as a "2a-7 like" investment. The fund does not have any limitations or restrictions on withdrawals such as redemption notice periods, maximum transaction amounts, or liquidity fees or redemption gates. 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. HRSD's total investment in the LGIP was \$92,714,000 and \$44,120,000 as of June 30, 2017 and 2016, respectively.

**Balance at June 30, 2017 (in thousands)****Investments by Fair Value Level**

	<b>Fair Value</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasury Securities	\$ 38,809	\$ -	\$ 38,809	\$ -
Federal Agency Notes / Bonds	33,688	-	33,688	-
Corporate Notes / Bonds	24,913	-	24,913	-
Commercial Paper	2,424	-	2,424	-
Certificates of Deposit	12,110	-	12,110	-
Municipal Bonds	2,166	-	2,166	-
Supranationals	9,577	-	9,577	-
Total Investments by Fair Value Level	<u>\$ 123,687</u>	<u>\$ -</u>	<u>\$ 123,687</u>	<u>\$ -</u>

**Cash Equivalents Measured at Net Asset Value**

Fidelity	<u>\$ 157</u>
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**Balance at June 30, 2016 (in thousands)****Investments by Fair Value Level**

	<b>Fair Value</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasury Securities	\$ 57,220	\$ -	\$ 57,220	\$ -
Federal Agency Notes / Bonds	23,471	-	23,471	-
Corporate Notes / Bonds	19,815	-	19,815	-
Commercial Paper	9,752	-	9,752	-
Certificates of Deposit	9,704	-	9,704	-
Supranationals	3,591	-	3,591	-
Total Investments by Fair Value Level	<u>\$ 123,553</u>	<u>\$ -</u>	<u>\$ 123,553</u>	<u>\$ -</u>

**Cash and Cash Equivalents Measured at Net Asset Value**

Fidelity	\$ 96
SNAP	<u>67,761</u>
Total Cash Equivalents measured at Net Asset Value	<u>\$ 67,857</u>

# Required Supplementary Information (Unaudited)



## **Increasing Energy Efficiency**

The Atlantic Treatment Plant system that generates renewable power and heat from digester gas provides 35 percent of the plant's electricity.

*Photo by Mark Rhodes*



**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF CHANGES IN  
NET PENSION LIABILITY AND RELATED RATIOS**

	(in thousands)	2016	2015	2014
<b>Total pension liability</b>				
Service cost	\$	4,025	\$ 4,115	\$ 3,943
Interest		13,872	13,559	12,907
Differences between expected and actual experience		2,980	(4,910)	-
Benefit payments, including refunds of employee contributions		(8,161)	(8,446)	(6,607)
<b>Net change in total pension liability</b>		12,716	4,318	10,243
<b>Total pension liability - beginning</b>		202,246	197,928	187,686
<b>Total pension liability - ending (a)</b>	\$	214,962	\$ 202,246	\$ 197,929
<b>Plan fiduciary net position</b>				
Contributions - employer	\$	4,083	\$ 4,099	\$ 4,114
Contributions - employee		2,286	2,314	2,267
Net investment income		3,062	7,807	23,313
Benefit payments, including refunds of employee contributions		(8,161)	(8,446)	(6,607)
Administrative expense		(109)	(107)	(125)
Other		(1)	(2)	1
<b>Net change in plan fiduciary net position</b>		1,160	5,665	22,963
<b>Plan fiduciary net position - beginning</b>		176,129	170,464	147,501
<b>Plan fiduciary net position - ending (b)</b>	\$	177,289	\$ 176,129	\$ 170,464
<b>Net pension liability - ending (a) - (b)</b>	\$	37,673	\$ 26,117	\$ 27,465
<b>Plan fiduciary net position as a percentage of the total pension liability (b)/(a)</b>		82.47%	87.09%	86.12%
<b>Covered-employee payroll ( c )</b>	\$	49,286	\$ 47,838	\$ 47,674
<b>Net pension liability as a percentage of the covered-employee payroll ((a)-(b))/( c )</b>		76.44%	54.59%	57.61%

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.

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

**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF EMPLOYER CONTRIBUTIONS  
FOR THE YEARS ENDED JUNE 30, 2008 THROUGH 2017**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
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%
2010	3,900,000	3,900,000	-	39,407,000	9.90%
2009	3,699,000	3,699,000	-	37,608,000	9.84%
2008	4,363,000	4,363,000	-	34,050,000	12.81%

**Changes of benefit terms** - There have been no actuarially material changes to the VRS benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this was a new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2016 WAS not material.

**Changes of assumptions** - The following changes in actuarial assumptions were made effective June 30, 2013 based on the most recent experience study of the retirement system for the four-year period ending June 30, 2012:

- Update mortality table
- Decrease in rates of service retirement
- Decrease in rates of disability retirement
- Reduce rates of salary increase by 0.25% per year

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

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

**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF FUNDING PROGRESS  
FOR THE YEARS ENDED JUNE 30, 2013 THROUGH 2017**

The table below provides detail on the funding progress for the Post-Retirement Health Benefit Plan for HRSD.

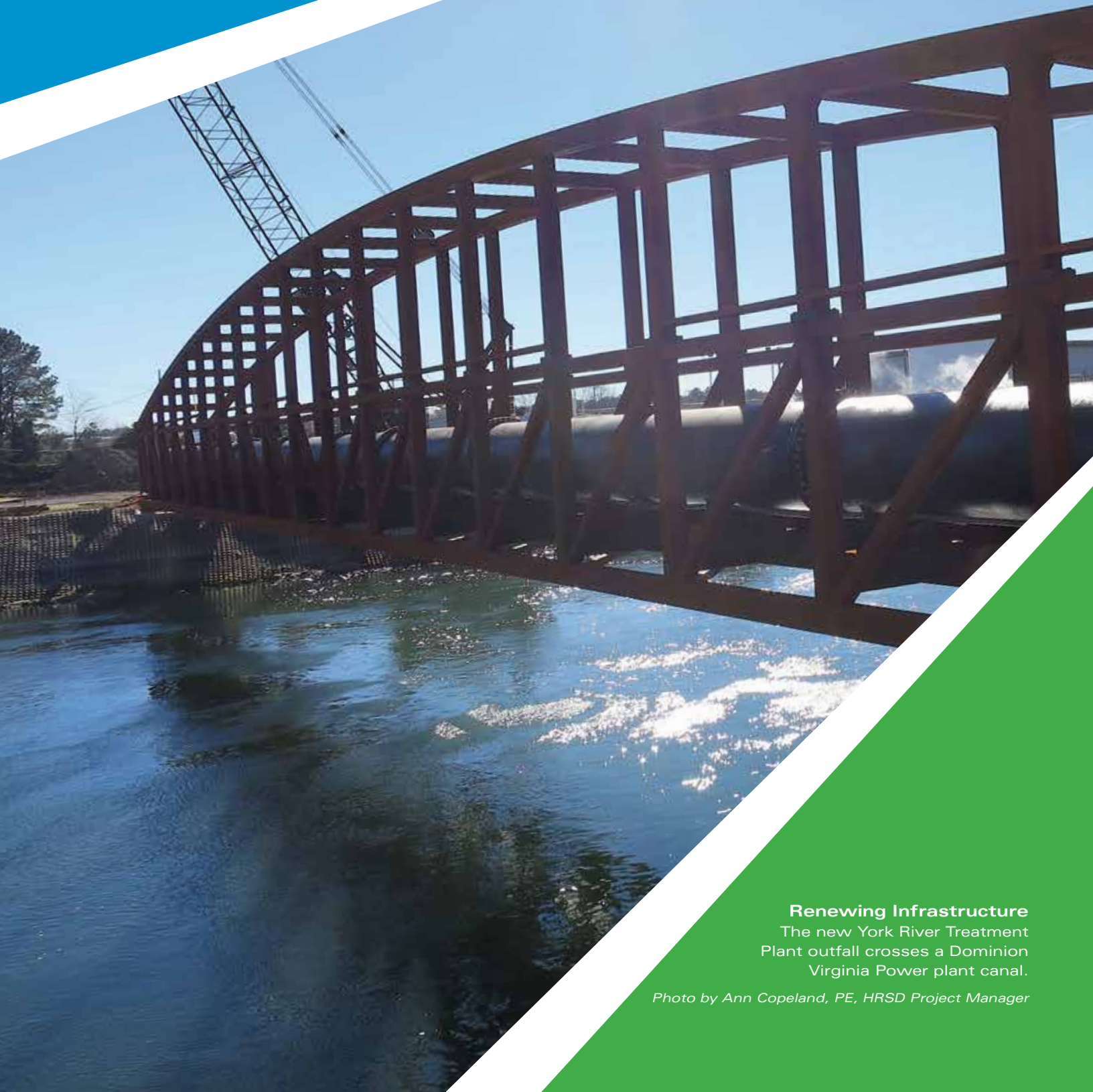
Valuation as of	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (2) - (1)	Funded Ratio Assets as % of AAL (1) / (2)	Annual Covered Payroll	UAAL as a % of Covered Payroll (3) / (5)
(in thousands)	(1)	(2)	(3)	(4)	(5)	(6)
6/30/2017	\$42,468	\$49,303	\$6,835	86.1%	\$49,286	13.9%
6/30/2016	\$39,272	\$45,337	\$6,065	86.6%	\$47,838	12.7%
6/30/2015	\$37,008	\$42,017	\$5,009	88.1%	\$47,674	10.5%
6/30/2014	\$34,115	\$39,422	\$5,307	86.5%	\$46,096	11.5%
6/30/2013	\$28,030	\$35,552	\$7,522	78.8%	\$45,032	16.7%

Unaudited – See accompanying independent auditors' report

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# Statistical Section

(Unaudited)



## Renewing Infrastructure

The new York River Treatment Plant outfall crosses a Dominion Virginia Power plant canal.

*Photo by Ann Copeland, PE, HRSD Project Manager*

## **HAMPTON ROADS SANITATION DISTRICT STATISTICAL SECTION (UNAUDITED)**

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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(s)</b>
<b>Demographic and Economic Information</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.	45
<b>Financial Trends</b>	
These schedules contain trend information to help the reader understand how HRSD's financial performance and well-being have changed over time.	46-48
<b>Debt Capacity</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.	49
<b>Revenue Capacity</b>	
These schedules contain information to help the reader assess the factors affecting HRSD's ability to generate revenue from rate payers.	50-51 54-56
<b>Operating Information</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.	52-53 57

**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

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**HAMPTON ROADS SANITATION DISTRICT  
DEMOGRAPHIC AND OTHER MISCELLANEOUS STATISTICS  
JUNE 30, 2017**

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Date of Incorporation - 1940										
Area in Square Miles (1)	3,087	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808	2,808
Present Service Area in Square Miles (1)	758	672	672	672	672	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	5	4	4	4	4	5	5	4	4	4
Central Middlesex, Middlesex County	0.025	0.025	0.025	0.03	0.03	0.03	0.03	-	-	-
King William Plant, King William County	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Mathews Plant, Mathews County (2)	-	-	-	-	-	0.10	0.10	0.10	0.10	0.10
Urbanna Plant, Middlesex County	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
West Point Plant, King William County	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Lawnes Point, Isle of Wight County (2)	0.05	-	-	-	-	-	-	-	-	-
Total Small Communities Treatment Plants Capacity	0.875	0.825	0.825	0.83	0.83	0.93	0.93	0.90	0.90	0.90
Miles of Interceptor Systems (3)	540	536	532	531	531	532	528	483	483	514
Interceptor Pump Stations	89	88	83	83	83	83	82	81	82	82
Small Communities Pump Stations (3)	38	33	33	33	29	29	29	25	20	20
Maintenance Facilities	2	2	2	2	2	2	2	2	2	2
Number of Service Connections (in thousands)	470	467	465	462	460	458	457	455	452	442
Daily Average Treatment in Millions of Gallons	153	155	152	154	158	147	144	171	151	146
Bond Ratings										
Moody's Investors Service	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa3	Aa3
Standard & Poor's	AA+	AA+	AA+	AAA	AAA	AAA	AAA	AAA	AA+	AA+
Senior	AA	AA	AA	AA+	AA+	AA+	-	-	-	-
Subordinate Long-term	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	-	-	-	-
Subordinate Short-term	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA	AA
Fitch	AA	AA	AA	AA	AA	AA	-	-	-	-
Senior	F1+	F1+	F1+	F1+	F1+	F1+	-	-	-	-
Subordinate Long-term										
Subordinate Short-term										

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

(2) The Mathews Treatment Plant has been closed. Wastewater from the area is now handled by the York River Treatment Plant. Lawnes Point was acquired during the year ended June 30, 2017.

(3) 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.



**HAMPTON ROADS SANITATION DISTRICT**  
**SCHEDULE OF OPERATING EXPENSES, NET POSITION BY COMPONENT**  
**AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS**

(in thousands)

	2017	2016	2015	(adjusted) 2014	(adjusted) 2013
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	\$ 254,961	\$ 234,020	\$ 221,626	\$ 211,538	\$ 199,318
Miscellaneous	3,669	3,861	3,935	3,643	3,297
<b>TOTAL OPERATING REVENUES</b>	<b>258,630</b>	<b>237,881</b>	<b>225,561</b>	<b>215,181</b>	<b>202,615</b>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	113,100	106,575	114,137	109,149	86,973
General and administrative	40,287	40,026	38,678	33,012	31,410
Depreciation	49,311	45,670	41,871	42,761	45,414
<b>TOTAL OPERATING EXPENSES</b>	<b>202,698</b>	<b>192,271</b>	<b>194,686</b>	<b>184,922</b>	<b>163,797</b>
<b>OPERATING INCOME</b>	<b>55,932</b>	<b>45,610</b>	<b>30,875</b>	<b>30,259</b>	<b>38,818</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	7,511	6,699	7,428	6,640	5,851
Investment income	2,287	1,563	1,695	1,872	1,705
Bond interest subsidy	2,275	2,399	2,444	2,364	2,602
Change in fair value of investments	(1,119)	750	(286)	(422)	(714)
Capital distributions to localities	(138)	(3,287)	-	-	-
Bond issuance costs	(42)	(1,713)	(768)	-	(658)
Disposal of capital assets	-	-	-	-	(1,649)
Interest expense	(22,630)	(21,631)	(22,958)	(25,650)	(24,330)
<b>NET NON-OPERATING REVENUES (EXPENSES)</b>	<b>(11,856)</b>	<b>(15,220)</b>	<b>(12,445)</b>	<b>(15,196)</b>	<b>(17,193)</b>
<b>INCOME (LOSS) BEFORE CONTRIBUTIONS</b>	<b>44,076</b>	<b>30,390</b>	<b>18,430</b>	<b>15,063</b>	<b>21,625</b>
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	7,462	14,389	16,519	13,888	10,172
Other capital contributions	1,136	-	3,000	-	-
<b>CHANGE IN NET POSITION</b>	<b>\$ 52,674</b>	<b>\$ 44,779</b>	<b>\$ 37,949</b>	<b>\$ 28,951</b>	<b>\$ 31,797</b>
<b>NET POSITION</b>					
Net Investment in capital assets	\$ 428,670	\$ 410,287	\$ 385,597	\$ 351,191	\$ 337,342
Restricted for debt service	22,701	23,798	22,070	24,064	23,843
Restricted for debt service reserve fund	-	-	44,118	45,207	-
Unrestricted	202,907	167,519	105,040	134,485	164,811
<b>TOTAL NET POSITION</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>	<b>\$ 556,825</b>	<b>\$ 554,947</b>	<b>\$ 525,996</b>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	\$ 35,837	\$ 38,198	\$ 43,842	\$ 47,331	\$ 37,574
Subordinate debt	\$ 23,603	\$ 17,068	\$ 13,091	\$ 14,112	\$ 11,243
Senior Debt Service Coverage (GAAP)	3.10	2.56	1.90	1.76	2.48
Subordinate Debt Service Coverage (GAAP)	5.09	5.72	6.36	5.92	8.27
Total Debt Service Coverage (GAAP)	1.93	1.77	1.46	1.36	1.91
Total Debt (Adjusted Cash Basis)	\$ 57,988	\$ 54,643	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	2.00	1.85	-	-	-

Notes:

FY2013 - HRSD implemented GASB Statement 65 effective July 1, 2012, which requires expensing bond issuance costs in the year incurred.

FY2013 - HRSD adjusted the financial records to include inventory assets.

FY2014 - HRSD implemented GASB Statements 68 and 71 effective July 1, 2014, which requires recording pension liability.

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.

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT**  
**SCHEDULE OF OPERATING EXPENSES, NET POSITION BY COMPONENT**  
**AND DEBT SERVICE EXPENDITURES LAST TEN FISCAL YEARS**

(in thousands)					
	(adjusted) 2012	2011	2010	2009	2008
<b>OPERATING REVENUES</b>					
Wastewater treatment charges	194,817	\$ 183,526	\$ 167,807	\$ 156,642	\$ 129,583
Miscellaneous	2,996	3,890	3,645	3,088	2,623
<b>TOTAL OPERATING REVENUES</b>	<b>197,813</b>	<b>187,416</b>	<b>171,452</b>	<b>159,730</b>	<b>132,206</b>
<b>OPERATING EXPENSES</b>					
Wastewater treatment	110,783	103,225	98,022	86,850	72,034
General and administrative	31,163	28,622	29,435	28,853	31,756
Depreciation	41,250	36,191	30,441	28,414	27,282
<b>TOTAL OPERATING EXPENSES</b>	<b>183,196</b>	<b>168,038</b>	<b>157,898</b>	<b>144,117</b>	<b>131,072</b>
<b>OPERATING INCOME</b>	<b>14,617</b>	<b>19,378</b>	<b>13,554</b>	<b>15,613</b>	<b>1,134</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>					
Wastewater facility charges	6,276	5,083	5,754	5,086	8,339
Investment income	1,681	1,699	1,541	3,998	3,999
Bond interest subsidy	2,602	2,602	1,655	-	-
Change in fair value of investments	(224)	(19)	40	162	656
Capital distributions to localities	-	-	-	-	-
Bond issuance costs	(2,206)	-	-	-	-
Disposal of capital assets	-	-	-	-	-
Interest expense	(22,760)	(20,516)	(19,973)	(15,263)	(5,867)
<b>NET NON-OPERATING REVENUES (EXPENSES)</b>	<b>(14,631)</b>	<b>(11,151)</b>	<b>(10,983)</b>	<b>(6,017)</b>	<b>7,127</b>
<b>INCOME (LOSS) BEFORE CONTRIBUTIONS</b>	<b>(14)</b>	<b>8,227</b>	<b>2,571</b>	<b>9,596</b>	<b>8,261</b>
<b>CAPITAL CONTRIBUTIONS</b>					
State capital grants	14,806	16,097	41,606	16,678	-
Other capital contributions	-	-	-	-	-
<b>CHANGE IN NET POSITION</b>	<b>14,792</b>	<b>\$ 24,324</b>	<b>\$ 44,177</b>	<b>\$ 26,274</b>	<b>\$ 8,261</b>
<b>NET POSITION</b>					
Net Investment in capital assets	348,407	\$ 351,618	\$ 348,572	\$ 319,594	\$ 301,760
Restricted for debt service	15,736	14,896	12,253	7,542	7,377
Restricted for debt service reserve fund	-	-	-	-	-
Unrestricted	130,056	110,688	92,053	81,565	73,290
<b>TOTAL NET POSITION</b>	<b>494,199</b>	<b>\$ 477,202</b>	<b>\$ 452,878</b>	<b>\$ 408,701</b>	<b>\$ 382,427</b>
<b>DEBT SERVICE EXPENDITURES</b>					
Senior debt	33,023	\$ 28,257	\$ 21,081	\$ 17,453	\$ 4,699
Subordinate debt	13,694	\$ 10,640	\$ 10,695	\$ 10,694	\$ 11,992
Senior Debt Service Coverage (GAAP)	1.94	2.30	2.51	3.05	8.81
Subordinate Debt Service Coverage (GAAP)	4.67	6.10	4.95	4.98	3.45
Total Debt Service Coverage (GAAP)	1.37	1.67	1.67	1.89	2.48
Total Debt (Adjusted Cash Basis)	-	-	-	-	-
Total Debt Service Coverage (Adjusted Cash Basis)	-	-	-	-	-

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT**  
**OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES**  
**FOR OPERATIONS - LAST TEN FISCAL YEARS**

(in thousands)	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Personal Services	\$ 53,401	\$ 51,801	\$ 52,357	\$ 50,538	\$ 49,361	\$ 47,319	\$ 44,284	\$ 42,529	\$ 40,840	\$ 37,333
Fringe Benefits	19,106	17,974	18,249	20,170	20,039	17,800	17,692	15,217	12,410	12,573
Repairs and Maintenance (1)	19,933	22,824	31,451	22,320	23,075	26,057	21,234	23,445	14,176	10,704
Materials and Supplies	8,310	7,843	4,343	5,764	5,700	6,143	8,381	6,284	5,715	5,965
Transportation	1,386	1,537	1,297	1,417	1,376	1,319	1,196	1,009	972	965
Utilities	11,523	11,249	10,503	11,126	12,295	12,027	11,026	10,755	13,218	11,601
Chemicals	8,020	7,512	7,119	7,752	7,892	8,587	8,084	7,571	8,342	8,032
Contractual Services	26,977	21,573	15,127	14,222	13,993	12,312	11,118	10,333	8,642	9,064
Miscellaneous	2,329	1,842	2,880	1,274	1,172	1,324	1,148	1,049	1,028	897
General (2)	2,402	2,446	9,489	7,578	6,487	6,852	7,684	9,265	10,360	6,656
Subtotal, Expense before Depreciation	153,387	146,601	152,815	142,161	141,390	139,740	131,847	127,457	115,703	103,790
Depreciation	49,311	45,670	41,871	42,761	45,414	41,250	36,191	30,441	28,414	27,282
Total Operating Expenses	\$ 202,698	\$ 192,271	\$ 194,686	\$ 184,922	\$ 186,804	\$ 180,990	\$ 168,038	\$ 157,898	\$ 144,117	\$ 131,072

(1) Excludes capital distributions to localities

(2) Includes bad debt expense

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
RATIOS OF OUTSTANDING DEBT BY TYPE  
JUNE 30, 2017**

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As of June 30,	No. Of Service Connections	(in thousands)		Total Outstanding Debt	Debt Per Service Connection
		Senior Revenue Bonds	Subordinate Revenue Bonds		
2017	470,000	\$ 429,165	\$ 350,347	\$ 779,512	\$ 1,659
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
2010	455,000	395,215	152,103	547,318	1,203
2009	452,000	250,165	109,971	360,136	797
2008	442,000	255,635	104,269	359,904	814

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

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
RATE SCHEDULE  
WASTEWATER TREATMENT CHARGES  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<u>Residential - Metered</u>										
Per CCF * (single step)	\$ 4.51	\$ 4.13	\$ 3.83	\$ 3.55	\$ 3.29	\$ 3.05	\$ 2.82	\$ 2.52	-	-
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	\$ 2.28	\$ 1.98
In excess of 30 CCF* per 30-day per	-	-	-	-	-	-	-	-	2.06	1.79
Minimum Charges										
Per day	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-	-
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	-	6.50	5.65
<u>Residential - Unmetered per 30-day period</u>										
Flat rate accounts	29.32	26.32	26.32	26.32	26.32	24.40	22.56	20.16	-	-
First toilet	-	-	-	-	-	-	-	-	10.25	8.91
Second toilet	-	-	-	-	-	-	-	-	6.83	5.94
Additional, each	-	-	-	-	-	-	-	-	3.42	2.97
<u>Non-Residential - Special Category</u>										
Biochemical Oxygen Demand (BOD)										
Excess over 250 mg/liter										
Per mg/liter per CCF	0.000206	0.000485	0.000612	0.001558	0.002451	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	46.77	39.71	35.39	31.95	27.71
Total Suspended Solids (TSS)										
Excess over 250 mg/liter										
Per mg/liter per CCF	0.000454	0.000448	0.000417	0.001244	0.001865	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	36.70	34.73	30.25	28.54	24.82
Total Phosphorus (TP)										
Excess over 6 mg/liter										
Per mg/liter per CCF	0.011642	0.004361	0.004344	0.011714	0.012790	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	300.57	300.57	293.41	283.10	252.52
Total Kjeldahl Nitrogen (TKN)										
Excess over 35 mg/liter										
Per mg/liter per CCF	0.001660	0.000917	0.000756	0.001752	0.002085	-	-	-	-	-
Per Hundred Pounds	-	-	-	-	-	74.51	63.39	61.88	59.73	53.96
Unusual wastes not covered by this schedule may be assigned a special rate.										
<u>Septic Tank Waste</u>										
Per gallon	0.1366	0.1362	0.1267	0.1258	0.1146	-	-	-	-	-
Per each 500 gallons or part thereof	-	-	-	-	-	48.57	44.46	38.51	35.84	31.21

\*CCF = 100 Cubic Feet (Approx. 748 gallons)

Note: Rates can be adjusted by the Commission.

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
RATE SCHEDULE  
WASTEWATER FACILITY CHARGES  
LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Residential	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655	\$ 1,607
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715	\$ 1,655	\$ 1,607
3/4" Meter	4,830	4,830	4,830	4,830	4,510	2,885	2,605	2,605	2,515	2,443
1" Meter	8,170	8,170	8,170	8,170	7,630	5,370	4,850	4,850	4,685	4,548
1 1/2" Meter	17,260	17,260	17,260	17,260	16,130	13,035	11,780	11,780	11,365	11,040
2" Meter	30,510	29,420	29,420	29,420	27,490	24,420	22,065	22,065	21,290	20,681
3" Meter	70,800	67,350	63,600	62,270	58,180	59,140	53,440	53,440	51,565	50,088
4" Meter	128,660	122,400	115,580	106,060	99,110	110,860	100,175	100,175	96,660	93,892
6" Meter	298,610	284,070	268,250	224,650	209,920	268,675	242,780	242,780	234,260	227,556
8" Meter	542,680	516,260	487,510	382,670	357,580	503,350	454,835	454,835	438,875	426,315
10" Meter	862,550	820,560	774,860	587,820	540,610	819,310	740,340	740,340	714,355	693,915
12" Meter	1,259,520	1,198,210	1,131,490	-	-	-	-	-	-	-
14" Meter	1,734,700	1,650,250	1,558,360	-	-	-	-	-	-	-
16" Meter	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.

Unaudited – See accompanying independent auditors' report

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

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>District Total</b>										
Flow (MGD)	152.9	155.1	152.2	154.0	157.9	147.1	144.4	170.9	151.4	146.3
Influent (1,000 lbs.)										
BOD	288.2	282.5	286.0	288.6	274.4	254.6	273.1	275.2	300.9	332.1
TSS	215.9	228.8	198.6	204.7	198.1	200.3	205.9	210.7	203.6	211.3
TP	7.0	6.9	8.6	6.8	6.6	6.7	7.0	7.4	7.8	6.7
TKN	46.4	45.7	45.8	47.9	48.9	48.3	49.8	48.2	49.0	51.4
Effluent (1,000 lbs.)										
BOD	8.9	9.8	9.9	9.6	9.3	7.5	9.3	11.5	8.7	9.2
TSS	9.4	9.3	8.9	9.1	9.3	10.5	9.2	13.1	10.5	10.8
TP	0.9	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0	1.1
TKN	7.7	8.0	9.8	11.2	12.0	10.1	12.3	14.9	13.3	11.2
<b>Army Base Plant</b>										
Flow (MGD)	9.5	9.6	9.9	10.7	11.8	10.2	10.0	12.6	10.4	9.7
Influent (1,000 lbs.)										
BOD	13.2	13.3	16.4	19.0	18.5	17.4	16.9	17.0	18.1	18.9
TSS	11.7	13.3	12.5	14.2	14.4	13.7	12.9	13.5	12.9	13.0
TP	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	2.7	2.7	2.9	3.5	3.7	3.5	3.2	3.2	3.1	3.4
Effluent (1,000 lbs.)										
BOD	0.3	0.3	0.8	0.8	0.8	0.9	0.8	1.0	0.8	1.0
TSS	0.4	0.5	0.6	0.8	0.9	0.8	1.0	1.1	0.8	1.1
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	2.1	2.6	2.8	2.5	2.3	2.3	2.3	2.4
<b>Atlantic Plant</b>										
Flow (MGD)	28.2	27.2	30.9	25.7	26.7	29.0	29.7	30.4	26.6	26.3
Influent (1,000 lbs.)										
BOD	53.2	55.6	66.6	52.7	51.3	56.0	58.6	55.1	52.0	55.7
TSS	38.7	38.5	42.9	37.3	36.4	43.8	46.9	43.3	40.2	41.7
TP	1.4	1.4	1.5	1.3	1.3	1.5	1.8	1.8	1.9	-
TKN	11.0	10.9	11.4	10.4	10.5	11.7	12.3	11.3	10.5	10.7
Effluent (1,000 lbs.)										
BOD	2.3	2.7	3.0	2.2	2.6	2.0	3.0	2.3	1.8	1.9
TSS	1.9	1.9	2.4	2.0	1.9	1.8	2.0	2.9	2.2	2.0
<b>Boat Harbor Plant</b>										
Flow (MGD)	13.9	15.6	14.4	14.9	15.5	13.6	12.6	16.7	13.0	11.6
Influent (1,000 lbs.)										
BOD	17.4	18.3	20.0	19.2	19.3	19.9	19.4	19.9	19.9	19.6
TSS	15.7	18.1	16.3	16.7	16.0	16.9	15.6	17.5	15.2	14.6
TP	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5
TKN	3.8	3.8	3.6	3.7	3.7	3.7	3.8	3.7	3.6	3.6
Effluent (1,000 lbs.)										
BOD	0.6	1.0	0.7	0.7	0.7	0.6	0.6	1.1	0.6	0.9
TSS	0.7	0.9	0.6	0.8	0.8	0.9	0.7	1.3	0.7	0.7
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	1.2	1.8	2.2	2.4	2.9	3.0	2.8	2.8	2.6	2.3
<b>Chesapeake-Elizabeth Plant</b>										
Flow (MGD)	18.7	18.0	16.3	19.1	18.4	15.2	16.3	20.1	19.5	18.7
Influent (1,000 lbs.)										
BOD	35.4	35.2	30.2	38.7	32.1	24.8	30.1	32.7	36.0	38.3
TSS	26.6	26.1	22.9	26.6	25.1	21.0	22.6	26.9	27.1	27.5
TP	0.8	0.8	2.7	0.8	0.8	0.7	0.7	0.8	0.9	1.0
TKN	6.6	6.4	5.1	6.7	6.4	5.4	6.1	6.2	6.9	7.2
Effluent (1,000 lbs.)										
BOD	2.8	2.3	2.0	2.5	2.2	1.5	1.8	2.2	2.1	2.0
TSS	3.2	2.3	1.8	1.9	2.1	1.8	1.9	2.2	2.2	2.1
TP	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2
TKN	4.5	4.1	3.6	4.5	4.2	3.2	3.9	3.9	4.2	3.8

Unaudited – See accompanying independent auditors' report

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

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>James River Plant</b>										
Flow (MGD)	12.3	13.2	12.7	13.6	14.3	12.9	12.2	14.9	12.3	12.7
Influent (1,000 lbs.)										
BOD	25.5	24.4	25.7	27.5	25.5	25.3	26.2	24.7	23.0	25.4
TSS	17.4	17.8	18.0	19.4	19.2	19.0	19.8	19.9	17.6	19.6
TP	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7
TKN	4.3	4.2	4.0	4.2	4.4	4.4	4.4	4.3	4.2	4.2
Effluent (1,000 lbs.)										
BOD	0.4	0.4	0.3	0.5	0.7	0.7	0.9	1.2	0.8	1.1
TSS	0.4	0.5	0.4	0.6	0.8	0.8	0.9	1.8	1.4	1.5
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.5	0.4	0.4	0.2	0.6	0.5	2.3	2.6	1.2	1.0
<b>Nansemond Plant</b>										
Flow (MGD)	18.8	18.5	16.6	16.9	17.1	16.2	15.9	18.0	17.1	17.2
Influent (1,000 lbs.)										
BOD	40.7	35.8	28.5	29.0	27.0	23.7	27.9	30.2	31.6	32.3
TSS	40.3	38.4	21.9	23.1	22.9	22.6	22.6	24.5	23.1	24.5
TP	1.5	1.5	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.3
TKN	7.4	7.0	5.6	5.8	5.9	6.0	6.1	6.0	6.2	6.4
Effluent (1,000 lbs.)										
BOD	0.8	0.7	0.8	0.9	0.6	0.6	0.8	1.2	0.7	0.6
TSS	0.8	0.9	0.9	1.1	0.8	0.9	1.1	1.3	1.0	1.4
TP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
TKN	0.5	0.5	0.6	0.5	0.3	0.3	0.5	2.3	1.3	0.3
<b>Virginia Initiative Plant</b>										
Flow (MGD)	30.9	31.7	30.5	30.7	31.9	29.8	28.5	35.7	29.9	25.4
Influent (1,000 lbs.)										
BOD	50.1	50.4	47.5	45.8	45.8	42.3	42.8	43.0	46.9	47.2
TSS	31.3	32.0	30.2	30.6	31.6	32.3	31.8	31.7	31.1	27.3
TP	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.2	1.3	1.4
TKN	7.3	7.4	7.1	7.4	7.5	7.6	7.3	7.2	7.5	7.1
Effluent (1,000 lbs.)										
BOD	1.2	1.7	1.9	1.4	0.9	0.8	0.7	1.7	1.3	1.2
TSS	1.4	1.9	1.6	1.7	1.4	1.5	1.1	1.7	1.5	1.2
TP	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2
TKN	0.4	0.7	0.8	0.6	0.5	0.5	0.4	0.8	1.5	1.1
<b>Williamsburg Plant</b>										
Flow (MGD)	8.0	8.6	8.4	9.2	8.9	9.1	8.6	10.0	12.0	14.4
Influent (1,000 lbs.)										
BOD	36.1	33.2	34.7	40.4	37.7	33.5	37.5	37.9	59.9	79.0
TSS	19.1	27.9	16.2	19.9	16.8	16.7	19.0	19.6	23.4	30.6
TP	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.8	1.0
TKN	3.3	3.6	3.2	3.3	3.3	3.4	3.5	3.5	4.3	5.2
Effluent (1,000 lbs.)										
BOD	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4
TSS	0.2	0.3	0.3	0.3	0.4	0.6	0.3	0.4	0.3	0.5
TP	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2
<b>York River Plant</b>										
Flow (MGD)	12.6	12.7	12.6	13.2	13.3	11.2	10.8	12.5	10.7	10.2
Influent (1,000 lbs.)										
BOD	16.7	16.3	18.2	17.9	17.2	13.3	15.5	16.3	15.5	15.8
TSS	15.1	16.7	16.9	16.4	15.7	14.1	14.3	14.0	12.6	12.4
TP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
TKN	3.6	3.5	3.5	3.6	3.5	3.2	3.6	3.3	3.3	3.7
Effluent (1,000 lbs.)										
BOD	0.3	0.4	0.4	0.4	0.5	0.2	0.5	0.4	0.4	0.3
TSS	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.5	0.5	0.4
TP	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.2	0.3	0.3	0.3	0.4	0.1	0.1	0.2	0.3	0.1

Note: HRSD implemented a surcharge for Total Kjeldahl Nitrogen (TKN) on July 1, 2007.



**HAMPTON ROADS SANITATION DISTRICT  
TEN LARGEST CUSTOMERS  
CURRENT YEAR AND NINE YEARS AGO**

(in thousands)

<u>Customer</u>	<u>Type</u>	<u>2017</u>		<u>2008</u>	
		<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
U.S. Navy - Norfolk Naval Base	Military Facility	\$ 4,888	1.9%	\$ 2,765	2.1%
Smithfield Foods	Meat Processor	4,723	1.9%	2,457	1.9%
Anheuser - Busch, Inc.	Brewery	2,819	1.1%	5,956	4.6%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	2,138	0.8%	871	0.7%
Norfolk Naval Shipyard	Military Ship Repair	2,107	0.8%	-	-
City of Norfolk	Municipality	1,936	0.8%	1,359	1.0%
Norfolk Redevelopment & Housing Authority	Housing Authority	1,876	0.7%	918	0.7%
Joint Expeditionary Base Little Creek - Fort Story (formerly U.S. Navy - Little Creek Amphibious Base)	Military Facility	1,681	0.7%	463	0.4%
City of Virginia Beach	Municipality	1,313	0.5%	-	-
Fort Eustis	Military Facility	1,290	0.5%	-	-
U.S. Air Force - Langley	Military Facility	-	-	463	0.4%
Marva Maid Dairy	Manufacturer - Dairy Products	-	-	367	0.3%
Oceana Naval Air Station	Military Facility	-	-	338	0.3%
Total		<u>\$ 24,771</u>	<u>9.7%</u>	<u>\$ 15,957</u>	<u>12.4%</u>

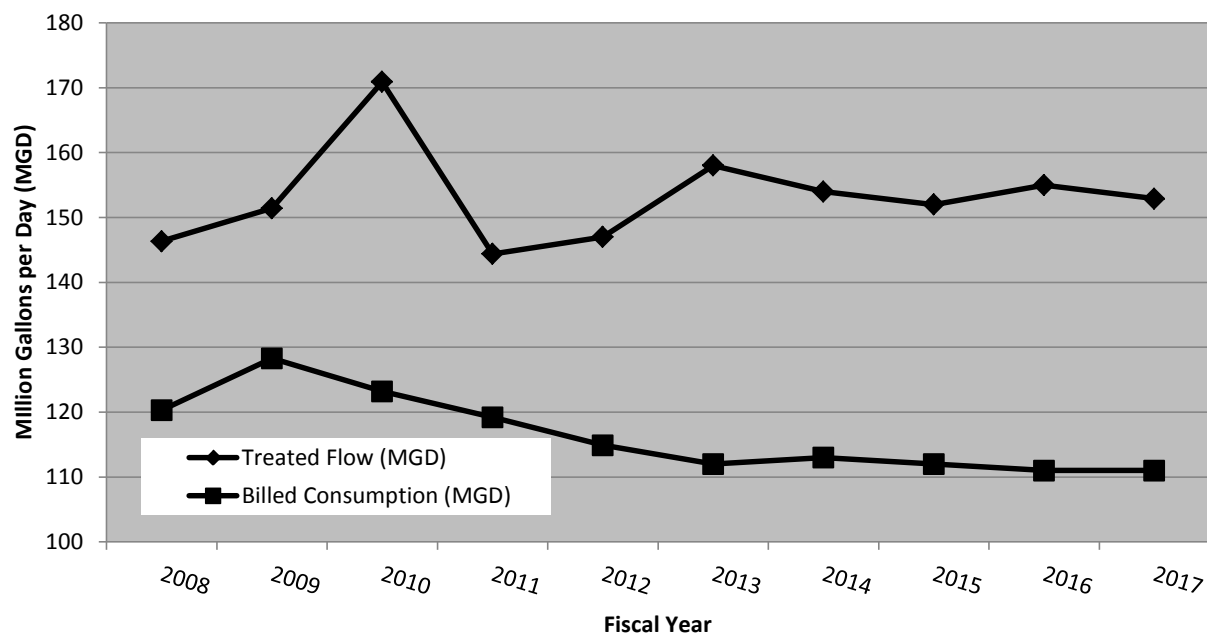
Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
WASTEWATER TREATMENT CHARGES  
TEN LARGEST EMPLOYERS  
CURRENT YEAR AND NINE YEARS AGO**

<u>Employer</u>	<u>Type</u>	2017			2008		
		Number of Employees	Rank	Percent of Regional Employment	Number of Employees	Rank	Percent of Regional Employment
Naval Station Norfolk	Military Facility	64,828	1	7.0%	96,000	1	9.2%
Huntington Ingalls Industries	Shipbuilding and repair	24,000	2	2.6%	19,000	3	1.8%
Sentara Healthcare	Health care network	22,000	3	2.4%	17,000	4	1.6%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	19,668	4	2.1%	16,372	5	1.6%
Joint Base Langley-Eustis	Military Facility	19,624	5	2.1%	21,182	2	2.0%
Oceana Naval Air Station	Military Facility	16,555	6	1.8%	16,261	6	1.6%
Norfolk Naval Shipyard	Shipbuilding and repair	14,124	7	1.5%	7,500	8	0.7%
Virginia Beach Public Schools	Public schools	10,576	8	1.1%	10,527	7	1.0%
Riverside Health System	Health care network	8,000	9	0.9%	7,050	9	0.7%
Norfolk City Public Schools	Public schools	7,000	10	0.8%	6,917	10	0.7%
Total		<u>206,375</u>		<u>22.3%</u>	<u>217,809</u>		<u>21.0%</u>

Sources:  
Hampton Roads Economic Development Alliance  
Hampton Roads Statistical Digest  
Confirmation with employers

# HAMPTON ROADS SANITATION DISTRICT COMPARISON OF TREATED FLOW TO BILLED FLOW LAST TEN FISCAL YEARS



<u>Year ended June 30,</u>	<u>Treated Flow (MGD)</u>	<u>Billed Consumption (MGD)</u>
2008	146	120
2009	151	128
2010	171	123
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111
2017	153	111

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT**  
**NUMBER OF EMPLOYEES BY IDENTIFIABLE ACTIVITY**  
**LAST TEN FISCAL YEARS**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<u>General Management</u>										
General Manager	3	3	3	3	3	4	4	4	4	4
Support Staff	1	1	1	1	1	1	1	1	1	1
	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
<u>Talent Management</u>										
Human Resources	6	5	5	5	5	5	6	6	5	5
Safety	3	3	0	0	0	0	0	0	0	0
Training	2	2	2	2	2	2	2	2	2	0
Support Staff	4	4	3	3	3	3	3	3	3	2
Total Finance & Administration	<u>15</u>	<u>14</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>11</u>	<u>11</u>	<u>10</u>	<u>7</u>
<u>Finance &amp; Administration</u>										
Accounting & Finance	10	10	10	10	10	10	10	10	10	10
Customer Care Center	77	77	69	69	68	69	69	69	63	61
Procurement	10	10	9	9	9	7	7	8	8	8
Support Staff	3	2	3	3	3	3	3	3	3	2
Total Finance & Administration	<u>100</u>	<u>99</u>	<u>91</u>	<u>91</u>	<u>90</u>	<u>89</u>	<u>89</u>	<u>90</u>	<u>84</u>	<u>81</u>
<u>Information Technology</u>										
Information Technology	47	45	39	35	35	33	33	33	21	21
Support Staff	1	1	1	1	1	2	2	2	3	3
Total Information Services	<u>48</u>	<u>46</u>	<u>40</u>	<u>36</u>	<u>36</u>	<u>35</u>	<u>35</u>	<u>35</u>	<u>24</u>	<u>24</u>
<u>Operations</u>										
Army Base Treatment Plant	34	31	32	32	32	32	32	32	32	32
Atlantic Base Treatment Plant	35	32	33	33	33	32	32	32	33	33
Boat Harbor Treatment Plant	35	32	33	33	33	33	33	34	34	34
Chesapeake-Elizabeth Treatment Plant	32	31	32	32	32	32	32	32	32	32
Interceptor System Maintenance	117	115	120	120	120	121	122	122	106	93
James River Treatment Plant	22	20	21	21	21	21	21	21	21	21
Maintenance Shops	70	83	86	86	86	86	86	86	81	78
Nansemond Treatment Plant	32	30	31	31	31	30	30	30	30	30
Virginia Initiative Plant	33	30	31	31	31	31	31	31	31	31
Williamsburg Treatment Plant	29	28	29	29	29	31	31	31	31	34
York River Treatment Plant	24	22	23	23	23	23	23	23	23	23
Small Communities Division	23	21	17	17	17	17	17	15	15	15
Support Staff	23	24	25	25	25	24	24	24	24	30
Total - Operations	<u>509</u>	<u>499</u>	<u>513</u>	<u>513</u>	<u>513</u>	<u>513</u>	<u>514</u>	<u>513</u>	<u>493</u>	<u>486</u>
<u>Engineering</u>										
Design and Construction	25	25	21	19	19	17	15	15	15	14
Support Staff	14	14	14	14	14	14	14	14	14	13
Total - Engineering	<u>39</u>	<u>39</u>	<u>35</u>	<u>33</u>	<u>33</u>	<u>31</u>	<u>29</u>	<u>29</u>	<u>29</u>	<u>27</u>
<u>Water Quality</u>										
Pretreatment & Pollution Prevention	26	26	25	24	24	24	24	24	24	24
Technical Services	29	28	25	23	21	21	21	20	20	20
Laboratory	45	42	40	38	38	38	38	38	38	38
Support Staff	6	6	6	6	6	3	3	3	3	3
Total - Water Quality	<u>106</u>	<u>102</u>	<u>96</u>	<u>91</u>	<u>89</u>	<u>86</u>	<u>86</u>	<u>85</u>	<u>85</u>	<u>85</u>
<u>Total Employees</u>	<u>821</u>	<u>803</u>	<u>789</u>	<u>778</u>	<u>775</u>	<u>769</u>	<u>769</u>	<u>768</u>	<u>730</u>	<u>715</u>

Unaudited – See accompanying independent auditors' report

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# Other Supplemental Section (Unaudited)



**Inspiring  
the next  
generation  
to pursue  
environmental  
careers**

HRSD offers challenging internship opportunities that attract top students. HRSD continues to lead international research efforts to reduce the cost of removing nutrients from wastewater. HRSD's research work is leveraged with partnerships with leading universities and other innovative wastewater utilities throughout the world. Putting the knowledge gained into practice is yielding a significant return on our investment by reducing operational costs for nutrient removal as well as minimizing the capital investment required to construct new systems.

*Photo by Mark Rhodes*

**HAMPTON ROADS SANITATION DISTRICT  
SUMMARY OF PRIMARY BONDED DEBT SERVICE  
JUNE 30, 2017**

(in thousands)

As of June 30,	Senior Bonds			Subordinate Bonds	Total Debt
	Principal	Interest	Debt Service	Debt Service	Service
2018	18,380	19,046	37,426	20,485	57,911
2019	18,801	18,237	37,038	20,482	57,520
2020	19,520	17,457	36,977	20,484	57,461
2021	18,682	16,673	35,355	21,336	56,691
2022	17,977	15,842	33,819	22,422	56,241
2023	22,000	15,002	37,002	19,184	56,186
2024	22,882	14,038	36,920	18,973	55,893
2025	23,821	13,013	36,834	18,976	55,810
2026	24,134	11,944	36,078	19,387	55,465
2027	19,625	10,983	30,608	24,687	55,295
2028	20,390	10,117	30,507	21,575	52,082
2029	25,548	9,215	34,763	17,164	51,927
2030	26,550	8,100	34,650	17,160	51,810
2031	17,093	7,188	24,281	27,945	52,226
2032	14,615	6,523	21,138	25,955	47,093
2033	13,296	5,892	19,188	25,954	45,142
2034	11,780	5,292	17,072	25,953	43,025
2035	12,295	4,640	16,935	25,701	42,636
2036	12,835	3,960	16,795	22,760	39,555
2037	7,245	3,250	10,495	28,952	39,447
2038	13,985	2,817	16,802	22,532	39,334
2039	14,595	2,044	16,639	7,887	24,526
2040	12,730	1,238	13,968	7,923	21,891
2041	4,800	815	5,615	7,968	13,583
2042	4,995	623	5,618	8,005	13,623
2043	5,190	424	5,614	8,015	13,629
2044	5,401	214	5,615	8,021	13,636
2045	-	-	-	8,090	8,090
2046	-	-	-	8,173	8,173
2047	-	-	-	8,260	8,260
Totals	<u>\$ 429,165</u>	<u>224,587</u>	<u>\$ 653,752</u>	<u>\$ 540,409</u>	<u>\$ 1,194,161</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
BUDGETARY COMPARISON SCHEDULE  
JUNE 30, 2017**

(in thousands)

	<u>Budgeted Amounts</u>		<u>Actual</u>	<u>Variance</u>	<u>Percent</u>
	<u>Original</u>	<u>Final</u>	<u>Amounts</u>	<u>under</u> <u>Final</u> <u>Budget</u>	<u>Variance</u>
<b>OPERATING BUDGET EXPENSES</b>					
General Management	\$ 953	\$ 1,080	\$ 1,054	\$ 26	2.4%
Talent Management	2,243	2,299	2,062	237	10.3%
Finance	13,274	13,390	12,282	1,108	8.3%
Information Technology	15,319	16,908	13,739	3,169	18.7%
Operations	90,914	97,333	90,425	6,908	7.1%
Engineering	5,667	6,094	5,713	381	6.3%
Water Quality	13,478	13,771	13,027	744	5.4%
General	4,177	7,766	3,034	4,732	60.9%
Debt Service	63,847	59,132	58,030	1,102	1.9%
TOTAL	209,872	217,773	199,366	<u>\$ 18,407</u>	8.5%
Transfer to CIP	52,101	52,101			
Transfer to Risk Management	260	260			
	<u>\$ 262,233</u>	<u>\$ 270,134</u>			
Add:					
Unbudgeted Depreciation			49,311		
Unbudgeted Bad Debt Expense			2,402		
Capital Improvement Program items expensed			12,641		
Less:					
Capitalized Assets			2,854		
Debt Service			58,030		
Capital distributions to localities			138		
TOTAL OPERATING EXPENSES			<u>\$ 202,698</u>		

Unaudited – See accompanying independent auditors' report



**HAMPTON ROADS SANITATION DISTRICT  
NOTE TO BUDGETARY COMPARISON SCHEDULE  
JUNE 30, 2017**

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**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-17 was \$209,871,702 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. Transfers totaling \$7,901,331 for major repairs and equipment replacements resulted in a final budget of \$217,773,033. All adjustments to the Annual Budget were approved from surplus fund balances or from transfers within or among departments.

**NOTE – 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 publically 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. There are no adjustments that would affect coverage at this time. 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, however, no provision is provided for non-cash items such as depreciation and bad debt expense. The FY-17 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.

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**HAMPTON ROADS SANITATION DISTRICT  
SCHEDULE OF REVENUES , EXPENDITURES AND  
DEBT SERVICE FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2017**

(in thousands)

	<u>Actual</u>	<u>Amended Budget</u>	<u>Variance Favorable/ (Unfavorable)</u>	<u>Budget Variance Percentage</u>
OPERATING REVENUE				
Wastewater Treatment Charges	\$ 254,961	\$ 249,743	\$ 5,218	2%
Miscellaneous	3,669	2,840	829	29%
TOTAL OPERATING REVENUE	<u>258,630</u>	<u>252,583</u>	<u>6,047</u>	2%
CURRENT EXPENDITURES				
General Management	1,054	1,080	26	2%
Talent Management	2,062	2,299	237	10%
Finance	12,282	13,390	1,108	8%
Information Technology	13,739	16,908	3,169	19%
Operations	90,425	97,333	6,908	7%
Engineering	5,713	6,094	381	6%
Water Quality	13,027	13,771	744	5%
General	3,034	7,766	4,732	61%
TOTAL CURENT EXPENDITURES	<u>141,336</u>	<u>158,641</u>	<u>17,305</u>	11%
EXCESS OF OPERATING REVENUES OVER EXPENDITURES	<u>117,294</u>	<u>93,942</u>	<u>23,352</u>	25%
NON-OPERATING REVENUE (EXPENSE)				
Wastewater Facility Charge	7,511	5,850	1,661	28%
Interest Income	1,168	1,400	(232)	-17%
Bond Interest Subsidy	2,275	2,400	(125)	-5%
Capital distributions to localities	-	-	-	0%
TOTAL NON-OPERATING REVENUE	<u>10,954</u>	<u>9,650</u>	<u>1,304</u>	14%
INCOME BEFORE CAPITAL CONTRIBUTIONS	128,248	103,592	24,656	24%
CAPITAL CONTRIBUTIONS				
State Capital Grants	<u>8,598</u>	<u>-</u>	<u>8,598</u>	100%
AMOUNT AVAILABLE FOR DEBT	136,846	103,592	33,254	32%
DEBT EXPENDITURES				
Principal & Interest	57,988	58,232	244	0%
Cost of Issuance	42	900	858	95%
TOTAL DEBT EXPENDITURES	<u>58,030</u>	<u>59,132</u>	<u>1,102</u>	2%
AMOUNT AVAILABLE TO REINVEST	<u>\$ 78,816</u>	<u>\$ 44,460</u>	<u>\$ 34,356</u>	77%

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES  
FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30,2017**

(in thousands)

	General Management	Talent Management	Finance	Information Technology	Operations	Engineering
Personal Services	\$ 704	\$ 1,273	\$ 5,412	\$ 3,885	\$ 31,549	\$ 3,370
Fringe Benefits	205	505	2,380	1,411	14,205	1,249
Materials & Supplies	11	54	105	1,062	5,696	25
Transportation	35	30	83	60	963	54
Utilities	-	-	215	1,323	9,484	-
Chemical Purchases	-	-	-	-	8,020	-
Contractual Services	89	21	3,875	4,339	11,689	903
Major Repairs	-	-	-	1,509	5,663	-
Capital Assets	-	-	57	1	2,370	-
Miscellaneous Expense	10	179	155	149	786	112
<b>Total Department Expenditures</b>	<b>\$ 1,054</b>	<b>\$ 2,062</b>	<b>\$ 12,282</b>	<b>\$ 13,739</b>	<b>\$ 90,425</b>	<b>\$ 5,713</b>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
OBJECTIVE CLASSIFICATION OF DEPARTMENTAL EXPENDITURES  
FOR OPERATIONS - ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30,2017**

(in thousands)

	Water Quality	General	Total	Percent of Total	FY-2017 Budget	Variance Favorable/ (Unfavorable)
Personal Services	\$ 6,931	\$ 277	\$ 53,401	27%	\$ 54,711	\$ 1,310
Fringe Benefits	2,855	(3,704)	19,106	10%	24,788	5,682
Materials & Supplies	1,337	20	8,310	4%	7,375	(935)
Transportation	156	5	1,386	1%	1,474	88
Utilities	2	499	11,523	6%	12,361	838
Chemical Purchases	-	-	8,020	4%	9,361	1,341
Contractual Services	700	5,361	26,977	13%	32,595	5,618
Major Repairs	258	-	7,430	4%	9,846	2,416
Capital Assets	426	-	2,854	1%	3,252	398
Miscellaneous Expense	362	576	2,329	1%	2,878	549
<b>Total Department Expenditures</b>	<b>\$ 13,027</b>	<b>\$ 3,034</b>	<b>141,336</b>	<b>71%</b>	<b>158,641</b>	<b>17,305</b>
Debt Service			57,988	29%	58,232	244
Cost of Issuance Bonds			42	0%	900	858
Total Debt Expenditures			58,030	29%	59,132	1,102
Total Department and Debt Expenditures			<u>\$ 199,366</u>	<u>100%</u>	<u>\$ 217,773</u>	<u>\$ 18,407</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2017**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
General Management			
Personal Services	\$ 704	\$ 714	\$ 10
Fringe Benefits	205	200	(5)
Materials & Supplies	11	10	(1)
Transportation	35	33	(2)
Contractual Services	89	106	17
Miscellaneous Expense	10	17	7
	<u>1,054</u>	<u>1,080</u>	<u>26</u>
Talent Management			
Personal Services	1,273	1,330	57
Fringe Benefits	505	558	53
Materials & Supplies	54	66	12
Transportation	30	26	(4)
Contractual Services	21	64	43
Miscellaneous Expense	179	255	76
	<u>2,062</u>	<u>2,299</u>	<u>237</u>
Finance			
Personal Services	5,412	5,868	456
Fringe Benefits	2,380	2,622	242
Materials & Supplies	105	132	27
Transportation	83	108	25
Utilities	215	267	52
Contractual Services	3,875	4,089	214
Capital Assets	57	63	6
Miscellaneous Expense	155	241	86
	<u>12,282</u>	<u>13,390</u>	<u>1,108</u>
Information Technology			
Personal Services	3,885	4,230	345
Fringe Benefits	1,411	1,579	168
Materials & Supplies	1,062	1,011	(51)
Transportation	60	69	9
Utilities	1,323	1,425	102
Contractual Services	4,339	6,333	1,994
Major Repairs	1,509	1,899	390
Capital Assets	1	104	103
Miscellaneous Expense	149	258	109
	<u>13,739</u>	<u>16,908</u>	<u>3,169</u>

(Continued)

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT  
DEPARTMENT SUMMARY OF EXPENDITURES  
ACTUAL TO BUDGET  
FOR THE FISCAL YEAR ENDED JUNE 30, 2017**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
<b>Operations</b>			
Personal Services	\$ 31,549	\$ 31,696	\$ 147
Fringe Benefits	14,205	14,905	700
Materials & Supplies	5,696	4,871	(825)
Transportation	963	973	10
Utilities	9,484	10,133	649
Chemical Purchases	8,020	9,361	1,341
Contractual Services	11,689	14,301	2,612
Major Repairs	5,663	7,707	2,044
Capital Assets	2,370	2,465	95
Miscellaneous Expense	786	921	135
	<u>90,425</u>	<u>97,333</u>	<u>6,908</u>
<b>Engineering</b>			
Personal Services	3,370	3,527	157
Fringe Benefits	1,249	1,403	154
Materials & Supplies	25	25	-
Transportation	54	72	18
Contractual Services	903	936	33
Miscellaneous Expense	112	131	19
	<u>5,713</u>	<u>6,094</u>	<u>381</u>
<b>Water Quality</b>			
Personal Services	6,931	6,996	65
Fringe Benefits	2,855	2,966	111
Materials & Supplies	1,337	1,200	(137)
Transportation	156	193	37
Utilities	2	-	(2)
Contractual Services	700	1,125	425
Major Repairs	258	240	(18)
Capital Assets	426	620	194
Miscellaneous Expense	362	431	69
	<u>13,027</u>	<u>13,771</u>	<u>744</u>
<b>General</b>			
Personal Services	277	350	73
Fringe Benefits	(3,704)	555	4,259
Materials & Supplies	20	60	40
Transportation	5	-	(5)
Utilities	499	536	37
Contractual Services	5,361	5,641	280
Miscellaneous Expense	576	624	48
	<u>3,034</u>	<u>7,766</u>	<u>4,732</u>
<b>TOTAL DEPARTMENTAL EXPENDITURES</b>	<u>\$ 141,336</u>	<u>\$ 158,641</u>	<u>\$ 17,305</u>

Unaudited – See accompanying independent auditors' report



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The logo for the Hampton Roads Sanitation District (HRSD) features the letters "HRSD" in a bold, white, sans-serif font. The letters are positioned between two horizontal white lines of equal length, one above and one below the text.

**HRSD**

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

*Printed on recycled paper using environmentally friendly inks*



# Fiscal Year - 2017 Comprehensive Annual Financial Report (CAFR)

October 31, 2017

## Acknowledgements

- Lee Acors - Chief of Accounting
- Kathy Stephanitsis - Accounting Manager
- Ramona Bradshaw - Accounting Manger
- Kassandra Pagan - Financial Analyst
- Helen Mayhue - Financial Analyst
- Donna Stinson - Business Analyst
- Bettye Platt - Accounts Payable Supervisor
- Charmaine Simmons - Accounts Payable Associate
- Ingrid Conde - Accounts Payable Associate
- Danielle Raleigh - Accounting Coordinator
- KPMG



**34** Consecutive Years

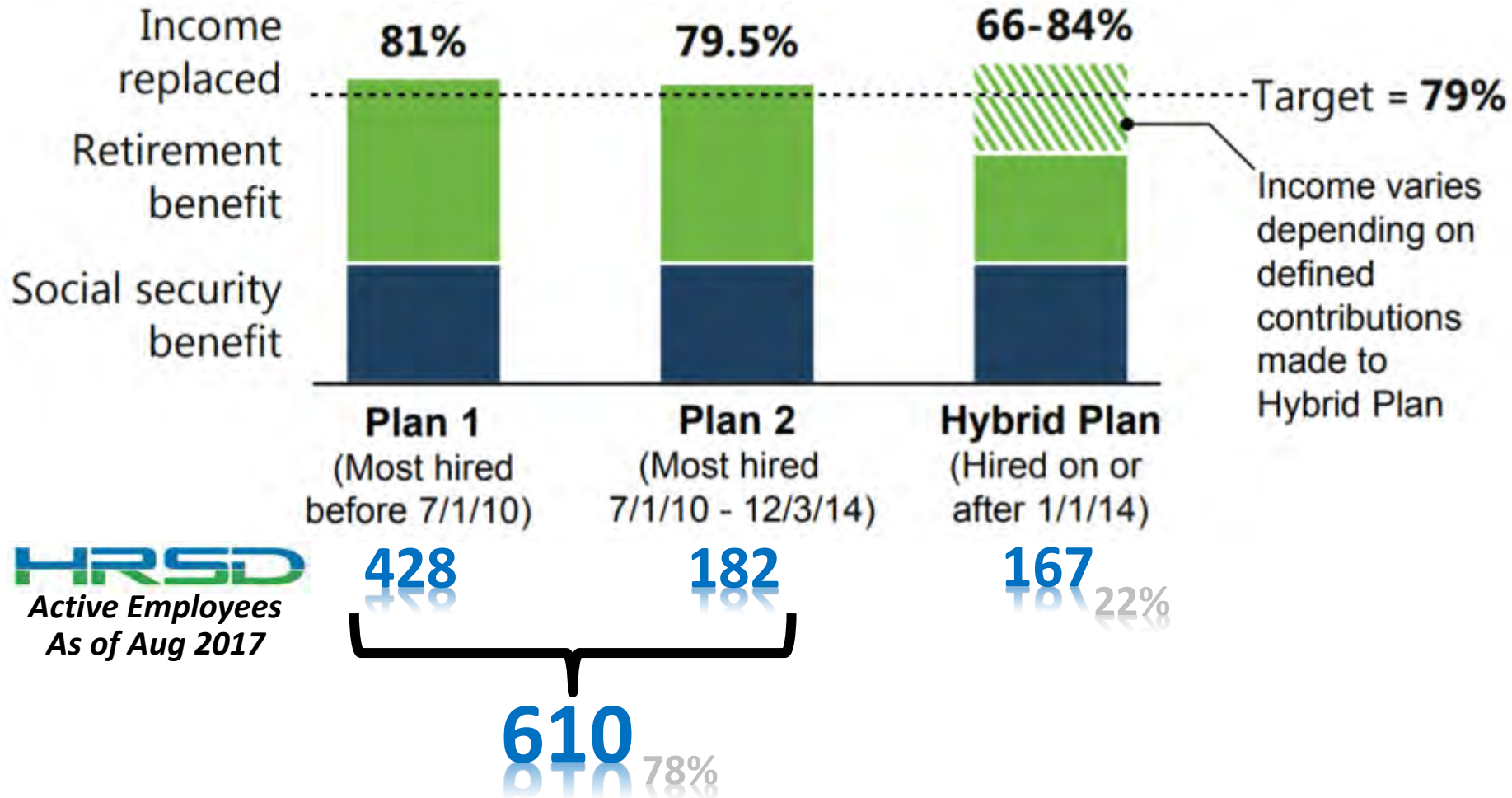
- Fiscal Year 2017 CAFR
  - Net Pension Liability
  - Retiree Health Trust (OPEB)
  - Financial Statement Overview
  - Key Financial Policy Indicators
- Conclusion

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# Virginia Retirement System (VRS) Net Pension Liability

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# Retirement Income Replacement by Benefit Group



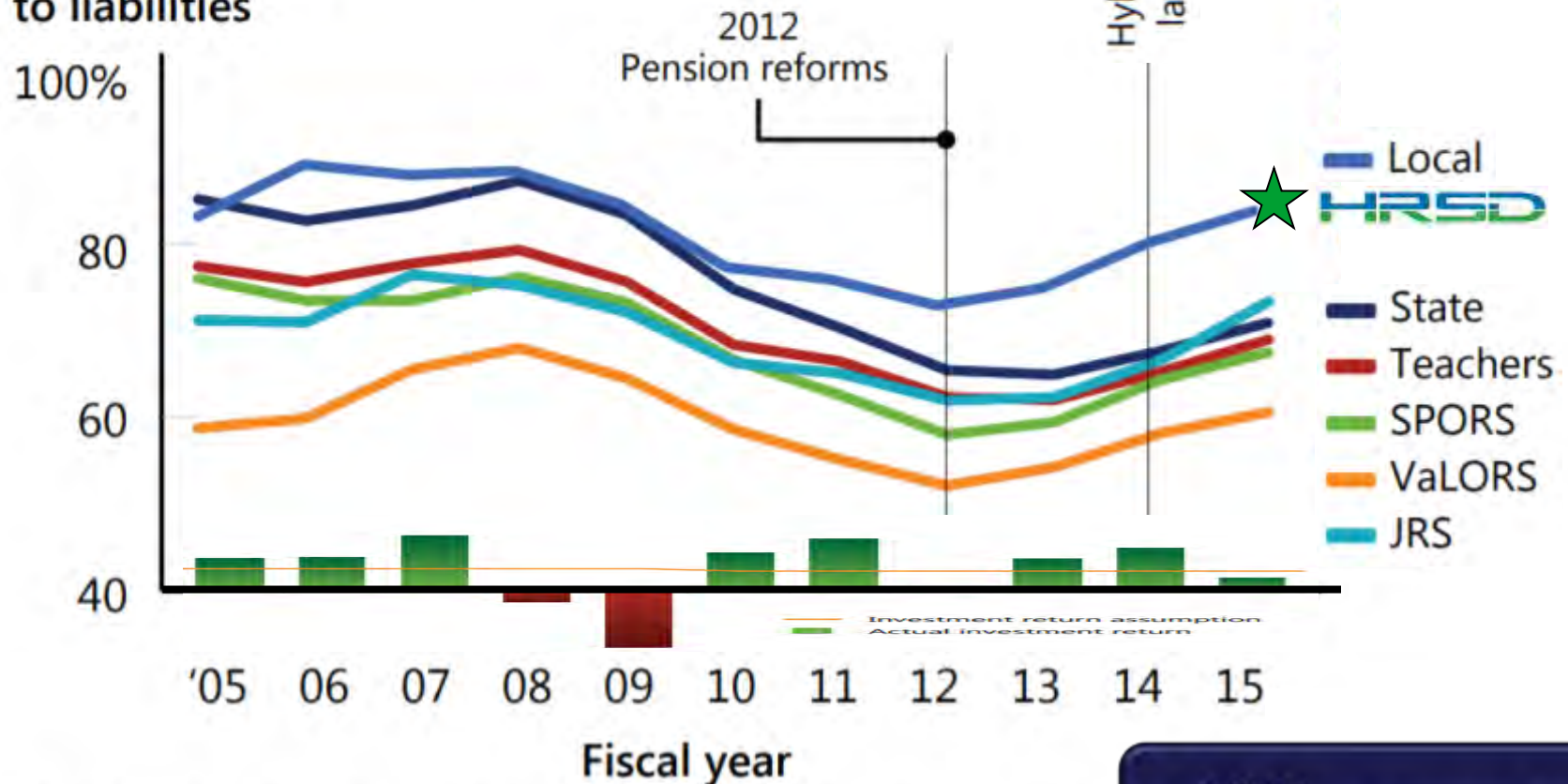
SOURCE: VRS plan financial information and actuarial analysis. NOTE: Local plan size is the aggregate liability of all 585 plans for political subdivisions. Income replacement for State Employees Plan member retiring at age 65 with \$55,000 salary and 30 years of service.



# Impact of Pension Reforms and Hybrid Plan

## Funded status of VRS retirement plans

Ratios of assets to liabilities



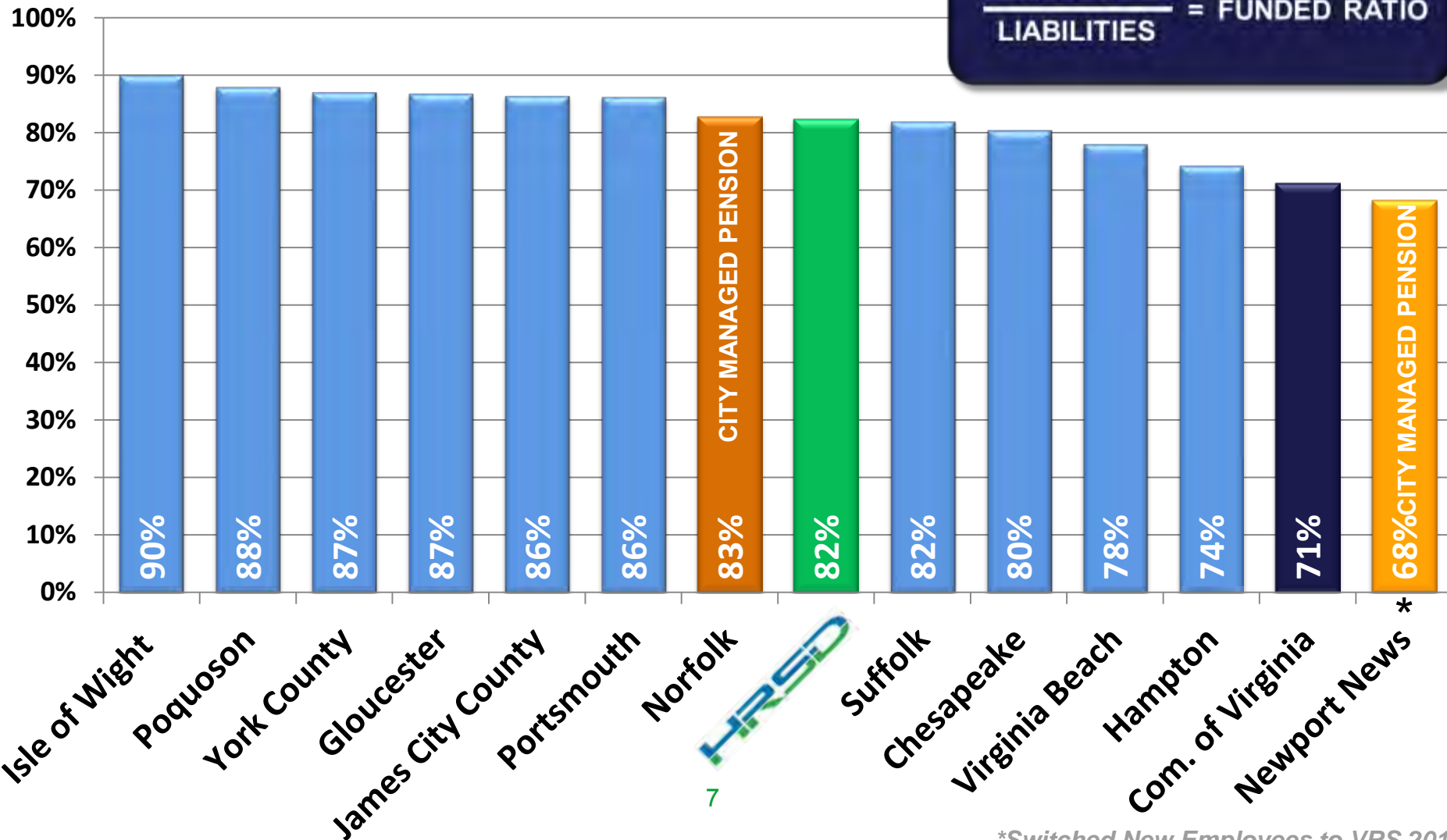
SOURCE: VRS annual reports and VRS actuarial valuation reports.

$$\frac{\text{ASSETS}}{\text{LIABILITIES}} = \text{FUNDED RATIO}$$

# FY16 Pension Funded Ratios

Pension Funded Ratio

$$\frac{\text{ASSETS}}{\text{LIABILITIES}} = \text{FUNDED RATIO}$$



\*Switched New Employees to VRS 2010

## Net Pension Liability and Funded Ratio

Total Pension Liability = \$215 million

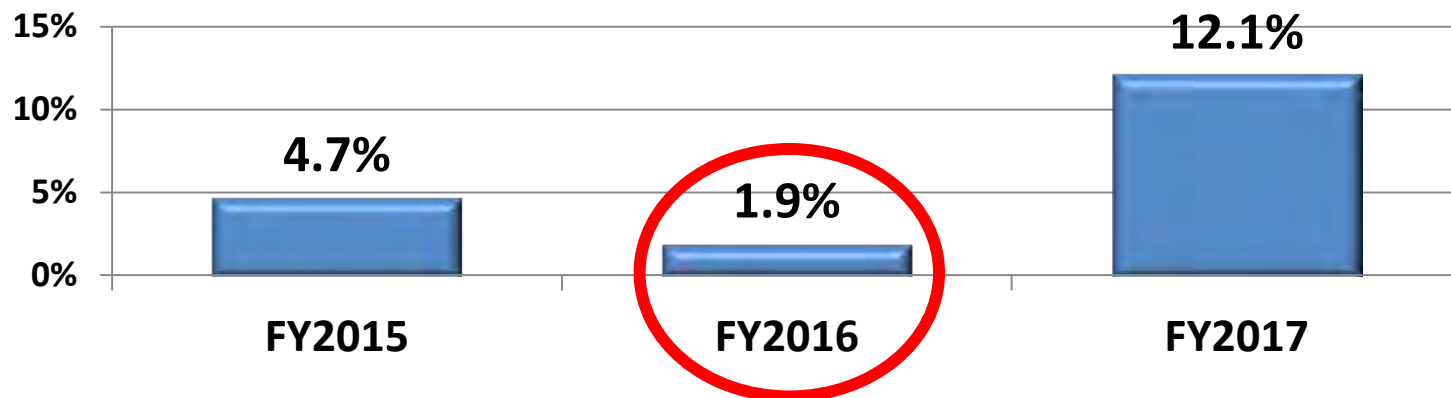
– Investment Value (Assets) = \$177 million

**Net Pension Liability (NPL) = \$38 million** (up \$12 million)

**FY2016 Funded Ratio = 82.5%** (down 4.5%)

\* *VRS assumed rate of return = 7.0%*

VRS Annual Returns

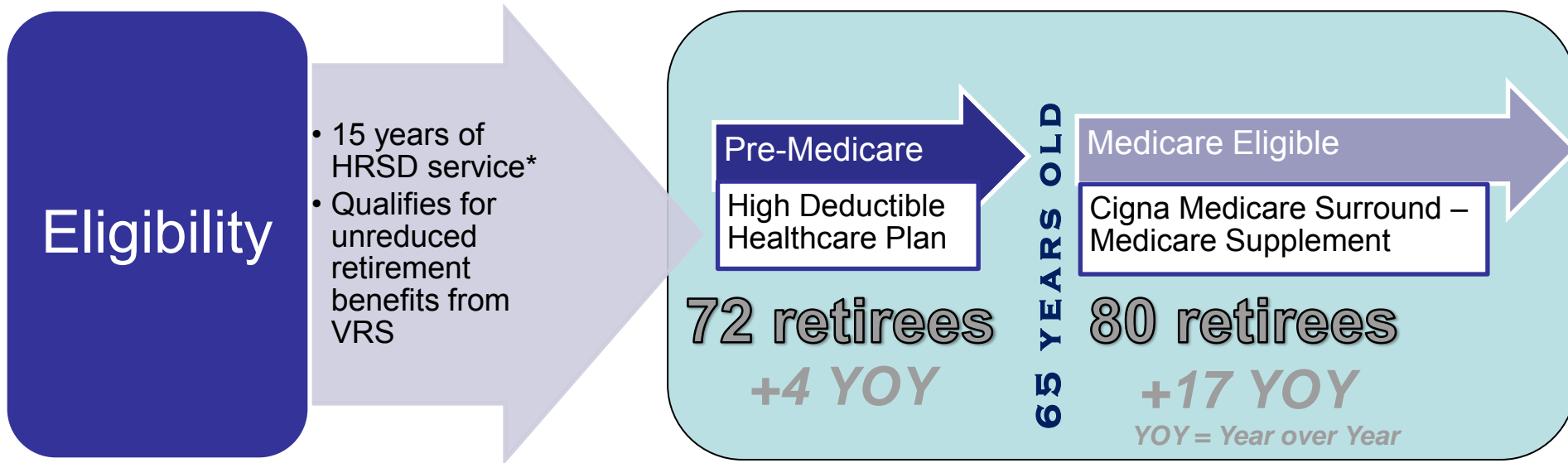


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# Retiree Health Plan Trust Other Post-Employment Benefits (OPEB)

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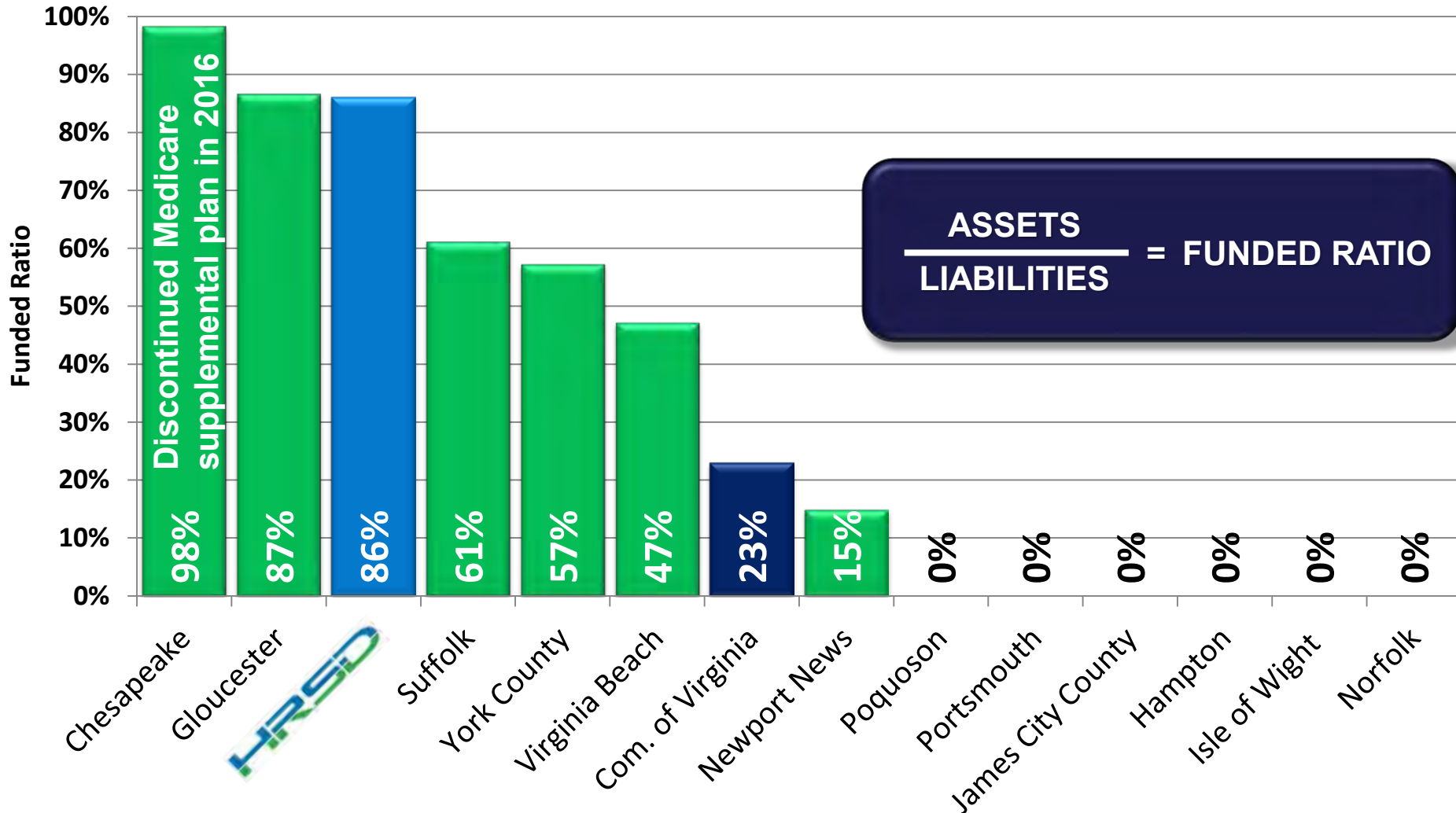
## Retiree Health Plan (Other Post-Employment Benefits - OPEB)



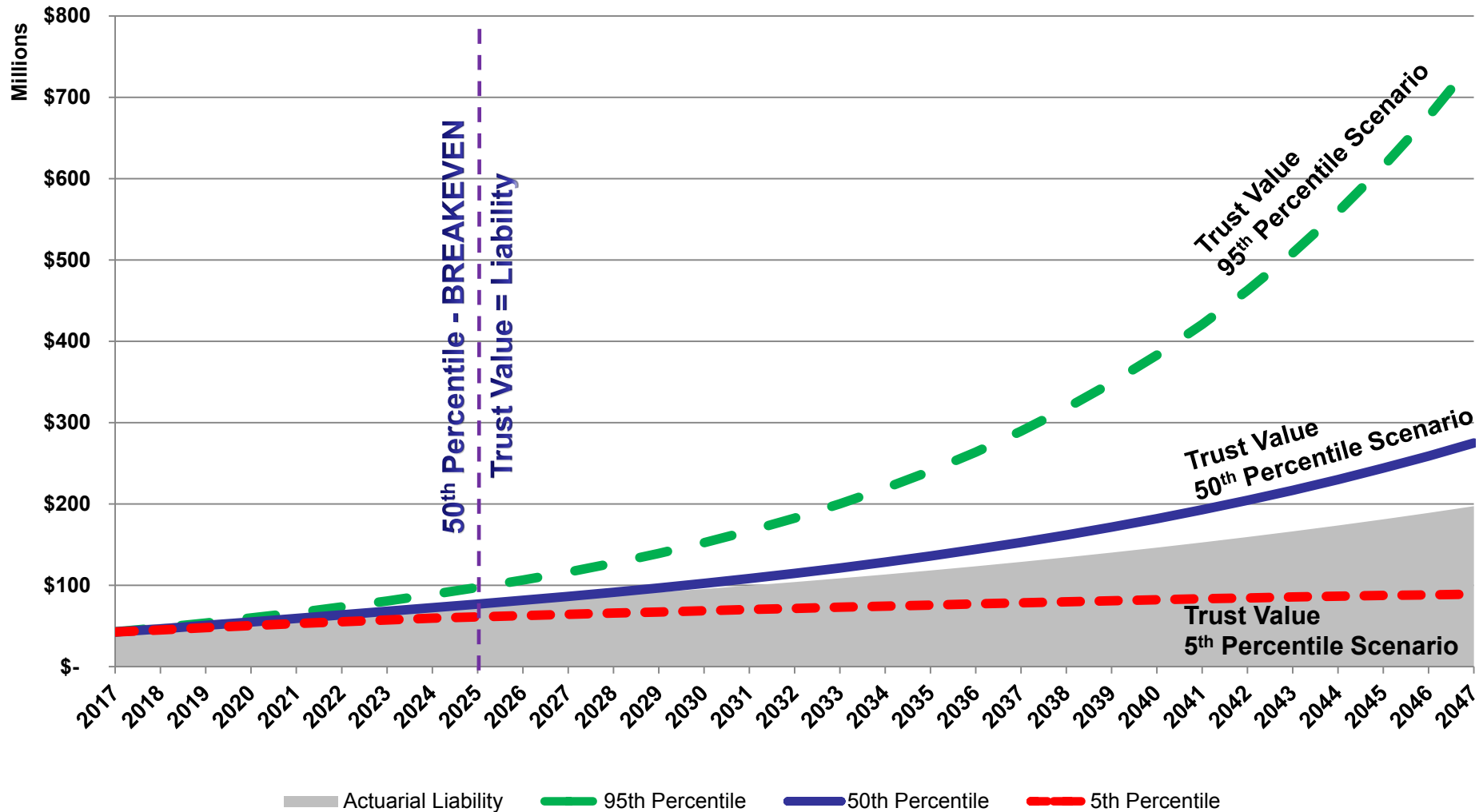
- Applies to retiree and dependents
- Retiree responsible for:
  - Deductibles
  - Co-payments
  - Premiums

# Retiree Health Plan Trust Funded Ratios

FY2016 CAFR data



# Projection – Trust Value vs Liability (Risk Analysis)



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# Financial Statement Overview

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## Summary Statements of Net Position, (,000s)

		2017 vs. 2016		
			Variance	
			Favorable	
			(Unfavorable)	Percent
		2017	2016	
(in thousands)				
Capital assets	\$ 1,255,952	\$ 1,200,404	\$ 55,548	4.6%
Current assets and noncurrent assets	310,534	357,804	(47,270)	-13.2%
<b>Total assets</b>	<b>\$ 1,566,486</b>	<b>\$ 1,558,208</b>	<b>8,278</b>	<b>0.5%</b>
Long-term liabilities	\$ 805,685	\$ 826,393	\$ (20,708)	-2.5%
Current liabilities	134,353	147,339	(12,986)	-8.8%
<b>Total liabilities</b>	<b>\$ 940,038</b>	<b>\$ 973,732</b>	<b>\$ (33,694)</b>	<b>-3.5%</b>
Net investment in capital assets	\$ 428,670	\$ 410,287	\$ 18,383	4.5%
Restricted for debt service	22,701	23,798	(1,097)	-4.6%
Unrestricted	202,907	167,519	35,388	21.1%
<b>Total net position</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>	<b>\$ 52,674</b>	<b>8.8%</b>

Net Property, Plant and Equipment

Net Pension Liability  
included here

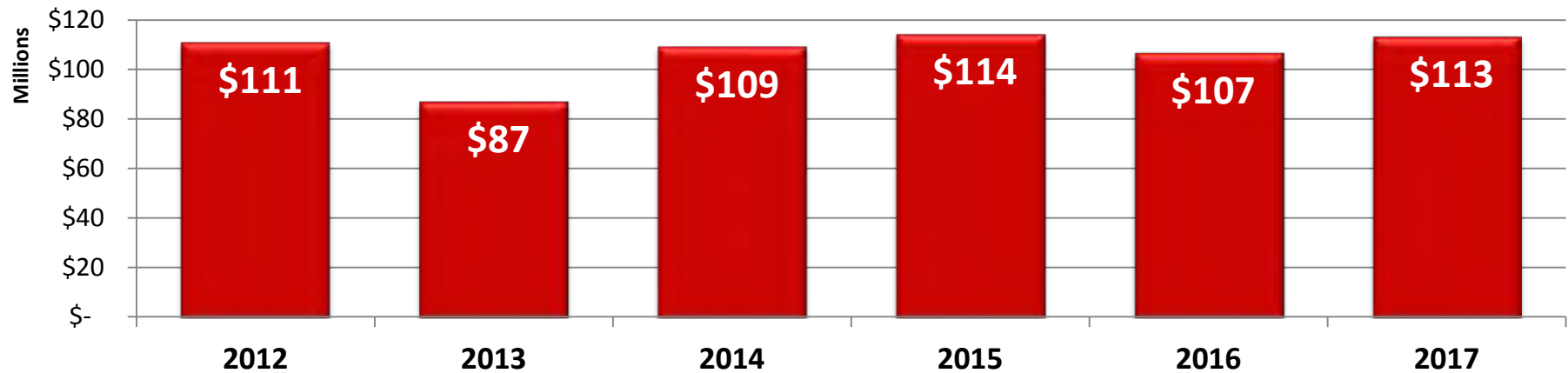
Spending bond  
proceeds

Bond payments

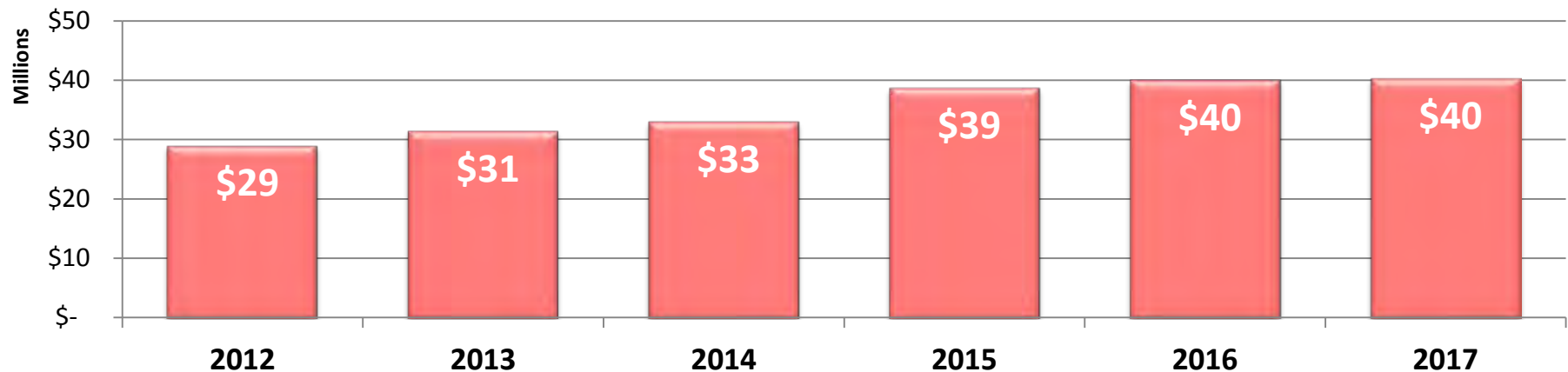


## Expenses Trend

Wastewater Treatment Expenses, \$M  
(CAFR Data)



General and Administrative Expenses, \$M  
(CAFR Data)



# Summary Statements of Revenues, Expenses and Changes in Net Position, (,000s)

9.2% rate  
increase

		2017 vs. 2016		
(in thousands)	2017	2016	Variance	Percent
Operating revenues	\$ 258,630	\$ 237,881	\$ 20,749	8.7%
Facility charge revenues	7,511	6,699	812	12.1%
Investment income, net	1,168	2,313	(1,145)	-49.5%
Bond interest subsidy	2,275	2,399	(124)	-5.2%
<b>Total revenues</b>	<b>269,584</b>	<b>249,292</b>	<b>20,292</b>	<b>8.1%</b>
Operating expenses:				
Wastewater treatment	113,100	106,575	6,525	6.1%
General and administrative	40,287	40,026	261	0.7%
Depreciation and amortization	49,311	45,670	3,641	8.0%
Total operating expenses	202,698	192,271	10,427	5.4%
Non-operating expenses:				
Bond issuance costs	42	1,713	(1,671)	-97.5%
Capital distributions to localities	138	3,287	(3,149)	-95.8%
Interest expense	22,630	21,631	999	4.6%
Total non-operating expenses	22,810	26,631	(3,821)	-14.3%
<b>Total expenses</b>	<b>225,508</b>	<b>218,902</b>	<b>6,606</b>	<b>3.0%</b>
Income before capital contributions	44,076	30,390	13,686	45.0%
Capital contributions and distributions (net)	8,598	14,389	(5,791)	-40.2%
Change in net position	52,674	44,779	7,895	17.6%
Total net position - beginning	601,604	556,825	44,779	8.0%
<b>Total net position - ending</b>	<b>\$ 654,278</b>	<b>\$ 601,604</b>	<b>\$ 52,674</b>	<b>8.8%</b>

Higher yield,  
lower fair value

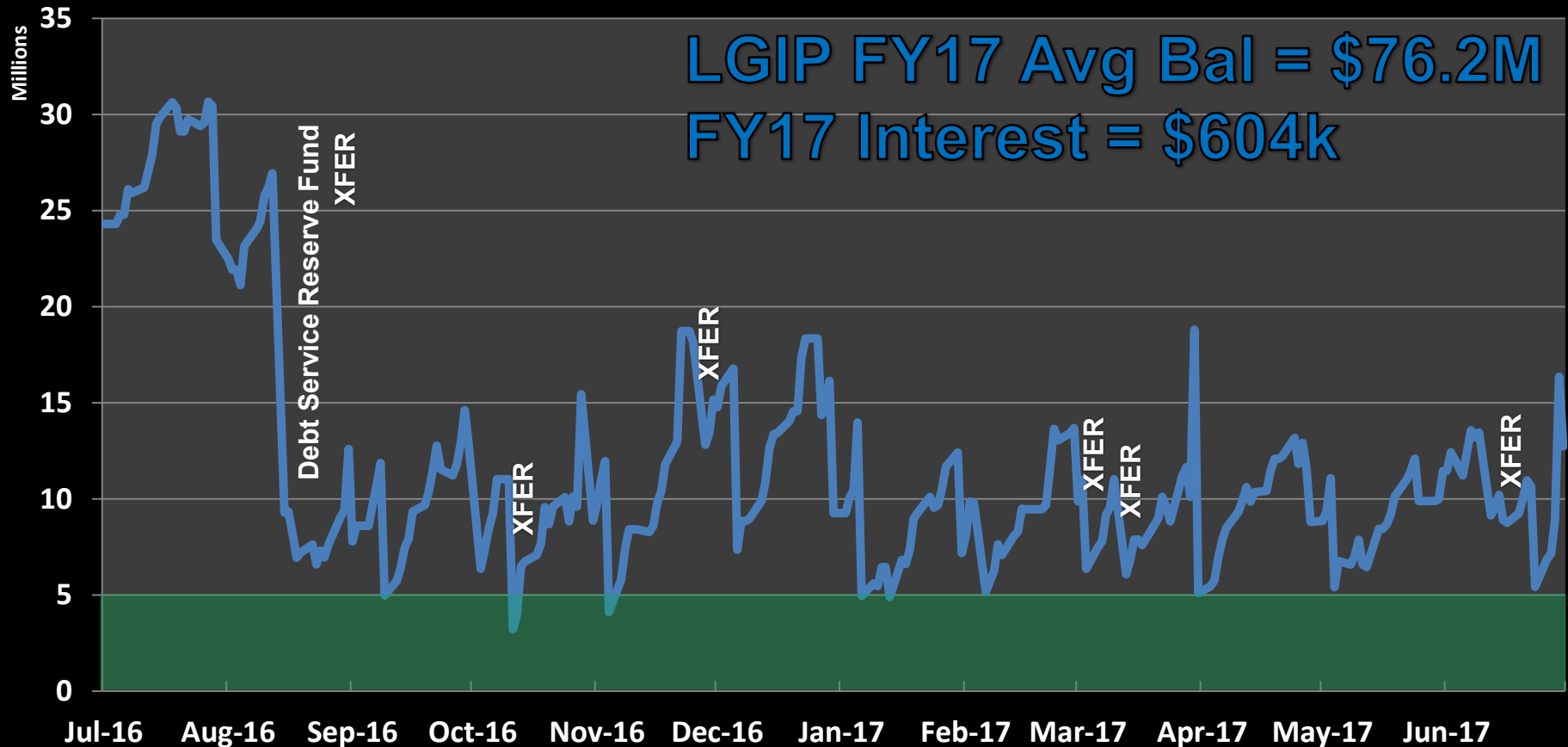
Less than 2015 (\$114M)

Locality Projects Expensed

## Yield Optimization Strategy – Transfer excess funds to LGIP

### FY2017 Corporate Operating Account – Daily Cash Position

*Goal: Maximize yield and maintain liquidity*



## Summary Statement of Cash Flows

	2017	2016	2015
Net Cash provided by Operating Activities	\$ 101,435	\$ 85,923	\$ 74,995
Net Cash Capital distributions to localities	(138)	(3,287)	-
Net Cash used in Capital and Related Financing Activities <i>[CIP and Debt Service]</i>	(147,268)	(17,323)	(158,270)
Net Cash provided by Investing Activities	875	284	370
Net Increase/Decrease in Cash Flows	\$ (45,096)	\$ 65,597	\$ (82,905)
Cash and Cash Equivalents at the Beginning of Year	159,873	94,276	177,181
Cash and Cash Equivalents at the End of Year	\$ 114,777	\$ 159,873	\$ 94,276

Bond Sale

Higher yield

---

## Key Financial Policy Indicators

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$$\text{Debt Service Coverage Ratio} = \frac{\text{REVENUES} - \text{EXPENSES}}{\text{Principal} + \text{Interest}}$$

- *How much income will you generate to pay Debt Service (principal + interest)?*
- *Will bond investors get paid back?*
- *Higher is better*

Debt Service = Think about a loan payment

2.0 means that you have **two times more money available** to pay for your loan payment

**Target = 1.7x-2.0x**  
**Policy = 1.4x**

# Debt Service Coverage Ratio (DSCR) by Trust Agreement

## SENIOR TRUST AGREEMENT

### Senior Debt Service Coverage Requirement

FY 2017

Senior Debt Service Coverage Ratio – **Max Annual DS\*** **3.10x**

Financial Policy Requirement (Adjusted Cash Basis)



1.50x

Legal Requirement

1.20x

### Total Debt Service Coverage Requirement

FY 2017

Total Debt Service Coverage Ratio – **Max Annual DS** **1.93x**

Legal Coverage Requirement



1.00x

Debt Service Reserve Fund Test

1.35x

Fitch 2017 Medians	DSCR
AAA	2.6
<b>AA</b>	<b>2.3</b>
A	1.6
All	2.3
<b>Large</b>	<b>1.9</b>

## SUBORDINATE TRUST AGREEMENT/FINANCIAL POLICY

### Total Debt Service Coverage Requirement

FY 2017

Total Debt Service Coverage Ratio – **Adjusted Cash Basis** **2.00x**

Financial Policy Requirement



1.40x

Legal Coverage Requirement

1.20x

**FY17 Forecast = 1.70x**



## Liquidity (HRSD's Unrestricted Savings Account)

- Liquidity indicates financial flexibility to pay near-term obligations and margin of safety
- Days Cash on Hand (DCOH)
- How many days can you operate with available cash if no revenue is coming in?
- Includes Capital Reserve funds **\$37M**

$$\text{DCOH} = \frac{\text{Unrestricted Cash and Investments}}{\text{Operating Expenses} \div 365 \text{ days}}$$

**\$216M**

**\$420k**

### *HRSD POLICY*

*Min = 270 DCOH, FY17 = \$113M*

*Max = 365 DCOH, FY17 = \$153M*

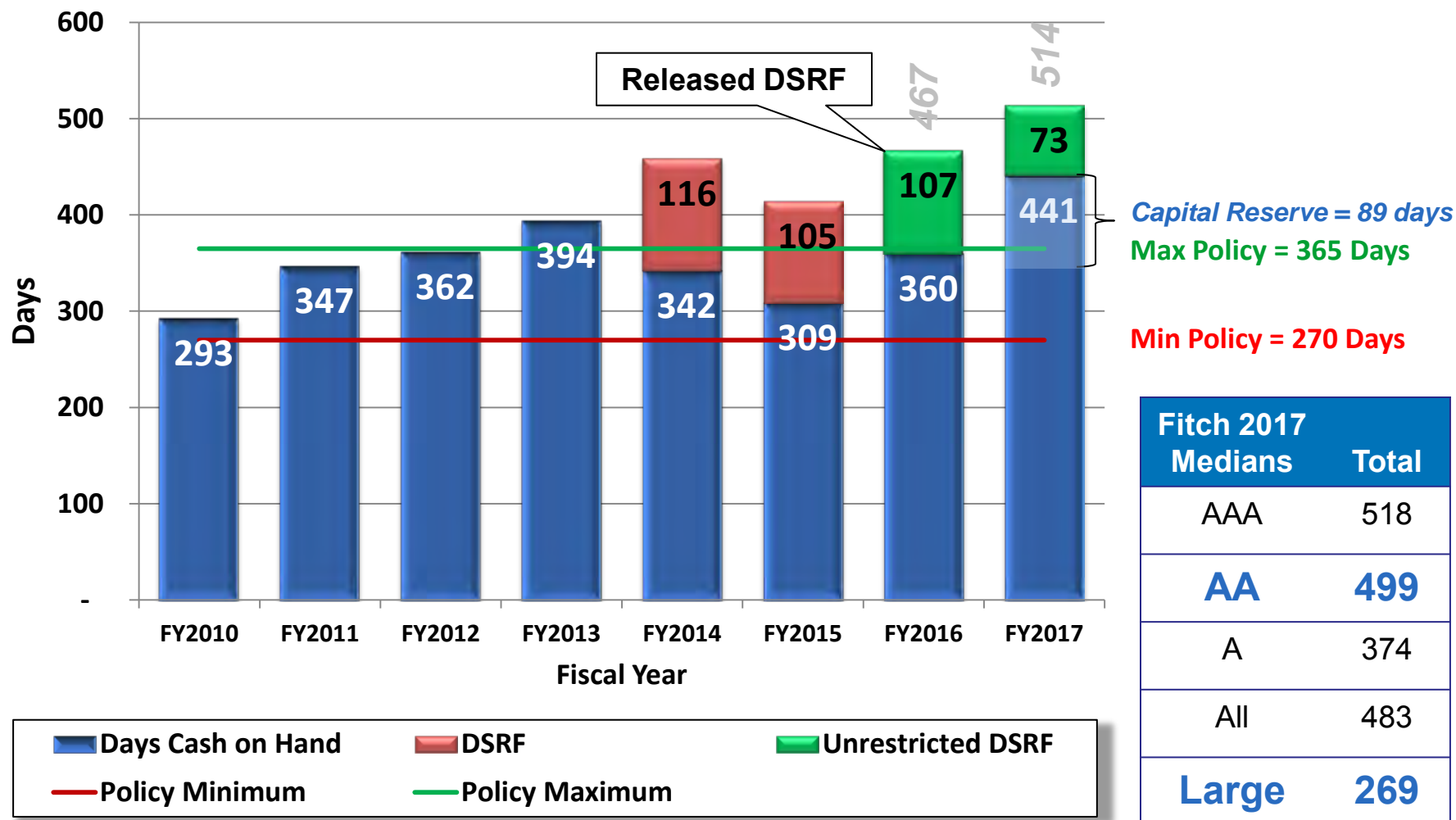
### *2017 Fitch Medians*

*AAA = 518 DCOH, FY17 = \$218M*

*AA = 499 DCOH, FY17 = \$210M*



# Total Days Cash on Hand (DCOH) = 514 days



- Financial health is sound
  - Continue to underperform rating agency medians
  - Expenses are stable
  - Debt Service Coverage is increasing
  - Pension and Retiree Health plans are stable
- Evaluate options to ensure the lowest available cost of capital

---

# Questions?

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HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #4

AGENDA ITEM 4. – Diversity Procurement Report

## HRSD DIVERSITY PROCUREMENT REPORT FISCAL YEAR 2017

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
OPERATING	4,348	\$32,721,026	937	\$9,117,627	22%	28%
CORPORATE VISA CARD	28,519	\$14,352,509	2,719	\$1,895,192	10%	13%
CAPITAL IMPROVEMENT PROGRAM	1,284	\$115,622,857	312	\$43,444,199 <sup>2</sup>	24%	38%
TOTAL	34,151	\$162,696,392	3,968	\$54,457,018	12%	33%
DIVERSITY PROCUREMENT PROGRAM ACTIVITIES	<p>HRSD participated in several outreach opportunities throughout the year including:</p> <ul style="list-style-type: none"><li>• Carolinas-Virginia Minority Supplier Development Council (CVMSDC) Supplier Diversity ProForum in Richmond, VA</li><li>• Christopher Newport University SWaM Fair in Newport News, VA</li><li>• City of Virginia Beach Minority Business Council Vendor Expo in Virginia Beach, VA</li><li>• Commonwealth of Virginia, Department of General Services Forum Expo in Virginia Beach, VA</li><li>• The Institute for Public Procurement (NIGP) Products Expo in National Harbor, MD</li><li>• William and Mary Supplier Diversity SWaM Fair in Williamsburg, VA</li><li>• Virginia Association of Governmental Purchasing Vendor Expo in Portsmouth, VA</li></ul> <p>HRSD also held Supplier Orientation Sessions in Virginia Beach providing suppliers the opportunity to learn more about HRSD, discuss procurement opportunities, and learn how to do business with HRSD.</p> <p>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. SBSD 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.</p> <p>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.</p>					

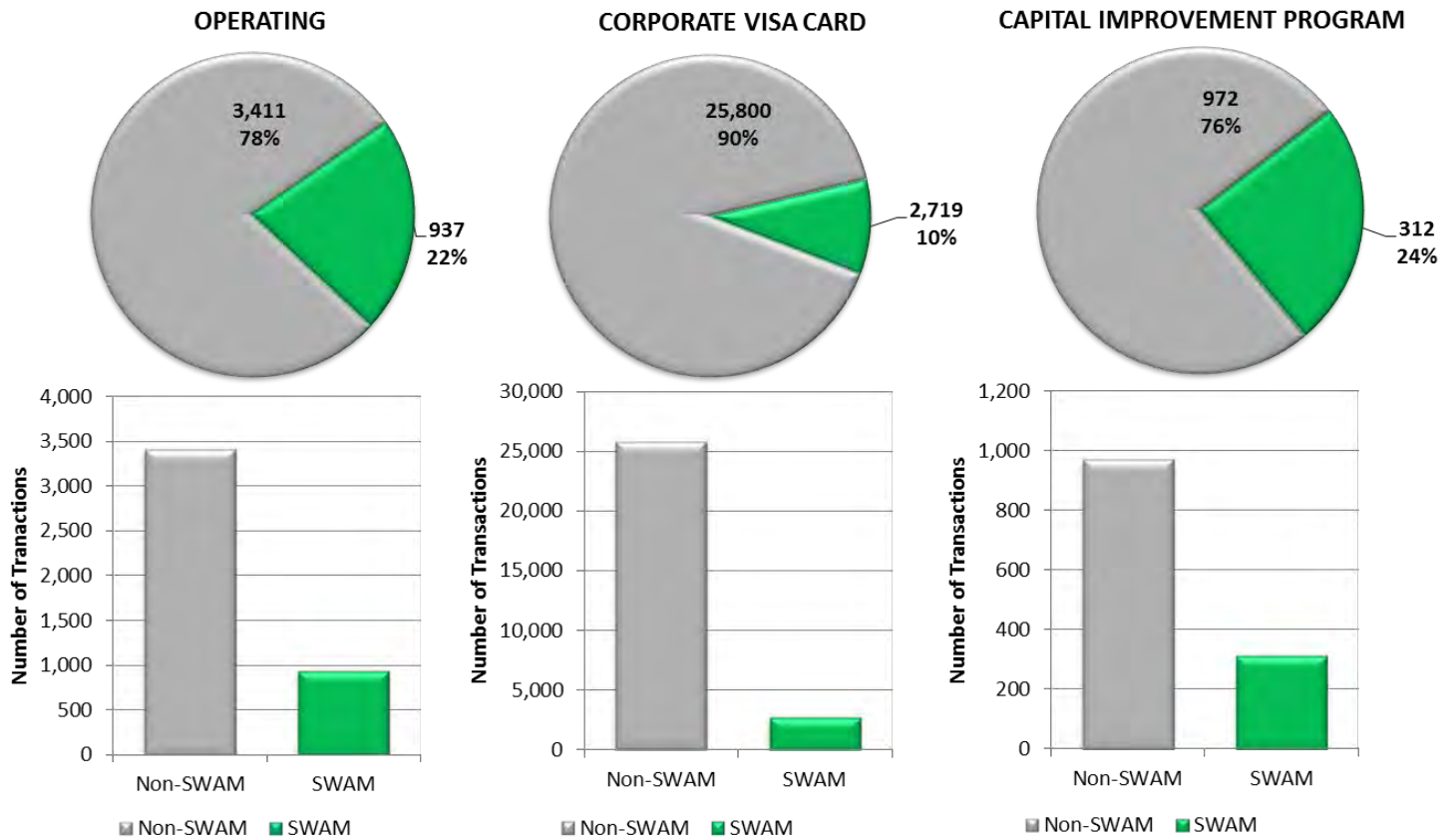
<sup>1</sup>Excludes expenses for utilities, rent, easements, municipal expenditures, personal services, professional development, etc.

<sup>2</sup>Includes payments of \$2,532,313 made to SWaM subcontractors, as reported by HRSD's prime contractors.

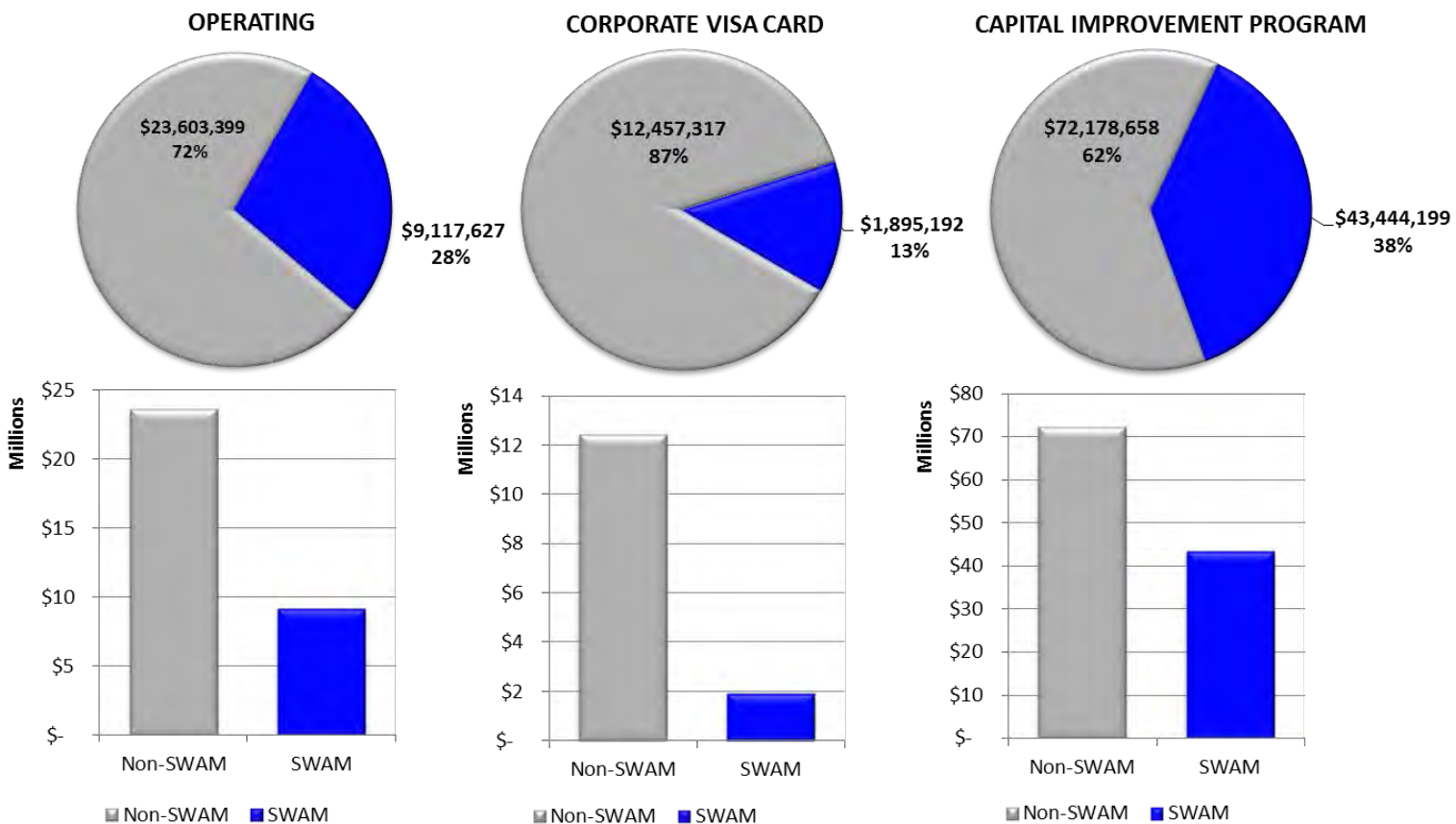
<sup>1</sup>Excludes expenses for utilities, rent, easements, municipal expenditures, personal services, professional development, etc.

<sup>2</sup>Includes payments of \$2,532,313 made to SWaM subcontractors, as reported by HRSD's prime contractors.

## NUMBER OF SWAM TRANSACTIONS BY TYPE



## AMOUNT OF SWAM PAYMENTS BY TYPE



HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #5

AGENDA ITEM 5. - Rodman Avenue Pump Station Wet Well Rehabilitation  
Virginia Clean Water Revolving Loan Fund (VCWRLF) Resolution



*Hampton Roads Sanitation District*  
*Resolution of*  
*October 31, 2017*

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HAMPTON ROADS SANITATION DISTRICT COMMISSION

\*\*\*\*\*

RESOLUTION  
PROVIDING FOR THE ISSUANCE OF

A SUBORDINATE WASTEWATER REVENUE BOND

Adopted October 31, 2017

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Rodman Avenue Pump Station Project: #C-515599-02

Resolution

**RESOLUTION AUTHORIZING THE ISSUANCE OF A SUBORDINATE WASTEWATER REVENUE BOND, NOT TO EXCEED \$1,095,595 IN PRINCIPAL AMOUNT, FOR THE PURPOSE OF PROVIDING FUNDS, WITH OTHER AVAILABLE MONEY, TO PAY THE COSTS OF CERTAIN IMPROVEMENTS TO THE RODMAN AVENUE PUMP STATION PROJECT, FIXING THE PRINCIPAL INSTALLMENT MATURITY DATES, THE INTEREST RATE, THE REDEMPTION PROVISIONS AND CERTAIN OTHER DETAILS OF THE BOND, DIRECTING THE AUTHENTICATION AND DELIVERY OF THE BOND, AND AUTHORIZING THE EXECUTION OF A FINANCING AGREEMENT WITH THE VIRGINIA RESOURCES AUTHORITY.**

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

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

*WHEREAS*, the Hampton Roads Sanitation District Commission (the “Commission”) heretofore received an offer from the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund (the “Fund”), to make a loan from the Fund to the Borrower in an amount expected not to exceed \$1,095,595 for the purpose of financing a project described in such offer as Rodman Avenue Pump Station Project, together

with related expenses; and

*WHEREAS*, the Commission, as the governing body of the Borrower, has determined to accept such offer and close on the loan from the Authority, as Administrator of the Fund, by authorizing and issuing its subordinate wastewater revenue bond for the purpose of financing Capital Improvement Program Costs (as defined in the Trust Agreement) of improvements to the Borrower's Rodman Avenue Pump Station (the "2017 Rodman Avenue Local Bond"), to be payable solely from the Net Revenues Available for Debt Service (as defined in the Trust Agreement) on a parity with all Parity Obligations (as defined in the Trust Agreement) of the Borrower and subordinated to all Senior Indebtedness, as defined in, and to extent set forth, in the Trust Agreement, all in conformity with the terms and provisions of the Trust Agreement; now, therefore,

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

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

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

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

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

**Section 2. Authorization of 2017 Rodman Avenue Local Bond.** Pursuant to Sections 209(b) and 704(a) of the Trust Agreement and for the purpose of financing the Capital

Improvement Program Costs of the Project, which are Project Costs within the definition thereof found in the Financing Agreement, the 2017 Rodman Avenue Local Bond of the Borrower is hereby authorized to be issued in the principal amount not to exceed \$1,095,595. The 2017 Rodman Avenue Local Bond shall be issuable as a single registered bond without coupons and shall be dated as of its date of issue. The 2017 Rodman Avenue Local Bond shall be substantially in the form attached to this Resolution as Exhibit B, with such variations, omissions and insertions as may be necessary or appropriate to conform to the provisions of this Resolution. The 2017 Rodman Avenue Local Bond shall be a Parity Obligation and shall be a VRA Subordinate Obligation, each as defined in the Trust Agreement, shall be secured on a parity with all other Parity Obligations of the Borrower under the Trust Agreement, and shall be senior to all Junior Obligations (as defined in the Trust Agreement), as set forth therein.

The 2017 Rodman Avenue Local Bond shall be dated as of its date of issue and shall bear interest (or “Cost of Funds” as described in the 2017 Rodman Avenue Financing Agreement Supplement) on the disbursed principal balance of the 2017 Rodman Avenue Local Bond at a rate not to exceed 3.0% per annum. Such interest shall be payable commencing on the date set forth in a certificate of the General Manager delivered on the date of issue of the 2017 Rodman Avenue Local Bond (the “General Manager’s Certificate”), such principal and interest shall be payable in essentially equal semi-annual installments (rounded to the nearest \$100), with the balance due on the date set forth in the General Manager’s Certificate, but not later than December 1, 2047.

**Section 3. Redemption Provisions.** The principal installments on the 2017 Rodman Avenue Local Bond shall be subject to redemption prior to their respective maturities, at the option of the Borrower, from any money that may be made available for such purpose, either in

whole or in part on any date at the redemption price of par plus accrued interest on ten (10) days' written notice to the Authority and otherwise as provided in the Financing Agreement. Any such partial redemption shall not postpone the due date of any subsequent payment on the 2017 Rodman Avenue Local Bond, or change the amount of such installment, unless the Borrower and the Authority agree otherwise in writing.

**Section 4. Deposits to Local Bond Fund.** The Borrower shall deposit money with or to the order of the Authority, as Administrator of the Fund, in amounts sufficient to pay in full, when due (whether by maturity, redemption, acceleration or otherwise), the 2017 Rodman Avenue Local Bond issued under this Resolution, together with the interest thereon, all as set forth in the 2017 Rodman Avenue Local Bond.

**Section 5. Authority to Execute 2017 Rodman Avenue Financing Agreement Supplement.** The execution and delivery of the 2017 Rodman Avenue Financing Agreement Supplement, substantially in the form presented at this meeting, relating to the loan from the Authority, as Administrator to the Fund, to the Borrower and the repayment of the loan by the Borrower in accordance with the 2017 Rodman Avenue Local Bond, are hereby authorized, with such changes, insertions and omissions as may be approved by the Chairman or Vice Chairman of the Commission, the execution of the 2017 Rodman Avenue Financing Agreement Supplement by the Chairman or the Vice Chairman to be conclusive evidence of his approval of any changes, insertions and omissions therein.

**Section 6. Manner of Execution of 2017 Rodman Avenue Local Bond.** The 2017 Rodman Avenue Local Bond shall be executed by the Chairman or Vice Chairman and the Secretary or an Assistant Secretary of the Commission, and the seal of the Commission shall be impressed on the 2017 Rodman Avenue Local Bond. The 2017 Rodman Avenue Local Bond

shall be delivered to or for the account of the Authority, as Administrator of the Fund, upon execution and delivery of the 2017 Rodman Avenue Financing Agreement.

**Section 7. Obligations of Borrower Unconditional.** Subject to the terms of the Trust Agreement, nothing contained in this Resolution or the 2017 Rodman Avenue Local Bond is intended to or shall impair, as between the Borrower, its creditors, and the holder of the 2017 Rodman Avenue Local Bond, the obligation of the Borrower, which is absolute and unconditional, to pay to the holder of the 2017 Rodman Avenue Local Bond the principal of, redemption premium, if any, and interest on the 2017 Rodman Avenue Local Bond as and when the same shall become due and payable in accordance with its terms, or affect the relative rights of the holder of the 2017 Rodman Avenue Local Bond and creditors of the Borrower, nor shall anything herein or therein prevent the holder of the 2017 Rodman Avenue Local Bond from exercising all remedies otherwise permitted by applicable law and under the Trust Agreement upon default under the 2017 Rodman Avenue Local Bond and the 2017 Rodman Avenue Financing Agreement Supplement.

**Section 8. Payments on 2017 Rodman Avenue Local Bond Permitted.** Nothing contained in this Resolution or the 2017 Rodman Avenue Local Bond shall affect the obligation of the Borrower to make, or prevent the Borrower from making, payment of the principal of, redemption premium, if any, or interest on the 2017 Rodman Avenue Local Bond in accordance with the provisions hereof, except as otherwise provided in this Resolution.

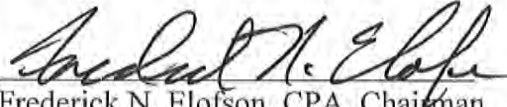
**Section 9. Benefits of Resolution.** Nothing in this Resolution or the 2017 Rodman Avenue Local Bond, express or implied, shall give to any person, other than the holder of the 2017 Rodman Avenue Local Bond, any benefit or any legal or equitable right, remedy or claim under this Resolution.

**Section 10. Further Action.** The Chairman, Vice Chairman, the Secretary and any Assistant Secretary of the Commission and the General Manager, the Director of Engineering and the Director of Finance of the Borrower are authorized and directed (without limitation except as may be expressly set forth therein) to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary or appropriate to effect the transactions contemplated by the 2017 Rodman Avenue Financing Agreement Supplement.

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

[END OF RESOLUTION]

**Adopted by the Hampton Roads Sanitation District Commission on October 31, 2017.**

  
Frederick N. Elofson, CPA, Chairman

**EXHIBIT A**  
**GLOSSARY OF DEFINED TERMS**

*“2017 Rodman Avenue Financing Agreement Supplement”* means the Supplement to Master Financing Agreement relating to the 2017 Rodman Avenue Local Bond, between the Borrower and the Authority, as Administrator of the Fund, together with any amendments or supplements thereto.

*“2017 Rodman Avenue Local Bond”* means the bond in substantially the form attached to this Resolution as Exhibit B, to be issued by the Borrower to the Authority, as Administrator of the Fund, pursuant to this Resolution and the 2017 Rodman Avenue Financing Agreement Supplement.

*“2017 Rodman Avenue Local Bond Proceeds”* means proceeds of the issuance and sale of the 2017 Rodman Avenue Local Bond to the Authority, as Administrator of the Fund, pursuant to the 2017 Rodman Avenue Financing Agreement Supplement.

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

*“Financing Agreement”* means the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the 2017 Rodman Avenue Financing Agreement Supplement.

*“General Manager’s Certificate”* means the certificate of the General Manager delivered on the date of issue of the 2017 Rodman Avenue Local Bond.

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

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

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

*“Project”* means the project described in Exhibit B to the 2017 Rodman Avenue Financing Agreement Supplement, the costs of the acquisition, construction, improving or equipping of which are to be financed or refinanced in part with the 2017 Rodman Avenue Local Bond Proceeds.



*“Project Budget”* means the budget for the financing or the refinancing of the Project, a copy of which is attached to the 2017 Rodman Avenue Financing Agreement Supplement as Exhibit C, with such changes therein as may be approved in writing by the Authority.

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

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

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

**EXHIBIT B**

**FORM OF LOCAL BOND**

United States of America  
Commonwealth of Virginia

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

Hampton Roads Sanitation District (the “Borrower”), a political subdivision of the Commonwealth of Virginia, by Hampton Roads Sanitation District Commission (the “Commission”), the governing body of the Borrower, acknowledges itself indebted and, for value received, hereby promises to pay, solely from the revenues and other property hereinafter described and pledged to the payment of this Bond, to the order of the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund, Richmond, Virginia (the “Fund”), the principal amount equal to the sum of the principal disbursements made by the Authority, as Administrator of the Fund, to the Borrower (as shown in Schedule 1) pursuant to the Master Financing Agreement, dated as of February 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the Supplement to Master Financing Agreement, dated as of \_\_\_\_\_ 1, 2017 (as so amended and supplemented, the “Financing Agreement”) not to exceed \_\_\_\_\_ Dollars (\$\_\_\_\_\_), together with interest (or “Cost of Funds” as described in the Financing Agreement) on the disbursed principal at the rate of \_\_\_\_\_% per annum, as follows:

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

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

No notation is required to be made on this Bond of the payment of any principal or interest on normal installment payment dates. HENCE, THE FACE AMOUNT OF THIS BOND MAY EXCEED THE PRINCIPAL SUM REMAINING OUTSTANDING AND DUE HEREUNDER. This Bond and the premium, if any, and the interest thereon are limited obligations of the Borrower and (except to the extent payment with respect to the Bond shall be made from the proceeds from the sale of the Bond or the income, if any, derived from the investment thereof) are payable solely from Net Revenues Available for Debt Service (as defined in the below-mentioned Trust Agreement) from time to time deposited by the Borrower with or to the order of the Authority, as the Administrator of the Fund pursuant to the Resolution (the “Resolution”) adopted by the Commission on October 31, 2017, authorizing the issuance of this

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

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

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

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

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

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

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

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

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed by the Chairman of its Commission and its seal to be impressed hereon and attested by the Secretary of its Commission all as of \_\_\_\_\_, 2017.

HAMPTON ROADS SANITATION DISTRICT

By: \_\_\_\_\_  
Chairman of the Hampton Roads Sanitation  
District Commission

(SEAL)  
ATTEST:

\_\_\_\_\_  
Secretary of the Hampton Roads  
Sanitation District Commission

**SCHEDULE OF PRINCIPAL DISBURSEMENTS**

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

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

**AMORTIZATION SCHEDULE**

**SUPPLEMENT TO  
MASTER FINANCING AGREEMENT**

**dated as of \_\_\_\_\_ 1, 2017**

**BETWEEN**

**VIRGINIA RESOURCES AUTHORITY,**

**as Administrator of the  
Virginia Water Facilities Revolving Fund**

**AND**

**HAMPTON ROADS SANITATION DISTRICT**

Virginia Resources Authority  
Virginia Water Facilities Revolving Fund

**Rodman Avenue Pump Station Project  
Loan No. C-515599-02**

## SUPPLEMENT TO MASTER FINANCING AGREEMENT

**THIS SUPPLEMENT TO MASTER FINANCING AGREEMENT** (this “Supplement”) is made as of \_\_\_\_\_ 1, 2017, between the **VIRGINIA RESOURCES AUTHORITY**, a public body corporate and a political subdivision of the Commonwealth of Virginia (the “Authority”), as Administrator of the **VIRGINIA WATER FACILITIES REVOLVING FUND**, and the **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia (the “Borrower”), acting by and through the **HAMPTON ROADS SANITATION DISTRICT COMMISSION**, the governing body of the Borrower (the “Commission”).

**A.** The Authority and the Borrower previously entered into a Master Financing Agreement, dated as of February 1, 2016, as previously amended by a First Amendment to Master Financing Agreement, dated as of August 1, 2016 (together, the “Master Financing Agreement”), with respect to certain loans from the Fund evidenced by the Direct Local Bonds the Borrower issued and sold to the Authority, as Administrator of the Fund, and the Leveraged Local Bonds the Borrower issued and sold to (i) the Authority and assigned to the Trustee or (ii) the Trustee on behalf of the Authority, pursuant to the Authority’s Master Indenture.

**B.** The Borrower has requested an additional loan from the Fund and will evidence its obligation to repay such loan by the 2017 Rodman Avenue Local Bond (as defined below) the Borrower will issue and sell to the Authority, as Administrator of the Fund.

**C.** The Borrower will use the proceeds of the sale of the 2017 Rodman Avenue Local Bond to the Authority to finance that portion of the 2017 Rodman Avenue Project Costs (as defined below) not being paid from other sources, all as further set forth in the 2017 Rodman Avenue Project Budget (as defined below).

**D.** The Authority and the Borrower desire to supplement the Master Financing Agreement with respect to the 2017 Rodman Avenue Local Bond, as set forth herein.

**E.** The Authority and the Borrower hereby set forth certain supplements to the Master Financing Agreement.

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants and agreements hereinafter contained, the Authority and the Borrower covenant and agree as follows:

### ARTICLE I

#### DEFINITIONS

**Section 1.1 Definitions.** The capitalized terms contained in this Supplement and not defined above shall have the meanings set forth below unless the context requires otherwise and any capitalized terms not otherwise defined herein shall have the meaning assigned to such terms in the Master Financing Agreement:



“Agreement” means the Master Financing Agreement between the Authority and the Borrower, as supplemented, amended or modified by one or more Supplemental Financing Agreements.

“Annual Administrative Fee” means the portion of the Cost of Funds, if any, specified in Section 5.1 and Exhibit G payable as an annual fee for administrative and management services attributable to the 2017 Rodman Avenue Local Bond.

“Authorized Representative” means any member, official or employee of the Borrower authorized by resolution, ordinance or other official act of the Commission to perform the act or sign the document in question.

“Borrower” means the Hampton Roads Sanitation District, a political subdivision of the Commonwealth of Virginia, created by and acting under Chapter 66 of the Acts of Assembly of Virginia of 1960, as amended by Chapter 584 of the Acts of Assembly of Virginia of 1962, Chapter 520 of the Acts of Assembly of Virginia of 1964, Chapter 112 of the Acts of Assembly of Virginia of 1974, Chapter 637 of the Acts of Assembly of Virginia of 1976, Chapter 271 of the Acts of Assembly of Virginia of 1977, Chapter 30 of the Acts of Assembly of Virginia of 1987, Chapter 350 of the Acts of Assembly of Virginia of 1989, Chapter 153 of the Acts of Assembly of Virginia of 1990, Chapter 210 of the Acts of Assembly of Virginia of 1998, Chapter 120 of the Acts of Assembly of Virginia of 2004, Chapter 574 of the Acts of Assembly of Virginia of 2008, Chapter 724 of the Acts of Assembly of Virginia of 2012 and Chapter 218 of the Acts of Virginia of 2017, as such acts may be further amended from time to time.

“Cost of Funds” means interest, including the part thereof allocable to the Annual Administrative Fee, if any, payable as set forth in Section 5.1 and Exhibit G with respect to the 2017 Rodman Avenue Local Bond.

“Direct Local Bonds” means, collectively, the bonds and any allonges thereto described in Exhibit F-1 issued by the Borrower to the Authority, including the 2017 Rodman Avenue Local Bond.

“Local Bonds” means, collectively, the Direct Local Bonds and the Leveraged Local Bonds.

“Parity Bonds” means any of the Borrower’s bonds, notes or other evidences of indebtedness, as further described on Exhibit F-3 or issued under or secured by the Parity Trust Agreement after the date hereof, that are secured on parity by a pledge of Net Revenues Available for Debt Service, including the 2017 Rodman Avenue Local Bond.

“2017 Rodman Avenue Closing Date” means the date of delivery of the 2017 Rodman Avenue Local Bond to the Authority.

“2017 Rodman Avenue Commitment Letter” shall mean the commitment letter from the Authority to the Borrower with respect to the 2017 Rodman Avenue Local Bond, and all extensions, modifications and amendments thereto.

“2017 Rodman Avenue Local Bond” means the Direct Local Bond in substantially the form attached to this Financing Agreement as Exhibit A issued by the Borrower to the Authority, as Administrator of the Fund, pursuant to the Agreement.

“2017 Rodman Avenue Local Bond Proceeds” means the aggregate proceeds from the sale of the 2017 Rodman Avenue Local Bond pursuant to this Supplement.

“2017 Rodman Avenue Local Bond Resolution” means all resolutions adopted by the Commission approving the transactions contemplated by and authorizing the execution and delivery of this Supplement and the execution, issuance, and delivery of the 2017 Rodman Avenue Local Bond.

“2017 Rodman Avenue Project” means the particular project described in Exhibit B, the costs of the acquisition, construction, improving or equipping of which are to be financed in whole or in part with the 2017 Rodman Avenue Local Bond Proceeds.

“2017 Rodman Avenue Project Budget” means the budget for the financing of the 2017 Rodman Avenue Project, a copy of which is attached as Exhibit C, with such changes therein as may be approved in writing by the Authority.

“2017 Rodman Avenue Project Costs” means the costs of the acquisition, construction, improving or equipping of the 2017 Rodman Avenue Project, as further described in the 2017 Rodman Avenue Project Budget, and such other costs as may be approved in writing by the Authority, provided such costs are permitted by the VWFRF Act.

“Senior Bonds” means any of the Borrower’s bonds, notes or other evidences of indebtedness; as further described on Exhibit F-3 or issued under or secured by the Senior Trust Agreement after the date hereof; that are secured by or payable from a pledge of Net Revenues all or any portion of which is senior to the pledge of Net Revenues Available for Debt Service securing the Parity Bonds.

“Supplement” means this Supplement to Master Financing Agreement, dated as of \_\_\_\_\_ 1, 2017, supplementing, amending or modifying the provisions of the Agreement entered into by the Authority and the Borrower.

“Taxable Leveraged Local Bonds” means, collectively, the bonds and any allonges thereto described in Exhibit F-2 as the Taxable Leveraged Local Bonds, issued by the Borrower to (i) the Authority and assigned to the Trustee or (ii) the Trustee on behalf of the Authority.

“Tax-Exempt Leveraged Local Bonds” means, collectively, the bonds and any allonges thereto described in Exhibit F-2 as the Tax-Exempt Leveraged Local Bonds, issued by the Borrower to (i) the Authority and assigned to the Trustee or (ii) the Trustee on behalf of the Authority.

## ARTICLE II

### **REPRESENTATIONS**

**Section 2.1. Representations by Borrower.** The Borrower makes the following representations as the basis for its undertakings under this Supplement:

(a) The Borrower is a duly created and validly existing “local government” (as defined in Section 62.1-224 of the VWFRF Act) of the Commonwealth of Virginia and is vested with the rights and powers conferred upon it by Virginia law.

(b) The Borrower has full right, power and authority to (i) adopt the 2017 Rodman Avenue Local Bond Resolution and execute and deliver this Supplement and the other documents related thereto, (ii) issue, sell and deliver the 2017 Rodman Avenue Local Bond to the Authority, as Administrator of the Fund, (iii) own and operate the System, (iv) construct, acquire or equip the 2017 Rodman Avenue Project and finance or refinance the 2017 Rodman Avenue Project Costs by borrowing money for such purpose pursuant to this Supplement and the issuance of the 2017 Rodman Avenue Local Bond, and (v) carry out and consummate all of the transactions contemplated by the 2017 Rodman Avenue Local Bond Resolution, this Supplement and the 2017 Rodman Avenue Local Bond.

(c) This Supplement and the 2017 Rodman Avenue Local Bond were duly authorized by the 2017 Rodman Avenue Local Bond Resolution and this Supplement and the 2017 Rodman Avenue Local Bond are in substantially the same form as presented to the governing body of the Borrower at its meeting at which the 2017 Rodman Avenue Local Bond Resolution was adopted.

(d) All governmental permits, licenses, registrations, certificates, authorizations and approvals required to have been obtained as of the date of the delivery of this Supplement have been obtained for (i) the Borrower’s adoption of the 2017 Rodman Avenue Local Bond Resolution, (ii) the execution and delivery by the Borrower of this Supplement and the 2017 Rodman Avenue Local Bond, (iii) the performance and enforcement of the obligations of the Borrower thereunder, (iv) the acquisition, construction, improving, equipping, occupation, operation and use of the 2017 Rodman Avenue Project, and (v) the operation and use of the System and the performance by the Borrower of its obligations under the Senior Trust Agreement and the Parity Trust Agreement. The Borrower knows of no reason why any such required governmental permits, licenses, registrations, certificates, authorizations and approvals not obtained as of the date hereof cannot be obtained as needed.

(e) The Agreement, the Senior Trust Agreement, the Parity Trust Agreement and the 2017 Rodman Avenue Local Bond have been executed and delivered by duly authorized officials of the Borrower and constitute the legal, valid and binding obligations of the Borrower enforceable against the Borrower in accordance with their terms.

(f) The 2017 Rodman Avenue Local Bond has been executed and delivered by duly authorized officials of the Borrower and constitutes a legal, valid and binding limited obligation of the Borrower enforceable against the Borrower in accordance with its terms.

(g) The issuance of the 2017 Rodman Avenue Local Bond and the execution and delivery of this Supplement and the performance by the Borrower of its obligations thereunder are within the powers of the Borrower and do not conflict with, or constitute a breach or result in a violation of, (i) to the best of the Borrower's knowledge, any Federal or Virginia constitutional or statutory provision, including the Borrower's charter or articles of incorporation, if any, (ii) any agreement or other instrument to which the Borrower is a party or by which it is bound or (iii) any order, rule, regulation, decree or ordinance of any court, government or governmental authority having jurisdiction over the Borrower or its property.

(h) The Borrower is not in default in the payment of the principal of or interest on any of its indebtedness for borrowed money and is not in default under any instrument under and subject to which any indebtedness for borrowed money has been incurred. No event or condition has happened or existed, or is happening or existing, under the provisions of any such instrument, including but not limited to the Agreement, the Senior Trust Agreement and the Parity Trust Agreement, which constitutes, or which, with notice or lapse of time, or both, would constitute an event of default thereunder.

(i) The Borrower (i) to the best of the Borrower's knowledge, is not in violation of any existing law, rule or regulation applicable to it in any way which would have a material adverse effect on its financial condition or its ability to perform its obligations under the Agreement, the Senior Trust Agreement, the Parity Trust Agreement or the 2017 Rodman Avenue Local Bond and (ii) is not in default under any indenture, mortgage, deed of trust, lien, lease, contract, note, order, judgment, decree or other agreement, instrument or restriction of any kind to which the Borrower is a party or by which it is bound or to which any of its assets is subject, which would have a material adverse effect on its financial condition or its ability to perform its obligations under the Agreement, the Senior Trust Agreement, the Parity Trust Agreement or the 2017 Rodman Avenue Local Bond. The execution and delivery by the Borrower of this Supplement or the 2017 Rodman Avenue Local Bond and the compliance with the terms and conditions thereof does not conflict with or result in a breach of or constitute a default under any of the foregoing.

(j) There are not pending or, to the best of the Borrower's knowledge, threatened against the Borrower, any actions, suits, proceedings or investigations of a legal, equitable, regulatory, administrative or legislative nature, (i) affecting the creation, organization or existence of the Borrower or the title of its officers to their respective offices, (ii) seeking to prohibit, restrain or enjoin the approval, execution, delivery or performance of the 2017 Rodman Avenue Local Bond Resolution, the Agreement, the Senior Trust Agreement, the Parity Trust Agreement or the 2017 Rodman Avenue Local Bond or the issuance or delivery of the 2017 Rodman Avenue Local Bond, (iii) in any way contesting or affecting the validity or enforceability of the 2017 Rodman Avenue Local Bond Resolution, the Agreement, the Senior Trust Agreement, the Parity Trust Agreement, the 2017 Rodman Avenue Local Bond or any agreement or instrument relating to any of the foregoing, (iv) in which a judgment, order or resolution may have a material adverse effect on the Borrower or its business, assets, condition (financial or otherwise), operations or prospects or on its ability to perform its obligations under the 2017 Rodman Avenue Local Bond Resolution, the Agreement, the Senior Trust Agreement, the Parity Trust Agreement or the 2017 Rodman Avenue Local Bond, or (v) the undertaking of the 2017 Rodman Avenue Project. Notwithstanding the preceding sentence, the Borrower

references the ongoing matter described in Exhibit H. The status of the matter is essentially the same as described herein.

(k) There has been no change in the Borrower's AA ratings by S&P Global Ratings and Fitch Ratings, respectively, on its debt outstanding under the Parity Trust Agreement;

(l) To the best of the Borrower's knowledge, the Borrower is in material compliance with its financial policies in effect as of June 30, 2016.

(m) No material adverse change has occurred in the financial condition of the Borrower as indicated in the financial statements, applications and other information furnished to the Authority.

(n) There have been no defaults by any contractor or subcontractor under any contract made by the Borrower in connection with the construction, improving or equipping of the 2017 Rodman Avenue Project.

(o) Except as may otherwise be approved by the Authority or permitted by the terms of the Senior Trust Agreement or the Parity Trust Agreement or the terms hereof, the 2017 Rodman Avenue Project and the System at all times will be owned by the Borrower and will not be operated or controlled by any other entity or person.

(p) There is no indebtedness of the Borrower secured by or payable from a pledge of Net Revenues with respect to the Senior Bonds or Net Revenues Available for Debt Service with respect to the Parity Bonds on a parity with or prior to the lien of the pledge of Revenues securing the 2017 Rodman Avenue Local Bond except any Parity Bonds or Senior Bonds set forth on Exhibit F-3.

(q) No Event of Default or Default has occurred and is continuing.

### **ARTICLE III**

#### **ISSUANCE AND DELIVERY OF THE 2017 RODMAN AVENUE LOCAL BOND**

**Section 3.1. Loan to Borrower and Purchase of the 2017 Rodman Avenue Local Bond.** The Borrower agrees to borrow from the Authority and the Authority agrees to lend to the Borrower, from the Fund, the principal amount equal to the sum of the principal disbursements made pursuant to Section 4.1, but not to exceed \$\_\_\_\_\_, for the purposes herein set forth. The Borrower's obligation shall be evidenced by the 2017 Rodman Avenue Local Bond, which shall be in substantially the form of Exhibit A attached hereto and made a part hereof and delivered to the Authority on the 2017 Rodman Avenue Closing Date. The 2017 Rodman Avenue Local Bond shall bear a Cost of Funds, mature and be payable as hereinafter provided.

**Section 3.2. Conditions Precedent to Purchase of the 2017 Rodman Avenue Local Bond.** The Authority shall not be required to make the loan to the Borrower and purchase the

2017 Rodman Avenue Local Bond unless the Authority shall have received the following, all in form and substance satisfactory to the Authority:

- (a) The 2017 Rodman Avenue Local Bond.
- (b) A certified copy of the 2017 Rodman Avenue Local Bond Resolution.
- (c) A certificate of appropriate officials of the Borrower as to the matters set forth in Section 2.1 and such other matters as the Authority may reasonably require.
- (d) A closing certificate from the Department certifying that the 2017 Rodman Avenue Project is in compliance with all federal and state laws and project requirements applicable to the Fund and evidencing the Board's concurrence in the closing of the loan with the Borrower.
- (e) A certificate of the Consulting Engineer estimating the total 2017 Rodman Avenue Project Costs to be financed with the 2017 Rodman Avenue Local Bond Proceeds, which estimate is in an amount and otherwise compatible with the financing plan described in the 2017 Rodman Avenue Project Budget.
- (f) A certificate, including supporting documentation, of the District Engineer or the General Manager to the effect that in the opinion of the District Engineer or the General Manager (i) the 2017 Rodman Avenue Project will be a part of the System, (ii) the 2017 Rodman Avenue Local Bond Proceeds and funds available from the other sources specified in the 2017 Rodman Avenue Project Budget will be sufficient to pay the estimated 2017 Rodman Avenue Project Costs, and (iii) during the first two complete Fiscal Years of the Borrower following completion of the 2017 Rodman Avenue Project, the projected Net Revenues Available for Debt Service will satisfy the Rate Covenant set forth in Section 705 of the Parity Trust Agreement with respect to the Parity Bonds. In providing this certificate, the District Engineer or the General Manager may take into consideration future System rate increases, provided that such rate increases have been duly approved by the governing body of the Borrower and any other person or entity required to give approval for the rate increase to become effective. In addition, the District Engineer or the General Manager may take into consideration additional future revenues to be derived under existing contractual arrangements entered into by the Borrower and from reasonable estimates of growth in the consumer base of the Borrower.
- (g) A certificate of the District Engineer as to the date the Borrower is expected to complete the acquisition, construction, improving and equipping of the 2017 Rodman Avenue Project.
- (h) Evidence satisfactory to the Authority that all governmental permits, licenses, registrations, certificates, authorizations and approvals for the 2017 Rodman Avenue Project required to have been obtained as of the date of the delivery of this Supplement have been obtained and a statement of the District Engineer that he knows of no reason why any future required governmental permits, licenses, registrations, certificates, authorizations and approvals cannot be obtained as needed.

(i) Evidence satisfactory to the Authority that the Borrower has obtained or has made arrangements satisfactory to the Authority to obtain any funds or other financing required to provide funds in excess of the 2017 Rodman Avenue Local Bond Proceeds for the 2017 Rodman Avenue Project as contemplated in the 2017 Rodman Avenue Project Budget.

(j) Evidence satisfactory to the Authority that the Borrower has performed and satisfied all of the terms and conditions contained in this Supplement to be performed and satisfied by it as of such date.

(k) An Opinion of Bond Counsel, substantially in the form of Exhibit D, addressed to the Fund and the Authority.

(l) An opinion of counsel to the Borrower in form and substance reasonably satisfactory to the Authority.

(m) Evidence satisfactory to the Authority that the Borrower has complied with the insurance provisions set forth in the Agreement.

(n) Copies of any and all documents, certificates or instruments required to be delivered to the Local Trustee pursuant to Section 704 of the Parity Trust Agreement as a condition precedent to the issuance of the 2017 Rodman Avenue Local Bond, and such other evidence satisfactory to the Authority that the 2017 Rodman Avenue Local Bond will be issued as VRA Subordinate Obligations under and as defined in the Parity Trust Agreement on a parity with the Parity Bonds.

(o) Such other documentation, certificates and opinions as the Authority, the Board or the Department may reasonably require.

## **ARTICLE IV**

### **USE OF LOCAL BOND PROCEEDS AND CONSTRUCTION OF 2017 RODMAN AVENUE PROJECT**

#### **Section 4.1. Application of Proceeds.**

(a) The Borrower agrees to apply the 2017 Rodman Avenue Local Bond Proceeds solely and exclusively to the payment, or to the reimbursement of the Borrower for the payment, of 2017 Rodman Avenue Project Costs and further agrees to exhibit to the Department or the Authority receipts, vouchers, statements, bills of sale or other evidence of the actual payment of such 2017 Rodman Avenue Project Costs. The Authority shall disburse money from the Fund to or for the account of the Borrower not more frequently than once each calendar month (unless otherwise agreed by the Authority and the Borrower) upon receipt by the Authority (with a copy to be furnished to the Department) of the following:

(1) A requisition (upon which the Authority, the Board and the Department shall be entitled to rely) signed by an Authorized Representative and containing all information called for by, and otherwise being in the form of, Exhibit E to this Supplement;

(2) If any requisition includes an item for payment for labor or to contractors, builders or materialmen,

(i) a certificate, signed by the District Engineer, stating that such work was actually performed or such materials, supplies or equipment were actually furnished or installed in or about the construction of the 2017 Rodman Avenue Project; and

(ii) a certificate, signed by an Authorized Representative, stating either that such materials, supplies or equipment are not subject to any lien or security interest or that such lien or security interest will be released or discharged upon payment of the requisition.

Upon receipt of each such requisition and accompanying certificate or certificates and approval thereof by the Department, the Authority shall disburse 2017 Rodman Avenue Local Bond Proceeds hereunder to or for the account of the Borrower in accordance with such requisition in an amount and to the extent approved by the Department and shall note the date and amount of each such disbursement on a schedule of principal disbursements to be included on the 2017 Rodman Avenue Local Bond. The Authority shall have no obligation to disburse any such 2017 Rodman Avenue Local Bond Proceeds if the Borrower is in default hereunder nor shall the Department have any obligation to approve any requisition if the Borrower is not in compliance with the terms of the Agreement.

(b) Upon receipt of each such requisition and accompanying certificate or certificates and approval thereof by the Department, the Authority shall disburse 2017 Rodman Avenue Local Bond Proceeds hereunder to or for the account of the Borrower in accordance with such requisition in an amount and to the extent approved by the Department and shall note the date and amount of each such disbursement on a schedule of principal disbursements to be included on the 2017 Rodman Avenue Local Bond. The Authority shall have no obligation to arrange for the disbursement of any such 2017 Rodman Avenue Local Bond Proceeds if the Borrower is in default hereunder nor shall the Department have any obligation to approve any requisition if the Borrower is not in compliance with the terms of the Agreement.

(c) The Borrower shall comply with all applicable laws of the Commonwealth of Virginia, including but not limited to, the Virginia Public Procurement Act, as amended, regarding the awarding and performance of public construction contracts. Except as may otherwise be approved by the Department, disbursements shall be held at ninety-five percent (95%) of the maximum authorized amount of the 2017 Rodman Avenue Local Bond to ensure satisfactory completion of the 2017 Rodman Avenue Project. Disbursements of Local Bond Proceeds shall also be held if the Borrower does not timely provide a draft FSP and final FSP to the Department as set forth in Section 4.9 herein. Upon receipt from the Borrower of the certificate specified in Section 4.2 and a final requisition detailing all retainages to which the Borrower is then entitled, the Authority, to the extent approved by the Department and subject to



the provisions of this Section and Section 4.2, will arrange for the disbursement of Local Bond Proceeds to or for the account of the Borrower to the extent of such approval.

The Authority shall have no obligation to disburse Local Bond Proceeds in excess of the amount necessary to pay for approved Project Costs. If principal disbursements up to the maximum authorized amount of the 2017 Rodman Avenue Local Bond are not made, installments due on the 2017 Rodman Avenue Local Bond shall be reduced in accordance with Section 5.1.

**Section 4.2. Agreement to Accomplish Project.** The Borrower agrees to cause the 2017 Rodman Avenue Project to be acquired, constructed, expanded, renovated or equipped as described in Exhibit B and in accordance with the 2017 Rodman Avenue Project Budget and the plans, specifications and designs accepted by the District Engineer and approved by the Department. The Borrower shall use its best efforts to complete the 2017 Rodman Avenue Project by the date set forth in the certificate provided to the Authority pursuant to Section 3.2(f). All plans, specifications and designs shall be approved by all applicable regulatory agencies. The Borrower agrees to maintain complete and accurate books and records of the 2017 Rodman Avenue Project Costs and permit the Authority and the Department through their duly authorized representatives to inspect such books and records at any reasonable time in accordance with Section 8.4 of the Master Financing Agreement. The Borrower and the Authority, with the consent of the Department, may amend the description of the 2017 Rodman Avenue Project set forth in Exhibit B.

When the 2017 Rodman Avenue Project has been completed, the Borrower shall promptly deliver to the Authority and the Department a certificate signed by an Authorized Representative of the Borrower and by the District Engineer stating (i) that the 2017 Rodman Avenue Project has been completed substantially in accordance with this Section, the plans and specifications as amended from time to time, as approved by the Department, and in substantial compliance with all material applicable laws, ordinances, rules and regulations, (ii) the date of such completion, (iii) that all certificates of occupancy or other material permits necessary for the 2017 Rodman Avenue Project's use, occupancy and operation have been issued or obtained, and (iv) the amount, if any, to be reserved for payment of 2017 Rodman Avenue Project Costs.

**Section 4.3. Permits.** The Borrower, at its sole cost and expense, shall comply with, and shall obtain all permits, consents and approvals required by local, state or federal laws, ordinances, rules, regulations or requirements in connection with the acquisition, construction, improving, equipping, occupation, operation or use of the 2017 Rodman Avenue Project. The Borrower shall, upon request, promptly furnish to the Authority and the Department copies of all such permits, consents and approvals. The Borrower shall also comply with all lawful program or procedural guidelines or requirements duly promulgated and amended from time to time by the Department in connection with the acquisition, construction, improving, equipping, occupation, operation or use of projects financed under the Act, including, but not limited to, those pertaining to the adoption of any requisite sewer use ordinance. The Borrower shall also comply in all respects with all applicable federal, state and local laws, regulations and other requirements relating to or arising out of or in connection with the 2017 Rodman Avenue Project and the funding thereof from the Fund. Where noncompliance with such requirements is

determined by the Authority or the Board, the issue shall be referred to the proper governmental authority or agency for consultation or enforcement action.

**Section 4.4. Construction Contractors.** Each construction contractor employed in the accomplishment of the 2017 Rodman Avenue Project shall be required in the construction contract to furnish a performance bond and a payment bond each in an amount equal to one hundred percent (100%) of the particular contract price. Such bonds shall list the Borrower, the Fund, the Authority, the Department and the Board as beneficiaries. Each contractor shall be required to maintain during the construction period covered by the particular construction contract builder's risk insurance, workers' compensation insurance, public liability insurance, property damage insurance and vehicle liability insurance in amounts and on terms satisfactory to the District Engineer. Upon request of the Authority, the Department or the Board, the Borrower shall cause each contractor to furnish evidence of such bonds and insurance to the Authority, the Board or the Department.

**Section 4.5. Engineering Services.** The Borrower shall designate a District Engineer to provide engineering services covering the operation of the System and the supervision and inspection of the construction of the 2017 Rodman Avenue Project. The District Engineer shall certify to the Authority and the Department as to the various stages of the completion of the 2017 Rodman Avenue Project as disbursements of Local Bond Proceeds are requested and shall upon completion of the 2017 Rodman Avenue Project provide to the Fund, the Authority and the Department the certificates required by Sections 4.1 and 4.2.

**Section 4.6. Borrower Required to Complete Project.** If the 2017 Rodman Avenue Local Bond Proceeds, together with amounts made available to the Borrower pursuant to the Funding Agreement, are not sufficient to pay in full the cost of the 2017 Rodman Avenue Project, the Borrower will complete the 2017 Rodman Avenue Project at its own expense and shall not be entitled to any reimbursement therefor from the Fund, the Authority or the Department or any abatement, diminution or postponement of the Borrower's payments under the 2017 Rodman Avenue Local Bond or the Agreement.

**Section 4.7. Davis-Bacon Act.** The Borrower agrees to comply with the Davis-Bacon Act and related acts, as amended, with respect to the 2017 Rodman Avenue Project and require that all laborers and mechanics employed by contractors and subcontractors for the 2017 Rodman Avenue Project shall be paid wages at rates not less than those prevailing on projects of a similar character, as determined by the United States Secretary of Labor in accordance with Section 513 of the Federal Water Pollution Control Act, as amended.

**Section 4.8. American Iron and Steel.** The Borrower agrees to comply with Section 608 of the Federal Water Pollution Control Act and related acts, as amended, with respect to the 2017 Rodman Avenue Project and require that all iron and steel products used for the 2017 Rodman Avenue Project are to be produced in the United States as required under such act. The term "iron and steel products" is defined to mean the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete and construction materials.

**Section 4.9. Fiscal Sustainability Plan.** The Borrower agrees to develop and implement a fiscal sustainability plan (“FSP”) to the reasonable satisfaction of the Department that includes but is not limited to: (1) an inventory of critical assets that are part of the treatment works, (2) evaluation of the condition and performance of inventoried assets or asset groupings, (3) certification that the recipient has evaluated and will be implementing water and energy conservation efforts as part of the plan, and (4) a plan for maintaining, repairing, funding, and as necessary, replacing the treatment works. Except as may otherwise be approved by the Department, disbursements shall be held at eighty percent (80%) of the maximum authorized amount of the 2017 Rodman Avenue Local Bond until a draft FSP is submitted to the Department and at ninety-five percent (95%) of the maximum authorized amount of the 2017 Rodman Avenue Local Bond until a final FSP is submitted and approved by the Department.

## **ARTICLE V**

### **PAYMENTS**

**Section 5.1. Payment of 2017 Rodman Avenue Local Bond.** The 2017 Rodman Avenue Local Bond shall be dated the 2017 Rodman Avenue Closing Date. The Cost of Funds of the 2017 Rodman Avenue Local Bond shall be computed on the disbursed principal balance thereof from the date of each disbursement at the rate set forth on Exhibit G with respect to the 2017 Rodman Avenue Local Bond. Principal and the Cost of Funds due under the 2017 Rodman Avenue Local Bond shall be payable in equal installments as set forth on Exhibit G with respect to the 2017 Rodman Avenue Local Bond. All amounts due under the Agreement and the 2017 Rodman Avenue Local Bond shall be due and payable in full with the final installment of principal and Cost of Funds due as set forth on Exhibit G with respect to the 2017 Rodman Avenue Local Bond. Each installment shall be applied first to payment of the Cost of Funds accrued and unpaid to the payment date and then to principal. If principal disbursements up to the maximum authorized amount of the 2017 Rodman Avenue Local Bond are not made, the principal amount due on the 2017 Rodman Avenue Local Bond shall not include such undisbursed amount. However, unless the Borrower and the Authority agree otherwise in writing, until all amounts due hereunder and under the 2017 Rodman Avenue Local Bond shall have been paid in full, less than full disbursement of the maximum authorized amount of the 2017 Rodman Avenue Local Bond shall not postpone the due date of any semi-annual installment due on the 2017 Rodman Avenue Local Bond, or change the amount of such installment unless the principal amount due under the 2017 Rodman Avenue Local Bond is less than the amount of such installment. If any installment of principal or the Cost of Funds on the 2017 Rodman Avenue Local Bond is not paid within ten (10) days after its due date, the Borrower agrees to pay the Authority a late payment charge in an amount equal to five percent (5.0%) of the overdue installment on the 2017 Rodman Avenue Local Bond.

## **ARTICLE VI**

### **PREPAYMENTS**

**Section 6.1. Prepayment of 2017 Rodman Avenue Local Bond.** Upon completion of the 2017 Rodman Avenue Project and after giving at least ten (10) days’ written notice to the Authority, the Borrower may prepay the 2017 Rodman Avenue Local Bond at any time, in whole

or in part and without penalty. Such written notice shall specify the date on which the Borrower will make such prepayment and whether the 2017 Rodman Avenue Local Bond will be prepaid in full or in part, and if in part, the principal amount to be prepaid. Any such partial prepayment shall be applied against the principal amount outstanding under the 2017 Rodman Avenue Local Bond but shall not postpone the due date of any subsequent payment on the 2017 Rodman Avenue Local Bond, or change the amount of such installment, unless the Authority and the Borrower agree otherwise in writing.

## **ARTICLE VII**

### **MISCELLANEOUS**

**Section 7.1. Successors and Assigns.** This Supplement shall be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

**Section 7.2. Applicable Law.** This Supplement shall be governed by the laws of the Commonwealth of Virginia.

**Section 7.3. Authorization of Supplement.** All terms, covenants, conditions and agreements of the Master Financing Agreement shall apply with full force and effect to the 2017 Rodman Avenue Local Bond, except as otherwise provided herein.

**Section 7.4. Ratification of Master Financing Agreement.** All of the representations and warranties of the Borrower contained in Article II of the Master Financing Agreement are true and correct as of the date hereof. All terms of the Master Financing Agreement except as amended or modified by the terms of this Supplement are hereby reaffirmed, ratified and confirmed.

**Section 7.5. Severability.** If any clause, provision or section of this Supplement shall be held illegal or invalid by any court, the illegality or invalidity of such clause, provision or section shall not affect the remainder of this Supplement which shall be construed and enforced as if such illegal or invalid clause, provision or section had not been contained in this Supplement. If any agreement or obligation contained in this Supplement is held to be in violation of law, then such agreement or obligation shall be deemed to be the agreement or obligation of the Authority and the Borrower, as the case may be, only to the extent permitted by law.

**Section 7.6. Headings.** The headings of the several articles and sections of this Supplement are inserted for convenience only and do not comprise a part of this Supplement.

**Section 7.7. Term of Supplement.** This Supplement shall be effective upon its execution and delivery, provided that the 2017 Rodman Avenue Local Bond previously or simultaneously has been executed and delivered. Except as otherwise specified, the Borrower's obligations under the 2017 Rodman Avenue Local Bond and this Supplement shall expire upon payment in full of the 2017 Rodman Avenue Local Bond and all other amounts payable by the Borrower under the Agreement.

**Section 7.8. 2017 Rodman Avenue Commitment Letter.** The 2017 Rodman Avenue Commitment Letter is an integral part of this Supplement and shall survive closing hereunder.

**Section 7.9 Counterparts.** This Supplement may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

**WITNESS** the following signatures, all duly authorized.

**VIRGINIA RESOURCES AUTHORITY, as  
Administrator of the Virginia Water Facilities  
Revolving Fund**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**HAMPTON ROADS SANITATION DISTRICT**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A**  
**Form of Local Bond**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

[To Come from Borrower's Bond Counsel]

**EXHIBIT B**  
**2017 Rodman Avenue Project Description**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

The 2017 Rodman Avenue Project includes financing improvements to the Rodman Avenue pump station, along with related expenses.



**EXHIBIT C**  
**2017 Rodman Avenue Project Budget**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

[To Come]

**EXHIBIT D**  
**Opinion of Bond Counsel**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

[To Come from Borrower's Bond Counsel]

**EXHIBIT E**  
**Form of Requisition**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

**(To Be on Borrower's Letterhead)**

[Date]

Walter A. Gills, Program Manager  
Construction Assistance Program  
Department of Environmental Quality  
P. O. Box 1105  
Richmond, Virginia 23218

Re: Hampton Roads Sanitation District  
Loan No. C-515599-02

Dear Mr. Gills:

This requisition, Number \_\_\_\_\_, is submitted in connection with the Master Financing Agreement, dated as of March 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the Supplement to Master Financing Agreement, dated as of \_\_\_\_\_ 1, 2017 (as so amended and supplemented, the "Agreement"), between the Virginia Resources Authority, as Administrator of the Virginia Water Facilities Revolving Fund, and the Hampton Roads Sanitation District (the "Borrower"). Unless otherwise defined in this requisition, all capitalized terms used herein shall have the meaning set forth in the Agreement. The undersigned Authorized Representative of the Borrower hereby requests disbursement of loan proceeds under the Agreement in the amount of \$\_\_\_\_\_, for the purposes of payment of the 2017 Rodman Avenue Project Costs as set forth in Schedule 1 attached hereto.

Attached hereto are invoices relating to the items for which payment is requested.

The undersigned certifies that (a) the amounts requested by the requisition will be applied solely and exclusively to the payment, or to the reimbursement of the Borrower for the payment, of the 2017 Rodman Avenue Project Costs, and (b) any materials, supplies or equipment covered by this requisition are not subject to any lien or security interest or such lien or security interest will be released upon payment of the requisition. In addition, to the extent applicable, the undersigned certifies that the Borrower has conducted adequate oversight for compliance with the Davis-Bacon Act and related acts through (a) the review of payrolls and associated certifications, (b) the conducting of employee interviews, and (c) the posting of all wage determinations and additional classifications (as appropriate) on the work site, and through this oversight, the Borrower has determined to the best of its ability that the 2017 Rodman Avenue Project complies with the requirements of the Davis-Bacon Act and related acts. The Borrower further certifies that all

products included in this request satisfy the appropriate provisions of the American Iron and Steel requirements included in the Agreement.

The undersigned further certifies that (a) no Event of Default or Default has occurred and is continuing, and no condition exists which, with the passing of time or with the giving of notice or both, would constitute an Event of Default hereunder, and (b) the representations and warranties of the Borrower contained in the Agreement are true, correct and complete and the Borrower has performed all of its obligations thereunder required to be performed as of the date hereof.

This requisition includes an accompanying Certificate of the Consulting Engineer as to the performance of the work.

Very truly yours,

By: \_\_\_\_\_

Its: \_\_\_\_\_

Attachments

cc: DEQ Regional Engineer (with all attachments)

CERTIFICATE OF THE CONSULTING ENGINEER  
FORM TO ACCOMPANY REQUEST FOR DISBURSEMENT

This Certificate is being executed and delivered in connection with Requisition Number \_\_\_\_, dated \_\_\_\_\_, 20\_\_, submitted by the Hampton Roads Sanitation District (the “Borrower”), pursuant to the Master Financing Agreement, dated as of March 1, 2016, between the Authority, as Administrator of the Fund, and the Borrower, as amended to the date hereof, and as supplemented by the Supplement to Master Financing Agreement, dated as of \_\_\_\_\_ 1, 2017 (as so amended and supplemented, the “Agreement”), between the Virginia Resources Authority, as Administrator of the Virginia Water Facilities Revolving Fund (the “Authority”), and the Borrower. Capitalized terms used herein shall have the same meanings set forth in the Agreement.

The undersigned Consulting Engineer for the Borrower hereby certifies to the Authority that, insofar as the amounts covered by this Requisition include payments for labor or to contractors, builders or materialmen, such work was actually performed or such materials, supplies or equipment were actually furnished to or installed in the construction portion of the 2017 Rodman Avenue Project.

\_\_\_\_\_  
[Consulting Engineer]

By: \_\_\_\_\_

Date: \_\_\_\_\_

**SCHEDULE 1**  
**VIRGINIA WATER FACILITIES REVOLVING FUND**  
**FORM TO ACCOMPANY REQUEST FOR DISBURSEMENT**

**REQUISITION #** \_\_\_\_\_  
**BORROWER:** HAMPTON ROADS SANITATION DISTRICT  
**LOAN NUMBER:** C-515599-02  
**CERTIFYING SIGNATURE:** \_\_\_\_\_  
**TITLE:** \_\_\_\_\_

Cost Category	Amount Budgeted	Previous Disbursements	Expenditures This Period	Total Expenditures to Date	Net Balance Remaining
<b>TOTALS:</b>					

**Total Loan Amount \$** \_\_\_\_\_  
**Previous Disbursements \$** \_\_\_\_\_  
**This Request \$** \_\_\_\_\_  
**Loan Proceeds Remaining \$** \_\_\_\_\_

**EXHIBIT F-1**  
**Direct Local Bonds**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

\$1,759,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated January 31, 2002 (Army Base Aeration and James River Thickener Projects), as amended on January 9, 2013

\$2,476,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated April 3, 2002 (York River STP-Wastewater Reuse Project), as amended on January 9, 2013

\$40,338,298 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated February 26, 2004 (Chesapeake-Elizabeth Treatment Plant Project), as amended on January 9, 2013

\$1,235,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated July 29, 2005 (Army Base Treatment Plant Project), as amended on January 9, 2013

\$7,339,600 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated June 22, 2006 (Atlantic Wastewater Treatment Plant Project), as amended on January 9, 2013

\$1,605,200 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated June 22, 2006 (Colonial Williamsburg Pump Station Project), as amended on January 9, 2013

\$6,318,000 Hampton Roads Sanitation District Wastewater Revenue Bond, Series 2012, dated March 13, 2012 (Atlantic Treatment Plant: Digester Gas to Energy Project)

\$57,273,700 Sanitation District Subordinate Wastewater Revenue Bond (Atlantic Treatment Plant Project), dated August 10, 2017

\$1,000,000 Sanitation District Subordinate Wastewater Revenue Bond (Ferguson Park Interceptor Project), dated August 10, 2017

\$3,205,554 Sanitation District Subordinate Wastewater Revenue Bond (Lucas Creek Interceptor Project), dated October 26, 2017

**EXHIBIT F-2**  
**Tax-Exempt Leveraged Local Bonds and Taxable Leveraged Local Bonds**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

**Tax-Exempt Leveraged Local Bonds.**

\$6,490,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated July 19, 2000 (Disinfection Projects)

\$2,380,185 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated September 28, 2000 (Odor Control Projects)

\$1,070,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated May 31, 2002 (Chesapeake-Elizabeth Incinerator Project)

**Taxable Leveraged Local Bonds.**

\$30,000,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated December 17, 2008 (York River Wastewater Treatment Plant Project), as amended on January 15, 2015

\$19,410,226 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated May 28, 2009 (Nansemond Treatment Plant Project), as amended on September 11, 2015

\$13,718,671 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated November 20, 2009 (James River Treatment Plant Project), as amended on September 11, 2015

\$11,418,372 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated December 18, 2009 (Interceptor System Metering Project), as amended on September 11, 2015

\$50,000,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Army Base Wastewater Treatment Plant Project), as amended on August 31, 2016

\$5,924,715 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Williamsburg Oxidation Towers Project), as amended on August 31, 2016

\$7,583,771 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Boat Harbor Treatment Project), as amended on August 31, 2016



**EXHIBIT F-3**  
**Senior Bonds, Migrating Senior Bonds and Parity Bonds**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

**Senior Bonds.**

\$223,170,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2008, dated March 31, 2008

\$152,640,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated November 12, 2009

\$45,705,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2011, dated October 20, 2011

\$130,480,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2012, dated December 27, 2012

\$111,345,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Refunding Series 2014A, dated November 12, 2014

**Migrating Senior Bonds.**

\$19,410,226 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated May 28, 2009 (Nansemond Treatment Plant Project), as amended on September 11, 2015

\$13,718,671 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated November 20, 2009 (James River Treatment Plant Project), as amended on September 11, 2015

\$11,418,372 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2009, dated December 18, 2009 (Interceptor System Metering Project), as amended on September 11, 2015

\$50,000,000 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Army Base Wastewater Treatment Plant Project), as amended on August 31, 2016

\$5,924,715 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Williamsburg Oxidation Towers Project), as amended on August 31, 2016

\$7,583,771 Hampton Roads Sanitation District Wastewater Revenue Bonds, Series 2010, dated June 29, 2010 (Boat Harbor Treatment Project), as amended on August 31, 2016

\$6,318,000 Hampton Roads Sanitation District Wastewater Revenue Bond, Series 2012, dated March 13, 2012 (Atlantic Treatment Plant: Digester Gas to Energy Project)

### **Parity Bonds.**

\$6,490,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated July 19, 2000 (Disinfection Projects)

\$2,380,185 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated September 28, 2000 (Odor Control Projects)

\$1,759,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated January 31, 2002 (Army Base Aeration and James River Thickener Projects), as amended on January 9, 2013

\$2,476,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated April 3, 2002 (York River STP-Wastewater Reuse Project), as amended on January 9, 2013

\$1,070,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated May 31, 2002 (Chesapeake-Elizabeth Incinerator Project)

\$40,338,298 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated February 26, 2004 (Chesapeake-Elizabeth Treatment Plant Project), as amended on January 9, 2013

\$1,235,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated July 29, 2005 (Army Base Treatment Plant Project), as amended on January 9, 2013

\$7,339,600 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated June 22, 2006 (Atlantic Wastewater Treatment Plant Project), as amended on January 9, 2013

\$1,605,200 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated June 22, 2006 (Colonial Williamsburg Pump Station Project), as amended on January 9, 2013

\$30,000,000 Hampton Roads Sanitation District Subordinate Pledge Sewer Revenue Bond, dated December 17, 2008 (York River Wastewater Treatment Plant Project), as amended on January 15, 2015

\$25,000,000 Hampton Roads Sanitation District Subordinate Wastewater Revenue Bonds, Series 2011, dated October 20, 2011

\$22,680,000 Hampton Roads Sanitation District Subordinate Wastewater Revenue Bonds, Refunding Series 2012, dated December 27, 2012

\$246,845,000 Sanitation District Subordinate Wastewater Revenue Bonds, Refunding Series 2016A, dated March 17, 2016

\$50,000,000 Sanitation District Subordinate Wastewater Revenue Bonds, Refunding Series 2016B, dated April 1, 2016

\$57,273,700 Sanitation District Subordinate Wastewater Revenue Bond (Atlantic Treatment Plant Project), dated August 10, 2017

\$1,000,000 Sanitation District Subordinate Wastewater Revenue Bond (Ferguson Park Interceptor Project), dated August 10, 2017

\$3,205,554 Sanitation District Subordinate Wastewater Revenue Bond (Lucas Creek Interceptor Project), dated October 26, 2017

**EXHIBIT G**  
**Debt Service Schedule**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

[To Come]

**EXHIBIT H**  
**EPA Consent Order**  
**Hampton Roads Sanitation District**  
**Rodman Avenue Pump Station Project**  
**Loan No. C-515599-02**

[To Be Updated]

HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #6

AGENDA ITEM 7. - Rodman Avenue Pump Station Wet Well Rehabilitation  
207 Choate Street, Portsmouth, Virginia  
Acquisition Of Real Property For A Public Purpose

- [Purchase Agreement](#)
- [Deed](#)
- [Facilities Orientation Maps](#)

\*seller name\* The Bank of New York Mellon FKA The Bank of New York, as Trustee for the Certificateholders of CWALT, Inc Alternative Loan Trust 2008-OC5, Mortgage Pass-Through Certificates, Series 2008-OC5

REAL ESTATE INFORMATION NETWORK, INC.  
STANDARD PURCHASE AGREEMENT ("AGREEMENT")



THIS AGREEMENT is made this 10/11/17 (date),  
between Hampton Roads Sanitation District (HRSD) ("Buyer"),

"see seller name top of this page" ("Seller"),  
no selling firm ("Selling Firm") ( na MLS Office No.)  
and RE/MAX Allegiance ("Listing Firm") ( 6200 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:  
Lot 90, 207 Choate Street, Parcel # 0392-0020 also known as  
207-211 Choate Street, Portsmouth, VA 23704

(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  
One Thousand and 00/100 Dollars (\$ 1,000.00)  
by ☐ check or other ☒ wire transfer and held by  
First Class Title, Inc. ("Escrow Agent").

Purchaser has delivered the Deposit to Selling Firm, receipt of which is acknowledged by Selling Firm. If Selling Firm is not Escrow Agent, Selling Firm shall deliver the Deposit to Escrow Agent within one (1) business banking day of the ratification of this Agreement (such one (1) day period shall not be deemed to extend the five (5) day period referenced in paragraph 5.B.). The Deposit shall apply as a credit to Buyer at settlement.

3. PURCHASE PRICE: The Purchase Price of the Property is as follows:  
\$ 72,000.00 (Seventy-Two 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  
\$ 72,000.00 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 and accepted by Buyer  
and Seller as of:

SIGNATURE: \_\_\_\_\_  
(RATIFICATION DATE) ☐ LISTING AGENT OR ☐ SELLING AGENT

Ratification shall have the meaning as set forth in Par. 5 A.

39 4. SETTLEMENT EXPENSES: Except as otherwise stated below, Seller shall pay (i) all expenses of deed preparation,  
40 the grantor's tax on the deed, appraiser reinspection fees, and all expenses, if any, for removal of title defects and  
41 (ii) those fees charged by lender for the specified financing which, by law, Buyer is not permitted to pay. Except as  
42 otherwise stated herein, all expenses incurred by Buyer in connection with this purchase, including without limitation,  
43 title examination fees and title insurance premiums, survey costs (including elevation certificate if required by lender),  
44 insurance premiums, discount points (unless prohibited by law), prepaids, recording costs and fees of Buyer's  
45 attorney or settlement agent, shall be paid by Buyer. The amount of seller contributions to Buyer's expenses, if any,  
46 shall be inclusive of those fees charged by lender for specified financing which, by law, Buyer is not permitted to  
47 pay. Any agreed upon seller contributions to Buyer's expenses shall not include any compensation, commission,  
48 fees, charges or other amounts payable to Selling Firm unless such payment is specifically agreed to in writing by  
49 Seller in this Agreement.

50 See attached Shellpoint Mortgage Servicing CONTRACT SALES ADDENDUM made an  
51 integral part of this agreement.  
52

53 5. RATIFICATION / DEPOSIT:

- 54 A. For purposes of this Agreement, ratification shall mean the date ("Ratification Date") of communication of final  
55 written acceptance by Buyer and Seller of all the terms of this Agreement, not the date of removal or expiration  
56 of any contingencies.
- 57 B. Upon ratification of this Agreement, the Deposit received by Escrow Agent shall be placed in an escrow account  
58 by the end of the fifth (5<sup>th</sup>) business banking day following receipt unless otherwise agreed to in writing by the  
59 parties. The Deposit shall remain in escrow until settlement or termination. If Escrow Agent is the Listing Firm or  
60 Selling Firm, the Deposit shall be held and applied in conformity to the Regulations of the Virginia Real Estate  
61 Board. Escrow Agent may place the Deposit in an interest bearing account. All interest, if any, which accrues  
62 with respect to the Deposit, shall become the sole and exclusive property of Escrow Agent. Buyer and Seller  
63 waive any and all right or entitlement to such interest. Escrow Agent shall hold the Deposit in escrow until the  
64 Deposit is credited toward the Purchase Price at settlement; (ii) a court of competent jurisdiction orders  
65 disbursement of the Deposit; (iii) Buyer and Seller have agreed in writing as to the disposition of the Deposit; or  
66 (iv) the Deposit is disposed of in any other manner authorized by the Virginia Real Estate Board. If the Property  
67 is foreclosed upon while this Agreement is pending the terms of Section 64.1- 2108.1 of the Code of Virginia  
68 shall apply to the disbursement of the Deposit. Foreclosure shall be considered a termination of this Agreement,  
69 and, absent any default by Buyer, the Deposit shall be disbursed to Buyer.

70 6. LOAN APPLICATION / LOAN DENIAL / INTENT TO OCCUPY:

71 A. LOAN APPLICATION:

- 72 I. Unless otherwise indicated below, within seven (7) days of ratification of this Agreement, Buyer shall apply  
73 for the specified financing from \_\_\_\_\_ (Name of Lender)  
74 and authorize and pay for a credit report, appraisal or other requirements of such lender. If this Agreement  
75 is contingent on any inspection of the Property in paragraph 14D, the deadline for Buyer to authorize the  
76 lender to order the appraisal is extended to three (3) days after removal of the Property Inspection  
77 Contingency. Should Buyer wish to change lenders, Buyer must obtain written permission from  
78 Seller.  
79 \_\_\_\_\_  
80 \_\_\_\_\_  
81 \_\_\_\_\_  
82 \_\_\_\_\_  
83 \_\_\_\_\_
- 84 II. Buyer shall, promptly, diligently and in good faith, undertake each and every action necessary to obtain such  
85 financing. Buyer's failure to do so shall constitute a default of this Agreement. Except as otherwise provided  
86 in the Agreement, Buyer shall pay all costs associated with obtaining the financing. Buyer's failure to have  
87 available for settlement the cash required by this Agreement, including but not limited to down payment,  
88 closing costs, and prepaids, shall constitute a default of this Agreement.



- 89 Buyer has the responsibility to lock in the interest rate and discount points with respect to such loan(s).
- 90
- 91 III. Buyer authorizes lender to keep Listing Firm and Selling Firm apprised of progress and status of loan
- 92 approval, including verification that appraisal has been authorized by Buyer and confirmation of receipt of
- 93 the appraisal. Should the appraisal indicate an appraised value less than the Purchase Price and/or require
- 94 repairs, Buyer instructs lender to deliver a copy of the appraisal, applicable portions of the appraisal or
- 95 affidavit as to value and/or repairs, to Listing Firm upon Seller's request.
- 96
- 97 IV. Buyer's failure to comply with the provisions of paragraph 6A shall constitute a default of this
- 98 Agreement and Seller shall have the right to terminate this Agreement.
- 99
- 100 B. LOAN DENIAL: Buyer authorizes lender to notify Seller, Listing Firm and Selling Firm of loan or
- 101 assumption denial. If Buyer's loan or assumption application is denied, Buyer shall, within three (3) days of
- 102 any communication of denial to Buyer, provide written notice of such denial to Seller, Listing Firm and Selling
- 103 Firm. At Seller's request, Buyer shall provide Seller a copy of the lender's denial notice and any additional
- 104 documentation confirming the validity of such loan denial as is reasonably requested by Seller. Provided that
- 105 such denial was not the result of Buyer's default. Including Buyer's failure to act in good faith to obtain the
- 106 financing or failure to have available for settlement the cash required by the terms of this Agreement, either
- 107 Buyer or Seller shall have the right to terminate this Agreement. In the event of such termination: (i) all parties
- 108 shall execute the appropriate release agreement; (ii) the Deposit shall be refunded to Buyer in accordance with
- 109 paragraph 6B of this Agreement; and (iii) no party to this Agreement shall have any further rights against or
- 110 obligations to any other party to this Agreement. Buyer's failure to send the written notice of denial within such
- 111 three (3) day time period shall constitute a default under this Agreement. Seller may terminate this Agreement
- 112 in the event of Buyer's default for failure to send the written notice of denial or in the event that loan denial was
- 113 the result of Buyer's default. The rights and remedies set forth in this paragraph shall be in addition to the rights
- 114 and remedies specified in paragraph 18.
- 115 C. INTENT TO OCCUPY: Buyer ☐ DOES / ☒ DOES NOT intend to occupy the Property as Buyer's principal
- 116 residence.
- 117
- 118 7. REPRESENTATIONS:
- 119
- 120 A. Unless otherwise specified in this Agreement, Buyer represents that neither this Agreement nor the financing is
- 121 dependent or contingent on the sale, settlement, lease or refinancing of other real property.
- 122
- 123 B. Buyer acknowledges that Seller is relying upon all of Buyer's representations, including, without limitation, the
- 124 accuracy of the financial information given by Buyer to Seller, Selling Firm or Listing Firm. If Buyer makes any
- 125 deliberate misrepresentation or material omission which results in Buyer's inability to obtain approved financing
- 126 then Buyer shall be deemed to be in default. Except as provided in paragraph 6B, Buyer shall notify Seller,
- 127 Listing Firm and Selling Firm in writing within three (3) days of Buyer's actual notice of the occurrence of any
- 128 material adverse change in Buyer's financial condition which prevents Buyer from obtaining the specified
- 129 financing under this Agreement. Buyer's failure to give notice of the material adverse change required above
- 130 shall constitute a default under the terms of this Agreement. Within three (3) days of receipt of written notice of
- 131 the material adverse change from Buyer, Seller shall notify Buyer in writing of Seller's election to: (i) proceed to
- 132 closing based upon a modification to this Agreement acceptable to Seller and Buyer; (ii) require that Buyer
- 133 deliver an acceptable First Right of Refusal Agreement; or (iii) terminate this Agreement. The rights and
- 134 remedies set forth in this paragraph shall be in addition to the rights and remedies specified in paragraph 18.
- 135
- 136 C. Except as expressly provided below, Seller represents that Seller (i) owns good and marketable fee simple title
- 137 to the Property, (ii) has the right to transfer the Property without obtaining the consent or approval of any other
- 138 party, including, without limitation, judgment creditors, lienholders, or other lenders, or any court including
- 139 bankruptcy court or court having jurisdiction with respect to the distribution of marital property, (iii) if necessary,
- 140 has or will have sufficient cash or other liquid funds to make any payments required to be made in order to pay
- 141 all brokerage fees due and transfer the Property without any liens attaching to the Property, and (iv) will be in a
- 142 position to transfer title to the Property to Buyer free and clear of all liens, leases and tenancies except as
- 143 expressly provided in this Agreement.

Exceptions:  
none

D. Seller also represents and warrants that (Check appropriate box):

- ☒ 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) \_\_\_\_\_

E. 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.

8. SETTLEMENT / POSSESSION: Settlement to be on or before 11/15/17 ("Settlement Date"). The Settlement Date may be extended by 0 days (if blank, the parties deem the extension to be 10 days) solely for the purpose of:

- I. processing and closing the specified loan in compliance with applicable law and/or
- II. correcting any defects reported by a title examiner.

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.

Choice of Settlement Agent: Chapter 27.3 (§55-525.16 et seq.) of Title 55 of the Code of Virginia provides that the Buyer has the right to select the settlement agent to handle the closing of this transaction. The settlement agent's role in closing this transaction involves the coordination of numerous administrative and clerical functions relating to the collection of documents and the collection and disbursement of funds required to carry out the terms of the contract between the parties. If part of the purchase price is financed,

189 the lender for the Buyer will instruct the settlement agent as to the signing and recording of loan documents  
190 and the disbursement of loan proceeds. No settlement agent can provide legal advice to any party to the  
191 transaction except a settlement agent who is engaged in the private practice of law in Virginia and who has  
192 been retained or engaged by a party to the transaction for the purpose of providing legal services to that  
193 party.

194 Variation by agreement: The provisions of Chapter 27.3 (§ 55-525.16 et seq.) of Title 55 of the Code of Virginia  
195 may not be varied by agreement, and rights conferred by this chapter may not be waived. The Seller may  
196 not require the use of a particular settlement agent as a condition of the sale of the Property.

197 Escrow, closing and settlement service guidelines: The Virginia State Bar issues guidelines to help  
198 settlement agents avoid and prevent the unauthorized practice of law in connection with furnishing escrow,  
199 settlement or closing services. As a party to a real estate transaction, the Buyer is entitled to receive a copy  
200 of these guidelines from the settlement agent, upon request, in accordance with the provisions of  
201 Chapter 27.3 (§ 55-525.16 et seq.) of Title 55 of the Code of Virginia.

202 Buyer and Seller each authorize their respective attorneys, lenders and/or the settlement agent, to furnish prior to  
203 the Settlement Date to all parties including, Listing Firm and Selling Firm, complete copies of the draft and final  
204 closing disclosure/settlement statement for the sale of the Property, including the HUD-1 settlement statement, the  
205 TILA-RESPA settlement statement, the ALTA settlement statement combined, the Seller Closing Disclosure (Seller's  
206 CD) and/or the Buyer's Closing Disclosure (Buyer's CD).

207 **9. DEED AND TITLE:**

208 A. Except as expressly provided in writing, representations and warranties made by Seller herein and all other  
209 provisions of this Agreement shall be deemed merged into the deed delivered at settlement and shall not survive  
210 settlement, unless otherwise provided herein. Seller shall convey marketable and insurable title to the Property  
211 by general warranty deed, unless otherwise specified below, subject to any easements, covenants and  
212 restrictions of record, which do not adversely affect the use of the Property for residential purposes. Title to the  
213 Property shall be conveyed (i) free and clear of all liens, tenancies and encumbrances of every kind except those  
214 stated herein, and (ii) with marketable and insurable access to a publicly dedicated road.

215 **special warranty deed**

216  
217  
218  
219 B. Buyer will be required to purchase a lender's title insurance policy if the Buyer is obtaining a loan  
220 secured by the Property. Buyer may, at Buyer's expense, purchase an owner's title insurance policy  
221 which insures Buyer's title to the Property, subject to the terms of such policy. The coverage afforded  
222 by such title insurance would be governed by the terms of the policy and any exceptions to the policy,  
223 and the premium for obtaining such title insurance coverage will be determined by its coverage and the  
224 title insurer. Buyer may purchase either "standard" or "enhanced" coverage which coverages have  
225 differing rates. Buyer authorizes Buyer's lender(s), if any, to include a quote for a premium for an owner's  
226 title insurance policy in the Loan Estimate based on enhanced coverage. Buyer understands that  
227 nothing in this Purchase Agreement obligates Buyer to obtain any owner's title insurance coverage at  
228 any time, including at Closing, and that the availability of enhanced coverage is subject to underwriting  
229 criteria of the title insurer. Buyer should consult Buyer's attorney with respect to obtaining owner's title  
230 insurance.

231 C. Buyer, at Buyer's expense, ☐ WAIVES/ ☐ DESIRES a survey and, if appropriate, elevation certificate of  
232 the Property by a licensed surveyor. Notwithstanding the foregoing, in the event Buyer's lender and/or  
233 title company requires a survey and/or an elevation certificate, Buyer shall, at Buyer's expense, obtain  
234 such survey and/or elevation certificate prior to settlement.

235 **10. PRORATIONS / ESCROW:**

236 ☒ A. If new financing, or cash sale, all real property taxes, insurance, rents, interest, and appropriate homeowner's  
237 association and/or condominium fees or dues and other reserves and assessments shall be prorated as of  
238 Settlement Date.

239 ☐ B. If an assumption, all real property taxes, all insurance (if allowed), rents, interest, and appropriate  
240 homeowner's association and/or condominium fees or dues and other reserves, if any, shall be ☐ PRORATED or  
241 ☐ CURRENT AND TRANSFERRED GRATIS as of Settlement Date.

242 11. VA/FHA/CONVENTIONAL FINANCING OR CASH CONTINGENCY: If noted below, Buyer's obligations under this  
243 Agreement are conditioned upon the applicable contingency: (Check A, B, C or D, as applicable)

244 ☐ A. VA FINANCING: It is expressly agreed that, notwithstanding any of the provisions of this Agreement, Buyer  
245 shall not incur any penalty by forfeiture of earnest money or otherwise be obligated to complete the purchase of the  
246 Property described by the Agreement if the agreed purchase price or cost exceeds the reasonable value of the  
247 Property established by the Veterans Administration. Buyer shall, however, have the privilege and option of  
248 proceeding with the consummation of this Agreement without regard to the amount of the reasonable value  
249 established by the Department of Veterans Affairs. The Veteran Buyer certifies that Buyer intends to occupy the  
250 Property as Buyer's primary residence.

251 ☐ B. HUD/FHA FINANCING: It is expressly agreed that, notwithstanding any other provisions of this Agreement,  
252 Buyer shall not be obligated to complete the purchase of the Property described herein or to incur any penalty, by  
253 forfeiture of earnest money deposits or otherwise unless Buyer has been given in accordance with HUD/FHA or VA  
254 requirements a written statement issued by the Federal Housing Commissioner, Veterans Administration or a Direct  
255 Endorsement Lender setting forth the appraised value of the Property (excluding closing costs) of not less than  
256 \$\_\_\_\_\_. Buyer shall, however, have the  
257 privilege and option of proceeding with consummation of this Agreement without regard to the amount of the  
258 appraised valuation. The appraised valuation is arrived at to determine the maximum mortgage the Department of  
259 Housing and Urban Development will insure. HUD does not warrant the value or the condition of the Property. The  
260 Buyer should satisfy himself/herself that the price and condition of the Property are acceptable.

261 ☐ C. CONVENTIONAL FINANCING: It is expressly agreed that, notwithstanding any other provisions of this  
262 Agreement, Buyer shall not incur any penalty by forfeiture of the Deposit or otherwise be obligated to complete the  
263 purchase of the Property if the Purchase Price exceeds the value established by the appraiser ("Appraised Value")  
264 and Seller does not agree to reduce the Purchase Price to the Appraised Value. Buyer shall have the privilege and  
265 option of proceeding to settlement without regard to the Appraised Value. In the event the Purchase Price exceeds  
266 the Appraised Value and Seller or Listing Firm notifies Buyer or Selling Firm that Seller agrees to reduce the  
267 Purchase Price to the Appraised Value, then this Agreement will remain in force and settlement shall occur as  
268 specified in paragraph 8 of this Agreement.

269 ☒ D. CASH: Buyer ☐ DOES / ☒ DOES NOT wish to order an appraisal. If Buyer wishes to order an appraisal, the  
270 appraisal must be paid for and ordered within seven (7) days after ratification of this Agreement or three (3) days  
271 after removal of the property inspection contingency referenced in paragraph 14D or the appraisal contingency shall  
272 be waived by Buyer. Notwithstanding any other provisions in this Agreement, Buyer reserves all rights outlined in  
273 paragraph 11C above in the event the Appraised Value is less than the Purchase Price.

274 12. PROPERTY CONDITION: With the exception of the rights reserved by Buyer pursuant to paragraph 14 and subject  
275 to any inspections provided for in paragraph 13, Buyer represents that Buyer has inspected the Property and accepts  
276 the Property in its present condition except noted as follows:  
277 as-is conveyance

278  
279

280 Seller shall repair or replace the above noted items, in a workmanlike manner, at Seller's expense prior to the walk  
281 through inspection. Buyer acknowledges that Buyer has not relied upon any representation or warranty made by  
282 Listing Firm, Selling Firm or Seller not expressly set forth in this Agreement with respect to the condition of the  
283 Property. Seller shall deliver the Property at settlement, or as otherwise provided, in substantially the same  
284 condition as of the date of this Agreement, free of personal property, debris and trash. Seller assumes, until  
285 settlement, all risks of loss or damage to the Property by fire, windstorm, casualty or other hazards.

286 13. INSPECTIONS/REPAIRS/TREATMENTS/CAP: Seller shall be responsible for the cost of repairs referenced  
287 in this paragraph 13 in a total amount not to exceed 0.000 % (If blank, the parties deem the  
288 amount to be 1%) of the Purchase Price ("the Cap"). Seller will remain obligated to make repairs arising  
289 under this paragraph 13A (Appraisal and Required Repairs), B (Wood Destroying Insect Infestation /  
290 Moisture / Inspection / Repairs), or C (Drinking Water and Septic) up to the amount of the Cap even if such

291 repair is waived by Buyer as part of the Property Inspection Contingency Removal Addendum. If the total  
292 estimated costs of the repairs described in paragraphs 13 A, B, C, and D collectively exceed the Cap, then  
293 Buyer alone, or Seller alone, or Buyer and Seller jointly can agree to pay the excess. If neither party agrees  
294 to pay the excess amount and an acceptable alternative agreement cannot be reached, then this Agreement  
295 shall be terminated, all parties shall execute a release agreement, and the Deposit shall be refunded in full  
296 to Buyer.

297 A. APPRAISAL AND REQUIRED REPAIRS: Subject to the Cap, Seller shall make any repairs required by Lender  
298 as a result of the appraisal, or as may be required by governmental agencies, prior to the walk through  
299 inspection.

300 B. WOOD DESTROYING INSECT INFESTATION (WDII) / MOISTURE INSPECTION/REPAIRS:

301 1. INSPECTION / REPORTS: ☐ BUYER / ☐ SELLER shall obtain and authorize delivery at ☐ BUYER'S  
302 / ☐ SELLER'S expense, an approved Wood Destroying Insect Infestation Inspection Report and a  
303 Moisture Inspection Report, (collectively referred to as the "Reports") and any re-inspection reports if  
304 required, from a licensed pest control operator. The Wood Destroying Insect Infestation Inspection Report  
305 shall show whether the Property's principal dwelling, garage, and the following additional structures

306 \_\_\_\_\_ are free of visible wood destroying insect  
307 infestation with no visible unrepaid damage from said infestation. The Moisture Inspection Report shall  
308 show whether readily accessible areas of the foundation and understructure, including crawl space, sill  
309 plates, joists, sub-flooring and substructure support timbers are free of standing water, visible moisture  
310 damage and wood destroying fungi. The Reports must be obtained and delivered to settlement agent, within  
311 \_\_\_\_\_ days after ratification of this Agreement. If  
312 new VA financing is involved, Seller shall reimburse Buyer for the cost of the original termite/moisture  
313 inspection, if paid by Buyer.

314 If the Reports are not obtained and delivered within the above time frame, the other party shall have the  
315 right to order the Reports at the expense of the party initially obligated to obtain the Reports. The obligation  
316 to reimburse the cost of obtaining the Reports by the other party shall not exceed \$ \_\_\_\_\_.

317 2. TREATMENT: Treatment, if required, shall be performed by the company issuing the Reports. Cost of  
318 treatment shall be at Seller's expense, subject to the Cap.

319 3. REPAIRS: Seller shall correct in a workmanlike manner, at Seller's expense, subject to the Cap, all standing  
320 water and damage identified in the Reports prior to the walk through inspection. The selection of the  
321 company to make any repairs, if required, shall be at the Seller's discretion. Buyer reserves the right to have  
322 the required repairs re-inspected at or prior to walk-through to ensure repairs were completed in a  
323 workmanlike manner.

324 C. DRINKING WATER AND SEPTIC:

325 1. DRINKING WATER: The Property is served by (Check One);

326 ☒ PUBLIC / PRIVATE utilities supplying drinking water, OR

327 ☐ WELL / CISTERN providing potable drinking water.

328 ☐ BUYER / ☐ SELLER shall obtain prior to the walk through inspection at ☐ BUYER'S /  
329 ☐ SELLER'S expense, a test confirming the water is safe for human consumption from the appropriate  
330 governmental authority or from an acceptable private company, indicating that the well water is safe  
331 for human consumption. If the water is found unsafe for human consumption, and the Property is  
332 not served by another potable water source (i.e. city water line), Seller shall remedy prior to the walk  
333 through inspection all defects and provide a test confirming the water is safe for human consumption  
334 at Seller's expense, subject to the Cap.

335 2. SEPTIC:

336 If the Property is served by a septic system ☐ BUYER / ☐ SELLER shall obtain prior to the walk through  
337 inspection at ☐ BUYER'S / ☐ SELLER'S expense, a written statement addressed to Buyer from a septic  
338 installer, operator or evaluator licensed by the Commonwealth of Virginia (a "Septic Inspector"), indicating  
339 the condition of the system and any malfunction or noncompliance with applicable ordinances and  
340 regulations.

342 The inspection ☐ SHALL ☐ SHALL NOT include pumping the septic system at the expense of the  
343 responsible party above prior to the walk through inspection. However, in the event the Septic Inspector  
344 requires that the septic system be pumped prior to the inspection of the septic system, the responsible party  
345 identified above shall pay to pump the septic system. Any required pumping of the septic system shall apply  
346 to the cap.

347 If the septic system is found defective or in noncompliance with applicable governmental regulations by the  
348 Septic Inspector, Seller shall repair and correct all defects prior to the walk through inspection at Seller's  
349 expense, subject to the Cap.

350 D. WALK THROUGH INSPECTION: Buyer reserves the right to have a walk through inspection prior to settlement  
351 to determine the Property is in substantially the same condition as of the date of this Agreement, and all  
352 appliances, heating and cooling equipment, plumbing and electrical systems, and all other equipment ("Walk  
353 Through Items") are in working order at time of settlement or possession, whichever occurs first. ☐ BUYER /  
354 ☒ SELLER shall be responsible for providing all utilities required for such inspection. Subject to the Cap, Seller  
355 shall repair all non-working Walk Through Items at Seller's expense unless waived. Neither Listing Firm nor  
356 Selling Firm shall be responsible for determining that the Walk Through Items are in working order.

357 14. CONTINGENCIES: This Agreement shall be contingent upon the following conditions and those noted in the  
358 attached contingency addendum/addenda, if any:

359 A. CONDOMINIUM: Buyer and Seller acknowledge that the Property (check as applicable):

- 360 1. ☒ IS NOT in a community subject to the Virginia Condominium Act (the "Condo Act").
- 361 2. ☐ IS a resale of a Condominium Unit which currently has mandatory monthly fees of approximately \$  
362 \_\_\_\_\_ 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  
363 waived.
- 364 3. ☐ WILL BE in a community subject to the Condo Act.
- 365 (i) Until delivery to Buyer of a current Public Offering Statement for the Condominium, this Agreement shall  
366 constitute a nonbinding reservation agreement only and creates no obligation on the part of Buyer and  
367 is subject to cancellation without penalty by Buyer in Buyer's sole discretion in accordance with  
368 Section (ii) below.
- 369 (ii) Upon delivery to Buyer of a current Public Offering Statement, Buyer shall be deemed to have entered  
370 into a binding purchase agreement subject to Buyer's right to cancel within five (5) days after delivery.  
371 If Buyer elects to cancel, Buyer may do so by written notice given in accordance with paragraph 22,  
372 within the five (5) day period. Such cancellation shall be without penalty, and the Deposit shall be  
373 promptly refunded in its entirety, without interest. Buyer's rights under this paragraph may not be  
374 waived.
- 375 4. ☐ IS a resale of a condominium unit in a condominium consisting of 3 or fewer units and as such is exempt  
376 from the requirements in the Condo Act relating to a resale certificate and/or a public offering statement.  
377 Prior to executing this Agreement, Buyer is advised to address all concerns relating to the Property being a  
378 condominium unit, including without limitation and by way of explanation, issues related to hazard and  
379 liability insurance, current and proposed maintenance and repairs, common expenses, restrictions and  
380 agreements contained in the documents creating the condominium and similar items.

381 B. PROPERTY OWNERS' ASSOCIATIONS: Buyer and Seller acknowledge that the Property (check one):

- 382 1. ☒ IS NOT in a community subject to the Virginia Property Owners' Association Act (the "POAA").
- 383 2. ☐ IS in a community which currently has mandatory monthly fees of approximately \$  
384 \_\_\_\_\_ and is subject to the POA Act. The Property Owners' Association Addendum is attached to and shall become  
385 part of this Agreement. Buyer's rights under this paragraph may not be waived.
- 386

387 C. CO-OPERATIVE:

- 388 1. ☒ IS NOT in a community subject to the Virginia Real Estate Cooperative Act (the "Co-Op Act").
- 389 2. ☐ IS a Cooperative Unit which currently has mandatory monthly fees of approximately \$  
390 \_\_\_\_\_ and is subject to the Co-Op Act and the Cooperative Interest Addendum is attached to and shall become  
391 part of this Agreement.

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**D. PROPERTY INSPECTIONS:** Buyer may request, at Buyer's expense, the following inspections:

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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:**

See Amendment/Addendum One of One made an integral part of this agreement.

15. **ITEMS TO CONVEY:** All fixtures constituting a part of the "Property" and any personal property which convey as specifically described in the Agreement or as noted below are included in the Purchase Price and shall be transferred free of liens:

**Appliances:**

- ☐ Gas Range
- ☐ Electric Range
- ☐ Microwave Oven
- ☐ Refrigerator(s) # \_\_\_\_\_
- ☐ Dishwasher
- ☐ Ice Maker (Standalone)
- ☐ Freezer
- ☐ Clothes Dryer
- ☐ Clothes Washer

**Windows:**

- ☐ Blinds
- ☐ Curtain/Drapes
- ☐ Hardware

**Equipment:**

- ☐ Humidifier
- ☐ Water Softener
- ☐ Well Pump & Equipment
- ☐ Sump Pump
- ☐ Window A/C Unit(s) # \_\_\_\_\_
- ☐ Smoke Detector # \_\_\_\_\_
- ☐ Playground Equipment
- ☐ Ceiling Fan(s) # \_\_\_\_\_
- ☐ Satellite Dish & Hardware

**Other:**

- ☐ # \_\_\_\_\_ Trash Container(s)
- ☐ # \_\_\_\_\_ Recycling Container(s)
- ☐ Fuel in Tanks (Oil, Propane)

**Dock, Pool and Hot Tub:**

- ☐ Floating Dock
- ☐ Boat Lift # \_\_\_\_\_
- ☐ Pool Equipment
- ☐ Pool Cover
- ☐ Hot Tub Equipment
- ☐ Hot Tub Cover

**Fireplace:**

- ☐ Screen
- ☐ Doors
- ☐ Equipment / Tools
- ☐ Gas Logs
- ☐ Wood Stove



442 ADDITIONAL ITEMS / NOTES:

443 none  
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448 16. CONFIRMATIONS AND DISCLOSURES: Buyer and Seller acknowledge by their initials below receipt of their REIN  
450 Consumer Disclosure Information Form prior to entering into this Agreement as well as the following disclosures.

451 Neither Seller, Real Estate Information Network, Inc. ("REIN"), Listing Firm, Selling Firm, nor their employees  
452 or agents will be held responsible for Buyer's failure to have investigated and evaluated the impact of any  
453 of the disclosures made in this Agreement on the Property, including those additional disclosures on the  
454 Consumer Disclosure Information Form.

455 A. CONFIRMATION OF BROKERAGE RELATIONSHIP: The parties confirm in connection with this transaction  
456 that Listing Firm and Selling Firm have represented the party or parties indicated below. Notwithstanding the  
457 provisions of paragraph 17 of this Purchase Agreement relating to the payment of brokerage fees, the parties  
458 agree that one of the following may apply:  
459 (Check appropriate box.)

460 ☐ 1. Listing Firm, Selling Firm, and their salesperson(s) represent Seller as their client. Buyer is a customer/  
461 unrepresented party and has signed the Disclosure of Brokerage Relationship to Unrepresented  
462 Party form.

463 ☒ 2. Listing Firm and its salesperson(s) represent Seller. Selling Firm and its salesperson(s) represent Buyer.

464 ☐ 3. Listing Firm and its salesperson(s) represent Seller. Selling Firm and its salesperson(s) represent  
465 neither Buyer nor Seller.

466 ☐ 4. The Parties confirm that Selling Firm and its salesperson(s) represent Buyer as their client. Seller is a  
467 customer/unrepresented party and has signed the Disclosure of Brokerage Relationship to  
468 Unrepresented Party form.

469 ☐ 5. Listing Firm and its salesperson(s) represent both Buyer and Seller as DUAL REPRESENTATIVES, by  
470 mutual agreement. Buyer and Seller have signed the Disclosure of Dual Representation Form  
471 attached; OR

472 ☐ 6. Listing Firm and its broker represent both Buyer and Seller as DUAL REPRESENTATIVES, by mutual  
473 agreement, but SEPARATE AGENTS of Listing Firm have been designated to represent Buyer and  
474 Seller as DESIGNATED REPRESENTATIVES. Buyer and Seller have signed the Disclosure of  
475 Designated Representatives Form attached.

476 ☐ 7. Buyer and Seller acknowledge that no brokerage relationship exists with any agent involved in this  
477 transaction. Both Buyer and Seller are unrepresented customers.

478 B. AIRCRAFT NOISE ZONE / ACCIDENT POTENTIAL ZONE DISCLOSURE: ☐ N/A

479 Aircraft noise and/or accident zones are subject to change. If the Property is located in Southside Hampton  
480 Roads, Buyer and Seller hereby acknowledge that as of the date of this Agreement current maps indicate the  
481 Property is located in an Aircraft Noise Zone <85  
482 and/or Aircraft Accident Potential Zone none. Noise

483 attenuation measures for new residential construction or modifications to nonconforming structures may be  
484 required and height restrictions may have been imposed in accordance with city ordinances. If the Property is  
485 located in the City of Hampton, the Property ☐ DOES / ☒ DOES NOT, either partially or wholly, lie within a  
486 Noise Contour District as mandated by the City of Hampton, and may be subject to high noise levels due to its  
487 proximity to flight operations. The Real Estate Transfer Disclosure for Properties Located in a Locality in Which  
488 a Military Air Installation is Located is attached, as required by § 55-519.1 of the Code of Virginia.

489 C. VIRGINIA RESIDENTIAL PROPERTY DISCLOSURE ACT: The Virginia Residential Property Disclosure Act  
490 (the "Act") requires sellers of residential real property to disclose to buyers certain information known to the  
491 sellers regarding the condition of the property to be purchased. Seller and Buyer acknowledge that a Residential  
492 Property Disclosure Statement, attached hereto, has been provided by Seller to Buyer prior to ratification of this



493 Agreement. If the Property is an exempted property pursuant to § 55-518 of the Act then this paragraph does  
494 not apply.

495 D. AGENCY INTEREST DISCLOSURE: Except as otherwise disclosed below neither Listing Agent nor Selling  
496 Agent, any member of such agent's family, or such agent's firm, any member of such firm, or any entities in  
497 which such agent has an ownership interest is acquiring or attempting to acquire, or is selling the Property.  
498 Except as disclosed below, neither Seller nor Buyer is a licensed real estate agent:

499 none

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504 E. MEGAN'S LAW DISCLOSURE: Buyer(s) should exercise whatever due diligence they deem necessary with  
505 respect to information on any sexual offenders registered under Chapter 23 (§ 19.2-387 et seq.) of Title 19.2  
506 whether the owner proceeds under subdivision 1 or 2 of subsection A of § 55-518. Such information may be  
507 obtained by contacting your local police department or the Department of State Police, Central Criminal Records  
508 Exchange, at 804-674-2000 or <http://sex-offender.vsp.virginia.gov/sor>.

509 F. MECHANICS LIEN: Virginia law (§ 43-1 et seq.) permits persons who have performed labor or furnished  
510 materials for the construction, removal, repair or improvement of any building or structure to file a lien against  
511 the Property. This lien may be filed at any time after the work is commenced or the material is furnished, but not  
512 later than the earlier of (i) ninety (90) days from the last day of the month in which the lien or last performed work  
513 or furnished materials or (ii) ninety (90) days from the time the construction, removal, repair or improvement is  
514 terminated. Seller warrants that all bills related to any repairs or improvements made to the Property have been  
515 paid or will be paid by Seller from the proceeds at settlement. AN EFFECTIVE LIEN FOR WORK PERFORMED  
516 PRIOR TO THE DATE OF SETTLEMENT MAY BE FILED AFTER SETTLEMENT. LEGAL COUNSEL SHOULD  
517 BE CONSULTED.

518 G. SQUARE FOOTAGE/ACREAGE AND/OR OTHER PROPERTY MEASUREMENTS: Any representation of  
519 square footage, acreage and/or other property measurements are approximate, subject to variation based on  
520 method of measurement, and should be independently confirmed by Buyer. Buyer acknowledges and agrees  
521 that Buyer has undertaken any and all investigations Buyer desires with respect to obtaining measurements of  
522 the Property, including the square footage of the rooms, the acreage of the lot or the other measurements related  
523 to the Property and finds any and all such measurements to be acceptable and shall not use the size, acreage  
524 or square footage of the Property as the basis for any termination of this Agreement. Buyer agrees to waive,  
525 release and discharge all parties to this Agreement, including REIN, from any and all claims that the square  
526 footage, acreage or other measurements of the Property were incorrectly stated in any literature concerning the  
527 Property generated by REIN's MLS Systems, including Listing and / or Tax reports.

528 H. DEFECTIVE DRYWALL: If a Seller of residential real property has actual knowledge that the real property being  
529 sold has "Defective Drywall", Section 55-519.2 of the Code of Virginia requires Seller to provide a written  
530 disclosure to Buyer that the Property has "Defective Drywall". "Defective Drywall" is defined in Section 36-166.1  
531 of the Code of Virginia. The Defective Drywall Disclosure Statement is attached to this Agreement as required  
532 by §55-519.2 of the Code of Virginia, if applicable.

533 I. PENDING BUILDING OR ZONING VIOLATIONS: Seller ☐ HAS or ☒ DOES NOT HAVE actual knowledge  
534 that the Property has pending enforcement actions pursuant to the Uniform Statewide Building Code.  
535 Section 55-519.2:1 of the Code of Virginia states that if the Seller of a residential dwelling unit has actual  
536 knowledge of any pending enforcement actions pursuant to the Uniform Statewide Building Code that affect the  
537 safe, decent, sanitary living conditions of the Property of which the Seller has been notified in writing by the  
538 locality, or any pending violation of the local zoning ordinance that the violator has not abated or remedied under  
539 the zoning ordinance, within a time period set out in the written notice of violation from the locality or established  
540 by the court of competent jurisdiction, the Seller shall provide to a prospective Purchaser a written disclosure  
541 that so states. Such disclosure shall be provided to the Purchaser on a form provided by the Real Estate Board  
542 on its website and otherwise in accordance with this chapter.

543 J. PROPERTY PREVIOUSLY USED TO MANUFACTURE METHAMPHETAMINE: If a Seller of residential real  
544 property has actual knowledge that the Property being sold (1) was previously used to manufacture  
545 methamphetamine and (2) has not been cleaned up in accordance with state guidelines, the Seller is required  
546 to provide a written disclosure to Buyer in accordance with Section 55-519.4 of the Code of Virginia. Pursuant  
547 to Section 32.1-11.7 of the Code of Virginia, the Virginia Board of Health established Guidelines for Cleanup of  
548 Residential Property Used to Manufacture Methamphetamine. If applicable, the Disclosure Statement for

549 Residential Property Previously Used to Manufacture Methamphetamine is attached to this Agreement as  
550 required by the Code of Virginia.

551 17. **BROKERAGE FEE:** Selling Firm and Listing Firm are intended to be, and are, third party beneficiaries of this  
552 Agreement with respect to payment of the brokerage fee and are entitled to payment at settlement as provided by  
553 separate agreement(s). The settlement agent shall disburse the brokerage fee to Listing Firm and Selling Firm at  
554 settlement.

555 18. **DEFAULT:** Subject to the provisions of paragraph 19 below, if either party defaults under this Agreement, the  
556 nondefaulting party may pursue, in such party's discretion, all remedies available to the nondefaulting party at law  
557 or in equity. In the event of default, Escrow Agent shall pay the Deposit to the nondefaulting party in accordance  
558 with paragraph 5B and the nondefaulting party shall have the right to pursue such other rights and remedies against  
559 the defaulting party as the nondefaulting party may have, both legal and equitable. All of the rights and remedies  
560 hereunder are cumulative. The defaulting party shall be liable for the brokerage fee due Listing Firm and Selling  
561 Firm. In any action arising from or related to this Agreement, including, but not limited to, any suit to secure the  
562 release of the Deposit from escrow, the prevailing party shall be entitled to receive from the non-prevailing party or  
563 parties, reasonable attorneys' fees, costs (including expert fees) and expenses incurred by such prevailing party.

564 19. **DISPUTE RESOLUTION:** Prior to instituting any litigation, the parties agree any dispute or claim arising out of, or  
565 relating to, this Agreement, the breach of this Agreement or the services provided in connection with this Agreement,  
566 shall be submitted to mediation in accordance with, and as described in the REIN Consumer Disclosure Information  
567 Form, previously given to the parties as acknowledged by their signatures below, the terms of which relating to  
568 mediation are hereby incorporated in this Agreement. Disputes shall include, by way of illustration and not limitation,  
569 claims arising from misrepresentations made by the parties to this Agreement in connection with the sale, purchase,  
570 financing, condition or other aspects of the Property, including, allegations of concealment, misrepresentation,  
571 negligence and/or fraud.

572 The following matters are excluded from mediation under the preceding paragraph: (a) judicial or non-judicial  
573 foreclosure or other action or proceeding to enforce a deed of trust, mortgage, or land contract; (b) an unlawful  
574 detainer action; (c) the filing or enforcement of a mechanics lien; (d) any matter which is within the jurisdiction of a  
575 probate court; or (e) violation of a state's real estate license laws. The filing of a judicial action to enable the recording  
576 of a notice of pending action, or other provisional remedies, shall not constitute a waiver of the right to mediate under  
577 this provision, nor shall it constitute a breach of the duty to mediate. If the parties cannot reach a mutually agreeable  
578 settlement through mediation, they are free to arbitrate or litigate their dispute as if the mediation never took place.  
579 The terms and provisions of this paragraph 19 shall survive settlement and conveyance of title to the property for a  
580 period of five (5) years from the date of this Agreement pursuant to the terms of § 8.01-246 of the Code of Virginia  
581 of 1950, as amended.

582 20. **OTHER PROVISIONS:**  
583 none

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587 21. **NON ASSIGNMENT:** This Agreement may not be assigned by Buyer without the written consent of Seller.

588 22. **NOTICES:** Except as provided below, all notices required to be sent to Seller under this Agreement shall be sent to  
589 Listing Firm and all notices to be sent to Buyer shall be sent to Selling Firm. Except as provided below, all notices  
590 required to be sent under this Agreement may be sent by facsimile, or other electronic means, by hand delivery or  
591 by prepaid U.S. Certified Mail, Return Receipt Requested and shall be effective as of the receipt of the notice if by  
592 facsimile or upon delivery if done by person, or on the third day following the date of mailing if mailed by Certified  
593 Mail, Return Receipt Requested. Notices given pursuant to the Property Owners' Association 600 Addendum to  
594 Purchase Agreement, the Condominium Addendum to Purchase Agreement or the Cooperative Interest Addendum  
595 to Purchase Agreement shall be given in accordance with their terms and notices given with respect to disputes  
596 concerning disposition of the Deposit shall be given in accordance with VREB regulations. Notices addressed to  
597 Selling Firm and Listing Firm shall be sent to the address set forth next to their signature below.

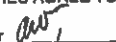
598 23. **MISCELLANEOUS:** Paragraph headings and section headings of this Agreement are inserted for convenience only  
599 and shall not be deemed to constitute a part of this Agreement. The term "day" shall be deemed to mean any  
600 day of the week, Monday through Sunday, both inclusive regardless of legal or religious holiday. The term

601 "business banking day" shall mean Monday through Friday, except federal holidays. "Day" shall mean 12:00  
602 a.m. (midnight) until 11:59 p.m. Eastern Time. Any agreed upon timeframe shall begin at 12:00 a.m.(midnight) after  
603 the event triggering the commencement of the timeframe and end at 11:59 p.m. Any changes must be made by  
604 written amendment. This Agreement and any exhibits, addenda, modifications or amendments may be executed  
605 i) in any number of counterparts and by facsimile or other electronic means, except with respect to digital signatures,  
606 and ii) by different parties in separate counterparts, each of which when so executed and delivered shall be deemed  
607 original, but all such counterparts shall constitute but one and the same instrument. To the extent any handwritten  
608 or typewritten terms in this Agreement conflict with, or are inconsistent with the printed terms of this Agreement, the  
609 handwritten or typewritten terms shall control. This Agreement is executed under seal. The terms of this Agreement  
610 and the addenda, exhibits, modifications or amendments referenced herein or which reference this Agreement  
611 constitute the entire agreement and there are no other agreements between the parties. Seller and Buyer both  
612 authorize Listing Firm and/or Selling Firm to disclose financial information related to the sale of the Property,  
613 including information related to settlement expenses (but not personal financial information) to the multiple listing  
614 service and/or real estate appraisers. The waiver by Seller of any terms, conditions, or provisions of this Agreement  
615 shall not be construed as a waiver of any other or subsequent term, condition or provision of this Agreement. If any  
616 term, condition, or provision of this Agreement is declared illegal or invalid for any reason by a court of competent  
617 jurisdiction, the remaining terms, conditions and provisions of the Agreement shall, nevertheless, remain in full force  
618 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



Seller



19 THIS PROPERTY IS OFFERED WITHOUT RESPECT TO RACE, COLOR, RELIGION, SEX, HANDICAP,  
20 FAMILIAL STATUS, ELDERLINESS, OR NATIONAL ORIGIN.

21 THIS IS A LEGALLY BINDING AGREEMENT; IF NOT UNDERSTOOD, SEEK LEGAL ADVICE.

22 BUYER(S) SIGNATURE(S): By: Ayanna R. Williams 10/25/17 (Date)  
23 (For) Edward G. Henflin, P.E., General Manager  
24 Ayanna R. Williams, R.E. Ngrl. (Date)  
25

26 BUYER(S) Address: 1434 Air Rail Avenue, Virginia Beach, VA 23455  
27

28 SELLING AGENT SIGNATURE: no selling agent (Date)  
29

30 Selling Firm Name: no selling firm

31 Selling Firm Address: na

32 REIN ID# na VA License# na

33 Selling Agent Name: no selling agent

34 REIN ID# na VA License# na  
35

36  
37 SELLER(S) SIGNATURE(S): Shenna Alexander signed by alexander@shapointing.com  
38 I am the author of this document.  
39 10/17-10/30 10:06:39 (Date)  
40

41 SELLER(S) Address: RE/MAX Alliance  
42

43 LISTING AGENT SIGNATURE: Willie H. Colston 10/25/2017 (Date)  
44 Willie H. Colston

45 Listing Firm Name: RE/MAX Alliance

46 Listing Firm Address: 100 Volvo Parkway, #207 Chesapeake, VA 23320

47 REIN ID# 5200 VA License# 0226008863

48 Listing Agent Name: Willie H. Colston

49 REIN ID# 1594 VA License# 0225003140

\*seller name\* The Bank of New York Mellon FKA The Bank of New York as Trustee for the  
Certificateholders of CWALT, Inc Alternative Loan Trust 2008-OC5, Mortgage  
Pass-Through Certificates, Series 2008-OC5

# AMENDMENT / ADDENDUM TO PURCHASE AGREEMENT

One of One



This document forms an integral part of the Purchase Agreement ("Agreement") dated 10/11/17,  
between Hampton Roads Sanitation District (HRSD) ("Buyer") and  
\*see seller name top of this page\* ("Seller")  
and no selling firm ("Selling Firm")  
and RE/MAX Allegiance ("Listing Firm")  
for all that certain piece, parcel or lot of land described as follows: 207-211 Choate Street, Portsmouth, VA 23704  
("Property").

The undersigned Buyer and Seller hereby agree to the following:

This addendum is made an integral part of the subject property purchase agreement, with  
reference to section 14, Item E - Other Contingencies, page 9 of 14, of the REIN purchase  
agreement.

## E. OTHER CONTINGENCIES

1. Subject to approval by the HRSD Commission, scheduled meeting on 10/31/2017  
or subsequent meeting of the Commission.
2. Subject to receipt and review of title report which is satisfactory to Purchaser at  
Purchaser's sole discretion.
3. Subject to Purchaser's satisfactory review and acceptance of all taxes, fees and  
assessments under paragraph 3(e) of the Contract Sales Addendum dated 10/11/17.
4. Under Paragraph 16(b) of the Contract Sales Addendum Seller's Sole and  
Exclusive Remedy shall be the retention of the Deposit.
5. Settlement date of 11/15/17 under paragraph 8 is contingent upon Purchaser  
receiving approval and authority from the HRSD Commission on 10/31/17.

Except as expressly set forth above, all of the other terms and conditions of the Agreement not modified above  
shall remain unchanged and in full force and effect.

no selling firm  
(Selling Firm)

By: \_\_\_\_\_  
(Date)

RE/MAX Allegiance  
(Listing Firm)

By: W. H. Colston 10/25/2017  
(Date) (Seller)

(Buyer)

By: Ayanna L. Welton, RE/MAX 10/25/17  
(Buyer) (Date)

Shane Alexander 10/26/2017  
(Seller) (Date)

FOR OPTIONAL USE AS PARTIES MAY ELECT



SHELLPOINT MORTGAGE SERVICING  
Attn: REO Department  
55 Beattie Place, Suite 110  
Greenville NC 29601

REO #: 578163210

**CONTRACT SALES ADDENDUM**

\* seller name: The Bank of New York Mellon FKA The Bank of New York, as Trustee for the Certificateholders of CWALT, Inc  
Alternative Loan Trust 2008-OC5, Mortgage Pass-Through Certificates Series 2008-OC5

This Addendum is to be made part of, and incorporated into, the Real Estate Purchase Contract dated 10/11, 2017 (the "Contract"), between "see seller name above" ("Seller") and Hempton Roads Sanitation District (HRSD) ("Purchaser") for the property and improvements located at the following address: 207-211 Choate Street, Portsmouth, VA 23704 ("Property")

IN THE EVENT ANY PROVISIONS OF THIS ADDENDUM CONFLICT IN WHOLE OR IN PART WITH THE TERMS OF THE CONTRACT OF SALE OR ANY PRIOR ADDENDUM OR AMENDMENT THERE TO (COLLECTIVELY, THE "CONTRACT"), THE PROVISIONS OF THIS ADDENDUM SHALL CONTROL.

1. Property was acquired via Foreclosure Sale and Foreclosure Deed may be pending recordation with the county. Close date is contingent on Foreclosure deed recording.

2. Title to the property shall be conveyed by either Special Warranty Deed or Quit Claim Deed, or equivalent documents accepted where the Property is located. It is the intent of the Seller to deliver insurable title to the subject property through the conveyance of the Special Warranty Deed or comparable instrument. The comparable instrument, at a minimum, must contain the following language: "Grantor covenants that it is seized and possessed of the said land and has a right to convey it, and warrants the title against the lawful claims of all persons claiming by, through and under it, but not further otherwise".

3. Notwithstanding anything in the attached contract (hereinafter, the "Contract") to the contrary, the Special Warranty Deed to be delivered by the Seller at closing shall include the following "subject to" provisions:

The following reservations from and exceptions to this conveyance and the warranty of title made herein shall apply.

- All easements, rights-of-way and prescriptive rights whether of record or not, pertaining to any portion(s) of the herein described property (hereinafter, the "Property");
- All valid oil, gas and mineral rights, interests or leases, royalty reservations, mineral interest and transfers of interest of any character, in the oil, gas or minerals of record in any county in which any portion of the Property is located;
- All restrictive covenants, terms, conditions, contracts, provisions, zoning ordinances and other items of record in any county in which any portion of the Property is located, pertaining to any portion(s) of the Property, but only to the extent that same are still in effect;
- All presently recorded instruments (other than liens and conveyances by, through or under the Grantor) that affect the Property and any portion(s) thereof;
- Ad valorem taxes, fees and assessments, if any, for the current year and all prior and subsequent years, the payment of which Grantee assumes (at the time of transfer of title), and all subsequent assessments for this and all prior years due to change(s) in land usage (including, but not limited to, the presence or absence of improvements, if any, on the Property), ownership, or both, the payment of which Grantee assumes; and
- Any conditions that would be revealed by a physical inspection and survey of the Property.

Buyer's Initials

*AW*

Seller's Initials

*SA*

4. Seller shall select the title and closing agent. The Seller shall pay the title examination fee, the premium, and any other charges and fees for the owner's title insurance policy. Because Seller agrees to pay the premium and any other charges and fees for the owner's title insurance policy, Seller shall have the right to select the title company that shall issue the owner's title policy. Buyer shall pay their customary closing fee to the closing/title agent. If Buyer obtains a mortgage loan in connection with this purchase, the Buyer will pay any premium of a mortgagee title policy. With respect to the purchase of any mortgagee title policy, Buyer specifically acknowledges:

- This Agreement in no way limits Buyer's right to obtain a mortgagee's title policy from any title company of Buyer's choosing;
- Buyer understands Seller is obtaining an owner's title policy and Buyer may, at his own option, incur less expense by obtaining a mortgagee title policy from the same title company;
- Any costs savings or other benefit that may accrue to Buyer as a result of Buyer's purchase of a mortgagee's title policy from the same title company selected by Seller to issue the owner's title insurance policy in no way abrogates Buyer's right to obtain mortgagee's title insurance from any title company of Buyer's choosing;
- Buyer has not been penalized or rewarded by Seller for Buyer's decision to purchase a mortgagee's title policy from any title company of Buyer's choosing;

- e) Seller has not in any manner directly or indirectly required Buyer, as a condition of sale to purchase a mortgagee title policy from any particular title company.

The Buyer is entitled to legal representation at the closing and may elect to have such representation at the Buyer's expense. All closing transactions will be held at the Title/Closing Agent selected by the Seller. It is Seller's intent to deliver owner's title insurance policy in lieu of an abstract in the customary abstract states. The Buyer hereby accepts title insurance in lieu of an abstract if applicable. In the event there is a requirement for the abstract to be updated, the associated expense will be a Buyer expense on the HUD 1 Settlement Statement. As required by the Real Estate Settlement Procedures Act of 1974, Buyer acknowledges that Seller has not directly or indirectly required Buyer, as a condition of sale, to purchase a mortgagee title insurance policy from any particular title company. Buyer may elect to obtain such insurance from a company of Buyer's choice and Buyer shall pay, at closing, the title insurance premium for such policy. Buyer further acknowledges that Buyer's election to obtain such insurance from a company of Buyer's choice has not been limited in any manner regardless of any discount or other cost savings that may accrue to Buyer by purchasing a mortgagee title policy from the same title company that issued the owner's title policy.

5. The undersigned Buyer and Seller hereby:

- a) Authorize and direct any title company or closing agent providing services in connection with this transaction (the "Closing Agent") to furnish a copy of any HUD-1 Settlement Statement generated in connection with the closing of this transaction, whether unsigned or signed by the parties, showing both the Buyer's and Seller's sides of the transaction to the closing representative for the Seller;
- b) Agree that the Closing Agent shall have no liability under the Gramm-Leach-Bliley Act, any other statute or regulation relating to privacy or information disclosure or otherwise as a result of its compliance with the direction to release aforementioned HUD-1 Settlement Statements to the closing representative for the seller; and
- c) Agree that the closing representative for the seller may furnish such HUD-1 Settlement Statements to any authorized agent of the Seller.

Buyer's Initials

*AW*

Seller's Initials

*SA*

6. Corporate Disclosures:

- a) Seller acquired the Property either as a result of a foreclosure action, result of like or similar action, i.e. deed in lieu or as part of a purchase from a prior servicer and that the total price set forth in the contract may reflect deferred maintenance. Accordingly, Seller has not conducted their own inspections or has any personal knowledge of the condition of the property other than as may be disclosed in the Inspection Report (as hereinafter defined), if any, that has been prepared for the Property. Purchaser acknowledges that there has been no representation(s) by Seller, or any other person acting as Seller's representative and/or Purchaser's representative regarding the condition of the Property, any of the appliances or structural components that may be contained therein, its fitness for general or specific use, or any other matter affecting the Property including whether the property will be occupied at the time of closing. If an inspection report has been obtained by or on behalf of Seller or Seller's representative (the "Inspection Report"), such Inspection Report may be provided to Purchaser for Purchaser's information only and shall not be deemed a part of the Contract of Sale. If the Inspection Report has been provided to Purchaser, no representation or warranty is made as to the accuracy and completeness of such report.
- b) Neither Seller nor any person acting as Seller's representative has occupied the Property and neither warrants or represents that the Property or any alterations or additions which may have been made to the Property conform to local building codes, zoning requirements or any other applicable laws, rules or regulations.
- c) Purchaser acknowledges that Purchaser has the opportunity to inspect, examine and make a complete review of the Property prior to the close of escrow of the Contract and assumes all responsibility and liability for occupants and occupancy status after close of escrow. Purchaser will rely solely on Purchaser's inspection and review to evaluate the condition of the Property.
- d) Purchaser hereby acknowledges that Seller shall not be providing Purchaser with a Real Estate Transfer Disclosure Statement and/or a Certificate of Occupancy with respect to the Property. Purchaser hereby waives any requirement that Seller furnish Purchaser with any such disclosure statement and/or a Certificate of Occupancy and hereby releases Seller from any and all liability resulting from the non-delivery of such disclosure statement and/or a Certificate of Occupancy.



- e) Purchaser acknowledges that it is Purchaser's sole responsibility to obtain inspection reports by qualified professionals on the appliances, structural components, and alterations or additions to the Property and to determine the presence of any toxic or hazardous substances on the Property, including, but not limited to, mold, radon, asbestos and lead paint, that would make it uninhabitable or dangerous to the health of the occupants or otherwise not in compliance with law, or any other factors regarding the condition of the Property about which Purchaser may be concerned.
- f) PURCHASER UNDERSTANDS, ACKNOWLEDGES, AND AGREES THAT NEITHER SELLER NOR ANY PERSON ACTING AS SELLER'S REPRESENTATIVE IS MAKING ANY WARRANTIES OR REPRESENTATIONS, EITHER EXPRESS OR IMPLIED, AS TO THE CONDITION OF THE PROPERTY. THE PROPERTY IS BEING CONVEYED TO PURCHASERS IN ITS "AS IS, WHERE IS" CONDITION. IT IS THE RIGHT AND RESPONSIBILITY OF THE PURCHASER TO INSPECT THE PROPERTY AND PURCHASER MUST SATISFY HIMSELF/HERSELF AS TO THE CONDITION OF THE PROPERTY.

Buyer's Initials

aw

Seller's Initials

SA

- g) Mold, mildew spores and/or other microscopic organisms and/or allergens (collectively referred to in this Agreement as "Mold") are environmental conditions that are common in residential properties and may affect the Property. Mold, in some forms, has been reported to be toxic and to cause serious physical injuries, including but not limited to, allergic and/or respiratory reactions or other problems, particularly in persons with immune system problems, young children and/or elderly persons. Mold has also been reported to cause extensive damage to personal and real property. Mold may have been removed or covered in the course of any cleaning or repairing of the Property.
- h) The Purchaser acknowledges that, if Seller, or any of Seller's employees, contractors, or agents cleaned or repaired the Property or remediated Mold contamination, that Seller does not in any way warrant the cleaning, repairs or remediation. Purchaser accepts full responsibility for all hazards that may result from the presence of Mold in or around the Property. The Purchaser is satisfied with the condition of the Property notwithstanding the past or present existence of Mold in or around the Property and Purchaser has not in any way, relied upon any representations of Seller, Seller's employees, officers, directors, contractors, or agents concerning the past or present existence of Mold in or around the property.

7. In states where applicable, Purchaser acknowledges that time is of the essence regarding the closing of this Contract. Should Purchaser, through no fault of Seller, fail to close upon the Property on or before the closing date stated in the Contract for any reason whatsoever, the Seller can agree to extend the Contract. Seller may assess a penalty of a daily per diem for each day beyond said closing date for which the Purchaser requests and Seller agrees on, demand escrow proceeds be non-refundable to Purchaser. Either penalty will be determined by the seller on a case by case basis. Any monies so paid must be paid no later than the original closing date and shall be paid to Seller as non-refundable earnest money. These monies shall be paid in addition to the purchase price and may not be credited in any way to the original amounts due to Seller.

8. This Section 8 shall be in effect and incorporated into the Contract only when initialed by both Purchaser and Seller:

Purchaser's Initials: (

aw)

) / (

Seller's Initials: (

SA)

If the Contract of Sale is "Subject to Financing", then Purchaser may obtain financing from the lender of purchaser's choice. However, within seventy-two (72) hours of the execution of the Contract of Sale, Purchaser agrees to provide evidence to Seller that a lender has pre-approved Purchaser for financing. Purchaser shall pay for and instruct the lender to which such mortgage application is made to order an appraisal immediately upon submission by Purchaser of an application for a mortgage loan. Proof of lender's final unconditional commitment to lend must be provided to Seller within 21 days of execution of this Addendum to Contract of Sale.

9. Buyer(s) is purchasing the Property in its current "As Is" condition subject only to such repairs as may be expressly required under the Contract or agreed to in writing by Seller and Buyer(s) prior to closing. Should any lender or any insuring equity or agency require that certain repairs to the Property be made or that certain other conditions be met, the Seller, at its sole option, may comply with such requirement or terminate the Contract. Furthermore, should any FHA Conditional Commitment or VA Certificate of Reasonable Value vary from the agreed upon purchase price of the Property, then Seller, at its sole option, may terminate the Contract. Notwithstanding that repairs may be made to the Property pursuant to the



terms of this Contract and prior to closing, Buyer(s) acknowledges that Seller has not made and shall not make any representations or warranties of any character as to the necessity for any such repairs, or the

Buyer's Initials awSeller's Initials SA

absence of any necessity therefore, or of the adequacy of any such repairs upon completion thereof. Buyer(s) agrees that it shall be solely the responsibility of Buyer(s) to inspect and verify, prior to closing, the completion and adequacy of any and all such repair.

10. Purchaser agrees to indemnify Seller and Seller's representatives and fully protect, defend and hold Seller and Seller's representatives harmless from and against any and all claims, liens, losses, damages, liabilities, costs, injuries, attorney's fees and expenses of every kind and nature that may be made against Seller or the Property for any liens on the Property, any damage to the Property or any injury to Purchaser or other persons that may arise from repairs, replacements or treatments made by or for the benefit of Purchaser prior to closing, and any failure of Purchaser to comply with the provisions of paragraph 13 hereof.

11. If a Survey is requested by Buyer(s) or Lender, Buyer agrees to pay for said survey. A survey is not a condition of this transaction.

12. Taxes:

- a) **Sellers Right to Contest Taxes:** Seller shall have the unrestricted right to contest the amount of or obligation to pay any ad valorem real or personal property taxes, real or personal property assessments, or assessments or dues of any condominium, planned unit development or similar community or other homeowners' association, (collectively, "Taxes") for any calendar year, fiscal year, or other accounting period for which Taxes are assessed or levied (a "Tax Period") that includes the date of the close of escrow on the Property (the "Closing Tax Period") or that precedes the date of the close of escrow on the Property (the "Closing"). Seller may contest Taxes by any judicial, administrative, or other process that Seller chooses. If requested by Seller, Purchaser shall join in any proceeding to contest Taxes to the extent necessary to permit Seller to exercise its rights under this Agreement. Seller shall have no duty to contest Taxes, and may dismiss, settle, or otherwise resolve any matter relating to contested Taxes on whatever terms Seller chooses.
- b) **Entitlement to Refund:** Any refund of contested Taxes for the Closing Tax Period or any prior Tax Period shall be paid to Seller, and Purchaser hereby irrevocably assigns to Seller any right, title, or interest it may have in any refund of contested Taxes for all such Tax Periods. If requested by Seller, Purchaser shall execute whatever endorsements or other documents may be necessary to accomplish the refund of such contested Taxes to Seller. Notwithstanding anything to the contrary in this Section 11.B., however, Seller shall not be entitled to any refund of Taxes that are attributable solely to any change in land usage or ownership of the Property occurring at or after Closing, all of which shall be paid by Purchaser.
- c) **ADJUSTMENTS FOR CLOSING TAX PERIOD:** If a contest of Taxes by Seller is concluded before Closing, the proration of the contested Taxes as provided in Section 12.B. above shall be accomplished by taking into account any change in valuation of the Property or the amount of contested Taxes for the Closing Tax Period. If a contest of Taxes by Seller is concluded after Closing, then notwithstanding the provisions of Section 12.B. above, an appropriate adjustment payment shall be made by Purchaser or Seller to the other so that taking into account the adjustment payment, each will have paid (or been debited for) the revised amount of Taxes for the Closing Tax Period that results from Seller's contest in the proportion that the number of days in the Closing Tax Period before or after the close of escrow, as the case may be, bears to the total number of days in the Closing Tax Period. Notwithstanding anything to the contrary in this Section 12.C., however, no adjustment payment shall be made with respect to Taxes for the Closing Tax Period that are attributable solely to any change in land usage or ownership of the Property occurring at or after the close of escrow, all of which shall be paid by Purchaser.

Buyer's Initials awSeller's Initials SA

- d) **CONTEST COSTS:** Purchaser shall pay a share of Seller's out-of-pocket costs (including legal fees and costs) of contesting Taxes for the Closing Tax Period in the proportion that the number of days in the Closing Tax Period after the close of escrow bears to the total number of days in the Closing Tax Period. If Seller's out-of-pocket costs of contesting Taxes for the Closing Tax Period exceed the amount of any reduction in contested Taxes for the Closing Tax Period, Purchaser shall not be obligated to pay any share of the excess. If as part of the same proceeding Seller has also contested Taxes for Tax Periods before the Closing Tax Period, Seller's out-of-pocket costs shall be allocated to the Closing Tax Period in the proportion that the amount of the reduction in contested Taxes for the Closing Tax Period bears to the aggregate amount of all reductions in contested Taxes resulting from the proceeding. Except as otherwise provided in this Section 12.D., any contest of Taxes by Seller shall be at Seller's sole cost and expense.

- e) **PAYMENT PROCEDURE:** The amount of any adjustment payment pursuant to Section 12.C. and the amount of any cost-sharing payment pursuant to Section 12.D. shall be combined to determine a net settlement amount owed by Seller or Purchaser to the other. If the net settlement amount is owed to Seller, that amount shall be due and payable not later than thirty (30) days after Seller notifies Purchaser in writing of the amount due. If the net settlement amount is owed to Purchaser, that amount shall be due and payable not later than thirty (30) days after Seller's receipt of any contested Taxes to be refunded to Seller or the conclusion of the contest of Taxes by Seller, whichever is later. Any notice or payment from Seller to Purchaser shall include a statement reflecting in reasonable detail how the net settlement amount was calculated and shall include copies of bills, invoices, or other reasonable documentation of any out-of-pocket expenses of Seller for which Purchaser is to pay a share.

13. The Purchaser shall not assign its rights under any part of the Contract without Seller's prior written consent.

14. Purchaser is responsible for the installation of new locks on the Property immediately after the closing, and purchaser shall hold Seller and Seller's representatives harmless from and indemnify Seller and Seller's representatives against any and all damages, claims, liens, losses, liabilities, costs, injuries, attorneys fees and expenses of every kind and nature that may be made against Seller as a result of Purchaser's failure to install new locks on the Property.

15. The final acceptance of the Contract and the effectiveness thereof is subject to committee approval, which will be provided when Seller's signature is affixed hereon and a fully executed counterpart of the Contract has been delivered to Purchaser.

16. **Default:**

a) **Seller Default:** If for any reason, Seller is unable to deliver insurable title to Purchaser or is unable to cure any defects of title at the close of escrow and the close of escrow is not extended as set forth elsewhere, then Purchaser's **SOLE AND EXCLUSIVE REMEDY** shall be to receive a return of Purchaser's deposit and elect to terminate this Contract of Sale.

b) **Buyer Default:** If Buyer fails, neglects or refuses to perform Buyer's obligations under this Contract, including payment of the Deposit, within the time(s) specified, Seller may elect to recover and retain the Deposit for the account of Seller as agreed upon liquidated damages, in consideration for execution of this Contract, and in full settlement of any claims, whereupon Buyer and Seller shall be relieved from all further obligations under this Contract.

Buyer's Initials aw

Seller's Initials SA

17. **Personal Property.** Seller is not hereby conveying any personal property other than as provided in the Contract of Sale and makes no representations or warranties regarding same. Any items of personal property remaining after the sale of the property are deemed to add no value to the transaction and are not a part of the actual transaction, and are given to Purchaser in AS IS condition with no seller representation or warranty regarding condition or ownership. No bill of sale will be provided for such items.

18. It is agreed by buyer and Seller that if unforeseen judgments, liens or assessments result in negative sales proceeds to the Seller, the Seller reserves the right to cancel the contract and return any deposit monies to the buyer.

19. **Other Provisions:**

Buyer's Signature:

Hampton Roads Sanitation District (HRSD)

By: Ayanna R. Williams (for)

Print Name: Edward G. Heniffin, P.E., General Manager  
Ayanna R. Williams, RE NMA

Date: 10/25/17

Seller's Signature:

Shanna Alexander

Print Name: Shanna Alexander

Title: \_\_\_\_\_

Date: 10/26/2017

CONTRACT SALES ADDENDUM, page 6

REC#: 578163210

Buyer's Signature:

\_\_\_\_\_

Date: \_\_\_\_\_

Buyer's Initials

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Seller's Initials

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DISCLOSURE OF INFORMATION ON LEAD-BASED PAINT  
AND/OR LEAD-BASED PAINT HAZARDS



This disclosure is made with respect to the property ("Property") located at the following address:  
207-211 Choate Street, Portsmouth, VA 23704

and must be attached to any Standard Purchase Agreement made with respect to the Property.

1. LEAD WARNING STATEMENT

Every purchaser of any interest in residential real property on which a residential dwelling was built prior to 1978 is notified that such property may present exposure to lead that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligent quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. The seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards. A risk assessment or inspection for possible lead-based paint hazards is recommended prior to purchase.

2. REQUIREMENTS OF 42 U.S.C. §4852(D)

42 U.S.C. §4852(d) provides that Seller shall: (a) provide Buyer with a lead hazard information pamphlet; (b) disclose to Buyer the presence of any known lead-based paint, or any known lead-based paint hazards, in such housing and provide to Buyer any lead hazard evaluation report available to Seller; and (c) permit Buyer a ten (10) day period (unless the parties mutually agree to a different period of time) to conduct a risk assessment or inspection for the presence of lead-based paint hazards.

3. SELLER'S DISCLOSURE (Complete A and B)

(A) Presence of lead-based paint and/or lead-based paint hazards [INITIAL and complete (i) or (ii) below, as applicable]:  
(i)        Known lead-based paint and/or lead-based paint hazards are present in the housing (explain).  
\_\_\_\_\_

OR

(ii) ✓ Seller has no knowledge of lead-based paint and/or lead-based paint hazards in the housing.

(B) Records and reports available to the seller [INITIAL and complete (i) or (ii) below, as applicable]:

(i)        Seller has provided the buyer with all available records and reports pertaining to lead-based paint and/or lead-based paint hazards in the housing (list documents below):  
\_\_\_\_\_

OR

(ii) ✓ Seller has no reports or records pertaining to lead-based paint and/or lead-based paint hazards in the housing.

BUYER SHALL NOT SIGN THIS DISCLOSURE AND INITIAL THE APPLICABLE PROVISIONS OF PARAGRAPHS 4 AND 5 UNLESS AND UNTIL SELLER HAS EXECUTED THIS DISCLOSURE AND BUYER HAS RECEIVED THE INFORMATION DESCRIBED IN PARAGRAPH 3 ABOVE, IF APPLICABLE.

4. BUYER'S ACKNOWLEDGMENT (INITIAL A, if applicable, and B)

(A)        Buyer has received copies of all information listed in Paragraph 3 above.

(B)        Buyer has received the pamphlet *Protect Your Family from Lead in Your Home*.

5. INITIAL A or B below.

(A)        Buyer has received a 10-day opportunity (or mutually agreed upon period) to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards;

OR

(B) ✓ Buyer has waived the opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards.

6. AGENTS' ACKNOWLEDGMENT

Each Agent confirms their compliance with the requirements of 42 U.S.C. §4852(d).

CERTIFICATION OF ACCURACY

The following parties have reviewed the information above and certify to the best of their knowledge that the information they have provided is true and accurate.

RE/MAX Allegiance	RE/MAX Allegiance	<u>Sherryl Alexander</u>	<u>10/26/2017</u>
Selling Firm		Seller Signature	Date
<u>Willie H. Colston</u>	<u>10/25/2017</u>		
Agent Willie H. Colston	Date	Seller Signature	Date
		Hempton Roads Sanitation District, (HRSD)	
	na	By: <u>Ayanna K. Williams</u>	<u>10/25/17</u>
Selling Firm		Buyer Signature	Date
		(for) Edward G. Henliff, P.E., General Manager	
		Ayanna R. Williams, R.E. Mgr.	
Agent na	Date	Buyer Signature	Date



CERTIFICATE

I, Jennifer L. Cascio, Commission Secretary, certify that the following employees/  
positions are authorized to execute real estate documents for Hampton Roads  
Sanitation District (HRSD) as of this 15th day of May, 2015.

GENERAL MANAGER

  
Edward G. Henlfin

DIRECTOR OF ENGINEERING


  
Bruce W. Husselbee

CHIEF OF PLANNING & ANALYSIS

  
Jay A. Bernas

REAL ESTATE MANAGER

  
Ayantha R. Williams

  
Jennifer L. Cascio  
Commission Secretary



**EXEMPT FROM STATE AND LOCAL GRANTEE TAXES  
PURSUANT TO SECTION 58.1-811(A)(3), CODE OF VIRGINIA,  
1950, AS AMENDED**

Tax ID# 03920020

Property Address: 207-211 Choate Street, Portsmouth, VA 23704

Consideration: \$ 72,000.00

Assessed Value: \$ 123,680.00

Underwriter:

File #201712592

Prepared by: Robert E. Bodine, Esquire #46191

P.O. Box 9021

McLean, VA 22102

**SPECIAL WARRANTY DEED**

THIS DEED, made this 3<sup>rd</sup> day of November, 2017, and delivered this 15<sup>th</sup> day of November, 2017, by and between **THE BANK OF NEW YORK MELLON FKA THE BANK OF NEW YORK, AS TRUSTEE FOR THE CERTIFICATEHOLDERS OF THE COWLT, INC., ALTERNATIVE LOAN TRUST 2006-OC5 MORTGAGE PASS-THROUGH CERTIFICATES, SERIES 2006-OC5**, by New Penn Financial, LLC d/b/a Shellpoint Mortgage Servicing, its Attorney in Fact, 55 Beattie Place, Suite 110, Greenville, SC 29601, Grantor, party of the first part, pursuant to the Limited Power of Attorney being recorded immediately prior hereto, on among the Land Records of the City of Portsmouth, Commonwealth of Virginia, and **HAMPTON ROADS SANITATION DISTRICT (HRSD)**, a political subdivision of the Commonwealth of Virginia, 1434 Air Rail Avenue, Virginia Beach, VA 23455, Grantee, party of the second part.

WITNESSETH, that in consideration of the sum of Seventy-Two Thousand and 00/100 Dollars (\$72,000.00) paid, the said party of the first part does grant and convey unto **HAMPTON ROADS SANITATION DISTRICT (HRSD)**, a political subdivision of the Commonwealth of Virginia party of the second part, its successors and assigns, in fee simple, any and all right, title and interest it may possess in and to all the piece or parcel of real property with improvements thereon situate, lying and being in the City of Portsmouth, Commonwealth of Virginia, described as follows, to wit:

ALL THAT certain lot, piece or parcel of land, with the buildings and improvements thereon, situate, lying and being in the City of Portsmouth, Virginia, and known, numbered and designated as Lot 90, on that certain plat entitled, "Subdivision Plat of Douglas Park", dated February, 1956, and duly recorded in the Clerk's Office of the Circuit Court of the City of Portsmouth, Virginia, in Map Book 3, pages 2 and 3.

The improvements thereon being known as 207-211 Choate Street, Portsmouth, VA 23704.

AND BEING the same property as conveyed to the Grantor by Substitute Trustee's Deed dated April 4, 2017, from Equity Trustees, LLC, a Virginia Limited Liability Company, and Substitute Trustee's and recorded April 11, 2017, as Instrument Number 170003604, among the aforesaid Land Records.

\*Grantor covenants that it is seized and possessed of the said land and has a right to convey it, and warrants the title against the lawful claims of all persons claiming by, through, and under it, but not further otherwise.

\* The Following reservations from and exceptions to this conveyance the warranty of title made herein shall apply:

- i. All easements, rights-of-way and prescriptive rights whether of record or not, pertaining to any portion(s) of the herein described property (hereinafter, the "Property").
- ii. All valid oil, gas and mineral rights, interest or leases, royalty reservations, mineral interest and transfer of interest of any character, in the oil, gas or minerals of record in any county in which any portion of the Property is located.
- iii. All restrictive covenants, terms, conditions, contracts, provisions, zoning ordinances and other items of record in any county in which any portion of the Property is located, pertaining to any portion(s) of the Property, but only to the extent that same are still in effect.
- iv. All presently recorded instruments (other than liens and conveyances by, through or under the Grantor) that affect the Property and portion(s) thereof.
- v. Ad valorem taxes, fees and assessments, if any, for the current year and all prior and subsequent years, the payment of which Grantee assumes (at the time of the transfer of title), and all subsequent assessments for this and all prior years due to change(s) in

land usage (including, but not limited to, the absence of improvements, if any, on the Property), ownership, or both, the payment of which Grantee assumes.

vi. Any conditions that would be revealed by a physical inspection and survey of the Property.

This conveyance is made expressly subject to all restrictions, conditions, rights-of-way and easements, if any, contained in the instruments constituting the chain of title to the property herein conveyed.

AND the said party of the first part covenants that it will warrant specially the property hereby conveyed; and that it will execute such further assurances of said land as may be requisite. Witness the following signature of the party of the first part.

IN WITNESS WHEREOF, THE BANK OF NEW YORK, AS TRUSTEE FOR THE CERTIFICATEHOLDERS OF THE CWALT, INC., ALTERNATIVE LOAN TRUST 2006-OC5 MORTGAGE PASS-THROUGH CERTIFICATES, SERIES 2006-OC5, by New Penn Financial, LLC d/b/a Shellpoint Mortgage Servicing, a Delaware Corporation, its Attorney in Fact, has, on this 3rd day of November, 2017, caused these presents to be signed by Joel Fowler, the AVP of the aforesaid, and its corporate seal to be affixed.

THE BANK OF NEW YORK, AS TRUSTEE FOR THE CERTIFICATEHOLDERS OF THE CWALT, INC., ALTERNATIVE LOAN TRUST 2006-OC5 MORTGAGE PASS-THROUGH CERTIFICATES, SERIES 2006-OC5

BY:

By: New Penn Financial, LLC d/b/a Shellpoint Mortgage Servicing, a Delaware Corporation, its Attorney in Fact  
Name: Joel Fowler  
Title: AVP

Attested by:

Name: Notary Public  
Title: REO ASST Manager

STATE OF SC  
COUNTY OF GREENVILLE

BEFORE ME, a Notary Public in and for said County and State, personally appeared the above-named Joel Fowler, the AVP of New Penn Financial, LLC d/b/a Shellpoint Mortgage Servicing, a Delaware Corporation, Attorney in Fact for THE BANK OF NEW YORK, AS TRUSTEE FOR THE CERTIFICATEHOLDERS OF THE CWALT, INC., ALTERNATIVE LOAN TRUST 2006-OC5 MORTGAGE PASS-THROUGH CERTIFICATES, SERIES 2006-OC5, who acknowledged that he/she did sign the foregoing instrument and that the same is the free act and deed individually for the corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal, at 3:00 PM, this 3 day of NOVEMBER, 2017.

Notary Public  
My Commission Expires:

PHILIP B. BROWN  
NOTARY PUBLIC  
SOUTH CAROLINA

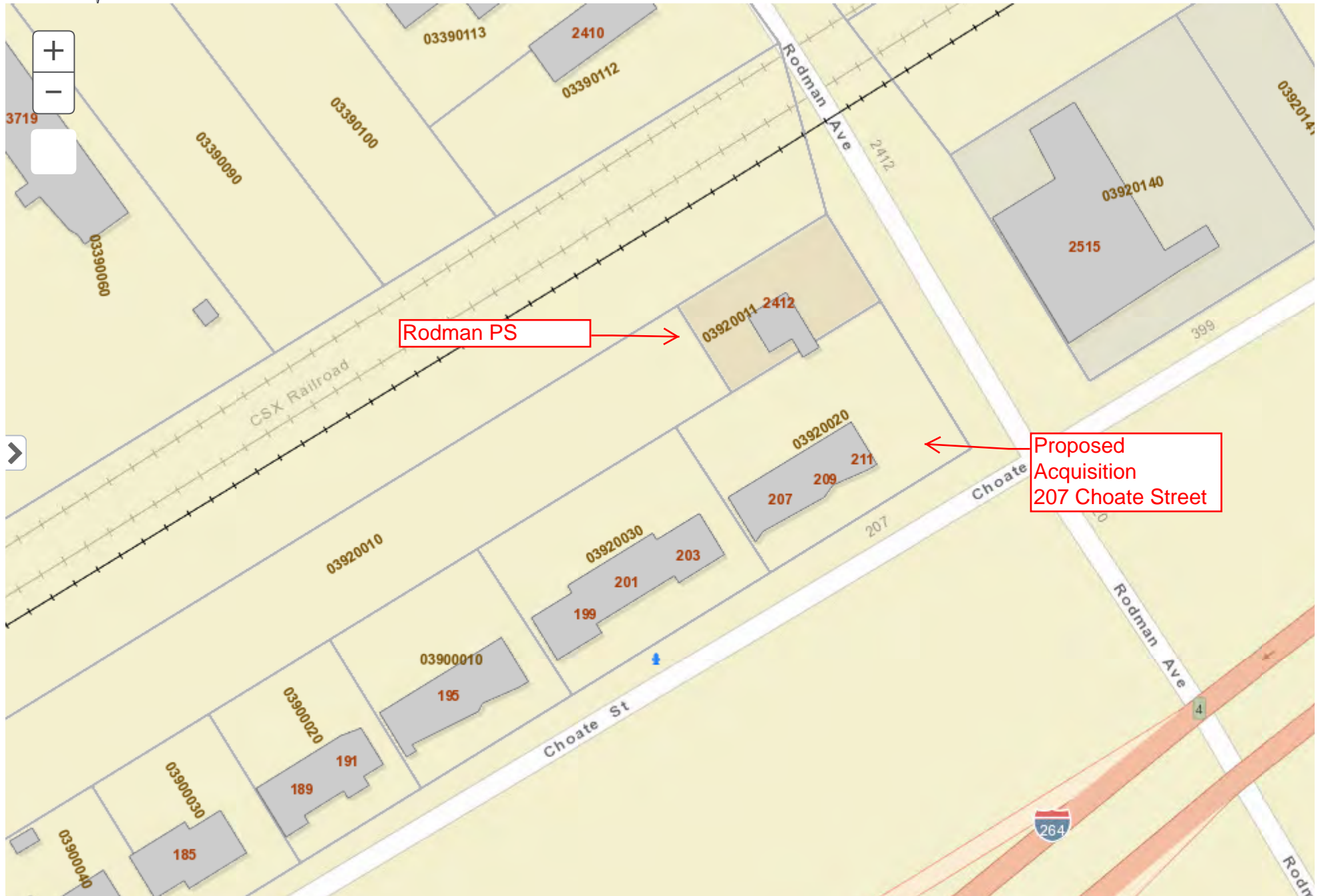
Grantee Address:

Property Address: 207 Choate Street, # 11, Portsmouth, VA 23704  
MY COMMISSION EXPIRES 04-24-18

INSTRUMENT 170011496  
RECORDED IN THE CLERK'S OFFICE OF  
PORTSMOUTH CIRCUIT COURT ON  
November 20, 2017 AT 12:50 PM  
\$124.00 GRANTOR TAX WAS PAID AS  
REQUIRED BY SEC 58.1-802 OF THE VA. CODE  
STATE: \$62.00 LOCAL: \$62.00

CYNTHIA P. HARRISON, CLERK





HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #7

AGENDA ITEM 8. - Morrison Avenue Pump Station

1240a Gatewood Road, Newport News, Virginia (Parcel ID#: 246000403)

Initial Appropriation And Acquisition Of Real Property For A Public Purpose

- [Purchase Agreement](#)
- [Facilities Orientation Maps](#)

## RESIDENTIAL CONTRACT OF PURCHASE

This Contract of Purchase (hereinafter "Contract") is made this 14 day of November, 2017, between **RUSSELL C. BAKER and ROSEMARY C. BAKER**, owner of record of the Property sold herein (the "Seller", whether one or more), and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, (the "Purchaser", whether one or more), and **CITY OF NEWPORT NEWS, VIRGINIA**, a municipal corporation (the "Third Party Beneficiary"). Unless otherwise specified herein, the acceptance date of this Contract shall be the date upon which it is executed by Seller and shall be the date of acceptance as inserted in the blank above the signature of the Seller or, in the event there are counteroffers, when the Contract has been fully ratified by all parties.

1. **REAL PROPERTY**. Purchaser agrees to buy and Seller agrees to sell the land and all improvements thereon and appurtenances thereto which fronts upon a public street or has a recorded access easement to a public street (the "Property"), located in the City of Newport News, Virginia, and described as:

Street Address: 1240 A Gatewood Road, Newport News, Virginia 23601  
Legal Description: .43 A PT Morrison

2. **PERSONAL PROPERTY**. The following personal property, which is free of all liens and encumbrances, is included in this sale: All personal items which are affixed to the real estate except the two (2), agreed-upon movable sheds on the Property.

3. **PURCHASE PRICE**. The purchase price (the "Purchase Price") of the Property is Two Hundred Seventy Thousand Five Hundred & 00/100 Dollars (\$270,500.00) which shall be paid to the Settlement Agent (designated in paragraph 6 below) at settlement ("Settlement") by certified or cashiers check, or wired funds, subject to the pro rations described herein and the money shall come from the following sources:

Two Hundred Fifty Thousand & 00/100 Dollars (\$250,000.00) from Purchaser, and Twenty Thousand Five Hundred & 00/100 Dollars (\$20,500.00) from Third Party Beneficiary, payable at Settlement. In return for such consideration, the sufficiency and receipt of which is hereby acknowledged, Third Party Beneficiary shall receive an easement across said Property to be mutually negotiated between Third Party Beneficiary and Purchaser, and shall receive an Release and Settlement of certain conditions pursuant to the provisions of that certain Agreement of Settlement and Release which is attached hereto, and thereby made a part hereof, as **Exhibit A**.

\$1,000.00 **Deposit:** See Paragraph 4.

\$269,500.00 **Balance of the Purchase Price:** To be paid by Purchaser with cash, certified or cashiers check or wired funds to the Settlement Agent at Settlement.

\$270,500.00 **Total Purchase Price**

Initial RCS RCB

Initial RCN

4. **DEPOSIT:**

(a) Purchaser has made a deposit with ☐ Seller ☒ **Jones, Blechman, Woltz & Kelly, PC**, the agreed upon escrow agent (the "Escrow Agent"), of \$1,000.00 (the "Deposit"), receipt of which is hereby acknowledged. The Deposit shall be held in escrow until Settlement and then applied to the Purchase Price.

5. **SETTLEMENT AGENT AND POSSESSION.** Settlement shall be made at the offices of Jones, Blechman, Woltz & Kelly, P.C., ("Settlement Agent") located at 701 Town Center Drive, Suite 800, Newport News, Virginia 23606 on \_\_\_\_\_, ("Settlement Date"). The Settlement Date may only be changed with the written consent of the Purchaser and the Seller. Possession shall be given on the Settlement Date unless otherwise agreed in writing by the parties.

6. **REQUIRED DISCLOSURES.**

(a) **Property Owners' Association Disclosure.** Seller represents that the Property (check as applicable) ☐ is ☒ is not located within a development that is subject to the Virginia Property Owners' Association Act ("Act") (Virginia Code § 55-508 through § 55-516). If the Property is within such a development, the Act requires Seller to obtain an association disclosure packet from the property owners' association and provide it to Purchaser.

(b) **Residential Property Disclosure.** The Virginia Residential Property Disclosure Act (Virginia Code § 55-517 through § 55-525) requires Seller of certain residential property to provide Purchaser, in a form provided by the Real Estate Board, with a property disclosure statement that states Seller makes no representations or warranties as to the condition of the Property or any improvements thereon, and that Purchaser will be receiving the Property "AS IS", that is, with all defects that may exist (if any) except as otherwise provided in this Contract. The parties to this agreement hereby agree that Purchaser will be receiving the Property "AS IS", "WHERE IS" and the parties agree that this shall fulfill the requirements of the Virginia Residential Property Disclosure Act.

(c) **Mechanic's and Materialmen's Liens.**

**NOTICE**

Virginia law (Virginia Code § 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) 90 days from the last day of the month in which the lienor last performed work or furnished materials, or (ii) 90 days from the time the construction, removal, repair or improvement is terminated. (See Standard Provision J on Exhibit A.)

**AN EFFECTIVE LIEN FOR WORK PERFORMED PRIOR TO THE SETTLEMENT DATE MAY BE FILED AFTER SETTLEMENT. LEGAL COUNSEL SHOULD BE CONSULTED.**

(d) **Adjoining Property.** Seller makes no representations as to matters affecting adjacent parcels, and Purchaser should exercise whatever due diligence that Purchaser deems necessary with respect to adjacent parcels.

(e) **Title Insurance Notification.** Purchaser may wish, at Purchaser's expense, to purchase owner's title insurance. Depending on the particular circumstances of the transaction, such insurance could include affirmative coverage against possible mechanic's and materialmen's liens for labor and materials performed prior to Settlement and which, though not recorded at the time of recordation of Purchaser's deed, could be subsequently recorded and would adversely affect Purchaser's title to the Property. The coverage afforded by such title insurance would be governed by the terms and conditions thereof and the premium for obtaining such title insurance coverage will be determined by its coverage.

(f) **Lead-Based Paint Disclosure.** The certification, required pursuant to the Lead-Based Paint Hazard Reduction Act of 1992, signed by Seller, Purchaser and applicable agents ☐ is [x] is not attached hereto. All improvements on the Property ☐ were [x] were not constructed after January 1, 1978.

(g) **Notice of Principal Residence.** Purchaser ☐ does [x] does not intend to occupy the Property as Purchaser's principal residence.

(h) **Choice of Settlement Agent:** You have the right to select a settlement agent to handle the closing of this transaction. The settlement agent's role in closing your transaction involves the coordination of numerous administrative and clerical functions relating to the collection of documents and the collection and disbursement of funds required to carry out the terms of the contract between the parties. If part of the purchase price is financed, your lender will instruct the settlement agent as to the signing and recording of loan documents and the disbursement of loan proceeds. No settlement agent can provide legal advice to any party to the transaction except a settlement agent who is engaged in the private practice of law in Virginia and who has been retained or engaged by a party to the transaction for the purpose of providing legal services to that party.

**Escrow, closing and settlement service guidelines:** The Virginia State Bar issues guidelines to help settlement agents avoid and prevent the unauthorized practice of law in connection with furnishing escrow, settlement or closing services. As a party to a real estate transaction, you are entitled to receive a copy of these guidelines from your settlement agent, upon request, in accordance with the provisions of the Real Estate Settlement Agents Act. Virginia Code § 55-525.16 to § 55-525.32.

7. **STANDARD PROVISIONS ON THE ATTACHED PAGES.** All of the Standard Provisions in Exhibit A are incorporated herein by reference, and shall apply to this Contract,

except the following lettered Standard Provisions are hereby deleted: Paragraphs D., F., G., H., I., K.

8. **OTHER PROVISIONS.** The following special provisions shall apply to this Contract: (1) Execution of this Contract shall be contingent upon the contemporaneous execution of an Agreement of Settlement and Release between Seller, Purchaser and Third Party Beneficiary (Exhibit A hereto). (2) Purchaser will pay up to \$3,000.00 in closing costs associated with the purchase of Seller's new home in Surry County at settlement of Seller's new home in Surry County. (3) Purchaser will pay up to \$5,000.00 toward Seller's relocation expenses associated with the purchase of Seller's new home in Surry County at settlement of Seller's new home in Surry County.

9. **DEFAULT.** If either party defaults under this Contract, the non-defaulting party may pursue, in such party's discretion, all remedies available to the non-defaulting party at law or in equity. The defaulting party shall be liable to the non-defaulting party for all expenses, including reasonable attorney's fees.

10. **ACCEPTANCE.** This Contract, when signed by Purchaser, shall be deemed an offer and shall remain in effect, unless withdrawn, until 5:00 PM (time), November 15, 2017. If not accepted within that time by Seller by delivery of a signed copy of this Contract to Purchaser or Purchasers designated representative, it shall become null and void. Seller accepts this Contract at 4<sup>30</sup> (time), November 14<sup>th</sup>, 2017.

Russell C Baker  
Seller: RUSSELL C. BAKER  
Date: 14 Nov 2017  
SSN# 482-78-1657

HAMPTON ROADS SANITATION DISTRICT  
By: Ayanna R. Willes, Real Estate Mgr.  
Purchaser  
Date: 11/14/17

Rosemary C Baker  
Seller: ROSEMARY C. BAKER  
Date: 11-14-17  
SSN#: 227-94-5406

CITY OF NEWPORT NEWS, VIRGINIA  
By: \_\_\_\_\_  
Third Party Beneficiary  
Date: \_\_\_\_\_

Seller's Forwarding Address:  
435 Moonlight Rd  
Smithfield VA 23430

**EXHIBIT A**  
**STANDARD PROVISIONS**

---

A. **DEPOSIT.** In the event this Contract is terminated by Seller or Purchaser as provided herein, or in the event of a breach of this Contract by Seller, the Deposit shall be returned to Purchaser, but such return shall not affect any other remedies available to Purchaser for Seller's breach. In the event Purchaser breaches this Contract, the Deposit shall be paid to Seller, but such payment shall not preclude any other remedies available to Seller for such breach.

The Deposit, if held by a licensed broker or agent, shall be held in conformity with the regulations of the Virginia Real Estate Board and other applicable law. If this Contract is not consummated and a dispute exists between Seller and Purchaser, the Deposit will be held in escrow by the Escrow Agent until Seller and Purchaser have agreed to the disposition thereof, or a court of competent jurisdiction orders disbursement.

B. **EXPENSES & PRORATIONS.** Purchaser agrees to pay all costs and expenses incurred by Purchaser and the Seller in connection with the Contract. All taxes, assessments, interest, rent and mortgage insurance, if any, shall be prorated as of Settlement.

C. **TITLE.** At Settlement, Seller shall convey to Purchaser good and marketable fee simple title to the Property by deed of general warranty containing English covenants of title, free of all liens, tenancies, defects and encumbrances, except as otherwise indicated herein, and subject only to such restrictions and easements as shall then be of record which do not affect the use of the Property for residential purposes or render the title unmarketable. If a defect is found which can be remedied by legal action within a reasonable time, Seller shall, at Seller's expense, promptly take such action as is necessary to cure the defect. If Seller, acting in good faith, is unable to have such defect corrected within 60 days after notice of such defect is given to Seller, then this Contract may be terminated by either Seller or Purchaser. Purchaser may extend the date for Settlement to the extent necessary for Seller to comply with this Paragraph, but not longer than 60 days.

D. **LAND USE ASSESSMENT.** In the event the Property is taxed under land use assessment and this sale results in disqualification from land use eligibility, Seller shall pay, when assessed, whether at or after Settlement, any rollback taxes assessed. If the Property continues to be eligible for land use assessment, Purchaser agrees to make application, at Purchaser's expense, for continuation under land use, and to pay any rollback taxes resulting from failure to file or to qualify.

E. **RISK OF LOSS.** All risk of loss or damage to the Property by fire, windstorm, casualty or other cause, or taking by eminent domain, is assumed by Seller until Settlement. In the event of substantial loss or damage to the Property before Settlement, Purchaser shall have the option of either (i) terminating this Contract, or (ii) affirming this Contract with appropriate arrangements being made by Seller to repair the damage, in a manner acceptable to Purchaser, or Seller shall assign to Purchaser all of Seller's rights under any applicable policy or policies of insurance and any condemnation awards and shall pay over to Purchaser any sums received as a result of such loss or damage.

F. **EQUIPMENT CONDITION.** Purchaser agrees to accept the Property at Settlement or possession, whichever occurs last, in its present physical condition, except as otherwise provided herein. Seller warrants, even if a property Disclosure Statement has been provided to Purchaser (see paragraph 6(b)), that the heating and cooling equipment, plumbing systems (including well and septic systems), and electric systems, will be in working order, and the roof and basement will be free of leaks, at Settlement or at Purchaser's occupancy, whichever occurs last. Seller agrees to deliver the Property in broom-clean condition with all trash and debris removed and to exercise reasonable and ordinary care in the maintenance and upkeep of the Property between the date this Contract is accepted and the Settlement Date or upon Purchaser's occupancy, whichever occurs first. Purchaser and his representatives shall have the right to make an inspection immediately before Settlement and possession should possession occur after Settlement.

G. **WELL & SEPTIC.** If the Property is served by an on site well and/or septic system, Seller agrees to furnish Purchaser, unless the Purchaser has elected to do its own inspection of the septic and water system as provided below, at Seller's expense, with a certificate dated not more than 30 days prior to the Settlement Date from the appropriate governmental authority, or a mutually acceptable private company, indicating that (a) well water contains no more than the acceptable level of coliform bacteria, and (b) the septic system is functioning satisfactorily. Purchaser, at its expense, shall have the right to make its own inspection of the water and septic system within 10 business days from the date of acceptance of this Contract by Seller, provided Purchaser has advised Seller at the time of Seller's acceptance of this Contract that Seller is relieved of its obligation to provide the above certifications and the Purchaser will be doing its own inspections. Such inspections must be complete within 15 days of the acceptance of the Contract by Seller and results forwarded to the Seller in writing within 5 days thereafter. If either system is found defective, Purchaser shall immediately notify the Seller. Seller shall have the right to agree to complete the repair by Closing at Seller's expense or to declare this Contract to be null and void. Purchaser shall have the right to waive the obligation of the Seller to repair the well and septic systems and accept them as is.



Effective July 1, 2005, home sellers must disclose information about their current septic systems. When the Seller has received or applied for a Board of Health waiver from current septic system requirements for the property, the Seller must disclose that a waiver is in effect and that the waiver is null and void upon the sale of the Property.

Seller also represents that (check appropriate box):

- ☒ 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 Purchaser.

H. **WOOD INFESTATION INSPECTION & REPORT.** Purchaser, at Purchaser's expense Purchaser may obtain a report from a qualified licensed exterminator, dated not earlier than 30 days before Settlement, that ☐ the principal dwelling is ☐ all improvements on the Property are free of infestation and structural damage from termites and other wood destroying insects. The report may also contain a certification that there exists no moisture problems/damages in the crawl space, if applicable.

I. **HOMEBUYER'S INSPECTION.** Purchaser shall have \_\_\_\_ business days from the date of acceptance of this Contract to obtain, at Purchaser's expense, a satisfactory inspection of the physical improvement to Property.

- ☐ Purchaser desires a home inspection.
- ☒ Purchaser waives a home inspection.

Purchaser shall have \_\_\_\_\_ business days from the date of acceptance of this contract to obtain an inspection and moisture test of the EIFS (Exterior Insulation and Finish System or synthetic stucco) at Purchaser's expense by a certified EIFS inspector provided that, in the event the property is a condominium, the right to inspect may be limited by rights of other unit owners or the condominium association.

- ☐ Purchaser desires an EIFS inspection.
- ☐ Purchaser waives an EIFS inspection.
- ☐ EIFS is not applicable.

If the results of such any inspections are unsatisfactory to Purchaser, Purchaser shall provide Seller, within 3 business days of receiving the results of the inspections, a copy of said report and a written statement stating why Purchaser is not satisfied with the report. In that event, Seller shall have the option to correct said condition(s) at Seller's expense or to terminate this Contract. Seller must notify Purchaser in writing of his decision within 3 business days of receiving said report from Purchaser. Failure of Purchaser to comply by the date indicated shall be deemed a waiver of this contingency. If Seller fails to respond or states Seller's intent not to correct the condition(s), Purchaser may terminate this Contract, in which event the Deposit shall be returned to Purchaser. If Seller elects to terminate this contract, Purchaser, within 3 business days after

receiving notice of termination, shall have the right to reinstate the Contract by relieving Seller of any obligations to correct said condition(s).

J. **AFFIDAVITS & CERTIFICATES.** Seller shall deliver to Purchaser an affidavit on a form acceptable to Purchaser's lender and title insurance provider, if applicable, signed by Seller, that no labor or materials have been furnished to the Property within the statutory period for the filing of mechanic's or materialmen's liens against the Property, or, if labor or materials have been furnished during the statutory period, that the costs thereof have been paid. Seller shall also deliver to Purchaser applicable non-foreign status and state residency certificates and applicable 1099 IRS certificates.

K. **VA/FHA LOAN.** If noted below, Purchaser's obligations under this Agreement are conditioned upon the applicable financing contingency: Check A, B or C, if applicable.

       A. **VA FINANCING:** It is expressly agreed that, notwithstanding any of the provisions of this Agreement, Purchaser shall not incur any penalty by forfeiture of earnest money or otherwise be obligated to complete the purchase of the Property described by the Agreement if the agreed purchase price or cost exceeds the reasonable value of the Property established by the Veterans Administration. Buyer shall, however, have the privilege and option of proceeding with the consummation of this Agreement without regard to the amount of the reasonable value established by the Veterans Administration. The Veteran Purchaser certifies that the Purchaser intends to occupy the Property as Purchaser's primary residence.

       B. **FHA FINANCING:** It is expressly agreed that, notwithstanding any other provisions of this Agreement, Purchaser shall not be obligated to complete the purchase of the Property described herein or to incur any penalty by forfeiture of earnest money deposits or otherwise unless Purchaser has been given in accordance with HUD/FHA or VA requirements a written statement issue by the Federal Housing Commissioner, Veterans Administration or a Direct Endorsement Lender setting forth the appraised value of the Property (excluding closing costs) of not less than \$                    . Purchaser shall, however, have the privilege and option of proceeding with consummation of this Agreement without regard to the amount of the appraised valuation. The appraised valuation is arrived at to determine the maximum mortgage the Department of Housing and Urban Development will insure.

       C. **CONVENTIONAL FINANCING (Optional):** It is expressly agreed that, notwithstanding any other provisions of this Agreement, Purchaser shall not incur any penalty by forfeiture of earnest money or otherwise be obligated to complete the purchase of the Property described herein, if the agreed purchase price exceeds the value established by the lender approved appraiser and Seller does not agree to reduce the purchase price to the appraised value. Purchaser shall have the privilege and option of proceeding with the valuation made by the lender approved appraiser. In the event purchase price exceeds the value established by the lender approved appraiser and Seller or Listing Firm notifies Purchaser and Selling Firm that Seller agrees to reduce the selling price to the established appraised value, then this Agreement will remain in force and settlement shall occur as specified in paragraph 7 of the Agreement.

L. **MEGAN'S LAW DISCLOSURE.** Purchaser(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 1 or 2 of subsection A of §55-519. 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.state.va.us>.

M. **ASSIGNABILITY.** This Contract may not be assigned by either Seller or Purchaser without the written consent of the other.

N. **MISCELLANEOUS.**

The parties to this Contract agree that it shall be binding upon them and their respective personal representatives, successors and assigns, and that its provisions shall not survive Settlement and shall be merged into the deed delivered at Settlement, except for the provisions relating to rollback taxes in Paragraph D. This Contract contains the final agreement between the parties hereto, and they shall not be bound by any terms, conditions, oral statements, warranties or representations not herein contained. This Contract shall be construed under the laws of the Commonwealth of Virginia. No presumption as to authorship shall apply to this Contract.

#### **END OF STANDARD PROVISIONS**

606218(v3)(10-30-17)

## AGREEMENT OF SETTLEMENT AND RELEASE

The City of Newport News (hereafter the "City"), the Hampton Roads Sanitation District ("HRSD") and Russell C. Baker and Rosemary C. Baker (hereafter "the Bakers") enter into this Agreement of Settlement and Release dated November 14, 2017 (hereafter the "Agreement") for the purposes of:

- A. Settlement of pending claims asserted by the Bakers against HRSD and the City relating to certain real property owned by the Bakers, as more fully set forth in subsection B below (hereafter the "Claims").
- B. Complete Release of HRSD and the City by the Bakers of all present, past or future claims, causes of action, responsibility and liability arising from alleged damage to real property owned by the Bakers located at 1240A Gatewood Road,, Newport News, Virginia, property ID No. 246000403 ("the Property"), allegedly caused by damage to a stormwater sewer maintained by the City, City sanitary sewer overflows and claims of excessive noise and lack of maintenance of a waste water pump station owned by HRSD, including, but not limited to, any claims relating to property damage, taking of property, actions of City or HRSD personnel and contractors, and any other related activity prior to the date of this Agreement.

In consideration of the payment to be made hereunder and the mutual promises contained in this Agreement, the parties agree to the following terms and conditions to be performed pursuant to this Agreement:

1. Pursuant to a Residential Contract of Purchase, HRSD will pay the Bakers a total of TWO HUNDRED FIFTY THOUSAND AND 00/100 DOLLARS (\$250,000.00) for fee simple title to the Property and in full and final settlement of the Claims, completion of that sale being contingent upon the contemporaneous execution of this Agreement.

2. The City shall pay the Bakers the sum of TWENTY THOUSAND FIVE HUNDRED AND 00/100 DOLLARS (\$20,5000.00) in full and final settlement of the Claims.

3. Upon conveyance of the Property from the Bakers to HRSD, HRSD agrees to provide an easement for the existing utility lines to the City.

4. The City, HRSD and the Bakers agree that by entering into this agreement the City and HRSD do not admit liability as to any allegations made in the Claims, including but not limited to any claim for damages arising out of any sanitary sewer overflow or disruption caused by the presence of a stormwater sewer line on the Property, and any noise or failure to maintain an HRSD sanitary pump station prior to the execution of this Agreement. This Agreement can in no way be construed by the parties hereto or by any third party as an admission of liability or an undertaking to pay any other claim made, whether for past, present, or future damages. All claims past, present and future are disputed and this full and final settlement thereof shall never be treated as evidence of liability, nor as an admission of liability or responsibility at any time or in any manner whatsoever. The City and HRSD by entering into this Agreement do not waive any substantive or procedural rights, defenses, or immunities.

5. The Bakers, HRSD and the City hereby forever release each of the other parties to this Agreement, their employees, contractors, agents, assigns, and successors in

interest, from all causes of actions, suits, claims, bills, debts, damages, demands and rights whatsoever, in law or in equity, including any claim for inverse condemnation which have arisen out of or may in the future develop from any claims arising prior to the date of this Agreement.

6. This Agreement contains the complete terms of the settlement between the City, HRSD and the Bakers and supersedes and extinguishes any previous settlement negotiations, either oral or reduced to writing, and the representatives of the City, HRSD, and the Bakers, who have signed this Agreement each have full authority to enter into this Agreement.

IN WITNESS WHEREOF, the undersigned have executed this Agreement in three duplicate copies, each of which shall be considered an original without requiring the production of other signed duplicates.

[INTENTIONALLY LEFT BLANK]

6. This Agreement contains the complete terms of the settlement between the City, HRSD and the Bakers and supersedes and extinguishes any previous settlement negotiations, either oral or reduced to writing, and that the representatives of the City, HRSD, and the Bakers, who have signed this Agreement each, have full authority to enter into this Agreement.

IN WITNESS WHEREOF, the undersigned have executed this Agreement in three duplicate copies, each of which shall be considered an original without requiring the production of other signed duplicates.

CITY OF NEWPORT NEWS, VIRGINIA

Date: 11/30/2017

By Cynthia D. Rohl  
Cynthia D. Rohl, City Manager

APPROVED AS TO FORM:

[Signature]  
Deputy City Attorney

HAMPTON ROADS SANITATION DISTRICT

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

RUSSELL C. BAKER

\_\_\_\_\_

ROSEMARY C. BAKER

\_\_\_\_\_

CITY OF NEWPORT NEWS, VIRGINIA

Date: \_\_\_\_\_

By \_\_\_\_\_  
Cynthia D. Rohlf, City Manager

APPROVED AS TO FORM:

\_\_\_\_\_  
Deputy City Attorney

HAMPTON ROADS SANITATION DISTRICT

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

RUSSELL C. BAKER

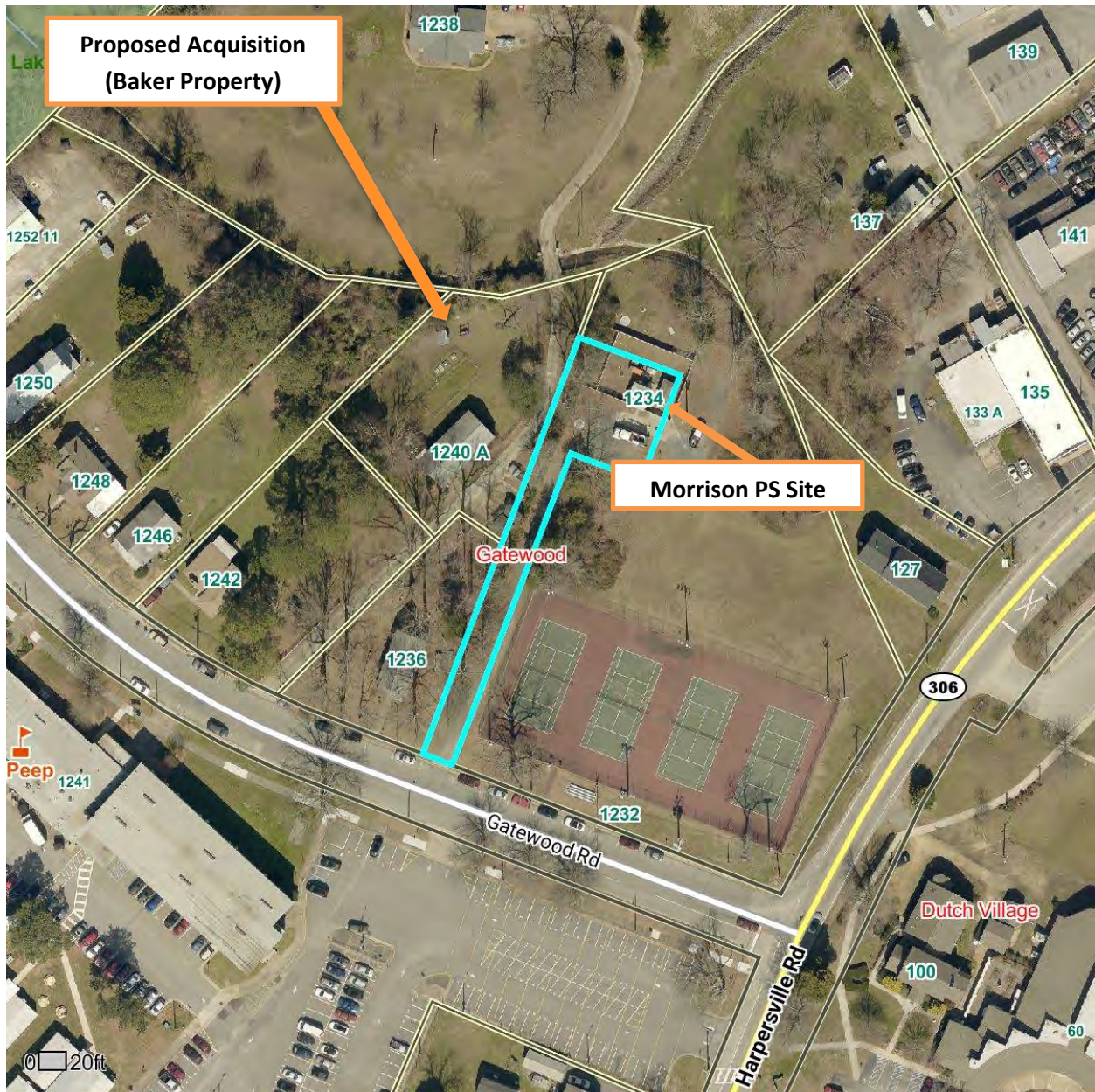


ROSEMARY C. BAKER





**Location Map – Proposed Acquisition (1240-A Gatewood Road, Newport News, Virginia)**



HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #8

AGENDA ITEM 9. - Bridge Street Siphon And Vent Relocation Replacement  
Additional Appropriation And Agreement Addendum

- [Addendum](#)
- [Original Agreement](#)

**ADDENDUM NO.1 TO THE  
AGREEMENT FOR CONSTRUCTION AND RELOCATION OF BRIDGE STREET  
VENT AND REHABILITATION OF BRIDGE STREET SIPHONS  
BETWEEN  
HAMPTON ROADS SANITATION DISTRICT  
(PROJECT BH013400)**

**AND**

**CITY OF HAMPTON, VIRGINIA**

THIS ADDENDUM NO. 1 (this "Addendum"), supplementing the AGREEMENT FOR CONSTRUCTION AND RELOCATION OF BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS (the "Agreement"), dated May 11, 2016, between the CITY OF HAMPTON (the "CITY"), a municipal corporation of the Commonwealth of Virginia and the HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia ("HRSD"), is entered into this day of January 17, 2017<sup>18</sup> (the "Effective Date").

**RECITALS**

**R:1.** The CITY is constructing a replacement bridge on Bridge Street (the "Replacement Bridge") as part of the Capital Improvement Project, City Project # 07-010, VDOT Project #000-114-199, UPC: 93081 (the "PROJECT"); and

**R:2.** The HRSD Bridge Street Air Vent Pipe and Bridge Street Wastewater Siphons, together with all connections, manholes, and related appurtenances thereto (the "FACILITIES") are located in whole or in part within the right of way of the Replacement Bridge in the City of Hampton; and

**R:3.** The proposed Replacement Bridge creates a conflict with the existing FACILITIES, which necessitated Temporary Relocation of part of the FACILITIES and Permanent Relocation and Permanent Improvements of part of the FACILITIES, as each is described in the Agreement (collectively the "Facilities Work" and incorporated into the term "FACILITIES"); and

**R:4.** HRSD and the CITY agree that it is in the best interest of the parties to have the relocation and/or construction of the FACILITIES included into the PROJECT; and

**R:5.** The CITY agrees to have such FACILITIES constructed in accordance with the description of the facilities stated and referenced herein and HRSD agrees to reimburse the CITY for the FACILITIES under the terms and conditions set forth herein.



**TERMS**

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

1. This Addendum provides for the addition to or extension of the work provided for under the Agreement.
2. No provision of the Agreement shall be modified except as expressly herein provided otherwise, the Agreement remains in full force and effect.
3. In addition to the items listed in Section II (D) of the Agreement, HRSD also agrees to pay the CITY for the following work:
  - a. FA-01 Concrete slab under asphalt
  - b. FA-02 Contaminated materials testing and disposal
  - c. FA-03 Concrete cradle around 42-inch sewer
  - d. Work Order 6 HRSD Siphon vault rehabilitation
  - e. GET Soil and groundwater sampling and analysis
  - f. HRSD temporary vent pipe
  - g. Temporary exit construction
  - h. Work Order 10 additional reinforcing steel in north siphon vault
4. The price for this additional work will be \$175,570.72. Said price shall include:

a. FA-01 Concrete slab under asphalt	\$ 2,674.17
b. FA-02 Contaminated materials testing and disposal	\$14,276.16
c. FA-03 Concrete cradle around 42-inch sewer	\$50,135.22
d. Work Order 6 HRSD siphon vault rehabilitation	\$71,511.30
e. GET Soil and groundwater sampling and analysis	\$ 4,037.04
f. HRSD Temporary pipe	\$16,385.82
g. Temporary exit construction	\$14,898.92
h. Work Order 10 additional reinforcing steel in north siphon vault	\$ 1,652.09

Addendum # 1 to the Agreement for Cost Sharing of the CONSTRUCTION AND RELOCATION OF  
BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS  
(HRSD Project # BH013400, City of Hampton Project # 07-010)

---

**IN WITNESS WHEREOF**, the parties have executed this Addendum to the Agreement  
as of the date first above written.

**HAMPTON ROADS SANITATION DISTRICT**



---

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

Addendum # 1 to the Agreement for Cost Sharing of the CONSTRUCTION AND RELOCATION OF  
BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS  
(HRSD Project # BH013400, City of Hampton Project # 07-010)

IN WITNESS WHEREOF, the parties have executed this Addendum to the Agreement  
as of the date first above written.

CITY OF HAMPTON, VIRGINIA

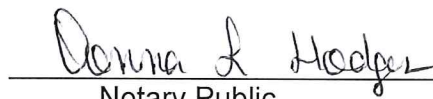
  
Mary Bunting  
City Manager or Authorized Designee

ATTEST:

  
City Clerk

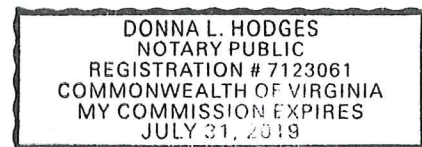
COMMONWEALTH OF VIRGINIA,  
CITY OF HAMPTON, to-wit:

The foregoing Addendum No. 1 was acknowledged before me this 16<sup>th</sup> day  
of January, 2018, by Mary Bunting, the City Manager or  
Authorized Designee on behalf of the City of Hampton,  
Virginia. She/He is known to me personally.

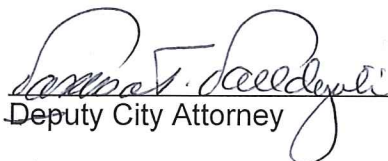
  
Notary Public

My commission expires: July 31, 2019

Registration No.: July 31, 2019 7123061



Approved as to Form:

  
Deputy City Attorney

Approved as to Content:

  
1/17/2018  
Director of Public Works

**AGREEMENT FOR CONSTRUCTION AND RELOCATION OF  
BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS**

**THIS AGREEMENT FOR CONSTRUCTION AND RELOCATION OF BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS** (this "Agreement"), between the **CITY OF HAMPTON, VIRGINIA**, a municipal corporation of the Commonwealth of Virginia (the "CITY"), and the **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("HRSD"), is entered into this 14<sup>th</sup> day of MAY, 2016.

**WITNESSETH:**

**WHEREAS**, the HRSD Bridge Street Air Vent Pipe and Bridge Street Wastewater Siphons, together with all connections, manholes, and related appurtenances thereto (the "Facilities") are located in whole or in part within the right of way of Bridge Street in the City of Hampton;

**WHEREAS**, the CITY is proposing to construct a replacement bridge on Bridge Street (the "Replacement Bridge") as part of the Capital Improvement Project, City Project # 07-010, VDOT Project #000-114-199, UPC: 93081 (the "Project");

**WHEREAS**, the proposed Replacement Bridge creates a conflict with the existing Facilities, which will necessitate Temporary Relocation of part of the Facilities and Permanent Relocation and Permanent Improvements of part of the Facilities, as each is described and defined below (collectively referred to as the "Facilities Work" and incorporated into the term "Facilities");

**WHEREAS**, HRSD and the CITY agree it is in the best interest of the parties to have the Facilities Work included in the Project; and

**WHEREAS**, the CITY agrees to have such Temporary Relocations, Permanent Relocation and Permanent Improvements constructed in accordance with the description of the Facilities stated and referred to herein, and under the terms and conditions of this Agreement.

**NOW, THEREFORE**, it is mutually agreed between the parties hereto as follows:

**I. DESCRIPTION OF FACILITIES WORK**

The following relocations, repairs, and rehabilitations constitute the Facilities Work and shall be constructed as part of the Project:

- A. Temporary Relocations -The installation of temporary utility support system, temporary bypass of the existing wastewater siphons, installation of the temporary air vent pipe, and Closed-Circuit Television ("CCTV") inspection of the wastewater siphons prior to the bridge construction pile driving work.

- B. Permanent Relocation - The installation of the permanent air vent pipe on the Replacement Bridge.
- C. Permanent Improvements – The rehabilitation of the existing wastewater siphons and vaults, installation of one sanitary sewer manhole, and pre- and post-lining CCTV inspection of the rehabilitated wastewater siphons and vaults.
- D. The Facilities Work described in Sections I(A), (B), and (C) above are all as shown and described in the Plans and Specifications labeled “BID PROPOSAL AND CONTRACT – REPLACEMENT OF BRIDGE STREET BRIDGE – BRIDGE STREET OVER SALTERS CREEK VA STR. 8009, City of Hampton, Virginia”, originally dated August 24, 2014 and which may be revised subsequently (the “Plans and Specifications”).

## **II. CONSTRUCTION OF FACILITIES WORK**

### **A. Cost of Construction and Schedule of Construction:**

The construction cost of the Facilities Work described above, as specifically defined by the Plans and Specifications for the work, prepared by HRSD to be included in the Project and to be approved by HRSD and the CITY, shall include, but is not limited to, the following:

1. The construction costs for the Temporary Relocations, Permanent Relocation, and Permanent Improvements;
2. The cost of HRSD contract administration;
3. The cost of HRSD construction inspections; and
4. Any related miscellaneous essential expense.

These costs shall hereinafter be collectively referred to as the “Facilities Costs.”

### **B. Maintenance of Records:**

The records of these Facilities Costs shall be available for review by HRSD at any mutually convenient time. Upon completion of the Facilities Work, the total costs as defined will be forwarded to HRSD and a statement of payment to the contractor indicating that the Facilities Costs have been paid in full by the CITY.

### **C. Approval of Plans and Specifications:**

HRSD and the CITY agree that before any construction work is begun under this Agreement, the CITY will:



1. Submit to and secure approval from HRSD (in writing) of the final Plans and Specifications for the Temporary Relocations, Permanent Relocation, and Permanent Improvements.
2. Any change to the final Plans and Specifications shall be approved by HRSD and the CITY, and shall be done in accordance with HRSD Standards and Preferences for use in Engineered Construction Projects, latest edition, and the CITY's Utility Policy and Design and Construction Standards, latest editions.
3. The CITY and HRSD will review shop drawings and change orders as related to the Facilities Work. Those construction submittals and shops drawings shall include, but may not be limited, to:
  - a. Construction submittal and shop drawings for the temporary bypass system (including sizing calculations for the pumps and pipe, and material information for the pre-and post-lining CCTV inspection of the rehabilitated wastewater siphons and vaults pipe);
  - b. Construction submittal and shop drawing for the temporary and permanent air vent pipe;
  - c. Construction submittal and shop drawing for the siphons rehabilitation system (including liner sizing calculations, curing requirements, material information for the liner and resin); and
  - d. Pre-pile driving, pre-lining, and post-lining CCTV inspection videos.
4. The CITY will obtain and furnish HRSD with a copy of all permits and approvals necessary for the Facilities Work.
5. Obtain any easements needed for the Project, whether temporary or permanent.
6. Comply with the Virginia Public Procurement Act.

D. Payment of the Facilities Costs

1. HRSD will administer and be responsible for bearing one hundred percent (100%) of the cost for the wastewater siphons rehabilitation, wastewater siphons vaults rehabilitation, pre- and post-lining CCTV inspection of the rehabilitated wastewater siphons and vaults and installation of a sanitary sewer manhole undertaken as part of the Permanent Improvements.
2. The City will administer and be responsible for bearing eighty percent (80%) of the cost of the CCTV inspections undertaken as part of the Temporary Relocations. HRSD will be responsible for twenty percent (20%) of the cost of the same.
3. The CITY will administer and be responsible for bearing one hundred percent (100%) of the cost of the temporary utility support system undertaken as part of the Temporary Relocations.
4. The CITY will administer and be responsible for bearing eighty percent (80%) of the cost of the installation of the temporary air vent pipe and the

permanent air vent piping undertaken as part of the Temporary Relocations and Permanent Relocation. HRSD will be responsible for twenty percent (20%) of the cost of the same.

5. The City will administer and be responsible for bearing fifty percent (50%) of the costs associated with the installation of the temporary bypass system of the existing wastewater siphons undertaken as part of the Temporary Relocations. HRSD will be responsible for fifty percent (50%) the costs of the same.
6. For a summary of estimated costs and the cost sharing responsibility, refer to attached **Exhibit A**, "Replacement of Bridge Street Bridge – Bid Form - Items 93 through 109."
7. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:
  - a. HRSD will be solely responsible for costs due to a Change Order requested by HRSD;
  - b. CITY will be solely responsible for costs due to a Change Order requested by CITY; and
  - c. Both HRSD and City will equally fund fifty percent (50%) of costs due to a Change Order for an unknown or unforeseen condition.

E. Ownership, Operation and Maintenance of Facilities

1. The Permanent Improvements and Permanent Relocation constructed hereunder shall be conveyed to and remain the property of HRSD. HRSD agrees to accept ownership of the Permanent Improvements and Permanent Relocation pursuant to Section III(D) below. HRSD agrees that, after accepting ownership of the Permanent Improvements and Permanent Relocation, it will operate and maintain the Facilities constructed under this Agreement at the expense of HRSD. No wastewater flow will be accepted through the Permanent Improvements and Permanent Relocation until such time as HRSD has accepted ownership of the Permanent Improvements and Permanent Relocation.
2. The Temporary Relocations will be the property of the CITY, until such time that the Permanent Improvements and Permanent Relocation are complete and the Temporary Relocations are no longer needed. The CITY's contractor will operate and maintain the Temporary Relocations including the temporary bypass pumping system while they are in use. No wastewater will be accepted through the Temporary Relocations until the Temporary Relocations are operationally tested by the CITY's contractor and approved by HRSD and the City.

F. Schedule for the Project

The Project is anticipated to begin by approximately March 2016 and be complete by approximately March 2017. If the Project dates aforementioned are deviated from substantially, HRSD reserves the right to terminate this Agreement.

**III. OBLIGATIONS OF HRSD**

A. Design

HRSD agrees to provide all design-related services for HRSD Facilities at HRSD's cost.

B. Inspection and Construction Administration

HRSD agrees to provide:

1. Full-time inspection by HRSD of the Facilities Work. The inspector(s) shall have the full authority to ensure that the Facilities Work is constructed in accordance with the approved Plans and Specifications.
2. HRSD or its consultant, AECOM, at no cost to the CITY, will be responsible for construction inspection and administration of the Facilities.
3. Construction Administration and inspection for the work done for the CITY will be performed and paid for by the CITY, and Construction Administration and inspection for work done for HRSD will be performed and paid for by HRSD. Each party will have prepared their own record drawings at no cost to the other.

C. Payment of Costs

HRSD shall pay the costs set forth in Section II(D) after execution of a construction contract.

D. Agreement to Accept Ownership

HRSD shall accept ownership of the Facilities described in Section II(E) when all conditions of the construction contract and this Agreement have been met.

**IV. OBLIGATIONS OF THE CITY**

A. Design

The design of the Project, excluding design of the HRSD Facilities, shall be the responsibility of the CITY.

B. Bidding of the Project

The CITY will receive competitive bids for construction of the Project, including the Facilities based on the Plans and Specifications provided by HRSD. All bids received will be reviewed and approved by the CITY and HRSD prior to award of the construction contract. The CITY and HRSD shall negotiate in good faith to resolve financial matters with regards to Bidding of the Project. The contractor and subcontractors selected shall be acceptable to CITY and HRSD.

C. Construction of Facilities

The CITY shall complete construction of the Facilities in accordance with the Plans and Specifications and terms set forth in this Agreement. The CITY and HRSD shall review and agree upon the contractors and subcontractors qualifications prior to the award of contract.

D. Correction of Construction Deficiencies

The CITY agrees to require the Contractor to provide the CITY with performance and payment bonds. The bonds are to remain in effect for one year following completion of the construction of the Project. This period will be a warranty period where any construction defects must be resolved in a timely fashion by the Contractor.

E. Conveyance of Facilities

The CITY agrees that upon completion of the construction of the Facilities Work, the CITY will make conveyance of the Facilities, as follows:

1. For those portions of the Facilities not within the public right-of-way, the CITY agrees to convey same together with adequate easements, right-of-ways, or title by special warranty deed, or by easement, or by right-of-way (as depicted on approved plans), in recordable form satisfactory to HRSD and its council.
2. All Facilities conveyed shall be accompanied by plats and drawings of the Facilities and rights conveyed.

F. Record Drawings

The CITY agrees to require the Contractor to provide field information to the HRSD inspector for use in documenting the construction and creating record drawings for the Facilities.

## **V. GOVERNING LAW**

This Agreement shall be deemed to be a Virginia contract and shall be governed as to all matters whether or invalidity, interpretations, obligations, performance, or otherwise exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws.

## **VI. TERMINATION**

Anything herein or elsewhere to the contrary notwithstanding, this Agreement and the obligations of the parties hereunder may be terminated by the CITY or HRSD in the event that either party breaches or violates any material provision of this Agreement or fails to perform any material covenant or agreement to be performed by either party under the terms of this Agreement and such breach, violation, or failure is not cured prior to the commencement of the Project or by mutual agreement of the CITY and HRSD.

## **VII. INDEMNITY**

The CITY shall ensure that the Contractor covenants and agrees that it will protect, save, and keep HRSD harmless and indemnified against any liability, obligation, penalty or damage, or charge imposed for any negligence or willful misconduct by the Contractor or for any violation of any laws or ordinances occasioned by the Contractor, its officers, employees, agents, subcontractors, independent contractors, licensees, or concessionaires.

## **VIII. NOTICE**

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

HRSD By U.S. Postal Service:  
General Manager  
HRSD  
P. O. Box 5911  
Virginia Beach, VA 23471-0911

By Overnight Mail:  
General Manager  
HRSD  
1434 Air Rail Avenue  
Virginia Beach, VA 23455

With copy to:  
Conway H. Sheild, III, Esq.  
Jones, Blechman, Woltz & Kelly, P.C.  
701 Town Center Drive, Suite 800  
Newport News, Virginia 23606

CITY:

City of Hampton  
Attention: Mary Bunting, City Manager  
22 Lincoln Street  
Eighth Floor, City Hall  
Hampton, Virginia 23669

With copy to:

Vanessa T. Valldejuli, City Attorney  
22 Lincoln Street  
Eighth Floor, City Hall  
Hampton, Virginia 23669

**IX. ASSIGNMENT**

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

**X. AMENDMENT**

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

**XI. SEVERABILITY**

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

**XII. DAMAGES**

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

**XIII. INSURANCE**

HRSD has the right to review and approve insurance coverage in the various insurance categories that HRSD deems necessary to be carried by the Contractor or any other parties to this Agreement. Proof of insurance shall be provided at the request of HRSD, and the insurance coverage shall be maintained during the term of this Agreement.

**XIV. TERM of AGREEMENT**

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

**XV. FORCE MAJEURE**

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

**XVI. SUBCONTRACTORS AND INDEPENDENT CONTRACTORS**

If a Contractor hires subcontractors or independent contractors, HRSD has the right to approve them by reviewing their requisite experience and knowledge to complete the work assigned.

**XVII. CONTRACTOR AND SUBCONTRACTORS**

If any Contractor or subcontractors are selected by the CITY for completion of the work contemplated herein, HRSD has the right to approve the same.

**XVIII. WAIVER**

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

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

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

No provision in this Agreement shall constitute or be deemed to constitute a waiver of the City's rights of sovereign immunity or any defenses available to municipal corporations of the Commonwealth of Virginia.

**XIX. INTEGRATION**

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

**IN WITNESS WHEREOF**, the City of Hampton has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on May 11, 2016, and the Hampton Roads Sanitation District Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on December 16, 2014.

[SIGNATURES APPEAR ON FOLLOWING PAGES]



This signature page is part of the Agreement for the CONSTRUCTION AND RELOCATION OF BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS between the City of Hampton, Virginia and Hampton Roads Sanitation District (HRSD).

**HAMPTON ROADS SANITATION DISTRICT,**

**a political subdivision of the Commonwealth of Virginia**

By: \_\_\_\_\_

  
EDWARD G. HENIFIN, P.E.  
General Manager

ATTEST:

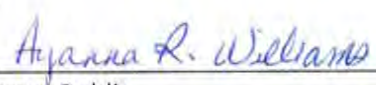
  
Jennifer L. Cascio, Secretary

AYANNA R. WILLIAMS Notary Public Commonwealth of Virginia My Commission Expires January 31, 2017 Commission ID# 240380
--

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

The foregoing instrument was acknowledged before me this 29<sup>th</sup> day of January, 2016, by Edward G. Henifin, P.E., General Manager for Hampton Roads Sanitation District. He is known to me personally.


My commission expires: Jan. 31, 2017.

  
Ayanna R. Williams  
Notary Public  
Registration Number: 240380

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

The foregoing instrument was acknowledged before me this 29<sup>th</sup> day of January, 2016, by Jennifer L. Cascio, Secretary for Hampton Roads Sanitation District. She is known to me personally.

My commission expires: Jan. 31, 2017.

  
Ayanna R. Williams  
Notary Public  
Registration Number: 240380

AYANNA R. WILLIAMS Notary Public Commonwealth of Virginia My Commission Expires January 31, 2017 Commission ID# 240380
--

This signature page is part of the Agreement for the CONSTRUCTION AND RELOCATION OF BRIDGE STREET VENT AND REHABILITATION OF BRIDGE STREET SIPHONS between the City of Hampton, Virginia and Hampton Roads Sanitation District (HRSD)

CITY OF HAMPTON

By: Mary B. Bunting  
City Manager / Authorized Designee

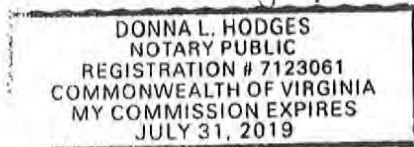
ATTEST:

[Signature]  
Clerk of Council

COMMONWEALTH OF VIRGINIA  
CITY OF HAMPTON, to-wit:

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of May, 2016 by Mary B. Bunting, City Manager or Authorized Designee for the City of Hampton, Virginia. She is known to me personally.

My commission expires: July 31, 2019.



Donna L. Hodges  
Notary Public  
Registration Number: 7123061

COMMONWEALTH OF VIRGINIA  
CITY OF HAMPTON, to-wit:

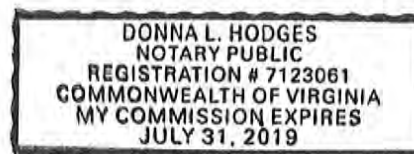
The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of May, 2016, by Katherine Glass, Clerk of Council for the City of Hampton, Virginia. She is known to me personally.

My commission expires: July 31, 2019.

Donna L. Hodges  
Notary Public  
Registration Number: 7123061

APPROVED AS TO FORM:

[Signature]  
City Attorney



## EXHIBIT A

Replacement of Bridge Street Bridge – Bid Form - Items 93 through 109

Item No.	Item	Qty	Unit	Cost Per		Extended Price	Assigned Cost		City Cost	HRSD Cost
				Unit			Responsibility			
93	24" Sanitary Sewer Rehabilitation (CIPP)	425	LF	\$150.00		\$63,750.00	100% HRSD			\$63,750.00
94	30" Sanitary Sewer Rehabilitation (CIPP)	425	LF	\$198.00		\$84,150.00	100% HRSD			\$84,150.00
95	Temporary Bypass	1	LS	\$315,936.00		\$315,936.00	50% City and 50% HRSD	\$157,968.00		\$157,968.00
96	Temporary Vent Piping	425	LF	\$96.00		\$40,800.00	80% City and 20% HRSD	\$32,640.00		\$8,160.00
97	28" Fiberglass Vent Piping	140	LF	\$365.20		\$51,128.00	80% City and 20% HRSD	\$40,902.40		\$10,225.60
98	14" Fiberglass Vent Piping ( 2 Runs of the 14" )	560	LF	\$288.00		\$161,280.00	80% City and 20% HRSD	\$129,024.00		\$32,256.00
99	14" Fiberglass Vent Pipe Expansion Coupling	2	EA	\$12,183.00		\$24,366.00	80% City and 20% HRSD	\$19,492.80		\$4,873.20
100	HRSD Siphon Vaults Rehabilitation	1	LS	\$67,338.00		\$67,338.00	100% HRSD			\$67,338.00
101	6' HRSD Sanitary Sewer Manhole	1	EA	\$13,264.00		\$13,264.00	100% HRSD			\$13,264.00
102	CCTV Inspection, Pre Pile Driving Activities	850	LF	\$18.00		\$15,300.00	80% City and 20% HRSD	\$12,240.00		\$3,060.00
103	Flexible Pavement Planing (2" Depth)	180	SY	\$15.75		\$2,835.00	80% City and 20% HRSD	\$2,268.00		\$567.00
104	Saw-Cut, Asphalt Pavement(Up to 20" Depth)	190	LF	\$9.25		\$1,757.50	80% City and 20% HRSD	\$1,406.00		\$351.50
105	2" Asphalt Concrete Surface Course, SM-9.5A	25	Ton	\$146.08		\$3,652.00	80% City and 20% HRSD	\$2,921.60		\$730.40
106	6" Asphalt Concrete, Base Course, BM-25.0A	30	Ton	\$158.50		\$4,755.00	80% City and 20% HRSD	\$3,804.00		\$951.00
107	8" Aggregate Base Material, Type 1, 21A or 21B	105	SY	\$43.00		\$4,515.00	80% City and 20% HRSD	\$3,612.00		\$903.00
108	Remove and Dispose of Guardrail	13	LF	\$27.75		\$360.75	80% City and 20% HRSD	\$288.60		\$72.15
109	Guardrail, GR-2	13	LF	\$36.50		\$474.50	80% City and 20% HRSD	\$379.60		\$94.90
TOTAL CONSTRUCTION COST						\$855,661.75		\$406,947.00		\$448,714.75

HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #9

AGENDA ITEM 12. – Capital Improvement Program Quarterly Update PowerPoint Presentation



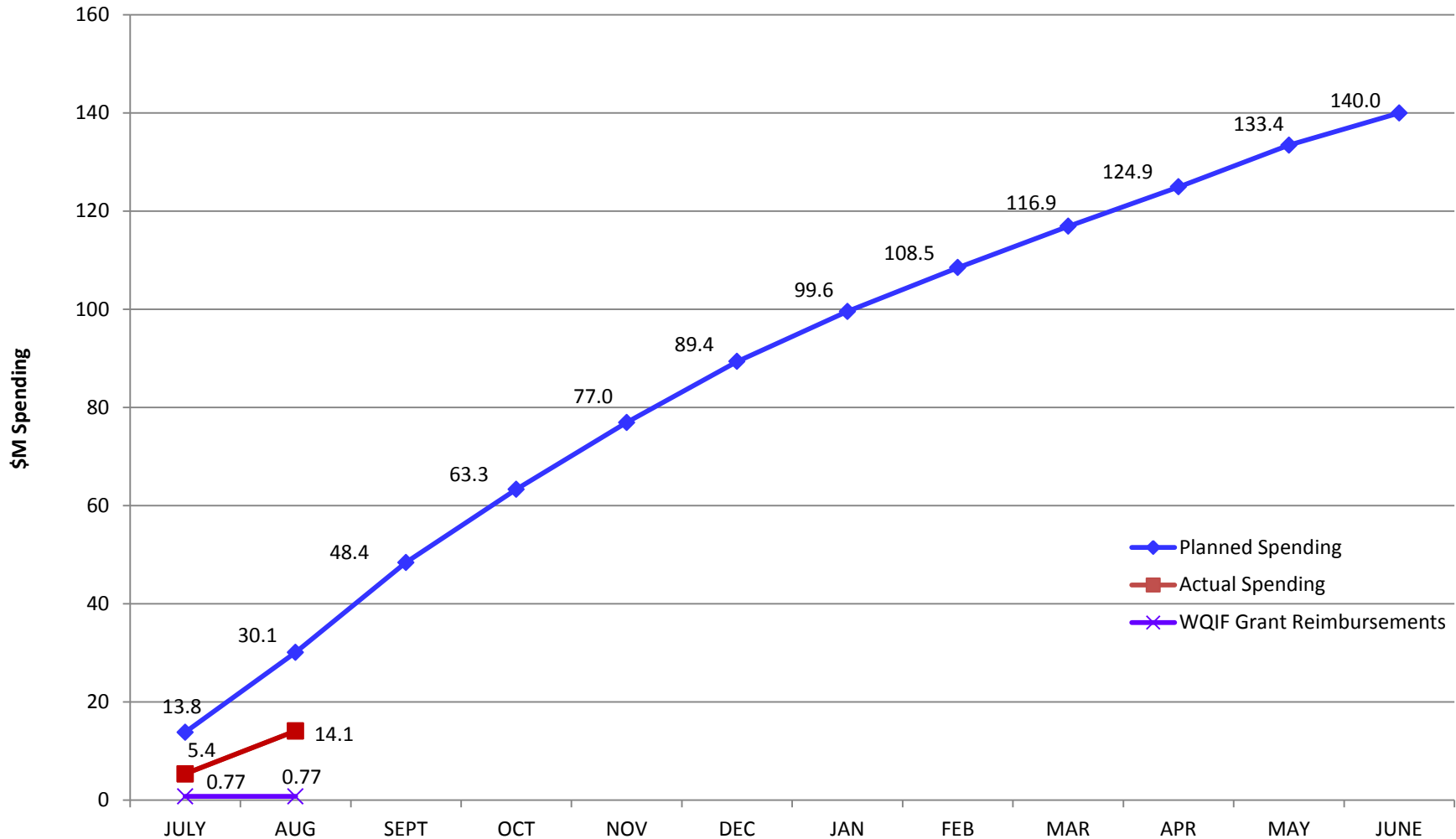
# Capital Improvement Program Commission Briefing

October 31, 2017

- CIP Expenditures for FY-2018
- Significant Project Updates
- Consent Decree/SSO Reduction Project Updates
- Project Focus: Hampton Trunk Sewer Extension  
Division E Gravity Replacement

# CIP Expenditures for FY-2018

## Cumulative Monthly Expenditures & Reimbursements



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## CIP Expenditures for FY-2018 (cont.)

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### CIP Project Not Meeting Spending Projections:

Project Name	Planned FY-2018 CIP Spending
Atlantic Treatment Plant Thermal Hydrolysis Process (Cambi)	\$6,890,000
Bridge Street Pump Station Replacement	\$5,529,000
Interceptor Systems Pump Station Control & SCADA Upgrades	\$6,188,000



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## Significant Project Updates

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- Sustainable Water Phase 3 Demonstration Facility  
SWIFT Research Center
- Virginia Initiative Plant Nutrient Reduction  
Improvements

# Sustainable Water Phase 3 Demonstration Facility SWIFT Research Center

**Engineer:** CH2M Hill

**Design-Build Team:**  
Hazen & Sawyer  
Crowder Construction  
Company

**Schedule Completion:**  
March 2018

**Project Value:** \$27M

**Funding:** HRSD Revenue Bonds



# Virginia Initiative Plant Nutrient Reduction Improvements

**Engineer:** HDR Engineering, Inc.

**Contractor:**

Contract A – PC Construction

Contract B – MEB General  
Contractors

Procurement – Emergency  
Generators

**Schedule Completion (Contract B):**

March 2017 – Nutrient Work

July 2018 – Other Work

**Project Value:** \$161.4M

**Funding:** HRSD Revenue Bonds  
WQIF Grant (\$46.8M)



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## Consent Decree/SSO Reduction Project Updates

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- 33 CIP projects were included in the original Federal Consent Decree.
- 18 CIP projects were added to the Federal Consent Decree as part of the negotiation to consider regionalization of the sanitary sewer system.
- These projects involve improvements to the interceptor sewer system and numerous pump stations.
- HRSD has until **February 23, 2018** to complete these projects.
- 2 CIP projects were added to the Federal Consent Decree as part of the final negotiation to implement the Regional Wet Weather Program. HRSD has until **Dec. 31, 2018** to complete these projects.

Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
1	Claremont Avenue Pump Station Rehabilitation	\$1,500,000	\$2,202,936	Complete
2	Atlantic Pressure Reducing Station Emergency Generator Replacement	\$1,000,000	\$1,281,055	Complete
3	Lake Ridge Interceptor Force Main Section B - Contract 2 (Land)	\$3,000,000	\$2,676,660	Complete
4	Big Bethel Road to J Clyde Morris Boulevard Interceptor Force Main Replacement	\$2,500,000	\$2,865,502	Complete
5	Williamsburg-James River Connection Force Main Section II and Lucas Creek-Woodhaven Interceptor Force Main Replacements - Phase I	\$4,000,000	\$1,965,951	Complete
6	Route 171 Interceptor Force Main	\$8,000,000	\$6,487,309	Complete
7	Kiln Creek Interceptor Force Main	\$7,000,000	\$6,629,172	Complete
8	South Trunk Sewer Section F 20-Inch, Section H 8-Inch, and Section H 12-Inch Interceptor Force Main Replacement and Gravity Sewer Chesterfield Blvd. Replacement	\$11,000,000	\$6,366,640	Complete
9	Eastern Branch Sections A & B, Green Run Section C, and 24-Inch Kempsville Road Force Main Replacements	\$6,000,000	\$5,585,872	Complete
10	North Trunk Sewer Section W 8-Inch and 12-Inch Force Mains and Larchmont Force Mains (Formerly Siphon Lines) Replacements*	NA	NA	Project Deleted



Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
11	North Trunk Sewer Section R 6-Inch Interceptor Force Main and 10-Inch Gravity Replacement	\$1,000,000	\$1,879,294	Complete
12	North Trunk Sewer Section D 24-Inch Interceptor Force Main Replacement	\$6,000,000	\$5,798,029	Complete
13	Hilltop/Point O'Woods Interceptor Force Main Replacements; Section B	\$6,000,000	\$7,122,565	Complete
14	Hilltop/Point O'Woods Interceptor Force Main Replacements; Section A	\$5,000,000	\$7,122,565	Complete
15	Williamsburg Interceptor Force Main Contract A Replacement	\$6,000,000	\$7,803,667	Complete
16	33rd Street Pump Station Replacement/Rehabilitation	\$3,000,000	\$5,505,196	Complete
17	Sanitary Sewer System Portsmouth VA Contract A Clifford Street Force Main	\$1,000,000	\$1,174,254	Complete
18	James River Diversion 35th Street Phase III and Boat Harbor Outlet Sewer Relocation I-664 Rehabilitation	\$2,000,000	\$979,053	Complete
19	Hampton Trunk Sewer Division A Replacement	\$1,000,000	\$5,011,437	Complete
20	Lucas Creek Pump Station Upgrade*	NA	NA	Project Deleted

Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
21	South Trunk Sewer Section C-42 inch Force Main Replacement	\$4,000,000	\$13,857,340	Complete
22	Section W Force Main Replacement*	NA	NA	Project Deleted
23	Coliseum Drive Pressure Reducing Station	\$6,000,000	\$10,785,839	Complete
24	Center Avenue Pump Station Replacement	\$4,000,000	\$2,826,309	Complete
25	Norchester St Pump Station Replacement/Rehabilitation	\$2,000,000	\$7,538,145	Complete
26	Providence Road Pressure Reducing Station Modifications	\$2,000,000	\$4,041,725	Complete
27	58th Street Connecting Sewer Rehabilitation	\$1,000,000	\$2,978,845	Construction
28	Bridge St. Pump Station Replacement/Rehabilitation	\$2,000,000	\$14,123,400	Construction
29	South Trunk Sewer Section G-36 inch Force Main Replacement	\$3,000,000	\$13,656,685	Complete
30	Interceptor Systems Pump Station Control and SCADA Upgrades and Enhancements	\$10,000,000	\$24,849,471	Construction
31	Wilroy Pressure Reducing Station, Pughsville PRS Upgrades, Suffolk PS Upgrades*	NA	NA	Project Deleted
32	Army Base 24-Inch and 20-Inch Transmission Main Replacements*	NA	NA	Project Deleted
33	Normandy Lane Interceptor Force Main Replacement*	NA	NA	Project Deleted
11		\$109,000,000	\$173,114,916	

Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
34	Great Neck Road IFM Replacement – Section A	\$4,500,000	\$6,828,269	Complete
35	Military Highway Interim Pressure Reducing Station	\$750,000	\$220,572	Complete
36	Hampton Trunk Sewer Extension Division E – Gravity Replacement	\$750,000	\$2,254,489	Construction
37	Victoria Boulevard Pump Station	\$3,600,000	\$3,706,218	Complete
38	Ivy Home – Shell Road Sewer Extension Division I – Replacement*	NA	NA	Project Deleted
39	South Shore Interceptors Air Vent Rehabilitation	\$2,500,000	\$3,141,000	Construction
40	North Shore Air Vent Replacements	\$1,200,000	\$786,528	Complete
41	Center Avenue Pump Station Service Area I/I Remediation	\$4,000,000	\$5,308,000	Construction
42	Middle Ground Boulevard – City Center Interconnect Force Main	\$5,000,000	\$6,593,520	Complete
43	Center Avenue I&I Remediation – Phase II	\$3,000,000	\$1,824,922	Complete
44	Jefferson Avenue IFM Replacement – Phase I	\$4,500,000	\$4,091,934	Complete



Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
45	Warwick Boulevard to James River Influent Force Main - Section 3*	NA	NA	Project Deleted
46	Holland Road 24-inch IFM – Section A	\$14,000,000	\$22,073,381	Construction
47	Pughsville Pressure Reducing Station Upgrades	\$5,000,000	\$2,720,000	Construction
48	Sewerage System Improvements Division C	\$750,000	\$1,649,455	Complete
49	Lafayette River Crossing/Norview – Estabrook Force Main Replacement	\$3,000,000	\$4,091,609	Complete
50	Courthouse Interim Pressure Reducing Station	\$1,500,000	\$2,840,627	Complete
51	Hampton Pump Station 023 Upgrades and Discharge Force Main	\$750,000	\$680,422	Complete
		<b>\$54,800,000</b>	<b>\$68,810,946</b>	

Ref No.	Project Title	Consent Decree Estimate	Authorized/ Completed	Status
52	Virginia Initiative Plant Nutrient Reduction Improvements, Contract A	\$18,000,000	\$18,343,768	Complete
53	Virginia Initiative Plant Nutrient Reduction Improvements, Contract B	\$125,000,000	\$135,284,000	Construction
		<b>\$143,000,000</b>	<b>\$153,627,768</b>	
Total for all work:		<b>\$306,800,000</b>	<b>\$395,553,630</b>	

# Hampton Trunk Sewer Extension Division E Gravity Replacement

## **Project Description:**

This project involves the replacement of approximately 1,000 linear feet (LF) of existing 24-inch slip-lined pipe along Kecoughtan Road from Ivy Home Road south towards Clyde Street with a new 24-inch gravity sewer as well as the replacement of approximately 200 LF of existing 21-inch slip-lined pipe along Ivy Home Road west from the Kecoughtan Road intersection. This project will also include the restoration of all existing connections to the existing 24-inch gravity sewer and the rehabilitation of two existing manholes.

## **Regulatory Requirement:**

Federal Consent Decree – Interim System Improvement Project

**Engineer:** AECOM

**Contractor:** MEB General Contractors

**Project Budget:** \$2.56M

## Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

### Financial Summary:

Study Costs:	\$ 36,714
Design Costs:	\$ 52,735
Construction Costs:	\$ 1,902,855
Projection Contingency Costs:	\$ 136,649
Change Orders:	\$ 70,675*
Total:	\$ 2,199,628

### Schedule Summary:

Planning:	2012
Design:	2013 – 2014 (Bid Delay)
Construction:	2017
Project Complete:	February 2018

\*(Pending C.O. of \$400K under negotiation)

# Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

## CIP Location Map:





## Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)



## Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

### Materials of Construction:





## Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

### Materials of Construction:





# Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

## Construction Efforts:





# Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

## Construction Efforts:





# Hampton Trunk Sewer Extension Division E Gravity Replacement (cont.)

## Construction Efforts:



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Questions?

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HRSD COMMISSION MEETING MINUTES  
October 31, 2017

ATTACHMENT #10

AGENDA ITEM 17. – Informational Items

a. Management Reports

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

b. [Strategic Planning Metrics Summary](#)

c. [Effluent Summary](#)

d. [Air Summary](#)

e. [Emergency Declaration - Sanitary Sewer System Portsmouth Virginia Western Diversion Force Main \(SF-218\)](#)



October 18, 2017

Re: General Manager's Report

Dear Commissioners:

Each September the Virginia Water Environment Association (VWEA) holds their annual conference in conjunction with the Virginia Chapter of the American Water Works Association (AWWA). The joint conference is aptly named Water JAM (joint annual meeting). This year's conference was held in Hampton and showcased the talents of many HRSD employees.

As the largest water utility in Virginia, HRSD leadership is no surprise, but the level of engagement has little to do with HRSD's size. VWEA, like the Water Environment Federation (WEF) is an individual membership organization. HRSD is not the member, our employees are the members. While we encourage and support involvement, people choose to join and participate at their own comfort levels. Involvement with professional associations, like VWEA, provides networking opportunities, learning opportunities and leadership opportunities. Involvement helps individuals develop and refine their skills, which in turn makes them more valuable to HRSD and the entire water industry.

Several HRSD staff members have held various leadership positions within VWEA, including multiple presidencies. This year Eddie Abisaab, a project manager in Engineering, completed his term as president and Shawn Heselton, Chief of Interceptor Operations, South Shore, begins his term as president-elect.

The return on our investment in professional organizations is great and I appreciate your continued support of this valuable opportunity for our staff.

While involvement and participation in Water JAM required a significant investment of time, HRSD operations continued throughout the month. There is no break from the business of ensuring future generations inherit clean waterways. The highlights of September's activities are detailed in the attached monthly reports.

1. **Treatment Compliance and System Operations:** All plants met all VPDES and air permit requirements during the month with the exception of the Urbanna Treatment Plant. Urbanna experience an exceedance of their weekly maximum average for Ammonia. The cause is still under investigation and plant

performance quickly recovered, allowing Urbanna to meet their monthly permit requirements. The North Shore interceptor system experienced capacity-related overflows due to an intense rain event in Hampton on September 9. Details of these and other minor issues are included in the Operations Director's report.

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

- a. A meeting to discuss plans for the public outreach associated with the storage tank/skate park project in Virginia Beach
- b. A strategic planning meeting focused on the partnership focus area
- c. The introduction session and a question and answer session of the Leadership and Management Program (LAMP), an in-house training and development course
- d. A meeting to discuss the plans for water meter replacements in Surry
- e. A meeting to review finishes for the Sustainable Water Initiative for Tomorrow (SWIFT) Research Center
- f. A meeting to discuss the use of on-line tools for public meetings
- g. Multiple meetings and calls to review the final Integrated Plan submittal
- h. Meetings and calls to discuss next steps in the partnership with DC Water for licensing and commercialization of our shared intellectual property
- i. Several calls and meetings regarding reviews of the Regional Wet Weather Management Plan (RWWMP)
- j. An on-site meeting to review the SWIFT open house plans at the Nansemond Treatment Plant
- k. One new employee orientation sessions.
- l. One breakfast with employees celebrating service anniversaries
- m. A meeting with Engineering staff to discuss HRSD direction and provide feedback on engineering performance

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

- a. A meeting with Whitney Katchmark of the HRPDC to discuss regional stormwater planning and related issues
- b. Multiple planning calls with Water Environment Federation (WEF) staff and participants in the upcoming WEF Technical Exhibition and Conference (WEFTEC) Public Officials Forum
- c. The monthly meeting of the HRPDC Director of Utilities Committee
- d. A call with the US Water Alliance Value of Water steering committee
- e. The Governor's announcement of the National Fish and Wildlife Foundation grant award to CBF and the Elizabeth River Project

- f. A call with the Virginia Tech Extension Service to coordinate with the Virginia Household Water Quality Program for a well water testing event
- g. An interview with Bloomberg BNA regarding SWIFT
- h. Presented SWIFT to the Peninsula Health District Environmental Health Office's professional development day
- i. The Middlesex County Board of Supervisors meeting to discuss potential studies for expansion of sewer service in the County
- j. A meeting with Old Dominion University to discuss their potential role in a SWIFT monitoring program
- k. The James City County Board of Supervisors meeting to discuss SWIFT schedule and impact
- l. A meeting with the Newport News City Manager to discuss coordination of services and provide an update on HRSD activities
- m. The quarterly meeting of Congressman Scott Taylor's Chesapeake Bay Advisory Committee
- n. A meeting with senior leadership of the City of Portsmouth to discuss issues related to SWIFT
- o. A meeting with Kirk Cole, PhD, PE to discuss his objections and concerns about SWIFT

November 1, 2017 will mark my eleventh anniversary with HRSD. As such there will be a closed session at the October meeting to conduct my performance review. I will provide a self-assessment for your use via separate correspondence prior to the meeting. I look forward to the opportunity to receive your feedback.

Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth and the environment. **I look forward to seeing you on Tuesday, October 31, 2017 in Newport News.**

Respectfully submitted,

*Ted Henifin*

Ted Henifin, P.E.  
General Manager



TO: General Manager

FROM: Director of Communications

SUBJECT: Monthly Report for September 2017

DATE: October 17, 2017

A. Publicity and Promotion

1. "James City County wins permit to tap Chickahominy water," September 8, 2017 | Daily Press  
<http://www.dailypress.com/news/politics/dp-nws-chickahominy-water-20170907-story.html>
2. "County wins permit to tap Chickahominy," September 9, 2017 | The Virginia Gazette  
<http://www.vagazette.com/news/dp-vg-nws-jcc-water-supply-20170909-story.html>
3. "HRSD first aquifer plant slated for James City," September 12, 2017 | Daily Press  
<http://www.dailypress.com/news/politics/dp-nws-hrsd-groundwater-20170912-story.html>
4. "WateReuse Honors Extraordinary Leadership," September 12, 2017 | Forester Daily News (foresternetwork.com)  
<http://foresternetwork.com/daily/water/water-efficiency-latest/watereuse-honors-extraordinary-leadership/>
5. "HRSD buys lot on Main Street for Mathews pump station," September 13, 2017 | Gloucester – Mathews Gazette-Journal  
[http://www.gazettejournal.net/index.php/news/news\\_article/hrsd\\_buys\\_lot\\_on\\_main\\_street\\_for\\_mathews\\_pump\\_station](http://www.gazettejournal.net/index.php/news/news_article/hrsd_buys_lot_on_main_street_for_mathews_pump_station)
6. "Supervisors work on sewer plans," September 20, 2017 | Southside Sentinel  
[http://www.ssentinel.com/index.php/news/article/supervisors\\_work\\_on\\_sewer\\_plans/](http://www.ssentinel.com/index.php/news/article/supervisors_work_on_sewer_plans/)
7. "James City supervisors to discuss water supply," September 21, 2017 | Virginia Gazette  
<http://www.vagazette.com/news/va-vg-supes-advance-0923-story.html>

8. "WateReuse Association honors leadership with annual awards," September 25, 2017 | Water Finance & Management (waterfm.com)  
<https://waterfm.com/watereuse-association-honors-leadership-annual-awards/>
9. "Xylem and Water Environment & Reuse Foundation Extend Successful Research Partnership," September 26, 2017 | Forester Daily News (foresternetwork.com)  
<http://foresternetwork.com/daily/water/water-efficiency-latest/xylem-water-environment-reuse-foundation-extend-successful-research-partnership/>  
  
(Above also appeared in Water Online (wateronline.com); Fluid Handling International (fluidhandlingmag.com); CTBR Enviro-Care Waste and Waste Water Management (waterwastemanagement.cleantechnology-business-review.com))
10. "WateReuse Association Honors Extraordinary Leadership," September 26, 2017 | Civil + Structural Engineer (csengineermag.com)  
<https://csengineermag.com/watereuse-association-honors-extraordinary-leadership/>
11. "Board of Supervisors briefed on long term water options," September 26, 2017 | The Virginia Gazette  
<http://www.vagazette.com/news/va-vg-long-term-water-work-session-0927-story.html>

B. Social Media and Online Engagement

1. Facebook Reach: 4,775
2. Twitter: 10,400 impressions
3. SWIFT website visits: 556
4. LinkedIn: 2,827
5. Construction Project Page Hits: 5,139

C. News Releases, Advisories and Project Notices and Project Websites

1. New Project Web Pages – none in September
2. Project Notices:
  - a. [Bridge Street Pump Station](#) (Hampton)
  - b. [Chesapeake Avenue Sanitary Sewer Pipeline Replacement](#) (Hampton and Newport News)
  - c. [Elm Avenue Force Main Replacement](#)
  - d. South England Street ( Williamsburg)

D. Special Projects and Highlights

1. The Director of Communications attended the Clean Water Forum in Richmond co-hosted by the Chesapeake Bay Foundation (CBF) and the James River Association (JRA).
2. Communications staff attended WaterJAM, focusing on technical sessions in community outreach, public relations, education and social media engagement.
3. Director accompanied SWIFT team on a visit to the Chesapeake Aquifer Storage and Recovery site to learn more about the city's wells associated with their aquifer storage program.
4. Communications staff met with a graphic artist to begin design work HRSD's educational display at the Elizabeth River Project's (ERP) new Paradise Creek facility.
5. Director continued to work with customer care and with operations in developing a communication plan and outreach materials related to the integration of Surry into HRSD's service area.
6. Director continued to work with Customer Care on communications efforts related to the new Invoice Cloud billing system.
7. Community educator attended the Hampton Roads Alliance for Environmental Educators (HRAEE) Conference.

E. Internal Communications

1. The Director of Communications and staff participated in Strategic Planning team meetings for the partnership focus area.

2. Director participated in meetings for SWIFT Research Center finish selection and interactive educational material concepts, design and layout.
3. Communications staff led planning meetings for the SWIFT Research Center construction progress tours and open house to observe “Imagine a Day without Water.”
4. Communications Director met with research company representatives to begin customer service survey planning, timeline development and goals.
5. Communications staff continued to work with engineering team members to coordinate public outreach and planning for the Woodstock Park Storage Tank project.

F. Metrics

1. Educational and Outreach Activities: 4
  - a. Christ the King School, What Not to Flush activity - 9/1
  - b. RIVERFest – 9/17
  - c. Norfolk Collegiate, Washing Water activity – 9/25
  - d. Kecoughtan Road Community Center Children’s Program (City of Hampton) What Not to Flush activity – 9/29
2. Number of Community Partners: 4
  - a. Norfolk Public Schools
  - b. Christ the King School
  - c. Norfolk Collegiate
  - d. City of Hampton
3. Additional Activities Coordinated by Department:
  - a. First Lego Team Poquoson, Washing Water with Chris Burbage – 9/12

<b>Item #</b>	<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>September 2017</b>
M-1.4a	Total Training Hours per Full Time Employee (2) - Current Month	Hours / #FTE	15.25
M-1.4b	Total Training Hours per Full Time Employee (2) - Cumulative Fiscal Year-to-Date	Hours / #FTE	25
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	4

Respectfully,

Leila Rice

Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for September 2017

DATE: October 11, 2017

A. General

1. Capital Improvement Program (CIP) spending for the second month of Fiscal Year-2018 continues to lag behind planned spending. A few of the large CIP projects are progressing slower than anticipated. These projects include:

- Atlantic Treatment Plant Thermal Hydrolysis Process (Cambi)
- Bridge Street Pump Station Replacement
- Interceptor Systems Pump Station Control & SCADA Upgrades

These projects are anticipated to be completed in the second half of the fiscal year and spending will increase as these projects move into the final completion phase.

CIP Spending (\$M):

	Current Period	FYTD
Actual	\$8.76	\$14.11
Plan	\$16.30	\$30.12

2. Members of the Engineering Department were actively involved in the recent WaterJAM Conference held in Hampton. This meeting is a joint effort between the state American Water Works Association and the Virginia Water Environment Association (VWEA). Members of the Engineering Department co-authored six technical papers, participated in a technical workshop, acted as a judge for a student competition and were active in the overall planning of this 3-day event. Mr. Eddie Abisaab, Project Manager in the Design and Construction Division, completed his term as President of the VWEA at the WaterJAM Conference. HRSD's involvement at this conference is an excellent way to stay current on technical issues, network with others in our industry and to give back to the profession.
3. The Engineering Department welcomes Mr. Adam Farnholtz as a Condition Assessment Manager within the Asset Management Division. Adam has a significant industrial and plant background working on structural integrity and corrosion mitigation strategies for a large power generation facility in

Phoenix, Arizona. Adam is replacing Mr. Erwin “Erv” Bonatz who will be retiring in October. Erv spent 33 years at HRSD in roles including Interceptor Engineer and Plant Manager, and he received a VWEA Lifetime Membership Award for his many years of service to the association and the industry.

B. Asset Management Division

1. Staff has compiled a list of all new coatings systems installed at the VIP Plant as part of the ongoing CIP project. The goal of this effort is to develop a lifecycle assessment and monitoring program to better understand the life of the new coatings systems and repair/replace these systems at the appropriate time. This effort will also help us better understand which coatings systems are best suited for use in the highly corrosive environment experienced at many of our treatment plants.
2. The Asset Management Implementation Project is underway. This is a three year, \$1.7 million effort to enhance the planning process for repair and replacement of capital assets using a risk-based and data driven methodology. The project team has conducted numerous input sessions with key staff to assess the organization’s readiness for change. The team continues to draft a Change Management Strategy and Communication Plan. These documents will help guide the team as we implement the Asset Management Program.

C. North Shore and South Shore Design & Construction Divisions

1. Construction of the Hampton Trunk Sewer Extension Division E Gravity Replacement Project continues as we face numerous challenges. The pipe replacement alignment is located within Kecoughtan Road in Hampton. The existing roadway and utilities are in poor condition which makes the progress slow and requires the repair to other assets. The poor soils and high groundwater levels in this area are also challenging the project team. The City of Hampton has required significant pavement replacement in the limits of the project due to damage caused by the work, and Newport News Waterworks has requested that we replace a section of waterline also impacted by the construction. Although the project has proceeded slower than anticipated, the contractor plans to have the project completed by the end of the year.
2. Challenges have also been encountered as we construct the Sanitary Sewer System – Western Diversion Force Main Relocation Project. This work is being done as part of a VDOT project to widen and improve Turnpike Road in Portsmouth. We are working cooperatively with VDOT to

relocate this existing force main and replace an additional section of pipe outside the limits of the roadway project. Difficulties have been encountered as the contractor has begun the effort to by-pass the section of pipe to be abandoned. The limits of this abandonment and the best method to isolate the pipe have been under review due to problems with the condition of the 1967 pre-stressed concrete cylinder pipe. Delays to the road project are likely and additional sections of pipe will need to be replaced as a result of the poor condition of the existing force main. Staff and the contractor are working closely to determine options to replace the existing pipe, limit impacts to motorists in this area and deliver a cost effective solution.

D. Planning & Analysis Division

1. Staff continues to assist with implementation of the SWIFT Program. An alternatives analysis effort is underway to determine the best way to address SWIFT at the Boat Harbor, Nansemond and Army Base Treatment Plants. The concept design for SWIFT at the Williamsburg Treatment Plant continues. The SWIFT recharge and monitoring well installation work at the Nansemond Treatment Plant continues. Numerous presentations were made during the month on SWIFT-related topics.
2. The CIP Enhancement Team continues their efforts to consider improvements to the overall program. The list of issues under consideration includes those items suggested in the audit prepared last year. Current efforts are focused on development of cost accounting tools to better estimate project costs. Actual costs for several projects will be used to determine criteria that can assist during the early estimate of project costs. Early determination of issues which impact the project scope and ultimate cost are critical to better projections within the CIP. This more accurate cost estimate allows for better decision making when initially prioritizing projects and minimizes delays when projects ultimately cost more than planned.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 11
  - a. Staff co-authored a presentation entitled, "HRSD's Sewer Modeling and Evaluation Tool Kit," made at the 2017 WaterJAM Conference on September 12.
  - b. Staff co-authored a presentation entitled, "Lessons Learned – Trial Locality/HRSD SSO Reduction Project Success Story," made at the 2017 WaterJAM Conference on September 13.



- c. Staff co-authored a presentation entitled, "Bigger is Not Always Better! HRSD's Decentralized Wastewater Systems Program," made at the 2017 WaterJAM Conference on September 13.
- d. Staff judged a water industry related college student competition at the 2017 WaterJAM Conference on September 13.
- e. Staff co-authored a presentation entitled, "Splitting It Up to Meet Wet Weather Management Plan Requirements: The Hampton Roads Approach to Hydraulic Modeling," made at the 2017 WaterJAM Conference on September 14.
- f. Staff made a presentation entitled, "Taking the First Steps on the Asset Management Journey, How HRSD Has Developed and is Implementing Their Asset Management Program," made at the 2017 WaterJAM Conference on September 14.
- g. Staff co-authored a presentation entitled, "Sustainable Water initiative For Tomorrow: A Look at HRSD's Innovative Approach to Managed Aquifer Recharge," made at the 2017 WaterJAM Conference on September 14.
- h. Staff presented the HRSD SWIFT Program to the Randolph Macon College Environmental Studies Class on September 14.
- i. Staff made a presentation on HRSD's SWIFT Program at the Virginia Engineers Conference on September 21.
- j. Staff made a presentation entitled, "Repair and Restoration of Water and Wastewater Infrastructure," at the Virginia International Concrete Repair Institute (ICRI) Symposia on September 21.
- k. Staff made a presentation on HRSD's SWIFT Program at the Maryland 26<sup>th</sup> Annual Groundwater Symposium on September 28.

2. Number of Community Partners: 5

- a. WaterJAM Conference
- b. Randolph Macon College
- c. Virginia Engineers Conference
- d. Virginia Chapter - ICRI
- e. Maryland Groundwater Symposia

3. Number of Research Partners: 0

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Total Training Hours per Full Time Employee (39) - Current Month	Hours / #FTE	6.22
M-1.4b	Total Training Hours per Full Time Employee (39) - Cumulative Fiscal Year-to-Date	Hours / #FTE	9.24
M-5.2	Educational and Outreach Events	Number	11
M-5.3	Number of Community Partners	Number	5
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 2017

DATE: October 11, 2017

A. General

1. The Genesys Customer Interaction Center (CIC) software is used for customer inquiries by phone, email and web chat. On September 21, 2017, the CIC software was down due to a network issue. After several hours troubleshooting, staff was able to use HRSD's CIC web portal and cleverly improvised to receive calls using their personal and spare HRSD cell phones during the second half of the day. Staff from Customer Care and Information Technology successfully worked together throughout the day and overnight for a resolution to ensure the system was operational the next day. While no official cause was released, the internet provider for Genesys, Level 3, reported wide spread outages on this day. Customer Care Interaction staff handles an average of 1,119 interactions per day. On September 21 staff impressively handled 754 interactions, which included outbound calls to reach out to customers with service interruptions. Information Technology is exploring connectivity solutions to prevent this type of disruption in the future.
2. In June 2017, the Commission approved an agreement with the Virginia Department of Emergency Management (VDEM) for Hurricane Matthew Public Assistance. As part of the process, staff was required to submit claims to our insurance carrier as FEMA/VDEM would only provide grant funds for expenses not covered by insurance. In September, staff received funds from HRSD's insurance carrier and we expect to receive grant funds from FEMA and Virginia Department of Emergency Management (VDEM) in the near future, see table below. The insurance funds were included in "Other" Non-Operating revenue.

	Amount	
Traveler's Insurance	\$615,245.04	% of Total (remaining)
FEMA	\$194,093.34	75%
VDEM	\$46,582.42	18%
HRSD	\$18,115.38	7%
<b>TOTAL</b>	<b>\$874,036.18</b>	

3. Revenues continue to exceed budget as water consumption is higher than expected, which may be due to the dry weather at the peak of grass seeding season. In addition, "Miscellaneous" Operating revenue is higher as we received our annual credit card rebate, which was over \$300,000. Personal services are slightly above budget at 27 percent. Since HRSD has twenty-six bi-weekly pay

periods, expenses are higher during months like September that have three pay periods; we anticipate that as we return to months when there are two pay periods, the cumulative expense percentages will be back in line with budget. Major repairs and capital assets expenses are significantly lower than budget at this time, since many purchases during Fiscal Year-2018 are related to prior year encumbrances. Miscellaneous Expense, which includes college tuition and training, is higher than budget since Fall semester tuition has been paid.

4. Quarterly investment reports for [HRSD's Operating Funds](#) and the [Retiree Health Plan Trust](#) are attached.

## B. Interim Financial Report

### 1. Operating Budget for the Period Ended September 30, 2017

	<b>Amended Budget</b>	<b>Current YTD</b>	<b>Current YTD as % of Budget (25% Budget to Date)</b>	<b>Prior YTD as % of Prior Year Budget</b>
Wastewater	\$ 265,662,693	\$ 71,252,019	27%	26%
Surcharge	1,900,000	418,270	22%	34%
Indirect Discharge	2,500,000	714,046	29%	27%
Norfolk Sludge	90,000	18,667	21%	16%
Fees	2,935,000	670,559	23%	27%
Municipal Assistance	700,000	205,311	29%	14%
Miscellaneous	720,000	454,322	63%	46%
<b>Total Operating Revenue</b>	<b>274,507,693</b>	<b>73,733,194</b>	<b>27%</b>	<b>26%</b>
<b>Non Operating Revenues</b>				
Facility Charge	6,000,000	1,594,235	27%	22%
Interest Income	1,800,000	677,963	38%	13%
Build America Bond Subsidy	2,400,000	1,168,524	49%	50%
Other	845,000	686,296	81%	14%
<b>Total Non Operating Revenue</b>	<b>11,045,000</b>	<b>4,127,018</b>	<b>37%</b>	<b>26%</b>
<b>Total Revenues</b>	<b>285,552,693</b>	<b>77,860,212</b>	<b>27%</b>	<b>26%</b>
Transfers from Reserves	9,760,286	2,440,072	25%	25%
<b>Total Revenues and Transfers</b>	<b>\$ 295,312,979</b>	<b>\$ 80,300,284</b>	<b>27%</b>	<b>26%</b>
<b>Operating Expenses</b>				
Personal Services	\$ 53,773,327	\$ 14,539,797	27%	27%
Fringe Benefits	24,700,569	6,225,449	25%	25%
Materials & Supplies	7,399,704	1,671,086	23%	22%
Transportation	1,423,974	244,119	17%	22%
Utilities	11,973,115	2,577,024	22%	19%
Chemical Purchases	10,620,594	1,908,614	18%	20%
Contractual Services	36,900,038	7,216,843	20%	21%
Major Repairs	10,429,168	1,235,834	12%	18%
Capital Assets	1,716,528	339,829	20%	5%
Miscellaneous Expense	2,396,234	769,541	32%	28%
<b>Total Operating Expenses</b>	<b>161,333,251</b>	<b>36,728,136</b>	<b>23%</b>	<b>23%</b>
<b>Debt Service and Transfers</b>				
Debt Service	59,949,120	18,231,782	30%	29%
Cost of Issuance Bonds	900,000	57,610	6%	0%
Transfer to CIP	58,802,000	14,700,500	25%	25%
Transfer to General Reserve	14,068,608	3,517,152	25%	0%
Transfer to Risk management	260,000	65,002	25%	25%
<b>Total Debt Service and Transfers</b>	<b>133,979,728</b>	<b>36,572,046</b>	<b>27%</b>	<b>27%</b>
<b>Total Expenses and Transfers</b>	<b>\$ 295,312,979</b>	<b>\$ 73,300,182</b>	<b>25%</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; 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, 2017

	General	Risk Management	Reserve	Capital
<b>Beginning of Period - July 1, 2017</b>	\$ 169,127,728	\$ 3,000,520	\$ 30,760,330	\$ 37,452,225
<b>Add: Current Year Sources of Funds</b>				
Cash Receipts	86,766,088			
Capital Grants				772,729
Line of Credit				-
Bond Proceeds (includes interest)				273,602
Transfers In	494,006	65,002		14,700,500
<b>Sources of Funds</b>	<b>87,260,094</b>	<b>65,002</b>	<b>-</b>	<b>15,746,831</b>
<b>Total Funds Available</b>	<b>\$ 256,387,822</b>	<b>\$ 3,065,522</b>	<b>\$ 30,760,330</b>	<b>\$ 53,199,056</b>
<b>Deduct: Current Year Uses of Funds</b>				
Cash Disbursements	70,409,956			25,634,830
Transfers Out	14,765,502		494,006	-
<b>Uses of Funds</b>	<b>85,175,458</b>	<b>-</b>	<b>494,006</b>	<b>25,634,830</b>
<b>End of Period - September 30, 2017</b>	<b>\$ 171,212,364</b>	<b>\$ 3,065,522</b>	<b>\$ 30,266,324</b>	<b>\$ 27,564,226</b>

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended September 30, 2017

Classification/ Treatment Service Area	Budget	Expenditures prior to June 30, 2017	Year to Date FY 2018 Expenditures	Total Expenditures	Outstanding Encumbrances	Available Balance
Administration	\$ 42,661,073	\$ 39,190,854	\$ 51,399	\$ 39,242,253	\$ 976,223	\$ 2,442,597
Army Base	158,584,000	119,868,900	773,092	120,641,992	5,437,850	32,504,158
Atlantic	119,731,914	41,761,333	656,637	42,417,970	64,099,499	13,214,445
Boat Harbor	86,813,683	41,705,426	805,046	42,510,472	12,462,942	31,840,269
Ches-Eliz	137,496,317	6,752,397	544,884	7,297,281	2,204,140	127,994,896
James River	75,114,256	50,348,019	1,006,541	51,354,560	3,003,943	20,755,753
Middle Peninsula	48,482,269	6,174,832	245,164	6,419,996	4,142,659	37,919,614
Nansemond	76,560,570	33,514,465	816,856	34,331,321	5,353,042	36,876,207
Surry	3,236,000	-	-	-	61,455	3,174,545
VIP	271,381,603	225,845,835	4,426,663	230,272,498	16,678,068	24,431,037
Williamsburg	16,156,843	8,607,181	(324,931)	8,282,250	878,124	6,996,469
York River	45,537,761	38,699,490	165,106	38,864,596	1,711,297	4,961,868
General	243,278,797	164,501,764	5,290,328	169,792,092	40,980,516	32,506,189
	<u>\$ 1,325,035,086</u>	<u>\$ 776,970,496</u>	<u>\$ 14,456,785</u>	<u>\$ 791,427,281</u>	<u>\$ 157,989,758</u>	<u>\$ 375,618,047</u>

5. Debt Management Overview

	Debt Outstanding (\$000's)				
	Principal August 2017	Principal Payments	Principal Draws	Principal Sept 2017	Interest Payments
<b>Fixed Rate</b>					
Senior	\$ 429,027	\$ (2,464)	\$ -	\$ 426,563	\$ (973)
Subordinate	297,714	(1,060)	-	296,654	(361)
<b>Variable Rate</b>					
Subordinate	50,000	-	-	50,000	(33)
<b>Line of Credit</b>	-	-	-	-	-
<b>Total</b>	<u>\$ 776,741</u>	<u>\$ (3,524)</u>	<u>\$ -</u>	<u>\$ 773,217</u>	<u>\$ (1,367)</u>

Series 2016 Variable Rate Interest Summary - Variable Rate Debt Benchmark (SIFMA) as of 10/06/17

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	0.94%	0.93%	-0.01%
Average	0.23%	0.22%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 10/06/17	0.92%	0.90%	-0.02%

\* Since October 20, 2011 HRSD has averaged 22 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended September 30, 2017

	Current YTD	Policy Minimum
Capital % Cash Funded	42%	15%
General Reserve as % of Operations	106%	75-100%
Risk Management Reserve as % of Projected Claims Costs	25%	25%

### Total Return Strategy

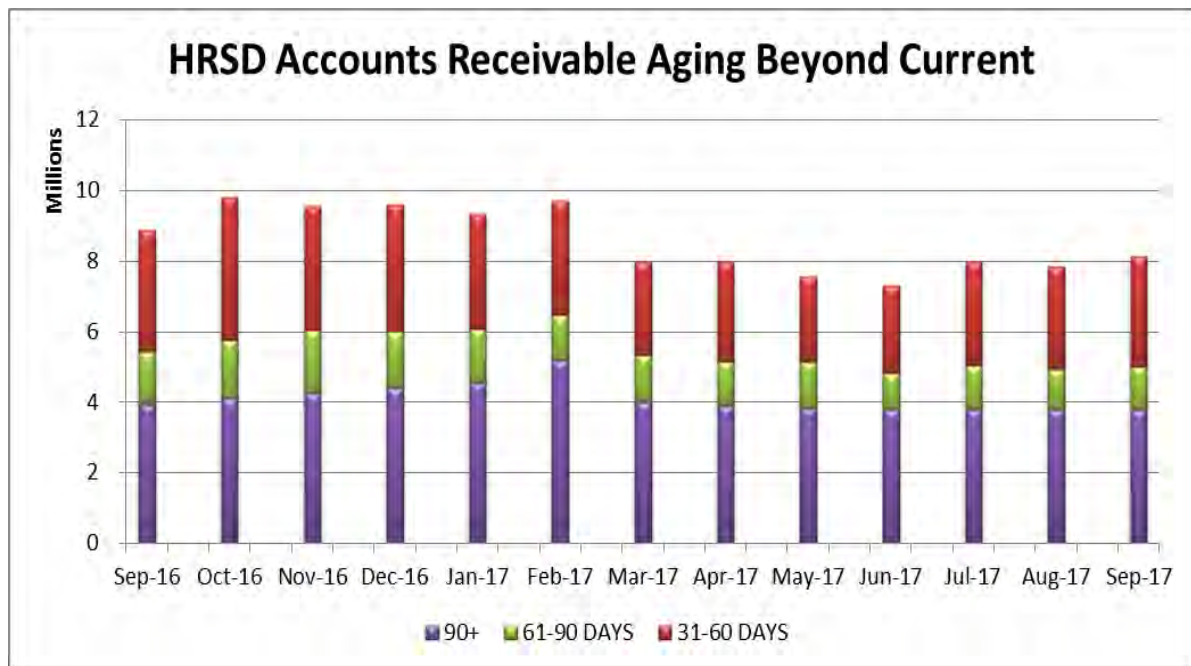
	Market Value June 30, 2017	YTD Buy/Sell	YTD Change in Market Value	YTD Adjustments	Market Value September 30, 2017
Investment Activity	\$ 123,844,438	\$ 445,209	\$ (51,932)	\$ -	\$ 124,237,715
Unrestricted Debt Service Reserve Fund	30,760,330			(494,006)	30,266,324
	<b>\$ 154,604,768</b>	<b>\$ 445,209</b>	<b>\$ (51,932)</b>	<b>\$ (494,006)</b>	<b>\$ 154,504,039</b>

## 7. Summary of Billed Consumption

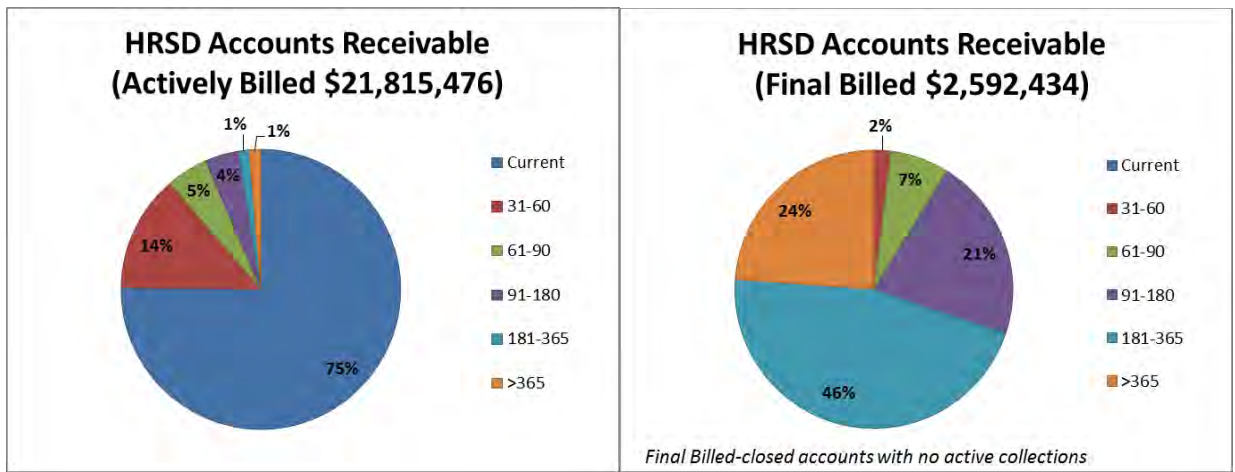
Summary of Billed Consumption (,000s ccf)							
			<u>% Difference</u>		<u>% Difference</u>		<u>% Difference</u>
<i>Month</i>	<i>2018 Cumulative Budget Estimate</i>	<i>2018 Cumulative Actual</i>	<i>From Budget</i>	<i>Cumulative 2017 Actual</i>	<i>From 2017</i>	<i>Cumulative 3 Year Average</i>	<i>From 3 Year Average</i>
July	4,427	4,869	10.0%	4,776	1.9%	4,798	1.5%
Aug	8,850	9,939	12.3%	9,275	7.2%	9,525	4.3%
Sept	13,271	14,632	10.3%	14,227	2.8%	14,215	2.9%
Oct	17,689	-	N/A	19,017	N/A	18,999	N/A
Nov	22,104	-	N/A	23,282	N/A	23,223	N/A
Dec	26,516	-	N/A	27,761	N/A	27,583	N/A
Jan	30,925	-	N/A	32,036	N/A	31,959	N/A
Feb	35,331	-	N/A	36,263	N/A	35,878	N/A
March	39,734	-	N/A	40,516	N/A	40,678	N/A
Apr	44,135	-	N/A	44,383	N/A	44,834	N/A
May	48,532	-	N/A	48,553	N/A	49,058	N/A
June	52,927	-	N/A	53,373	N/A	53,644	N/A

## C. Customer Care Center

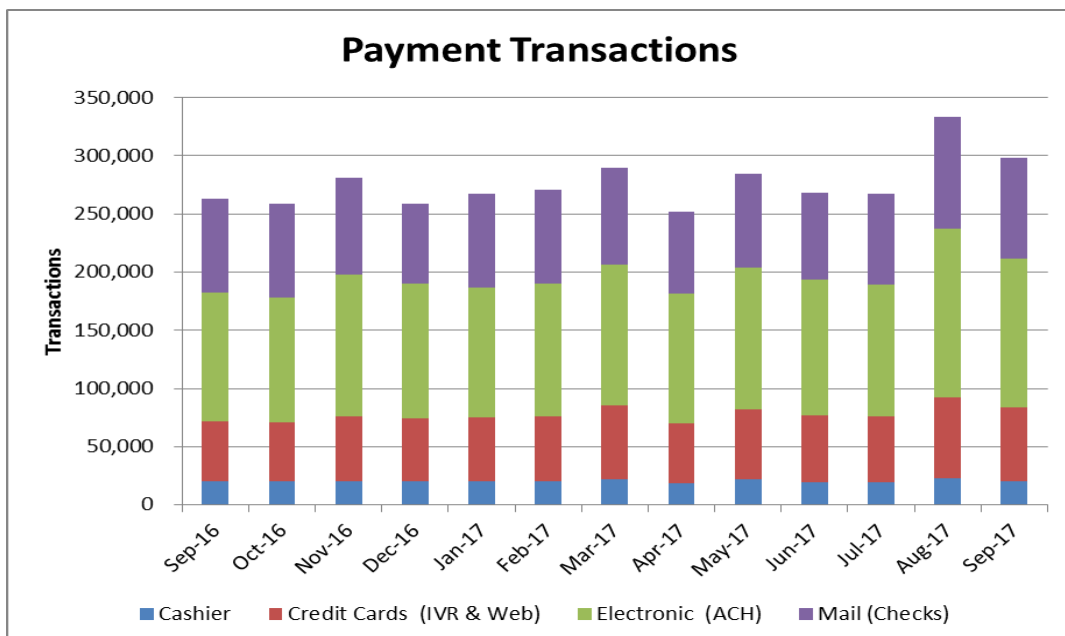
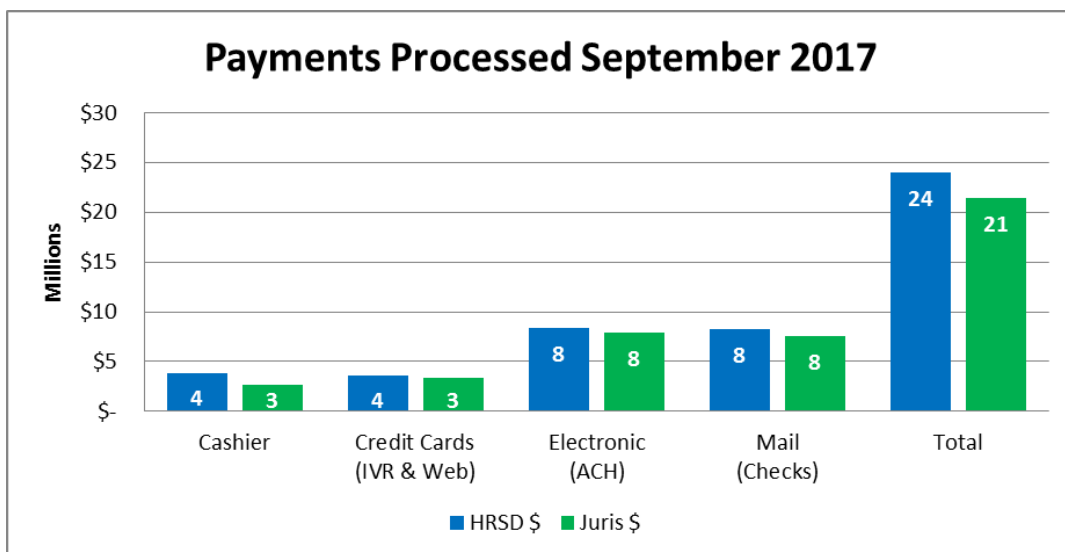
### 1. Accounts Receivable Overview

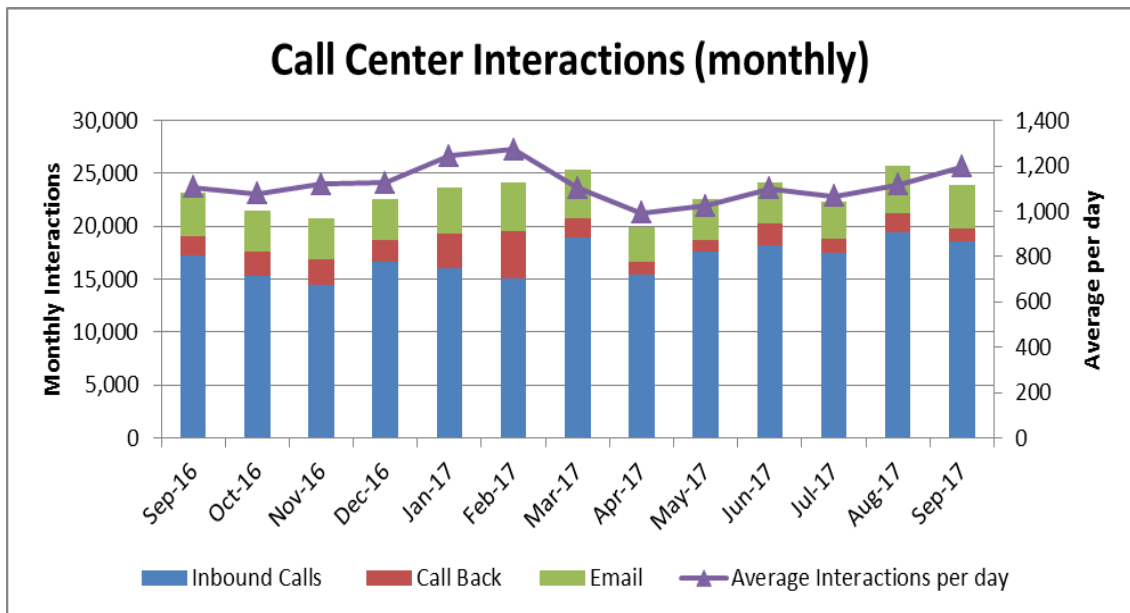
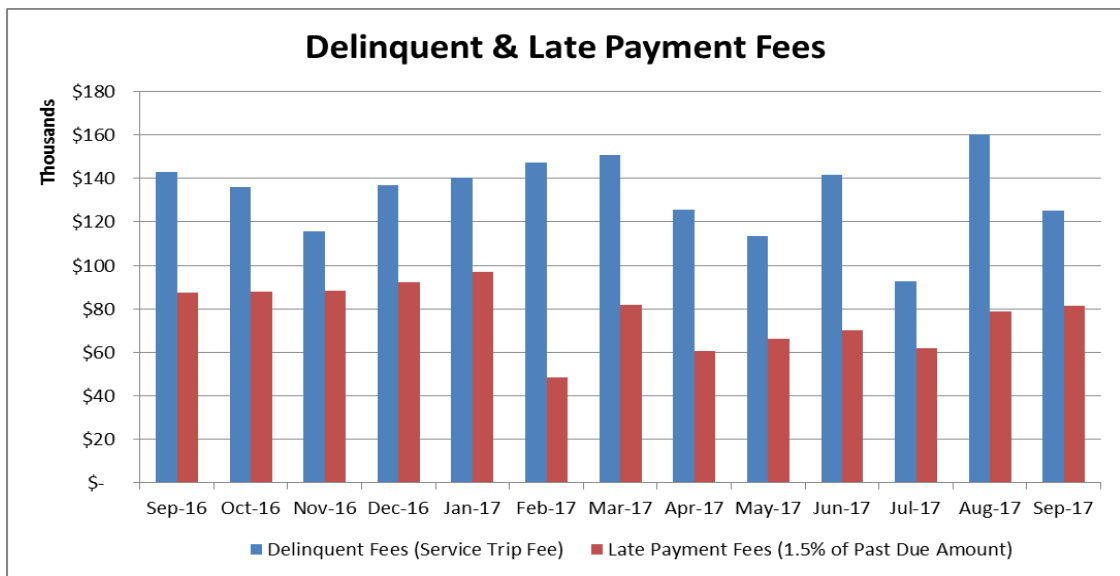
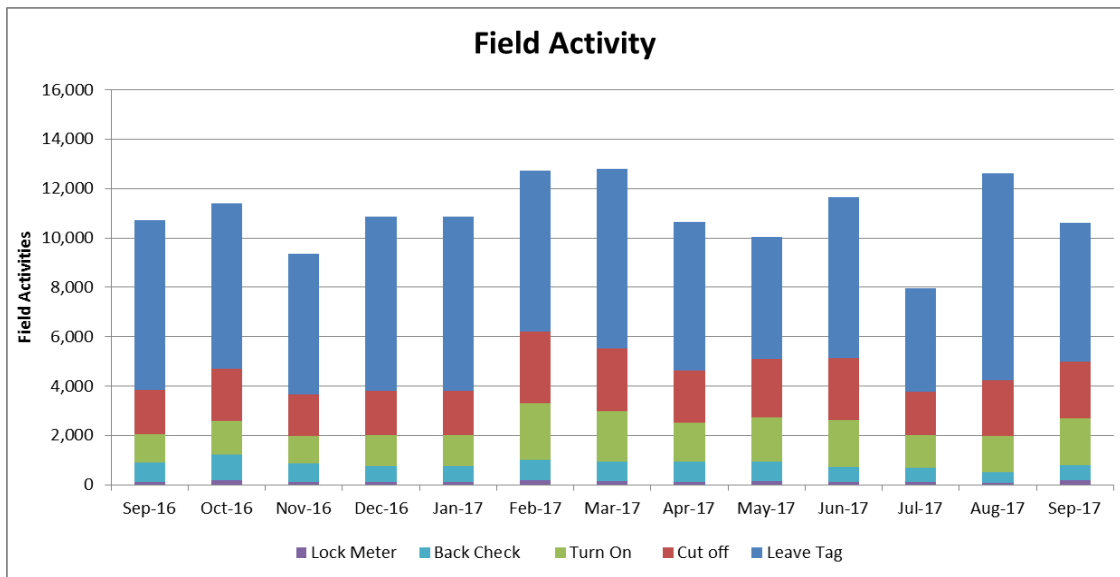


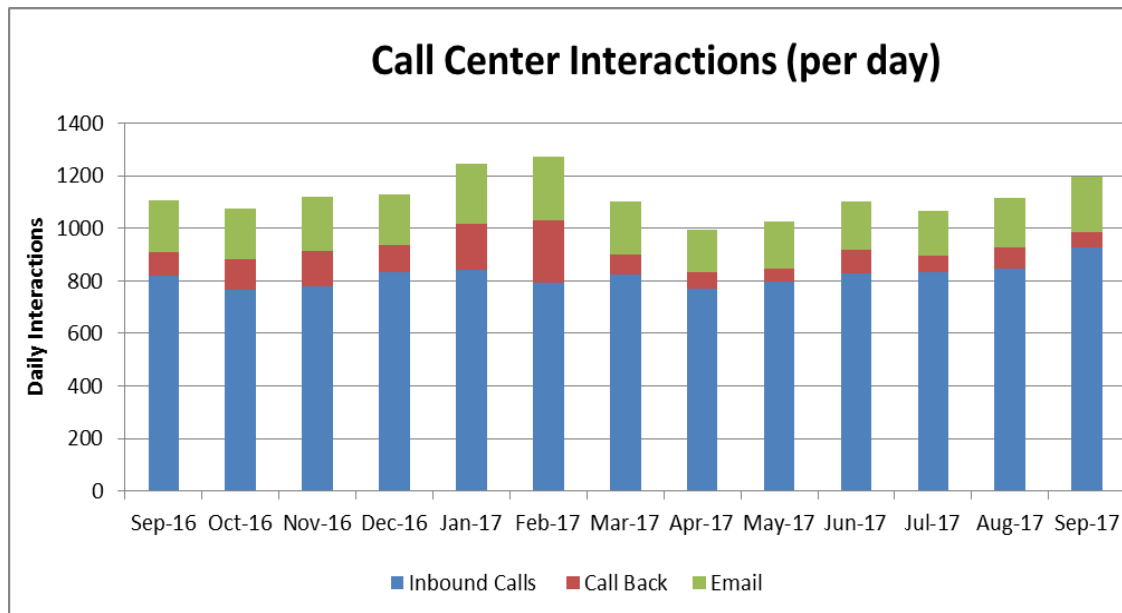




## 2. Customer Care Center Statistics







Customer Interaction Statistics	Apr	May	Jun	Jul	Aug	Sep
Calls Answered within 3 minutes	79%	80%	70%	78%	75%	81%
Average Wait Time (minutes)	1:44	1:37	2:25	1:46	2:04	1:33
Calls Abandoned	7%	7%	9%	8%	8%	7%

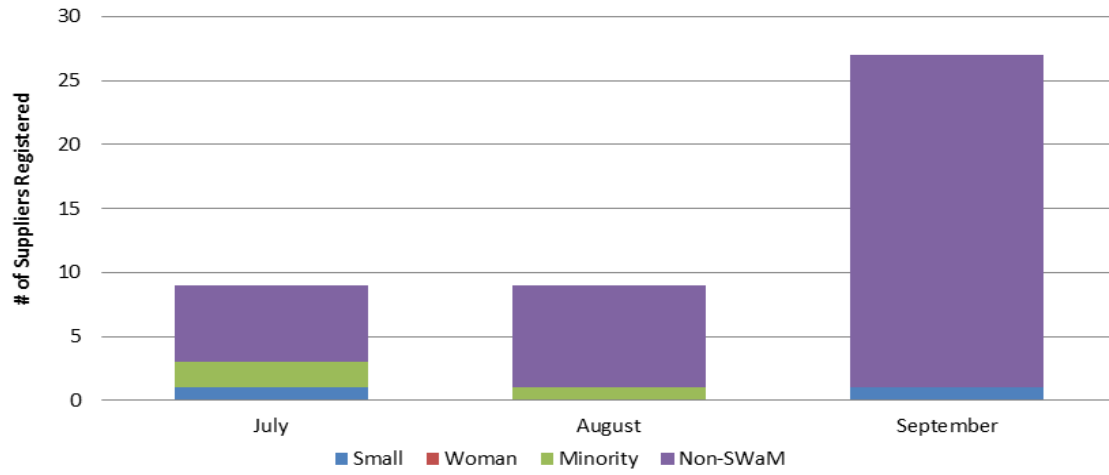
#### D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings <sup>1</sup>	\$70,195	\$242,681
Negotiated Savings <sup>2</sup>	\$95,461	\$278,804
Salvage Revenues	\$3,071	\$22,378
Corporate VISA Card - Estimated Rebate	\$17,118	\$62,444

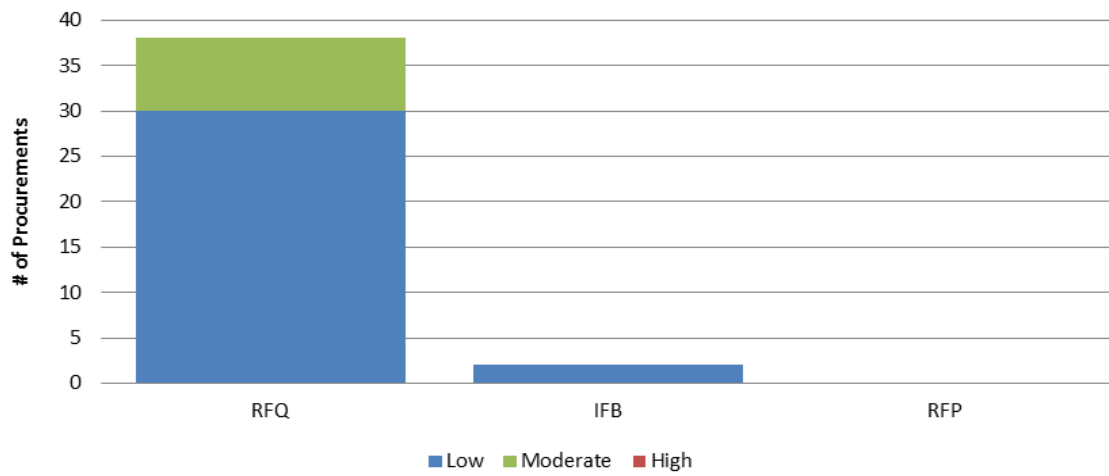
<sup>1</sup> Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsive/responsible bidder.

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

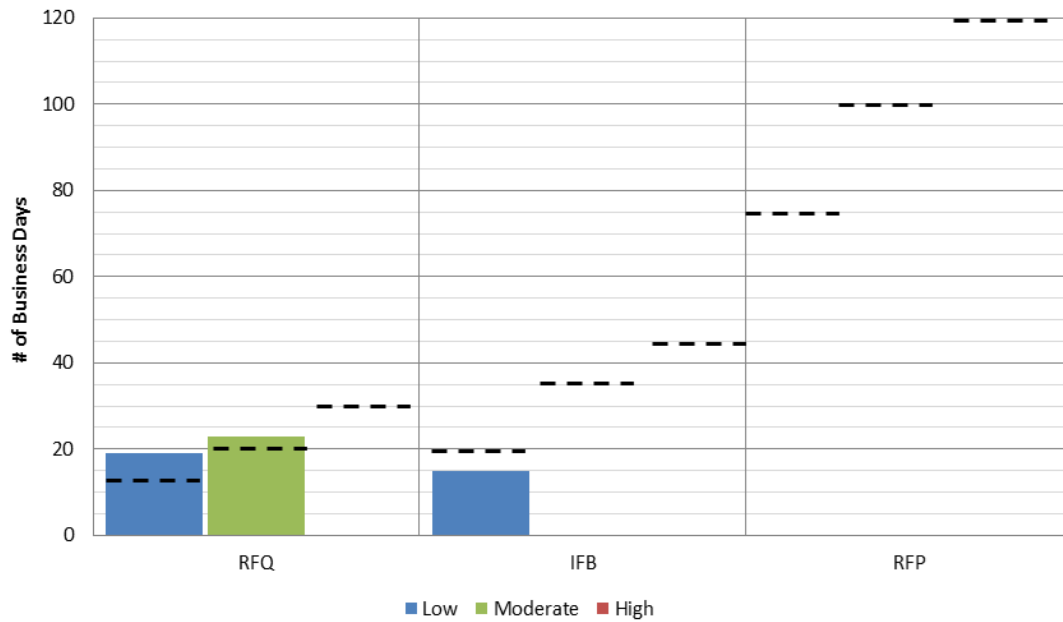
### New Suppliers Registered in ERP



### Procurements Completed Based on Complexity



## Cycle Time per Method of Procurement and Complexity

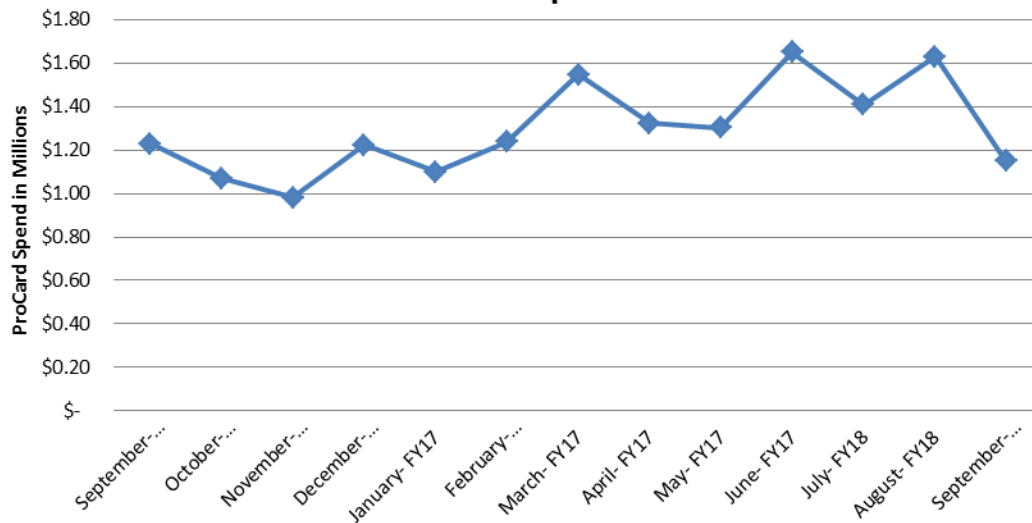


**Dashed Line:** Target Service Level Cycle Time

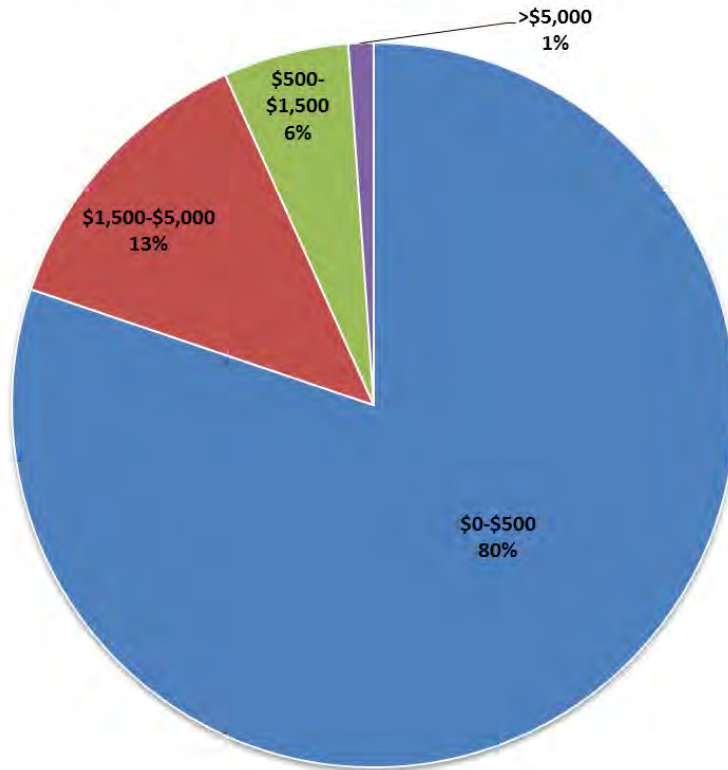
	High	Moderate	Low
RFQ	30	20	12
IFB	45	35	20
RFP	120	100	75

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

## ProCard Spend



**September ProCard Transaction Dollar Amounts**



**Procurement Client Training**

	September 2017	YTD
ProCard Policy and Process	0	8
Procurement Cycle	0	7
Additional Training Provided	0	0
<b>Total</b>	<b>0</b>	<b>15</b>

**E. Business Intelligence – Enterprise Resource Planning (ERP)**

1. ERP Helpdesk currently has 282 open work orders in the following statuses: 5 escalated, 73 in progress, 16 on hold, 184 open, 4 waiting on user. ERP Helpdesk received 252 work orders in September. In September, 284 work orders were closed and 89 were closed within one hour.
2. ERP staff continues to work with consultants on functionality and improvements to the system.

F. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
  - a. 2017 VA AWWA/VWEA WaterJAM Vendor Expo
2. Community Partners: 1
  - a. Virginia American Water Works Association and the Virginia Water Environment Association
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Training During Work Hours Per Full Time Employee (101) – Current Month	Hours / #FTE	2.5
M-1.4b	Total Training During Work Hours Per Full Time Employee (101) – Cumulative Fiscal Year-to-Date	Hours / #FTE	20.85
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1
	Wastewater Revenue	Percentage of budgeted	108%
	General Reserves	Percentage of Operating Budget less Depreciation	106%
	Accounts Receivable (HRSD)	Dollars	\$24,407,910
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	15%

#### 4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2017
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>3</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

Attachments:

[HRSD Operating Funds Quarterly Investment Report](#)  
[Retiree Health Plan Trust Quarterly Investment Report](#)

<sup>3</sup> Median Household Income is based on the American Community Survey (US Census) for Hampton Roads



## Hampton Roads Sanitation District – Operating Funds

*Investment Report – Quarter Ended September 30, 2017*

### Portfolio Summary

	Market Value	
	September 30, 2017	June 30, 2017
Operating Liquidity Strategy	\$ 49,608,648	\$ 47,980,543
Total Return Strategy	\$ 154,935,563	\$ 155,051,511
Capital Investment Strategy	\$ 27,564,226	\$ 37,452,225
<b>Total Portfolio</b>	<b>\$ 232,108,437</b>	<b>\$ 240,484,280</b>

### Investment Recap and Strategies

- The **Operating Liquidity Strategy** is managed to provide liquidity for day-to-day cash needs and unforeseen events. Currently, the Operating Liquidity Strategy funds are held in an account meeting the requirements of the Security for Public Deposits Act (SPDA) and a local government investment pool (LGIP).
- The **Total Return Strategy** consists of operating funds that will not be a major source of day-to-day disbursement requirements and operational needs. The strategy includes a portfolio invested in longer-term securities in order to generate a higher investment rate of return. The strategy also includes funds designated as a reserve that are invested in an LGIP.
- The **Capital Investment Strategy** is managed to provide liquidity for capital projects. Currently, the Capital Investment Strategy funds are held in an LGIP.

### Portfolio Performance Summary

- HRSD maintains sizeable balances in overnight investment vehicles, such as bank deposits and LGIPs. These allocations are carefully managed to allow HRSD to generate the highest rate of return while preserving daily liquidity and operational efficiency. As of September 30, 2017, \$88.0 million was held in the Virginia LGIP, earning 1.20%, compared to \$19.5 million in bank deposits, earning 0.18%. The yield on overnight investments is compared to the Merrill Lynch 3-month Treasury Bill's yield, which was 1.03% as of September 30, 2017.
- Performance for the Total Return Strategy is measured on a total return basis, which captures interest income, realized gains/losses, and unrealized gains/losses. This performance calculation methodology is most appropriate for investment portfolios that have longer-term investment horizons. During the quarter, the Total Return Strategy Managed Portfolio generated a total return of 0.31% (1.22% annualized), outperforming the Merrill Lynch 1 - 3 Year U.S. Treasury Index's return of 0.24% (0.95% annualized).

### Portfolio Summary *(continued)*

#### Total Return Strategy Portfolio

- The Total Return Strategy includes \$124 million invested in the Total Return Strategy Managed Portfolio (the “Managed Portfolio”), an actively-managed diversified portfolio of securities. In addition to this Managed Portfolio, the Total Return Strategy includes \$30.3 million that has been set aside as a reserve available in case HRSD is required to establish a Debt Service Reserve Fund. This reserve is expected to decline annually. The reserve has been invested in the Virginia LGIP in order to protect the funds from any potential market value fluctuations and to provide liquidity if needed.
- The Total Return Strategy Managed Portfolio is well diversified among U.S. Treasury securities, federal agency securities, supra sovereign agencies, certificates of deposit, municipal bonds, corporate notes, commercial paper, and high quality money market mutual funds. The Portfolio’s average credit quality is AA+.
- In the third quarter of 2017, the Total Return Strategy Managed Portfolio generated a total return of 0.31% (1.22 annualized), outperforming the Merrill Lynch 1 - 3 Year U.S. Treasury Index’s return of 0.24% (0.95% annualized). The one-year trailing return for the Total Return Strategy Managed Portfolio was 0.59% compared to the benchmark’s return of 0.24%.
- After three rate hikes since December 2016, the Federal Reserve (Fed) announced the beginning of their program to reduce the central bank’s enormous balance sheet. The plan is to gradually reduce the Fed’s securities holdings by decreasing its reinvestment of the principal payments on its large holdings of Treasury and agency mortgage-backed securities. Recent signaling from Fed officials boosted expectations for another rate hike in December of this year.
- During the quarter, the yield spreads on federal agency securities vs. comparable-maturity Treasuries narrowed to historic lows, in some cases near zero, leading to diminished value of the agency sector. Limited supply and robust demand will keep yield spreads on federal agencies tight.
- Without a clear trend in the direction of interest rates, the portfolio duration was maintained in line with that of the benchmark. As of September 30, 2017 the Managed Portfolio’s duration was 1.77 years. With 2-year Treasury yields at the highest level since 2008, it is the plan to continue to maintain the portfolio duration generally in line with that of the benchmark. Significant flattening of the yield curve since the beginning of the year has reduced the benefit of some maturity extensions, so adding value along the yield curve will be carefully assessed.
- Corporate fundamentals remain stable and the sector continues to be viewed positively. However, recent tightening of yield spreads in the sector warrants being more selective in the Managed Portfolio with industries, issuers, and individual issues.

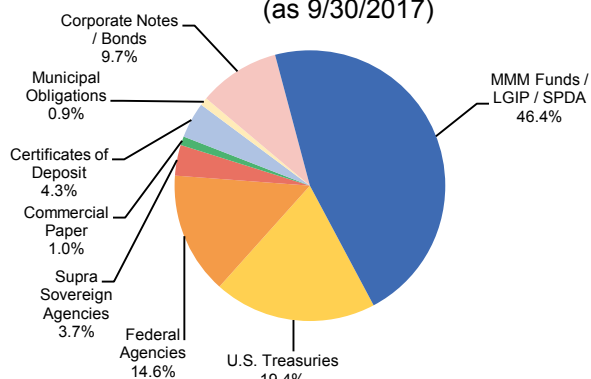
# Hampton Roads Sanitation District – Operating Funds

Investment Report – Quarter Ended September 30, 2017

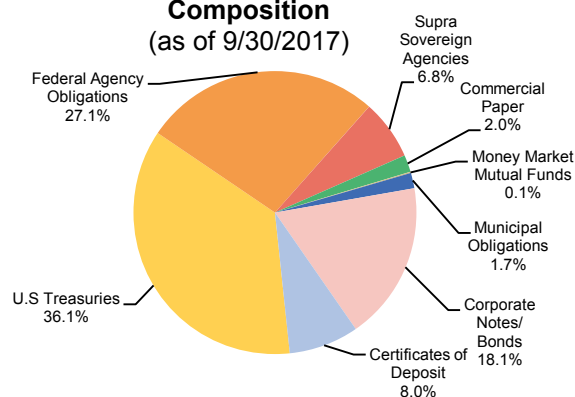
## Portfolio Composition

Security Type	September 30, 2017	% of Portfolio	June 30, 2017	% of Portfolio	Permitted by Policy
U.S. Treasuries	\$45,062,422	19.4%	\$38,861,265	16.2%	100%
Federal Agencies	33,774,724	14.6%	33,798,728	14.1%	100%
Supra Sovereign Agencies	8,508,580	3.7%	9,617,338	4.0%	15%
Commercial Paper	2,433,661	1.0%	2,424,162	1.0%	25%
Certificates of Deposit	9,953,812	4.3%	12,221,421	5.1%	25%
Municipal Obligations	2,178,501	0.9%	2,174,917	0.9%	15%
Corporate Notes / Bonds	22,575,234	9.7%	25,035,933	10.4%	25%
Money Market Mutual Funds / LGIP / Cash	107,621,502	46.4%	116,350,516	48.4%	100%
<b>Totals</b>	<b>\$232,108,437</b>	<b>100.0%</b>	<b>\$240,484,280</b>	<b>100.0%</b>	

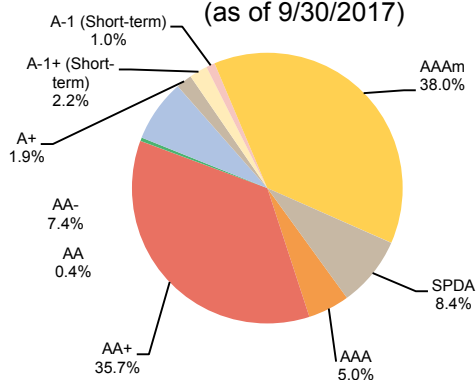
**All Portfolios Composition**  
(as 9/30/2017)



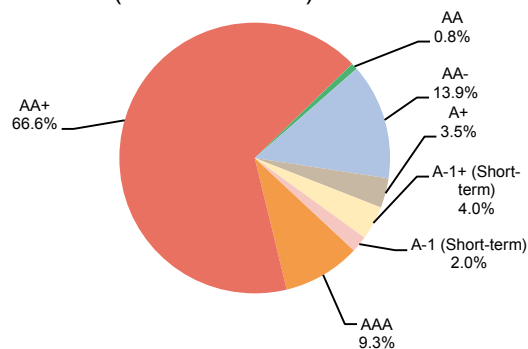
**Total Return Strategy Managed Portfolio Composition**  
(as of 9/30/2017)



**All Portfolios Credit Quality Distribution**  
(as of 9/30/2017)



**Total Return Strategy Managed Portfolio Credit Quality Distribution**  
(as of 9/30/2017)



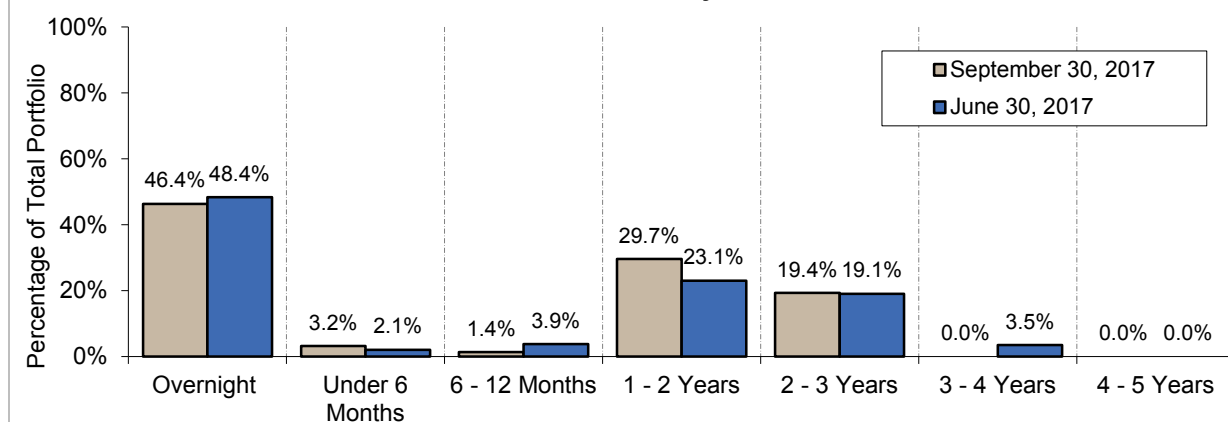
# Hampton Roads Sanitation District – Operating Funds

Investment Report – Quarter Ended September 30, 2017

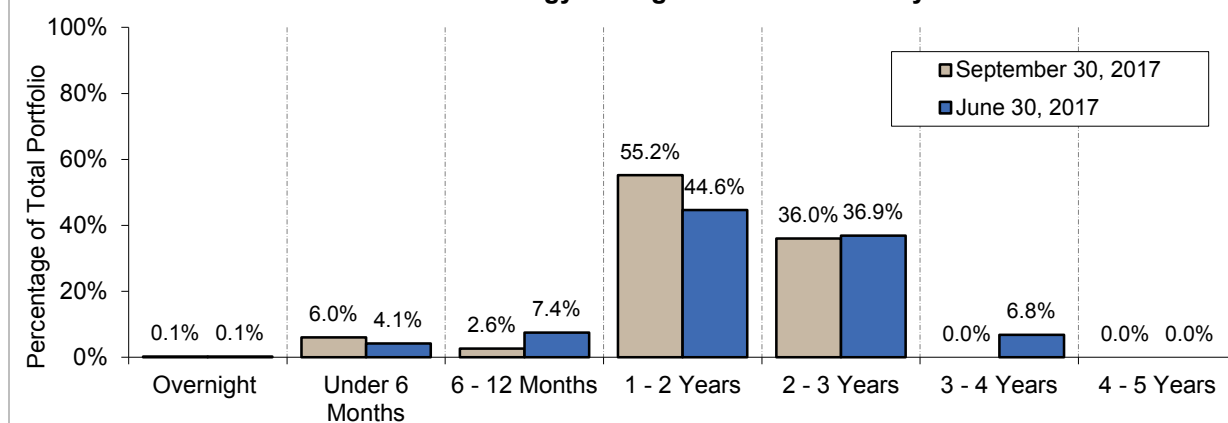
## Portfolio Maturity Distribution

Maturity Distribution	September 30, 2017	June 30, 2017
Overnight	107,621,502	116,350,516
Under 6 Months	7,463,620	5,114,756
6 - 12 Months	3,250,219	9,259,056
1 - 2 Years	68,850,481	55,487,841
2 - 3 Years	44,922,614	45,856,972
3 - 4 Years	0	8,415,138
4 - 5 Years	0	0
5 Years and Over	0	0
<b>Totals</b>	<b>\$232,108,437</b>	<b>\$240,484,280</b>

All Portfolios Maturity Distribution



Total Return Strategy Managed Portfolio Maturity Distribution



# Hampton Roads Sanitation District – Operating Funds

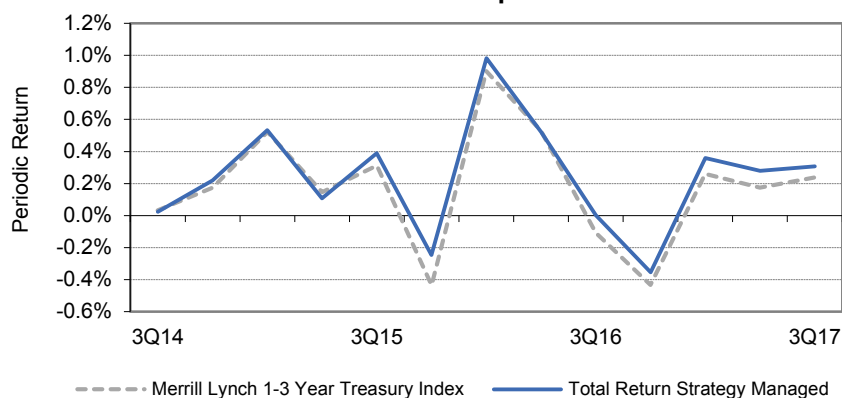
## Investment Report

## Portfolio Performance

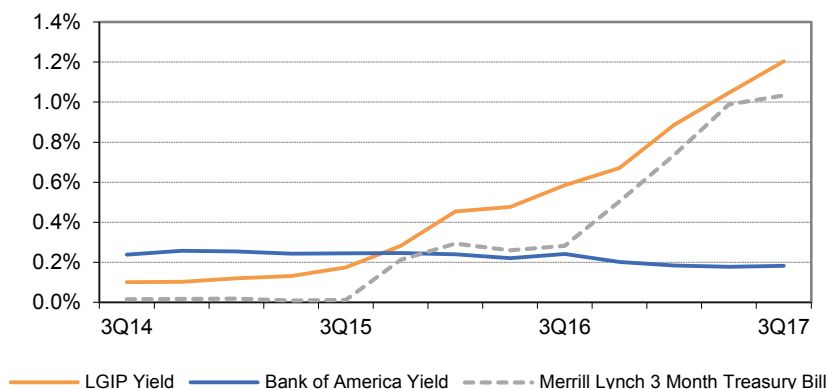
	Quarter Ended September 30, 2017	Annualized Quarterly Return	Last 24 Months	Last 36 Months	Annualized Since Inception*
<b>Total Return Performance</b>					
Total Return Strategy Managed	0.31%	1.22%	0.92%	1.03%	1.11%
Merrill Lynch 1-3 Year Treasury Index	0.22%	0.89%	0.56%	0.76%	0.93%

	Balance as of September 30, 2017	Yield as of September 30, 2017	Balance as of June 30, 2017	Yield as of June 30, 2017
<b>Other Funds</b>				
Virginia LGIP	\$ 87,987,556.41	1.21%	\$ 92,713,954.07	1.05%
Bank of America	\$ 19,451,641.22	0.18%	\$ 23,479,144.17	0.18%
Merrill Lynch 3-Month Treasury Bill		1.03%		0.99%

### Performance Comparison



### Historical Yield Comparison



\*Since inception returns are calculated since September 30, 2009 to present. Performance for the Total Return Strategy Managed Portfolio is calculated as the total return, which captures interest income, realized gains/losses, and unrealized gains/losses, on the managed portfolio of short-term fixed income securities. Calculations are based on provided information and are believed to be accurate based upon available data. The yield for the Virginia LGIP is the average monthly yield. The yield for Bank of America is the weighted average yield between the earnings credit rate less a balance based fee assessed by Bank of America and the hard-dollar interest rate at Bank of America, less the balance based fee.

## Portfolio Summary

### Total Portfolio Value

	<u>September 30, 2017</u>	<u>June 30, 2017</u>
Investment Assets	<u>\$ 44,133,457</u>	<u>\$ 42,430,142</u>
Combined Assets	<u><u>\$ 44,364,706</u></u>	<u><u>\$ 42,526,387</u></u>

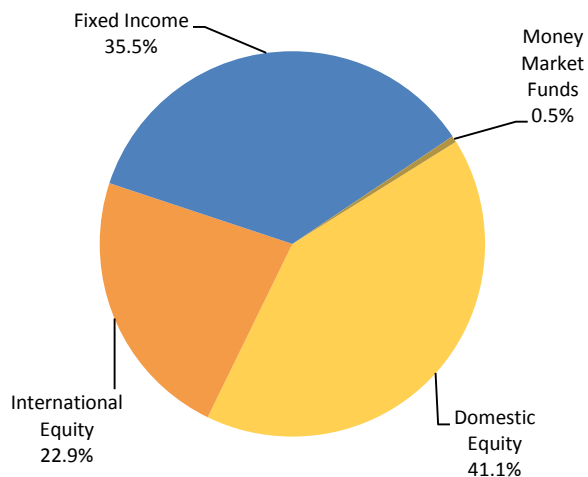
### Portfolio Recap & Strategy

- The Retiree Health Plan Trust portfolio returned 3.59% (combined assets) for the quarter ended September 30, 2017, above the 3.41% return of the Blended Benchmark.\* The one-year trailing return for the Retiree Health Plan Trust portfolio was 11.56% compared to the Blended Benchmark return of 10.23%. The weighted average credit quality of fixed income holdings for the Retiree Health Plan Trust portfolio is A.
- Domestic equity markets, as represented by the S&P 500 Index (S&P), finished the quarter with a strong 4.5% return despite seeing a tick up in volatility in August. This continues a sustained rally dating back to mid-February of 2016 with the 2017 calendar year-to-date return reaching 14.2% largely driven by stronger corporate earnings as well as market sentiment. On a market-capitalization basis, small-caps (Russell 2000 Index) finished as the top performer for the quarter having risen 5.7%. Large-caps (Russell 1000 Index) finished closely behind at 4.5% while mid-caps (Russell Mid Cap Index) finished up 3.5%. Though performance finished relatively close across market capitalizations, performance varied dramatically on a month-by-month basis. For the first two months of the quarter, small-caps widely lagged both large and mid-caps. A strong small-cap rally that began mid-September pushed returns up past their larger capitalization counterparts. For the year, all three sit closer in line with large-caps up 14.2%, mid-caps up 11.8%, and small-caps up 10.9%.
- Developed markets outside of North America, as measured by the MSCI EAFE Index, increased 5.4% during the third quarter, continuing a strong-run for 2017. Stronger-than-expected economic data along with more attractive valuations have contributed to the year-to-date return that now sits at 20.0%. Norway was the strongest performer for the quarter rising 19.2%, aided by increasing oil prices, while Israel represented the weakest nation dropping 12.7%.
- Emerging markets (EM) continued to outperform other regions during the third quarter, rising 7.9%, pushing the year-to-date return up to a robust 27.8%. While almost all news coming out of EM has been positive, September marked the first down month for EM since November 2016, as it fell 0.4%. All individual EM country performance was positive for the quarter. Hungary was the top performer, rising 30.7%. Egypt finished as the worst performer rising 5.5% while Russia finished not far in front at 5.8%. Russia's poor third quarter (on a relative basis) comes on the heels of a poor first and second quarter, pushing year-to-date returns just in the black at 0.9%.
- The U.S. Treasury yield curve ended the quarter with all tenors seeing yield increases; the largest change was the 2-year increasing 10 basis points. While the curve remains flatter relative to the start of 2017, the third quarter ended with moderate steepening on the short-to-intermediate end while flattening in the intermediate-to-long end. This flattening on the long-end would likely have been more pronounced if not for an overall curve steepening in September. These relative yield increases on the long-end were driven in large part by the announcement of the Fed balance sheet roll-off plan in addition to the Fed choosing to leave the Federal Funds Rate unchanged. Investment grade fixed income returns were positive despite the moderate Treasury yield increases. The Bloomberg Barclays U.S. Aggregate Index rose 0.9% on the quarter while the Bloomberg BC U.S. Universal Index, which includes a small high yield allocation, rose a slightly higher 1.0%.

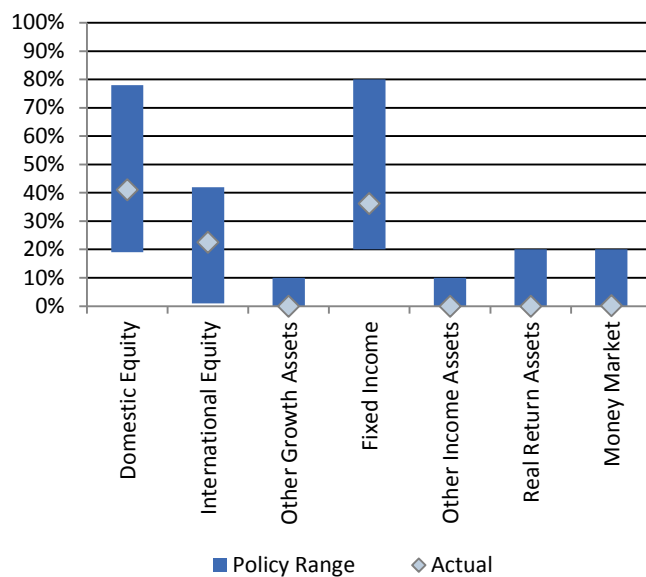
## Portfolio Composition

Security Type	September 30, 2017	% of Portfolio	June 30, 2017	% of Portfolio	Permitted by Policy
Domestic Equity	\$ 18,246,884	41.1%	\$ 17,475,082	41.1%	19% - 59%
International Equity	\$ 10,147,817	22.9%	\$ 9,559,777	22.5%	1% - 41%
Other Growth Assets	\$ 0	0.0%	\$ 0	0.0%	0% - 10%
Fixed Income	\$ 15,734,762	35.5%	\$ 15,395,281	36.2%	20% - 60%
Other Income Assets	\$ -	0.0%	\$ -	0.0%	0% - 10%
Real Return Assets	\$ -	0.0%	\$ -	0.0%	0% - 20%
Money Market Funds	\$ 235,243	0.5%	\$ 96,246	0.2%	0% - 20%
<b>Totals</b>	<b>\$ 44,364,706</b>	<b>100.0%</b>	<b>\$ 42,526,387</b>	<b>100.0%</b>	

**Portfolio Composition**  
(as of 9/30/2017)



**Asset Allocation**  
(as of 9/30/2017)

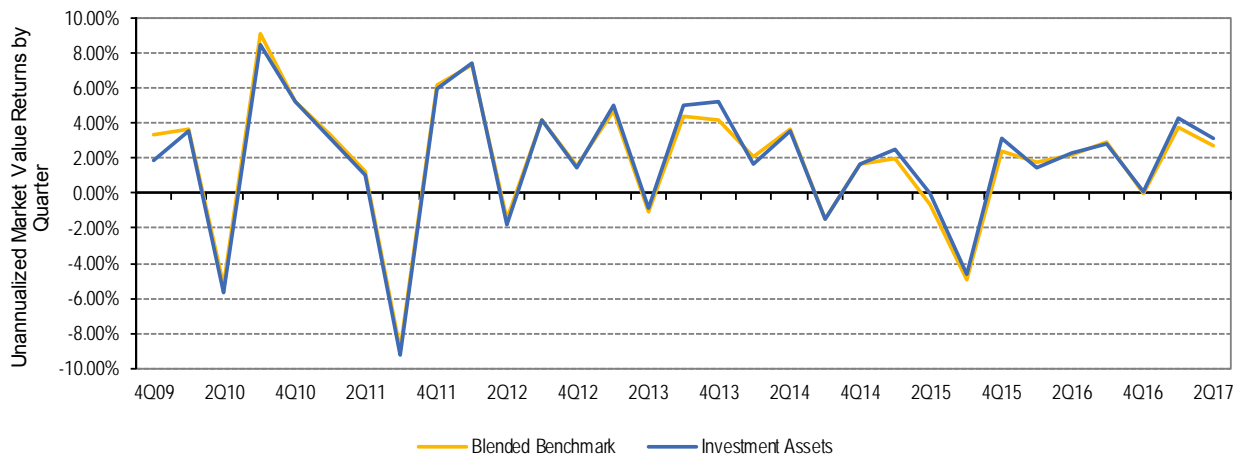


# Portfolio Performance – Investment Assets

Quarter Ended June 30, 2017

Index	Market Values	%	1 Quarter	Year to Date	Trailing 1 Year	Trailing 3 Years	Trailing 5 Years	Apr 2013 to Jun 2017*	Since Inception	Inception Date
<b>Domestic Equity</b>										
Vanguard Total Stock Market Index	\$ 14,676,837	34.6%	3.03%	8.99%	18.47%	9.05%	14.54%	12.80%	14.15%	9/1/2009
Russell 3000 Index			3.02%	8.93%	18.51%	9.10%	14.58%	12.82%	14.12%	9/1/2009
T. Rowe Price Dividend Growth	\$ 1,422,652	3.4%	4.21%	9.42%	14.35%	10.01%	14.24%	12.62%	10.82%	12/1/2016
S&P 500			3.09%	9.34%	17.90%	9.61%	14.63%	13.12%	11.50%	12/1/2016
Vanguard Small Cap Index Fund	\$ 1,375,593	3.2%	1.95%	5.76%	19.14%	6.78%	14.13%	11.41%	12.22%	10/1/2016
Russell 2000 Index			2.46%	4.99%	24.60%	7.36%	13.70%	11.32%	14.26%	10/1/2016
<b>International Equity</b>										
Vanguard Total International Stock Index Fund	\$ 3,096,682	7.3%	5.82%	14.79%	20.05%	1.35%	7.68%	5.06%	12.57%	10/1/2016
MSCI AC World ex USA (Net)			5.78%	14.10%	20.45%	0.80%	7.22%	4.55%	12.67%	10/1/2016
Vanguard International Value	\$ 2,295,787	5.4%	5.77%	14.30%	19.86%	-0.23%	8.13%	5.32%	14.45%	5/1/2016
MSCI AC World ex USA (Net)			5.78%	14.10%	20.45%	0.80%	7.22%	4.55%	14.08%	5/1/2016
J. O. Hambro International Select	\$ 2,704,487	6.4%	3.55%	11.69%	12.49%	3.99%	12.99%	9.33%	11.35%	1/1/2016
MSCI AC World ex USA (Net)			5.78%	14.10%	20.45%	0.80%	7.22%	4.55%	12.44%	1/1/2016
Oppenheimer International Small Company	\$ 1,462,821	3.4%	11.80%	22.30%	24.39%	9.95%	19.03%	15.89%	13.09%	4/1/2015
MSCI AC World ex USA Small Cap (Net)			6.32%	15.38%	19.88%	2.86%	9.32%	6.45%	6.56%	4/1/2015
<b>Fixed Income</b>										
Metropolitan West Total Return	\$ 3,847,458	9.1%	1.29%	2.21%	0.25%	2.28%	3.49%	2.43%	2.43%	4/1/2013
Bloomberg Barclays U.S. Aggregate			1.45%	2.27%	-0.31%	2.48%	2.21%	2.21%	2.21%	4/1/2013
Baird Core Plus	\$ 5,111,662	12.0%	1.78%	2.99%	1.65%	3.18%	3.38%	2.97%	3.50%	5/1/2014
Bloomberg Barclays U.S. Aggregate			1.45%	2.27%	-0.31%	2.48%	2.21%	2.21%	2.73%	5/1/2014
Vanguard Intermediate-Term Investment Grade	\$ 5,046,304	11.9%	1.56%	2.92%	0.79%	3.26%	3.47%	2.97%	2.97%	4/1/2013
Bloomberg Barclays Capital U.S. Credit: 5 - 10 Yr			2.13%	3.66%	1.50%	3.62%	4.02%	3.36%	3.36%	4/1/2013
Vanguard High Yield Corporate	\$ 1,389,858	3.3%	2.57%	4.87%	10.33%	4.72%	6.27%	5.19%	11.12%	4/1/2016
Bloomberg Barclays US Corp: High Yield			2.17%	4.93%	12.70%	4.48%	6.89%	5.51%	14.87%	4/1/2016
<b>Aggregate</b>										
Retiree Health Plan Trust	\$ 42,430,142		3.14%	7.57%	10.71%	5.05%	8.26%	7.11%	8.32%	9/1/2009
Blended Benchmark*			2.74%	6.66%	9.70%	4.10%	7.33%	6.08%	8.05%	9/1/2009

Performance Comparison



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



TO: General Manager

FROM: Director of Information Technology (IT)

SUBJECT: Information Technology Department Report for September 2017

DATE: October 12, 2017

A. General

1. Staff, in conjunction with Microsoft support and integration partner, Electronic Systems, Inc., are drafting a testing and implementation plan for the upcoming conversion from a traditional desktop and laptop computer environment to a Virtualized Desktop Infrastructure (VDI). VDI provides for centralized management of hardware and software resources, while providing optimal flexibility to users.
2. Successful field testing of the new Supervisory Control And Data Acquisition (SCADA) platform, utilizing Verizon cellular broadband services, is complete. System functionality, bandwidth sufficiency and platform redundancy were each tested and passed without exception. The Emerson SCADA software will be reconfigured to work with the cellular broadband equipment, while the requisite hardware, software, and cellular services are procured.
3. Construction of the Small Communities Division network and communications facility is complete. Installation and relocation of new and existing equipment will begin following next month's circuit breaker injection testing.
4. Additional process logic controllers for the aeration blowers and side-stream treatment processing were installed, configured and integrated with the Boat Harbor Treatment Plant Distributed Control System (DCS).

B. Strategic Planning Metrics Summary

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

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Training During Work Hours Per Full Time Employee (50) – Current Month	Total Training Hours / # FTE	1.60
M-1.4b	Total Training During Work Hours Per Full Time Employee (50) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	6.53
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 2017

DATE: October 5, 2017

A. Highlights

1. Staff from the Small Communities Division (SCD) submitted a very old wooden “fitting” they uncovered in the West Point system to the WaterJAM 2017 Sewer and Water Art Gallery. They won 3rd place. This is a good example of the unique challenges staff in the Operations Department deal with from time to time.



2. Staff from multiple divisions in Operations made a collective effort to improve probe maintenance with the goal for all plants to align in our approach to cleaning, calibrating and verifying probes and sensors that are critical to the effective operation of the treatment processes.

B. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. Staff assisted with the line stop insertion and removal on the Williamsburg Interceptor Force Main Contract C – Protection and Channel Stabilization emergency work.
- b. There were two Sanitary Sewer Overflows (SSOs) experienced during the month associated with a significant rain event on September 6. A total of 35,168 gallons of sewage were lost. These overflows occurred in Hampton in the Boat Harbor Treatment Plant (BHTP) system.

- c. There were four interceptor complaints and thirteen system alarms during the month. The majority of the system alarms were associated with the September 6 rain event and all of the interceptor complaints were investigated and found to be on infrastructure not owned by HRSD.
- d. Staff performed two pump and haul operations of the Lawnes Point Treatment Plant and completed the installation of the Patrick Henry PS Channel Monster.

## 2. South Shore (SS) Interceptor Systems

- a. There was one odor complaint this month. On September 25, the homeowner at 2341 Scotchtown Drive in Virginia Beach called HRSD stating that there was a sewage odor in his home while an HRSD crew was venting a nearby air vent. Despite the fact that the crew was using the blow-off stack on the maintenance truck, an odor was still present. In the future, staff will utilize a mobile carbon unit at this location to prevent off-site odors for future venting operations.
- b. Staff continues to be involved with the multiple projects associated with the upcoming Chesapeake-Elizabeth Treatment Plant (CETP) closure. Staff toured the Alexandria Renew Precast Concrete Storage Tank Facility on September 19.
- c. Staff assisted the Atlantic Treatment Plant (ATP) in removing approximately 230 cubic yards of sand and grit from their digester to allow internal maintenance. Staff also used the vacor trucks to remove approximately 36,000 gallons of non-potable water from the final effluent building.

## C. Major Treatment Plant Operations

### 1. Army Base Treatment Plant (ABTP)

- a. There was one power anomaly requiring the use of the bypass stack. There were two reportable incidents involving the total hydrocarbon analyzer (THC). The first THC incident required equipment calibration and the second required repair of the instrumentation. Operations also reported three excursions from Odor Control System A. All three required an increase in chemical dosing.
- b. The harmonic filters for the aeration blowers were repaired and placed back into service.

- c. Staff replaced the packing in Odor Control B, Tower 1.
- d. Staff successfully installed a 1,200-pound shaft and gears and an 800 pound gear box on band screen #1.
- e. A leaking 14-foot deep secondary clarifier effluent box was discovered and repaired. The majority of the water was recovered.

## 2. ATP

- a. Construction of the Thermal Hydrolysis Process (THP) officially began. The THP project basically installs a very large “pressure cooker” to break down the solids before they enter the digesters. THP will double the capacity of the digesters and is a necessity to handle the additional solids anticipated to come to the plant with the closure of the CETP. Construction is expected to last three years.
- b. The Virginia Department of Environmental Quality (DEQ) inspected the underground storage tanks at the Atlantic plant. The inspection went very well. There was one minor discrepancy involving a protective wrapping around the supply lines to the fuel pumps. Staff is working on getting these pipes wrapped with a protective coating.

## 3. BHTP

- a. Two air permit deviations occurred on September 4 and 5 as a result of clogged spray water nozzles. Clogging was caused by calcium carbonate buildup from Sodium Hydroxide chemical addition needed to control pH. Staff performed a burnout to replace the clogged nozzles.
- b. Staff continues to optimize nitrification efforts in order to support the lower James River bubble permit. Process performance was excellent during the month of September with a Total Nitrogen average of 8.27 mg/L.
- c. Staff continued work on the installation of a ferric mixer at the grit tank effluent chamber. This mixer is to improve the settling performance for the chemically enhanced primary treatment system. This project is scheduled for completion by the end of October.

#### 4. CETP

- a. The plant experienced two air permit deviations on September 7 and 17 when temporary power losses caused the ID fan to shut down resulting in the use of the emergency bypass stack.
- b. Staff completed cleaning and annual inspection of the #2 aeration tank.
- c. Staff and contractors completed all repair and rebuild work on #2 furnace and placed it in service. The #2 furnace was out of service for 18 months.
- d. Staff installed a new non-potable hydrant water valve at the #2 secondary clarifier.

#### 5. James River Treatment Plant (JRTP)

- a. JRTP staff completed modifications to the scum trough on #3 primary clarifier to provide for more and easier removal of floatable solids. The new design includes more scum trough surface area and a slide gate instead of a rotating trough.
- b. Integrated Fixed Film Activated Solids (IFAS) tanks were in dissolved oxygen mode for the entire month with the nitrified recycle pumps controlled by nitrate probes. Good nitrogen removal was achieved.
- c. Staff replaced piping to digester gas pressure regulators in the digester building basement. The regulators maintain the system pressure.
- d. Modification of nitrified recycle piping on the IFAS tanks to provide anaerobic zones for biological phosphorus removal was delayed due to high flow events. IFAS tanks #1 and #2, which were the next tanks for modification, were placed back in service.
- e. On the Warwick Boulevard to James River Influent Force Main Project, the contractor poured concrete curbing and prepared the roadway and parking lot for paving.
- f. On the JRTP Hydraulic Improvement Project, the contractor completed insulation of centrate piping. A few punch list items remain to complete this project.

6. Nansemond Treatment Plant (NTP)

- a. Staff continues to focus on plant improvements, including preparations for the “Imagine a Day without Water” event and the upcoming completion of the Sustainable Water Initiative For Tomorrow (SWIFT) Research Facility.
- b. The Struvite Recovery Facility (SRF), responsible for phosphorus recovery from the liquid portion of solids dewatering, continues to improve, despite the fact that the plant is only using one digester while coatings work takes place on the #2 digester. Staff continues to optimize operations and maintenance of this facility.
- c. The much needed administration building renovation is complete with new paint, tile, carpet, and furniture. The lunchroom renovation is now under construction.

7. Virginia Initiative Plant (VIP)

- a. VIP process control was challenging in September, with effluent phosphorus and nitrogen levels fluctuating with no immediately identifiable cause. Effluent nutrient levels are currently back to normal values. Final effluent total phosphorus averaged a high 1.42 mg/L and total nitrogen averaged 5.74 mg/L for the month. In an attempt to improve treatment results, staff conducted numerous process changes and control calibrations during the month. The change that seemed to have largest impact was improving dissolved oxygen control for nitrification and phosphorus uptake. September is historically a challenging month for biological phosphorus removal.
- b. Several pump variable speed drives failed recently due to age and obsolescence. Staff is replacing them one at a time. Staff reinstalled a dewatering centrifuge after repairs were completed, and also made repairs to a primary clarifier that malfunctioned.

8. Williamsburg Treatment Plant (WBTP)

- a. On September 20, a power loss resulted in an air permit deviation when there was a six-minute use of the incinerator bypass stack.
- b. Staff continued work on a coatings project in the secondary clarifier, which will take several months to complete. This clarifier was last coated about 25 years ago.

- c. Staff drained, cleaned and inspected aeration tank #2, which was modified a year ago to include an anaerobic zone. Staff is making a few changes to help optimize the existing treatment process and will place the tank back in service next month.

9. York River Treatment Plant (YRTP)

- a. There was a minor spill of annamox bacteria of less than 25 gallons.
- b. Staff completed the gravity thickener rake arm and drive assembly replacement. The new mechanism is stainless steel and will not require periodic coating like the original steel equipment.
- c. Staff continues to parallel test the new Environmental Data Management System (EDMS) Daily Plant Operator Report (DPOR).

D. SCD

1. Urbanna Treatment Plant (UBTP)

- a. The Urbanna plant experienced a permit exceedance for the weekly maximum average for Ammonia during the week of September 10. It is not clear what caused ammonia value to reach 4.4mg/L during this period, though it is felt that swings in temperature and the constant DO control fluctuations aided in this occurring. When plant staff received the results of the sample collected on September 12, additional samples were collected and analyzed. Results from September 19 and 20 were 0.15 and 0.05, respectively with no changes occurring in plant operations. The monthly average value of 1.54 was well under the permit limit of 3.83 mg/L.
- b. The Mobile Dewatering project had its project kickoff in September and is progressing within the preliminary engineering stages. The project will bring a mobile solution for dewatering of solids to each SCD treatment plant. It is anticipated that this project will create savings in labor hours and pump & haul costs associated with the current solids handling process in SC.

2. West Point Treatment Plant (WPTP)

The concrete pad for the new tertiary filter and final effluent blower were formed and poured this month and the filter was moved and set on the pad.



3. King William Treatment Plant (KWTP)

Additional testing of new media for Zinc Removal will be occurring over the next several months to determine if a more economically feasible option is available for treatment plant operations.

4. Central Middlesex Treatment Plant (CMTP)

Staff continued the effort to install Hand-Off-Auto Selector switches on all of the equipment electrical panels at the plant. This will allow operators to continue to do simple operations in compliance with new Arc Flash regulations without calling in electricians each time.

5. Mathews System

Phase V of the valve replacement project continues to progress well and should reach substantial completion by the end of October.

6. Operations Center

The SCADA room is near completion. The remaining construction of stairs and handrail on the mezzanines will be completed next month.

E. Surry

1. County of Surry

- a. A contractor completed concrete repair work at joints on the plant drain pump station.
- b. A contractor completed brick and concrete work on the effluent manhole to keep rain and groundwater out. This manhole houses the plant effluent meter and was always full of water.
- c. Repairs to hand rails, coating of the most severely corroded areas on tanks, and construction of a platform for operators to add chemicals at the contact tank were all completed.

2. Town of Surry

Staff is preparing to take over the operations of the Town of Surry system October 1.

### 3. Lawnes Point Treatment Plant (LPTP)

- a. Staff continues to work with staff from the Interceptors, the Technical Services Division (TSD), the Central Environmental Laboratory, and the Water Technology and Research group to address the high solids concentrations at the Lawnes Point Treatment Plant.
- b. Small Communities performed two pump and haul operations of LPTP this month.

## F. Support Systems

### 1. Automotive

- a. The Automotive and Electrical staff performed generator building load tests at the NS Operations Center, the SS Main Office Complex, and at the Kingsmill, Rodman Avenue and Woodland Road Pump Stations. All generators operated as designed and were returned to service.
- b. Staff began a pilot program for a vehicle (fleet) telematics system. Seven vehicles were selected for the pilot with GPS devices installed on each. A launch date for the pilot program has yet to be determined. We believe the benefits from a fleet telematics system include: determining the location of vehicles to aid in response time for problems or emergencies; providing information from the vehicle in the event of a mechanical issue; helping to determine whether the vehicle needs to be brought to the shop immediately or can be safely driven until there is an opportunity to bring it in for diagnosis; and providing vehicle information in case of accident or complaint to protect the driver and HRSD.

### 2. Carpentry Shop

The SS Carpenters managed and completed various projects to include: construction of a mixer frame for the CE Pilot Program reactor, a 'clean metals' building for TSD and a deck for Sheppard Avenue to raise the storm water box three feet due to past flooding. Work continues on the remodeling of the washroom for TSD and the installation of cabinetry for a new van for Electrical and Instrumentation staff.

### 3. Condition Assessment (Coatings and Concrete)

- a. Staff, through use of Closed-Circuit Television (CCTV), inspected 4,017 lineal feet (LF) of gravity force main and inspected 17 manholes. Year to date inspections total 18,999 LF of gravity force main and 98 manholes. Staff also supported SS Interceptors with the CCTV inspection of a line segment.
- b. Staff conducted inspection assessments on BHTP's #2 grit tank and secondary clarifiers #2 and 3. Assessments were also conducted on VIP's effluent channel.
- c. Restoration of the exterior side of the steel caustic tank at ABTP is complete. Repairs to the rake arm assembly on the plants secondary clarifiers #1 and #2 are also complete. Restoration of the odor control piping throughout BHTP continues. Rehabilitation of the ash hopper at the plant continues. The coating of the attic space in the #2 digester at NTP continues.

### 4. Facilities Maintenance

The Central Environmental Laboratory's (CEL) roof and heating, ventilation, and air conditioning (HVAC) upgrade project is now complete. Startup of the HVAC system and generator for the SCADA communications room at West Point is also complete. New split units were installed in the administrative offices at ABTP. All units are operating as designed.

### 5. Machine Shop

The Machine Shop completed various projects to include: rebuilding the #1 pump at Chesapeake Boulevard PS and two digester pumps at NTP, fabricating terminal bus boxes for the Motor Control Center (MCC) at ATP, and making grit screw coupling shafts for BHTP, sets of packing glands for SS Interceptors, and parts for TSD sampling huts.

## G. Electrical and Energy Management (EEM)

1. A failure occurred to one of the three Supervisory Control and Data Acquisition (SCADA) servers. A system reboot was necessary to restore communication. Additionally, communications with 15 South Shore (SS) pump stations (PS's) in the Virginia Initiative Plant (VIP) service area was lost due to radio interference. Staff worked on the system and re-established communications.

2. Two variable frequency drives (VFDs) and a transfer switch failed at the Rodman Avenue PS. The VFDs and transfer switch components were damaged. It appears a failure occurred when the transfer switch was transitioning from normal electrical service (utility) to the alternate service (generator). The team repaired the switch and changed the switch transition time. The VFDs were sent out for repair.
3. Staff completed the installation of an uninterruptible power source (UPS) on the emergency effluent disinfection chemical pump at ATP to allow automatic operation during a power loss.
4. Staff modified the programmable logic controller (PLC) program on the SWIFT pilot equipment at YRTP to allow system automatic backwash capabilities and to automatically pace chemical feeds.
5. Staff completed the addition of conduit, field wiring and system programming to the secondary, dissolved air flotation and centrifuge polymer systems to the DCS at YRTP.
6. Staff assisted contractors with SCADA communication testing at LPTP and 10 pump stations.

#### H. Water Technology and Research

The KWTP process scheme currently includes coarse screening, fine screening, a membrane bioreactor (MBR) process in a 4-stage Bardenpho configuration with two independent parallel trains and hollow fiber polymeric membranes, UV disinfection, zinc removal, reuse pumping, and reaeration. There have been problems with membrane fouling, premature decline of membrane permeability, and membrane longevity, combined with equipment and control system issues restricting the ability to provide adequate chemical cleaning of the membranes. This plant will be rehabilitated and upgraded to achieve 100,000 gallons per day of firm capacity, and preliminary engineering has been initiated for this capital project. Although this project addresses a number of process and automation issues at KWTP, it was decided to upgrade the facility using ceramic membranes in a flat plate configuration, integrated into a new consolidated membrane tank that will serve both existing aeration tank trains. Ceramic membranes are an emerging technology, and they have been deployed in only a few MBR facilities worldwide. Although typically somewhat more costly on a capital basis, ceramic membranes offer considerably more resilience from the standpoint of flux recovery through chemical cleaning and mechanical robustness. The expectation is considerably increased membrane life and less concern associated with physical membrane damage and irreversible fouling. We have carefully followed the development of ceramic membrane MBR pilot and full-

scale applications, with most of this work being performed in Singapore, and we think this technology offers considerable value at KWTP. As part of this plant upgrade, we will also be testing and validating a concept that was claimed as part of the external settleability selection patents (commercialized as inDENSE®) whereby a device such as a hydrocyclone can be used for solids wasting from MBR processes to increase membrane flux and decrease the frequency of membrane cleaning.

## I. Strategic Measurement Data

### 1. Education and Outreach Events: 10

- a. NTP staff participated in a Virginia Water Environment Association (VWEA) Service Project with the Chesapeake Bay Foundation
- b. Staff participated in United Way Day of Caring
- c. YRTP tour for VWEA conference attendees
- d. ATP staff participated in Christopher Newport University – water quality sampling at Lake Tecumseh
- e. The Chief of EEM is serving as an advisor to the Tidewater Community College Mechatronics curriculum.
- f. The North Shore Electrical Manager attended a pre-planning meeting for the 2017 Cooperating Hampton Roads Organization for Minorities in Engineering Club (CHROME) Sponsor Launch on September 26.
- g. The NS Material Operations Coordinator (MOC) is co-chairing HRSD's 2017/2018 United Way Campaign.
- h. Charles Bott and Jaime Mitchell were invited to provide a SWIFT Briefing to the Chesapeake Bay Program Science and Technical Advisory Committee II
- i. Ramola Vaidya, Research Intern, presented on SWIFT Emerging Contaminant Removal at the WaterJAM Conference
- j. Peter Buehlmann, Research Intern, present on SWIFT Bromate Control at the WaterJAM conference

### 2. Community Partners: 8

- a. United Way
- b. Chesapeake Bay Foundation
- c. Virginia Institute of Marine Science
- d. Old Dominion University
- e. Chesapeake Bay Foundation – oyster restoration
- f. Christopher Newport University
- g. Tidewater Community College

h. Cooperating Hampton Roads Organization for Minorities in Engineering Club (CHROME)

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (511) – Current Month-	Hours / FTE	3.33
M-1.4b	Total Training During Work Hours per FTE (511) – Cumulative Year-to-Date	Hours / FTE	8.49
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	29,022
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	39.77
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	25.87
M-2.3d	Planned Maintenance-Projects	% of Total Maintenance Hours	34.36
M- 4.1a	Energy Use: Treatment <b>*reported for August 2017</b>	kWh/MG	2,149
M-4.1b	Energy Use: Pump Stations <b>*reported for August 2017</b>	kWh/MG	166
M-4.1c	Energy Use: Office Building <b>*reported for August 2017</b>	kWh/MG	120
M-5.2	Educational and Outreach Events	Number	10
M-5.3	Number of Community Partners	Number	8

Respectfully submitted,  
**Steve de Mik**  
 Director of Operations

TO: General Manager

FROM: Special Assistant for Compliance Assurance

SUBJECT: Monthly Report for September 2017

DATE: October 6, 2017

A. General

HRSD has completed a major milestone of the Consent Decree with submittal of the Integrated Plan/Regional Wet Weather Management Plan (RWWMP) on September 28, 2017, and comments/approval are pending. This \$2 billion Regional Adaptive Plan includes components of SWIFT (Sustainable Water Initiative for Tomorrow), High Priority RWWMP Projects, and a Pathogen Source Tracking Program.

B. Submittals Completed in September 2017 – The Integrated Plan/RWWMP was submitted on **September 28, 2017**.

C. Activities

1. **Phase 6 – Rehabilitation Plan.** All Rehab Action Plan Phase 0 projects have been completed ahead of the May 5, 2018 milestone. The next major milestone is May 5, 2021, for the Phase 1 projects. Major status updates for these projects were received from the Chiefs of Design & Construction in mid-September to update compliance tracking. Several projects are underway with completions reported in the Semi-Annual and Annual Reports.

Other system rehabilitation work (associated with Prompt Repairs or other items in the Sewer Repair [SR] contract) is as follows:

- SR 037 – Bay Shore Lane: Addressing manhole repair issues prior to closing out project.
  - SR 040 – Woodland Ave: Construction underway to replace sections of pipeline.
  - SR 054 – Beach Road: Pipelining work completed and project nearly complete.
2. **Phase 7 – RWWMP.** The final RWWMP was submitted on **September 28, 2017**.

3. **Phase 8 – EPA Consent Decree Services.** HRSD continues sharing information with the localities through the regional SharePoint site and flow, pressure and rainfall data portal.
4. **Phase 9 – Supplemental Services.** Management, Operations and Maintenance (MOM) Program elements are ongoing, including the Hydrogen Sulfide (H<sub>2</sub>S) Monitoring Program and implementation of a Business Intelligence (BI) system for the Small Communities Division (SCD). This includes a MOM update manual guidance document for use on the next major update, expected in 2018.

The Flow, Pressure and Rainfall (FPR) monitoring program continued in September with data collection and analysis being performed as part of the MOM Program.

Condition assessment work under Phase II of the Force Main Condition Assessment (FMP2) program progressed in September. Force main inspection work order status is as follows:

- FMP2 035 Hampton Trunk: Draft Work Order under review by HRSD.
- FMP2 039 Bowers Hill: Commission approved contractor authorization. Final Work Order signed and issued to contractor. Work is scheduled for October.
- FMP2 043 Kempsville Road: Work is in progress. Work order will be completed early October.

Field work continued in September under the Gravity Sewer Inspection Phase II Program. The gravity inspection work order status is as follows:

- WO GMP2 043 FY17 SS Manhole Inspection: completed in July with the exception of several manholes due to permit delays and access issues. This work was completed in September.
- Due to ongoing repairs at PS 148, WO GMP2 052 Ingleside Road is scheduled for CCTV inspection in October.
- Numerous inspection work orders are also ongoing in the Small Communities system.

Work has begun on the Fiscal Year 2017 Condition Assessment Annual Report.

#### D. Next Submittals

1. Annual Report – November 1, 2017



E. Program Budget Status

The overall program budget is \$132,985,133, excluding the Master Metering Program. A summary of appropriations and expenses is attached.

F. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1

- a. Attended the joint meeting of the American Water Works Association (AWWA) and the Virginia Water Environment Association (VWEA) WATERJAM conference in Hampton, Virginia.

2. Number of Community Partners: 0

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Total Training Hours Per Full Time Employee (1) – Current Month	Total Training Hours / # FTE	20
M-1.4b	Total Training Hours Per Full Time Employee (1) – Cumulative Fiscal Year to Date	Total Training Hours / # FTE	0
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully submitted,

*Phil Hubbard, P.E.*

Attachments: [Consent Order State & EPA Expenditures](#)

## Consent Order State & EPA Expenditures

	<b>Total Appropriation</b>	<b>September 2017 Obligations</b>	<b>Available Balance</b>
<b>Regional Consent Order and Other Consent Order Requirements</b>			
Regional Hydraulic Model	\$108,931,987	\$108,493,389	\$438,598
Manhole Rehab/Replacement Phase I & North Shore Siphon Chamber	\$2,834,000	\$423,088	\$2,410,912
Locality System Monitoring and Condition Assessment	\$21,219,146	\$20,398,571	\$820,575
Subtotal - In progress	\$132,985,133	\$129,315,048	\$3,670,085
<b>Completed Work</b>			
Regional Consent Order and Other Consent Order Requirements		(Included in subtotal above)	
Master Metering Program III		\$2,005,140	
Master Metering Program IV		\$13,628,635	
Total		\$144,948,823	

TO: General Manager

FROM: Director of Talent Management

SUBJECT: Monthly Report for September 2017

DATE: October 11, 2017

A. Human Resources (HR)

1. Recruitment Summary

New Recruitment Campaigns	14
Job Offers Accepted – Internal Selections	9
Job Offers Accepted – External Selections	4
Internal Applications	54
External Applications	145
Average Days to Fill Position	53

2. Enterprise Resource Planning (ERP)

- a. HRSD worked with the Managed Services consultant on benefit program setup.
- b. Staff worked with Oracle Support on the following:
  - (1) Reporting functionality for the recruitment module
  - (2) Flexible spending account setup
- c. Worked with Information Technology staff on the following:
  - (1) Interface updates
  - (2) Update to the safety hours report

3. Benefits and Compensation

- a. The Request for Proposal (RFP) process for Benefit Consulting services was initiated. HR and Procurement participated in the pre-proposal conference with potential vendors.
- b. Staff worked with HRSD's Health Care Provider and Benefits Consultant to evaluate formulary changes to pharmacy coverage.
- c. Staff continued to meet with vendors to gather information on various optional benefit plans.

#### 4. Wellness

##### a. Participation Activities

<b>Year 3 Participation Activities</b>	<b>Unit</b>	<b>September 2017</b>	<b>Year to Date (March 2017–February 2018)</b>
Biometric Screenings	Number	1	10
Preventive Health Exams	Number	6	32
Preventive Health Assessments	Number	34	213
Coaching Calls	Number	0	0
On-Line Health Improvement Programs	Number	103	408
Web-MD Online Health Tracking	Number	163	992
Challenges Completed	Number	0	0
Fit-Bit Promotion	Number	7	82

b. The Wellness Committee met to plan upcoming challenges: a *Fall Push-up/Sit-up* challenge and a *Healthy Holiday Recipe* challenge. Communication staff worked with committee members on a demonstration video for the fall challenge.

c. Fall boot camp class began at the Air Rail complex.

d. Work center Financial Wellness presentations were completed.

#### 5. Workers Compensation

Zero new cases were opened with 16 cases remaining active.

#### 6. Employee Relations

a. Staff continued to partner and meet with work center supervisors and employees to support employee relations and address HR issues. Staff continued updating Operations Department job descriptions and participated on interview panels.

b. Worked with Communications and IT on development of a social media policy which was presented for QST approval.

## 7. General

- a. On-line submission of the bi-annual Equal Employment Opportunity Commission (EEOC) State and Local Government EEO4 report was completed.
- b. Staff continued to address administrative issues and assist employees with obtaining new Defense Biometric IDs for access to military installations.
- c. Staff participated in the following training:
  - (1) *Health Information Privacy and Portability Act (HIPPA)* training conducted by HRSD Benefits Consultant.
  - (2) *Introduction to Mental Health Parity and Addiction Act* webinar
- d. Staff participated on the HRSD Strategic Planning team and the workgroup for the *People* focus area.

## B. Organization Development and Training (OD&T)

1. The Quality Facilitators continued Annual Planning Day efforts including scheduling and planning new engagements to meet work center needs and recording results. New engagements received positive feedback.
2. Twenty-two employees participated in the Leadership and Management Program (LAMP). External facilitators conducted the majority of the workshops with several HRSD facilitators presenting modules related to *Myers Briggs Type Indicator II*, Stephen Covey, *7 Habits of Effective People*, *Situational Leadership* and the *OZ Principal*. LAMP participants continue to provide extremely positive feedback.
3. The HRSD University team completed work with consultants to finalize two e-learning modules and will begin developing a presentation for the QST to provide an overview and demonstration of the modules.
4. The OD&T Manager continued working with the Chesapeake- Elizabeth Treatment Plant (TP) Manager on an abridged Supervisor Workshop to provide specific skills for Lead Operators. The HR Manager provided input for course development.
5. Work continued with engineering staff on development of an *Effective Collaborative Meeting Workshop*. Based on survey results, a case study component was added to assist learners in identifying the behaviors emphasized by the training.

6. The Project Management Team met and developed a framework for a workshop focused on project management skills. Team members continued work on individual assignments.
7. Apprenticeship Program
  - a. Final preparations were completed for a successful 2017- 2018 Apprenticeship School Year start-up.
  - b. The Training Superintendent continued working on curriculums: *Wastewater Analysis, Wastewater Laboratory, Disinfection, and Collection System Maintenance*.
  - c. OD&T and Human Resources staff continued to evaluate math skills testing and the *Math Refresher* course performance data to identify possible trends and areas for improvement.
  - d. Courses qualifying for Continuing Professional Education (CPE) credits were expanded based on recent changes to Virginia Department of Professional and Occupational Regulations.
8. Staff attended the *International Public Management Association (IPMA) Training Conference*.
9. The process of entering historical training and apprenticeship program information into the ERP Learning Management system began.

C. Safety

1. Mishaps and Work Related Injuries
  - a. HRSD-Wide Injury Mishap Status to Date (OSHA Recordable)

	<b><u>2016</u></b>	<b><u>2017</u></b>
<b>Mishaps</b>	42	29
<b>Lost Time Mishaps</b>	8	9
<i>Numbers subject to change pending HR review of each case.</i>		

b. MOM Program Year Performance Measure Work Related Injuries

<b>September 2017 Injuries For Operations</b>	<b>August 2017 Injuries for Other HRSD Departments</b>	<b>Total Lost Time Injuries Since July 2017</b>	<b>Total HRSD Injuries Since July 2017</b>
0	0	4	9

c. Follow-up investigations were performed on one reported work-related injury and one auto accident.

2. HRSD Safety Training

<b>Strategic Planning Measure</b>	<b>Unit</b>	<b>September 2017</b>
Total Safety Training Hours per Full Time Employee (830) All HRSD – July 2017	210.88 Hours / 830 FTE	0.25
Total Safety Training Hours Per Full Time Employee (830) – Cumulative July 2017	1398.39 Hours / 830 FTE	1.68

3. In addition to regularly scheduled safety training and medical monitoring, the following sessions were conducted:

- a. Eleven external briefings for contractors working at HRSD treatment plants and pump stations
- b. Chemical Hygiene Plan training for new Water Quality employees and Water Technology and Research interns
- c. Electrical Safety Program training for South Shore Interceptor Systems employees
- d. Emergency Response training for Customer Care Center employees
- e. Aerial Lift training for Boat Harbor TP employees

4. Safety Inspections, Testing and Monitoring

- a. Weekly on-site inspections of the following construction sites:
  - (1) Sustainable Water Initiative for Tomorrow (SWIFT) Demonstration at Nansemond TP
  - (2) Virginia Initiative Plant (VIP)
  - (3) James River TP
  - (4) Atlantic TP *Cambi* Project
- b. Quarterly safety inspections of the following work centers:
  - (1) Atlantic TP
  - (2) Chesapeake-Elizabeth TP
  - (3) James River TP
  - (4) Small Communities TPs and pump stations
  - (5) South Shore Automotive, Carpentry, Electrical, Machine and Maintenance shops
  - (6) Williamsburg TP
- c. Monitoring and testing for the following:
  - (1) Monthly hood velocity tests on Central Environmental Laboratory and Technical Services lab hoods
  - (2) Quarterly radiation screenings of Army Base, Boat Harbor, Chesapeake Elizabeth, VIP and Williamsburg TP incinerator ash samples
- d. Conducted new employee respirator fit and pulmonary function testing.
- e. Safety staff escorted Kimley Horn staff onto Nansemond TP adjacent property to evaluate beach erosion around the influent line.
- f. Industrial Hygienist oversaw annual truck crane inspections for South Shore Interceptor Systems and Small Communities.
- g. A Telehandler safety inspection checklist was distributed to work centers.
- h. Chemical and storage system plans for the SWIFT research center project were reviewed.



## 5. Safety Programs

- a. The quarterly *Safety Times* newsletter resumed. An Industrial Hygienist coordinated and prepared articles and distributed the Fall edition, featuring *Sudden Cardiac Arrest Awareness*, *Fire Prevention Safe Backing of Vehicles* and *Accident Reporting Procedures*.
- b. The following was performed for the Electrical Safety Program:
  - (1) Addressed questions and began developing a Frequently Asked Questions (FAQs) safety notice
  - (2) Worked with Electrical Engineers to develop *All Things Arc Flash* communication materials for SharePoint
- c. Staff continued to review audiometric testing results to ensure all results have been entered in preparation for annual testing.
- d. The Safety Manager evaluated a lock out/tag out compliance issue at the Atlantic TP.
- e. Safety and Operations staff continued to implement an on-line MSDS program to be introduced at several work centers in October.
- f. Confined space permits were evaluated and updated for Atlantic and Army Base TPs.
- g. The Safety Coordinator continued maintaining the Operations Safety Accident Tracking report.

## 6. General

- a. Safety Staff met with Procurement to initiate RFP processes for a Prescription Safety Glasses program and employment related physicals and Respiratory Protection Program physicals.
- b. Staff continued work and attended a meeting with Operations to plan a safety inspection for start-up of the Town of Surry TP.
- c. The Safety team met to discuss issues related to Arc Flash FAQs, the Safety Newsletter, Lock Out/Tag Out procedures, Town of Surry TP safety, AT TP *Cambi* construction start-up, Safety Standard Operating Procedures and the Prescription Safety Glasses program.
- d. Staff attended on-site HIPPA training.

D. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: 4

- a. Safety Manager attended City of Suffolk's Former Nansemond Ordinance Depot Advisory Board's quarterly meeting.
- b. HR Specialist presented "Effective Interviewing and Employee Retention" at a Virginia Water JAM workshop on Management issues sponsored by the Laboratory Practices Committee.
- c. Hampton University's Fall Career Fair
- d. United Way's African Americans Leadership luncheon

2. Community Partners: 4

- a. City of Suffolk's Former Nansemond Ordinance Depot Advisory Board
- b. Hampton University
- c. United Way of Hampton Roads
- d. Hampton Roads Public Works Academy

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	Sept 2017
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.15
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0.57
M-1.4a	Total Training Hours Per Full Time Employee (15) – Current Month	Total Training Hours/ FTE	5.33
M-1.4b	Total Training Hours Per FTE (15) Cumulative Fiscal Year-to-Date	Total Training Hours/ FTE	8.03
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Community Partners	Number	4

Respectfully submitted,  
**Paula A. Hogg**  
Director of Talent Management

TO: General Manager

FROM: Director of Water Quality (WQ)

SUBJECT: Monthly Report for September 2017

DATE: October 12, 2017

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed one civil penalty this month.

**SupplyOne Incorporated – Chesapeake**

An Enforcement Order was issued to SupplyOne, Incorporated in July 2017 for exceedances of their permit limits for Copper and Zinc in April 2017. These permit exceedances coincided with COD:BOD ratio permit exceedances during April and May 2017 which were covered by an existing Administrative Order. The Enforcement Order contained an invoice totaling \$1,000 in Civil Penalties. The Copper and Zinc violations have been addressed and corrective actions have been put into place. The Administrative Order for COD:BOD was successfully closed in August 2017. The Enforcement Order was accepted and the Civil Penalty was paid in August 2017.

2. Zaharoula “Joy” Cook, Central Environmental Laboratory Chemist, was awarded a onetime scholarship to attend WaterJAM in Lora Reed’s honor. This scholarship was awarded to Joy by the Virginia Water Environment Association/American Water Works Association Virginia Section (VWEA/VAAWWA) Laboratory Practices Committee based on her professionalism and technical knowledge as a laboratory professional. The VWEA Board of Directors recognized her as the recipient of this honor at the VWEA Membership Appreciation Luncheon at WaterJAM.
3. Stacie Crandall accepted a nomination to serve as a Community of Practices Director for Leadership and Development as part of the Committee Leadership Council for The Water Environment Federation (WEF).

B. Quality Improvement and Strategic Activities

1. The Sustainability Advocacy Group (SAG) did not report activity for the month of September.

2. The Technical Services Division (TSD) Technology Team has completed an evaluation of the ESRI ArcGIS Data Collector application that will aid in their field data and post laboratory data capture needs. A working version has been developed in house and will be rolled out for use in October 2017.
3. 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 Stafford and Northumberland Counties and the Town of Blackstone to support their respective Virginia Pollution Discharge Elimination System (VPDES) permit application processes.
2. The [Municipal Assistance Billed Reimbursements](#) per service collected between July 1 and September 30, 2017 are attached.
3. The [Municipal Assistance Invoice Summary](#) for the third quarter of the 2017 calendar year is attached.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
  - a. Central Environmental Laboratory (CEL) and TSD staff provided a tour of the CEL and Water Quality Services Building to members of the Elizabeth River Project's internship program.
2. Community Partners: 12
  - a. City of Norfolk
  - b. City of Newport News
  - c. Virginia Department of Health Division of Shellfish Sanitation
  - d. Virginia Department of Environmental Quality
  - e. City of Chesapeake
  - f. City of Suffolk
  - g. Elizabeth River Project
  - h. Virginia Department of Health Office of Epidemiology
  - i. Hampton Roads Planning District Commission
  - j. Lynnhaven River NOW
  - k. United Way

I. Chesapeake Bay Boat Pump-out

3. Odor Complaint: 1

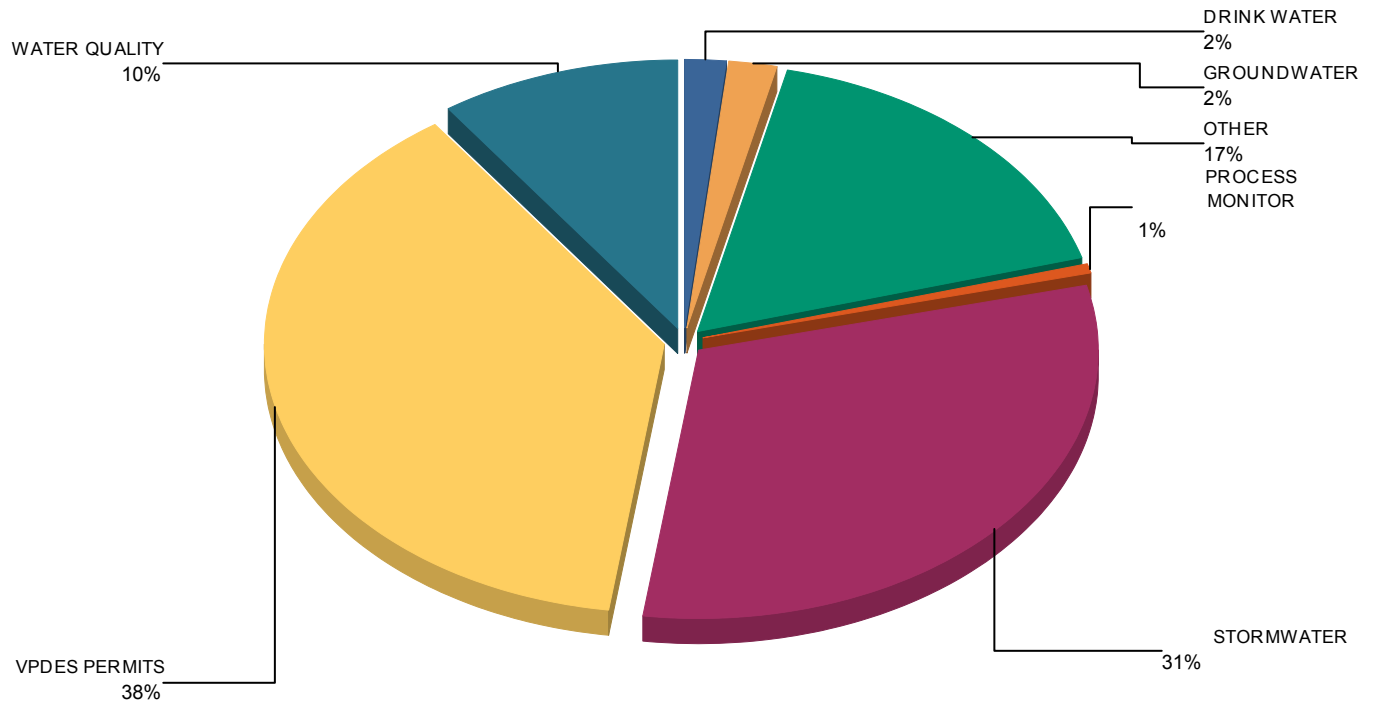
- a. South Shore Operations received an odor complaint that occurred during system gas venting at Nimmo Parkway and Scotchtown Drive in Virginia Beach on September 27, 2017. The routine (weekly) venting at this location will now employ the mobile carbon unit to minimize odors to preclude any odor nuisances and complaints. No further complaints have been received.

Item #	Strategic Planning Measure	Unit	September 2017
M-1.4a	Training During Work Hours Per Full Time Employee (109) (Current Month)	Total Hours / # FTE	6.30
M-1.4b	Total Training During Work Hours Per Full Time Employee (109) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	17.28
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	2
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	2:13,309
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	47,087,593
M-3.5	Pollutant Discharge	% Pounds Discharged/Pounds Permitted	16%
M-5.2	Educational and Outreach Events	#	1
M-5.3	Community Partners	#	12
	Average Daily Flow	Total MGD for all Treatment Plants	146.68
	Industrial Waste Related System Issues	#	0

Respectfully submitted,  
*James Plotl, PhD*  
Director of Water Quality

**Municipal Assistance Billed Reimbursements per Service  
From 07/01/2017 to 09/30/2017**

**Attachment 1**



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

**Municipal Assistance Invoice Summary**  
**From 7/1/2017 - 9/30/2017**

<b>Municipality</b>	<b>Reimbursements</b>
Accomack County	\$4,384.79
Bedford County PSA	\$6,486.53
Buckingham County	\$799.12
City of Chesapeake	\$3,428.89
City of Emporia	\$223.33
City of Franklin	\$1,596.29
City of Fredericksburg	\$12,358.10
City of Norfolk	\$10,363.75
City of Portsmouth	\$3,525.41
City of Richmond	\$8,206.53
City of Suffolk	\$8,169.04
City of Virginia Beach	\$14,562.24
HRPDC	\$62,289.38
Hanover County	\$6,342.56
James City County Service Authority	\$1,064.25
King George County	\$6,503.01
New Kent County	\$8,592.70
Northumberland Co. - Callao WWTP	\$4,757.57
Stafford County	\$95.26
Town of Blackstone	\$5,239.50
Town of Cape Charles	\$6,195.39
Town of Lawrenceville	\$535.75
Town of South Hill	\$4,361.88
Virginia Department of Health	\$20,998.02
Warsaw WWTP	\$474.09
Western VA Water Authority	\$3,132.84
Westmoreland County	\$963.71
<b>Total Reimbursements 3rd Quarter</b>	<b>\$205,649.93</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 projects, and the status of current management action plan (MAP) monitoring.

## ***I. Projects in Process***

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### **Procurement/ ProCard Process Review**

- **Tasks Completed (September 2017)**
  - Distributed finalized report to HRSD Commission for review

### **Engineering Procurement Process Review**

- **Tasks Completed (September 2017)**
  - Communicated and received additional testing documentation from process owners
  - Updated testing to complete steps outlined in the audit work program
- **Upcoming Tasks (October 2017)**
  - Finalize testing to complete steps outlined in the audit work program
  - Conduct fieldwork exit conference with process owners
  - Draft final audit report

### **IT: Network Security/ Cybersecurity**

- **Tasks Completed (September 2017)**
  - Finalized audit work program
  - Performed walkthroughs for in-scope areas
  - Requested testing documentation
  - Conducted fieldwork
- **Upcoming Tasks (October 2017)**
  - Draft final audit report
  - Conduct fieldwork exit conference with process owners
  - Finalize findings and observations

### **Corporate Governance: Ethics Function**

- **Upcoming Tasks (October 2017)**
  - Hold entrance meeting with process owners
  - Prepare project planning materials
  - Schedule fieldwork and communicate initial documentation requests

### ***\*Engagement Notes/ Delays***

SC&H has noted delays in the scheduling of process walkthrough meetings in the performance of the Engineering Procurement review that were the result of timing and availability constraints for process owners. Additionally, we noted delays in the receipt of testing documentation related to the Engineering Procurement review from process owners in order to complete testing.

In the month of September, SC&H experienced delays in receiving additional documentation requested from process owners. Staffing constraints caused a delay in the receipt of this documentation for several weeks.





SC&H is continuing to work with the team to move this project forward and working diligently to meet the timeframe communicated to management.

## ***II. Upcoming Projects (FY2018)***

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The following projects are scheduled to be performed during FY2018 based upon the risk assessment previously performed by SC&H.

- Q2- Risk Assessment: Year 3 Refresh
- Q3- Operations: Treatment Plants
- Q4- Finance and Accounting: Customer Care (Billing, Mail Center & Payments, A/R & Delinquent Accounts)

## ***III. Management Action Plan (MAP) Monitoring***

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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 and upcoming monitoring timeframes.

### **Design and Construction: CIP Project Management Review MAP Status**

- Audit Report Date: May 11, 2016
- Next Follow-up: September 2017
- Total Recommendations: 13
- Recommendations Closed: 10
- Recommendations Open: 3 (Anticipated to be closed by December 2017)

### **Upcoming MAP Monitoring**

- Biosolids
  - Report Date: October 8, 2016
  - Anticipated MAP Follow-up: October 2017
- HR Administration of Employee Health Insurance
  - Report Date: November 22, 2016
  - Anticipated MAP Follow-up: December 2017
- Inventory Management
  - Report Date: April 20, 2017
  - Anticipated MAP Follow-up: April 2018

Annual Metrics											
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17
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%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%	69.00%	68.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67
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
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
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
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
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%
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
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	*
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58
M-3.6	Alternate Energy	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2205	2294
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104
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%
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	*
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%	*
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	*
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	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%	*
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	*

\* To be reported upon completion of the annual financial statements.

Monthly Updated Metrics												FY-18	FY-18
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	Aug-17	Sep-17
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	149.1	146.7
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	106%	108%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	106%	106%
	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	\$21,601,727	\$24,407,910
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	17%	15%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	7	2
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	1:8873	2:13309
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	0	1
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	31,583,474	47,087,593
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	16%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	42	46
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	29	42

# EFFLUENT SUMMARY FOR SEPTEMBER 2017

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	9.16	51%	2	2.2	2	1	0.61	0.63	7.7	7.2	NA	NA	14
ATLANTIC	24.72	46%	7	4.8	10	2	NA	NA	NA	NA	NA	NA	9
BOAT HARBOR	15.75	63%	3	4.1	3	1	0.30	0.52	8.3	13	NA	NA	9
CENT. MIDDLESEX	0.016	63%	3	8.0	<1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	17.29	72%	14	14	26	2	1.1	1.3	30	31	NA	NA	11
JAMES RIVER	12.86	64%	3	3.2	1	1	0.56	0.50	7.5	9.0	NA	NA	2
KING WILLIAM	0.045	45%	<2	0.25	NA	<1	0.045	0.038	0.50	0.79	<0.50	NA	NA
NANSEMOND	18.68	62%	4	3.0	3	2	0.77	0.88	5.6	7.2	NA	NA	3
URBANNA	0.060	60%	6	12	12	4	4.6	5.5	21	22	NA	1.5	NA
VIP	27.06	68%	3	2.7	2	1	1.4	0.85	5.7	7.1	NA	NA	0
WEST POINT	0.364	61%	20	12	5	2	3.4	3.0	16	17	NA	9.5	0
WILLIAMSBURG	7.46	33%	1	1.9	3	2	0.89	0.69	3.1	4.5	NA	NA	3
YORK RIVER	13.22	88%	1	1.5	<1	1	0.30	0.27	1.7	2.0	NA	NA	4
	146.68												

	% of Capacity
North Shore	60%
South Shore	58%
Mid Peninsula	56%

Tributary Summary						
Tributaries	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY17		YTD	Projection CY17	
	%	Lbs	%	%	Lbs	%
James River	64%	3,973,048	87%	64%	286,113	90%
York River	27%	140,100	49%	55%	14,589	76%
Rappahannock	195%	NA	NA	732%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY18 to Date: 2:13,309  
Pounds of Pollutants Removed in FY18 to Date: 47,087,593  
Pollutant Lbs Discharged/Permitted Discharge FY18 to Date: 16%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	2.03"	1.99"	3.46"
Normal for Month	5.53"	6.23"	4.46"
Year to Date Total	37.67"	40.53"	37.01"
Normal for YTD	39.95"	39.63"	37.49"

## AIR EMISSIONS SUMMARY FOR SEPTEMBER 2017

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	BZ Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	pH	Bypass	Mo. Ave	DC	Daily Ave
	(F)	(in. WC)	(GPM)	(GPM)	(GPM)	(GPM)	3 hr ave	Stack Use	(PPM)	(%)	Days >Max
ARMY BASE	0	0	0	0	0	0	0	1	21	99	0
BOAT HARBOR	0	0	0	n/a	2	0	0	0	22	90	0
CHES-ELIZ	0	0	0	0	0	0	0	1	34	99	0
VIP	0	0	0	n/a	0	0	0	0	57	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	8	99	0

### ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action (RCA):	0
DEQ Notice of Violation (NOV):	0
Other Air Permit Deviations:	0
Odor Complaints Received:	1
Odor Scrubber HRSD Exceptions:	3

## AGENDA ITEM 17.e. – October 31, 2017

**Subject:** Sanitary Sewer System Portsmouth Virginia Western Diversion  
Force Main (SF-218)  
Emergency Declaration

**CIP Project:** VP018100

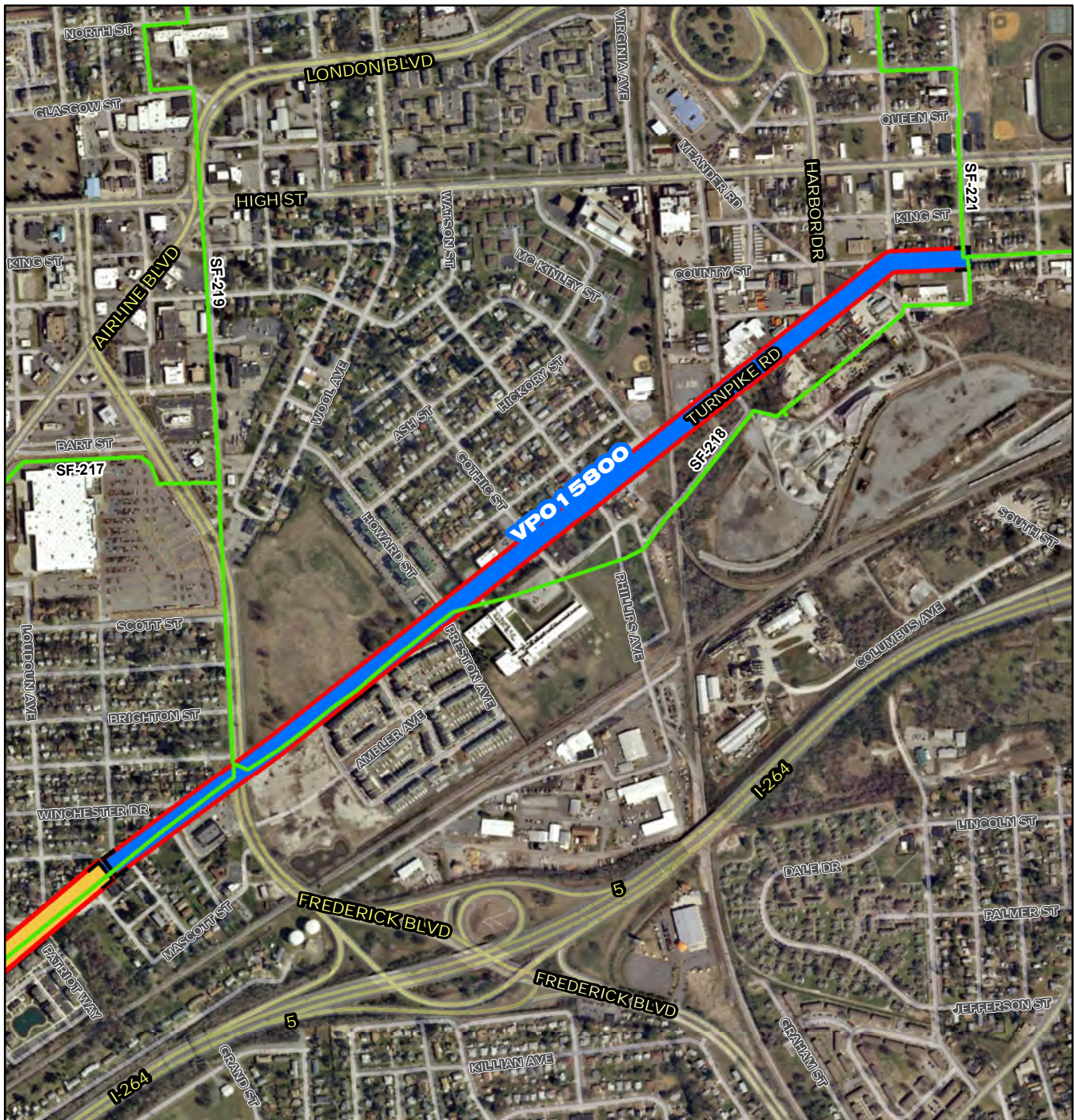
**Recommended Action:** No action is required. Information Only

**Brief:** The existing 30-inch diameter reinforced concrete pipe force main (SF-218) along [Turnpike Road near the intersection](#) with Frederick Boulevard has at least three confirmed circumferential cracks, two of which are currently leaking sewage. This section of force main and other work along the Turnpike Road corridor are under construction by Virginia Department of Transportation (VDOT) and their contractors for a major roadway improvement project. Leaks developed during excavation work to lay the new ductile iron force main and other utilities. VDOT has requested that HRSD make necessary repairs to allow the roadway improvement project to move forward since the leaks have halted VDOT work. The project team considered many options and believes the most prudent method for stopping the leaks is to accelerate the schedule by taking the fragile pipeline out of service and expediting the installation of the planned bypass pipeline, activating the newly constructed ductile iron force main and abandoning the old pipeline. The contractor will continue to capture the leakage through a constructed gravel sump, which will then be pumped into the nearest City sewer collection point.

An emergency declaration was authorized on October 4, 2017. This emergency was declared to allow HRSD to take immediate corrective action. The most efficient and cost effective approach is to contract directly with VDOT's contractor, Tidewater Utility Construction (TUC), on a time and materials basis. TUC is already mobilized, familiar with the roadway improvements and the planned abandonment of the HRSD force main.

The estimated cost of this work is \$1,000,000 and will be funded from a new CIP appropriation for this project.





# VPO 15800

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

## Legend

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

0 305 610 1,220 1,830 2,440 Feet

# VPO 15800

**Sanitary Sewer System Portsmouth  
Va Western Diversion Force Main  
Relcoation (VDOT Turnpike Road  
Betterment)**



CIP Location



Portsmouth