



COMMISSION MEETING MINUTES
November 26, 2019

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Attachments (11)



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Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-20
Lynch, Maurice P.	Commission Vice-Chair	1-20
Glenn, Michael E.	Commissioner	1-20
Lakdawala, Vishnu K.	Commissioner	1-20
Levenston, Jr., Willie	Commissioner	1-20
Rodriguez, Stephen C.	Commissioner	1-20
Taraski, Elizabeth	Commissioner	1-20
Ward, Molly Joseph	Commissioner	1-20

1. **AWARDS AND RECOGNITION**

Action: No action required.

Brief: The following awards were recognized.

a. Service Award

Chair Elofson presented a service award to Mr. Don Corrado, Director of Information Technology, who marked his 20th year of service with HRSD on September 27, 2019. Don was hired in September 1999 as the Chief of Information Technology and was promoted to Director in May 2008. In this capacity, Don ensures compliance of all state and federal requirements related to Information Technology infrastructure, information systems, and Cybersecurity. He directs the effective delivery of networks, application development, disaster recovery, and information technology lifecycle processes. He also oversees technical projects in alignment with organizational mission and vision, providing guidance and direction related to information services activities within all HRSD departments, as well as identifies and eliminates security vulnerabilities with strategic solutions that increase data security.

In Don's nine years as HRSD's Chief of Information Technology, he was responsible for the implementation of a scalable, fully-licensed, standards-based wide area network capable of supporting the various enterprise-class applications required to meet HRSD's business needs.

Don's career includes public and private sector experience as an IT manager, enterprise solutions architect, information systems security officer, project leader and contract specialist. He earned a bachelor's degree from Old Dominion University, is a



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Master Certified NetWare Engineer, Microsoft Certified Systems Engineer and is ITIL Certified. He is a member of the Gartner Executive Panel, American Water Works Association (AWWA) and WEF and has completed the Kenan-Flagler Water and Wastewater Leadership Program.

b. Other Awards

(1) Design-Build Institute of America National Award

HRSD was awarded a Design-Build Institute of America (DBIA) National Award in the "Water/Wastewater" Category and an Honorable Mention in the "Best in Process" Category for the SWIFT Research Center Project. This was a great honor and there were several very worthy projects receiving awards during the ceremony.

(2) Oracle Excellence Award

HRSD was named the 2019 Oracle Construction and Engineering Excellence Award in the *Systems Integration in Public Infrastructure* category. HRSD was the only public sector award winner alongside private sector companies such as Facebook and BlueCross BlueShield. HRSD staff participated in an interview process with an Oracle panel that resulted in the award for continuous improvement in creating an enterprise system that integrates the Enterprise Project Management System (Primavera Unifier) with the Enterprise Business Suite (Oracle EBS).

Attachment: None

Public Comment: None



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2. **CONSENT AGENDA**

Action: Approve the items listed in the Consent Agenda.

Moved:	Stephen Rodriguez	Ayes:	8
Seconded:	Willie Levenston	Nays:	0

Brief:

- a. Approval of minutes from previous meeting.
- b. Contract Award and Task Order

1. Deep Creek Interceptor Force Main	Contract Award	\$4,388,122
	Task Order	\$341,253

Item(s) Removed for Discussion: None

Attachment #1: [Consent Agenda](#)

Public Comment: None



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3. **FISCAL YEAR 2019 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, 2018.**
- b. **Accept the Finance Committee's Report regarding the Comprehensive Annual Financial Report for the fiscal year ended June 30, 2019.**

Brief: Political subdivisions of the Commonwealth of Virginia are required to publish a complete set of audited financial statements. The [CAFR](#), prepared by the Finance Department, summarizes the operating revenues and expenses for the fiscal year ending each June 30. HRSD is required by its Trust Agreement to prepare and distribute its financial statements within 150 days following the close of the fiscal year, which is November 27. The GFOA of the United States and Canada presents a Certificate of Achievement for Excellence in Financial Reporting to government units and public employee retirement systems whose CAFRs achieve the highest standards in government accounting and financial reporting. During the summer and early fall, the Accounting and Finance Division staff works diligently to prepare year-end financial statements, which are audited by Cherry Bekaert LLP. In addition, they complete a rather substantial financial and statistical package, which is submitted to the GFOA for review and possible certification. The Accounting and Finance Division has received this certification annually since 1983 – an impressive achievement for 36 consecutive years.

Commissioners Lynch and Rodriguez were appointed as the Commission's Finance Committee in 2019 for the fiscal year 2020. The Finance Committee, along with Commissioners Elofson, Lakdawala, and Levenston, met with staff to review the draft CAFR on October 15, 2019. On November 26, 2019, the Finance Committee met with staff and Cherry Bekaert LLP prior to the Commission meeting to discuss the audit opinion. The Finance Committee provided their comments to the full Commission along with [briefings](#) by staff.

Discussion Summary: Committee Chair Rodriguez recapped recent meetings held by the Finance Committee. During the October 15, 2019 Committee meeting, the internal auditors (SC&H), presented status of completed audits, reviewed audits in process and discussed upcoming audits. The Committee also met the new auditors, Cherry Bekaert, and staff presented the draft CAFR.

During the November 26, 2019 meeting, Cherry Bekaert presented their final report and letter of opinion and the Committee reviewed the final CAFR.



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Committee Chair Rodriguez stated that based on these meetings, discussions with the auditors and staff, and the answers to Committee members' questions, the Finance Committee has accepted the annual audit report without qualification and with no significant findings or management recommendations from Cherry Bekaert. On behalf of the Commission, Commissioner Rodriguez congratulated the Director of Finance and his staff on another great year.

Committee Chair Rodriguez further stated the Committee also accepts the annual CAFR and authorizes distribution as required by the Enabling Act and Trust Agreements.

Attachment #2: [CAFR and Presentation](#)

Public Comment: None



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4.

**WATER INFRASTRUCTURE FINANCE AND INNOVATION ACT (WIFIA)
SWIFT PROGRAM FUNDING APPLICATION RESOLUTION**

Action: Adopt the resolution authorizing the General Manager to submit a WIFIA application and associated fee to fund the SWIFT Program.

Moved:	Vishnu Lakdawala	Ayes:	8
Seconded:	Willie Levenston	Nays:	0

Brief: The WIFIA program accelerates investment in our nation’s water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects. The WIFIA loans allow borrowers to lock-in a rate equivalent to the US Treasury rate at closing. Similar to Clean Water loans, WIFIA loan requirements may increase total project costs as they require Davis-Bacon wages, American Iron and Steel and involve federal environmental reviews. The estimated gross interest savings, over market rate bonds, using a combination of WIFIA funds and Clean Water Revolving Loans, is approximately \$243 million. The additional benefits include the ability to extend the debt to 35 years and significant flexibility as there is no requirement to use 100 percent of the approved amount and there is no prepayment penalty.

The attached [resolution](#) authorizes the General Manager to submit HRSD’s application for the SWIFT Program along with the required \$100,000 fee from the Finance Department operating budget. The EPA has stated the application and closing negotiations typically take six to nine months. Staff will team with PFM for financial analysis and Hunton, Andrews, Kurth for bond counsel services. The team will work diligently to submit the application and close the loan as soon as possible to take advantage of favorable interest rates.

Discussion Summary: Staff said the application fee is a down payment towards the credit processing fee, which could be upwards of \$250,000 when completed. Additional costs should be less than \$2 million and include bond counsel review throughout the remainder of the application process and reimbursement to EPA for their cost.

Attachment #3: [Resolution and Presentatiopn](#)

Public Comment: None



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5. **HRSD ENVIRONMENTAL SCHOLARSHIP
RESOLUTION AND APPROPRIATION**

Action:

- a. **Adopt the resolution requesting the Hampton Roads Community Foundation change the name of the HRSD Environmental Scholarship to the Tara Welch Gallagher Scholarship.**
- b. **Appropriate \$100,000 from fiscal year 2020 debt service savings to fund an increase for the scholarship endowment.**

Moved: Maurice Lynch **Ayes:** 8
Seconded: Vishnu Lakdawala **Nays:** 0

Brief: The HRSD Environmental Scholarship was endowed with a one-time appropriation from the Environmental Fund (funded with fines collected by the Pretreatment and Pollution Prevention Division of the Water Quality Department.) This scholarship is administered by the Hampton Roads Community Foundation and supports residents of the HRSD service area pursuing graduate degrees in a variety of environmental related disciplines at a Virginia public university.

After the Virginia Beach tragedy, we learned one of the victims, Tara Welch Gallagher, was a recipient of our scholarship. After discussions with the Community Foundation we approached the family through one of Tara’s coworkers. The family is supportive of the name change to honor Tara’s legacy as an environmental professional. The name change must be approved by the Board of the Hampton Roads Community Foundation upon receiving a [resolution](#) from the HRSD Commission requesting such a change.

During this process staff discovered the current level of endowment, approximately \$75,000, supports an annual scholarship award of approximately \$3,000. Based on today’s tuition rates, a Master of Science (MS) in Environmental Engineering costs approximately \$16,500 from Old Dominion University. Staff recommends increasing the endowment to support an annual scholarship of \$8,000, the estimated cost of one-year of a MS program. The endowment will need to be approximately \$160,000 to support an \$8,000 annual award today and allow the endowment to grow to accommodate future tuition increases.

The recent refinancing resulted in a current year savings of \$2.8 million in budgeted debt service payments. Staff recommends using \$100,000 of this one-time savings to increase the endowment for the Environmental Scholarship.

Attachment #4: [Resolution](#)

Public Comment: None



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6. **PATRICK HENRY PUMP STATION INTERCONNECTION FORCE MAIN
ACQUISITION OF EASEMENT – 2381 G AVENUE, NEWPORT NEWS, VIRGINIA**

Action: Approve the purchase of a 37,152 square foot permanent easement located at 2381 G Avenue for \$67,774 in accordance with the terms and conditions of the Deed of Easement with the Industrial Development Authority (IDA) for the City of Newport News, owner of subject property in Newport News, Virginia and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved:	Stephen Rodriguez	Ayes:	8
Seconded:	Michael Glenn	Nays:	0

CIP Project: JR011300

Project Description: Over the past several years, the City of Newport News has experienced several force main failures that connect directly to the Oyster Point Force Main. The purpose of this project is to provide a significant reduction in system pressure for this force main. The project involves the installation of approximately 2,000 linear feet of 30-inch force main from the Colony Area Interceptor Force Main (IFM) to the Patrick Henry Pump Station. This easement was approved for disposition by the Newport News Economic Development Authority (EDA)/IDA Committee on November 1, 2019.

Attachments: The [Deed of Easement](#) is attached and was reviewed by HRSD staff and legal counsel. A location [map](#) is provided for clarification purposes.

Analysis of Cost: The purchase price for the easement is based upon an appraisal performed by Brian Dundon and Associates.

Attachment #5: [Easement and Map](#)

Public Comment: None



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7. **SUFFOLK PUMP STATION REPLACEMENT
ACQUISITION OF REAL PROPERTY – 2245 E. WASHINGTON STREET, SUFFOLK,
VIRGINIA**

Action: Approve the purchase of 2245 E. Washington Street for \$320,000 and \$7,000 relocation assistance in accordance with the terms and conditions of the Purchase and Sale Agreement with Lavoskia Conner, owner of subject property in Suffolk, Virginia and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and further authorize the General Manager to execute the forthcoming deed of bargain and sale upon approval of legal counsel.

Moved: Vishnu Lakdawala **Ayes:** 8
Seconded: Willie Levenston **Nays:** 0

CIP Project: NP010620

Budget	\$12,049,000
Previous Expenditures and Encumbrances	(\$1,873,246)
Available Balance	\$10,175,754

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

The new station will meet current capacity needs and provide for future expansion to meet anticipated growth. The existing pump station site does not provide the needed space for expansion, is difficult to access and creates a nuisance traffic to the surrounding residential neighborhood. After a preliminary engineering, location and cost evaluation, HRSD staff and engineering consultants selected four potential sites based on size, location, aesthetics and engineering feasibility considerations. The property located at 2245 E. Washington Street was determined to be the most desirable site upon which to build.

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



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Analysis of Cost: HRSD will purchase the property for the negotiated price of \$320,000 and \$7,000 relocation assistance. The offer amount is reflective of sales of single-family homes and current listings in the area.

Attachment #6: [Agreement, Deed of Bargain and Sale, and Map](#)

Public Comment: None



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8. VIRGINIA BEACH BOULEVARD FORCE MAIN PHASE VI PROJECT
ACQUISITION OF EASEMENT – 207 PARKER LANE, VIRGINIA BEACH, VIRGINIA

Action: Approve the purchase of a 28,837 square foot permanent easement and a 13,882 square foot temporary easement located at 207 Parker Lane for \$225,000, in accordance with the terms and conditions of the Purchase Agreement with TCS Materials, LLC, owner of subject property in Virginia Beach, Virginia and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and further authorize the General Manager to execute the forthcoming deed of bargain and sale upon approval of legal counsel.

Moved: Willie Levenston **Ayes:** 8
Seconded: Elizabeth Taraski **Nays:** 0

CIP Project: CE011823

Budget	\$27,863,000
Previous Expenditures and Encumbrances	(\$25,240,213)
Available Balance	\$2,622,787

Project Description: This project will upgrade the existing 24-inch reinforced concrete pipe to a 42-inch pipe from North Lynnhaven Road to North Great Neck Road. The new pipeline alignment falls primarily within the Virginia Beach Boulevard right-of-way from North Lynnhaven Road to Eureka Avenue, travels through the Southern Boulevard right-of-way until it crosses London Bridge Creek and will connect back into the existing force main at Great Neck Road by way of Parker Lane. As a result, the total length of the new pipeline will be approximately 9,500 linear feet. This project must be substantially complete by June 2021. The project is needed to provide reliable capacity and maintain HRSD pressure policy when flow is diverted in support of the Chesapeake-Elizabeth Treatment Plant closure and for the eventual Regional Wet Weather Management Plan. The subject property is needed to both construct the 42-inch force main and to stage materials for a large portion of the project.

Agreement Description: The attached [Purchase Agreement](#) and forthcoming Deed of Bargain and Sale have been reviewed by HRSD staff and legal counsel.

Analysis of Cost: HRSD will purchase the easements for \$225,000. The acquisition cost is reflective of an appraisal performed by Smith and Company Commercial Real Estate Appraisers and a negotiated purchase price with TCS Materials.

Attachment #7: [Purchase Agreement and Deed of Bargain and Sale](#)

Public Comment: None



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9. **BRIDGE STREET SIPHON AND VENT RELOCATION/REPLACEMENT
ADDITIONAL APPROPRIATION AND AGREEMENT (>\$200,000)**

Actions:

- a. **Appropriate additional funding in the amount of \$172,850.**
- b. **Approve the terms and conditions of the Settlement Agreement and Release between Precon Marine, Incorporated, HRSD, and the City of Hampton for the resolution of the final project claim filed by Precon Marine, 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: Michael Glenn **Ayes:** 8
Seconded: Willie Levenston **Nays:** 0

CIP Project: BH013400

Budget	\$895,000
Previous Expenditures and Encumbrances	(\$842,021)
Available Balance	\$52,979
Proposed Settlement to Contractor	(\$225,829)
Project Shortage/Requested Additional Funding	(\$172,850)
Revised Total Project Authorized Funding	<u>\$1,067,850</u>

Project Description: This project evaluated and provided rehabilitation of the existing Bridge Street siphon pipelines during the replacement of the Bridge Street Bridge. The construction of the new bridge required the installation of a new siphon vent 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. The construction work is complete. HRSD is a third party to the contract between the City of Hampton and the bridge contractor Precon Marine.

Funding Description and Analysis of Cost: The dispute that is the subject of this Settlement Agreement arises from the construction contract between the City of Hampton and Precon Marine. Claims were filed by Precon Marine during the course of the project, culminating in a final project claim filed on July 16, 2019. The negotiated settlement amount to resolve this claim and close the project is \$737,012.83. The City of Hampton will pay Precon Marine \$511,183.83 and HRSD will pay \$225,829. HRSD's portion of the settlement is based on 41 days of actual delay costs for portions of the work completed on behalf of HRSD.



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Agreement Description: The attached [Agreement](#) between HRSD, the City of Hampton, and Precon Marine, Incorporated is the final resolution to the project claim filed by Precon Marine on July 16, 2019. The agreement has been reviewed by HRSD, City of Hampton and Precon Marine's legal counsel.

Discussion Summary: Commissioner Rodriguez expressed concern for the name of the company in the settlement agreement. He said there are two companies named "Precon." Staff clarified the agreement is with Precon Marine, Incorporated.

Attachment #8: [Agreement](#)

Public Comment: None



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10. **DEEP CREEK INTERCEPTOR FORCE MAIN RISK MITIGATION
ADDITIONAL APPROPRIATION, CONTRACT AWARD (>\$200,000) AND
TASK ORDER (>\$200,000)**

Actions:

- a. **Appropriate additional funding in the amount of \$652,762.**
- b. **Award a contract to Tidewater Utility Construction, Inc. in the amount of \$2,415,530.**
- c. **Approve a task order with Whitman Requardt and Associates, LLP (WRA) in the amount of \$238,614.**

Moved: Vishnu Lakdawala **Ayes:** 8
Seconded: Maurice Lynch **Nays:** 0

CIP Project: NP013400

Budget	\$2,482,800
Previous Expenditures and Encumbrances	(\$408,952)
Available Balance	\$2,073,848
Proposed Contract Award to Tidewater Utility	(\$2,415,530)
Proposed Task Order to WRA	(\$238,614)
Proposed Contingency	(\$72,466)
Project Shortage/Requested Additional Funding	(\$652,762)
Revised Total Project Authorized Funding	\$3,135,562

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Tidewater Utility Construction, Inc.	\$2,415,530
Gaston Brothers Utilities, LLC	\$2,539,635
Bridgeman Civil, Inc.	\$2,637,031

Engineer's Estimate: \$2,407,601

Contract Status:	Amount
Original Contract with WRA	\$48,857
Total Value of Previous Task Orders	\$320,014
Requested Task Order	\$238,614
Total Value of All Task Orders	\$558,628
Revised Contract Value	\$607,485
Engineering Services as % of Construction	25.1%



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Contract Description: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids from potential bidders. The project was advertised on October 6, 2019 and three bids were received on November 6, 2019. The bids were above the Engineer's estimate, which is indicative of the improving economy and the ample work for contractors in the region. The design engineer, WRA, evaluated the bids and recommends award to the lowest responsive and responsible bidder, Tidewater Utility Construction, Inc. in the amount of \$2,415,530.

Project Description: This project will construct 3,800 linear feet of 6-inch force main to reroute the discharge flow from a City of Chesapeake pump station to the interceptor force main and 600 linear feet of 12-inch force main extension along Bainbridge Avenue to reroute Chesapeake pump station flow east away from a section of corroded force main that runs parallel to the railroad. 2,400 linear feet of 4-inch low pressure force main will also be constructed to redirect the private pump station serving 1500 Steel Street to the newly constructed 6-inch force main. The force mains will be dedicated to the City of Chesapeake upon completion of the project. The existing 24-inch HRSD interceptor force main will be abandoned from the Washington District Pump Station westward to the main line valve at Winslow Avenue. Up to 500 linear feet of HRSD force main will be removed from the property west of Steel Street to accommodate wetland construction. The remaining portion of 24-inch HRSD force main will be abandoned with flowable fill wherever it is practical and necessary. This project will eliminate the risk associated with operating an aging ductile iron and pre-stressed concrete force main beneath a capped coal ash pile. In addition, this rerouting of flow will eliminate a large portion of HRSD's force main lying in easements with difficult access issues including residential yards.

Task Order Description and Analysis of Cost: This task order will provide contract administration and construction inspection services for this project. A meeting was held to discuss the project and scope of services. A fee of \$238,614 was negotiated to provide the required oversight for the project. The cost of the task order is based upon an estimation of hours and rates to complete the work. The hours and rates are in line with past efforts on similar projects.

Funding Description: This project requires additional funding to complete construction. This request includes \$72,466 (three percent) in contingency to accommodate any additional unforeseen conditions. A previously approved Cost Sharing Agreement with Dominion Energy will reimburse HRSD approximately \$2,000,000 for this project.

<u>Schedule:</u>	Bid	November 2019
	Construction	December 2019
	Project Completion	October 2020

Attachment: None

Public Comment: None



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11. **TREATMENT PLANT DEWATERING REPLACEMENT PHASE I
ADDITIONAL APPROPRIATION, CONTRACT AWARD (>\$200,000) AND TASK ORDER
(>\$200,000)**

Actions:

- a. **Appropriate additional funding in the amount of \$2,698,724.**
- b. **Award a contract to Shaw Construction Corporation in the amount of \$2,944,000.**
- c. **Approve a task order with HDR Engineering Inc. (HDR) in the amount of \$556,554.**

Moved: Willie Levenston **Ayes:** 8
Seconded: Elizabeth Taraski **Nays:** 0

CIP Project: GN016400

Budget	\$1,680,000
Previous Expenditures and Encumbrances	(\$ 620,125)
Available Balance	\$1,059,875
Proposed Contract Award to Shaw Construction Corp.	(\$2,944,000)
Proposed Task Order to HDR	(\$556,554)
Proposed Contingency	(\$258,045)
Project Shortage/Requested Additional Funding	(\$2,698,724)
Revised Total Project Authorized Funding	\$4,378,724

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Shaw Construction Corporation	\$2,944,000
Clark Construction LLC	\$2,999,700
MEB General Contractors Incorporated	\$3,158,000
Crowder Construction Company	\$3,410,000

Engineer's Estimate: \$3,057,000

Contract Status:	Amount
Original Contract with HDR	\$135,955
Total Value of Previous Task Orders	\$482,181
Requested Task Order	\$556,554
Total Value of All Task Orders	\$1,038,735
Revised Contract Value	\$1,174,690
Engineering Services as % of Construction	40%



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Contract Description: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. Four bids were received and evaluated based upon the requirements in the invitation for bid. Shaw Construction Corporation is the apparent low bidder with a bid amount of \$2,944,000.

Project Description: This project will add a fourth dewatering centrifuge to the Atlantic Treatment Plant. In addition to adding the centrifuge, the HVAC for the Dewatering Building will be upgraded to meet the NFPA 820 guidelines published in 2016. Two new make-up air units and ventilation are included in this project. The original project scope did not account for the new HVAC guidelines which require six air changes per hour. The upper level of the Dewatering Building only has three air changes per hour and the lower level has 0.5 air changes per hour. The additional HVAC work increased the construction cost of this project.

Task Order Description: This task order will provide additional design services for expanding the electrical room, adding Alfa Laval as an approved manufacturer, reviewing temporary dewatering options, adding future solid meters, and provide construction phase services for this project. A fee of \$556,554 was negotiated with HDR and was based upon the additional design services and anticipated construction administration and inspection hours required for this effort. This cost for construction phase service is roughly 17.3 percent of the total construction cost and is within the range of comparable projects.

Funding Description and Analysis of Cost: The total cost estimate for this project is approximately \$4.3 million. The estimate includes construction costs of \$2,944,000, engineering services costs of \$1,126,146, and a 10 percent contingency of \$258,045. The contingency amount is to accommodate any potential unforeseen conditions. The original CIP did not anticipate the cost for updated 2016 NFPA 820 guidelines. This project will require additional funding of \$2,650,180 to execute the construction phase.

<u>Schedule:</u>	Construction	December 2019
	Project Completion	January 2021

Attachment: None

Public Comment: None



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12. VIRGINIA BEACH CITY PUMP STATION UPGRADES, PHASE V AGREEMENTS

Action: Approve the terms and conditions of the agreements with the City of Virginia Beach for reimbursement of design and construction costs associated with two City pump stations and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved: Vishnu Lakdawala **Ayes:** 8
Seconded: Willie Levenston **Nays:** 0

CIP Project: CE011835

Budget	\$ 2,717,000
Previous Expenditures and Encumbrances	(\$ 201,700)
Available Balance	\$ 2,515,300

Project Description: This project will complete upgrades on City of Virginia Beach Pump Stations that cannot meet the new pressure policy when flow is diverted from the Chesapeake-Elizabeth Treatment Plant to the Atlantic Treatment Plant in 2021. Pump Stations 309 (Lake Front Village) and 310 (Lake Shores West) are included in this effort.

Funding Description: The City of Virginia Beach will pay the Engineer and Contractor to complete the work and HRSD will reimburse the City.

Agreement Description: The Agreements between HRSD and the City of Virginia Beach addresses the terms under which HRSD will reimburse the City for administering the design and construction of the stations ([Pump Station 309](#) and [Pump Station 310](#)). These agreements have been reviewed by HRSD legal counsel.

Analysis of Cost: The estimated construction cost for this project is based on an Engineer's opinion of probable construction costs. A detailed design and an AACE Class 1 estimate (\$975,000) was developed for the Pump Station 309 work, with an acceptable error range of -10% to +15%. A schematic design and AACE Class 2 estimate (\$371,000) was developed for the Pump Station 310 work, with an acceptable error range of -15% to +20%. The City will advertise the Pump Station 309 work for bid in mid-2020 and will award the PS 310 work to an on-call contractor in Spring 2021.



COMMISSION MEETING MINUTES
November 26, 2019

Discussion Summary: In response to a Commissioner's question, staff stated the city pump stations covered by this agreement are very close to the Chesapeake-Elizabeth Treatment Plant and as such the operating pressures in the HRSD interceptor system are low at these locations. Once the Chesapeake-Elizabeth Treatment Plant closes and flow is redirected to the Atlantic Treatment Plant, HRSD system pressures will be much higher at these locations (40 to 50 feet of pressure) requiring upgrades to these stations. These stations will be designed and constructed to meet HRSD's pressure policy.

Attachment #9: [Agreements](#)

Public Comment: None



COMMISSION MEETING MINUTES
November 26, 2019

13. **KEMPSVILLE ROAD INTERCEPTOR FORCE MAIN SECTION II EMERGENCY REPAIRS
NEW CIP AND INITIAL APPROPRIATION**

Actions:

- a. **Approve a new Capital Improvement Project (CIP) for the Kempsville Road Interceptor Force Main Section II Emergency Repair.**
- b. **Appropriate total project funding in the amount of \$550,000.**

<u>Moved:</u>	Stephen Rodriguez	<u>Ayes:</u>	8
<u>Seconded:</u>	Willie Levenston	<u>Nays:</u>	0

CIP Project: AT014400

Project Description: On October 4, 2019, this force main failed in the vicinity of the intersection of Kempsville Road and Stillwater Drive. It has been temporarily repaired to stop the active spill. Staff isolated the leak by diverting flow with two mainline valves. Pumping and hauling was performed at six City of Chesapeake pump stations and private pump stations. The contractor, Bridgeman Civil, Inc., provided traffic control and excavation services while staff created and used an expandable plug device to isolate the valve and replace the bolts. The contractor poured concrete around the valve to prevent further corrosion.

An emergency declaration was authorized on October 31, 2019 for the repair of the 4-inch valve on the 30-inch Kempsville Road Interceptor Force Main Section II (SF-210). The emergency was declared to utilize the Prompt Repair On-Call Services contract with Bridgeman Civil, Inc. The Environmental On-Call Services contract with Tetra Tech will be used to provide a remediation plan to address water quality of the adjacent stormwater pond.

This emergency repair is expected to be completed in December. Work to date was accomplished with funds from the Operations Department Fiscal Year (FY) 2020 Operating Budget. The proposed Commission action creates and fully funds a new CIP project that allows all future costs as well as all costs already incurred against the Operations Department Budget for this emergency to be charged to this CIP project thus restoring the FY 2020 Operations Department Budget for use as planned for the remainder of FY 2020.



COMMISSION MEETING MINUTES
November 26, 2019

Funding Description: The total cost for this project is estimated at \$500,000 based on a Class 5 cost estimate and a 10 percent contingency included in the requested appropriation.

<u>Schedule:</u>	Emergency Declaration	October 2019
	Construction	November 2019
	Project Completion	December 2019

Discussion Summary: Staff said this force main was installed in the 1980s.

Attachment #10: [Presentation](#)

Public Comment: None



COMMISSION MEETING MINUTES
November 26, 2019

14. **UNFINISHED BUSINESS**

Johnson et al. v City of Suffolk and HRSD (Oystermen) Litigation - Mr. Henifin informed the Commission the Oystermen have filed a petition for appeal. Staff anticipates receiving the notice before Christmas and will then have 30 days to respond. Staff will brief the Commission at a future meeting.

15. **NEW BUSINESS – None**

16. **COMMISSIONER COMMENTS**

Chair Elofson thanked Commissioner Lynch for chairing the October meeting during his absence.

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

18. **INFORMATIONAL ITEMS**

Action: No action required.

Brief: The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Effluent Summary](#)
- d. [Air Summary](#)
- e. [Emergency Declarations](#)
 - (1) [Kempsville Road Interceptor Force Main Section II \(Stillwater Drive\)](#)
 - (2) [Virginia Beach Boulevard Force Main – Pine Tree Pressure Reducing Station Repair](#)

Attachment #11: [Informational Items](#)

Public Comment: None



COMMISSION MEETING MINUTES
November 26, 2019

19. **CLOSED MEETING**

Action: Motion to go into Closed Meeting for discussion with staff regarding award of a public contract involving expenditure of public funds (Specific Exemption: Va. Code §2.2-3711.A29).

Moved: Vishnu Lakdawala **Ayes:** 8
Seconded: Michael Glenn **Nays:** 0

Brief: Discussion of the award of a public contract involving the expenditure of public funds and discussion of the terms or scope of such contract, where discussion in an open session would adversely affect the bargaining position or negotiating strategy of the public body.

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

Roll call vote to return to Open Session: **Ayes:** 8 **Nays:** 0

Elizabeth Taraski
Willie Levenston
Steve Rodriguez
Mike Glenn
Maurice Lynch
Rick Elofson
Vishnu Lakdawala
Molly Ward

20. **RECONVENED MEETING**

Action: No action required.

Next Commission Meeting Date: December 17, 2019 at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 10:11 a.m.

SUBMITTED:

Jennifer L. Cascio

Jennifer L. Cascio
Secretary

APPROVED:

Frederick N. Elofson

Frederick N. Elofson, CPA
Chair

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #1

AGENDA ITEM 2. CONSENT AGENDA

CONSENT AGENDA ITEM 2.b.1. – November 26, 2019

Subject: Deep Creek Interceptor Force Main
Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Award a contract to S.J. Louis Construction, Inc. in the amount of \$4,388,122.
- b. Approve a task order with Whitman Requardt and Associates, LLP (WRA) in the amount of \$341,253.

CIP Project: NP012600

Budget	\$6,233,000
Previous Expenditures and Encumbrances	(\$834,491)
Available Balance	\$5,398,509

Type of Procurement: Competitive Bid

Bidder	Bid Amount
S.J. Louis Construction, Inc.	\$4,388,122
Tidewater Utility Construction, Inc.	\$4,948,144
Bridgeman Civil, Inc.	\$5,285,750
Gaston Brothers Utilities, LLC	\$7,245,929

Engineer's Estimate: \$4,183,093

Contract Status:	Amount
Original Contract with WRA	\$49,802
Total Value of Previous Task Orders	\$511,389
Requested Task Order	\$341,253
Total Value of All Task Orders	\$852,642
Revised Contract Value	\$902,444
Engineering Services as % of Construction	20.6%

Contract Description: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on September 29, 2019 and four bids were received on October 30, 2019. The bids were above the Engineer's estimate, which is indicative of the improving economy and the ample work for contractors in the region. The design engineer, WRA, evaluated the bids and recommends award to the lowest responsive and responsible bidder, S.J. Louis Construction, Inc. in the amount of \$4,388,122.

Project Description: This project will replace approximately 3,000 linear feet of 24-inch ductile iron pipe that runs along Canal Drive from the intersection of Shell Road and Canal Drive to the north side of Military Highway. The project will also construct an interconnect between the force main along Baugher Avenue and the force main along Military Highway in order to eliminate the portion that runs parallel to Military Highway on the north side. This project is included in the Inflow and Infiltration Abatement Rehabilitation – Phase I, which is part of the Federal Consent Decree to address sanitary sewer overflows in the region.

Task Order Description and Analysis of Cost: This task order will provide contract administration and construction inspection services for this project. A meeting was held to discuss the project and scope of services. A fee of \$341,253 was negotiated to provide the required oversight for the project. The cost of the task order is based upon an estimation of hours and rates to complete the work. The hours and rates are in line with past efforts on similar force main projects.

<u>Schedule:</u>	Bid	October 2019
	Construction	December 2019
	Project Completion	February 2021

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #2

AGENDA ITEM 3. COMPREHENSIVE ANNUAL FINANCIAL REPORT (CAFR)



Fiscal Year - 2019 Comprehensive Annual Financial Report (CAFR)

November 26, 2019

Acknowledgements

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



36 Consecutive Years

- Fiscal Year 2019 CAFR
 - BLUF (Bottom-Line Up Front)
 - Pension
 - Retiree Health Trust (OPEB)
 - Key Financial Policy Indicators
 - Conclusion

FY2019 CAFR Highlights - Bottom Line Up Front (BLUF)

- Revenues up \$30.5 million (10.5%) YOY
 - \$24 million from rate increase
 - \$6.5 million from Investment Income, net (Yield Optimization)
- Expenses up \$8.1 million (3.5%) YOY
 - \$6.4 million expensed, previously capitalized (GASB 89)
- VRS Pension Funded Ratio = 91%
- OPEB Funded Ratio = 79%-94%
- Total Debt Service Coverage = 2.62x
- Days Cash on Hand = 655 days

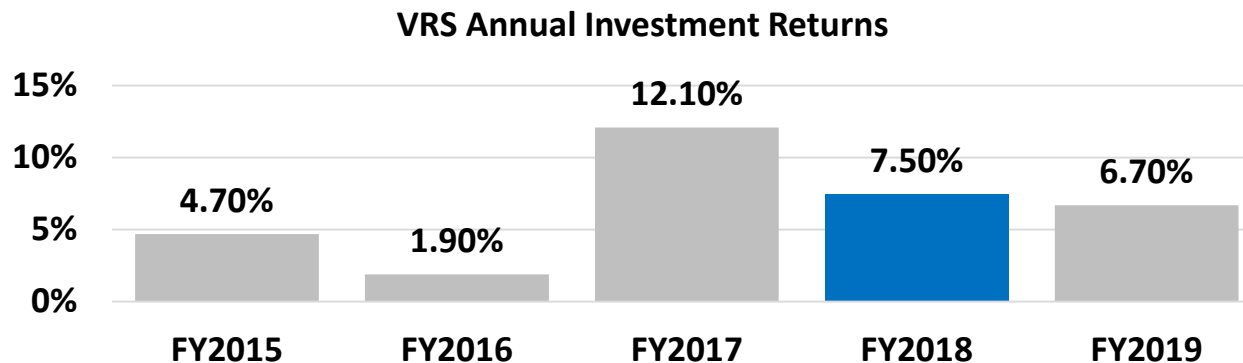
Virginia Retirement System (VRS)

GASB 68 - Net Pension Liability

GASB – Government Accounting Standards Board

Net Pension Liability and Funded Ratio

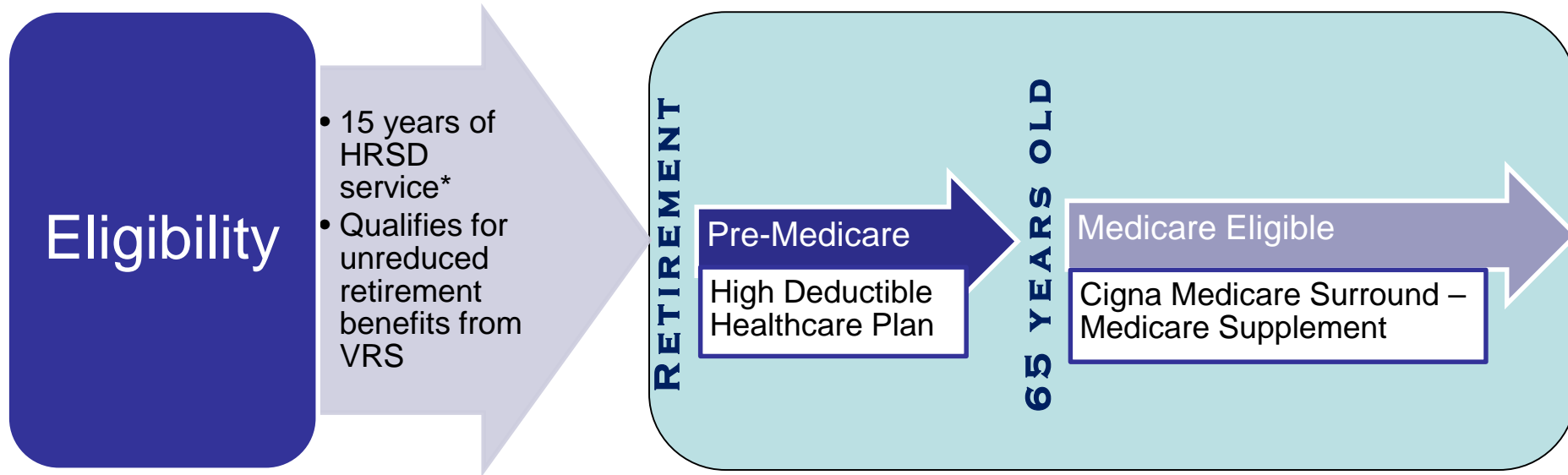
Total Pension Liability	= \$227.7 million
– Investment Value (Assets)	= \$207.4 million
Net Pension Liability (NPL)	= \$20.3 million (down \$2M)
FY2018 Funded Ratio	= 91.1% (up 1.2%)
<i>* VRS assumed rate of return</i>	<i>= 7.0%</i>



***VRS is reducing this rate to 6.75%, Funded Ratio would drop to 88% and this would increase HRSD's required contributions – to be released Jan 1, 2020**

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

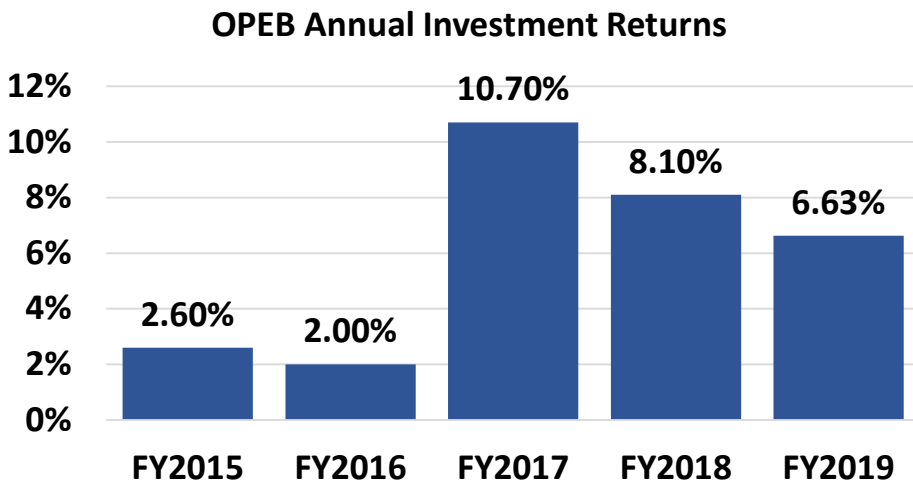
Retiree Health Plan



- Retiree responsible for:
 - Deductibles
 - Co-payments
 - Retiree Premiums (Spousal rate higher)
 - Less than 65 = \$120/month (High Deductible Plan)
 - Greater than 65 = \$45/month (Medicare Supplement)

Net OPEB Liability and Funded Ratio

Total OPEB Liability	= \$65.7 million (+\$5.4)
- Investment Value (Assets)	= \$52.0 million (+\$4.9)
Net OPEB Liability (NPL)	= \$13.7 million (+\$0.5)
FY2019 Funded Ratio	= 79.2% (+1.0%)



* HRSD's assumed rate of return = 6.0%

9

ACTUARIAL LIABILITY METHODS

Projected Unit Credit Funding Method

OLD = 94.0%

Entry Age Normal Funding Method

NEW = 79.2%



= 47%



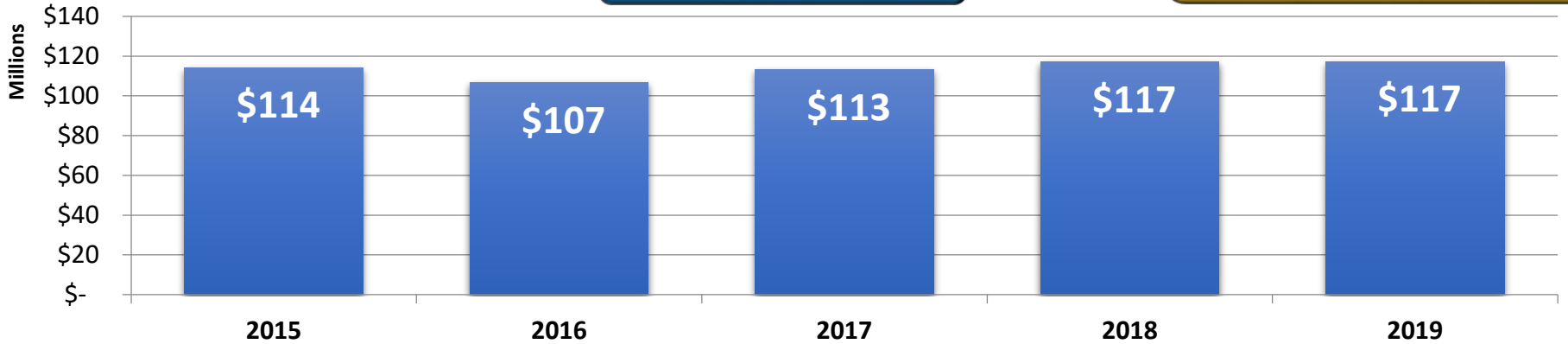
Operating Expenses Trend

Operating Expenses – 5-Year Trend

Wastewater Treatment Expenses, \$M

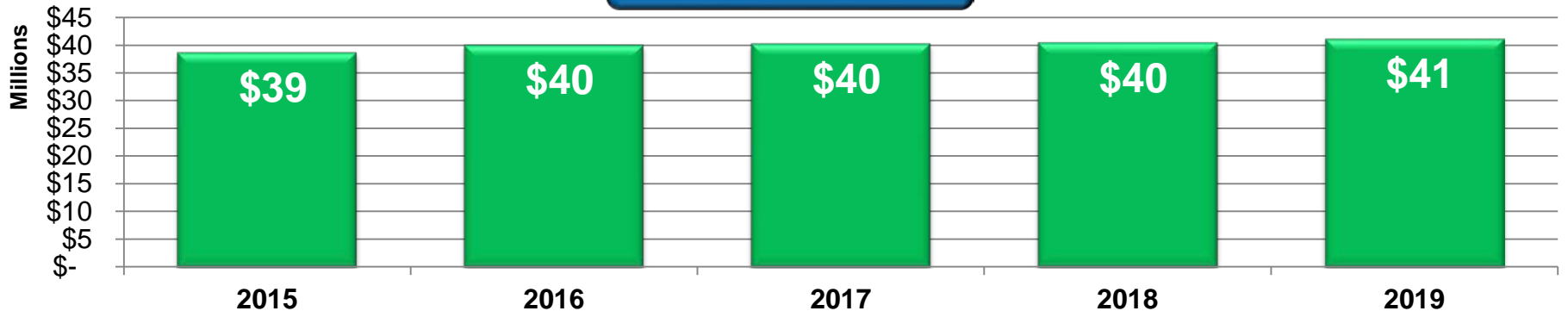
0.7% Annualized

Fitch Median = 4.3%



General and Administrative Expenses, \$M

1.5% Annualized



Key Financial Policy Indicators

Debt Service Coverage Ratio (DSCR)

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

- *How much income will you have to pay Debt Service (principal + interest)?*
- *Quantifies **RISK** - Likelihood bond investors get paid back?*
- *Higher ratio is better*

Debt Service Coverage Ratio (DSCR) by Trust Agreement

SENIOR TRUST AGREEMENT

Total Debt Service Coverage Requirement **FY 2019**

Total Debt Service Coverage Ratio – Max Annual DS (Year 2023)* **2.50x**

Legal Coverage Requirement  1.00x

Debt Service Reserve Fund Test 1.35x

Fitch 2020 Medians	DSCR
AAA	3.2
AA	2.7
A	1.9
All	2.4
Large	2.7

SUBORDINATE TRUST AGREEMENT/FINANCIAL POLICY

Total Debt Service Coverage Requirement **FY 2019**

Total Debt Service Coverage Ratio – GAAP **2.62x**

Total Debt Service Coverage Ratio – Adjusted Cash Basis **2.62x**

Financial Policy Requirement  1.40x

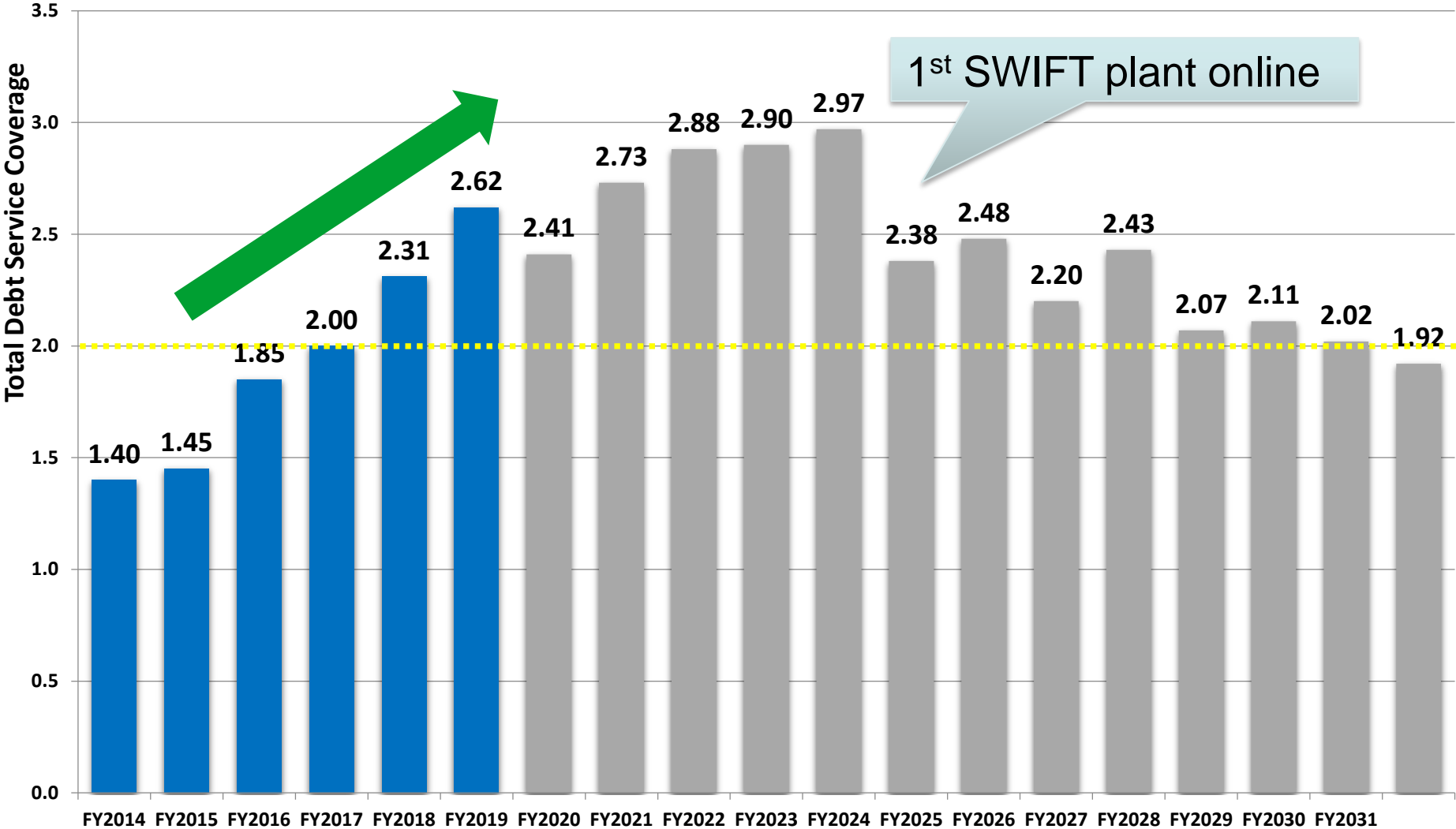
Legal Coverage Requirement 1.20x

FY19 Forecast = 2.29x

Total Debt Service Coverage Trend



Long-term Debt Service Trend



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

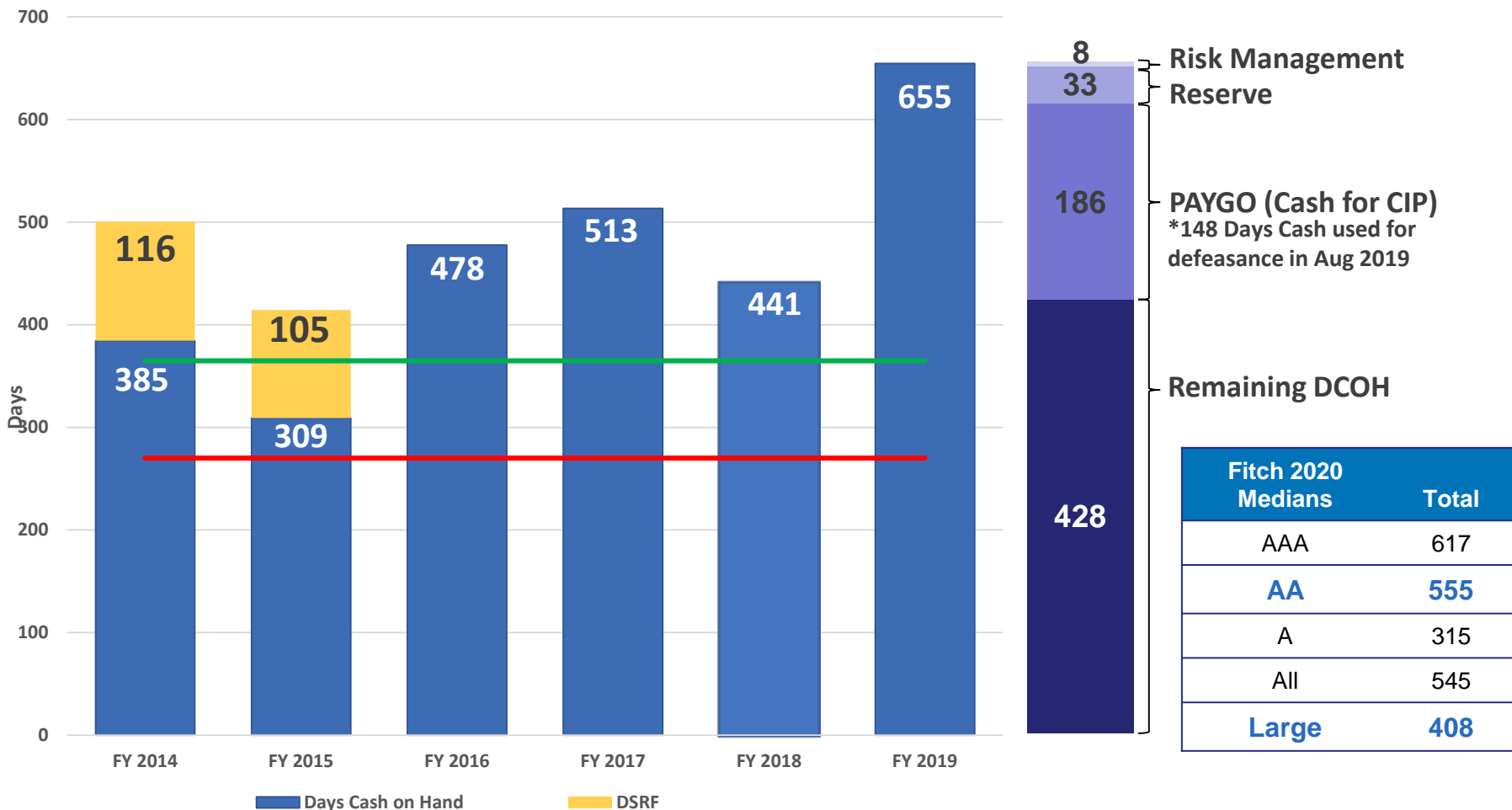
$$\text{DCOH} = \frac{\text{Unrestricted Cash and Investments}}{\text{Operating Expenses} \div 365 \text{ days}}$$

HRSD POLICY

Min = 270 DCOH

Max = 365 DCOH

Total Days Cash on Hand (DCOH) = days



Max Policy = 365 Days
Min Policy = 270 Days

- Financial health is sound
 - Continue to execute on our Financial Plan
 - Pension and Retiree Health plans have high funded ratios
 - Expenses are stable
 - Debt Service Coverage is increasing
- On the Horizon
 - WIFIA and Clean Water Revolving Loan Funds
 - Consent Decree negotiations
 - Environment, Social, Governance (ESG) Investing

Questions?

Comprehensive Annual Financial Report

FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018

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

The logo for Hampton Roads Sanitation District (HRSD) features the letters "HRSD" in a bold, white, sans-serif font. The letters are contained within a white rectangular frame that has horizontal lines extending from the top and bottom edges.

Ensuring future generations
inherit clean waterways

The logo for Hampton Roads Sanitation District (HRSD) features the letters "HRSD" in a bold, black, sans-serif font. The letters are stylized with a slight shadow effect. The logo is positioned between two thick, horizontal black bars that extend across the width of the text.

Cleaning wastewater every day for a better Bay.

HAMPTON ROADS SANITATION DISTRICT

(A Component Unit of the Commonwealth of Virginia)

COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the fiscal years ended

June 30, 2019 and 2018

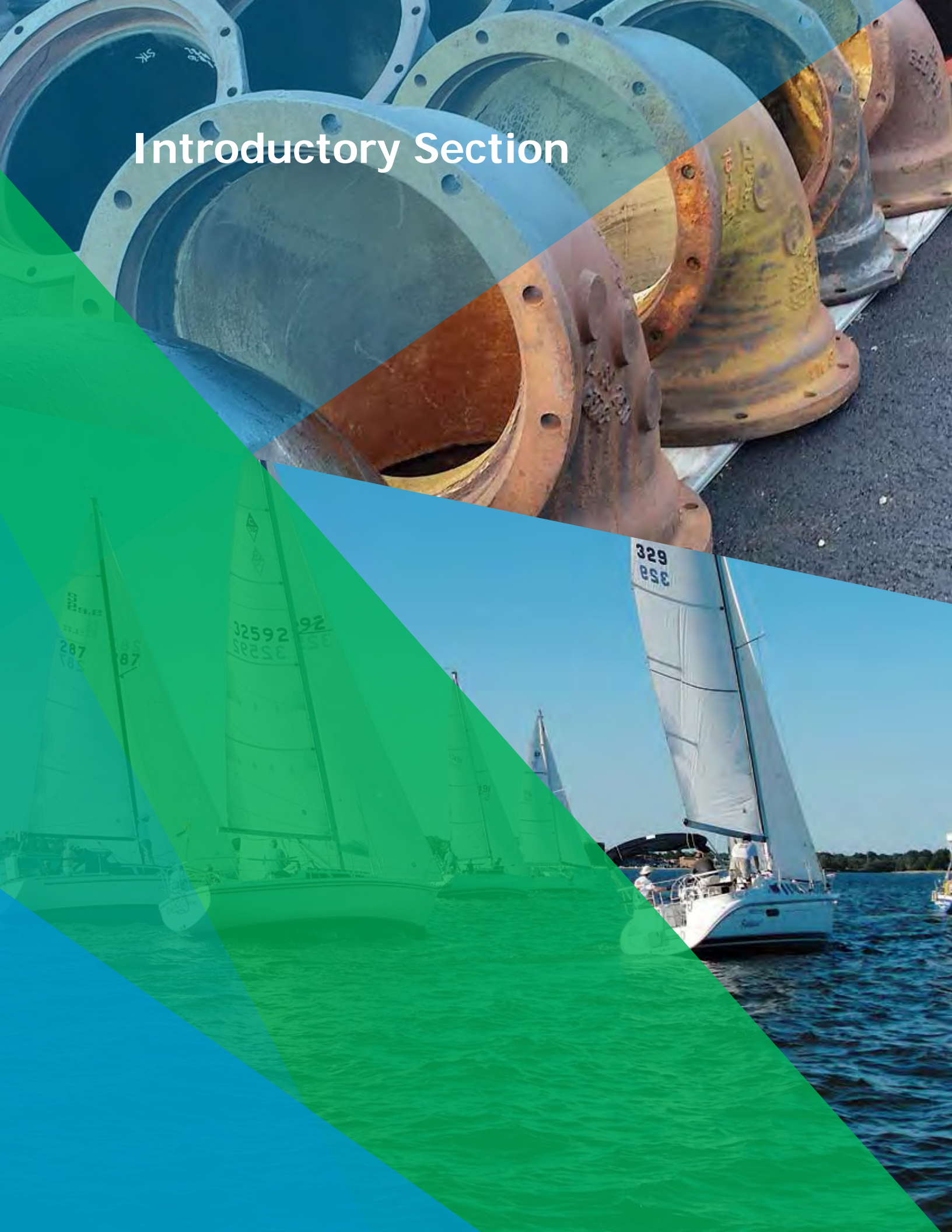
**Prepared by:
Finance Department**

HAMPTON ROADS SANITATION DISTRICT

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Introductory Section





November 22, 2019

Hampton Roads Sanitation District 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, 2019.

Hampton Roads Sanitation District's (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.

Cherry Bekaert LLP, Certified Public Accountants, has issued an unmodified ("clean") opinion on HRSD's financial statements for the year ended June 30, 2019. 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 476,000 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.

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

Commissioners: Frederick N. Elofson, CPA, Chair • Maurice P. Lynch, PhD, Vice-Chair • Vishnu K. Lakdawala, PhD
Michael E. Glenn • Stephen C. Rodriguez • Willie Levenston, Jr. • Elizabeth A. Taraski, PhD • Molly Joseph Ward
www.hrsd.com

HRSD owns and operates 16 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 seven small rural treatment plants have a combined capacity of one MGD.

HRSD maintains 541 miles of pipelines ranging from six inches to 66 inches in diameter. Interceptor pipelines, along with 87 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 41 pump stations in the Small Communities.

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 859,200 as of June 2019.

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 10.2 percent of wastewater revenues for fiscal year 2019. In addition, HRSD's 2019 revenues contained only limited reliance (2.1 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 with a goal of maintaining 2.0. 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 \$2.8 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 2019, HRSD received approximately \$2.8 million in grant reimbursements and other capital contributions for improvements to several of its treatment plants.

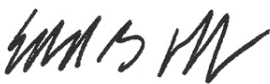
AWARDS AND ACKNOWLEDGMENTS

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, 2018. This was the 36th 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, 2018

Christopher P. Morrell

Executive Director/CEO

Principal Officials

June 30, 2019

COMMISSIONERS

Frederick N. Elofson, CPA, Chair

Maurice P. Lynch, PhD, Vice-Chair

Michael E. Glenn

Vishnu K. Lakdawala, PhD

Willie Levenston, Jr.

Stephen C. Rodriguez

Elizabeth A. Taraski, PhD

Molly J. Ward

COMMISSION SECRETARY

Jennifer L. Cascio

SENIOR STAFF

Edward G. Henifin, PE
General Manager

Jay A. Bernas, PE
Director of Finance
and Treasurer

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

Bruce W. Husselbee, PE
Director of Engineering

James J. Pletl, PhD
Director of Water Quality

Leila E. Rice, APR
Director of Communications

COUNSEL

Kellam, Pickrell, Cox & Anderson, PC
General Counsel

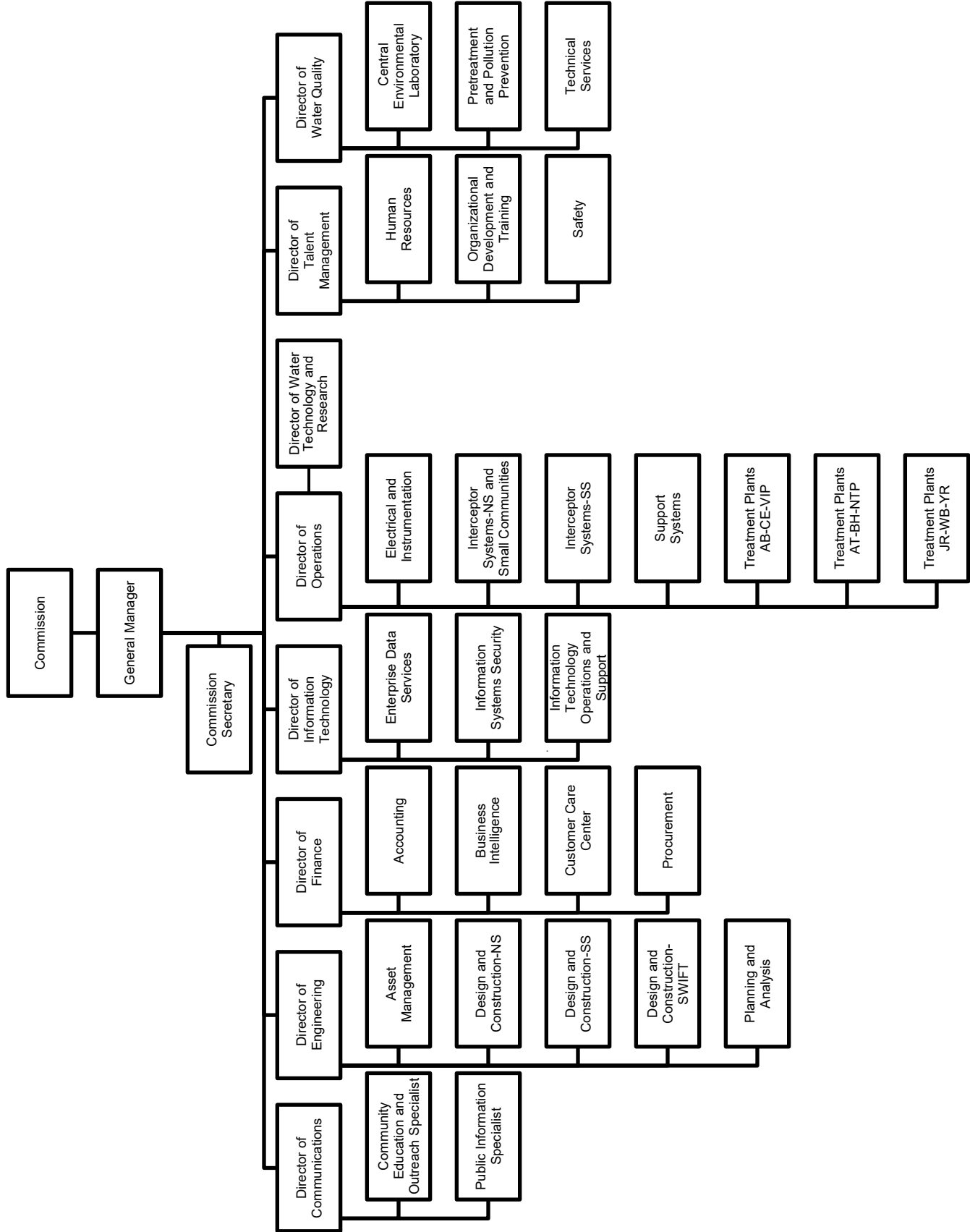
Jones, Blechman, Woltz & Kelly, PC
Associate Counsel

AquaLaw, PLC
Special Counsel

Norton Rose Fulbright US, LLP
Bond Counsel

HRSD Organization Chart

June 30, 2019

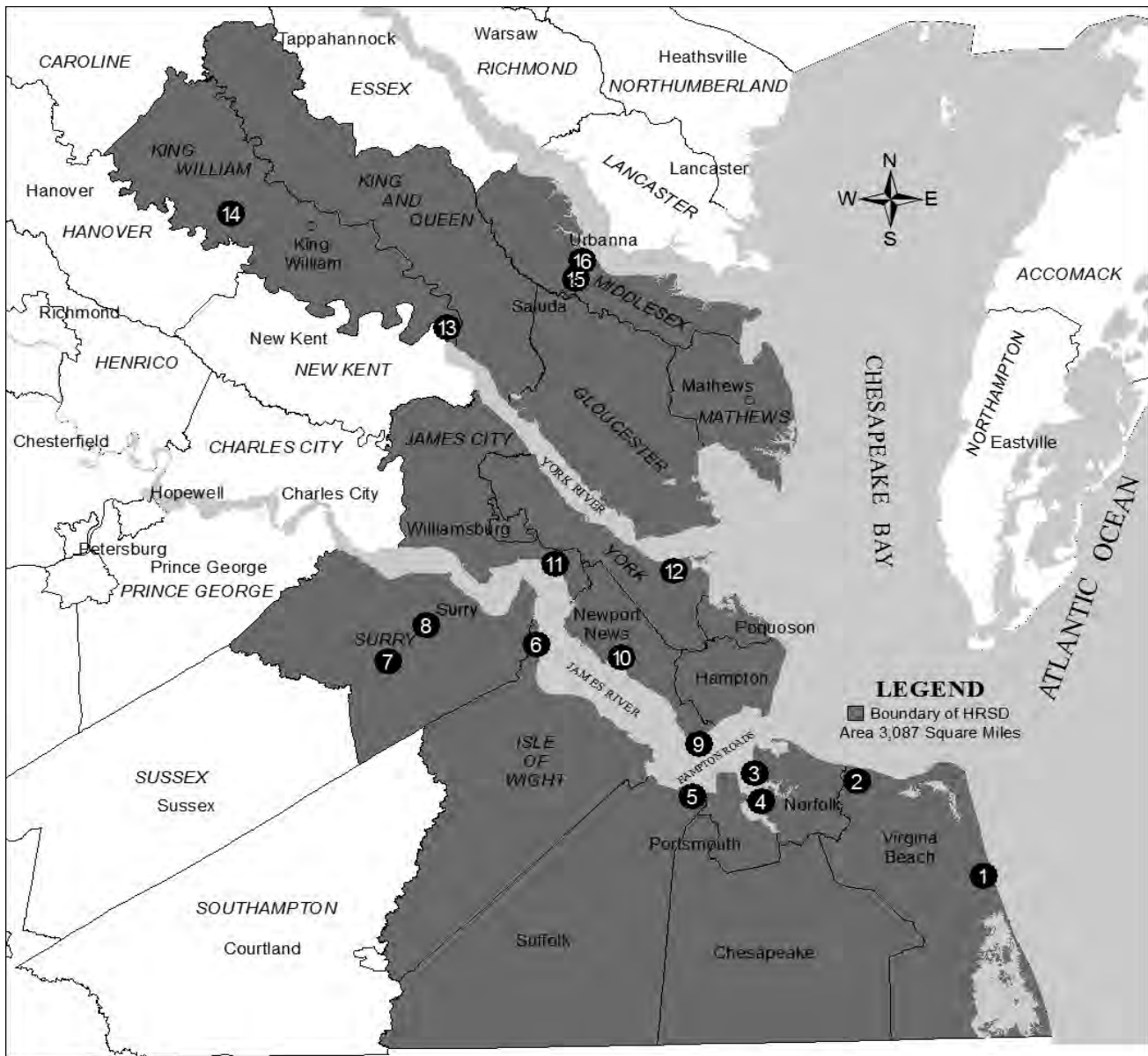


HRSD Service Area

A Political Subdivision of the Commonwealth of Virginia

Facilities include the following:

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



History of HRSD

June 30, 2019

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.

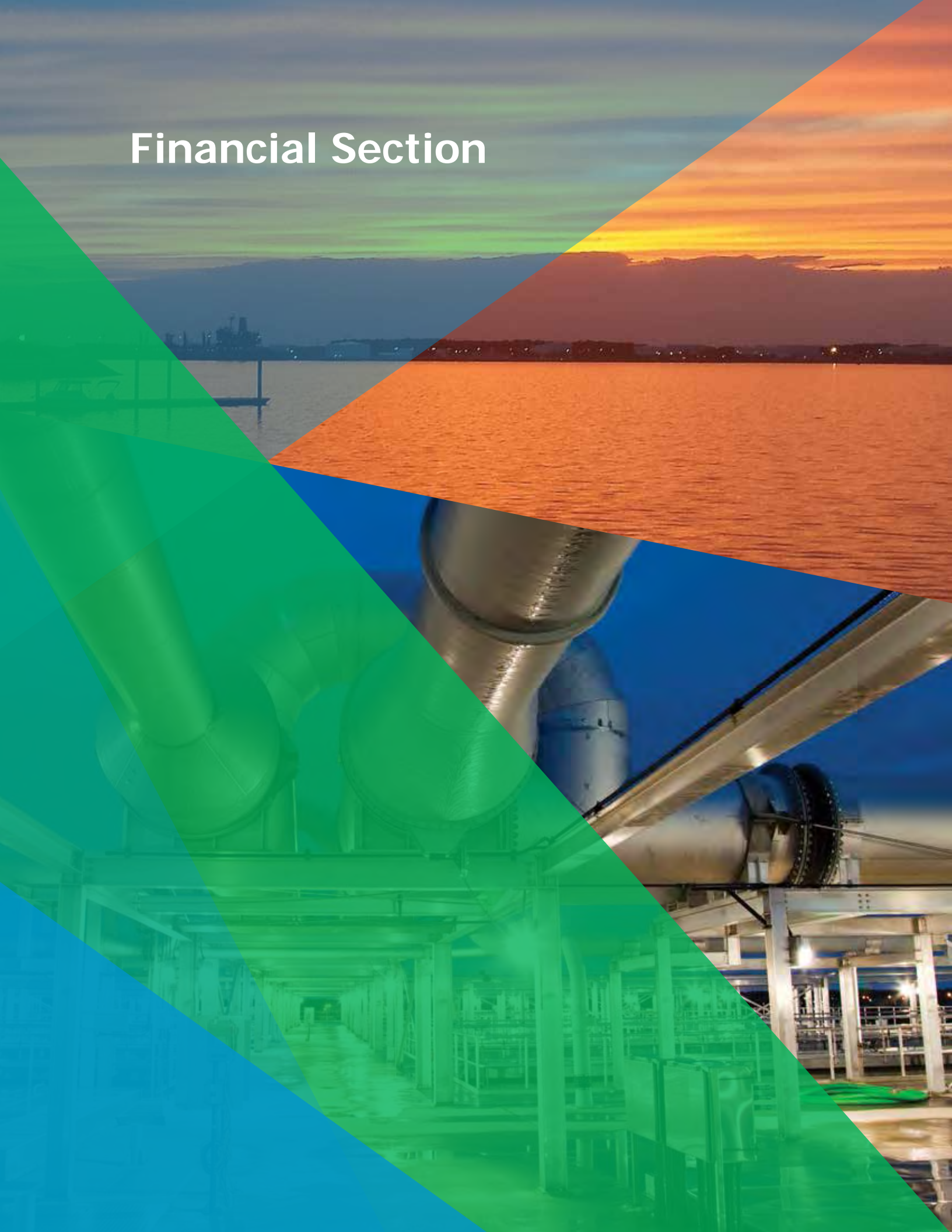
The Enabling Act provides for HRSD to operate as a political subdivision of the Commonwealth of Virginia for the specific purpose of water pollution abatement in Hampton Roads by providing a system of interceptor mains and wastewater treatment plants. Its affairs are controlled by a Commission of eight 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 2019.

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 the year ended June 30, 2019. The major treatment plants received the following awards in recognition of their outstanding permit compliance status: Atlantic—Gold, Boat Harbor—Platinum (17 consecutive years), Chesapeake-Elizabeth—Gold, James River—Platinum, Nansemond—Platinum (17 consecutive years), Virginia Initiative Plant—Platinum (23 consecutive years), Williamsburg—Platinum (24 consecutive years) and York River—Platinum (11 consecutive years). Four treatment plants in the Small Communities Division, Central Middlesex, King William Urbanna and West Point, earned Silver Awards while Lawnes Point and Surry received Gold Awards.

Additional awards and honors received during the year ended June 30, 2019 include NACWA National Achievement Awards in the categories of Workforce Development, and Operations and Environmental Performance. The SWIFT Research Center was named best project in the Water/Environment category from the Engineering News Record Mid-Atlantic Region. Honors and Awards received include NACWA National Achievement Awards in the following categories: Public Information and Education: E-Media; Operations and Environmental Performance; Workforce Development, and Research and Technology. The SWIFT Research Center also earned the 2019 Governor's Environmental Excellence Award, Gold Medal winner in the environmental project category.

Financial Section



Report of Independent Auditor

The Commissioners
Hampton Roads Sanitation District

Report on the Financial Statements

We have audited the accompanying financial statements of the Hampton Roads Sanitation District (hereafter referred to as "HRSD"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise HRSD's basic financial statements 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 accounting principles generally accepted in the United States of America; 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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 auditor's 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, 2019, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Prior Period Financial Statements

The financial statements of HRSD, as of and for the year ended June 30, 2018, were audited by other auditors whose report, dated November 27, 2018, expressed an unmodified opinion on those statements.

Change in Accounting Principle

As described in Note 14 to the financial statements, HRSD adopted new accounting guidance, Governmental Accounting Standards Board ("GASB") Statement No. 89, *Accounting for Interest Costs Incurred before the End of a Construction Period*, effective July 1, 2018. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the table contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB, 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 audit 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.

Other Information

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

The Other Supplemental Section is the responsibility of management and were derived from and relate 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, Other Supplemental Section is fairly stated in all material respects in relation to the basic financial statements as a whole.

The Introductory and Statistical Sections 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.

Cheryl Berkant LLP

Virginia Beach, Virginia
November 22, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)

This narrative overview and analysis of the financial activities of the Hampton Roads Sanitation District (HRSD) for the fiscal years ended June 30, 2019 and 2018, 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 \$84.1 million, or 12.1 percent, in 2019 as a result of this year's operations.
- Total revenues increased \$30.5 million, or 10.5 percent. This increase is primarily attributable to wastewater revenue rate increases and higher investment income.
- Operating expenses increased \$1.7 million, or 0.8 percent, principally due to a \$2.0 million increase in contractual services and a \$1.3 million increase in major repairs. This was partially offset by \$1.6 million decline in retirement expenses from the annual VRS reconciliation.
- Non-operating expenses increased \$6.4 million, or 29.7 percent, primarily due to HRSD adopting GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period, effective July 1, 2018. This Statement establishes accounting requirements to expense interest cost incurred before the end of a construction period. Interest expense of \$7.6 million was capitalized in 2018, but no interest was capitalized in 2019. The impact was partially offset by a \$1.0 million reduction in bond issuance costs since no new revenue bonds were issued in 2019.
- HRSD received \$2.8 million in capital grants and contributions in 2019, including \$2.4 million from the Commonwealth of Virginia, to help finance its capital improvement program.
- Restricted cash and cash equivalents decreased \$52.2 million, or 54.9 percent, primarily due to capital construction activity. Unrestricted cash and cash equivalents and investments increased \$93.8 million, or 49.3 percent, primarily due to utilizing bond proceeds instead of cash to fund capital construction.
- Net Property, Plant and Equipment increased \$36.7 million, or 2.8 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 52 of this report, provide additional information that is essential to a full understanding of the data provided in the financial statements.

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

Required Supplementary Information can be found beginning on page 53 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 \$781.7 million at June 30, 2019 and by \$697.6 million at June 30, 2018.

By far, the largest portion of HRSD's net position (62.7 percent and 73.4 percent at June 30, 2019 and 2018, 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

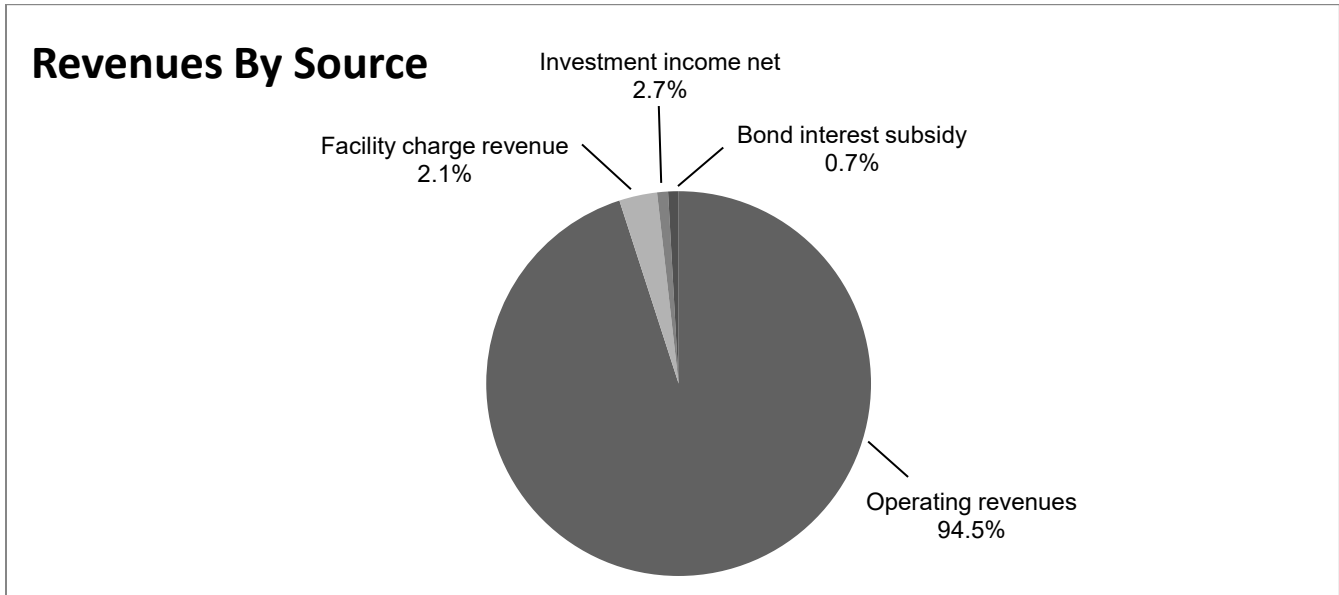
(in thousands)	2019	2018	2017	2019 vs. 2018	
				Dollars	Percent
Capital assets	\$ 1,358,327	\$ 1,321,644	\$ 1,255,952	\$ 36,683	2.8%
Current assets and noncurrent assets	399,840	357,699	310,534	42,141	11.8%
Total assets	\$ 1,758,167	\$ 1,679,343	\$ 1,566,486	\$ 78,824	4.7%
Deferred outflows of resources	21,442	20,762	30,822	680	3.3%
Long-term liabilities	\$ 847,928	\$ 850,928	\$ 805,685	\$ (3,000)	-0.4%
Current liabilities	140,564	139,914	134,353	650	0.5%
Total liabilities	\$ 988,492	\$ 990,842	\$ 940,038	\$ (2,350)	-0.2%
Deferred inflows of resources	9,412	11,634	2,992	(2,222)	-19.1%
Net investment in capital assets	\$ 494,779	\$ 512,398	\$ 428,670	\$ (17,619)	-3.4%
Restricted for debt service	28,553	27,799	22,701	754	2.7%
Unrestricted	258,373	157,432	202,907	100,941	64.1%
Total net position	\$ 781,705	\$ 697,629	\$ 654,278	\$ 84,076	12.1%

At June 30, 2019 and 2018 HRSD retained \$14.3 million and \$67.3 million, respectively, of unspent bond proceeds. The increase in capital assets and the corresponding changes in current assets and noncurrent investments from 2017 through 2019 are primarily the result of issuing bonds in 2017 and 2018 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)	2019	2018	2017	2019 vs. 2018	
				Dollars	Percent
Operating revenues	\$ 303,121	\$ 279,043	\$ 258,630	\$ 24,078	8.6%
Facility charge revenues	6,662	6,673	7,511	(11)	-0.2%
Investment income, net	8,719	2,272	1,168	6,447	283.8%
Bond interest subsidy	2,308	2,330	2,275	(22)	-0.9%
Total revenues	320,810	290,318	269,584	30,492	10.5%
Operating expenses:					
Wastewater treatment	117,189	116,982	113,100	207	0.2%
General and administrative	41,121	40,480	40,287	641	1.6%
Depreciation and amortization	53,225	52,349	49,311	876	1.7%
Total operating expenses	211,535	209,811	202,698	1,724	0.8%
Non-operating expenses:					
Bond issuance costs	53	1,061	42	(1,008)	-95.0%
Capital distributions to localities	-	311	138	(311)	-100.0%
Interest expense	27,964	20,226	22,630	7,738	38.3%
Total non-operating expenses	28,017	21,598	22,810	6,419	29.7%
Total expenses	239,552	231,409	225,508	8,143	3.5%
Income before capital contributions	81,258	58,909	44,076	22,349	37.9%
Capital contributions	2,818	4,626	8,598	(1,808)	-39.1%
Change in net position	84,076	63,535	52,674	20,541	32.3%
Total net position - beginning, as restated	697,629	634,094	601,604	63,535	10.0%
Total net position - ending	\$ 781,705	\$ 697,629	\$ 654,278	\$ 84,076	12.1%



Operating revenues increased 8.6 percent in 2019 and 7.9 percent in 2018. The majority of these increases are attributable to various rate increases in metered public wastewater services. Net investment income increased \$6.4 million in 2019, or 283.8 percent, primarily due to higher interest rates and better investment returns on higher cash and investment balances, compared to a \$1.1 million increase, or 94.5 percent, in 2018.

Operating expenses increased 0.8 percent in 2019 and 3.5 percent in 2018. Increases in 2019 were principally due a \$2.0 million increase in contractual services and a \$1.3 million increase in major repairs, which was partially offset by \$1.6 million decline in retirement expenses from the annual VRS reconciliation. Increases in 2018 were principally due to a \$3.1 million increase in contractual services, a \$3.5 million increase in healthcare expense and a \$3.0 million increase in depreciation expense.

In 2019 and 2018, HRSD received \$2.8 million and \$4.6 million, respectively, in capital grants and contributions to help finance its capital improvement program.

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

At the end of 2019 and 2018 HRSD had approximately \$1.4 billion and \$1.3 billion, respectively, invested in a broad range of capital assets, including land, wastewater treatment plants, interceptor mains, pump stations, administrative and maintenance buildings, equipment and software. These amounts represent a net increase of \$36.7 million, or 2.8 percent, in 2019 and \$65.7 million, or 5.2 percent, in 2018.

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

HRSD's Capital Assets

(in thousands)	2019	2018	2017
Land	\$ 12,174	\$ 12,174	\$ 12,174
Treatment plants	549,645	572,942	543,616
Interceptor systems	440,236	442,376	368,665
Buildings	29,617	31,186	32,354
Small community facilities	17,222	17,718	18,288
Office equipment	1,513	2,555	3,774
Automotive	1,941	2,092	2,070
Other equipment	6,007	8,171	10,345
Software and intangible assets	5,441	10,147	16,617
	<u>1,063,796</u>	<u>1,099,361</u>	<u>1,007,903</u>
Construction in progress	294,531	222,283	248,049
Net property, plant and equipment	\$ 1,358,327	\$ 1,321,644	\$ 1,255,952

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

(in thousands)	2019	2018	2017
Balance at beginning of year	\$ 1,321,644	\$ 1,255,952	\$ 1,200,404
Additions	17,661	143,807	47,631
Retirements	(1,050)	-	-
Depreciation and amortization	(53,226)	(52,349)	(49,311)
Accumulated depreciation retired	1,050	-	-
Net increase (decrease) in construction in progress	72,248	(25,766)	57,228
Balance at end of year	\$ 1,358,327	\$ 1,321,644	\$ 1,255,952

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 2019, HRSD invested significant funds in improvements to the Atlantic and Virginia Initiative treatment plants, the Atlantic and Chesapeake-Elizabeth interceptor systems, and the SWIFT program planning and development. During 2018, HRSD invested significant funds in improvements to the York River treatment plant, the Boat Harbor, James River, and Virginia Initiative interceptor systems, and the SWIFT Research Center. HRSD's total capital expenses were \$95.7 million during 2019 and \$127.7 million during 2018.

Long-Term Debt

At June 30, 2019, HRSD had a total of \$891.6 million in revenue bonds outstanding versus \$891.4 million in 2018, less than a 0.1 percent net increase. New subordinate wastewater revenue bonds, and draws on existing approved bonds, in the amount of \$35.0 million, were partially offset by payments on and refunds of existing senior and subordinate debt and amortization of bond premiums.

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

HRSD's Outstanding Debt

(in thousands, net of premium)	2019	2018	2017
Senior revenue bonds	\$ 313,340	\$ 332,141	\$ 429,165
Subordinate revenue bonds	512,168	485,468	350,346
Total outstanding debt	\$ 825,508	\$ 817,609	\$ 779,511

HRSD's financial strengths are reflected in its high credit ratings. In March 2018, HRSD was upgraded one notch by Moody's Investors Service:

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

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

"Operating Expenses" as defined by the Enabling Act and as used in the Senior Trust Agreement, operating expenses includes the cost of maintaining, repairing and operating such system or systems or sewer improvements and to provide such reserves 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 current year debt service on an Adjusted basis. HRSD's Financial Policy and operating and capital improvement plans were developed with the intent to maintain coverage ratios in excess of these requirements. HRSD's Financial Policy requires senior debt service coverage to be 1.5 times and total debt service coverage to be 1.4 times.

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

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

ECONOMIC FACTORS AND RATES

The five-year rolling average billed consumption has decreased over the last three fiscal years from approximately 113 million gallons per day (MGD) to approximately 111 MGD. HRSD's experience, primarily resulting from water conservation efforts throughout the region, is consistent with national trends.

In 2019, wastewater revenues increased as a result of planned rate increases needed, in large part, to fund HRSD's capital improvement program. Facility charge revenues decreased \$11,000, or 0.2 percent, in 2019 and \$0.8 million, or 11.2 percent, in 2018, due to a decrease in new construction activity across the region. Facility charge revenues comprised only 2.1 and 2.3 percent of HRSD's total revenues in 2019 and 2018, respectively.

Wastewater treatment rates for the 2019 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 10 cents per day in fiscal year 2020.

CONTACTING HRSD'S FINANCIAL MANAGEMENT

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

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

(in thousands)	2019	2018
CURRENT ASSETS		
Cash and cash equivalents	\$ 155,453	\$ 66,078
Cash and cash equivalents - Restricted	42,888	44,718
Investments	-	17,871
Accounts receivable, net	42,977	41,908
Accrued interest	-	447
Other current assets	3,105	2,582
TOTAL CURRENT ASSETS	244,423	173,604
NON-CURRENT ASSETS		
Cash and cash equivalents	128,530	-
Cash and cash equivalents - Restricted	-	50,359
Investments	-	106,219
Inventory	26,887	27,517
	155,417	184,095
NET PROPERTY, PLANT AND EQUIPMENT		
Land	12,174	12,174
Treatment plants	1,248,897	1,242,191
Interceptor systems	619,068	609,416
Buildings	49,132	49,132
Small community facilities	25,625	25,549
Office equipment	44,613	44,613
Automotive	18,540	18,986
Other equipment	36,887	36,589
Software and intangible assets	40,074	39,749
	2,095,010	2,078,399
Less: Accumulated depreciation and amortization	1,031,214	979,038
	1,063,796	1,099,361
Construction in progress	294,531	222,283
NET PROPERTY, PLANT AND EQUIPMENT	1,358,327	1,321,644
TOTAL NON-CURRENT ASSETS	1,513,744	1,505,739
TOTAL ASSETS	1,758,167	1,679,343
DEFERRED OUTFLOWS OF RESOURCES		
Deferred loss on debt refunding, net	13,745	14,918
Differences between pension plan expected and actual experience	1,251	1,827
Differences between OPEB expected and actual experience	3,154	-
Net difference between pension plan projected and actual earnings on pension plan investments	-	-
Change in proportion, OPEB plans	51	28
Contributions subsequent to the measurement date:		
OPEB plans	375	354
Pension plan	2,866	3,635
TOTAL DEFERRED OUTFLOWS OF RESOURCES	21,442	20,762
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ 1,779,609	\$ 1,700,105

(continued)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF NET POSITION
AS OF JUNE 30, 2019 AND 2018**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION

(in thousands)

	2019	2018
CURRENT LIABILITIES		
Trade and contracts payable	\$ 25,526	\$ 23,281
Contract retention	4,164	7,886
Accrued salaries and wages	2,703	2,476
Current portion of bonds payable	34,950	33,601
Variable rate demand bonds	50,000	50,000
Current portion of compensated absences	5,888	5,541
Debt interest payable	11,402	11,664
Other liabilities	5,931	5,465
TOTAL CURRENT LIABILITIES	<u>140,564</u>	<u>139,914</u>
LONG-TERM LIABILITIES		
Compensated absences	2,201	2,863
Net OPEB liability	18,744	18,149
Net pension liability	20,304	22,075
Bonds payable	806,679	807,841
TOTAL LONG-TERM LIABILITIES	<u>847,928</u>	<u>850,928</u>
TOTAL LIABILITIES	<u>988,492</u>	<u>990,842</u>
DEFERRED INFLOWS OF RESOURCES		
Differences between expected and actual experience:		
OPEB plans	71	87
Pension plan	2,951	4,519
Changes of assumptions:		
OPEB plans	1,610	221
Pension plan	2,250	3,113
Net difference between projected and actual earnings on:		
OPEB plan investments	828	867
Pension plan investments	1,702	2,827
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>9,412</u>	<u>11,634</u>
NET POSITION		
Net investment in capital assets	494,779	512,398
Restricted for debt service	28,553	27,799
Unrestricted	258,373	157,432
TOTAL NET POSITION	<u>781,705</u>	<u>697,629</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	<u>\$ 1,779,609</u>	<u>\$ 1,700,105</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, 2019 and 2018

(in thousands)

	2019	2018
OPERATING REVENUES		
Wastewater treatment charges	\$ 299,323	\$ 275,539
Miscellaneous	3,798	3,504
TOTAL OPERATING REVENUES	303,121	279,043
 OPERATING EXPENSES		
Wastewater treatment	117,189	116,982
General and administrative	41,121	40,480
Depreciation and amortization	53,225	52,349
TOTAL OPERATING EXPENSES	211,535	209,811
 OPERATING INCOME	91,586	69,232
 NON-OPERATING REVENUES (EXPENSES)		
Wastewater facility charges	6,662	6,673
Investment income	8,719	3,654
Bond interest subsidy	2,308	2,330
Change in fair value of investments	-	(1,382)
Capital distributions to localities	-	(311)
Bond issuance costs	(53)	(1,061)
Interest expense	(27,964)	(20,226)
NET NON-OPERATING EXPENSES	(10,328)	(10,323)
 INCOME BEFORE CAPITAL CONTRIBUTIONS	81,258	58,909
 CAPITAL CONTRIBUTIONS		
State capital grants received	2,444	2,502
Other capital contributions	374	2,124
CAPITAL CONTRIBUTIONS	2,818	4,626
 CHANGE IN NET POSITION	84,076	63,535
 TOTAL NET POSITION - Beginning	697,629	654,278
Opening adjustment of net position (Note 14)	-	(20,184)
 TOTAL NET POSITION - Ending	\$ 781,705	\$ 697,629

See Accompanying Notes to Financial Statements

HAMPTON ROADS SANITATION DISTRICT
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED JUNE 30, 2019 and 2018

(in thousands)	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers	\$ 301,230	\$ 274,994
Other operating revenues	3,798	3,504
Cash payments to suppliers for goods and services	(108,500)	(107,556)
Cash payments to employees for services	(56,424)	(54,894)
Net cash provided by operating activities	<u>140,104</u>	<u>116,048</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Capital distributions to localities	-	(311)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Wastewater facility charges	6,662	6,673
Acquisition and construction of property, plant and equipment	(92,514)	(105,864)
Proceeds from capital debt	35,040	78,465
Bond interest subsidy	2,308	2,330
Principal paid on capital debt	(27,141)	(25,962)
State capital grants	2,444	3,275
Other capital contributions	374	2,124
Bond issuance costs	(53)	(1,061)
Interest paid on capital debt	(34,764)	(31,208)
Net cash used in capital and related financing activities	<u>(107,644)</u>	<u>(71,228)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchases of investments	-	(70,584)
Sales and maturities of investments	124,090	68,799
Interest and dividends on investments	9,166	3,654
Net cash provided by investing activities	<u>133,256</u>	<u>1,869</u>
NET INCREASE IN CASH AND CASH EQUIVALENTS AND CASH AND CASH EQUIVALENTS - RESTRICTED	165,716	46,378
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT BEGINNING OF YEAR	<u>161,155</u>	<u>114,777</u>
CASH AND CASH EQUIVALENTS, AND CASH AND CASH EQUIVALENTS - RESTRICTED, AT END OF YEAR	<u>\$ 326,871</u>	<u>\$ 161,155</u>

Reconciliation of Operating Income to Net Cash Provided by Operating Activities

(in thousands)		
Operating income	\$ 91,586	\$ 69,232
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	53,225	52,349
(Increase) decrease in operating assets		
Accounts receivable	(1,069)	(2,281)
Inventory	630	835
Net change in other current assets	(523)	289
Increase (decrease) in operating liabilities		
Trade and contracts payable	1,128	(1,529)
Accrued salaries and wages	227	265
Compensated absences	(315)	1
Net change in other liabilities	466	400
OPEB liabilities	(1,269)	(1,242)
Pension liabilities	(3,982)	(2,271)
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 140,104</u>	<u>\$ 116,048</u>
Noncash Capital and Related Financing Activities:		
Proceeds of refunding debt principal	\$ -	\$ 86,075
Refunding of debt principal	-	(86,075)
Accrual for capital expenditures	2,576	4,596
Amortization of premium	(7,712)	(6,716)
Amortization of deferred loss on bond refunding	(1,173)	(1,542)

See Accompanying Notes to Financial Statements

**HAMPTON ROADS SANITATION DISTRICT
NOTES TO FINANCIAL STATEMENTS
JUNE 30, 2019 and 2018**

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 Claremont

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

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

Basis of Accounting

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

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

Budgetary Accounting and Control

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

Cash Equivalents

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

Inventories

Inventories consist primarily of fuel and maintenance parts. Inventories are carried at cost or average cost.

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, which included interest cost on funds borrowed to finance the construction of major capital additions through June 30, 2018. See New Accounting Pronouncements, below. 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 six items that qualify for reporting in this category. The first is the deferred charge on refunding reported in the statements of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The second through fourth amounts are differences between expected and actual experience on the OPEB and pension plans; the net difference between OPEB expected and actual experience; and the change in proportion for OPEB plans. These differences will be recognized in pension expense in future reporting periods. The fifth and sixth deferred charges are for OPEB and pension contributions to the Virginia Retirement System made subsequent to the measurement dates of June 30, 2018 and 2017. These contributions will be recognized as reductions of the Net OPEB and Net Pension Liabilities during the years ended June 30, 2020 and 2019, respectively.

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

Revenue Recognition

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

Operating and Non-operating Revenues and Expenses Recognition

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

Compensated Absences

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

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

Permanent employees hired after January 1, 2014 earn 8 hours of paid time off for each two-week pay period. Employees may use accumulated paid time off for any type of absence from work, subject to supervisor approval. The maximum paid time off an employee may accumulate at year-end is 208 hours. After five years of service with HRSD, an employee has vested rights to 50 percent of their accumulated paid time off at separation. For these employees, HRSD also provides a state mandated long-term disability (LTD) benefit since these employees are not

eligible for disability retirement benefits through Virginia Retirement System. The long-term disability benefit provides income replacement for employees who become disabled and unable to work for an extended period of time due to a non work-related or work-related condition (as determined under the Virginia Workers' Compensation Act). Long-term disability benefits begin at the expiration of an additional state mandated employer paid short-term disability (STD) benefit period of 125 days.

Postemployment Benefits Other Than Pensions (OPEB)

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

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

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

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

Pensions

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

Use of Estimates

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

New Accounting Pronouncements

During the fiscal year ended June 30, 2019, HRSD adopted GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, effective July 1, 2018. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period, and replaces the requirements of GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are applied prospectively, so no adjustment to net position was required.

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

During the fiscal year ended June 30, 2018, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended; and GASB Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. The objective of Statement No. 75 is to improve the usefulness of information for decisions made by the various users of the general purpose external financial reports (financial reports) of governments whose employees, both active employees and inactive employees, are provided with postemployment benefits other than pensions. As a result of the adoption of Statement No. 75, HRSD has made an adjustment to net position as of July 1, 2017, to recognize the cumulative effect of the change in accounting for pensions as further discussed in Note 14.

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, 2019 and 2018, the carrying values of HRSD's deposits were \$20,346,000 and \$24,753,000, respectively, and the bank balances were \$29,940,000 and \$27,446,000, respectively. All of the bank balances at June 30, 2019 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 State Non-Arbitrage Program (SNAP) Fund Class and the Commonwealth of Virginia Local Government Investment Pool (LGIP) in FY2018. In 2018, HRSD invested highly liquid funds in the LGIP and less liquid funds in a 1-3 year duration fund managed by PFM. Oversight for SNAP and LGIP is provided by the Treasury Board of Virginia. In FY2019, HRSD divested investments managed by PFM and LGIP and invested in VACo/VML Virginia Investment Pool's (VIP) 1-3 Year High Quality Bond Fund and Stable NAV Liquidity Pool. Oversight is provided by the VACo/VML Board of Trustees. HRSD's investments in the VIP 1-3 Year High Quality Bond Fund and the VIP Stable NAV Liquidity Pool were rated AA+f/S1 and AAAM, respectively, by Standard & Poor's, and HRSD's investment in the LGIP was rated AAAM by Standard & Poor's.

Investments

At June 30, 2019, all funds were held as cash and cash equivalents. As of June 30, 2018, HRSD had the following investments and maturities:

(in thousands)	<u>Investment Maturities (in years)</u>		
	<u>Fair Value</u>	<u>Less Than 1</u>	<u>1-3</u>
As of June 30, 2018			
<u>Investment Type</u>			
U.S. Treasury Securities	\$ 53,627	\$ 2,998	\$ 50,629
Federal Agency Notes / Bonds	26,918	3,611	23,307
Certificates of Deposit	7,324	2,439	4,885
Commercial Paper	4,921	4,921	-
Corporate Notes / Bonds	20,633	3,902	16,731
Municipal Bonds	1,452	-	1,452
Supranationals	9,215	-	9,215
Total	\$ 124,090	\$ 17,871	\$ 106,219

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 Trustees for its investments, the Bank of New York Trust Department and the US Bank Trust Department, as recipients of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2019 and 2018, the Trust Department of the Bank of New York held approximately \$14,335,000 and \$67,278,000, respectively, in investments in the Trustee's name for HRSD. At June 30, 2019, all funds were held as cash and cash equivalents. As of June 30, 2018, the Trust Department of US Bank held approximately \$124,090,000 in investments in the Trustee's name for HRSD. HRSD divested all government security investments under US Bank in FY2019, therefore at June 30, 2019, US Bank has zero 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. At June 30, 2019, all funds were held as cash and cash equivalents. HRSD's year ending June 30, 2018, investment securities using the Standard & Poor's credit quality ratings scale are presented below:

(in thousands)	Standard & Poor's Credit Rating by Investment Type							
	AAA	AA+	AA	AA-	A+	A-1+	A-1	Total
<u>Investments</u>								
U.S. Treasury Securities	\$ -	\$ 53,627	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,627
Federal Agency Notes / Bonds	-	26,918	-	-	-	-	-	26,918
Certificates of Deposit	-	-	-	4,885	-	2,439	-	7,324
Commercial Paper	-	-	-	-	-	-	4,921	4,921
Corporate Notes / Bonds	1,318	5,218	2,731	11,366	-	-	-	20,633
Municipal Bonds	-	-	-	1,452	-	-	-	1,452
Supranationals	9,215	-	-	-	-	-	-	9,215
Total Investments	\$ 10,533	\$ 85,763	\$ 2,731	\$ 17,703	\$ -	\$ 2,439	\$ 4,921	\$ 124,090

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:

(in thousands)	2019	2018
Fair value of investments, end of year	\$ -	\$ 124,090
Add: Proceeds of investments sold or maturing during the year	124,090	68,799
Less: Cost of investments purchased during the year	-	(70,584)
Less: Fair value of investments, beginning of year	(124,090)	(123,687)
Change in fair value of investments	\$ -	\$ (1,382)

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

(in thousands)	2019	2018
Debt service	\$ 28,553	\$ 27,799
Revenue bond construction funds - current	14,335	16,919
Revenue bond construction funds - noncurrent	-	50,359
Total cash and cash equivalents - restricted	\$ 42,888	\$ 95,077

HRSD OPEB Trust Investments

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

As of June 30, 2019 and 2018, the plan had the following investments and maturities:

International equity	10,896	10,301
Fixed income	19,428	17,227
Other Income	1,175	-
Money market	171	29
Total Investments	\$ 52,025	\$ 47,103

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

Custodial Credit Risk. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, HRSD will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. HRSD's policy is to utilize its Trustee for its investments the US Bank Trust Department, as recipient of all investment transactions on a delivery versus pay basis. The Trustees may not be a counterparty to the investment transaction. At June 30, 2019, the Trust Department of the US Bank held approximately \$52,025,000 in investments in the Trustee's name for HRSD.

NOTE 4 - ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS

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

(in thousands)	2019	2018
Balance, beginning of year	\$ 2,180	\$ 2,445
Add: Current provision for uncollectible accounts	2,976	1,736
Less: Charge-off of uncollectible accounts	(2,467)	(2,001)
Balance, end of year	\$ 2,689	\$ 2,180

HRSD's collection ratios for the years ended June 30, 2019 and 2018 were 99.2 and 99.3 percent, respectively.

NOTE 5 - PROPERTY, PLANT AND EQUIPMENT

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

(in thousands)	Balance 6/30/17	Additions	Transfers/ Retirements	Balance 6/30/18	Additions	Transfers/ Retirements	Balance 6/30/19
Non-Depreciable Capital Assets							
Land	\$ 12,174	\$ -	\$ -	\$ 12,174	\$ -	\$ -	\$ 12,174
Construction in progress	248,049	115,647	(141,413)	222,283	89,225	(16,977)	294,531
Depreciable Capital Assets							
Treatment plants	1,184,198	57,993	-	1,242,191	6,706	-	1,248,897
Interceptor systems	525,473	83,943	-	609,416	9,652	-	619,068
Buildings	48,735	397	-	49,132	-	-	49,132
Small community facilities	25,529	20	-	25,549	76	-	25,625
Office equipment	44,613	-	-	44,613	-	-	44,613
Automotive	18,180	806	-	18,986	603	(1,049)	18,540
Other equipment	36,066	523	-	36,589	298	-	36,887
Software and intangible assets	39,624	125	-	39,749	325	-	40,074
Total	\$ 2,182,641	\$ 259,454	\$ (141,413)	\$ 2,300,682	\$ 106,885	\$ (18,026)	\$ 2,389,541
Less accumulated depreciation and amortization							
Treatment plants	(640,582)	(28,667)	-	(669,249)	(30,003)	-	(699,252)
Interceptor systems	(156,808)	(10,232)	-	(167,040)	(11,792)	-	(178,832)
Buildings	(16,381)	(1,565)	-	(17,946)	(1,569)	-	(19,515)
Small community facilities	(7,241)	(590)	-	(7,831)	(572)	-	(8,403)
Office equipment	(40,839)	(1,219)	-	(42,058)	(1,042)	-	(43,100)
Automotive	(16,110)	(784)	-	(16,894)	(754)	1,049	(16,599)
Other equipment	(25,721)	(2,697)	-	(28,418)	(2,462)	-	(30,880)
Software and intangible assets -amortization	(23,007)	(6,595)	-	(29,602)	(5,031)	-	(34,633)
Total	(926,689)	(52,349)	-	(979,038)	(53,225)	1,049	(1,031,214)
Net property, plant and equipment	\$ 1,255,952	\$ 207,105	\$ (141,413)	\$ 1,321,644	\$ 53,660	\$ (16,977)	\$ 1,358,327

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

NOTE 6 - COMPENSATED ABSENCES

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

(in thousands)	Balance 6/30/17	Earned	Taken	Balance 6/30/18	Earned	Taken	Balance 6/30/19
Annual leave	\$ 5,052	\$ 3,191	\$ (3,354)	\$ 4,889	\$ 3,409	\$ (3,454)	\$ 4,844
Sick leave	2,779	1,422	(1,372)	2,829	1,408	(1,398)	2,839
Paid time off	572	929	(815)	686	756	(1,036)	406
Total	8,403	\$ 5,542	\$ (5,541)	8,404	\$ 5,573	\$ (5,888)	8,089
Less: Current liability	5,279			5,541			5,888
Long-term liability	\$ 3,124			\$ 2,863			\$ 2,201

NOTE 7 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

Plan Descriptions

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

RHP

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

Eligible Employees

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

Benefits provided

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

GLI

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

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

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

Eligible Employees

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

Benefit Amounts

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

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

Reduction in Benefit Amounts

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

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

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at \$8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment was increased to \$8,279 effective July 1, 2018.

HIC

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

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

Eligible Employees

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

Benefit Amounts

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

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

Health Insurance Credit Program Notes:

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

Employees Covered by Benefit Terms

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

	<u>2018</u>	<u>2017</u>
Beneficiaries currently receiving benefit payments	163	152
Active employees	<u>719</u>	<u>708</u>
Total	<u><u>882</u></u>	<u><u>860</u></u>

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

As of the June 30, 2017 and 2016 actuarial valuation dates the following employees were covered by the benefit terms of the HIC:

	<u>2017</u>	<u>2016</u>
Inactive members or their beneficiaries currently receiving benefit payments	229	218
Vested	<u>6</u>	<u>7</u>
Total Inactive Members	235	225
Active employees	<u>780</u>	<u>781</u>
Total	<u><u>1,015</u></u>	<u><u>1,006</u></u>

Contributions

RHP contribution requirements are actuarially determined. Funding is subject to approval by the Commission. Medicare-eligible members contribute \$45 per month for retiree-only coverage and from \$442 to \$460 per month for retiree and dependent coverage. Members not eligible for Medicare contribute \$120 per month for retiree-only coverage and from \$517 to \$535 per month for retiree and dependent coverage. HRSD funds the cost of coverage under the RHP by paying the difference between the contributions it requires retirees to make and the actuarially determined contribution (ADC). The current employer contribution rate is approximately 5 percent of annual covered payroll. HRSD contributed \$2,993,000 to the RHP for the year ended June 30, 2019 and HRSD contributed \$2,729,000, and Retirees contributed \$303,000, for the year ended June 30, 2018.

The GLI contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the years ended June 30, 2019 and 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Group Life Insurance Program were \$267,000 and \$259,000 for the years ended June 30, 2019 and June 30, 2018, respectively.

The HIC contribution requirement for active employees is governed by §51.1-1402(E) of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. HRSD's contractually required employer contribution rates for the years ended June 30, 2019 and 2018 were 0.21% and 0.19% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate was expected to

finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from HRSD to the Political Subdivision Health Insurance Credit Program were \$108,000 and \$95,000 for the years ended June 30, 2019 and June 30, 2018, respectively.

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

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

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2019:		
Differences between expected and actual experience	\$ 2,936	\$ -
Changes of assumptions	-	1,428
Net difference between projected and actual earnings on plan investments	-	677
	<u>\$ 2,936</u>	<u>\$ 2,105</u>
Year ended June 30, 2018:		
Net difference between projected and actual earnings on plan investments	-	\$ 692

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

Year ended June 30,	(in thousands)
2020	\$ (24)
2021	(24)
2022	(24)
2023	149
2024	188
Thereafter	566
	<u>\$ 831</u>

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

At June 30, 2019 and 2018, HRSD reported liabilities of \$3,981,000 and \$3,915,000, respectively, for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liabilities were measured as of June 30, 2018 and June 30, 2017 and the total GLI OPEB liabilities used to calculate the Net GLI OPEB Liability were determined by actuarial valuations as of those dates. The covered employer's proportion of the Net GLI OPEB Liability was based on HRSD's actuarially determined employer contributions to the Group Life Insurance Program for the years ended June 30, 2018 and 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2018 and 2017, HRSD's proportion was 0.26214% and 0.26016%, respectively. For the years ended June 30, 2019 and 2018, HRSD recognized GLI OPEB expense of \$49,000 and \$38,000, respectively. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2019 and 2018, HRSD reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2019:		
Differences between expected and actual experience	\$ 195	\$ 71
Net difference between projected and actual earnings on GLI OPEB program investments	-	130
Change in assumptions	-	166
Changes in proportion	51	-
Employer contributions subsequent to the measurement date	267	-
Total	<u>\$ 513</u>	<u>\$ 367</u>
Year ended June 30, 2018:		
Differences between expected and actual experience	\$ -	\$ 87
Net difference between projected and actual earnings on GLI OPEB program investments	-	147
Change in assumptions	-	202
Changes in proportion	28	-
Employer contributions subsequent to the measurement date	259	-
Total	<u>\$ 287</u>	<u>\$ 436</u>

HRSD reported \$267,000 and \$259,000 as of June 30, 2019 and 2018, respectively, as deferred outflows of resources related to the GLI OPEB resulting from the HRSD's contributions subsequent to the measurement date which will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Years ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

2022	(49)
2023	(12)
2024	20
Thereafter	18
	<u>\$ (121)</u>

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

For the years ended June 30, 2019 and 2018, HRSD recognized Health Insurance Credit Program OPEB expense of \$96,000 and \$88,000, respectively. At June 30, 2019, HRSD reported deferred outflows of resources and deferred inflows of resources related to the Political Subdivision Health Insurance Credit Program from the following sources:

(in thousands)	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended June 30, 2019:		
Differences between expected and actual experience	\$ 23	\$ -
Net difference between projected and actual earnings on HIC OPEB program investments	-	21
Change in assumptions	-	16
Employer contributions subsequent to the measurement date	108	-
Total	<u>\$ 131</u>	<u>\$ 37</u>
Year ended June 30, 2018:		
Net difference between projected and actual earnings on HIC OPEB program investments	\$ -	\$ 28
Change in assumptions	-	19
Employer contributions subsequent to the measurement date	95	-
Total	<u>\$ 95</u>	<u>\$ 47</u>

HRSD reported \$108,000 and \$95,000 reported as deferred outflows of resources related to the HIC OPEB resulting from HRSD’s contributions subsequent to the measurement date which will be recognized as a reduction of the Net HIC OPEB Liability in the Fiscal Year ending June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the HIC OPEB will be recognized in the HIC OPEB expense in future reporting periods as follows:

Year ended June 30,	(in thousands)
2020	\$ (6)
2021	(6)
2022	(6)
2023	1
2024	1
Thereafter	2
	<u>\$ (14)</u>

Actuarial Methods and Assumptions

The total RHP OPEB liabilities were based on actuarial valuations as of June 30, 2018 and 2017, 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, 2019 and 2018.

Inflation	2.2 percent
Salary increases, including inflation	3.5 percent - 5.35 percent
Investment rate of return	7.0 percent, net of investment expenses, including inflation*

Mortality rates for the RHP are as follows:

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

The total GLI and HIC OPEB liabilities were based on actuarial valuations as of June 30, 2017 and 2016, 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, 2018 and 2017.

Inflation	2.5 percent
Salary increases, including inflation	3.5 percent - 5.35 percent
Investment rate of return	7.0 percent, net of investment expenses, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GAAP 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 7.0% to simplify preparation of the OPEB liabilities.

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

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% of rates.

The actuarial assumptions used in the June 30, 2017 and 2016 valuations were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2017. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, postretirement healthy, and disabled)	Updated to a more current mortality table – RP2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 15%

Long-Term Expected Rate of Return

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

June 30, 2019			
Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	7.50%	2.93%
International Developed Equity	15.00%	7.40%	1.11%
International Emerging Markets Equity	6.00%	7.50%	0.45%
Core Fixed	20.00%	5.10%	1.02%
Investment Grade Corporate Debt	10.00%	6.10%	0.61%
Emerging Markets Debt	5.00%	6.70%	0.34%
High Yield	5.00%	6.60%	0.33%
Total	<u>100.00%</u>		<u>6.79%</u>
		Inflation	<u>2.50%</u>
		* Expected arithmetic nominal return	<u>9.29%</u>

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

June 30, 2018			
Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Domestic Equity	39.00%	5.20%	2.03%
International Developed Equity	15.00%	5.20%	0.78%
International Emerging Markets Equity	6.00%	5.20%	0.31%
Core Fixed	20.00%	3.00%	0.60%
Investment Grade Corporate Debt	10.00%	3.75%	0.38%
Emerging Markets Debt	5.00%	4.75%	0.24%
High Yield	5.00%	4.25%	0.21%
Total	<u>100.00%</u>		<u>4.55%</u>
		Inflation	<u>2.50%</u>
		* Expected arithmetic nominal return	<u>7.05%</u>

* The above allocation provides a one-year return of 7.05%. However, one-year returns do not take into account the volatility present in each of the asset classes so a rate of 6.0% is used.

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

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
		Inflation	<u>2.50%</u>
	* Expected arithmetic nominal return		<u>7.30%</u>

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rates

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

The discount rate used to measure the total GLI and HIC liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the GLI and HIC will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI and HIC fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI and HIC liability.

Change in Net OPEB Liability

HRSD's Net OPEB Liability (NOL) as of June 30, 2019 for the RHP was measured as of June 30, 2019 using a June 30, 2018 valuation, which has been rolled forward to the June 30, 2019 measurement date.

RHP	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
(in thousands)			
Balances at June 30, 2017	\$ 57,416	\$ 42,526	\$ 14,890
Changes for the year - Increase (Decrease):			
Service cost	1,260	-	1,260
Interest	3,391	-	3,391
Contributions - employer	-	2,729	(2,729)
Contributions - employee	-	303	(303)
Net investment income	-	3,450	(3,450)
Benefit payments, including refunds of employee contributions	(1,791)	(1,791)	-
Administrative expense	-	(114)	114
Net changes	2,860	4,577	(1,717)
Balances at June 30, 2018	60,276	47,103	13,173
Changes for the year - Increase (Decrease):			
Service cost	1,300	-	1,300
Interest	3,571	-	3,571
Changes of assumptions	(1,607)	-	(1,607)
Difference between expected and actual experience	3,302	-	3,302
Contributions - employer	-	2,993	(2,993)
Contributions - employee	-	-	-
Net investment income	-	3,078	(3,078)
Benefit payments, including refunds of employee contributions	(1,149)	(1,149)	-
Administrative expense	-	-	-
Other changes	-	-	-
Net changes	5,417	4,922	495
Balances at June 30, 2019	\$ 65,693	\$ 52,025	\$ 13,668

HRSD's net Health Insurance Credit OPEB liability was measured as of June 30, 2018. The total Health Insurance Credit OPEB liability was determined by an actuarial valuation performed as of June 30, 2017, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

HIC (in thousands)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2016	\$ 1,891	\$ 780	\$ 1,111
Changes for the year - Increase (Decrease):			
Service cost	27	-	27
Interest	129	-	129
Changes of assumptions	(22)		(22)
Difference between expected and actual experience	-	-	-
Contributions - employer	-	91	(91)
Net investment income	-	90	(90)
Benefit payments, including refunds of employee contributions	(94)	(94)	-
Administrative expense	-	(1)	1
Other changes	-	4	(4)
Net changes	40	90	(50)
Balances at June 30, 2017	1,931	870	1,061
Changes for the year - Increase (Decrease):			
Service cost	26	-	26
Interest	130	-	130
Changes of assumptions	-		-
Difference between expected and actual experience	27	-	27
Contributions - employer	-	95	(95)
Net investment income	-	60	(60)
Benefit payments, including refunds of employee contributions	(133)	(133)	-
Administrative expense	-	(1)	1
Other changes	-	(5)	5
Net changes	50	16	34
Balances at June 30, 2018	\$ 1,981	\$ 886	\$ 1,095

Net GLI OPEB Liability

The net OPEB liability (NOL) for the Group Life Insurance Program represents the program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement dates of June 30, 2018 and 2017, NOL amounts for the Group Life Insurance Program are as follows:

(in thousands)	2018	2017
Total GLI OPEB Liability	\$ 3,113,508	\$ 2,942,426
Plan Fiduciary Net Position	1,594,773	1,437,586
Net GLI OPEB Liability	\$ 1,518,735	\$ 1,504,840

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

51.22% 48.86%

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

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

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

Discount Rate	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30, 2019:	\$ 25,007	\$ 13,668	\$ 4,617
Year ended June 30, 2018:	24,210	13,173	4,419

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

Ultimate Trend	1% Decrease (2.2%)	Healthcare Cost Trend Rate (3.2%)	1% Increase (4.2%)
Net RHP OPEB Liability (in thousands)			
Year ended June 30, 2019:	\$ 3,236	\$ 13,668	\$ 27,102
Year ended June 30, 2018:	3,173	13,173	26,116

The following table presents the net GLI OPEB liability using the discount rate of 7.00%, as well as what the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
GLI Net OPEB Liability (in thousands)			
Year ended June 30, 2019:	\$ 5,202	\$ 3,981	\$ 2,989
Year ended June 30, 2018:	5,064	3,915	2,984

The following presents the net HIC OPEB liability using the discount rate of 7.00%, as well as what the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

Discount Rate	1% Decrease (6.0%)	Current Discount Rate (7.0%)	1% Increase (8.0%)
HIC Net OPEB Liability (in thousands)			
Year ended June 30, 2019:	\$ 1,306	\$ 1,095	\$ 916
Year ended June 30, 2018:	1,263	1,061	887

GLI Fiduciary Net Position and HIC Plan Data

GLI Fiduciary Net Position and HIC Plan Data is available in the separately issued VRS 2018 and 2017 Comprehensive Annual Financial Reports (CAFR). Copies of the 2018 and 2017 VRS CAFRs may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf> and <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

NOTE 8 – DEFINED BENEFIT PENSION PLAN

Plan Description

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

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

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

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

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

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

HRP. At retirement, members can elect the Basic Benefit, the Survivor Option, a Partial Lump-Sum Option Payment (PLOP) or the Advance Pension Option. A retirement reduction factor is applied to the Basic Benefit amount for members electing the Survivor Option, PLOP or Advance Pension Option or those retiring with a reduced benefit.

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

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

Employees Covered by Benefit Terms

As of the June 30, 2017 and 2016 actuarial valuation dates, the following employees were covered by the benefit terms of the pension plan:

	<u>2017</u>	<u>2016</u>
Inactive Members or Their Beneficiaries Currently Receiving Benefits	369	355
Inactive Members		
Vested	105	105
Non-Vested	138	147
Active Elsewhere in VRS	<u>80</u>	<u>76</u>
Total Inactive Members	323	328
Active Members	<u>780</u>	<u>781</u>
Total	<u><u>1,472</u></u>	<u><u>1,464</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 years ended June 30, 2019 and 2018 were 6.02% and 7.70% of covered compensation. These rates are based on actuarially determined rates from actuarial valuations as of June 30, 2017 and 2015.

These rates, when combined with employee contributions, are expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Employer contributions to the pension plan were \$2,866,000 and \$3,635,000 for the years ended June 30, 2019 and 2018, respectively.

Net Pension Liability

HRSD’s net pension liability as of June 30, 2019 and 2018 was measured as of June 30, 2018 and 2017, respectively. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2017 and 2016, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement dates of June 30, 2018 and 2017.

Actuarial Assumptions

The total pension liability as of June 30, 2019 and 2018 for employees in HRSD's retirement plan was based on actuarial valuations as of June 30, 2017 and 2016, 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, 2018 and 2017, respectively. The actuarial valuations as of June 30, 2017 and 2016 use the following assumptions:

Inflation	2.5%
Salary increases, including inflation	3.5% to 5.35%
Investment rate of return	7%, net of pension plan investment expenses, including inflation*
Cost of living adjustments	2.25% to 2.50%

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed return rate for GASB purposes of slightly more than the assumed 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 7.0% to simplify preparation of pension liabilities.

The actuarial valuation as of June 30, 2017 uses the following mortality assumptions:

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

The actuarial valuation as of June 30, 2015 uses the following mortality assumptions:

- 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, 2017 valuations were based on the results of an actuarial experience study for the period July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Mortality rates – Updated to a more current mortality table – RP-2014 projected to 2020.
- Retirement rates – Lowered rates at older ages and changed final retirement from 70 to 75.
- Withdrawal rates – Adjusted rates to better fit experience at each year age and service through 9 years of service.
- Disability rates – Lowered rates.
- Salary scale – No change.
- Line of duty disability – Increase rate from 14% to 15%.

The actuarial assumptions used in the June 30, 2015 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:

- Updated 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
Public equity	40.00%	4.54%	1.82%
Fixed income	15.00%	0.69%	0.10%
Credit strategies	15.00%	3.96%	0.59%
Real assets	15.00%	5.76%	0.86%
Private equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
		Inflation	<u>2.50%</u>
		* Expected arithmetic nominal return	<u>7.30%</u>

* The above allocation provides a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.50%.

Discount Rate

The discount rate used to measure the total pension liability, as of June 30, 2018 and 2017, 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. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2018, the alternate rate was the employer contribution rate used in FY2012 or 90% of the actuarially determined employer contribution rate from the June 30, 2015, actuarial valuations, whichever was greater. 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, 2016	\$ 214,962	\$ 177,289	\$ 37,673
Changes for the year - Increase (Decrease):			
Service cost	4,145	-	4,145
Interest	14,750	-	14,750
Changes of assumptions	(3,975)	-	(3,975)
Difference between expected and actual experience	(3,175)	-	(3,175)
Contributions - employer	-	3,609	(3,609)
Contributions - employee	-	2,351	(2,351)
Net investment income	-	21,526	(21,526)
Benefit payments, including refunds of employee contributions	(8,475)	(8,475)	-
Administrative expense	-	(124)	124
Other changes	-	(19)	19
Net changes	<u>3,270</u>	<u>18,868</u>	<u>(15,598)</u>
Balances at June 30, 2017	<u>218,232</u>	<u>196,157</u>	<u>22,075</u>
Changes for the year - Increase (Decrease):			
Service cost	3,825	-	3,825
Interest	14,952	-	14,952
Difference between expected and actual experience	(101)	-	(101)
Contributions - employer	-	3,710	(3,710)
Contributions - employee	-	2,424	(2,424)
Net investment income	-	14,451	(14,451)
Benefit payments, including refunds of employee contributions	(9,249)	(9,249)	-
Administrative expense	-	(125)	125
Other changes	-	(13)	13
Net changes	<u>9,427</u>	<u>11,198</u>	<u>(1,771)</u>
Balances at June 30, 2018	<u>\$ 227,659</u>	<u>\$ 207,355</u>	<u>\$ 20,304</u>

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, 2018	\$ 51,048	\$ 20,304	\$ (5,194)
June 30, 2017	52,017	22,075	(2,722)

Pension Benefit, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

HRSD recognized a pension benefit of \$1,040,000 and a pension expense of \$645,000 for the years ended June 30, 2019 and 2018, respectively. At June 30, 2019 and 2018, 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
Year ended June 30, 2019:	(in thousands)	
Differences between expected and actual experience	\$ 1,251	\$ 2,951
Changes of assumptions	-	2,250
Net difference between projected and actual earnings on plan investments	-	1,702
Employer contributions subsequent to the measurement date	2,866	-
	<u>\$ 4,117</u>	<u>\$ 6,903</u>
Year ended June 30, 2018:		
Differences between expected and actual experience	\$ 1,827	\$ 4,519
Changes of assumptions	-	3,113
Net difference between projected and actual earnings on plan investments	-	2,827
Employer contributions subsequent to the measurement date	3,635	-
	<u>\$ 5,462</u>	<u>\$ 10,459</u>

HRSD reported \$2,866,000 and \$3,635,000 as of June 30, 2019 and 2018, 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, 2020 and 2019, 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:

	<u>Decrease in Pension Expense</u> (in thousands)
Year ended June 30,	
2020	\$ (1,314)
2021	(1,280)
2022	(2,878)
2023	(180)
2024	-
Thereafter	-
	<u>\$ (5,652)</u>

NOTE 9 – LONG-TERM DEBT

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

In fiscal year 2018, HRSD issued \$63.2 million in subordinate wastewater revenue bonds, Series 2018A, to fund capital improvement projects. The new bond provided a premium of \$11,817,000. Also in fiscal year 2018, HRSD issued \$83.5 million in subordinate wastewater revenue refunding bonds, Series 2017A, to fund capital improvement projects and to refund \$86,075,000 of the HRSD Series 2012A and 2016A wastewater revenue bonds. The refunding provided a premium of \$12,009,000, resulted in a reduction of total debt service payments of \$9,642,000, created an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$6,655,000 and resulted in a deferred gain on the bond refunding of \$3,041,000, which is being amortized over 27 years.

HRSD has \$50 million outstanding in subordinate variable rate demand bonds, Series 2016B, to partially finance its capital improvement plan. The bonds bear interest in either a Weekly Period or a Long-term Period, as defined. The bonds were initially issued in a Weekly Interest Period and bear interest at a varying interest rate until, at HRSD's option, they are converted to the Long-term Period. Liquidity to pay the purchase price of the bonds that are tendered and not remarketed is provided by HRSD. Maturities of the principal and interest for these bonds are

shown in the following table as if held to maturity. The bonds are subject to optional redemption by HRSD prior to their maturity. Through June 30, 2019, the bonds have been successfully remarketed by the Remarketing Agent. The interest rate for the bonds at June 30, 2019 and 2018 was 1.52% and 1.20%, respectively. The 2019 rate was used to calculate interest maturity amounts shown below.

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

(in thousands)	Balance at			Balance at			Balance at	Due within
	6/30/2017	Additions	Deductions	6/30/2018	Additions	Deductions		
Series-2018A	\$ -	\$ 63,185	-	\$ 63,185	\$ -	(470)	\$ 62,715	\$ 985
Series-2017A	-	83,485	-	83,485	-	-	83,485	-
Series-2016A	243,320	-	(9,830)	233,490	-	(2,520)	230,970	2,650
Series-2016B VR	50,000	-	-	50,000	-	-	50,000	50,000
Series-2014	111,345	-	-	111,345	-	(5,500)	105,845	5,785
Series-2012 A	89,675	-	(81,225)	8,450	-	(2,680)	5,770	2,815
Series-2012 Subordinate	1,205	-	(300)	905	-	(305)	600	310
Series-2011FR	4,400	-	(1,410)	2,990	-	(1,465)	1,525	1,525
Series-2009B	127,630	-	(3,690)	123,940	-	(3,800)	120,140	3,915
Series-2008	5,465	-	(5,465)	-	-	-	-	-
Virginia Resources Authority								
Senior bonds	90,650	-	(5,234)	85,416	-	(5,356)	80,060	5,480
Subordinate bonds	55,821	3,465	(4,883)	54,403	35,040	(5,045)	84,398	5,262
	<u>779,511</u>	<u>150,135</u>	<u>(112,037)</u>	<u>817,609</u>	<u>35,040</u>	<u>(27,141)</u>	<u>825,508</u>	<u>78,727</u>
Unamortized bond premiums	67,272	23,826	(17,265)	73,833	-	(7,712)	66,121	6,223
Total Bonds Outstanding	<u>\$ 846,783</u>	<u>\$ 173,961</u>	<u>\$ (129,302)</u>	<u>\$ 891,442</u>	<u>\$ 35,040</u>	<u>\$ (34,853)</u>	<u>\$ 891,629</u>	<u>\$ 84,950</u>

Senior bonds outstanding at June 30, 2019:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-Term				
Series 2014	\$ 111,345	\$ 105,845	\$ 5,785	\$ 100,060	\$ 30,411	5.00%	15 years	July 1, 2029
Series 2012A	130,480	5,770	2,815	2,955	436	5.00%	9 years	January 1, 2021
Series-2011FR	45,705	1,525	1,525	-	31	4.00%	8 years	November 1, 2019
Series-2009B	134,725	120,140	3,915	116,225	82,865	4.71% - 5.11%	30 years	November 1, 2039
VRA - Metering	9,989	6,817	490	6,327	1,186	2.65%	20 years	March 1, 2031
VRA - WTP	5,727	3,913	291	3,622	521	2.05%	20 years	March 1, 2031
VRA - NTP	19,395	13,201	948	12,253	2,296	2.65%	20 years	March 1, 2031
VRA - JRTP	13,431	8,966	676	8,290	1,494	2.65%	20 years	September 1, 2030
VRA - ABTP	50,000	37,086	2,411	34,675	5,557	2.05%	20 years	September 1, 2032
VRA - BHTP	7,584	5,245	372	4,873	727	2.05%	20 years	September 1, 2031
VRA - ATP	6,318	4,832	292	4,540	928	2.51%	20 years	February 1, 2033
Total		<u>\$ 313,340</u>	<u>\$ 19,520</u>	<u>\$ 293,820</u>	<u>\$ 126,452</u>			

Maturities of senior bond principal and interest as of June 30, 2019:

(in thousands)		
June 30,	Principal	Interest
2020	\$ 19,520	\$ 14,011
2021	18,682	13,227
2022	17,977	12,396
2023	22,000	11,556
2024	22,882	10,592
2025-2029	109,153	38,044
2030-2034	58,734	18,530
2035-2039	36,275	7,859
2040-2044	8,117	237
	<u>\$ 313,340</u>	<u>\$ 126,452</u>

Subordinate revenue bonds outstanding at June 30, 2019:

(in thousands)	Issue Amount	Principal Outstanding			Interest to Maturity	Interest Rates	Duration of Issue	Final Maturity
		Total	Current	Long-term				
Series-2018A	\$ 63,185	\$ 62,715	\$ 985	\$ 61,730	\$ 56,073	5.00%	30 Years	October 1, 2047
Series-2017A	83,485	83,485	-	83,485	58,150	3.50% - 5.00%	26 years	October 1, 2043
Series-2016A	246,845	230,970	2,650	228,320	145,982	3.00% - 5.00%	27 years	August 1, 2043
Series-2012 Sub	22,680	600	310	290	11	1.77% - 1.92%	8 years	October 1, 2020
VRA - Disinfection	6,490	450	450	-	12	3.50%	20 years	March 1, 2020
VRA - BH Odor	2,380	396	155	241	21	3.50%	20 years	September 1, 2021
VRA - York River Reuse	2,476	525	147	378	18	1.70%	20 years	September 1, 2022
VRA - AB Aeration	1,759	393	110	283	13	1.70%	20 years	October 1, 2022
VRA - Ches-Eliz Off Gas	1,070	272	64	208	23	3.75%	20 years	March 1, 2023
VRA - AB Generator	1,235	514	69	445	39	2.00%	20 years	April 1, 2026
VRA - Atlantic Expansion	7,340	3,462	402	3,060	317	2.10%	20 years	February 1, 2027
VRA - Ches-Eliz Expansion	40,330	18,926	2,196	16,730	1,733	2.10%	20 years	June 1, 2027
VRA - Williamsburg PS	1,605	797	87	710	77	2.10%	20 years	July 1, 2027
VRA - York River Expansion	29,683	20,202	1,445	18,757	3,612	2.72%	20 years	March 1, 2031
VRA - Atlantic	-	32,757	-	32,757	17,031	2.25%	30 years	March 1, 2046
VRA - Ferguson	-	852	25	827	419	2.70%	30 years	March 1, 2047
VRA - Lucas	-	2,761	77	2,684	1,366	2.65%	30 years	October 1, 2047
VRA - Rodman	1,096	1,066	35	1,031	315	2.25%	25 years	June 1, 2043
VRA - BHTP Switchgear	-	93	-	93	81	1.85%	20 years	December 1, 2040
VRA - Orcutt Ave and Mercury	-	932	-	932	1,092	2.85%	30 years	February 1, 2049
		<u>462,168</u>	<u>9,207</u>	<u>452,961</u>	<u>286,385</u>			
						Variable (1.52% at June 30, 2019)		
Series-2016B VR	50,000	50,000	50,000	-	17,169		30 years	August 1, 2046
Total		<u>\$ 512,168</u>	<u>\$ 59,207</u>	<u>\$ 452,961</u>	<u>\$ 303,554</u>			

The VRA bonds that do not show an issue amount have not closed as of June 30, 2019, therefore the principal amounts reflected represent draws through that date. The total amount available on the Subordinate VRA bonds is \$78,472,000, of which \$41,063,000 is available at June 30, 2019.

Maturities of subordinate bond principal and interest as of June 30, 2019:

(in thousands) June 30,	Principal	Interest
2020	\$ 59,207	\$ 19,774
2021	10,508	19,855
2022	13,099	20,237
2023	11,080	19,637
2024	11,244	19,262
2025-2029	72,936	88,422
2030-2034	131,930	66,659
2035-2039	124,178	34,205
2040-2044	63,045	13,555
2045-2049	14,941	1,948
	<u>\$ 512,168</u>	<u>\$ 303,554</u>

HRSD defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the fund's financial statements. At June 30, 2019, the following defeased bonds from advance refunding are still outstanding:

Defeased In	Original Issue	Amount	Redemption
2014	Series 2011 FR	\$ 9,004,000	11/1/2019
2014	Series 2012A	14,664,000	1/1/2021
2016	Series 2011 FR	26,296,000	11/1/2019
2016	Series 2012A	17,942,000	1/1/2021
2017	Series 2012A	83,449,000	1/1/2021
2017	Series 2016A	8,789,000	8/1/2026
		<u>\$ 160,144,000</u>	

HRSD's outstanding bonds contain a provision that, in the event of a default, the Bond Trustee (the Trustee) may take whatever action is necessary or desirable to collect the payments of interest installments or principal then due under the Bond Trust Agreement (the Trust Agreement), or to enforce performance, observance or compliance by the District with any covenant, condition, agreement or provision under the Trust Agreement. The Trustee may, upon the written request of the holders of not less than a majority in aggregate principal amount of the bonds then outstanding, by notice in writing to HRSD, declare the principal of all bonds then outstanding to be due and payable immediately.

NOTE 10 – NET POSITION

Restricted Portion of Net Position

Restricted for debt service. HRSD's Trust Agreement requires that funds be set aside for its revenue bond debt service. At June 30, 2019 and 2018, \$28,553,000 and \$27,799,000, respectively, were contained in the unrestricted net position.

Unrestricted Portion of Net Position

Reserved for Improvement. HRSD's Master Trust Agreement requires a reserve for improvements. There is no specific funding mechanism established by the Trust Agreement. At June 30, 2019 and 2018, \$157,000 and \$367,000, respectively, were contained in the unrestricted net position. HRSD was in compliance with all funding requirements of this reserve during the fiscal years ended June 30, 2019 and 2018.

Reserved for Construction. A reserve for the construction program is based on funds designated by HRSD's Commission for such purposes. At June 30, 2019 and 2018, \$0 and \$8,596,000, respectively, were contained in the unrestricted net position.

NOTE 11 - RISK MANAGEMENT

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

HRSD has a self-insured health, dental and vision care benefits program for all employees. 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 2018 through 2019 is as follows:

(in thousands)	Beginning of Fiscal Year	Estimated Claims Incurred	Claims Paid	End of Fiscal Year
2018	\$ 3,355	\$ 13,332	\$ (12,471)	\$ 4,216
2019	4,216	12,875	(12,801)	4,290

NOTE 12 – 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), which is under review by the federal and state environmental agencies for their approval. The recommended plan includes a long-term implementation schedule, identifies appropriate levels 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 appropriate 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. This agreement is currently under revision. The revision will have HRSD taking responsibility for regional wet weather capacity issues upon the environmental agencies' approval of the RWWMP.

HRSD has also developed an Integrated Management Plan (IMP) and Adaptive Regional Plan (ARP) which was submitted in September 2017. The IMP and ARP include 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), which will allow HRSD to reduce nitrogen, phosphorus and total suspended solids to the Chesapeake Bay watershed. 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. Beginning in 2028-2030 HRSD will perform flow monitoring per the ARP and modify the RWWMP as needed. After 2030, the ARP 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 and ARP to the federal and state environmental agencies 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.

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

HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. At June 30, 2019, HRSD has outstanding commitments for contracts in progress of approximately \$167,167,000.

NOTE 13 – FAIR VALUE MEASUREMENTS

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

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

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

In FY2019, HRSD converted all U.S. Treasury securities and other investments into Cash and Cash Equivalents. 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. HRSD's total investment in SNAP was \$14,335,000 and \$67,278,000 as of June 30, 2019 and 2018, respectively.
- 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 \$68,984,000 as of June 30, 2018. HRSD does not have any investments in LGIP as of June 30, 2019.
- The Virginia Investment Pool Trust Fund (the "Trust" or "VIP") is an Internal Revenue Code Section 115 governmental trust fund created under the Joint Exercise of Powers statute of the Commonwealth of Virginia to provide political subdivisions with an investment vehicle to pool their funds and to invest such funds into two or more investment portfolios under the direction and daily supervision of a professional fund manager. The Trust was established and created by the City of Chesapeake, Virginia and the City of Roanoke, Virginia (the "Founding Participants") and operates under the Trust Agreement as amended September 23, 2016. All deposits to VIP initially go into the Stable NAV Liquidity Pool, which serves both as a liquidity pool and as a

sweep account for the 1-3 Year High Quality Bond Fund. HRSD's total Investment in VIP is \$128,530,000 in the 1-3 Year High Quality Bond Fund and \$163,659,000 in the Stable NAV Liquidity Pool as of June 30, 2019.

Balance at June 30, 2018 (in thousands)	Fair Value	Level 1	Level 2	Level 3
<u>Investments by Fair Value Level</u>				
U.S. Treasury Securities	\$ 53,627	\$ -	\$ 53,627	\$ -
Federal Agency Notes / Bonds	26,918	-	26,918	-
Corporate Notes / Bonds	20,633	-	20,633	-
Commercial Paper	4,921	-	4,921	-
Certificates of Deposit	7,325	-	7,325	-
Municipal Bonds	1,451	-	1,451	-
Supranationals	9,215	-	9,215	-
Total Investments by Fair Value Level	<u>\$ 124,090</u>	<u>\$ -</u>	<u>\$ 124,090</u>	<u>\$ -</u>

Cash Equivalents Measured at Net Asset Value

Fidelity	\$ 139
SNAP	67,278
	<u>\$ 67,417</u>

HRSD OPEB Trust Investments

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

Balance at June 30, 2019 (in thousands)	Fair Value	Level 1	Level 2	Level 3
<u>Investments by Fair Value Level</u>				
Mutual Funds - Equity	\$ 31,251	\$ 2,603	\$ 28,648	\$ -
Mutual Funds - Fixed Income	19,428	-	19,428	-
Other Income	1,175	-	-	1,175
Total Investments by Fair Value Level	<u>51,854</u>	<u>\$ 2,603</u>	<u>\$ 48,076</u>	<u>\$ 1,175</u>

Cash Equivalents Measured at Net Asset Value

First American Government Obligation	<u>171</u>
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Fiduciary Net Position of HRSD's OPEB

Plan as of June 30, 2019	<u>\$ 52,025</u>
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Balance at June 30, 2018 (in thousands)	Fair Value	Level 1	Level 2	Level 3
<u>Investments by Fair Value Level</u>				
Mutual Funds - Equity	\$ 29,847	\$ 1,939	\$ 27,908	\$ -
Mutual Funds - Fixed Income	17,227	-	17,227	-
Total Investments by Fair Value Level	<u>47,074</u>	<u>\$ 1,939</u>	<u>\$ 45,135</u>	<u>\$ -</u>

Cash Equivalents Measured at Net Asset Value

First American Government Obligation	<u>29</u>
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Fiduciary Net Position of HRSD's OPEB

Plan as of June 30, 2018	<u>\$ 47,103</u>
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Additional information about HRSD's OPEB Plan is in Note 7.

NOTE 14 - Change in Accounting Principle

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

As discussed in Note 2, HRSD adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective July 1, 2017. HRSD implemented the provisions of GASB No. 75 in fiscal year 2018 by adjusting the July 1, 2017 net position, establishing an other postemployment benefits (OPEB) liability, recording deferred inflows and outflows of resources related to OPEB activity, and adjusting OPEB expenses in the accompanying financial statements. The following reflects the adjustment to net position as of July 1, 2017 as a result of implementing GASB Statement No. 75 in FY18:

(in thousands)	
Adjustment for net OPEB liability	\$ (20,520)
Adjustment for contributions made subsequent to the measurement date	336
Adjustment to net position at July 1, 2017	<u>\$ (20,184)</u>

NOTE 15 – Subsequent Event

On October 2, 2019, HRSD closed on \$205,675,000 Subordinate Wastewater Revenue Bonds, Refunding Series 2019A (Federally Taxable). A portion of the proceeds of the Series 2019A Bonds, together with \$66,355,000 in District funds, were applied to refund \$35,520,000 of Series 2014A Bonds, \$131,525,000 of Series 2016A Bonds, \$11,430,000 of Series 2017A Bonds and \$41,245,000 of Series 2018A Bonds. The bonds priced at par, resulting in no premium on the bond transaction, as is typical for taxable bonds.

Required Supplementary Information (Unaudited)



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

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

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.

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

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER PENSION CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	\$ 2,866,000	\$ 2,866,000	\$ -	\$ 51,336,000	5.58%
2018	3,635,000	3,635,000	-	50,874,000	7.15%
2017	4,326,000	4,326,000	-	49,286,000	8.78%
2016	4,222,000	4,222,000	-	47,838,000	8.83%
2015	4,207,000	4,207,000	-	47,674,000	8.82%
2014	4,107,000	4,107,000	-	46,096,000	8.91%
2013	4,075,000	4,075,000	-	45,044,000	9.05%
2012	4,580,000	4,580,000	-	42,166,000	10.86%
2011	4,438,000	4,438,000	-	40,462,000	10.97%
2010	3,900,000	3,900,000	-	39,407,000	9.90%

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

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

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

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

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

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

(in thousands)	2019	2018
Total OPEB liability		
Service cost	\$ 1,300	\$ 1,260
Interest	3,571	3,391
Changes in assumptions	(1,607)	-
Differences between expected and actual experience	3,302	-
Benefit payments, including refunds of employee contributions	(1,149)	(1,791)
Net change in total OPEB liability	5,417	2,860
Total OPEB liability - beginning	60,276	57,416
Total OPEB liability - ending (a)	<u>\$ 65,693</u>	<u>\$ 60,276</u>
Plan fiduciary net position		
Contributions - employer	\$ 2,993	\$ 2,729
Contributions - retirees	-	303
Net investment income	3,078	3,450
Benefit payments, including refunds of employee contributions	(1,149)	(1,791)
Administrative expense	-	(114)
Net change in plan fiduciary net position	4,922	4,577
Plan fiduciary net position - beginning	47,103	42,526
Plan fiduciary net position - ending (b)	<u>\$ 52,025</u>	<u>\$ 47,103</u>
Net OPEB liability - ending (a) - (b)	\$ 13,668	\$ 13,173
Plan fiduciary net position as a percentage of the total OPEB liability (b)/(a)	79.19%	78.15%
Covered payroll (c)	\$ 52,070	\$ 50,874
Net OPEB liability as a percentage of the covered payroll ((a)-(b))/(c)	26.25%	25.89%

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

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Benefit changes:	None
Changes of assumptions:	None
Discount rate:	6/30/2018 6.00%

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

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF RHP OPEB CONTRIBUTIONS AND RELATED RATIOS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019**

Date	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	\$ 2,993,000	2,993,000	-	\$ 52,070,000	5.75%
2018	2,729,000	2,729,000	-	50,874,000	5.36%
2017	2,558,000	2,558,000	-	49,286,000	5.19%
2016	2,178,000	2,178,000	-	47,838,000	4.55%
2015	2,177,000	2,177,000	-	47,674,000	4.57%
2014	2,244,000	2,244,000	-	46,096,000	4.87%
2013	2,102,000	2,102,000	-	45,032,000	4.67%
2012	2,231,000	2,231,000	-	43,213,000	5.16%
2011	2,196,000	2,196,000	-	40,553,000	5.42%
2010	2,356,000	2,356,000	-	39,183,000	6.01%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

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

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

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER'S SHARE OF
NET GLI OPEB LIABILITY AND RELATED RATIOS
FOR THE MEASUREMENT DATES OF JUNE 30, 2018 AND 2017**

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

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

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

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

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER GROUP LIFE INSURANCE CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	\$ 267,000	\$ 267,000	-	\$ 51,890,000	0.51%
2018	259,000	259,000	-	49,846,000	0.52%
2017	250,000	250,000	-	47,987,000	0.52%
2016	246,000	223,000	23,000	46,417,000	0.53%
2015	244,000	221,000	23,000	46,082,000	0.53%
2014	240,000	217,000	23,000	45,283,000	0.53%
2013	238,000	215,000	23,000	44,839,000	0.53%
2012	183,000	117,000	66,000	41,681,000	0.44%
2011	177,000	113,000	64,000	40,252,000	0.44%
2010	139,000	78,000	61,000	28,890,000	0.48%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

Changes of benefit terms - There have been no actuarially material changes to the VRS benefit provisions

Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

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

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

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

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

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

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

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

**HAMPTON ROADS SANITATION DISTRICT
SCHEDULE OF EMPLOYER HEALTH INSURANCE CREDIT CONTRIBUTIONS
FOR THE YEARS ENDED JUNE 30, 2010 THROUGH 2019**

Date	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a % of Covered Payroll
2019	\$ 108,000	\$ 108,000	\$ -	\$ 51,839,000	0.21%
2018	95,000	95,000	-	49,821,000	0.19%
2017	91,000	91,000	-	47,987,000	0.19%
2016	74,000	74,000	-	46,417,000	0.16%
2015	74,000	74,000	-	46,076,000	0.16%
2014	86,000	86,000	-	45,283,000	0.19%
2013	85,000	85,000	-	44,835,000	0.19%
2012	100,000	100,000	-	41,634,000	0.24%
2011	97,000	97,000	-	40,282,000	0.24%
2010	147,000	147,000	-	38,675,000	0.38%

Notes to Required Supplementary Information For the Year Ended June 30, 2019:

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

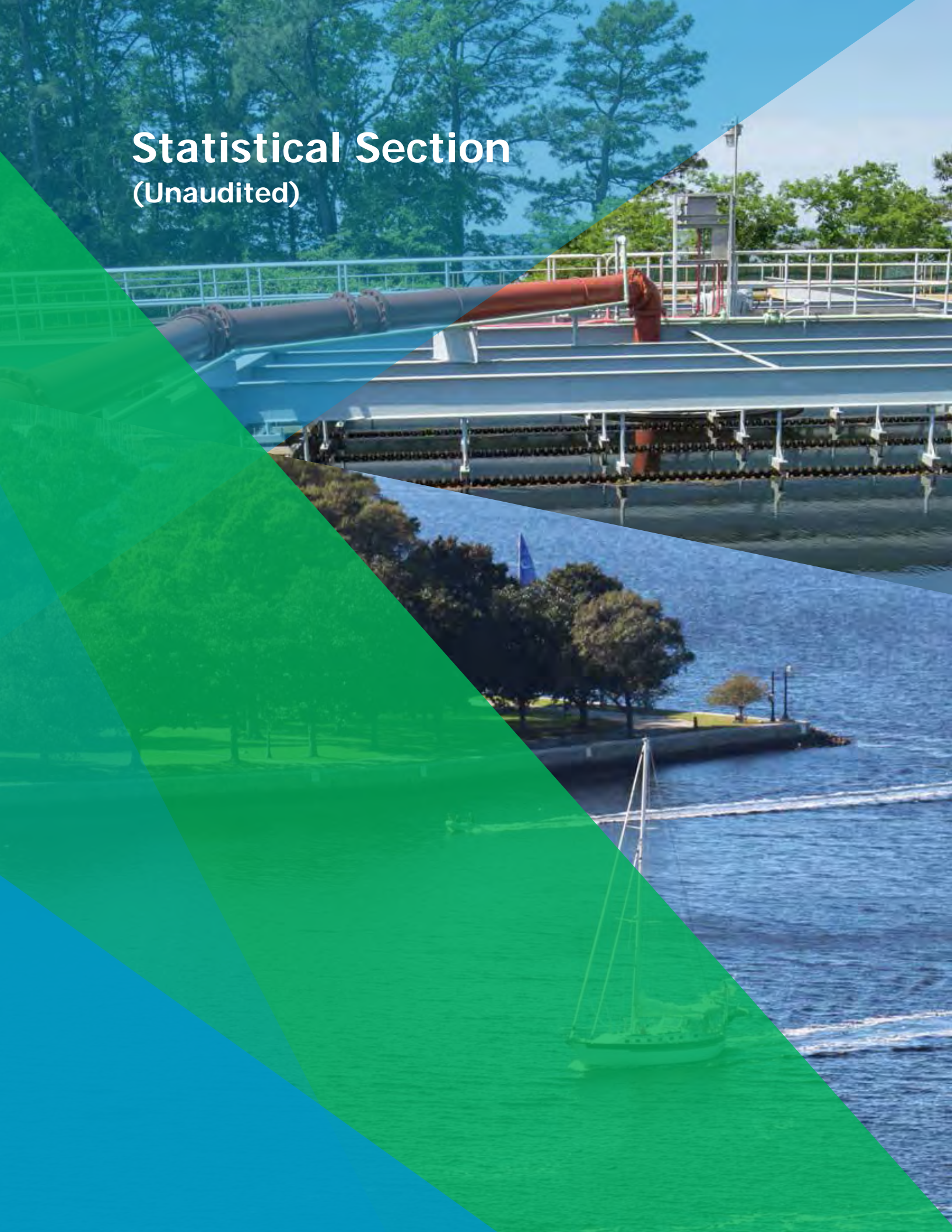
Changes of assumptions - The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the retirement system for the four-year period ended June 30, 2016:

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

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

Statistical Section

(Unaudited)



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

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.

Contents	Page(s)
Demographic and Economic Information 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.	63
Financial Trends These schedules contain trend information to help the reader understand how HRSD’s financial performance and well-being have changed over time.	64-65
Debt Capacity 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.	67
Revenue Capacity These schedules contain information to help the reader assess the factors affecting HRSD’s ability to generate revenue from rate payers.	68-69 72-74
Operating Information 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.	70-71 75

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, 2019**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Date of Incorporation - 1940										
Area in Square Miles (1)	3,087	3,087	3,087	2,808	2,808	2,808	2,808	2,808	2,808	2,808
Present Service Area in Square Miles (1)	758	758	758	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)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Army Base Plant, Norfolk	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
Atlantic Plant, Virginia Beach	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Boat Harbor Plant, Newport News	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Chesapeake-Elizabeth Plant, Virginia Beach	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
James River Plant, Newport News	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Nansemond Plant, Suffolk	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Virginia Initiative Plant, Norfolk	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Williamsburg Plant, James City County	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
York River Plant, York County	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5	248.5
Total Treatment Plants (Major) Capacity	7	7	5	4	4	4	4	5	5	4
Small Communities Treatment Plants	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.030	0.030	-
Central Middlesex, Middlesex County	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
King William Plant, King William County	0.050	0.050	-	-	-	-	-	-	-	-
Lawnes Point, Isle of Wight County (2)	-	-	-	-	-	-	-	-	-	-
Mathews Plant, Mathews County (3)	0.065	0.065	-	-	-	-	-	-	-	-
Surry County (4)	0.060	0.060	-	-	-	-	-	-	-	-
Town of Surry (4)	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Urbanna Plant, Middlesex County	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
West Point Plant, King William County	1	1	0.875	0.825	0.825	0.83	0.83	0.93	0.93	0.90
Total Small Communities Treatment Plants Capacity	541	542	540	536	532	531	531	532	528	483
Miles of Interceptor Systems (5)	87	88	89	88	83	83	83	83	82	81
Interceptor Pump Stations	41	34	38	33	33	33	29	29	29	25
Small Communities Pump Stations (5)	2	2	2	2	2	2	2	2	2	2
Maintenance Facilities	476	473	470	467	465	462	460	458	457	455
Number of Service Connections (in thousands)	153	145	153	155	152	154	158	147	144	171
Daily Average Treatment in Millions of Gallons										
Bond Ratings										
Moody's Investors Service	Aa1	Aa1	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	Aa2
Senior	Aa2	Aa2	-	-	-	-	-	-	-	-
Subordinate Long-term	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AAA
Standard & Poor's	AA+	AA	AA	AA	AA	AA	AA	AA	AA	AA
Senior	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+	A-1+
Subordinate Long-term	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+	AA+
Fitch	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Senior	F1+	F1+	F1+	F1+	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) Lawnes Point was acquired during the year ended June 30, 2017.
(3) The Mathews Treatment Plant was closed in 2013. Wastewater from the area is now handled by the York River Treatment Plant.
(4) The Surry Plants were acquired during the year ended June 30, 2018.
(5) HRSD conducted evaluations of the system during the years ended June 30, 2009 and 2011 and revised the miles of pipes and the number of small community pump stations.

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

(in thousands)

	2019	2018	2017	2016	2015
OPERATING REVENUES					
Wastewater treatment charges	\$ 299,323	\$ 275,539	\$ 254,961	\$ 234,020	\$ 221,626
Miscellaneous	3,798	3,504	3,669	3,861	3,935
TOTAL OPERATING REVENUES	303,121	279,043	258,630	237,881	225,561
OPERATING EXPENSES					
Wastewater treatment	117,189	116,982	113,100	106,575	114,137
General and administrative	41,121	40,480	40,287	40,026	38,678
Depreciation	53,225	52,349	49,311	45,670	41,871
TOTAL OPERATING EXPENSES	211,535	209,811	202,698	192,271	194,686
OPERATING INCOME	91,586	69,232	55,932	45,610	30,875
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	6,662	6,673	7,511	6,699	7,428
Investment income	8,719	3,654	2,287	1,563	1,695
Bond interest subsidy	2,308	2,330	2,275	2,399	2,444
Change in fair value of investments	-	(1,382)	(1,119)	750	(286)
Capital distributions to localities	-	(311)	(138)	(3,287)	-
Bond issuance costs	(53)	(1,061)	(42)	(1,713)	(768)
Disposal of capital assets	-	-	-	-	-
Interest expense	(27,964)	(20,226)	(22,630)	(21,631)	(22,958)
NET NON-OPERATING REVENUES (EXPENSES)	(10,328)	(10,323)	(11,856)	(15,220)	(12,445)
INCOME (LOSS) BEFORE CONTRIBUTIONS	81,258	58,909	44,076	30,390	18,430
CAPITAL CONTRIBUTIONS					
State capital grants	2,444	2,502	7,462	14,389	16,519
Other capital contributions	374	2,124	1,136	-	3,000
CHANGE IN NET POSITION	\$ 84,076	\$ 63,535	\$ 52,674	\$ 44,779	\$ 37,949
NET POSITION					
Net Investment in capital assets	\$ 494,779	\$ 512,398	\$ 428,670	\$ 410,287	\$ 385,597
Restricted for debt service	28,553	27,799	22,701	23,798	22,070
Restricted for debt service reserve fund	-	-	-	-	44,118
Unrestricted	258,373	157,432	202,907	167,519	105,040
TOTAL NET POSITION	\$ 781,705	\$ 697,629	\$ 654,278	\$ 601,604	\$ 556,825
DEBT SERVICE EXPENDITURES					
Senior debt	\$ 33,592	\$ 36,488	\$ 35,837	\$ 38,198	\$ 43,842
Subordinate debt	\$ 28,313	\$ 20,633	\$ 23,603	\$ 17,068	\$ 13,091
Senior Debt Service Coverage (GAAP)	4.84	3.59	3.10	2.56	1.90
Subordinate Debt Service Coverage (GAAP)	5.74	6.36	5.09	5.72	6.36
Total Debt Service Coverage (GAAP)	2.62	2.03	1.93	1.77	1.46
Total Debt (Adjusted Cash Basis)	\$ 61,905	\$ 57,171	\$ 57,988	\$ 54,643	-
Total Debt Service Coverage (Adjusted Cash Basis)	2.62	2.30	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. There were no distributions in FY2019.

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

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

Unaudited – See accompanying independent auditors' report

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

(in thousands)	(adjusted) 2014	(adjusted) 2013	(adjusted) 2012	2011	2010
OPERATING REVENUES					
Wastewater treatment charges	\$ 211,538	\$ 199,318	\$ 194,817	\$ 183,526	\$ 167,807
Miscellaneous	3,643	3,297	2,996	3,890	3,645
TOTAL OPERATING REVENUES	215,181	202,615	197,813	187,416	171,452
OPERATING EXPENSES					
Wastewater treatment	109,149	86,973	110,783	103,225	98,022
General and administrative	33,012	31,410	31,163	28,622	29,435
Depreciation	42,761	45,414	41,250	36,191	30,441
TOTAL OPERATING EXPENSES	184,922	163,797	183,196	168,038	157,898
OPERATING INCOME	30,259	38,818	14,617	19,378	13,554
NON-OPERATING REVENUES (EXPENSES)					
Wastewater facility charges	6,640	5,851	6,276	5,083	5,754
Investment income	1,872	1,705	1,681	1,699	1,541
Bond interest subsidy	2,364	2,602	2,602	2,602	1,655
Change in fair value of investments	(422)	(714)	(224)	(19)	40
Capital distributions to localities	-	-	-	-	-
Bond issuance costs	-	(658)	(2,206)	-	-
Disposal of capital assets	-	(1,649)	-	-	-
Interest expense	(25,650)	(24,330)	(22,760)	(20,516)	(19,973)
NET NON-OPERATING REVENUES (EXPENSES)	(15,196)	(17,193)	(14,631)	(11,151)	(10,983)
INCOME (LOSS) BEFORE CONTRIBUTIONS	15,063	21,625	(14)	8,227	2,571
CAPITAL CONTRIBUTIONS					
State capital grants	13,888	10,172	14,806	16,097	41,606
Other capital contributions	-	-	-	-	-
CHANGE IN NET POSITION	\$ 28,951	\$ 31,797	\$ 14,792	\$ 24,324	\$ 44,177
NET POSITION					
Net Investment in capital assets	\$ 351,191	\$ 337,342	\$ 348,407	\$ 351,618	\$ 348,572
Restricted for debt service	24,064	23,843	15,736	14,896	12,253
Restricted for debt service reserve fund	45,207	-	-	-	-
Unrestricted	134,485	164,811	130,056	110,688	92,053
TOTAL NET POSITION	\$ 554,947	\$ 525,996	\$ 494,199	\$ 477,202	\$ 452,878
DEBT SERVICE EXPENDITURES					
Senior debt	\$ 47,331	\$ 37,574	\$ 33,023	\$ 28,257	\$ 21,081
Subordinate debt	\$ 14,112	\$ 11,243	\$ 13,694	\$ 10,640	\$ 10,695
Senior Debt Service Coverage (GAAP)	1.76	2.48	1.94	2.30	2.51
Subordinate Debt Service Coverage (GAAP)	5.92	8.27	4.67	6.10	4.95
Total Debt Service Coverage (GAAP)	1.36	1.91	1.37	1.67	1.67
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**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Personal Services	\$ 56,336	\$ 55,160	\$ 53,401	\$ 51,801	\$ 52,357	\$ 50,538	\$ 49,361	\$ 47,319	\$ 44,284	\$ 42,529
Fringe Benefits	18,235	20,275	19,106	17,974	18,249	20,170	20,039	17,800	17,692	15,217
Repairs and Maintenance (1)	13,786	16,763	19,933	22,824	31,451	22,320	23,075	26,057	21,234	23,445
Materials and Supplies	9,314	8,865	8,310	7,843	4,343	5,764	5,700	6,143	8,381	6,284
Transportation	1,423	1,271	1,386	1,537	1,297	1,417	1,376	1,319	1,196	1,009
Utilities	12,749	11,968	11,523	11,249	10,503	11,126	12,295	12,027	11,026	10,755
Chemicals	8,746	8,750	8,020	7,512	7,119	7,752	7,892	8,587	8,084	7,571
Contractual Services	32,123	30,165	26,977	21,573	15,127	14,222	13,993	12,312	11,118	10,333
Miscellaneous	2,622	2,509	2,329	1,842	2,880	1,274	1,172	1,324	1,148	1,049
General (2)	2,976	1,736	2,402	2,446	9,489	7,578	6,487	6,852	7,684	9,265
Subtotal, Expense before Depreciation	158,310	157,462	153,387	146,601	152,815	142,161	141,390	139,740	131,847	127,457
Depreciation	53,225	52,349	49,311	45,670	41,871	42,761	45,414	41,250	36,191	30,441
Total Operating Expenses	\$ 211,535	\$ 209,811	\$ 202,698	\$ 192,271	\$ 194,686	\$ 184,922	\$ 186,804	\$ 180,990	\$ 168,038	\$ 157,898

(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, 2019**

As of June 30,	No. Of Service Connections	(in thousands)		Total Outstanding Debt	Debt Per Service Connection
		Senior Revenue Bonds	Subordinate Revenue Bonds		
2019	476,000	\$ 326,531	\$ 565,098	\$ 891,629	\$ 1,873
2018	473,000	349,313	542,129	891,442	1,885
2017	470,000	458,255	388,529	846,784	1,802
2016	467,000	476,734	402,560	879,294	1,883
2015	465,000	649,202	99,195	748,397	1,609
2014	462,000	656,503	109,850	766,353	1,659
2013	460,000	670,272	120,231	790,503	1,718
2012	458,000	510,951	128,335	639,286	1,396
2011	457,000	450,335	110,661	560,996	1,228
2010	455,000	395,215	152,103	547,318	1,203

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**

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<u>Residential - Metered</u>										
Per CCF* (single step)	\$ 5.37	\$ 4.92	\$ 4.51	\$ 4.13	\$ 3.83	\$ 3.55	\$ 3.29	\$ 3.05	\$ 2.82	\$ 2.52
First 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
In excess of 30 CCF* per 30-day period	-	-	-	-	-	-	-	-	-	-
Minimum Charges										
Per day	0.30	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.25	0.25
2 CCF* or less per 30-day period	-	-	-	-	-	-	-	-	-	-
<u>Residential - Unmetered per 30-day period</u>										
Fiat rate accounts	34.91	31.98	29.32	26.32	26.32	26.32	26.32	24.40	22.56	20.16
First toilet	-	-	-	-	-	-	-	-	-	-
Second toilet	-	-	-	-	-	-	-	-	-	-
Additional, each	-	-	-	-	-	-	-	-	-	-
<u>Non-Residential - Special Category</u>										
Biochemical Oxygen Demand (BOD)										
Excess over 282 mg/liter	0.000104	0.000091	0.000206	0.000485	0.000612	0.001558	0.002451	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	46.77	39.71	35.39
Per Hundred Pounds										
Total Suspended Solids (TSS)										
Excess over 261 mg/liter	0.000592	0.000520	0.000454	0.000448	0.000417	0.001244	0.001865	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	36.70	34.73	30.25
Per Hundred Pounds										
Total Phosphorus (TP)										
Excess over 6 mg/liter	0.009535	0.011569	0.011642	0.004361	0.004344	0.011714	0.012790	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	300.57	300.57	293.41
Per Hundred Pounds										
Total Kjeldahl Nitrogen (TKN)										
Excess over 47 mg/liter	0.003595	0.003156	0.001660	0.000917	0.000756	0.001752	0.002085	-	-	-
Per mg/liter per CCF	-	-	-	-	-	-	-	74.51	63.39	61.88
Per Hundred Pounds										
Unusual wastes not covered by this schedule may be assigned a special rate.										
<u>Septic Tank Waste</u>										
Per gallon	0.1697	0.1300	0.1366	0.1362	0.1267	0.1258	0.1146	-	-	-
Per each 500 gallons or part thereof	-	-	-	-	-	-	-	48.57	44.46	38.51

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

Note: Rates can be adjusted by the Commission.

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Residential										
Commercial/Industrial										
Volume based facility charges:										
5/8" Meter	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,895	\$ 1,715	\$ 1,715
3/4" Meter	4,830	4,830	4,830	4,830	4,830	4,830	4,510	2,885	2,605	2,605
1" Meter	8,170	8,170	8,170	8,170	8,170	8,170	7,630	5,370	4,850	4,850
1 1/2" Meter	17,260	17,260	17,260	17,260	17,260	17,260	16,130	13,035	11,780	11,780
2" Meter	30,510	30,510	30,510	29,420	29,420	29,420	27,490	24,420	22,065	22,065
3" Meter	70,800	70,800	70,800	67,350	63,600	62,270	58,180	59,140	53,440	53,440
4" Meter	128,660	128,660	128,660	122,400	115,580	106,060	99,110	110,860	100,175	100,175
6" Meter	298,610	298,610	298,610	284,070	268,250	224,650	209,920	268,675	242,780	242,780
8" Meter	542,680	542,680	542,680	516,260	487,510	382,670	357,580	503,350	454,835	454,835
10" Meter	862,550	862,550	862,550	820,560	774,860	587,820	540,610	819,310	740,340	740,340
12" Meter	1,259,520	1,259,520	1,259,520	1,198,210	1,131,490	-	-	-	-	-
14" Meter	1,734,700	1,734,700	1,734,700	1,650,250	1,558,360	-	-	-	-	-
16" Meter	2,289,010	2,289,010	2,289,010	2,177,580	2,056,330	-	-	-	-	-
Strength based facility charges: (per permitted pound)										
Biochemical Oxygen Demand (BOD) Excess over 250 mg/liter	-	-	-	-	\$ 728	\$ 987	\$ 928	-	-	-
Total Suspended Solids (TSS) Excess over 250 mg/liter	-	-	-	-	424	624	587	-	-	-
Total Phosphorus (TP) Excess over 6 mg/liter	-	-	-	-	8,420	5,846	5,502	-	-	-
Total Kjeldahl Nitrogen (TKN) Excess over 35 mg/liter	-	-	-	-	3,812	1,313	1,235	-	-	-

Notes:
One charge per connection.
HRSD eliminated strength based facility charges effective 7/1/2015.

Unaudited – See accompanying independent auditors' report

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
District Total										
Flow (MGD)	152.6	145.2	152.9	155.1	152.2	154.0	157.9	147.1	144.4	170.9
Influent (1,000 lbs.)										
BOD	281.9	285.1	288.2	282.5	286.0	288.6	274.4	254.6	273.1	275.2
TSS	211.4	215.8	215.9	228.8	198.6	204.7	198.1	200.3	205.9	210.7
TP	6.6	6.8	7.0	6.9	8.6	6.8	6.6	6.7	7.0	7.4
TKN	47.6	47.2	46.4	45.7	45.8	47.9	48.9	48.3	49.8	48.2
Effluent (1,000 lbs.)										
BOD	8.2	7.5	8.9	9.8	9.9	9.6	9.3	7.5	9.3	11.5
TSS	7.4	6.7	9.4	9.3	8.9	9.1	9.3	10.5	9.2	13.1
TP	0.8	0.7	0.9	0.9	1.0	1.1	1.0	1.1	1.0	1.0
TKN	8.5	7.3	7.7	8.0	9.8	11.2	12.0	10.1	12.3	14.9
Army Base Plant										
Flow (MGD)	11.1	10.0	9.5	9.6	9.9	10.7	11.8	10.2	10.0	12.6
Influent (1,000 lbs.)										
BOD	16.6	16.3	13.2	13.3	16.4	19.0	18.5	17.4	16.9	17.0
TSS	13.9	14.0	11.7	13.3	12.5	14.2	14.4	13.7	12.9	13.5
TP	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.3	3.1	2.7	2.7	2.9	3.5	3.7	3.5	3.2	3.2
Effluent (1,000 lbs.)										
BOD	0.3	0.2	0.3	0.3	0.8	0.8	0.8	0.9	0.8	1.0
TSS	0.4	0.3	0.4	0.5	0.6	0.8	0.9	0.8	1.0	1.1
TP	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	2.1	2.6	2.8	2.5	2.3	2.3
Atlantic Plant										
Flow (MGD)	28.1	26.1	28.2	27.2	30.9	25.7	26.7	29.0	29.7	30.4
Influent (1,000 lbs.)										
BOD	58.2	56.7	53.2	55.6	66.6	52.7	51.3	56.0	58.6	55.1
TSS	39.3	36.6	38.7	38.5	42.9	37.3	36.4	43.8	46.9	43.3
TP	1.4	1.3	1.4	1.4	1.5	1.3	1.3	1.5	1.8	1.8
TKN	11.9	11.2	11.0	10.9	11.4	10.4	10.5	11.7	12.3	11.3
Effluent (1,000 lbs.)										
BOD	2.5	2.4	2.3	2.7	3.0	2.2	2.6	2.0	3.0	2.3
TSS	1.6	1.6	1.9	1.9	2.4	2.0	1.9	1.8	2.0	2.9
Boat Harbor Plant										
Flow (MGD)	15.8	14.2	13.9	15.6	14.4	14.9	15.5	13.6	12.6	16.7
Influent (1,000 lbs.)										
BOD	20.6	19.2	17.4	18.3	20.0	19.2	19.3	19.9	19.4	19.9
TSS	18.0	16.6	15.7	18.1	16.3	16.7	16.0	16.9	15.6	17.5
TP	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5
TKN	4.2	3.9	3.8	3.8	3.6	3.7	3.7	3.7	3.8	3.7
Effluent (1,000 lbs.)										
BOD	0.9	0.6	0.6	1.0	0.7	0.7	0.7	0.6	0.6	1.1
TSS	1.0	0.7	0.7	0.9	0.6	0.8	0.8	0.9	0.7	1.3
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	2.5	1.3	1.2	1.8	2.2	2.4	2.9	3.0	2.8	2.8
Chesapeake-Elizabeth Plant										
Flow (MGD)	17.4	17.6	18.7	18.0	16.3	19.1	18.4	15.2	16.3	20.1
Influent (1,000 lbs.)										
BOD	38.1	37.2	35.4	35.2	30.2	38.7	32.1	24.8	30.1	32.7
TSS	24.6	26.8	26.6	26.1	22.9	26.6	25.1	21.0	22.6	26.9
TP	0.8	0.8	0.8	0.8	2.7	0.8	0.8	0.7	0.7	0.8
TKN	6.9	6.8	6.6	6.4	5.1	6.7	6.4	5.4	6.1	6.2
Effluent (1,000 lbs.)										
BOD	2.2	2.0	2.8	2.3	2.0	2.5	2.2	1.5	1.8	2.2
TSS	2.0	1.9	3.2	2.3	1.8	1.9	2.1	1.8	1.9	2.2
TP	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2
TKN	4.4	4.1	4.5	4.1	3.6	4.5	4.2	3.2	3.9	3.9

Unaudited – See accompanying independent auditors' report

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

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
James River Plant										
Flow (MGD)	13.9	13.0	12.3	13.2	12.7	13.6	14.3	12.9	12.2	14.9
Influent (1,000 lbs.)										
BOD	25.8	26.8	25.5	24.4	25.7	27.5	25.5	25.3	26.2	24.7
TSS	18.7	19.3	17.4	17.8	18.0	19.4	19.2	19.0	19.8	19.9
TP	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
TKN	4.7	4.8	4.3	4.2	4.0	4.2	4.4	4.4	4.4	4.3
Effluent (1,000 lbs.)										
BOD	0.4	0.3	0.4	0.4	0.3	0.5	0.7	0.7	0.9	1.2
TSS	0.4	0.4	0.4	0.5	0.4	0.6	0.8	0.8	0.9	1.8
TP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.4	0.5	0.4	0.4	0.2	0.6	0.5	2.3	2.6
Nansemond Plant										
Flow (MGD)	16.9	17.5	18.8	18.5	16.6	16.9	17.1	16.2	15.9	18.0
Influent (1,000 lbs.)										
BOD	33.0	31.9	40.7	35.8	28.5	29.0	27.0	23.7	27.9	30.2
TSS	37.2	33.4	40.3	38.4	21.9	23.1	22.9	22.6	22.6	24.5
TP	1.0	1.2	1.5	1.5	1.1	1.1	1.1	1.0	1.0	1.1
TKN	6.7	7.1	7.4	7.0	5.6	5.8	5.9	6.0	6.1	6.0
Effluent (1,000 lbs.)										
BOD	0.7	0.7	0.8	0.7	0.8	0.9	0.6	0.6	0.8	1.2
TSS	0.8	0.7	0.8	0.9	0.9	1.1	0.8	0.9	1.1	1.3
TP	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
TKN	0.4	0.4	0.5	0.5	0.6	0.5	0.3	0.3	0.5	2.3
Virginia Initiative Plant										
Flow (MGD)	27.6	26.7	30.9	31.7	30.5	30.7	31.9	29.8	28.5	35.7
Influent (1,000 lbs.)										
BOD	40.4	47.5	50.1	50.4	47.5	45.8	45.8	42.3	42.8	43.0
TSS	23.2	30.0	31.3	32.0	30.2	30.6	31.6	32.3	31.8	31.7
TP	0.9	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.2
TKN	6.8	7.0	7.3	7.4	7.1	7.4	7.5	7.6	7.3	7.2
Effluent (1,000 lbs.)										
BOD	0.6	0.8	1.2	1.7	1.9	1.4	0.9	0.8	0.7	1.7
TSS	0.7	0.7	1.4	1.9	1.6	1.7	1.4	1.5	1.1	1.7
TP	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1
TKN	0.4	0.6	0.4	0.7	0.8	0.6	0.5	0.5	0.4	0.8
Williamsburg Plant										
Flow (MGD)	8.6	7.7	8.0	8.6	8.4	9.2	8.9	9.1	8.6	10.0
Influent (1,000 lbs.)										
BOD	33.4	32.6	36.1	33.2	34.7	40.4	37.7	33.5	37.5	37.9
TSS	21.2	24.1	19.1	27.9	16.2	19.9	16.8	16.7	19.0	19.6
TP	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6
TKN	3.6	3.5	3.3	3.6	3.2	3.3	3.3	3.4	3.5	3.5
Effluent (1,000 lbs.)										
BOD	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
TSS	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.3	0.4
TP	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2
York River Plant										
Flow (MGD)	13.2	12.6	12.6	12.7	12.6	13.2	13.3	11.2	10.8	12.5
Influent (1,000 lbs.)										
BOD	15.8	16.8	16.7	16.3	18.2	17.9	17.2	13.3	15.5	16.3
TSS	15.4	15.0	15.1	16.7	16.9	16.4	15.7	14.1	14.3	14.0
TP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
TKN	3.7	3.6	3.6	3.5	3.5	3.6	3.5	3.2	3.6	3.3
Effluent (1,000 lbs.)										
BOD	0.5	0.3	0.3	0.4	0.4	0.4	0.5	0.2	0.5	0.4
TSS	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.5
TP	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
TKN	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.1	0.1	0.2

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

Unaudited – See accompanying independent auditors' report

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

(in thousands)

<u>Customer</u>	<u>Type</u>	<u>2019</u>		<u>2010</u>	
		<u>Amount</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
U.S. Navy - Norfolk Naval Base	Military Facility	\$ 8,130	2.7%	\$ 3,437	2.2%
Smithfield Foods	Meat Processor	4,256	1.4%	2,858	1.8%
Anheuser - Busch, Inc.	Brewery	3,103	1.0%	5,438	3.5%
Norfolk Redevelopment & Housing Authority	Housing Authority	2,471	0.8%	1,159	0.7%
Norfolk Naval Shipyard	Military Ship Repair	2,462	0.8%	2,637	1.7%
City of Norfolk	Municipality	2,386	0.8%	1,496	1.0%
Huntington Ingalls Industries (formerly Northrop Grumman Newport News/ Newport News Shipbuilding and Drydock)	Shipbuilding	2,292	0.8%	1,099	0.7%
U.S. Navy - Little Creek Amphibious Base	Military Facility	2,207	0.7%	890.0	0.6%
Oceana Naval Air Station / Dam Neck	Military Facility	1,817	0.6%	-	-
U.S. Air Force - Langley Air Force Base	Military Facility	1,530	0.5%	923	0.6%
U.S. Army - Fort Eustis	Military Facility	-	-	978	0.6%
Total		<u>\$ 30,654</u>	<u>10.1%</u>	<u>\$ 20,915</u>	<u>13.4%</u>

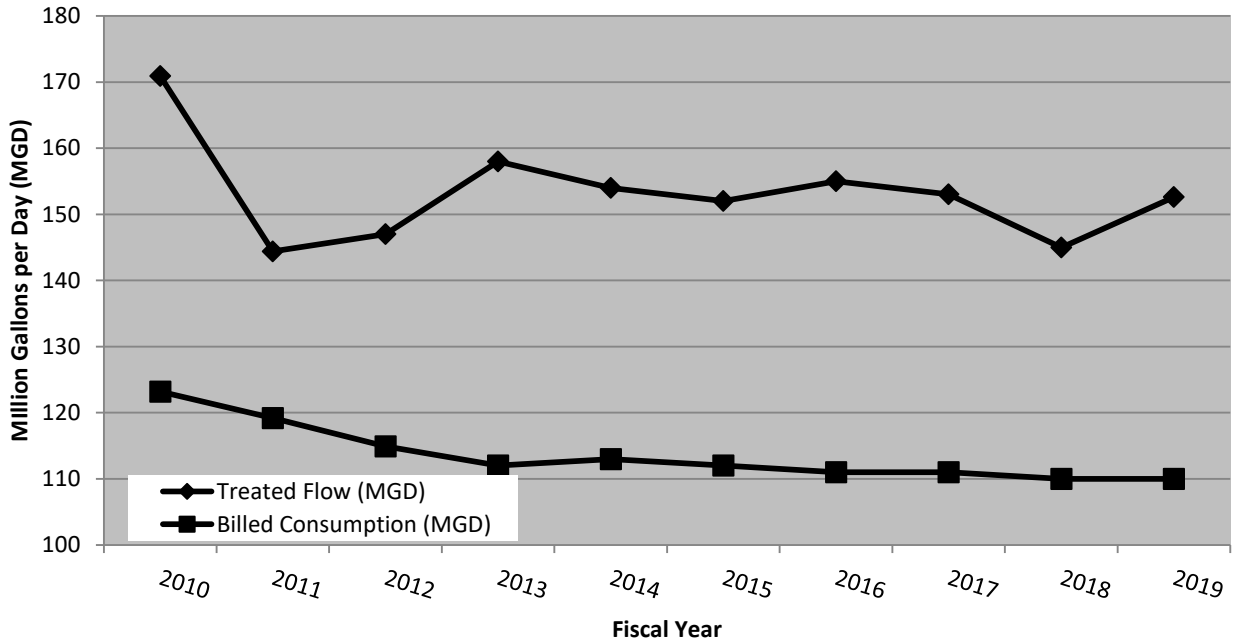
Unaudited – See accompanying independent auditors' report

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

<u>Employer</u>	<u>Type</u>	<u>2019</u>			<u>2010</u>		
		<u>Number of Employees</u>	<u>Rank</u>	<u>Percent of Regional Employment</u>	<u>Number of Employees</u>	<u>Rank</u>	<u>Percent of Regional Employment</u>
Naval Station Norfolk	Military Facility	76,616	1	7.9%	68,781	1	7.4%
Joint Expeditionary Base Little Creek - Fort Story	Military Facility	24,652	2	2.5%	18,091		1.9%
Huntington Ingalls Industries	Shipbuilding and Repair	23,000	3	2.4%	18,000	3	1.9%
Sentara Healthcare	Health Care Network	22,000	4	2.3%	16,000	4	1.7%
Joint Base Langley-Eustis	Military Facility	19,264	5	2.0%	13,400	2	1.4%
Oceana Naval Air Station	Military Facility	18,783	6	1.9%	10,109	6	1.1%
Virginia Beach Public Schools	Public Schools	12,000	7	1.2%	10,527	7	1.1%
Norfolk Naval Shipyard	Military Ship Repair	11,811	8	1.2%	18,427	8	2.0%
Naval Support Activity/ Naval Medical Center	Military Facility	10,706	9	1.1%	8,700		0.9%
Riverside Health System	Health Care Network	8,000	10	0.8%	6,000	9	0.6%
Total		<u>226,832</u>		<u>23.3%</u>	<u>188,035</u>		<u>20.0%</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**



Year ended June 30,	Treated Flow (MGD)	Billed Consumption (MGD)
2010	171	123
2011	144	119
2012	147	115
2013	158	112
2014	154	113
2015	152	112
2016	155	111
2017	153	111
2018	145	110
2019	153	110

Unaudited – See accompanying independent auditors' report

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

	<u>2019</u>	<u>2018</u>	<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>General Management</u>										
General Manager	1	2	3	3	3	3	3	4	4	4
Support Staff	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Total General Management	<u>2</u>	<u>3</u>	<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>Communications</u>										
Communications	1	1	-	-	-	-	-	-	-	-
Support Staff	<u>2</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Communications	<u>3</u>	<u>2</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>Talent Management</u>										
Human Resources	6	6	6	5	5	5	5	5	6	6
Safety	3	3	3	3	-	-	-	-	-	-
Training	3	2	2	2	2	2	2	2	2	2
Support Staff	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Total Talent Management	<u>16</u>	<u>15</u>	<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>Finance</u>										
Accounting & Finance	12	11	10	10	10	10	10	10	10	10
Customer Care Center	77	77	77	77	69	69	68	69	69	69
Procurement	10	10	10	10	9	9	9	7	7	8
Support Staff	<u>3</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Total Finance	<u>102</u>	<u>101</u>	<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>Information Technology</u>										
Information Technology	43	48	47	45	39	35	35	33	33	33
Support Staff	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>
Total Information Technology	<u>45</u>	<u>50</u>	<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>Operations</u>										
Army Base Treatment Plant	34	34	34	31	32	32	32	32	32	32
Atlantic Base Treatment Plant	35	35	35	32	33	33	33	32	32	32
Boat Harbor Treatment Plant	35	35	35	32	33	33	33	33	33	34
Chesapeake-Elizabeth Treatment Plant	32	32	32	31	32	32	32	32	32	32
Interceptor System Maintenance	119	118	117	115	120	120	120	121	122	122
James River Treatment Plant	22	22	22	20	21	21	21	21	21	21
Maintenance Shops	73	71	70	83	86	86	86	86	86	86
Nansemond Treatment Plant	32	32	32	30	31	31	31	30	30	30
Virginia Initiative Plant	34	33	33	30	31	31	31	31	31	31
Williamsburg Treatment Plant	29	29	29	28	29	29	29	31	31	31
York River Treatment Plant	24	24	24	22	23	23	23	23	23	23
Small Communities Division	23	23	23	21	17	17	17	17	17	15
Support Staff	<u>23</u>	<u>23</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>25</u>	<u>25</u>	<u>24</u>	<u>24</u>	<u>24</u>
Total - Operations	<u>515</u>	<u>511</u>	<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>Engineering</u>										
Design and Construction	30	26	25	25	21	19	19	17	15	15
Support Staff	<u>13</u>	<u>13</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>
Total Engineering	<u>43</u>	<u>39</u>	<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>Water Quality</u>										
Pretreatment & Pollution Prevention	27	27	26	26	25	24	24	24	24	24
Technical Services	31	31	29	28	25	23	21	21	21	20
Laboratory	47	46	45	42	40	38	38	38	38	38
Support Staff	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>3</u>
Total Water Quality	<u>110</u>	<u>109</u>	<u>106</u>	<u>102</u>	<u>96</u>	<u>91</u>	<u>89</u>	<u>86</u>	<u>86</u>	<u>85</u>
Total Employees	<u>836</u>	<u>830</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>

Unaudited – See accompanying independent auditors' report

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Other Supplemental Section (Unaudited)



**HAMPTON ROADS SANITATION DISTRICT
SUMMARY OF PRIMARY BONDED DEBT SERVICE
JUNE 30, 2019**

(in thousands)

As of June 30,	Senior Bonds			Subordinate Bonds	Total Debt Service
	Principal	Interest	Debt Service	Debt Service	
2020	\$ 19,520	\$ 14,011	\$ 33,531	\$ 78,981	\$ 112,512
2021	18,682	13,227	31,909	30,363	62,272
2022	17,977	12,396	30,373	33,336	63,709
2023	22,000	11,556	33,556	30,717	64,273
2024	22,882	10,592	33,474	30,506	63,980
2025	23,821	9,568	33,389	30,491	63,880
2026	24,134	8,499	32,633	30,473	63,106
2027	19,625	7,537	27,162	35,774	62,936
2028	20,390	6,671	27,061	32,333	59,394
2029	21,183	5,769	26,952	32,287	59,239
2030	22,010	4,829	26,839	32,283	59,122
2031	12,368	4,098	16,466	43,072	59,538
2032	9,705	3,622	13,327	41,076	54,403
2033	8,186	3,188	11,374	41,077	52,451
2034	6,465	2,793	9,258	41,081	50,339
2035	6,715	2,406	9,121	40,568	49,689
2036	6,975	2,005	8,980	34,593	43,573
2037	7,245	1,588	8,833	34,668	43,501
2038	7,525	1,155	8,680	31,913	40,593
2039	7,815	705	8,520	16,641	25,161
2040	8,117	237	8,354	14,061	22,415
2041	-	-	-	13,985	13,985
2042	-	-	-	13,904	13,904
2043	-	-	-	17,691	17,691
2044	-	-	-	16,959	16,959
2045	-	-	-	4,462	4,462
2046	-	-	-	4,231	4,231
2047	-	-	-	4,105	4,105
2048	-	-	-	4,091	4,091
2049	-	-	-	-	-
Totals	<u>\$ 313,340</u>	<u>\$ 126,452</u>	<u>\$ 439,792</u>	<u>\$ 815,722</u>	<u>\$ 1,255,514</u>

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
BUDGETARY COMPARISON SCHEDULE
JUNE 30, 2019**

(in thousands)

	<u>Budgeted Amounts</u>		<u>Actual Amounts</u>	<u>Variance under Final Budget</u>	<u>Percent Variance</u>
	<u>Original</u>	<u>Final</u>			
OPERATING BUDGET EXPENSES					
General Management	\$ 625	\$ 728	\$ 684	\$ 44	6.0%
Communications	424	439	422	17	3.9%
Finance	13,884	14,039	13,625	414	2.9%
Information Technology	15,090	15,392	14,009	1,383	9.0%
Talent Management	2,293	2,332	2,294	38	1.6%
Operations	98,842	104,916	97,414	7,502	7.2%
Engineering	7,904	7,998	6,506	1,492	18.7%
Water Quality	14,913	15,225	13,974	1,251	8.2%
General	5,412	7,466	605	6,861	91.9%
Debt Service	63,161	62,861	61,958	903	1.4%
TOTAL	<u>222,548</u>	<u>231,396</u>	<u>211,491</u>	<u>\$ 19,905</u>	<u>8.6%</u>
Transfer to CIP	87,475	87,475			
Transfer to Risk Management	239	239			
	<u>\$ 310,262</u>	<u>\$ 319,110</u>			
Add:					
Unbudgeted Depreciation			53,225		
Unbudgeted Bad Debt Expense			2,976		
Capital Improvement Program items expensed			6,484		
Less:					
Capitalized Assets			683		
Debt Service			61,958		
TOTAL OPERATING EXPENSES			<u>\$ 211,535</u>		

Unaudited – See accompanying independent auditors' report

**HAMPTON ROADS SANITATION DISTRICT
NOTES TO BUDGETARY COMPARISON SCHEDULE
JUNE 30, 2019**

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-2019 was \$222,547,939 and contains personnel costs, fringe benefits, material and supplies, electricity, chemicals, insurance, contractual services, debt service and other miscellaneous expenses. There were several modifications to the Operating Budget during the year to reflect changes in spending patterns. All adjustments to the Annual Budget were from encumbrances carried forward or from transfers within or among departments.

NOTE 1 – BUDGETARY ACCOUNTING AND CONTROL

Budget Preparation

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

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

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

The final Annual Budget, which incorporates the Operating and Capital Budgets, is presented at the May Commission meeting for adoption. The Commission simultaneously adopts the budget and any resulting wastewater rate schedule. All rate adjustments must be 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. The HRSD Commission has a policy of providing senior revenue and total revenue bonded debt service coverage ratios of not less than 1.5 and 1.4 times annual debt service on an adjusted cash basis, respectively.

Budget Accounting

The Annual Budget is prepared on a basis of accounting consistent with accounting principles generally accepted in the United States of America. No provision is provided, however, for non-cash items such as depreciation and bad debt expense. The FY-2019 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, 2019**

(in thousands)

	<u>Actual</u>	<u>Amended Budget</u>	<u>Variance Favorable/ (Unfavorable)</u>	<u>Budget Variance</u>
OPERATING REVENUE				
Wastewater Treatment Charges	\$ 299,323	\$ 297,062	\$ 2,261	1%
Miscellaneous	3,798	2,225	1,573	71%
TOTAL OPERATING REVENUE	<u>303,121</u>	<u>299,287</u>	<u>3,834</u>	1%
CURRENT EXPENDITURES				
General Management	684	728	44	6%
Communications	422	439	17	4%
Finance	13,625	14,039	414	3%
Information Technology	14,009	15,392	1,383	9%
Talent Management	2,294	2,332	38	2%
Operations	97,414	104,916	7,502	7%
Engineering	6,506	7,998	1,492	19%
Water Quality	13,974	15,225	1,251	8%
General	605	7,466	6,861	92%
TOTAL CURENT EXPENDITURES	<u>149,533</u>	<u>168,535</u>	<u>19,002</u>	11%
EXCESS OF OPERATING REVENUES OVER EXPENDITURES	<u>153,588</u>	<u>130,752</u>	<u>22,836</u>	17%
NON-OPERATING REVENUE				
Wastewater Facility Charge	6,662	6,075	587	10%
Interest Income	8,719	2,500	6,219	249%
Bond Interest Subsidy	2,308	2,400	(92)	-4%
TOTAL NON-OPERATING REVENUES	<u>17,689</u>	<u>10,975</u>	<u>6,714</u>	61%
INCOME BEFORE CAPITAL CONTRIBUTIONS	171,277	141,727	29,550	21%
CAPITAL CONTRIBUTIONS				
State Capital Grants	2,818	-	2,818	100%
AMOUNT AVAILABLE FOR DEBT	174,095	141,727	32,368	23%
DEBT EXPENDITURES				
Principal & Interest	61,905	62,511	606	1%
Cost of Issuance	53	350	297	85%
TOTAL DEBT EXPENDITURES	<u>61,958</u>	<u>62,861</u>	<u>903</u>	1%
AMOUNT AVAILABLE TO REINVEST	<u>\$ 112,137</u>	<u>\$ 78,866</u>	<u>\$ 33,271</u>	42%

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, 2019**

(in thousands)

	General			Information		Talent		
	Management	Communications	Finance	Technology	Management	Management	Operations	
Personal Services	\$ 442	\$ 253	\$ 5,572	\$ 3,924	\$ 1,429		\$ 33,609	
Fringe Benefits	104	92	2,365	1,361	569		14,812	
Materials & Supplies	83	40	79	846	59		6,549	
Transportation	10	8	10	8	27		1,295	
Utilities	-	-	263	1,202	-		10,759	
Chemical Purchases	-	-	-	-	-		8,746	
Contractual Services	17	16	5,143	6,501	23		12,723	
Major Repairs	-	-	-	-	6		7,231	
Capital Assets	-	-	-	-	-		660	
Miscellaneous Expense	28	13	193	167	181		1,030	
	<u>\$ 684</u>	<u>\$ 422</u>	<u>\$ 13,625</u>	<u>\$ 14,009</u>	<u>\$ 2,294</u>		<u>\$ 97,414</u>	

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, 2019**

(in thousands)

	Engineering	Water Quality	General	Total	Percent of Total	FY-2019 Amended Budget	Variance Favorable/ (Unfavorable)
Personal Services	\$ 3,749	\$ 7,391	\$ (33)	\$ 56,336	27%	\$ 56,956	\$ 620
Fringe Benefits	1,369	3,034	(5,471)	18,235	9%	24,322	6,087
Materials & Supplies	31	1,607	20	9,314	4%	7,762	(1,552)
Transportation	16	38	11	1,423	1%	1,447	24
Utilities	-	1	524	12,749	6%	12,507	(242)
Chemical Purchases	-	-	-	8,746	4%	10,194	1,448
Contractual Services	1,201	1,399	5,100	32,123	15%	41,704	9,581
Major Repairs	-	65	-	7,302	3%	9,416	2,114
Capital Assets	-	23	-	683	0%	1,232	549
Miscellaneous Expense	140	416	454	2,622	1%	2,995	373
	<u>\$ 6,506</u>	<u>\$ 13,974</u>	<u>\$ 605</u>	<u>\$ 149,533</u>	<u>71%</u>	<u>\$ 168,535</u>	<u>\$ 19,002</u>
Debt Service				61,905	29%	62,511	606
Cost of Issuance				53	0%	350	297
Total Debt Expenditures				<u>61,958</u>	<u>29%</u>	<u>62,861</u>	<u>903</u>
Total Department and Debt Expenditures				<u>\$ 211,491</u>	<u>100%</u>	<u>\$ 231,396</u>	<u>\$ 19,905</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, 2019**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
General Management			
Personal Services	\$ 442	\$ 452	\$ 10
Fringe Benefits	104	123	19
Materials & Supplies	83	86	3
Transportation	10	14	4
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	17	23	6
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	28	30	2
	<u>684</u>	<u>728</u>	<u>44</u>
Communications			
Personal Services	253	247	(6)
Fringe Benefits	92	101	9
Materials & Supplies	40	45	5
Transportation	8	14	6
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	16	16	-
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	13	16	3
	<u>422</u>	<u>439</u>	<u>17</u>
Finance			
Personal Services	5,572	5,989	417
Fringe Benefits	2,365	2,534	169
Materials & Supplies	79	87	8
Transportation	10	14	4
Utilities	263	296	33
Chemical Purchases	-	-	-
Contractual Services	5,143	4,883	(260)
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	193	236	43
	<u>13,625</u>	<u>14,039</u>	<u>414</u>
Information Technology			
Personal Services	3,924	3,845	(79)
Fringe Benefits	1,361	1,374	13
Materials & Supplies	846	854	8
Transportation	8	16	8
Utilities	1,202	1,448	246
Chemical Purchases	-	-	-
Contractual Services	6,501	7,219	718
Major Repairs	-	302	302
Capital Assets	-	103	103
Miscellaneous Expense	167	231	64
	<u>14,009</u>	<u>15,392</u>	<u>1,383</u>

(Continued)

Unaudited – See accompanying independent auditors' report

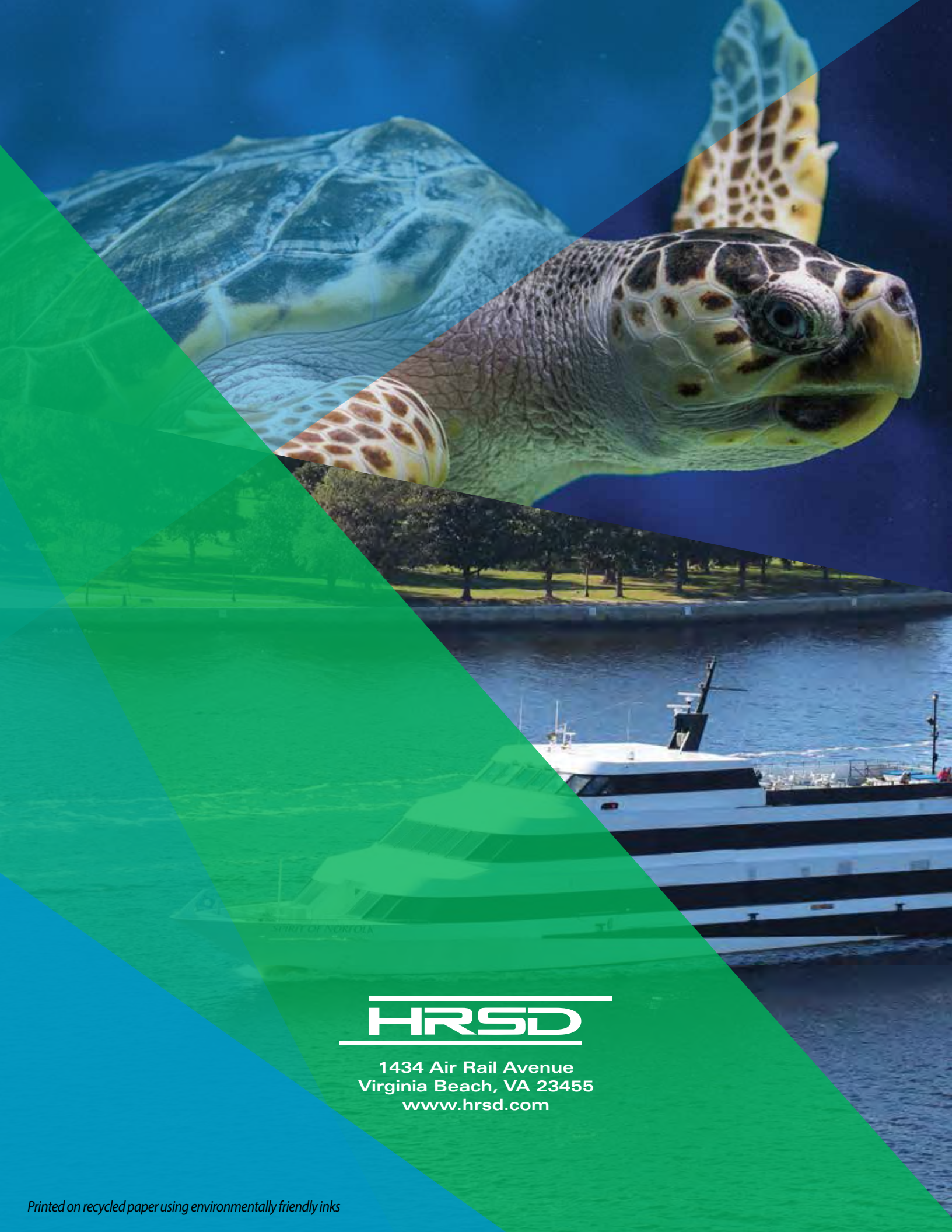
**HAMPTON ROADS SANITATION DISTRICT
DEPARTMENT SUMMARY OF EXPENDITURES
ACTUAL TO BUDGET
FOR THE FISCAL YEAR ENDED JUNE 30, 2019**

(in thousands)

	Actual	Amended Budget	Variance Favorable/ (Unfavorable)
Talent Management			
Personal Services	\$ 1,429	\$ 1,366	\$ (63)
Fringe Benefits	569	545	(24)
Materials & Supplies	59	68	9
Transportation	27	28	1
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	23	54	31
Major Repairs	6	-	(6)
Capital Assets	-	-	-
Miscellaneous Expense	181	271	90
	<u>2,294</u>	<u>2,332</u>	<u>38</u>
Operations			
Personal Services	33,609	33,912	303
Fringe Benefits	14,812	15,062	250
Materials & Supplies	6,549	5,065	(1,484)
Transportation	1,295	1,307	12
Utilities	10,759	10,260	(499)
Chemical Purchases	8,746	10,194	1,448
Contractual Services	12,723	17,909	5,186
Major Repairs	7,231	8,979	1,748
Capital Assets	660	1,074	414
Miscellaneous Expense	1,030	1,154	124
	<u>97,414</u>	<u>104,916</u>	<u>7,502</u>
Engineering			
Personal Services	3,749	3,763	14
Fringe Benefits	1,369	1,423	54
Materials & Supplies	31	28	(3)
Transportation	16	15	(1)
Utilities	-	-	-
Chemical Purchases	-	-	-
Contractual Services	1,201	2,611	1,410
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	140	158	18
	<u>6,506</u>	<u>7,998</u>	<u>1,492</u>
Water Quality			
Personal Services	7,391	7,582	191
Fringe Benefits	3,034	3,019	(15)
Materials & Supplies	1,607	1,499	(108)
Transportation	38	39	1
Utilities	1	3	2
Chemical Purchases	-	-	-
Contractual Services	1,399	2,334	935
Major Repairs	65	135	70
Capital Assets	23	55	32
Miscellaneous Expense	416	559	143
	<u>13,974</u>	<u>15,225</u>	<u>1,251</u>
General			
Personal Services	(33)	(200)	(167)
Fringe Benefits	(5,471)	141	5,612
Materials & Supplies	20	30	10
Transportation	11	-	(11)
Utilities	524	500	(24)
Chemical Purchases	-	-	-
Contractual Services	5,100	6,655	1,555
Major Repairs	-	-	-
Capital Assets	-	-	-
Miscellaneous Expense	454	340	(114)
	<u>605</u>	<u>7,466</u>	<u>6,861</u>
TOTAL DEPARTMENTAL EXPENDITURES	<u>\$ 149,533</u>	<u>\$ 168,535</u>	<u>\$ 19,002</u>

Unaudited – See accompanying independent auditors' report

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HRSD

1434 Air Rail Avenue
Virginia Beach, VA 23455
www.hrsd.com

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #3

AGENDA ITEM 4. WATER INFRASTRUCTURE FINANCE AND INNOVATION ACT
(WIFIA) – SWIFT PROGRAM FUNDING APPLICATION RESOLUTION



SWIFT WIFIA Application Resolution

November 26, 2019

WIFIA + Clean Water Loans estimated to save \$243 million

- \$930 million loan - the largest amount in the program's history
 - WIFIA funds 49% + 10% contingency of the total project costs
 - Total project cost submitted = \$1.7 billion
- Longest timeline at 10-12 years, typically 5-7 years
- First WIFIA Master Agreement (two or three closings)
- 30-year Treasury rate
- Only accrue interest on amount borrowed
- Delay debt service payment until construction completed

- WIFIA Project Leader – Erin Girardi
- Engineering (Environmental, Historical/Cultural, etc)– Lauren Zuravnsky/AECOM
- Finance – PFM
- Bond Council – Hunton Andrews Kurth
- Virginia Resources Authority (VRA)

Application Process

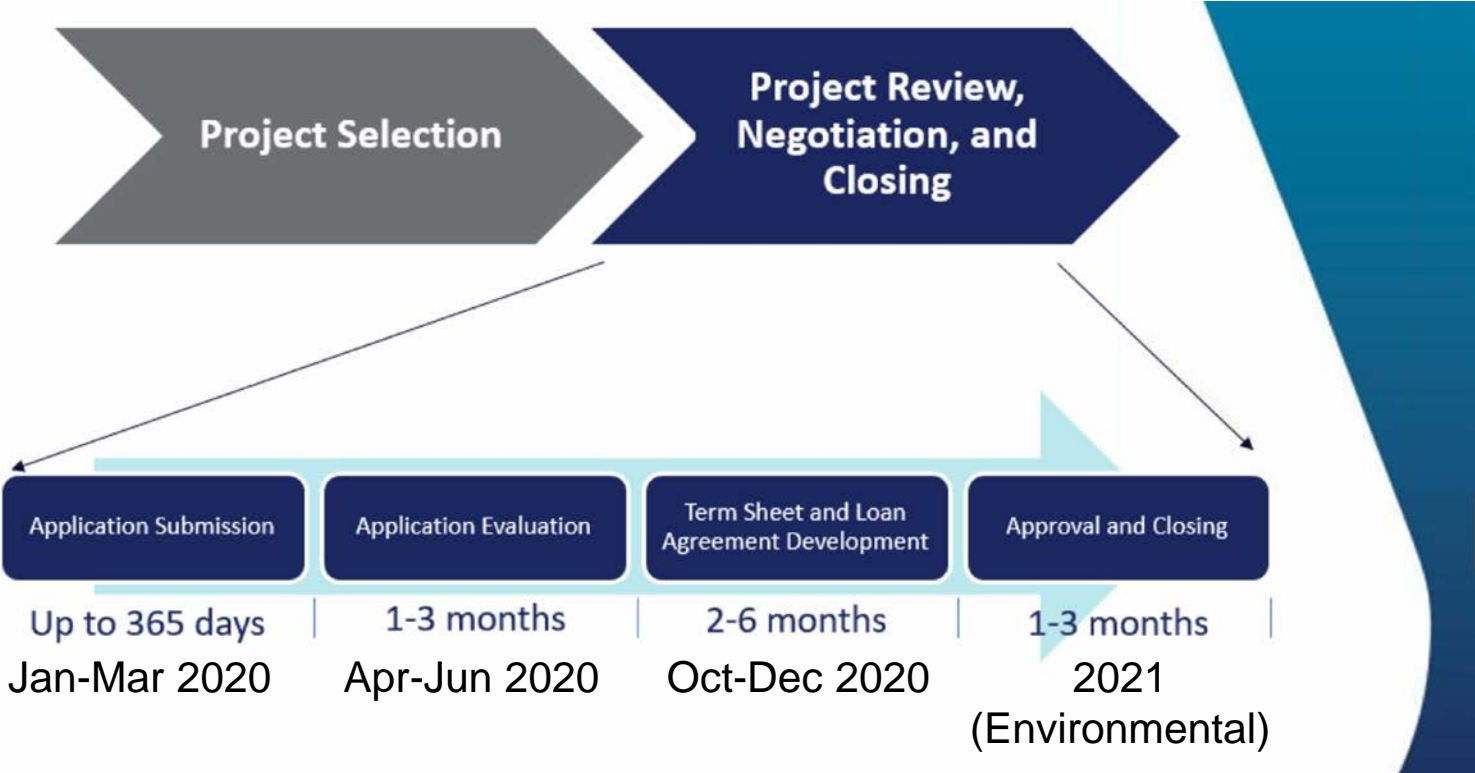
Project Selection

- Notice of Funding Availability
- Letter of Interest submission
- Letter of Interest evaluation
- Invitation to apply

Project Review, Negotiation, and Closing

- Application submission
- Application evaluation
- Due diligence
- Term sheet negotiation
- Loan agreement negotiation
- Closing

Typical Timeline



- Board authorization
- \$100,000 application fee (down payment on credit processing fees)
- Credit processing fee = \$250k-\$500k+
 - Pay for EPA's engineering, finance and legal costs

Adopt the proposed resolution to apply for WIFIA funding and pay the associated application and credit processing fees.

Questions?

Hampton Roads Sanitation District
Resolution of
November 26, 2019

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION
AUTHORIZING THE GENERAL MANAGER TO

SUBMIT AN APPLICATION FOR THE WATER INFRASTRUCTURE FINANCING AND
INNOVATION ACT PROGRAM TO FINANCE A PORTION OF THE SUSTAINABLE
WATER INITIATIVE FOR TOMORROW (SWIFT) PROGRAM

Adopted November 26, 2019

RESOLUTION

RESOLUTION AUTHORIZING THE GENERAL MANAGER TO SUBMIT AN APPLICATION FOR THE WATER INFRASTRUCTURE FINANCING AND INNOVATION ACT PROGRAM TO FINANCE A PORTION OF THE SUSTAINABLE WATER INITIATIVE FOR TOMORROW (SWIFT) PROGRAM, NOT TO EXCEED \$2,000,000,000 IN PRINCIPAL AMOUNT.

WHEREAS, the Hampton Roads Sanitation District (the “District”) is seeking low-cost financing to fund the Sustainable Water Initiative for Tomorrow (“SWIFT”) program; and

WHEREAS, Congress approved the Water Infrastructure Finance and Innovation Act of 2014, as amended (“WIFIA”), to accelerate the nation’s investment in water infrastructure by providing long-term, low-cost supplemental loans managed by the Environmental Protection Agency (“EPA”); and

WHEREAS, the District previously submitted a Letter of Interest to EPA in response to an EPA announcement of WIFIA funding availability; and

WHEREAS, EPA has reviewed the previously-submitted Letter of Interest and has invited the District to apply for WIFIA funding; and

WHEREAS, the District wishes to submit an application for WIFIA financing for a portion of the costs of the SWIFT program (the “WIFIA Application”); and

WHEREAS, the District expects to incur an expense of approximately \$100,000 to submit the WIFIA Application; and

WHEREAS, the General Manager will seek the Commission’s approval of the results final negotiations with EPA prior to closing any WIFIA loan; now, therefore,

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

Section 1. Authorization. Based on the information presented to the Commission at this meeting, the Commission hereby authorizes the General Manager to submit the WIFIA Application and pay the \$100,000 application fee. [In addition, the Commission authorizes an amount not to exceed \$1,000,000 to pay costs associated with completing, and the evaluation by EPA of, the WIFIA Application.]

Section 2. Maximum Amount. The maximum principal amount of WIFIA funding to be sought in the WIFIA Application will not exceed \$2,000,000,000.

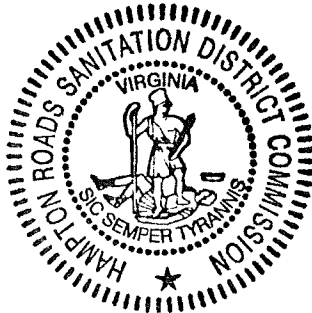
Section 3. Further Actions. Upon completion of negotiations with EPA for WIFIA funding, the Commission will need to consider a separate resolution to authorize the closing of any WIFIA loan and pay the application review and legal fees [, in the case of the latter, to the extent such costs exceed the amounts authorized in Section 1 above].

Section 4. Effectiveness. This Resolution shall take effect immediately upon its adoption.

[END OF RESOLUTION]

Adopted by the Hampton Roads Sanitation District Commission on November 26, 2019.


Frederick N. Elofson, CPA, Chair



HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #4

AGENDA ITEM 5. HRSD ENVIRONMENTAL SCHOLARSHIP RESOLUTION



RESOLUTION

Requesting Name Change for HRSD Environmental Scholarship

WHEREAS, Hampton Roads Sanitation District Environmental Scholarship was established to support full-time graduate students from the Hampton Roads Sanitation District (HRSD) service area (Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, Williamsburg and the counties of Gloucester, Isle of Wight, James City, King & Queen, King William, Mathews, Middlesex, Surry and York) studying environmental health, environmental chemistry, biology, civil engineering, or environmental engineering at a public Virginia university; and,

WHEREAS, the scholarship was funded by HRSD from the Environmental Fund and is administered by the Hampton Roads Community Foundation; and,

WHEREAS, Tara Welch Gallagher was a recipient of the HRSD Environmental Scholarship in 2002 and 2003, using the scholarship to get her Master of Science in Environmental Engineering from Old Dominion University; and,

WHEREAS, Tara Welch Gallagher was employed by the City of Virginia Beach as a stormwater engineer, protecting local waterways from stormwater pollution; and,

WHEREAS, Tara Welch Gallagher was instrumental in negotiating the nutrient trading agreement between HRSD and the City of Virginia Beach and was an active participant in regional stormwater committees; and,

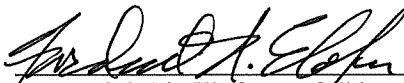
WHEREAS, Tara Welch Gallagher was a victim of the tragic shooting at the Virginia Beach Municipal Center on May 31, 2019; and,

WHEREAS, in recognition of her service to the region's environment and dedication to protecting the waterways of Hampton Roads from pollution, HRSD desires to change the name of the HRSD Environmental Scholarship to the Tara Welch Gallagher Environmental Scholarship; and,

WHEREAS, HRSD staff has reached out to the family of Tara Welch Gallagher and they are receptive to this name change; now, therefore,

BE IT RESOLVED by the HRSD Commission that it hereby request this name change be made by the Hampton Roads Community Foundation at their next regular meeting.

Adopted by the HRSD Commission on the twenty-sixth day of November 2019.


Frederick N. Elofson, CPA
HRSD Commission Chair



HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #5

AGENDA ITEM 6. PATRICK HENRY PUMP STATION INTERCONNECTION FORCE
MAIN ACQUISITION OF EASEMENT

628195

PREPARED BY AND RETURN TO:

Conway H. Sheild, III VSB: 06893
Jones, Blechman, Woltz & Kelly, P.C.
701 Town Center Drive, Suite 800
Newport News, Va. 23606

Tax ID: 121000205

DEED OF EASEMENT

THIS DEED OF EASEMENT, made this ____ day of _____, 2019, by and between the **INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS, VIRGINIA**, a political subdivision of the Commonwealth of Virginia, **GRANTOR**, (whether one or more) and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: P.O. Box 5911, Virginia Beach, Virginia, 23471-0911.

WITNESSETH:

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

All that certain lot, tract or parcel of land lying, situate and being in the City of Newport News, Virginia, designated and described as, "PROP. 30' HRSD UTILITY EASEMENT", as shown on that certain plat entitled, "EASEMENT PLAT FROM: THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS TO: HAMPTON ROADS SANITATION DISTRICT PROJECT: PATRICK HENRY FORCE MAIN", which easement is delineated on pages 1 of 3, 2 of 3 and 3 of 3, copies of which are attached hereto and made a part hereof, to which reference is here made, dated July 18, 2019 and made by Michael Surveying & Mapping, P.C.

This easement is subject to the following conditions and provisions:

A. The facilities existing or constructed on or under the Easement shall remain the property of **GRANTEE**. **GRANTEE** shall have the right and duty to inspect, maintain and repair the facilities, but any changes to drainage flow outside of the facilities would need to be approved by **GRANTOR**. All construction, maintenance, equipment and facilities shall comply with all applicable laws, ordinances, codes and regulations.

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

C. **GRANTEE** shall have the right to trim, cut and remove trees, shrubbery or other obstructions which interfere with or threaten the efficient and safe operation, construction and maintenance of said facilities. All trees and limbs cut by **GRANTEE** shall become the responsibility of **GRANTEE** to dispose of, and shall be removed and trimmed at the expense of **GRANTEE**.

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

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

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

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

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

ECONOMIC DEVELOPMENT AUTHORITY OF THE
CITY OF NEWPORT NEWS, VIRGINIA

By _____
Alonzo Bell, Chair

ATTEST:

Florence G. Kingston, Secretary/Treasurer

APPROVED AS TO FORM:

Raymond H. Suttle, Jr., Attorney for the
Economic Development Authority of the
City of Newport News, Virginia

STATE OF VIRGINIA,
City of Newport News, to-wit:

I, _____, a Notary Public in and for the City and State aforesaid,
whose commission expires on the ____ day of _____, _____, do hereby certify that
Alonzo Bell, Chair and Florence G. Kingston, Secretary/Treasurer of the INDUSTRIAL
DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS, VIRGINIA, a political
subdivision of the Commonwealth of Virginia, whose names are signed to the foregoing writing,
have acknowledged the same before me in my City and State aforesaid.

Given under my hand seal this _____ day of October, 2019.

Notary Public
Registration No.: _____



NOW OR FORMERLY
FERGUSON ENTERPRISES, INC.
INST# 130013410
D.B. 1803, PG. 268 (PLAT)
PARCEL B-1
PID 121000204

10' C&P TELEPHONE
CO. OF VIRGINIA
PERMANENT EASEMENT
SHPB 10, PGS. 265

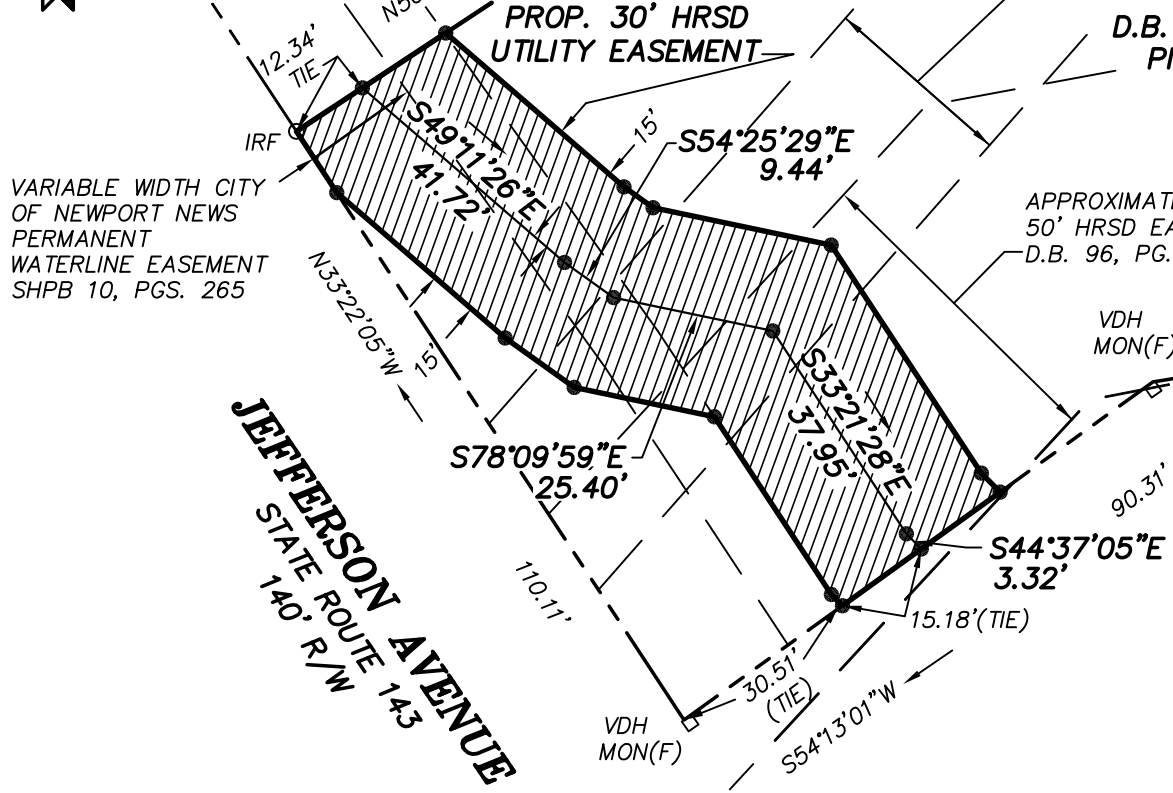
30' PERPETUAL
RIGHT OF WAY
EASEMENT GRANTED
TO THE CITY OF
NEWPORT NEWS
D.B. 441, PG. 588

NOW OR FORMERLY
THE INDUSTRIAL
DEVELOPMENT AUTHORITY
OF THE CITY OF NEWPORT
NEWS
D.B. 1803, PG. 272
PID 121000205

VARIABLE WIDTH CITY
OF NEWPORT NEWS
PERMANENT
WATERLINE EASEMENT
SHPB 10, PGS. 265

APPROXIMATE LOCATION OF
50' HRSD EASEMENT
D.B. 96, PG. 342

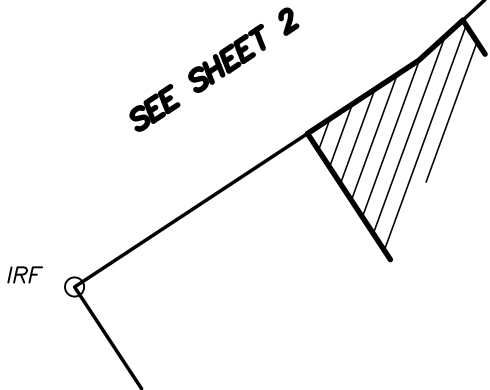
JEFFERSON AVENUE
STATE ROUTE 143
140' R/W



LEGEND

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

DENOTES PERMANENT UTILITY EASEMENT TO BE CONVEYED TO THE HAMPTON ROADS SANITATION DISTRICT - 37,152 S.F. (TOTAL)



NOTES:

1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETTIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.
2. PROPERTY LINES SHOWN ARE BASED ON COMPILED RECORD INFORMATION, TAX MAP INFORMATION AND MADE TO FIT FIELD FOUND MONUMENTATION. THIS PLAT IS FOR EASEMENT PURPOSES ONLY AND DOES NOT CONSTITUTE A PHYSICAL OR BOUNDARY SURVEY.

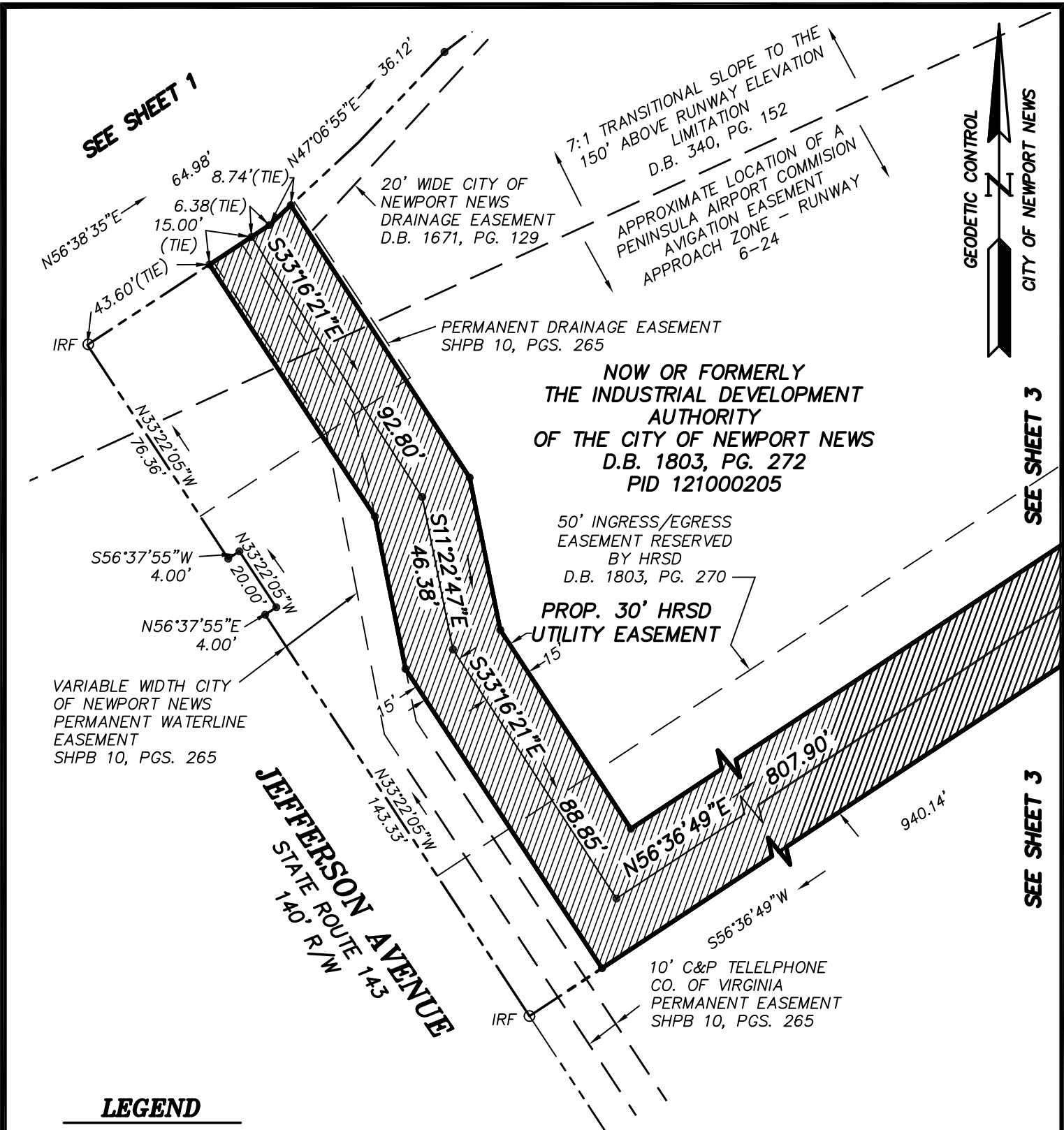
References:
D.B. 1159,
PG. 1615
D.B. 1803,
PG. 268

Notes:
PAGE 1 OF 3

EASEMENT PLAT
FROM: THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS
TO: THE HAMPTON ROADS SANITATION DISTRICT
PROJECT: PATRICK HENRY FORCE MAIN

Date: 7/18/19	Scale: 1"=30'	Job No.: 18-066
---------------	---------------	-----------------

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



SEE SHEET 1

SEE SHEET 3

SEE SHEET 3

LEGEND

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

DENOTES PERMANENT UTILITY EASEMENT TO BE CONVEYED TO THE HAMPTON ROADS SANITATION DISTRICT - 37,152 S.F. (TOTAL)

NOTES:

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COMMONWEALTH OF VIRGINIA

7/18/19

PAUL W. MICHAEL, JR.

Lic No. 002438

Paul W. Michael

LAND SURVEYOR

References:
 D.B. 1159, PG. 1615
 D.B. 1803, PG. 268

Notes:
 PAGE 2 OF 3

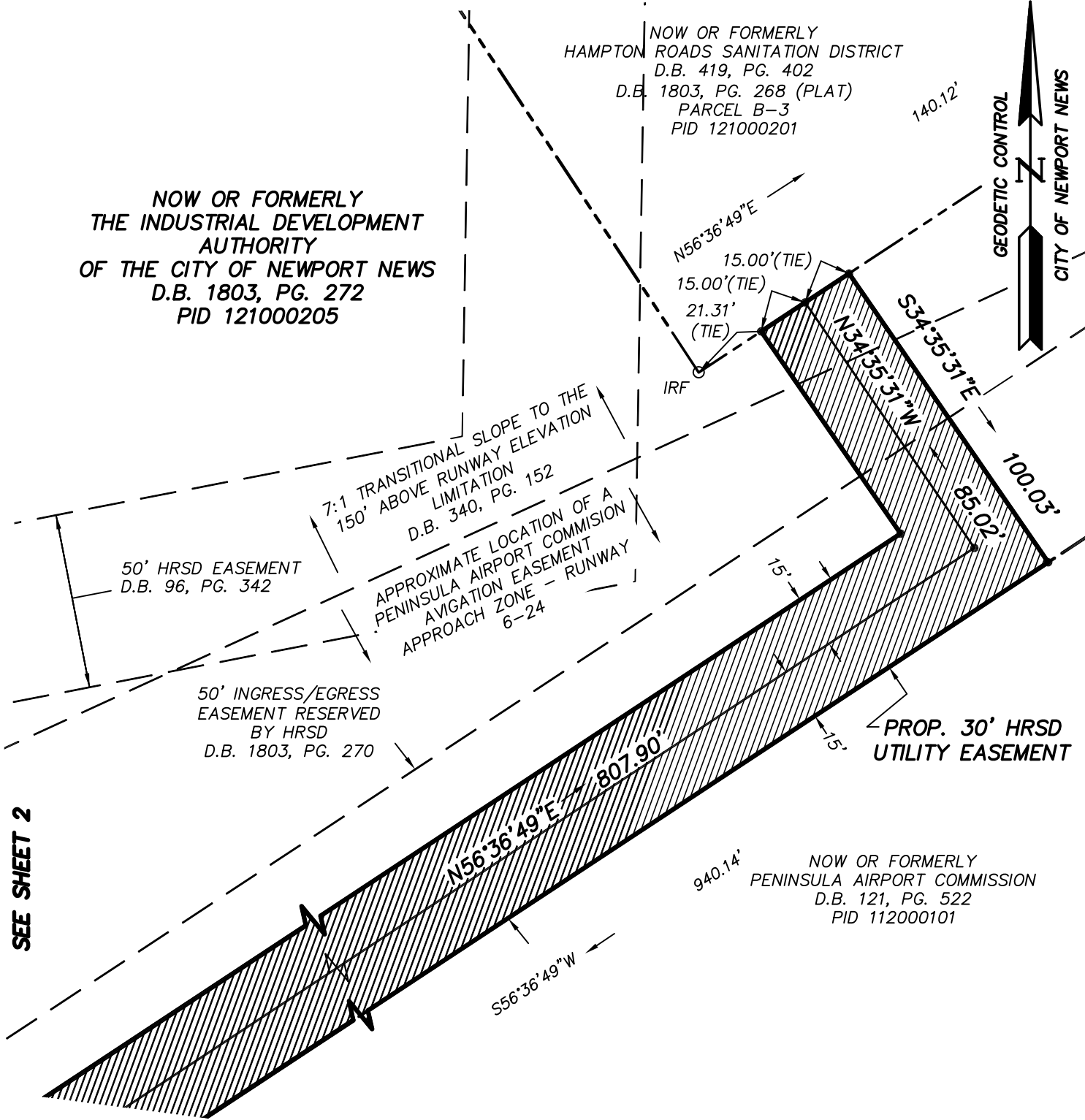
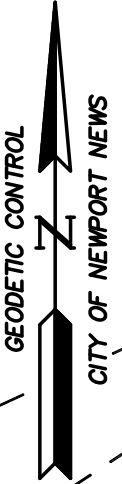
EASEMENT PLAT
FROM: THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS
TO: THE HAMPTON ROADS SANITATION DISTRICT
PROJECT: PATRICK HENRY FORCE MAIN

Date: 7/18/19	Scale: 1"=40'	Job No.: 18-066
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MICHAEL SURVEYING & MAPPING, P.C.
 41 OLD OYSTER POINT RD. - SUITE B
 NEWPORT NEWS, VIRGINIA 23602
 TEL 757.873.1762 FAX 757.873.1772

NOW OR FORMERLY
THE INDUSTRIAL DEVELOPMENT
AUTHORITY
OF THE CITY OF NEWPORT NEWS
D.B. 1803, PG. 272
PID 121000205

HAMPTON NOW OR FORMERLY
ROADS SANITATION DISTRICT
D.B. 419, PG. 402
D.B. 1803, PG. 268 (PLAT)
PARCEL B-3
PID 121000201



SEE SHEET 2

LEGEND

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

DENOTES PERMANENT UTILITY EASEMENT TO BE CONVEYED TO THE HAMPTON ROADS SANITATION DISTRICT - 37,152 S.F. (TOTAL)

NOTES:

1. HORIZONTAL COORDINATE INFORMATION IS BASED ON THE CITY OF NEWPORT NEWS GEODETIC CONTROL NETWORK, STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) (1992), UNITS ARE U.S. SURVEY FEET.
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References:
D.B. 1159,
PG. 1615
D.B. 1803,
PG. 268

Notes:
PAGE 3 OF 3

EASEMENT PLAT
FROM: THE INDUSTRIAL DEVELOPMENT AUTHORITY OF THE CITY OF NEWPORT NEWS
TO: THE HAMPTON ROADS SANITATION DISTRICT
PROJECT: PATRICK HENRY FORCE MAIN

Date: 7/18/19	Scale: 1"=40'	Job No.: 18-066
---------------	---------------	-----------------


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



<p>Regional Major Roads</p> <ul style="list-style-type: none"> Interstates Primary Roads Other Schools Hospitals Police Stations 	<p> Fire Stations</p> <p> Libraries</p> <p> Museums</p> <p> Right of Way</p> <p> Parcels</p> <p> Road Centerlines</p> <p>(cont)</p>	<p>Legend</p> <ul style="list-style-type: none"> Interstates Primary Roads Vehicular Trails Ramps/Service Roads Other Residential Roads 	<ul style="list-style-type: none"> Railroads Streams Water Bodies Airport Runways Parks <p>Aerial Photo (2016)</p>
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2381 G Avenue

City of Newport News



Any determination of topography or contours, or any depiction of physical improvements, property lines or boundaries is for general information only and shall not be used for the design, modification, or construction of improvements to real property or for flood plain determination.

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #6

AGENDA ITEM 7. SUFFOLK PUMP STATION REPLACEMENT ACQUISITION OF
EASEMENT

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 26 day of November, 2019, by and Lavoskia Conner, hereinafter referred to as Seller, and **HAMPTON ROADS SANITATION DISTRICT**, a political subdivision of the Commonwealth of Virginia ("HRSD"), Purchaser.

RECITALS

- A. Seller is the owner in fee simple absolute of a certain parcel of property approximately 46,174 square feet/1.06 acres in area (more or less), located at 2245 E Washington Street in the City of Suffolk, such property being more particularly described in Exhibit A which is attached to and made a part of this Agreement (the "Property").
- B. HRSD desires to purchase the Property from the Seller for the purpose of the Suffolk Pump Station Replacement Project.
- C. Seller is willing to sell the Property to HRSD subject to the terms and conditions set forth in this Agreement.
- D. These recitals are incorporated by this reference into this Agreement.

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

- 1. SALE. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any barn, sheds or building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called "the Property".
- 2. PURCHASE PRICE. HRSD agree to pay the purchase price (the Purchase Price) for the Property in the amount of THREE HUNDRED TWENTY THOUSAND AND 00/100 DOLLARS (\$320,000.00) which will be paid by certified check or wired funds at closing
- 3. CONVEYANCE.
 - a. At the Closing, Seller shall convey title to the Property in fee simple, by general warranty deed, free and clear of any and all

liens, mortgages, deeds of trust, security interests, leases, covenants, conditions, restrictions, easements, rights-of-way, licenses, encroachments, judgments or encumbrances of any kind, except for the following permitted exceptions: (a) the lien of real estate taxes not yet due and payable; (b) zoning and building restrictions and other laws, ordinances, and regulations of governmental bodies having jurisdiction over the Property; and (c) matters of record affecting title to the property, as reviewed and approved (or deemed approved) by HRSD in accordance with this Agreement. Except as expressly stated in this Agreement, the Property shall be conveyed in "AS IS" condition.

- b. Title to the Property shall be good and marketable and, if HRSD chooses to obtain title insurance, insurable by a nationally recognized ALTA title insurance company of HRSD's choice at or below normal rates. In the event that a title examination discloses defects of title or other matters unsatisfactory to HRSD, HRSD shall notify Seller in writing (an "Objection Notice"), within 45 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller covenants that it shall cure all monetary encumbrances and all title objections which may be cured by execution of a document requiring the signature of no party other than Seller (including any affidavits which may reasonably be required by the title insurer). Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects, exceptions or other matters referenced in such Objection Response and proceed to Closing hereunder with no reduction of the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD.
- c. Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
- d. Seller agrees to pay proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at

settlement, or as per Exhibit B. HRSD will pay all other fees charged in connection with preparation and recordation of the deed, including grantor's tax.

- e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.

- 4. RIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including the cutting of survey lines and putting up markers and driving stubs and stakes, site analysis, engineering studies, core sampling for engineering reports, and locating existing rights of way, easements, and utilities. HRSD will exercise this right of entry in such a way so as to not cause unreasonable damage to the Property. HRSD agrees to indemnify and save harmless the Seller from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property before or after Closing.

5. CONDITIONS.

- a. HRSD's obligations are expressly conditioned upon the waiver or satisfaction of each of the following conditions in the sole determination of HRSD. If any one of the following conditions cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both HRSD and Seller), HRSD may unilaterally terminate this Agreement:
 - i. Receipt of a satisfactory title commitment with all unacceptable title exceptions, encumbrances, and conditions as deemed by HRSD removed or cured at Seller's cost; however, if Seller chooses not to remove or cure any such title exception, HRSD's sole remedy shall be to terminate this Agreement;
 - ii. Receipt of a Phase I Environmental Assessment and Report (Phase I Report) conducted and prepared by an environmental engineering and inspection company selected by HRSD at HRSD's expense and such other testing and

reports as may be reasonably required by HRSD or recommended in the Phase I Report;

- iii. Satisfaction by the Seller of all of its obligations under this Agreement.
- b. Seller's obligations are expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to HRSD within the 90 day period. In the event HRSD fails to notify the Seller in writing within such 90 day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and the Seller agrees that the same shall be removed and released as liens on the Property on or before Closing.
- c. This Agreement is contingent on the review and approval of the Hampton Roads Sanitation District Commission and upon such Commission granting authorization to the General Manager to proceed under the terms of this Agreement.

6. ENVIRONMENTAL AND RELATED MATTERS.

- a. As a condition precedent to HRSD's obligation to purchase, HRSD, at HRSD's expense, may have a Phase I Environmental Assessment of the Property performed by a qualified environmental consultant (the Consultant) selected by HRSD and reasonably acceptable to Seller, conducted in accordance with standard commercial practice at the time of the assessment. A copy of the Phase I Environmental Assessment will be made available to Seller, together with copies of any supplemental reports or assessments.
- b. If the Consultant recommends soil, water, or structural remediation or further assessment activity after or as a result of performing a Phase I Environmental Assessment or if HRSD otherwise determines, in its reasonable judgment, that further assessment activity (including, but not limited to, a Phase II Environmental Assessment) is desirable, HRSD may at its option:
 - (i) Terminate this Agreement; or
 - (ii) Extend the time for closing for an additional period of sixty (60) days in order to perform any such additional assessment at HRSD's expense; or

- (iii) Waive the environmental defect and proceed to Closing.

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

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

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

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

- (i) Other than this Agreement, there are no other contracts for sale or options involving the Property now in effect;
- (ii) To the best of Seller's knowledge, no other party has any right, title or interest in the Property;
- (iii) There are no unrecorded leases, options, licenses or easements existing in connection with the property to which the Seller has knowledge;
- (iv) There are no adverse government notifications or proceedings and there is no pending or threatened litigation or any other potentially adverse claims affecting the property to which the Seller has knowledge.
- (v) **Foreign Status.** Seller is not a foreign corporation, person or entity and is a "United States Corporations, Person or Entity" as such terms is defined in Section 1445 and in Section 7701 (a)(30) of the Internal Revenue Code of 1986, as amended (the "Code") and shall deliver to HRSD at or prior to the Settlement an Affidavit prepared by HRSD evidencing such fact and such other documents as may be required under the Code.
- (vi) From and after the date of this Agreement, Seller shall not transfer any interest in, or grant any easements or enter into any contractual agreement or understanding, written or oral, with respect to the Property or any portion thereof or make

any changes at all that require recordation and therefore modifications to title, without the prior written consent of HRSD.

8. **NOTICES.** All notices to the parties hereto will be delivered by hand, via certified mail return receipt requested, or via facsimile and all be deemed effective upon delivery if by hand and upon confirmation of receipt if by other means, to the following address until the address is changed by notice in writing to the other party:

HRSD: Edward G. Henifin, P.E.
General Manager
P.O. Box 5911
Virginia Beach, Virginia 23471-0911

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

Seller: Lavoskia Conner
2245 E Washington Street
Suffolk, VA 23434

9. **CLOSING.** Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent on or about November 26, 2019.
10. **SURVIVAL.** The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
11. **PRORATIONS.** All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.
12. **RISK OF LOSS.** All risk of loss or damage to the Property by fire, windstorm, casualty, or other cause is assumed by Seller until Closing. In the event of substantial loss or damage to the Property before Closing, HRSD will have the option of either:
- a. Terminating this Agreement, or
 - b. Affirming this Agreement and proceeding to Closing.
13. **FUTURE SALE BY HRSD.** In the event that HRSD shall determine to sell all or a portion of the property for private development within two (2) years

of the Settlement Date, it agrees to notify Seller and give Seller first opportunity to purchase the property on such terms as the parties shall mutually agree. Such notice shall be writing addressed in accordance with the provisions of Section 8 herein or such other address provided to HRSD by the Seller and shall provide Seller with at least thirty (30) calendar days to present HRSD with an offer to purchase the property.

14. **BROKERS.** Seller and HRSD both represent and warrant to the other that it has not hired, engaged, or consulted with any broker or agent in regard to this transaction.
15. **CONDEMNATION.** Seller covenants and warrants that Seller has not heretofore received any notice of any condemnation proceeding or other proceeding in the nature of eminent domain in connection with the Property. If prior to Settlement any such proceeding is commenced or any change is made, or proposed to be made, to the current means of ingress and egress to the Property or to the roads or driveways adjoining the Property, or to change such ingress or egress or to change the grade thereof, Seller agrees immediately to notify HRSD thereof. HRSD then shall have the right, at HRSD's option, to terminate this Agreement by giving written notice to Seller within thirty (30) days after receipt of such notice.
16. **RELOCATION ASSISTANCE:** Buyer agrees to pay Seller \$7,000.00 (seven thousand dollars and 00/100 cents) within 30 days of signing this Agreement to assist with moving and relocation expenses. The parties acknowledge that this is a one-time lump sum payment associated with the purchase of 2245 E Washington Street but is not part of the purchase price. If closing does not occur due to Seller's fault or breach, Seller hereby agrees to refund and return to HRSD the Relocation Assistance paid by HRSD. Upon closing, in accordance with this Agreement, Buyer shall be entitled to retain all funds received as relocation assistance.

Comment [A1]: I deleted "up to"
17. **DEFAULT AND REMEDIES.**
 - a. If the sale and purchase contemplated by this Agreement is not consummated because of Seller's or HRSD's default, the non-defaulting party may elect to:
 - i Terminate this Agreement;
 - ii Seek and obtain specific performance of this Agreement; or
 - iii Pursue all other rights or remedies available at law or in equity, including an action for damages.

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

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

Purchase and Sale Agreement of 2245 E Washington Street, Suffolk, VA
Between HRSD and Lavoskia Conner

SELLER:

Attorney In Fact
Lavoskia Conner
Lavoskia Conner (signature)

COMMONWEALTH OF VIRGINIA
CITY OF Norfolk, to-wit:

I, Janice P. Anderson, a Notary Public in and for the City of Norfolk, in the Commonwealth of Virginia, whose term of office expires on May 31, 2020, do hereby certify that Michael A. Torain, Attorney In Fact for Lavoskia Conner, Seller herein, whose name is signed to the foregoing Purchase and Sale Agreement, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this 26th day of November, 2019.

Janice P. Anderson
Notary Public

My Commission Expires: May 31, 2020

Registration Number: 230948



Purchase and Sale Agreement of 2245 E Washington Street, Suffolk, VA
Between HRSD and Lavoskia Conner

IN WITNESS WHEREOF, the Hampton Roads Sanitation District Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on November 26, 2019. This Agreement is expressly subject to approval by the HRSD Commission.

HAMPTON ROADS SANITATION DISTRICT

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

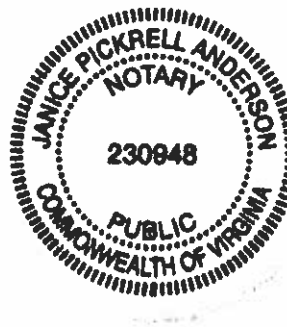
COMMONWEALTH OF VIRGINIA
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Purchase and Sale Agreement was acknowledged before me this 26th day of November, 2019, by Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District.


Notary Public

My Commission Expires: May 31, 2020

Registration No.: 230948



Purchase and Sale Agreement of 2245 E Washington Street, Suffolk, VA
Between HRSD and Lavoskia Conner

Exhibit "A"

EXHIBIT A

All that certain piece or parcel of land in Cypress Borough (formerly Cypress Magisterial District) Suffolk (formerly Nansemond County), Virginia on the South side of Routes 337 and 13, leading from Suffolk, Virginia to Driver, Virginia, and being further described as follows, to-wit:

Beginning at a point in the center of the run of Jericho Creek, a corner for this property and the property, now or formerly owned by I. P. Brinkley; thence running South 32 degrees 27' 24" East 155.36 feet to a point in the center of said Creek; thence running South 53 degrees 09' 40" East 50.99 feet to a point in the center of said Creek; thence running South 29 degrees 10' 15" East 82.00 feet to a point in the center of said Creek; thence running South 81 degrees 05' 34" East 28.29 feet to a point in the center of said Creek, a corner for this property and other property of Adaline Joyner Jennings; thence running South 44 degrees 25' 53" West 138.05 feet to a point, a corner for the property and other property of Adaline Joyner Jennings; thence running North 62 degrees 03' 43" West 215.00 feet to a point on the South side of the Old County Road, a corner for this property and other property of Adaline Joyner Jennings; thence continuing along the Old County Road North 22 degrees 25' East 183.00 feet to a point; thence North 20 degrees 00' West 0.31 feet to a point; thence North 20 degrees 30' 40" East 11.31 feet to a point on the right-of-way of Routes Nos. 337 and 13; and thence continuing along said right-of-way North 20 degrees 30' 40" East 59.23 feet to the point in the center of the run of Jericho Creek, the point of beginning, all as shown on that certain "Plat Showing Survey of Parcel Owned by Adaline Jennings Cypress Magisterial District, Nansemond County, Virginia", dated June 12, 1969, made by Hassell and Folkes, Surveyors and Engineers and containing 1.058 acres, more or less, recorded in the Clerk's Office of the Circuit Court of the City of Suffolk, (formerly Nansemond County), Virginia in Plat Book 16, at page 27, to which reference is hereby made.

The above parcel is more particularly described as one parcel with a metes and bounds description, as follows.

Beginning at a point in the center line of Old Road and a corner to the property now or formerly owned by Julpenia Odell Gardener, et als known as Tax Parcel 35-157 W. B. 20 Page 459/ thence with the line of said Gardener property North 62 degrees 03' 43" W. 215.00 feet to a point, also being in the line of now or formerly Julia Idell Gardener, et als, being Tax Parcel 35-157; thence with said line S. 44 degrees 25' 53" W. 138.05 feet to a point in the centerline of Jericho Stream; thence with the lines of the stream S. 81 degrees 05' 34" E. 28.29 feet to a point; thence S. 29 degrees 10' 15" E. 82.00 feet to a point; thence S. 53 degrees 09' 40" E. 50.99 feet to a point; thence S. 32 degrees 27' 24"E. 155.36 feet to a point in the line of Route 337; thence running with the line of Route 337 N. 20 degrees 30' 40" E. 59.23 feet to a point; thence continuing with the line of Route 337 N. 20 degrees 30' 40" E. 11.31 feet to a point; thence N. 20 degrees 00' 00" W. 0.31 feet to a point thence N. 22 degrees 25' 00" E. 183.00 feet to the point and place of beginning, containing 1.028 acres as shown on a survey prepared by J.D. Vann, L.S. dated July 12, 2005, and entitled "Plat Showing Property of Marie R. Duke, located on East Washington Street, Cypress Borough City of Suffolk, Virginia, Scale 1'-40' June 16, 2005.

AND BEING THE SAME property conveyed to Solomon Homes, Inc. by deed from Commonwealth Merchant Services, Inc., dated July 27, 2006, and recorded July 31, 2006 as Instrument Number 20060731000156610 among the land records of Suffolk, Virginia.

Purchase and Sale Agreement of 2245 E Washington Street, Suffolk, VA
Between HRSD and Lavoskia Conner

Exhibit "B"

Post Closing Possession Agreement

POST-CLOSING POSSESSION AGREEMENT

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

SELLER: Lavoskia Conner

PROPERTY: 2245 E Washington Street, Suffolk, VA 23434
Tax Parcel Identification: 050884000

DATES OF POSSESSION: November 26, 2019 to December 20, 2019

WHEREAS, the Seller has entered into a Contract for the purchase of the above captioned property from the Purchaser, which contract is dated Nov. 26, 2019; and

WHEREAS, the Seller wishes to possess and occupy the property after the closing date; November 26, 2019.

NOW, THEREFORE, in consideration of mutual promises, the parties agree as follows:

1. During the Dates of Possession, November 26, 2019 to December 20, 2019, Seller may occupy the property at the rate of \$ 0.00 per day.
2. The Seller agrees to procure and maintain in effect, prior to entering into possession, a policy or policies of insurance adequately covering the subject property satisfactory to Purchaser and insuring against fire and any casualty and/or public liability which may arise out of or by virtue of the use and occupancy of the subject property by the Seller.
3. The Seller hereby agrees to indemnify and hold the Purchaser harmless from any and all claims, demands, action, causes of action, damages, expenses, losses, attorney's fees or liabilities arising in any way from or out of this occupancy, use or enjoyment of the subject property after closing.
4. The Seller accepts the subject property "as is" as of the Date of Possession, and will take no action to damage the property during Seller's tenancy. If damage occurs to the property, or any deterioration which is beyond reasonable wear and tear, the Seller shall remediate the property immediately, at his expense.
5. Should Seller maintain possession, or not turn possession over to Purchaser on or before December 20, 2019, Seller owes Purchaser \$50.00 per day for rent. Further should Seller not vacate the premises by January 1, 2020, Seller agrees to be responsible for the expenses of Purchaser in any legal

proceedings to evict Seller from premises, to include attorney's fees and costs.

6. The Seller agrees to pay all expenses in connection with his occupancy of the subject property, including, but not limited to, utilities and fuel during possession.
7. This agreement may be executed in counterparts.

IN WITNESS WHEREOF, the parties have caused their hands and seals to be affixed this 26 day of November, 2019.

Purchaser: HAMPTON ROADS SANITATION
DISTRICT

By:



Karen Russo-Scarano, RWA
Real Estate Manager, HRSD

ATTORNEY IN FACT

Seller:



Lavoskia Conner

**VIRGINIA LAND RECORD COVER SHEET
FORM A - COVER SHEET CONTENT**

Instrument Date: 11/26/2019
Instrument Type: DBS
Number of Parcels: 1 Number of Pages: 4
 City [] County

SUFFOLK

TAX EXEMPT? VIRGINIA/FEDERAL LAW

[] Grantor:

Grantee: 58.1-811(A)(3)

Consideration: \$320,000.00

Existing Debt: \$0.00

Actual Value/Assumed: \$239,300.00

PRIOR INSTRUMENT UNDER § 58.1-803(D):

Original Principal: \$0.00

Fair Market Value Increase: \$0.00

Original Book Number:

Original Page Number:

Original Instrument Number:

Prior Recording At: [] City [] County

Percentage In This Jurisdiction: 100%

BUSINESS / NAME

1 [] Grantor: TORAIN, LAVOSKIA

2 [] Grantor: CONNER, LAVOSKIA

1 Grantee: HAMPTON ROADS SANITATION DISTRICT

[] Grantee:

GRANTEE ADDRESS

Name: HAMPTON ROADS SANITATION DISTRICT

Address: P. O. BOX 5911

City: VIRGINIA BEACH

Book Number:

Page Number:

State: VA Zip Code: 23471

Parcel Identification Number (PIN): 050884000

Instrument Number:

Short Property Description: SOUTH SIDE ROUTES 337 AND 13

Tax Map Number: 35*157B

1.028 ACRES

Current Property Address: 2245 E. WASHINGTON STREET

City: SUFFOLK

State: VA Zip Code: 23434

Instrument Prepared By: JANICE PICKRELL ANDERSON

Recording Paid By: KELLAM, PICKRELL, COX & ANDERS

Recording Returned To: KELLAM, PICKRELL, COX & ANDERSON

Address: 403 BOUSH STREET SUITE 300

City: NORFOLK

State: VA Zip Code: 23510

FILED CITY OF SUFFOLK, VA
W. RANDOLPH CARTER, JR
CLERK OF CIRCUIT COURT

FILED Nov 26, 2019 AT 03:45:30 pm

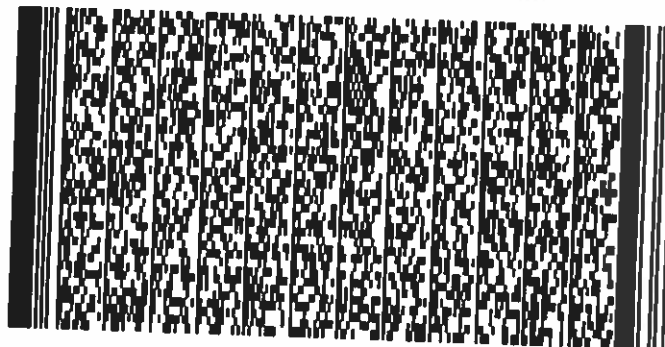
INSTRUMENT # 190013513

TOTAL PAGES 0005

SPK

NOV-26-19 PM 3:18

(Area Above Reserved For Deed Stamp Only)



**EXEMPT from State and Local Grantee
taxes pursuant to Section 58.1-811(A)(3)
Code of Virginia, 1950, as amended**

**LAVOSKIA TORAIN,
FORMERLY KNOWN AS LAVOSKIA CONNER**

to

DEED OF BARGAIN AND SALE

**HAMPTON ROADS SANITATION DISTRICT,
a political subdivision of the
Commonwealth of Virginia**

THIS DEED, made this 26th day of November, 2019, by and between, LAVOSKIA TORAIN, formerly known as LAVOSKIA CONNER, **GRANTOR**, and HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: Post Office Box 5911, Virginia Beach, VA 23471-0911.

WITNESSETH:

That for and in consideration of the sum of ten (\$10.00) dollars, and other good and valuable consideration, the receipt of which is hereby acknowledged, the said Grantor does grant, bargain, sell, assign and convey, with GENERAL WARRANTY and with ENGLISH COVENANTS OF TITLE unto the said HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, Grantee, the following described property, to-wit:

**KELLAM, PICKRELL,
COX & ANDERSON**
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

Prepared by and Return to:

Janice Pickrell Anderson VA State Bar #36930
KELLAM, PICKRELL, COX & ANDERSON, P.C.
Consideration: \$320,000.00; Assessment: \$239,300.00
Tax Acct No.: 050884000 Tax Map No. 35*157B
Title Insurance: Fidelity National Title Insurance Company

ALL THAT certain piece or parcel of land in Cypress Borough (formerly Cypress Magisterial District) Suffolk (formerly Nansemond County), Virginia on the South side of Routes 337 and 13, leading from Suffolk, Virginia to Driver, Virginia, and being further described as follows, to-wit:

BEGINNING at a point in the center of the run of Jericho Creek, a corner for this property and the property, now or formerly owned by I. P. Brinkley; thence running South $32^{\circ} 27' 24''$ East 155.36 feet to a point in the center of said Creek; thence running South $53^{\circ} 09' 40''$ East 50.99 feet to a point in the center of said Creek; thence running South $29^{\circ} 10' 15''$ East 82.00 feet to a point in the center of said Creek; thence running South $81^{\circ} 05' 34''$ East 28.29 feet to a point in the center of said Creek, a corner for this property and other property of Adaline Joyner Jennings; thence running South $44^{\circ} 25' 53''$ West 138.05 feet to a point, a corner for the property and other property of Adaline Joyner Jennings; thence running North $62^{\circ} 03' 43''$ West 215.00 feet to a point on the South side of the Old County Road, a corner for this property and other property of Adaline Joyner Jennings; thence continuing along the Old County Road North $22^{\circ} 25'$ East 183.00 feet to a point; thence North $20^{\circ} 00'$ West 0.31 feet to a point; thence North $20^{\circ} 30' 40''$ East 11.31 feet to a point on the right-of-way of Routes Nos. 337 and 13; and thence continuing along said right-of-way North $20^{\circ} 30' 40''$ East 59.23 feet to the point in the center of the run of Jericho Creek, the point of beginning, all as shown on that certain "Plat Showing Survey of Parcel Owned by Adaline Jennings, Cypress Magisterial District, Nansemond County, Virginia", dated June 12, 1969, made by Hassell and Folkes, Surveyors and Engineers and containing 1.058 acres, more or less, recorded in the Clerk's Office of the Circuit Court of the City of Suffolk, (formerly Nansemond County), Virginia in Plat Book 16 at Page 27, to which reference is hereby made.

The above parcel is more particularly described as one parcel with a metes and bounds description, as follows:

BEGINNING at a point in the center line of Old Road and a corner to the property now or formerly owned by Julpenia Odell Gardener, et als known as Tax Parcel 35-157 W.B. 20 at Page 459; thence with the line of said Gardener property North $62^{\circ} 03' 43''$ W. 215.00 feet to a point, also being in the line of now or formerly Julia Idell Gardener, et als, bring Tax Parcel 35-157; thence with said line S. $44^{\circ} 25' 53''$ W. 138.05 feet to a point in the centerline

of Jericho Stream; thence with the lines of the stream S. 81° 05' 34" E. 28.29 feet to a point; thence S. 29° 10' 15" E. 82.00 feet to a point; thence S. 53° 09' 40" E. 50.99 feet to a point; thence S. 32° 27' 24" E. 155.36 feet to a point in the line of Route 337; thence running with the line of Route 337 N. 20° 30' 40" E. 59.23 feet to a point; thence continuing with the line of Route 337 N. 20° 30' 40" E. 11.31 feet to a point; thence N. 20° 00' 00" W. 0.31 feet to a point thence N. 22° 25' 00" E. 183.00 feet to the point and place of beginning, containing 1.028 acres as shown on a survey prepared by J. D. Vann, L.S. dated July 12, 2005, and entitled "Plat Showing Property of Marie R. Duke, located on East Washington Street, Cypress Borough, City of Suffolk, Virginia, Scale 1' = 40' June 16, 2005.

IT BEING the same property conveyed to Lavoskia Conner by Deed from Soloman Homes, Inc., a Virginia corporation dated November 21, 2008 and recorded December 3, 2008 in the Clerk's Office of the Circuit Court of the City of Suffolk, Virginia as Instrument No. 20081203000160230.

The above property is conveyed subject to the conditions, restrictions, reservations covenants and easements of record in the chain of title, if any, constituting constructive notice.

WITNESS the following signature and seal:

Lavoskia Torain
by Michael Antonia Torain
ATTORNEY IN FACT

(SEAL)

LAVOSKIA TORAIN by Michael Antonia Torain,
her attorney-in-fact under Power of Attorney
dated October 16, 2018

COMMONWEALTH OF VIRGINIA
CITY OF NORFOLK, to-wit:

I, the undersigned, a Notary Public in and for the City and State aforesaid, do hereby certify that LAVOSKIA TORAIN, by Michael Antonia Torain, her attorney-in-fact under Power of Attorney dated October 16, 2018, whose name is signed to the foregoing instrument, has

acknowledged the same before me in my City and State aforesaid this 26th day of
November, 2019.

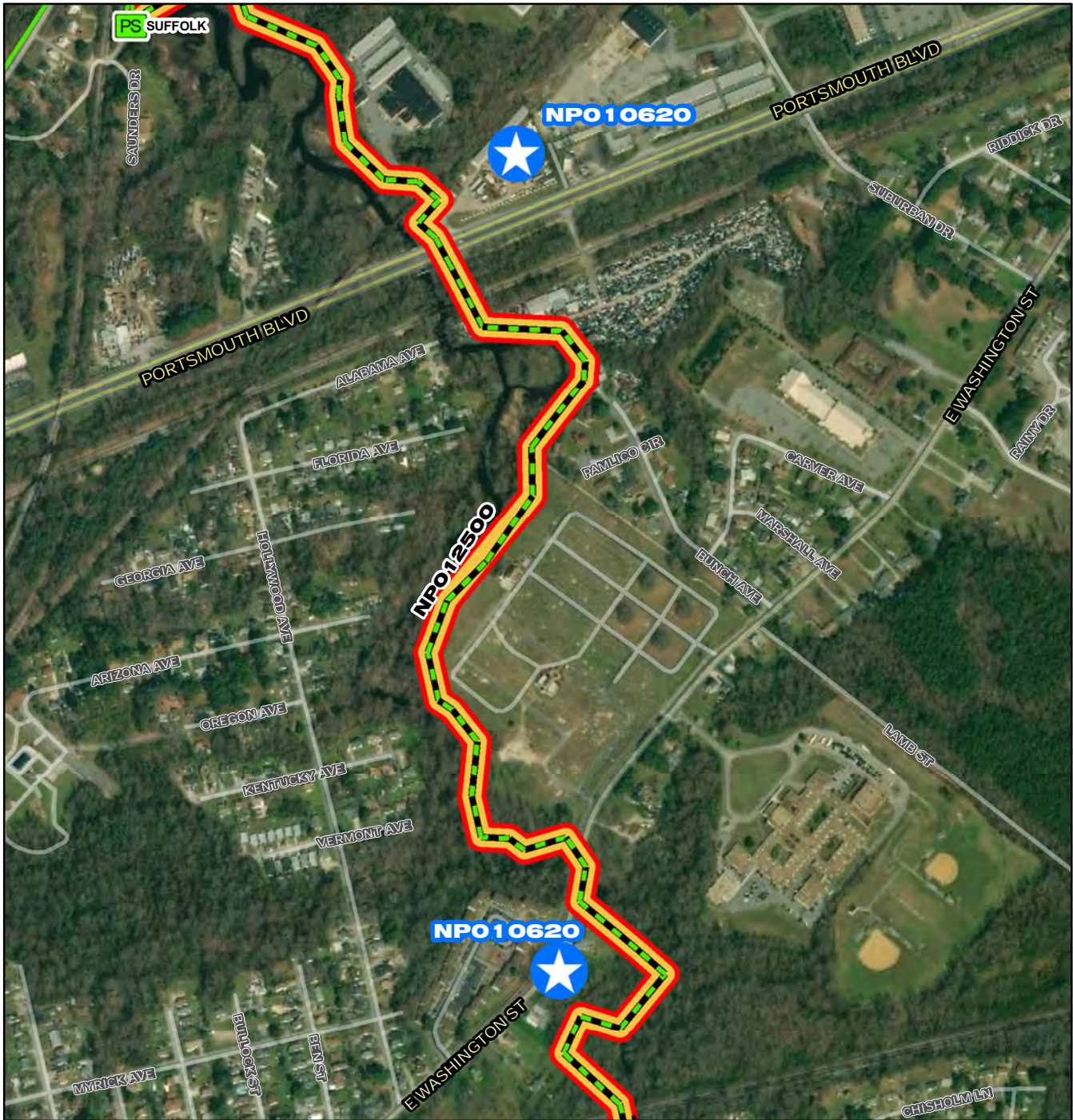


Janice Pickrell Anderson
Notary Public

Reg. No. 230948

My Commission expires: May 31, 2020

INSTRUMENT # 190013513
RECORDED IN CLERK'S OFFICE OF SUFFOLK ON
Nov 26, 2019 AT 03:45:30 pm
W. RANDOLPH CARTER, JR. by SPK
\$320.00 GRANTOR TAX WAS PAID
AS REQUIRED BY SEC 58.102 OF THE VA. CODE
STATE: \$160.00 LOCAL: \$160.00

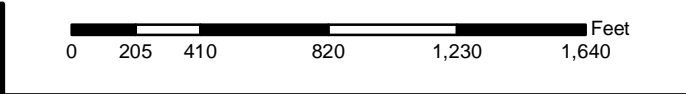


NPO10620

- 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



NPO 10620

Suffolk Pump Station Replacement

CIP Location

Suffolk

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #7

AGENDA ITEM 8. VIRGINIA BEACH BOULEVARD FORCE MAIN PHASE VI
PROJECT ACQUISITION OF EASEMENT

TAX PARCEL NO.: 1497-74-8394-0000
KPCTA FILE:
PROJECT: Virginia Beach Boulevard IFM – Phase VI
ROUTE/STREET: 207 Parker Lane
CITY/COUNTY: Virginia Beach, VA 23452

PURCHASE AGREEMENT - EASEMENT

THIS CONTRACT FOR PURCHASE AND SALE, made this _____ day of _____ 2019, by and between **HAMPTON ROADS SANITATION DISTRICT** (“HRSD”), a political subdivision of the Commonwealth of Virginia, located at 1434 Air Rail Avenue, Virginia Beach, Virginia 23455 (the “Buyer”), and **TCS MATERIALS, LLC**, a Delaware limited liability company, successor by conversion to Sadler Materials Corporation, whose mailing address is 4401 N. Patterson Avenue, Winston-Salem, NC 27105, (“Landowner/Seller”). Collectively, Buyer and Seller shall be referred to as the “Parties.”

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

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

Being as shown on the attached plat prepared by Rouse-Sirine Associates, Ltd., entitled “PLAT SHOWING 30’ HRSD PERMANENT UTILITY EASEMENT AND 20’ & 50’ TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED FROM TCS MATERIALS, LLC BY HAMPTON ROADS SANITATION DISTRICT” dated November 13, 2019 and containing 0.662 acre (28,837 square feet), more or less land for the proposed HRSD permanent easement; together with proposed temporary construction easements containing 0.319 acre (13,882 square feet), more or less; and conveyed to Sadler Materials Corporation, a Virginia corporation, n/k/a TCS Materials, Inc., pursuant to Deed dated July 5, 1967 from John P. Parker and Roxanne C. Parker, husband and wife, and George J. Parker and Patricia L. Parker, husband and wife, which is recorded in the aforesaid Clerk’s Office in Deed Book 1033, Page 295 and Deed dated October 9, 1967 from Roxanne Parker, Executrix under the Will of John P. Parker, deceased, and George J. Parker, Executor under the Will of John P. Parker, deceased, which is recorded in the aforesaid Clerk’s Office in Deed Book 1033, Page 297 and as more particularly shown on plat entitled “Plat of Part of Property of John P. and George J. Parker located near London Bridge, Lynnhaven Borough, Virginia Beach, Virginia dated June 19, 1967 by Wilfred P. Large, Certified Land Surveyor” and recorded in the aforesaid Clerk’s Office in Map Book 73, Page 26.

(Temporary easement will terminate at such time as the construction of the aforesaid project is complete).

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

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

CONSIDERATION: TWO HUNDRED TWENTY-FIVE THOUSAND AND 00/100 DOLLARS (\$225,000.00) in full for the easements described hereinbefore and for all damages, if any.

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

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

Seller warrants that it/he/she is the sole owner in fee simple of the land in interest and further warrants that title to the property is, and at settlement will be, marketable and good of record and in fact, free and clear of all liens, encumbrances, leases, and any of those existing to be removed at or prior to settlement.

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

The Seller is the sole fee simple owner of the property and has all necessary authority to sell the property. In the event the Seller is not an individual or individuals but an LLC, corporation or some other type of business entity and this Agreement is contingent upon approval by the Seller’s governing body and the undersigned warrants that he/she has been granted the requisite authority, pursuant to approval or resolution of the Seller’s governing body or by some other similar, valid and customary approval process utilized by the Seller, to endorse this instrument and thereby conveys the easement on the real estate in interest to HRSD.

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

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

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

HRSD and Landowner hereby agree that the attached Addendum A to Easement Agreement and the provisions contained here is hereby incorporated into this Agreement as if fully set forth herein.

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

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

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

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

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

Landowner agrees to work with Bridgeman Construction to allow for a temporary construction laydown area in connection with the project. Terms of the agreement to be determined between Landowner and Bridgeman Construction.

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

WITNESS the following signatures and seals:

BUYER:

HAMPTON ROADS SANITATION DISTRICT (HRSD)

By: _____ Date: _____

Name: Edward G. Henifin, P.E.

Title: General Manager

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

COMMONWEALTH OF VIRGINIA

City/County of Virginia Beach, to-wit:

The foregoing instrument was acknowledged before me this ___ day of _____, 2019, by Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District.

Notary Public

Notary Public Registration No. _____

My commission expires: _____

SELLER(S):

TCS MATERIALS, LLC, a Delaware limited liability company

BY: _____ Date: _____
(Signature)

ITS: _____
(Title)

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

The foregoing instrument was acknowledged before me this ___ day of _____, 2019, by _____ (Name), _____ (Title), TCS MATERIALS, LLC, a Delaware limited liability company.

Notary Public

Notary Public Registration No. _____

My commission expires: _____

**ADDENDUM A
TO GRANT OF EASEMENT**

1. Seller makes no representation and disclaims any warranty with respect to the condition of the Premises or its suitability for the use(s) intended by Buyer. Buyer acknowledges that it has had the opportunity to inspect the Premises and accepts its condition 'AS IS'.

2. Buyer further acknowledges that this Grant of Easement from Seller is a nonexclusive grant, and Buyer further acknowledges and consents to the grant by Seller of access easements to others over the surface of the easement herein granted.

PROJECT PARCEL NO. 005

PROPERTY OF: TCS MATERIALS, LLC, A DELAWARE LIMITED LIABILITY COMPANY,
 SUCCESSOR, BY CONVERSION, TO SADLER MATERIALS CORPORATION
 PROPERTY ADDRESS: 207 PARKER LANE
 OWNER ADDRESS: 4401 N. PATTERSON AVENUE, WINSTON-SALEM, NC 27105
 GPIN #: 1497-74-8394

NOTES:

1. MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATES SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN 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 PROPERTY REFERENCES THAT AFFECT THIS PROPERTY.
3. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY. PARCEL AREAS SHOWN ARE APPROXIMATE AND BASED ON PLATS AND DEEDS OF RECORD, OR CITY TAX RECORDS AND ARE APPROXIMATE IN NATURE.
4. OWNER NAME HAS BEEN REVISED TO TCS MATERIALS, LLC, A DELAWARE LIMITED LIABILITY, SUCCESSOR, BY CONVERSION, TO SADLER MATERIALS CORPORATION COMPANY PER CLIENT REQUEST. AS OF NOVEMBER 13, 2019 NO LEGAL RECORD OF THE NAME CHANGE OR ASSUMPTION WAS FOUND IN CITY OF VIRGINIA BEACH LAND RECORDS.

AREA TABLE							
TOTAL PARCEL AREA		30' HRSD PERMANENT UTILITY EASEMENT		20' & 50' TEMPORARY CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
242,978 ±	5.578 ±	28,837	0.662	13,882	0.319	200,259 ±	4.597 ±

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT

AND
**20' & 50' TEMPORARY
 CONSTRUCTION EASEMENT**

TO BE ACQUIRED FROM
TCS MATERIALS, LLC

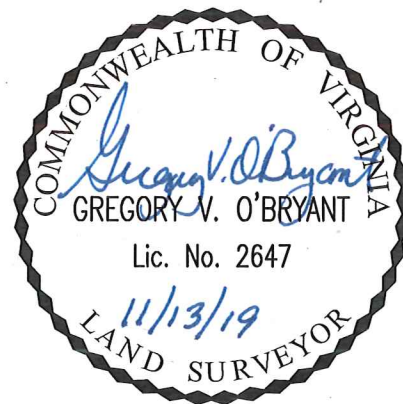
BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

SCALE: 1"=100'

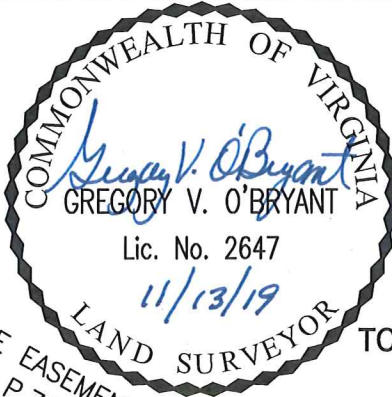
DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"

www.rouse-sirine.com
 333 OFFICE SQUARE LANE 1311 JAMESTOWN ROAD
 VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695



1	REVISOR	2	REVISOR	3	OWNER
	EASEMENT		EASEMENT		REVISED
	LOCATION		LOCATION		-PER CLIENT
	01/29/2019		07/22/2019		11/13/19



NOW OR FORMERLY
L & S
(D.B. 2469, P.190) (M.B. 301, P.23-24)
GPIN: 1497-84-0748

30' HRSD PERMANENT
UTILITY EASEMENT
AREA = 28,837 S.F. / 0.662 ACRE

PROPERTY OF
TCS MATERIALS, LLC, A DELAWARE
LIMITED LIABILITY COMPANY

(D.B. 1033, P.295)
(M.B. 73, P.26)
GPIN: 1497-74-8394
(SEE NOTE 4, PAGE 1)

005

20' & 50' TEMPORARY
CONSTRUCTION
EASEMENT
AREA = 13,882 S.F. /
0.319 ACRE

PARKER LANE
(VARIABLE WIDTH RIGHT-OF-WAY)
(INST. #200403250047576-PLAT)
(M.B. 14, P. 49)

N: 3,474,671.765
E: 12,198,247.182

NOW OR FORMERLY
AMERICAN ENVIRONMENT
FOUNDATION

(INST. #20080129000106400)
(M.B. 98, P.44)
GPIN: 1497-84-3488

VARIABLE WIDTH
LANDSCAPE AREA
(M.B. 302, P.49)

LINE TABLE		
LINE NO.	BEARING	DISTANCE
L1	N89°39'02"E	27.91'
L2	N21°59'51"E	38.36'
L3	N80°14'50"E	30.32'
L4	S21°59'51"W	56.81'
L5	S89°39'02"W	32.59'
L6	N06°04'11"W	50.00'
L7	S06°04'11"E	31.90'
L8	N89°39'02"E	5.70'
L9	N21°59'51"E	26.07'

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
AND
20' & 50' TEMPORARY
CONSTRUCTION EASEMENT
TO BE ACQUIRED FROM
TCS MATERIALS, LLC

BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

SCALE: 1"=100'

DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"

www.rouse-sirine.com

333 OFFICE SQUARE LANE
VIRGINIA BEACH, VIRGINIA 23462

TEL.(757)490-2300
FAX:(757)499-9136

1311 JAMESTOWN ROAD
SUITE 103

WILLIAMSBURG, VIRGINIA 23185
TEL.(757)903-4695

0 50 100 200 300 FEET

GRAPHIC SCALE



300' DRAINAGE EASEMENT
(D.B. 2147, P.761)
(D.B. 2242, P.619)
VARIABLE WIDTH
CONSERVATION EASEMENT
(M.B. 302, P.49)
VARIABLE WIDTH
MITIGATION AREA
(M.B. 302, P.49)
LONDON
BRIDGE CREEK

N: 3,474,248.246
E: 12,197,621.401

363.73'
N83°55'49"E 443.73'

S83°55'49"W 466.36'

N: 3,474,295.164
E: 12,198,062.642

55.88' PUBLIC
DRAINAGE EASEMENT
(M.B. 302, P.49)

30' HRSD PERMANENT UTILITY EASEMENT
AREA = 28,837 S.F. / 0.662 ACRE

VARIABLE WIDTH PUBLIC MAINTENANCE EASEMENT
(M.B. 302, P.49)

VARIABLE WIDTH PUBLIC IMPOUNDMENT EASEMENT
(M.B. 302, P.49)

1	REVISED EASEMENT LOCATION 01/29/2019
2	REVISED EASEMENT LOCATION 07/22/2019

3	OWNER REVISED -PER CLIENT 11/13/19
---	---

LEGEND

30' HRSD PERMANENT UTILITY
EASEMENT TO BE ACQUIRED



20' & 50' TEMPORARY CONSTRUCTION
EASEMENT TO BE ACQUIRED

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #8

AGENDA ITEM 9. BRIDGE STREET SIPHON AND VENT
RELOCATION/REHABILITATION AGREEMENT

SETTLEMENT AGREEMENT AND RELEASE

This Settlement Agreement and Release ("Agreement") is made this ^{2nd} ~~day~~ ^{December} of ~~November~~, 2019, between the following Parties:

City of Hampton, Virginia; ("City");

Hampton Roads Sanitation District Commission ("HRSD); and

Precon Marine, Inc. ("Precon").

Each of the foregoing is a "Party" and, collectively, they are the "Parties." The Parties agree to resolve claims filed by Precon on the following Project on the terms stated herein:

City of Hampton, VA ITB No. 16-29/A Bridge Street Bridge Replacement Project
Contract No. BROS-5A03(413), BROS-5A03(659),
FHWA No.: BROS-5A03 (703), FHWA 534-3J011.

RECITALS

1. The dispute that is the subject of this Agreement arises from a construction contract between the City and Precon dated April 28, 2016. The Project included construction work on HRSD's sewer systems that were adjacent to the Bridge Street Bridge, being replaced by Precon under the Contract. Claims were filed by Precon during the course of the Project, culminating in a final Project Claim filed on July 16, 2019.
2. The work on HRSD's sewer systems was included as part of the Project pursuant to the Agreement for Construction and Relocation of Bridge Street Vent and Rehabilitation of Bridge Street Siphons, entered into between the City and HRSD on May 11, 2016.
3. The Parties mutually desire to resolve the Project Claim and all disputes between them, and have reached the following Agreement in resolution of all claims presented by Precon on the Project.

TERMS

I. No Admission of Liability.

- A. This Agreement, whether or not consummated, any proceedings relating to any settlement, or any of the terms of any settlement, whether or not consummated, shall in no event be construed as, or deemed to be evidence of, an admission of liability by the Parties, or any of them, with respect to any claim of any liability or damage in any claim or defense that has been or could have been asserted. The Parties are entering into this Agreement to eliminate the burden, expense, uncertainty, distraction and risk of further disputes and possible litigation.

II. Settlement Payment

- A. In settlement of Precon's claims on the Project, the City and Precon have executed the attached Change Order No.22 to the Contract in the total amount of SEVEN HUNDRED THIRTY SEVEN THOUSAND, TWELVE AND 83/100th DOLLARS (\$737,012.83).

- B. As provided in Change Order No. 22, payment of the Change Order shall be made in two increments; one paid by the City and one paid by HRSD. The City's payment to Precon shall be in the amount of \$511,183.83. HRSD's payment shall be in the amount of \$225,829.00. Payment by the City shall be made as soon as possible, but not later than November 30, 2019 unless counsel for the City and Precon agree to additional days due to circumstances beyond the control of the City. Payment by HRSD shall be made as soon as possible after approval by the HRSD Commission. HRSD agrees to place the request for approval of this Agreement on the HRSD Commission's agenda for November 26, 2019. If approved by the HRSD Commission on November 26, 2019, then HRSD will remit its payment not later than December 15, 2019.
- C. Payment shall be made by wire transfer or check made payable to the trust account of Vandeventer Black LLP, Precon's counsel in this matter, according to instructions to be provided by that firm to the City and HRSD. Precon consents to this payment procedure.

III. Release

- A. Precon Marine Inc., on behalf of itself, its principals, owners, members, managers, officers, directors, affiliates, successors, assigns, employees, attorneys, subcontractors, suppliers, sureties, and representatives, hereby release, dismiss, and forever discharge City and HRSD, and their employees, representatives, consultants, insurers, attorneys, (collectively, the "Precon Releasees"), of and from any and all claims, suits, actions, causes of action, damages, and demands related to or arising from the facts, circumstances, decisions, acts or omissions, arising from or related to the Project and the Contract; provided however that if any claim is made in the future by the City or HRSD against Precon Marine Inc. based on warranty, breach of contract, or other obligations under the Contract, Precon retains all rights to dispute, contest, or defend against such claims on any basis under law or the Contract.
- B. The City of Hampton, Virginia, on behalf of itself, its employees, representatives, consultants, other contractors, insurers, attorneys, affiliates, successors, and assigns, hereby releases, dismisses, and forever discharges Precon Marine, Inc., and its principals, owners, managers, officers, directors, affiliates, successors, assigns, employees, attorneys, subcontractors, suppliers, insurers, sureties, and representatives of same (collectively, the "City Releasees"), of and from any and all claims, suits, actions, causes of action, damages, and demands related to or arising from the Project or the Contract, , except for any unexpired warranty obligations under the Contract of Precon, its subcontractors or suppliers.
- C. The Hampton Roads Sanitation District Commission, on behalf of itself, its employees, representatives, consultants, other contractors, insurers, attorneys, affiliates, successors, and assigns, hereby releases, dismisses, and forever discharges Precon Marine, Inc., and its principals, owners, managers, officers, directors, affiliates, successors, assigns, employees, attorneys, subcontractors, suppliers, insurers, sureties, and representatives of same (collectively, the "HRSD Releasees"), of and from any and all claims, suits, actions, causes of action, damages, and demands related to or arising from the Project or the Contract, except for any unexpired warranty obligations under the Contract of Precon, its subcontractors or suppliers.

- D. Each Party will bear its own costs and fees involved in the review, negotiation and settlement of the claims on this Project.

IV. Indemnification.

- A. Precon agrees to indemnify and hold the City and HRSD harmless from any claims by its subcontractors, suppliers, or sureties on this Project, arising from or related to the Project or the Contract. Notwithstanding the foregoing, Precon's obligations to indemnify and hold the City and HRSD harmless does not extend to claims or defenses made by Precons's subcontractors or suppliers in response to or defense of warranty or breach of contract claims made by the City or HRSD against such subcontractors or suppliers for work performed or materials supplied on this Project.

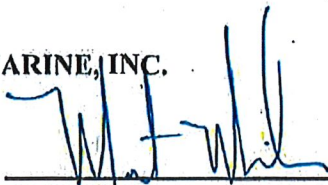
V. Miscellaneous

- A. As part of the bilateral negotiations and concessions made by both parties in order to reach the settlement formalized in this Agreement the City agrees to exercise discretion and not assess liquidated damages on this Project nor contest Precon so representing as needed in the future.
- B. This Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Virginia, without regard to its choice of law provisions. Any action arising out of, or relating to, any of the provisions of this Agreement shall be brought and prosecuted only in the Circuit Court for the City of Hampton, Virginia, and in the event of such action, the Parties consent to the jurisdiction and venue of said court. Further, the parties waive trial by jury.
- C. This Agreement constitutes the entire agreement between the Parties pertaining to the matters with which it deals and supersedes all prior agreements pertaining to those matters.
- D. This Agreement may not be altered or modified in any respect except by writing duly executed by all Parties.
- E. This Agreement is binding upon and inures to the benefit of the Parties' successors and assigns.
- F. If any provision of this Agreement is construed to be invalid, illegal or unenforceable, then the remaining provisions hereof shall not be affected thereby and shall be enforceable without regard thereto.
- G. This Agreement may be signed in counterparts, which when taken together shall constitute a single Agreement.

SIGNATURE PAGE(S) TO AGREEMENT FOLLOW

PRECON MARINE, INC.

By:



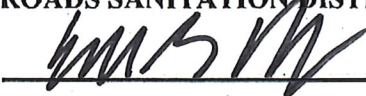
Name: Matthew Miller

Title: President

Date: 11/08/2019

HAMPTON ROADS SANITATION DISTRICT COMMISSION.

By:



Name:

EDWARD G. HENIFIN

Title:


GENERAL MANAGER

Date:

12/2/2019

CITY OF HAMPTON, VIRGINIA

By:



Name: Mary B. Bunting

Title: City Manager

Date:

11/19/19

Approved as to form and legal sufficiency



Lola Rodriguez Perkins
Senior Deputy City Attorney

Date: 11/13/19

CHANGE ORDER

ITB No. 16-29/A Bridge Street
 Contract ID. No.: Bridge Replacement Project FHW No.: BROS-5A03 (703), FHWA 534-3J011 Work Order No.: 22
 State Project No.: U000-114-199 (UPC 93081) Category: MISC
 Original Contract Value \$ 4,051,953.93 Total of Other Work Orders \$331,714.29 (including force accounts)

NOTE: If additional space is needed, use an additional sheet(s) and label as Supplemental Attachment#.

I. LOCATION AND DESCRIPTION OF PROPOSED WORK:

Settlement of Precon Marine Inc, claim submitted July 16, 2019. This Change Order fully resolves and settles all claims, demands, or damages of any kind advanced by Precon Marine Inc. and/or its subcontractors and/or sureties (Settlement") against the City of Hampton and/or the Hampton Roads Sanitation District (HRSD) relating to or arising out of the work set forth in and/or performed pursuant to the Replacement of Bridge Street Bridge, contract ITB No. 16-29/A, UPC 93081, ("Contract") including but not limited to delays, disruptions, accelerations, Notices of Intent and interest. This settlement is inclusive of contract funds previously withheld as liquidated damages pending resolution of claims.

Contract Time: This Work Order adds 49 calendar days to the contract completion.

II. RESPONSIBLE CHARGE ENGINEER'S EXPLANATION OF NECESSITY FOR PROPOSED WORK:

Settlement of claims submitted by Precon Marine, Inc. related to the Contract.

III. FUNDING SOURCE/CHARGE: Contract and direct payment to Contractor by HRSD

IV. THE FIXED DATE TIME LIMIT FOR THIS CONTRACT PRIOR TO APPROVAL OF THIS WORK ORDER IS: 11/01/17

V. THE FIXED DATE TIME LIMIT FOR THIS CONTRACT UPON APPROVAL OF THIS WORK ORDER IS: 12/20/17

VI. Payments to be Made.

ITEM NO.	SPEC. NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	INCREASE	DECREASE
N/A	N/A	Payment by City of Hampton for Settlement of Claim dated July 16, 2019 City of Hampton contribution	0	LS	0	\$511,183.83	0
N/A	N/A	Payment by HRSD for Contribution to Settlement of Claim dated July 16, 2019 by HRSD (to be paid directly to Precon Marine Inc. or its designee)	0	LS	0	\$225,829.00	0
NET TOTAL						\$737,012.83	0

Precon Marine, Inc ("PMI") and the City of Hampton agree that upon payment of the above amounts to PMI, this Change Order fully resolves and settles all claims, demands, or damages of any kind advanced by PMI, its subcontractors, and/or sureties against the City of Hampton and/or the Hampton Roads Sanitation District relating to or arising out of the work set forth in and/or performed pursuant to Replacement of Bridge Street Bridge, contract ITB No. 16-29/A, UPC 93081, including but not limited to delays, disruptions, accelerations, Notices of Intent and interest. All parties agree that the contribution by HRSD and payment by the City of Hampton constitutes sufficient consideration for this full and final release.

Contractor Precon Marine, Inc. BY  11/07/2019
 (Firm's Name) (Officer of the Firm) Date

RECOMMENDED FOR APPROVAL:

RECOMMENDED BY	TITLE	DATE	RECOMMENDED BY
TITLE	DATE	TITLE	DATE

APPROVED:

APPROVED BY* (City of Hampton) **TITLE** _____ **DATE** _____
* See CD-2006-02 for Process and Authorities
4810-9549-0987, v. 1

HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #9

AGENDA ITEM 12. VIRGINIA BEACH CITY PUMP STATION UPGRADE
AGREEMENTS

AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH CITY PUMP STATION UPGRADES, PHASE V - PS 309
(CIP PROJECT #CE011835)

AND

CITY OF VIRGINIA BEACH
Pump Station Modifications V (CIP PROJECT #6041000)

THIS AGREEMENT FOR COST SHARING (the "Agreement"), between the CITY OF Virginia Beach ("CITY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this ____ day of _____, 201__ (the "Effective Date").

RECITALS

R:1. Under the VIRGINIA BEACH CITY PUMP STATION UPGRADES, PHASE V – PS309, #CE011835 project, HRSD shall finance specific upgrades to the City of Virginia Beach Pump Station 309 in order for the station to accommodate the new HRSD system pressure at the station tie-in location after HRSD closes the Chesapeake-Elizabeth Treatment Plant ("CETP") and diverts the flow to the Atlantic Treatment Plant ("ATTP"); and

R:2. The CITY shall construct the modification to their existing Pump Station 309 (City Facilities) as part of the City of Virginia Beach's Pump Station Modifications V, CIP #6041000 and

R:3. The design and construction of the "Diversion Improvements" at the CITY Facilities will necessitate the replacement of the pumps and related appurtenances for the 4-inch ductile iron discharge pipe, wet well top slab and access hatches, influent gate valve, access ladders, 6-inch bypass pump connection assembly, valve box, valves and piping in vault, all control room electrical panels and control equipment, and other associated work as detailed in the Preliminary Engineering Report ("PER") prepared by Kimley-Horn and Associates in April 2018, Virginia Beach Pump Station No. 309 – Lake Front Village; and

R:4. Any work completed on the CITY Facilities that is outside of the Diversion Improvements scope proposed in the PER shall be financed and paid by the CITY and is referred to as a "Betterment"; and

R:5. HRSD and the CITY agree that it is in the best interest of the parties to have the Diversion Improvements and any City Betterments designed and constructed together; and

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

TERMS

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

I. DESIGN OF DIVERSION IMPROVEMENTS

A. Plans and Specifications

1. The City will employ Clark Nexsen (“ENGINEER”), to prepare plans and specifications for the CITY Facilities.
2. The ENGINEER will follow the standard HRSD Development Process, which includes but is not limited to, the completion of the Project Information Form, Flow Calculations Worksheet, Pressure Analysis Request Form, Pump Station Information Form and a full set of Engineering Plans.
3. ENGINEER, along with HRSD and the CITY, will meet to coordinate, review, and approve a set of final construction documents (the “Final Plans and Specifications”) for the Diversion Improvements. This requirement may be waived by HRSD if there are no changes to the plans submitted through the Development Process.

B. Payment of the Design Costs

1. HRSD shall reimburse the CITY for the design costs attributable to the Diversion Improvements to the CITY Facilities in one lump sum payment due once the design of the Diversion Improvements is complete. The CITY shall provide HRSD with an invoice detailing the HRSD’s share of the design costs. Within thirty (30) days of its receipt of such invoice, the HRSD shall reimburse the CITY for the Diversion

Improvements design costs as detailed in the invoice. HRSD and the City agree that HRSD's portion of the design cost will be no more than 74% of the total design cost.

II. CONSTRUCTION OF DIVERSION IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Diversion Improvements, as more particularly defined by the Final Plans and Specifications, prepared by the ENGINEER for the CITY (the "Diversion Improvements Costs") shall include
 - a. Cost of construction of the Diversion Improvements;
 - b. Costs for construction contract administration
2. The current estimated cost of the construction of the Diversion Improvements to the CITY Facilities is \$974,000.

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

1. HRSD and the CITY agree that before any construction work is to begin under this Agreement, HRSD and the CITY will jointly review and approve the Final Plans and Specifications. This approval shall be in writing.
2. The CITY shall acquire all necessary plan approvals and property acquisitions related to CITY Facilities prior to the award of the construction contract.
3. The City or its Contractors shall be responsible for all necessary permits and approvals necessary for the Diversion Improvements.
4. CITY will review and approve shop drawings related to the CITY Facilities. HRSD will review and approve pump shop drawings and drawings related to the Diversion Improvements.
5. HRSD will review and approve change orders related to the Diversion Improvements. The CITY will review and approve change orders related to Betterments.

C. Payment of Diversion Improvement Costs

1. The Diversion Improvement Costs shall be apportioned among the parties as follows:
 - a. Using the Engineer's 100% cost estimate, a percentage split was determined between the Diversion Improvement and the Betterment work.
 - b. HRSD will be responsible for bearing seventy-four percent (74%) of the cost of the Improvements. These are the Diversion Improvements.
 - c. The CITY will be responsible for bearing twenty-six (26%) of the cost of the Improvements. These are the Betterments.
 - d. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:
 - (1) HRSD shall be solely responsible for costs due to a Change Order related to the Diversion Improvements; and
 - (2) The CITY shall be responsible for costs due to a Change Order related to Betterments.
 - (3) Change Orders related to design errors, omissions or changed field conditions shall be the responsibility of the City.
2. During the course of construction, the CITY shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Diversion Improvements for all Improvement Costs, including those for which HRSD is responsible. HRSD shall reimburse the CITY for all such payments made on its behalf. HRSD shall pay Diversion Improvements Costs to the City in one lump sum payment upon completion of construction. The CITY shall provide HRSD with an invoice detailing the Diversion Improvement Costs. Within thirty (30) days of its receipt of such invoice, HRSD shall reimburse the CITY for the Diversion Improvement Costs as detailed in the invoice.

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

CITY shall be responsible for operation and maintenance of the CITY Facilities during and after construction.

III. SCHEDULE

The construction is anticipated to begin by January 2020 and be complete by July 2021. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Meeting or Open House

The CITY will be responsible for holding a public meeting or open house as required by CITY policy. The CITY will coordinate, reserve the location, and lead the meeting.

B. Bidding of the Diversion Improvements

1. The CITY shall issue bidding documents for construction of the Diversion Improvements and administer the advertisement and bidding process.
2. The CITY will receive a quotation from their Contractor for construction of the Diversion Improvements. The quote 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 the Diversion Improvements.

C. Administration

The CITY shall provide contract administration of the Diversion Improvements.

D. Inspection

The CITY shall provide inspection for the Diversion Improvements. HRSD or their representative shall have the authority to assure the Diversion Improvements are constructed in accordance with the Final Plans and Specifications through periodic inspection.

E. Deeds and Easements

CITY shall obtain any and all necessary fee simple deeds and/or deeds of easements for the CITY Facilities.

F. Correction of Construction Defects in the Diversion Improvements

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

V. GOVERNING LAW

This Agreement shall be deemed to be a Virginia Contract and shall be governed as to all matters whether of validity, interpretations, obligations, performance or otherwise exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws. Regardless of where actually delivered and accepted, this contract shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.

VI. TERMINATION

Anything herein or elsewhere to the contrary notwithstanding, this Agreement and the obligations of the parties hereunder may be terminated by the CITY or HRSD in the event that the other party breaches or violates any material provision of this Agreement or fails to perform any material covenant or agreement to be performed by either party under the terms of this Agreement and such breach, violation or failure is not cured within sixty (60) days of the defaulting party's receipt of written notice of such breach from the non-defaulting party; or by mutual agreement of the CITY and HRSD.

VII. NOTICE

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

For: HRSD

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

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

With Copy to:

William A. Cox, III
Janice Pickrell Anderson
Kellam, Pickrell, Cox & Anderson PC
403 Boush Street, Suite 300
Norfolk, VA 2351

For: City of Virginia Beach
Scott Graver, Project Manager
City of Virginia Beach, Virginia
3500 Dam Neck Road
Virginia Beach, VA 23453
Telephone: (757) 385-8674

With Copy to:

City Attorney
2401 Courthouse Drive, Room 260
Virginia Beach, VA 23456
Telephone: (757) 385-4945
Facsimile: (757) 385-5687

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. SEVERABILITY

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

XI. DAMAGES

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

XII. INSURANCE

The CITY or its contractor are responsible for providing insurance for the project.

XIII. TERM OF AGREEMENT

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

XIV. FORCE MAJEURE

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

XV. INDEPENDENT CONTRACTOR

If the Contractor(s) hire subcontractors or independent contractors, HRSD and the CITY have the right to approve them by reviewing their requisite experience and knowledge to complete the work assigned.

XVI. SUBCONTRACTOR

If any Contractors or subcontractors are selected by any party to this Agreement for completion of the work contemplated herein, HRSD has the right to approve the same.

XVII. WAIVER

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

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

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

XVIII. INTEGRATION

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

Signature pages follow

IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on November 26, 2019.

HAMPTON ROADS SANITATION DISTRICT

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

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

The foregoing Agreement was acknowledged before me this _____ day of _____, 201___, by Edward G. Henifin, HRSD General Manager.

Notary Public

My commission expires:

Registration No.:

IN WITNESS WHEREOF, the City of Virginia Beach has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on _____, 201__,

CITY OF VIRGINIA BEACH

By: _____
Tom Leahy, Acting City Manager

ATTEST:

City Clerk

COMMONWEALTH OF VIRGINIA,
CITY or COUNTY OF _____, to-wit:

The foregoing Agreement was acknowledged before me this _____ day of _____, 201__, by Tom Leahy, Acting City Manager, City of Virginia Beach.

Notary Public

My commission expires:

Registration No.:

Approved as to Legal Sufficiency:

Deputy City Attorney

Approved as to Content:

Director of Utilities

AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH CITY PUMP STATION UPGRADES, PHASE V - PS 310
(CIP PROJECT #CE011835)

AND

CITY OF VIRGINIA BEACH
Pump Station Modifications V (CIP# 6041000)

THIS AGREEMENT FOR COST SHARING (the "Agreement"), between the CITY OF VIRGINIA BEACH ("CITY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this ____ day of _____, 201__ (the "Effective Date").

RECITALS

R:1. Under the VIRGINIA BEACH CITY PUMP STATION UPGRADES, PHASE V – PS 310 project, CIP# CE011835, HRSD shall finance specific upgrades to the City of Virginia Beach Pump Station 310 in order for the station to accommodate the new HRSD system pressure at the station tie-in location after HRSD closes the Chesapeake-Elizabeth Treatment Plant ("CETP") and diverts the flow to the Atlantic Treatment Plant ("ATTP") ; and

R:2. The CITY shall construct the modification to their existing Pump Station 310 (City Facilities) as part of the City of Virginia Beach's Pump Station Modifications V, CIP #6041000; and

R:3. The design and construction of the "Diversion Improvements" at the CITY Facilities will necessitate the replacement of the pumps, piping in the station and yard, and the valves up to the gate valves on the suction piping. In addition, relocation and/or replacement of the pump shaft support beam and wet/dry well exhaust fans and associated duct work is included. These modifications are detailed in the Preliminary Engineering Report ("PER") prepared by Kimley-Horn and Associates in April 2018, Virginia Beach Pump Station No. 310 – Lake Shores West; and

R:4. Any work completed on the CITY Facilities that is outside of the Diversion Improvements scope proposed in the PER shall be financed and paid by the CITY and is referred to as a "Betterment"; and

R:5. HRSD and the CITY agree that it is in the best interest of the parties to have the Diversion Improvements and any City Betterments designed and constructed together; and

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

TERMS

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

I. DESIGN OF DIVERSION IMPROVEMENTS

A. Plans and Specifications

1. The City will employ Clark Nexsen (“ENGINEER”), to prepare plans and specifications for the CITY Facilities.
2. The ENGINEER will follow the standard HRSD Development Process, which includes but is not limited to, the completion of the Project Information Form, Flow Calculations Worksheet, Pressure Analysis Request Form, Pump Station Information Form and a full set of Engineering Plans.
3. The City will use the preliminary design documents provided with the PER to obtain a quote from their on-call contractor. No other design-related costs are anticipated.
4. ENGINEER, along with HRSD and the CITY, will meet to coordinate, review, and approve a set of final construction documents (the “Final Plans and Specifications”) for the Diversion Improvements. This requirement may be waived by HRSD if there are no changes to the plans submitted through the Development Process.

II. CONSTRUCTION OF DIVERSION IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Diversion Improvements, as more particularly defined by the PER prepared by Kimley-Horn and Associates in April 2018, Virginia Beach Pump Station No. 310 – Lake Shores West (the “Diversion Improvements Costs”) shall include cost of construction of the Diversion Improvements;
2. The current estimated cost of the construction of the Diversion Improvements to the CITY Facilities is \$371,000.

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

1. HRSD and the CITY agree that before any construction work is to begin under this Agreement, HRSD and the CITY will jointly review and approve the Final Plans and Specifications. This approval shall be in writing.
2. The CITY shall acquire all necessary plan approvals and property acquisitions related to CITY Facilities prior to the award of the construction contract.
3. The City or its Contractors shall be responsible for all necessary permits and approvals necessary for the Diversion Improvements.
4. CITY will review and approve shop drawings related to the CITY Facilities. HRSD will review and approve pump shop drawings and drawings related to the Diversion Improvements.
5. HRSD will review and approve change orders related to the Diversion Improvements. The CITY will review and approve change orders related to Betterments.

C. Payment of Improvement Costs

1. The Improvement Costs shall be apportioned among the parties as follows:
 - a. A percentage split was determined in the Preliminary Engineering phase of the project between the Diversion Improvement and the Betterment work,
 - b. HRSD will be responsible for bearing sixty-four percent (64%) of the cost of the Improvements. These are the Diversion Improvements.
 - c. The CITY will be responsible for bearing thirty-six percent (36%) of the cost of the Improvements. These are the Betterments.
 - d. Costs associated with any change to the initial construction cost (“Change Order”) shall be as follows:
 - (1) HRSD shall be solely responsible for costs due to a Change Order related to the Diversion Improvements; and
 - (2) The CITY shall be responsible for costs due to a Change Order related to Betterments.
 - (3) Change Orders related to design errors, omissions or changed field conditions shall be the responsibility of the entity impacted by the change. If the Change Order impacts the work of both HRSD and the CITY, the responsibility shall be shared based on the percentage split determined previously.
2. During the course of construction, the CITY shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Diversion Improvements for all Improvement Costs, including those for which HRSD is responsible. HRSD shall reimburse the CITY for all such payments made on its behalf. HRSD shall pay Diversion Improvements Costs to the City in one lump sum payment upon completion of construction. The CITY shall provide HRSD with an invoice detailing the Diversion

Improvement Costs. Within thirty (30) days of its receipt of such invoice, HRSD shall reimburse the CITY for the Diversion Improvement Costs as detailed in the invoice.

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

CITY shall be responsible for operation and maintenance of the CITY Facilities during and after construction.

III. SCHEDULE

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

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Meeting or Open House

The CITY will be responsible for holding a public meeting or open house as required by CITY policy. The CITY will coordinate, reserve the location, and lead the meeting.

B. Bidding of the Diversion Improvements

1. The CITY shall issue bidding documents for construction of the Diversion Improvements and administer the advertisement and bidding process.
2. The CITY will receive a quotation from their on-call contractor for construction of the Diversion Improvements. The quote 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 the Diversion Improvements.

C. Administration

The CITY shall provide contract administration of the Diversion Improvements.

D. Inspection

The CITY shall provide inspection for the Diversion Improvements. HRSD or their representative shall have the authority to assure the Diversion Improvements are constructed in accordance with the Final Plans and Specifications through periodic inspection.

E. Deeds and Easements

CITY shall obtain any and all necessary fee simple deeds and/or deeds of easements for the CITY Facilities.

F. Correction of Construction Defects in the Diversion Improvements

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

V. GOVERNING LAW

This Agreement shall be deemed to be a Virginia Contract and shall be governed as to all matters whether of validity, interpretations, obligations, performance or otherwise exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws. Regardless of where actually delivered and accepted, this contract shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.

VI. TERMINATION

Anything herein or elsewhere to the contrary notwithstanding, this Agreement and the obligations of the parties hereunder may be terminated by the CITY or HRSD in the event that the other party breaches or violates any material provision of this Agreement or fails to perform any material covenant or agreement to be performed by either party under the terms of this Agreement and such breach, violation or failure is not cured within sixty (60) days of the defaulting party's receipt of written notice of such breach from the non-defaulting party; or by mutual agreement of the CITY and HRSD.

VII. NOTICE

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

For: HRSD

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

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

With Copy to:

William A. Cox, III
Janice Pickrell Anderson
Kellam, Pickrell, Cox & Anderson PC
403 Boush Street, Suite 300
Norfolk, VA 23510

For: City of Virginia Beach

Scott Graver, Project Manager
City of Virginia Beach, Virginia
3500 Dam Neck Road
Virginia Beach, VA 23453
Telephone: (757) 385-8674

With Copy to:

City Attorney
2401 Courthouse Drive, Room 260
Virginia Beach, VA 23456
Telephone: (757) 385-4945
Facsimile: (757) 385-5687

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. SEVERABILITY

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

XI. DAMAGES

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XII. INSURANCE

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XIII. TERM OF AGREEMENT

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

XV. INDEPENDENT CONTRACTOR

If the Contractor(s) hire subcontractors or independent contractors, HRSD and the CITY have the right to approve them by reviewing their requisite experience and knowledge to complete the work assigned.

XVI. SUBCONTRACTOR

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XVII. WAIVER

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

XVIII. INTEGRATION

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

Signature pages follow

IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on November 26, 2019.

HAMPTON ROADS SANITATION DISTRICT

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

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

The foregoing Agreement was acknowledged before me this _____ day of _____, 201__, by Edward G. Henifin, HRSD General Manager.

Notary Public

My commission expires:

Registration No.:

IN WITNESS WHEREOF, the City of Virginia Beach has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on _____, 201__,

CITY OF VIRGINIA BEACH

By: _____
Tom Leahy, Acting City Manager

ATTEST:

City Clerk

COMMONWEALTH OF VIRGINIA,
CITY or COUNTY OF _____, to-wit:

The foregoing Agreement was acknowledged before me this _____ day of _____, 201__, By Tom Leahy, Acting City Manager, City of Virginia Beach, Virginia.

Notary Public

My commission expires:

Registration No.:

Approved as to Legal Sufficiency:

Approved as to Content:

Deputy City Attorney

Director of Utilities

















HRSD COMMISSION MEETING MINUTES
NOVEMBER 26, 2019

ATTACHMENT #10

AGENDA ITEM 18. – INFORMATIONAL ITEMS

a. Management Reports

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

b. [Strategic Planning Metrics Summary](#)

c. [Effluent Summary](#)

d. [Air Summary](#)

e. [Emergency Declarations](#)

- (1) [Kempsville Road Interceptor Force Main Section II \(Stillwater Drive\)](#)
- (2) [Virginia Beach Boulevard Force Main – Pine Tree Pressure Reducing Station Repair](#)



November 18, 2019

Re: General Manager's Report

Dear Commissioners:

In 2009, we worked with a young and energetic professor from the University of North Carolina's Kenan-Flagler School of Business to conduct an employee satisfaction and motivation study. The results of that work shaped the past 10 years of our internal supervisory training work. That professor was no other than Adam Grant, who today is at the Wharton School of Business at the University of Pennsylvania and is an internationally recognized expert in human relations and highly successful author and speaker.

I recently reached out to Adam to see if he was interested in doing a follow-up to that work. I was pleasantly surprised to get a quick response agreeing to have one of his current doctoral candidates perform the follow-up under Adam's guidance. The work entails surveying our employees using an in depth and detailed online instrument. The supervisors are then asked to fill out a short survey on each of their direct reports.

The research team will work to create a final report of their findings. They will compare current levels of motivation and performance to levels documented in the 2009 survey. They will also document the factors currently driving employee motivation and engagement, highlighting any changes between 2009 and today. Additionally, they have included questions on ethics, diversity and inclusion, and innovation to capture data that was not included in the 2009 survey. We anticipate a final report from the research team in late December or early January and look forward to briefing you on those results.

One final note on this work -- this study is being conducted at no cost to HRSD (other than our time to complete the surveys) as Wharton will be using the results for potential publication. All individual survey responses are entirely confidential and no identifying information will ever be released.

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

- A. **Treatment Compliance and System Operations:** The West Point Treatment plant experienced an exceedance of the monthly BOD average concentration permitted value of 30 mg/l with a value of 40 mg/l. This exceedance was the result of several factors that included a significant rain event (remnants of

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

Commissioners: Frederick N. Elofson, CPA, Chair • Maurice P. Lynch, PhD, Vice-Chair • Vishnu K. Lakdawala, PhD
Michael E. Glenn • Stephen C. Rodriguez • Willie Levenston, Jr. • Elizabeth A. Taraski, PhD • Molly Joseph Ward
www.hrsd.com

Tropical Storm Nestor) that hit our small communities hard and also resulted in several small overflows in those systems. All other treatment plants met permit. There was one spill on the interceptor system when a line failed due to corrosion of restraining bolts. The highlights for the month are included in the attached monthly reports.

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

1. Several calls and meetings to prepare for the keynote presentation at the ESRI Water Summit
2. A meeting to review facts around an order to cease an industrial waste discharge from a permitted discharger
3. Several calls to discuss an approach to applying for US Bureau of Reclamation grant funding for research at SWIFT
4. A meeting to discuss options for serving southern Chesapeake and the mega-site in southern Chesapeake
5. One length of service recognition breakfast
6. A site visit to James River Treatment Plant to review impact of SWIFT facilities on existing property and viewsheds from the adjacent park
7. Planning calls for the public meeting at the Eastern Shore Community College to discuss HRSD territory expansion
8. A call to discuss updates to the Integrated Plan prior to resubmittal

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

1. The quarterly meeting of Congresswoman Luria's Chesapeake Bay Advisory Board
2. A meeting with Navy personnel regarding the new access road to the Atlantic Treatment Plant
3. The Virginia Forever Bridge Builder Event with several commissioners
4. Conducted a tour of the SWIFT Research Center for the Executive Director of the WaterReuse Association
5. Presented SWIFT at the Hampton Yacht Club's evening speaker's series
6. Chaired the monthly virtual meeting of the US Water Alliance's One Water Council
7. Participated on a panel at the 34th Annual WaterReuse Symposium where HRSD's SWIFT Research Center received an award
8. Participated in another public meeting on the Eastern Shore focused on elected officials

9. Attended the US EPA Environmental Finance Board (EFAB) semi-annual meeting as well as the meeting of the EFAB Stormwater Taskforce
10. Meet with senior staff from the Piedmont Regional Office of the Virginia Department of Environmental Quality with Lauren Grimmer to discuss a modification to the compliance schedule for the Town of Surry Consent Order
11. Delivered keynote address to the ESRI Water Summit with HRSD experts Chris Stephan and Jules Robichaud

D. Consent Decree Update:

No response has been received from EPA on the technical memorandum submitted in August with the analysis of the impact of a second set of high priority wet weather projects to be executed between 2030 and 2040.

Staff submitted the annual report as required prior to the November 1, 2019 deadline in the Consent Decree.

The leadership and support you provide are the keys to our success as an organization. Thanks for your continued dedicated service to HRSD, the Hampton Roads region, the Commonwealth and the environment. **I look forward to seeing you on Tuesday, November 26, 2019 in Virginia Beach.**

Respectfully submitted,

Ted Henifin

Ted Henifin, P.E.
General Manager





TO: General Manager
 FROM: Director of Communications
 SUBJECT: Monthly Report for October 2019
 DATE: November 13, 2019

A. Publicity and Promotion

1. HRSD was featured in ten news stories covering the following topics:
 - a. Kempsville Road line break (2)
 - b. HRSD invited to apply for WIFIA funding (2)
 - c. HRSD line along Route 10 (1)
 - d. HRSD exploring expansion to the Eastern Shore (4)
 - e. HRSD's participation in the King Tide flood mapping event (1).
2. There were no media stories for SWIFT in October.

B. Social Media and Online Engagement



1. Top posts for October on Facebook, Twitter and YouTube

Social Media Metrics October 2019				
Note: Imagine a Day Without Water 10/23				
METRIC	FACEBOOK	LINKEDIN	TWITTER	YOUTUBE
Number of Posts *number of published posts	18	1	15	1:29 average view duration
Number of Followers/Likes *total number of fans	1,143	4,801	379	166
Engagement *sum of reactions comments and shares	391	2	79	876 unique viewers
Traffic *total clicks on links posted	6	9	8	4.3% click through

HRSD
October 18 at 2:20 PM

And that's a wrap!
We successfully taught 120 students from Eaton Middle School in Hampton about our Potomac Aquifer this week. Students went on a SWIFT Tour and made their own aquifer in a cup! #SWIFTVA

SWIFT Tours are designed to cover middle and high school science SOLs. Sign up for a field trip at www.hrsd.com/contact/outreach

Performance for Your Post

2,937 People Reached

61 Reactions, Comments & Shares

42 Like	20 On Post	22 On Shares
8 Love	5 On Post	3 On Shares
7 Comments	1 On Post	6 On Shares
4 Shares	4 On Post	0 On Shares

532 Post Clicks

195 Photo Views	2 Link Clicks	335 Other Clicks
-----------------	---------------	------------------

NEGATIVE FEEDBACK

0 Hide Post 0 Hide All Posts
0 Report as Spam 0 Unlike Page

Reported stats may be delayed from what appears on posts

2,937 People Reached **593** Engagements **Boost Post**

1 Comment 4 Shares

HRSD
@HRSDVA

Consider this: The average American uses 17.2 gallons of water every time they shower. Can you imagine a day without? #ImagineADayWithoutWater #ValueWater








3:54 PM · Oct 22, 2019 · Hootsuite Inc.

View Tweet activity

7 Retweets 10 Likes

Top videos

Views · Oct 1 – 31, 2019

	The Wastewater Treatment ...	856
	Virtual Tour of HRSD's Virgi...	95
	HRSD's Woodstock Park W...	72
	SWIFT Research Center: W...	59
	HRSD Employee Testimonia...	36

2. Next Door unique impressions: 5,378 views (nine neighborhood-specific posts)

B. News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Websites

1. News Releases/Traffic Advisories/Construction Notices: 8 (four news releases, two traffic advisories and two project updates)
2. Advertisements: 0
3. Project Notices: 6 (via door hanging/door knocking and mail, reaching approximately 1,298 residents)
4. Project/Community Meetings: 0
5. New Project Web Pages/Blogs/Videos: one new project page - Surry Hydraulic and Force Main Improvements

C. Special Projects and Highlights

1. Director gave a presentation at the Virginia Department of Health Environmental Health Managers Meeting in Charlottesville, Virginia. The topic of the presentation was, "Communicating New and Innovative Projects across Multiple Channels to your Many Stakeholders."
2. Director provided a tour of the SWIFT Research Center (SWIFT RC) to the Harbourview Homeowners Association

D. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. Senior Management meeting
 - b. Brainstorming meeting with communications staff to develop HRSD ambassadors' program
 - c. Collateral draft reviews for safety and boaters' education pieces
 - d. Weekly web development status meetings for SWIFTVA.com update
 - e. EQ marketing workshop for future biosolids products
 - f. Strategic Carbon Footprint Reduction meeting
2. Director provided general media training to communications staff and one project manager.
3. Director conducted bi-weekly communications department status meetings.

E. Metrics

1. Educational and Outreach Activities: 11
 - a. 10/02/19 – SWIFT Research Center (SWIFT RC) Tour to the Harbourview Homeowners Association (20 attendees)
 - b. 10/10/19 – SWIFT RC tour to LEAD Peninsula (30 attendees)
 - c. 10/10/19 – SWIFT RC tour to Franklin Garden Club (25 attendees)
 - d. 10/16/19 – SWIFT RC tour and activity, Eaton Middle School (70 students)
 - e. 10/17/19 – SWIFT RC tour and activity, Eaton Middle School (60 students)
 - f. 10/17/19 – Greenbrier Intermediate School STEAM event (100 students)
 - g. 10/18/19 – SWIFT RC tour and activity, Eaton Middle School (60 students)
 - h. 10/23/19 – SWIFT pop-up water tasting bar at St. George’s Brewery (43 attendees)
 - i. 10/24/19 – SWIFT tour and activity, Phenix Middle School (22 students)
 - j. 10/28/19 – Wild Clover Homeschool Co-Op, Amazing Aquifers activity at SWIFT RC (20 students)
 - k. 10/30/19 – SWIFT RC tour, US Green Building Council (15 attendees)

2. Number of Community Partners: 8
 - a. Harbourview Homeowners Association, Suffolk, VA
 - b. Virginia Peninsula Chamber of Commerce
 - c. Hampton Public Schools
 - d. Chesapeake Public Schools
 - e. St. George Brewery, Hampton, VA
 - f. Wild Clover Homeschool Co-Op
 - g. US Green Building Council
 - h. Value of Water Campaign (thevalueofwater.org)

3. Additional Activities Coordinated by Communications Department: 5
 - a. 10/5/19 – Hampton Roads Touch a Truck, Chesapeake
 - b. 10/10/19 – Nansemond Treatment Plant (NTP) tour, LEAD Peninsula
 - c. 10/11/19 – NTP and SWIFT RC tour, American Society of Civil Engineers (ASCE) Roanoke group
 - d. 10/19/19 – Virginia American Water Works Association (VA AWWA) Model Water tour
 - e. 10/23/19 – Imagine a Day without Water info table and SWIFT Water tasting, HRSD customer walk-in payment office

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	3
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	28.87
M-5.2	Educational and Outreach Events	Number	11
M-5.3	Number of Community Partners	Number	9

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for October 2019
DATE: November 12, 2019

A. General

1. Capital Improvement Program (CIP) spending for the third month of Fiscal Year (FY) 2020 was slightly lower than the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	10.01	26.70
Plan	14.00	39.00

2. Members of the Engineering Department are working with representatives of Kellam, Pickrell, Cox & Anderson and McGuire Woods to update HRSD's design and construction contract documents. HRSD uses the nationally recognized *Engineers Joint Contract Documents Committee* (EJCDC) format and supplements this with both state procurement requirements and other specific criteria used in the region. The contract documents will cover both the traditional design-bid-build and the design-build project delivery processes. The new versions of these documents will be ready for publication by January 1, 2020.

B. Asset Management Division

1. Staff has created a new standard operating procedure (SOP) for Inventory Management. The new procedures outline specific guidance for purchasing, storing, maintaining, auditing and the use and ultimate disposal of spare parts and equipment. The effort was undertaken to maintain accurate spare parts inventory and improve the availability of spare parts when needed throughout the organization.
2. The Treatment Plant Asset Management Plan efforts continue. Work is ongoing at the Atlantic, James River, Boat Harbor, York River and Williamsburg Treatment Plants. Efforts include inventory accounting, asset condition assessment, field verifications, staff training and quality control. The creation of plans at each plant will continue through 2020.

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

1. Consultant selection for the Middlesex Interceptor System Program Phase II project has begun. This project will include the design and construction of a 16-mile force main extending across much of Middlesex County. The pipeline will ultimately connect Urbanna in the west to the existing Mathews Transmission Force Main at the eastern edge of Middlesex County. A request for proposals will be issued for the design effort in November with a plan to award this contract in February 2020.
2. Construction of the Virginia Beach Boulevard Force Main Phase VI was awarded to Bridgeman Civil at the October Commission Meeting. This construction effort will be expanded to address a leak in the existing force main just west of the project limits. HRSD's staff and consultant looked at numerous options to address this damaged pipeline and determined the best plan was to replace an 800-foot section of the existing 24-inch concrete force main. Bridgeman Civil is well suited to complete this work due to their familiarity in this area and their ability to mobilize quickly at this location. Work is scheduled to begin in January once all of the needed materials and equipment have been delivered to the project site.
3. Installation of recharge wells at each SWIFT location will be a key component of the overall success of the program. The most effective way to address this work is to hire a single consulting engineer to assist with the design and construction inspection at each location. The use of a single consulting firm will assure consistency and allow for lessons learned at early well locations to be applied to later well locations, even if different well drillers are ultimately used at each SWIFT site. The request for proposals will be drafted in the coming month and consultant selection will be completed by early 2020.

D. Planning & Analysis Division

1. Staff met with City of Chesapeake representatives to discuss the potential to serve the Dominion Boulevard Corridor of Southern Chesapeake. There are several potential development projects in this corridor that would benefit from the extension of a sewer force main. Sizing, schedule and cost implications were all reviewed. Potential HRSD involvement and the need to begin planning for a CIP project to address these needs were reviewed. A phased CIP will be proposed to address the needs in this section of the City of Chesapeake.

2. Staff has created a web application to support the ongoing work to install water meters in sections of Surry County. This application will include a GIS feature and can be used by HRSD staff, consultants and contractors during the installation phase of the project. This application will also help to document the final location of all installed meters which will assist in the future for Miss Utility location and maintenance efforts by Surry County staff.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 7
 - a. 10/01/19 – Staff taught a course entitled, “Engineering Survey Fundamentals,” to the Hampton Roads Public Works Academy.
 - b. 10/10/19 – Staff provided a tour of the SWIFT Research Center to the American Society of Civil Engineers (ASCE) Roanoke Branch.
 - c. 10/19/19 – Staff participated as a judge for the Virginia American Water Works Association “AWWA” Model Water Tower Competition.
 - d. 10/27/19 - Staff participated in the Virginia Institute for Marine Science (VIMS) Catch the King Environmental Survey.
 - e. 10/30/19 – Staff provided a tour of the SWIFT Research Center to the U.S. Green Building Council of Virginia.
 - f. 10/30/19 – Staff made a presentation at a Water Environment Federation (WEF) webcast entitled, “Taking the Plunge: Educating the Public on Science-Based Solutions and Clean Water Careers.”
 - g. 10/30/19 - Staff participated in the Old Dominion University Civil and Environmental Engineering Department Speed Networking Event.
2. Number of Community Partners: 6
 - a. Hampton Roads Public Works Academy
 - b. ASCE Roanoke Branch
 - c. Virginia AWWA
 - d. U.S. Green Building Council of Virginia

- e. WEF
 - f. Old Dominion University Civil and Environmental Engineering Department
3. Number of Research Partners: 1
- a. VIMS
4. Metrics Summary:

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Total Training Hours per Full Time Employee (44) - Current Month	Hours / #FTE	2.69
M-1.4b	Total Training Hours per Full Time Employee (44) - Cumulative Fiscal Year-to-Date	Hours / #FTE	17.99
M-5.2	Educational and Outreach Events	Number	7
M-5.3	Number of Community Partners	Number	6
M-5.4	Number of Research Partners	Number	1

Bruce W. Husselbee, P.E.

Bruce W. Husselbee, P.E.

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for October 2019
DATE: November 13, 2019

A. General

1. HRSD was invited to apply for \$930 million in EPA's Water Infrastructure Finance and Innovation Act (WIFIA) funding for SWIFT. This is the largest amount in the history of EPA's loan program, which underscores the significant impact SWIFT will make on the environment. HRSD's Financial Advisor estimates that ratepayers will save \$243 million in reduced interest expense.
2. The Retiree Health Plan Trust portfolio returned 0.87 percent for the quarter ended September 30, 2019, below the 1.02 percent return of the Blended Benchmark. The one-year trailing return for the portfolio was 4.13 percent compared to the Blended Benchmark return of 5.36 percent. The underperformance was due to a higher allocation to small cap stocks and a couple of fixed-income funds that did not perform well. PFM is re-evaluating the fund managers to determine if a change is needed.
3. Water consumption is higher than budget, resulting in higher than expected wastewater revenues. Miscellaneous operating revenues are higher than normal as a result of a credit card rebate of over \$325,000. Since HRSD has 26 bi-weekly pay periods, expenses are higher during months like August, that have three pay periods. Staff anticipates the cumulative personnel services expense percentage will be back in line with budget when months have only two pay periods. Major repairs and capital assets expenses continue to be significantly lower than budget at this time, since many purchases in July related to prior year encumbrances. Miscellaneous Expense is higher than budget due to approximately \$1 million in Bond Issuance Cost associated with the August bond refunding.
4. The bond refunding successfully closed on October 2. As a result, of the \$66 million cash defeasance, Days Cash on Hand (DCOH) is down from 617 days to 488 days total unrestricted cash. After excluding reserves and PAYGO, the DCOH is 368.
5. The Quarterly investment summary for [HRSD's Operating Cash Strategies and Retiree Health Trust \(OPEB\)](#) is attached.

B. Interim Financial Report

1. Operating Budget for the Period Ended October 31, 2019

	Amended Budget	Current YTD	Current YTD as % of Budget (33% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 316,217,000	\$ 112,637,260	36%	35%
Surcharge	1,500,000	587,629	39%	36%
Indirect Discharge	2,750,000	1,100,074	40%	31%
Fees	2,858,000	1,021,377	36%	34%
Municipal Assistance	725,000	230,963	32%	26%
Miscellaneous	600,000	420,453	70%	87%
Total Operating Revenue	<u>324,650,000</u>	<u>115,997,756</u>	36%	35%
Non Operating Revenues				
Facility Charge	6,160,000	2,142,020	35%	36%
Interest Income	4,000,000	2,220,298	56%	66%
Build America Bond Subsidy	2,400,000	1,121,298	47%	48%
Other	595,000	198,918	33%	9%
Total Non Operating Revenue	<u>13,155,000</u>	<u>5,682,534</u>	43%	43%
Total Revenues	337,805,000	121,680,290	36%	36%
Transfers from Reserves	10,857,750	3,619,250	33%	33%
Total Revenues and Transfers	<u>\$ 348,662,750</u>	<u>\$ 125,299,540</u>	36%	36%
Operating Expenses				
Personal Services	\$ 57,346,225	\$ 20,155,518	35%	35%
Fringe Benefits	24,232,400	8,166,876	34%	33%
Materials & Supplies	8,838,801	2,532,263	29%	30%
Transportation	1,579,921	408,473	26%	30%
Utilities	12,774,299	3,348,430	26%	31%
Chemical Purchases	10,979,218	2,876,399	26%	25%
Contractual Services	46,373,753	10,472,336	23%	23%
Major Repairs	10,847,604	1,574,000	15%	16%
Capital Assets	458,825	-	0%	18%
Miscellaneous Expense	3,085,523	2,069,965	67%	34%
Total Operating Expenses	<u>176,516,569</u>	<u>51,604,260</u>	29%	29%
Debt Service and Transfers				
Debt Service	63,544,841	27,499,636	43%	43%
Transfer to CIP	108,341,340	36,113,780	33%	33%
Transfer to Risk management	260,000	86,668	33%	33%
Total Debt Service and Transfers	<u>172,146,181</u>	<u>63,700,084</u>	37%	37%
Total Expenses and Transfers	<u>\$ 348,662,750</u>	<u>\$ 115,304,344</u>	33%	33%

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 October 31, 2019

HRSD - RESERVE AND CAPITAL ACTIVITY

October 31, 2019

	General Reserve			Reserve	Capital	
	General	Debt Service	isk Mgmt Reserv		Paygo	Debt Proceeds
	Unrestricted	Restricted	Unrestricted		Unrestricted	Restricted
Beginning - July 1, 2019	\$ 178,937,154	\$ 28,553,343	\$ 3,499,535	\$ 15,266,324	\$ 86,279,809	\$ 14,334,553
Current Year Sources of Funds						
Current Receipts	120,259,557					
Capital Grants					-	
VRA Draws					9,283,136	
Bond Proceeds (includes interest)						36,364
Transfers In	66,355,163		86,668		36,113,780	
Sources of Funds	186,614,720	-	86,668	-	45,396,916	36,364
Total Funds Available	\$ 365,551,874	\$ 28,553,343	\$ 3,586,203	\$ 15,266,324	\$ 131,676,725	\$ 14,370,917
Current Year Uses of Funds						
Cash Disbursements	85,036,454				26,093,295	14,370,917
Series 2019A Refunding	66,355,163					
Transfers Out	36,200,448				66,355,163	
Uses of Funds	187,592,065	-	-	-	92,448,458	14,370,917
End of Period - October 31, 2019	\$ 177,959,809	\$ 28,553,343	\$ 3,586,203	\$ 15,266,324	\$ 39,228,267	\$ -
Unrestricted Funds	\$ 236,040,603					

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended October 31, 2019

Classification/ Treatment Service Area	Expenditures		Year to Date		Outstanding Encumbrances	Available Balance
	Budget	prior to 6/30/2018	FY 2019 Expenditures	Total Expenditures		
Administration	\$ 74,586,023	\$ 43,226,275	\$ 1,005,259	\$ 44,231,534	\$ 17,063,929	\$ 13,290,560
Army Base	158,584,000	125,110,560	27,091	125,137,651	2,781,639	30,664,710
Atlantic	127,883,059	88,977,628	6,237,239	95,214,867	14,122,869	18,545,323
Boat Harbor	139,271,551	60,512,133	1,839,342	62,351,475	17,859,512	59,060,564
Ches-Eliz	186,982,583	21,557,919	11,120,007	32,677,926	81,062,397	73,242,260
James River	288,758,687	58,557,889	670,200	59,228,089	7,858,664	221,671,934
Middle Peninsula	88,315,297	10,996,758	472,457	11,469,215	8,651,138	68,194,944
Nansemond	90,309,879	42,439,857	531,983	42,971,840	4,658,841	42,679,198
Surry	45,747,598	1,905,064	168,664	2,073,728	10,770,594	32,903,276
VIP	300,368,424	259,851,080	783,675	260,634,755	3,400,259	36,333,410
Williamsburg	32,901,493	12,215,242	1,040,229	13,255,471	15,724,046	3,921,976
York River	59,198,339	44,185,737	404,315	44,590,052	1,807,211	12,801,076
General	695,222,370	233,236,782	2,400,349	235,637,131	33,228,840	426,356,399
	<u>\$ 2,288,129,303</u>	<u>\$ 1,002,772,924</u>	<u>\$ 26,700,810</u>	<u>\$ 1,029,473,734</u>	<u>\$ 218,989,939</u>	<u>\$ 1,039,665,630</u>

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's)					October 31, 2019	
	Principal Sep 2019	Principal Payments	Principal Draws	Series 2019A Refunding	Principal Oct 2019	Interest Payments
Fixed Rate						
Senior	\$ 304,830	\$ -	\$ -	\$ (35,520)	\$ 269,310	\$ -
Subordinate	466,722	(1,433)	700	21,475	487,464	(3,458)
Variable Rate						
Subordinate	50,000	-	-		50,000	(54)
Line of Credit						
Total	<u>\$ 821,552</u>	<u>\$ (1,433)</u>	<u>\$ 700</u>	<u>\$ (14,045)</u>	<u>\$ 806,774</u>	<u>\$ (3,512)</u>

HRSD- Series 2016VR Bond Analysis			November 1, 2019
	SIFMA Index	HRSD	Spread to SIFMA
Maximum	2.30%	2.25%	-0.05%
Average	0.54%	0.53%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 11/1/19	1.12%	1.13%	0.01%

* Since October 20, 2011 HRSD has averaged 53 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended October 31, 2019

HRSD - UNRESTRICTED CASH

October 31, 2019

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

		Days Cash on	
		Hand	Days Cash on Hand
Total Unrestricted Cash	\$ 236,040,603		488
Risk Management Reserve	\$ (3,586,203)	(7)	481
Reserve	\$ (15,266,324)	(32)	449
Capital (PAYGO only)	\$ (39,228,267)	(81)	368
Net Unassigned Cash	\$ 177,959,809		368

Risk Management Reserve as a % of Projected Claims Cost is 25% YTD compared to 25% Policy Minimum
Days Cash on Hand Policy Minimum is 270-365 days.

HRSD - SOURCES OF FUNDS

October 31, 2019

Primary Source	Beginning	YTD	YTD	YTD	Ending	Allocation of	Credit Quality	Current
	Market Value				Market Value			
	July 1, 2019	Contributions	Withdrawals	Income Earned	October 31, 2019	Funds		Yield
BAML Corp Disbursement Account	7,755,006	232,821,074	229,407,109	29,852	11,198,823	6.0%	N/A	0.55%
VIP Stable NAV Liquidity Pool	163,658,801	103,355,162	91,355,162	1,348,435	177,007,236	94.0%	AAAm	2.04%
Total Primary Source	\$ 171,413,807	\$ 336,176,236	\$ 320,762,271	\$ 1,378,287	\$ 188,206,059	100.0%		

VIP Stable NAV Liquidity Pool out performance Va Local Government Investment Pool (the market benchmark) by 0.01% in the month of October.

Secondary Source	Beginning	YTD	YTD	YTD	Ending	Ending Cost	YTD	Yield to
	Market Value				Market Value			
	July 1, 2019	Contributions	Withdrawals	& Realized G/L	October 31, 2019		Mkt Adj	at Market
VIP 1-3 Year High Quality Bond Fund	128,529,607	-	66,363,110	834,656	62,958,429	61,868,131	1,090,299	1.62%
Total Secondary Source	\$ 128,529,607	\$ -	\$ 66,363,110	\$ 834,656	\$ 62,958,429	\$ 61,868,131	\$ 1,090,299	

VIP 1-3 Year High Quality Bond Fund out performed ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.03% in the month of October.

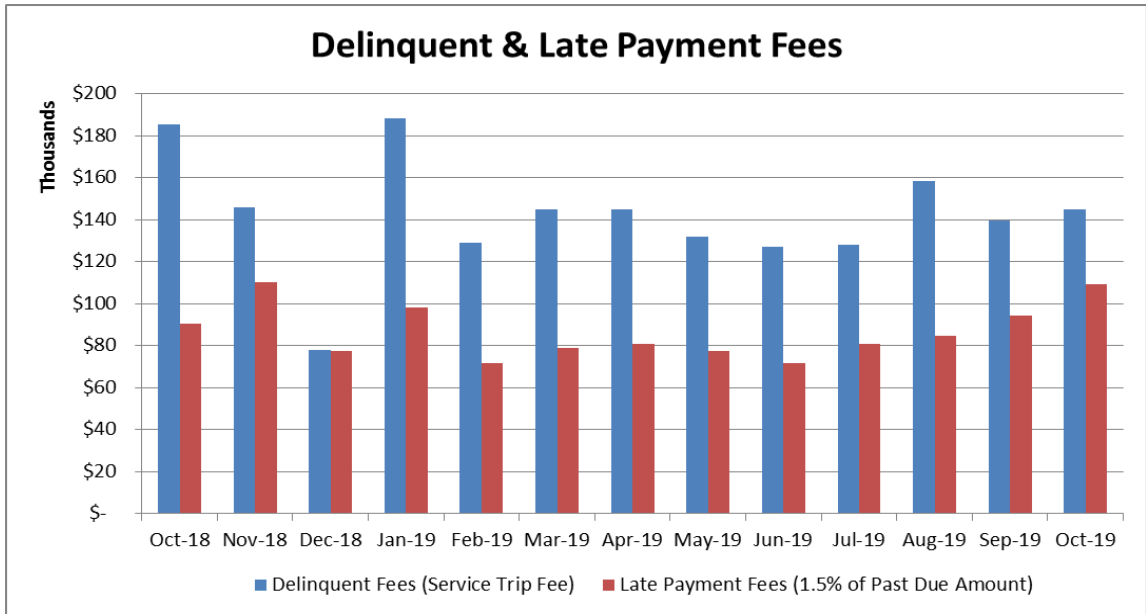
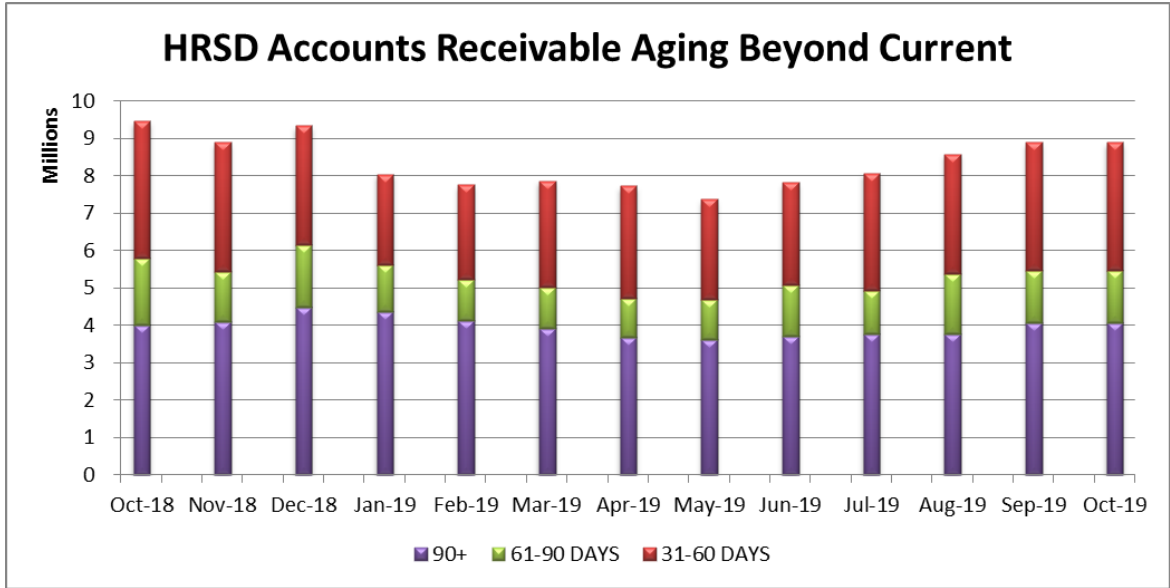
	Total	Fund Alloc
Total Primary Source	\$ 188,206,059	74.9%
Total Secondary Source	\$ 62,958,429	25.1%
TOTAL SOURCES	\$ 251,164,488	100.0%

7. Summary of Billed Consumption

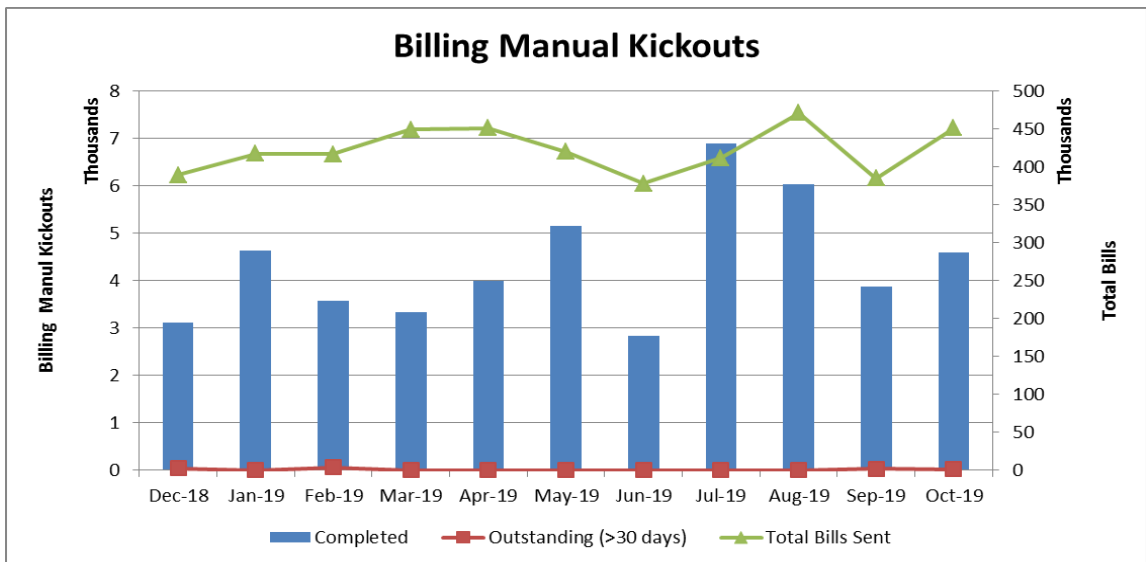
Summary of Billed Consumption (,000s ccf)							
Month	FY2020 Cumulative Budget Estimate	FY2020 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2019 Actual	From FY2019	Cumulative 3 Year Average	From 3 Year Average
July	4,845	5,135	6.0%	5,175	-0.8%	4,940	4.0%
Aug	9,649	10,009	3.7%	10,233	-2.2%	9,815	2.0%
Sept	14,488	14,571	0.6%	14,294	1.9%	14,384	1.3%
Oct	18,842	19,169	1.7%	19,087	0.4%	19,036	0.7%
Nov	22,952	-	N/A	23,249	N/A	23,278	N/A
Dec	27,344	-	N/A	27,376	N/A	27,532	N/A
Jan	31,535	-	N/A	32,010	N/A	32,003	N/A
Feb	36,079	-	N/A	36,551	N/A	36,443	N/A
March	40,427	-	N/A	40,187	N/A	40,480	N/A
Apr	44,149	-	N/A	44,551	N/A	44,554	N/A
May	48,421	-	N/A	48,790	N/A	48,786	N/A
June	52,985	-	N/A	53,172	N/A	53,280	N/A

C. Customer Care Center

1. Accounts Receivable Overview

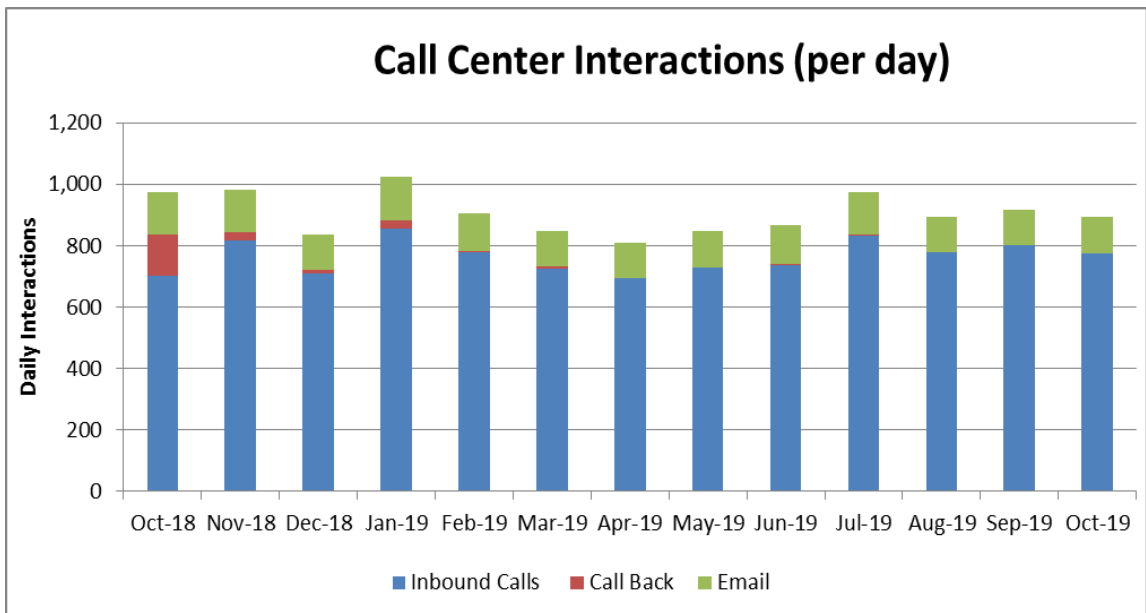


2. Customer Care Center Statistics



Jun-19 Billing Activity was affected by Virginia Beach tragedy.

Jul-19 A formatting change caused an increase in manual kickouts. We expect the levels to normalize in the next few months.



Customer Interaction Statistics	May	Jun	Jul	Aug	Sep	Oct
Calls Answered within 3 minutes	96%	94%	89%	94%	81%	86%
Average Wait Time (seconds)	0:29	0:40	0:64	0:63	0:81	0:71
Calls Abandoned	3%	4%	7%	5%	7%	7%

D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	2	Caught by Bank Immediately
August	0	
September	0	
October	1	Caught by Bank Immediately
Total	3	

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

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1

10/9/19-10/10/19 - VASCUPP ® SWaMFest

2. Community Partners: 1

Virginia Association of State College and University Purchasing Professionals

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	2.39
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	9.4
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1
	Wastewater Revenue	Percentage of budgeted	109%
	General Reserves	Percentage of Operating Budget less Depreciation	117%
	Liquidity	Days Cash on Hand	488 Days
	Accounts Receivable (HRSD)	Dollars	\$27,391,182
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	16%

4. Annual Metrics

Item #	Strategic Planning Measure	Unit	FY-2019
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	4%
M-4.3	Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow	\$1,348
M-4.4	Affordability	6.5 CCF Monthly Charge/Median Household Income ¹	0.64%
M-4.5	Operating Cost/MGD	Total Operating Expense /365/5-Year Average Daily Flow	\$3,823
	Billed Flow	Percentage of Total Treated	72%
	Senior Debt Coverage	Cash Reserves/ Senior Annual Debt Service	4.84
	Total Debt Coverage		2.62

Respectfully,

Jay A. Bernas

Jay A. Bernas, P.E.

Director of Finance

Attachment: [HRSD's Operating Cash Strategies and Retiree Health Trust \(OPEB\)](#)

¹ ACS (US Census) Median Household Income of \$65,604 for Hampton Roads, from HRPDC

Hampton Roads Sanitation District
Quarterly Performance Report
For the Quarter Ending September 30, 2019

Total Portfolio Summary

Operating Strategies	September 30, 2019	June 30, 2019
Primary Source	\$ 252,594,862	\$ 171,413,807
Secondary Source	62,744,350	128,529,607
SNAP Investment	-	14,334,553
	\$ 315,339,212	\$ 314,277,966

Primary Source Summary

The Primary Source Portfolio consists of BAML Corp Disbursement Account \$72.9m and VaCo/VML VIP Stable NAV Liquidity Pool \$179.7m. BAML Corp Disbursement Account returned 0.55% for the quarter ending September 30, 2019. VaCo/VML VIP Stable NAV Liquidity Pool 30 Day Average Net Yield was 2.2% for the quarter ending September 30, 2019, a decrease from 2.46% at the beginning of the quarter. VaCo/VML VIP Stable NAV Liquidity Pool's weighted average credit rating was A-1 for the quarter.

Secondary Source Summary

The Secondary Source Portfolio consists of VaCo/VML VIP 1-3 Year High Quality Bond Fund. The gross book yield of the 1-3 Year portfolio was 2.44% for the quarter ending September 30, 2019, a decrease from 2.49% at the beginning of the quarter. The weighted average credit rating for VaCo/VML VIP 1-3 Year High Quality Bond Fund's portfolio is AA for the quarter.

SNAP Investment

HRSD exhausted all SNAP funds during the quarter ending September 30, 2019.

Retirement Health Plan Trust	September 30, 2019	June 30, 2019
Investment Assets	52,795,678	51,863,757
Liquidity Assets	140,499	161,528
Combined Assets	\$ 52,936,177	\$ 52,025,285

Retiree Health Plan Trust Summary

The Retiree Health Plan Trust portfolio ("Total Fund - Combined Assets") returned 0.87% for the quarter ended September 30, 2019, below the 1.02% return of the Blended Benchmark. The one-year trailing return for the portfolio was 4.13% compared to the Blended Benchmark return of 5.36%. Since its inception date of September 1, 2009, the portfolio trailing annual return of 7.93% is ahead of the Benchmark return of 7.78%. As of September 30 2019, the weighted average credit quality of fixed income holdings for the portfolio is AA.

TO: General Manager
FROM: Director of Information Technology
SUBJECT: Information Technology Department Report for October 2019
DATE: November 13, 2019

A. General

1. As part of an ongoing technology refresh plan, wireless access points have been upgraded and tested at the Boat Harbor, James River, Chesapeake Elizabeth, and Virginia Initiative treatment plants.
2. Prior to demolition of the Meekins warehouse building on Air Rail Avenue, staff successfully disconnected and recovered copper and fiber optic cabling which will be reinstalled in the new Water Quality building.
3. Staff finalized the software and hardware profile configurations and began deploying the Surface Pro computers across the organization.
4. Following installation and testing of new storage hardware, the decommissioned storage hardware was removed from the South Shore Operations data center.
5. Programming staff is currently working on an interface between the Fleetistics vehicle pool management system and the computerized maintenance management system, which will automate the process of generating work orders for routine vehicle inspections and servicing.
6. IT staff worked with the Planning and Analysis division preparing for upgrades to the PI and Telog data management platforms next month.

B. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Number of Community Partners: 0

3. Metrics Summary

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Training During Work Hours Per Full-Time Employee (50) – Current Month	Total Training Hours / # FTE	4.06
M-1.4b	Total Training During Work Hours Per Full-Time Employee (50) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	22.48
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 October 2019
DATE: November 13, 2019

This report summarizes some of the significant events and activities of the Operations Department in the month of October.

A. Interceptor Systems

1. South Shore (SS) Interceptor Systems

On October 4, City of Chesapeake Public Utilities reported a force main failure on Kempsville Road near the intersection of Kempsville Road and Stillwater Drive. The bolts holding a 4-inch valve onto the 30-inch ductile iron pipeline had corroded, causing the failure. The failure discharged approximately 107,000 gallons into a storm drain leading to a nearby stormwater pond. A contractor provided excavation and traffic control while staff created a device to isolate the failure and replaced the bolts.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. A contractor rebuilt the #2 center flow band screen and staff put the unit back in service this month. This is the second of three band screens to be rebuilt. Excessive wear occurred because equipment operation exceeded the manufacturer's recommended runtimes. Staff is implementing different operational techniques to minimize the equipment runtime.
- b. Staff tested a new concept for the operation of the raw influent pumps. The test showed a lot of promise and additional programming will be required prior to full-scale testing. This new method of operating the raw influent pumps will stabilize flow rates through the plant, reduce power consumption by better utilizing the two different sized pumps, streamline chemical dosing, and help minimize the runtime on the influent screens.

2. Atlantic Treatment Plant (ATP)

- a. There were two Odor exceptions in October. The first was at Odor Control Station A on October 16. High hydrogen sulfide (H₂S) levels occurred when staff pumped down one of the solids holding tanks in order to clean it out. The second occurred on October 29 at Odor Control Station C. High H₂S levels occurred when the carbon media became plugged restricting air flow.
- b. There was one Odor complaint on October 25. Staff found the source of the odor coming from the Combined Heat and Power area and corrected the problem.

3. Boat Harbor Treatment Plant (BHTP)

Staff instituted process changes to return the plant to normal operations foregoing nitrification efforts during the cold weather months.

4. James River Treatment Plant (JRTP)

On October 25 staff received a call from a resident in the adjacent Denbigh Plantation neighborhood about a turpentine smell. Staff could not find an odor from the plant and noted that at the time, prevailing winds were out of the northwest. Findings were communicated to the resident, who agreed with the wind direction.

5. Nansemond Treatment Plant (NTP)

The Sustainable Water Initiative for Tomorrow Research Center (SWIFT RC) reached 200 million gallons of water recharged into the Potomac Aquifer this month.

6. Virginia Initiative Plant (VIP)

- a. On October 19, a ball check lid on a primary scum pump was not tightened properly and blew off causing NPW and scum to flood the room and leak onto the ground in the surrounding area. The ball check lid was replaced and tightened, ceasing the leak. Approximately 200 gallons of NPW were released with 150 gallons recovered, and the remaining 50 gallons soaked into the ground.
- b. There was one reportable odor control deviation, exhaust H₂S greater than 2 ppm for one hour during a chemical pipe repair.

7. Williamsburg Treatment Plant (WBTP)

- a. Staff worked to replace the aluminum walls separating anaerobic, anoxic and aerated zones in the #3 aeration tank with fiberglass. The aluminum walls were found to be corroding more quickly than expected.
- b. Coatings work on the intermediate and preparatory work on the #2 primary clarifier continued.

8. York River Treatment Plant (YRTP)

Staff continued with nutrient removal improvements to aeration tank #6. Improvements include reactor walls, an influent flow deflector to prevent short circuiting of flow, air purging mixers and air controls.

9. Incinerator Operations Events Summary

There was one deviation from the required 129 Sewage Sludge Incineration rule minimum operating parameters and three minor (<60 minute) non-reportable bypass events.

C. Small Communities (SC)

1. Middle Peninsula Small Communities Treatment and Collections

a. West Point System

- (1) The West Point Treatment plant experienced an exceedance of the monthly BOD average concentration permitted value of 30 mg/l with a value of 40 mg/l. During the month of October plant staff took one of the two primary clarifiers offline to complete planned coatings and component rehabilitation. This work took longer than anticipated. Additionally, flow equalization to the downstream trickling filter was not correctly reestablished for approximately three weeks. On October 20, the remnants of Tropical Storm Nestor brought over 3.8 inches of rain to the area in a nine-hour period. The combination of these events led to elevated BOD concentration values throughout October.
- (2) The October 20 heavy rains also increased system flows, creating capacity and surcharge conditions in the West Point collection system which resulted in a sanitary sewer overflow of 900 gallons draining to the Mattaponi River.

b. Urbanna Treatment Plant (UBTP)

- (1) During the week of October 13, the required frequency of valid BOD sample analysis for the Urbanna Outfall 001 was not met. BOD samples were collected, but valid BOD analytical results were not realized because quality control standards required of the test procedure and associated with this sample were not met. Data is deemed invalid and cannot be certified if the quality control standards specific to the test procedure do not meet quality control requirements. These invalid data points were not included in the monthly average calculation because they were not valid results. HRSD facilities routinely collect additional samples to increase the likelihood that sample analysis frequency is met.
- (2) An SSO of 535 gallons that soaked into the ground occurred on October 20 as a result of the heavy rains.

2. Small Communities – Surry Systems

On September 20 and 21, heavy rains resulted in an SSO of 1,130 gallons at Dendron PS #1 and 1,000 gallons at the Surry County Treatment Plant.

D. Water Technology and Research

One of the more promising developments that has come out of the Chesapeake-Elizabeth biological nutrient removal pilot facility (CE BNR pilot) is the attached growth anammox polishing moving bed biofilm reactor (MBBR). This process has worked quite well and is ready for scale up. It offers a very nice opportunity for energy and chemical savings. The technology is covered in several patents submitted collaboratively with DCWater, one family for which has been granted and one that remains pending in review. This technology can be implemented in two separate manners and in a wide range of attached growth process applications.

The process can function as a pure anoxic anammox polishing step when fed a combination of ammonia and nitrite. In this case, the challenge is the upstream production of the proper combination of ammonia and nitrite, which requires the out-selection of nitrite oxidizing bacteria (NOB) and careful control to give the proper ratio of ammonia versus nitrite (AVN control) for anammox metabolism. Since complete out-selection of NOB appears to be unrealistic, the more likely scenario is that this polishing process would be fed ammonia with a combination of nitrite and nitrate.

Over the last two years, we have learned that it is possible to provide a limited amount of supplemental carbon, for example acetic acid, glycerol, or even methanol, to partially reduce the nitrate to nitrite, allowing anammox to consume the nitrite and ammonia fed to the process. We have also learned how to control this process and how to minimize complete denitrification to nitrogen (N₂) gas, which consumes a lot more supplemental carbon. In the pilot-scale MBBR, this is a very stable and reliable process and holds a lot of promise for scale up and nitrogen polishing considering SWIFT. From a chemical cost standpoint, it is a very cost-effective process as compared to full denitrification of nitrate to nitrogen gas (N₂). This process is being referred to as partial denitrification/anammox (PDNA)

In previous updates, the transition of the York River Treatment Plant deep-bed denitrification filters to PDNA was discussed. The background and significance of this will likely be explained in more detail as part of a Commission briefing in coming months. In addition, a PDNA MBBR is being considered as part of the SWIFT wastewater upgrades at James River Treatment Plant (JRTP). Questions remain as to how this process should be started up to allow for the accumulation of anammox biomass on plastic biofilm carriers. The CE BNR pilot was recently upgraded to provide four parallel pilot-scale PDNA MBBRs to consider these topics. Two of the reactors will use methanol, and two will use glycerol, which is likely to be an easier substrate from which to establish PDNA activity. In addition, two of the reactors will be started with virgin plastic media, and two will be started with plastic media retrieved from the integrated fixed film activated sludge process (IFAS) process at JRTP.

F. Strategic Measurement Data

1. Education and Outreach Events:

- a. 10/2/19 - SWIFT Lunch and Learn for Dr. Chul Park – Conducted by Chris Wilson
- b. 10/2/19 - Staff met with City of Chesapeake Public Utilities Operations staff to collaborate and discuss locality issues – quarterly meeting.
- c. 10/3/19 - Tour of SWIFT – Tour conducted by Charles Bott
- d. 10/5/19 - Staff brought several large HRSD vehicles to the Touch-a-Truck event at Chesapeake City Park in Chesapeake – Charlie Hawkins, Phil Miltier, and Brad Adams
- e. 10/7/19 – Tour of WBTP for about 25 boy scouts that were a troop from Toano, Virginia that were working on their Sustainability Merit Badge
- f. 10/8/19 - Tour of SWIFT for Nancy Love – Tour conducted by Charles Bott
- g. 10/8/19 - CEM attended the New Horizons Technical Center
- h. 10/9/19 - Tour of SWIFT for Ryder Bunch, Virginia Department of Health – Tour conducted by Charles Bott
- i. 10/10/19 - Tour of SWIFT for Ruth Marfil-Vega (Shimadzu) – Tour conducted by Germano Salazar
- j. 10/10/19 - Tour of SWIFT for City of Westminster – Tour conducted by Jamie M
- k. 10/10/19 - Staff met with City of Norfolk Utilities Operations staff to collaborate and discuss locality issues – quarterly meeting.
- l. 10/11/19 - Tour of SWIFT and NP for ASCE Roanoke Group – Tour conducted by Lauren Z. and Seth L
- m. 10/15/19 - Tour of SWIFT for Bill Cumbie (NASA) – Tour conducted by Charles Bott
- n. 10/15/19 – Kelly Lamp participated in the Wastewater Treatment and Water Quality Presentation at the YRTP for the Hampton Roads Public Works Academy
- o. 10/17/19 - Tour of SWIFT for Eaton Middle School – Tour conducted by Lacie Wever, Lisa B., Christel Dyer, and Tiffanie G
- p. 10/18/19 - Tour of SWIFT for Eaton Middle School – Tour conducted by Lacie Wever, Lisa B., and Tiffanie G
- q. 10/23/19 - Tour of SWIFT for Brown and Caldwell – Tour conducted by Germano Salazar, Mack Pearce, Ramola Vaidya, and Thomas Dizura
- r. 10/25/19 - Tour of SWIFT for Jeseth Delgado Vela and Kimberly Jones (Howard University) – Tour conducted by Charles Bott

- s. 10/29/19 - Tour of SWIFT for Interested Design Builders – Tour conducted by Lauren Zuravnsky
- t. 10/30/19 - Presentation to 3rd graders at Deep Creek Central Elementary, Chesapeake by Christel Dyer

2. Community Partners:

- a. Chesapeake Bay Foundation – oyster cage maintenance at BHTP for oyster gardening program
- b. Catch the King Tide – VIMS Research Center
- c. United Way

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (516) – Current Month	Hours / FTE	4.59
M-1.4b	Total Training During Work Hours per FTE (516) – Cumulative Year-to-Date	Hours / FTE	14.84
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	30,778.5
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	54.7%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	54.7%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	27.7%
M- 4.1a	Energy Use: Treatment *reported for September 2019	kWh/MG	2,219
M-4.1b	Energy Use: Pump Stations *reported for September 2019	kWh/MG	194
M-4.1c	Energy Use: Office Building *reported for September 2019	kWh/MG	140
M-5.2	Educational and Outreach Events	Number	27
M-5.3	Number of Community Partners	Number	3

Respectfully submitted,
Steve de Mik
 Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for October 2019

DATE: November 12, 2019

A. Talent Management Executive Summary

1. Recruitment

New Recruitment Campaigns	9
Job Offers Accepted – Internal Selections	3
Job Offers Accepted – External Selections	11
Average Days to Fill Position	51

2. The Fiscal Year 2019 Medical and Pharmacy Benefit Utilization meeting was held with the provider and benefits consultant to review cost trends, employee health engagement, plan savings and recommendations for the upcoming plan renewal. Costs decreased three percent due to lower medical and non-specialty pharmacy claims and cost avoidance strategies. HRSD employee health engagement remained above the norm believed to be a result of HRSD's Wellness program.

3. Wellness Program Participation

Participation Activities	Unit	October 2019	Year to Date (March 2019–February 2020)
Biometric Screenings	Number	3	15
Preventive Health Exams	Number	19	58
Preventive Health Assessments	Number	22	214
Online Health Improvement Programs	Number	50	200
Online Health Tracking	Number	120	698
Flu Vaccines	Number	362	362
Tetanus Vaccines	Number	73	73

4. The Leadership and Management Program facilitator team completed proposed program revisions. Currently, core leadership training is delivered using a traditional method over five successive days. The new Leadership and Management Academy (LAMA) will present core modules and electives, such as coaching and emotional intelligence, on a monthly basis using multiple delivery methods including e-learning.
5. Work Center Planning Day meetings concluded with 29 events facilitated during September and October. Results will be compiled and posted by December.
6. The new Organizational Development and Training (OD&T) consultant met with senior leaders and OD&T staff to begin a needs assessment.
7. The Learning Management Software (LMS) team continued implementation including rollout of a SharePoint page and developing a solution for exam proctoring. Four Apprenticeship Classes are currently piloting the program.
8. Mishaps and Work-Related Injuries Status to Date (OSHA Recordable)

	<u>2018</u>	<u>2019</u>
Mishaps	45	30
Lost Time Mishaps	6	6
<i>Numbers subject to change pending HR review of each case.</i>		

9. Safety Division Monthly Activities

Safety Training Classes	11
Work Center Safety Inspections	8
Reported Accident Investigations	3
Construction Site Safety Evaluations	32
Contractor Safety Briefings	8
Hot Work Permits Issued	62
Confined Space Permits Issued/Reviewed	295
Occupational Health Testing	165
Industrial Hygiene Monitoring Events	6

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (8)

- a. 10/4/19 – Hampton Roads Public Works Academy (HRPWA) Cadet Interviews
- b. 10/9/19 – City of Portsmouth Neighborhood Facility Job Fair
- c. 10/15/19 – City of Hampton Public Schools *My Future, My Journey* Career Exploratory Program
- d. 10/17/19 – *Get Hired Hampton* Job Fair
- e. 10/17/18 - Hosted a HRPWA meeting
- f. 10/23/19 – Norfolk State University’s Career Fair
- g. 10/23/19 – Talent Management and Operations staff presented *Creating the Water Workforce of the Future* for the EPA Webinar Series, Enabling the Water Resources Utility of the Future
- h. 10/29/19 – Hampton Roads Diversity and Inclusion Consortium’s *Honor our Military* luncheon

2. Community Partners: (5)

- a. HRPWA
- b. City of Portsmouth
- c. City of Hampton
- d. Norfolk State University
- e. Hampton Roads Diversity and Inclusion Consortium

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	October 2019
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.62%
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.25%
M-1.4a	Total Training Hours Per Full Time Employee (17) – October	Total Training Hours/ FTE	5.40
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	26.77
M-5.2	Educational and Outreach Events	Number	8
M-5.3	Community Partners	Number	5

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for October 2019
DATE: November 13, 2019

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed one civil penalty this month.

Canon Virginia, Incorporated – Newport News

An Enforcement Order was issued to Canon Virginia, Incorporated in September 2019 for a series of technical violations associated with the facility's Toner Plant sample point that occurred in May and July 2019. The Order contained an invoice for a \$5,000 Civil Penalty.

In May, the permittee reported data that exceeded the monthly average permit limit for zinc and copper. In July, the permittee reported data that exceeded the daily maximum limit for zinc and the monthly average limit for both zinc and copper. The permittee also failed to sample for pH during its April to June 2019 monitoring period.

The permittee performed additional testing following the exceedances but was not able to identify a definitive source for the zinc and copper. To prevent reoccurrence, the permittee cleaned the trench drain and settling pit preceding the sample point and has implemented a routine cleaning schedule for these areas. Additionally, a one micron filter was installed downstream of the settling pit.

A Show Cause meeting was held to discuss measures to prevent recurrence and the associated penalty. The Enforcement Order was accepted and the Civil Penalty was paid in October 2019.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported the following activities for the month of October:

- a. Led HRSD's Catch the King data gathering, which took place on Sunday, October 27. Teams monitored water boundary information at 27 HRSD facilities across the service area that were previously identified as being in flood prone areas.
 - b. Sent out the first Sustainable Spotlight, a monthly email to all HRSD employees that spotlights new information, issues, and great works in the field of environmental sustainability. October's Sustainable Spotlight educated staff on the various plastic bags/films that can be recycled at local stores.
 - c. Finalized the design for the 50th Anniversary Earth Day T-shirt. HRSD staff who participate in Earth Day events on behalf of HRSD will be provided this T-shirt to wear during these events.
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

HRSD provided sampling and analytical services to Northumberland County, Westmoreland County, and Hanover County to support monitoring required for their respective Virginia Pollution Discharge Elimination System (VPDES) permits.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 6
 - a. 10/02/19 – Central Environmental Laboratory (CEL) staff provided a community outreach tour to Old Dominion University representatives regarding SWIFT activities.
 - b. 10/17/19 – P3 staff participated in a SWIFT tour for Eaton Middle School.
 - c. 10/18/19 – P3 staff participated in a SWIFT tour for Eaton Middle School.
 - d. 10/19/19 – P3 staff participated in supporting the Great Chesapeake Bay Schooner Race
 - e. 10/19/19 – P3 staff participated in the Hampton Public Piers event.
 - f. 10/27/19 – P3 and CEL staff participated in the Catch the King event.

2. Community Partners: 10

- a. City of Chesapeake
- b. City of Hampton
- c. City of Newport News
- d. City of Suffolk
- e. City of Virginia Beach
- f. Old Dominion University
- g. Virginia Department of Environmental Quality
- h. Virginia Department of Health Division of Shellfish Sanitation
- i. Hampton Roads Planning District Commission
- j. United Way

3. Odor Complaints: 2

- a. On October 25 the James River plant received a call from a Denbigh Plantation neighbor regarding a turpentine-like odor. The wind was blowing out of the northwest, so the neighbor was upwind of the plant when the event occurred and, therefore, could not be detecting odors originating from the James River plant. However, plant staff checked and did not find any odors or an odor problem at this time.
- b. On October 29 the HRSD Communications Department received notice of an odor complaint near the Pughsville pressure reducing station (PRS). South Shore (SS) Operations and the Technical Services Division (TSD) responded and odors were not observed during the investigation. SS Operations also fixed an exhaust fan at the PRS to ensure that this fan was not contributing to the problem. TSD has identified that the odors may be coming from a local, city-owned gravity manhole.

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	October 2019
M-1.4a	Training During Work Hours Per Full Time Employee (114) (Current Month)	Total Hours / # FTE	4.04
M-1.4b	Total Training During Work Hours Per Full Time Employee (114) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	24.12
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	2:20,293
M-3.2	Odor Complaints	#	2
M-3.4	Pollutant Removal	Total Pounds Removed	64,181,950
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	15%
M-5.2	Educational and Outreach Events	#	6
M-5.3	Community Partners	#	10
	Average Daily Flow	Total MGD for all Treatment Plants	129.71
	Pretreatment Related System Issues	#	0

Respectfully submitted,

James Pletch, Ph.D

Director of Water Quality



The following Internal Audit Status document has been prepared by SC&H for the HRSD Commission. Below is a summary of projects in process, upcoming audits, and the status of current management action plan (MAP) monitoring.

I. *Projects in Process*

Permitting

- **Tasks Completed (October 2019)**
 - Conducted exit discussion with process owners
 - Completed final report draft and communicated for management review and response

- **Upcoming Tasks (November 2019)**
 - Review and incorporate report edits and management action plans
 - Issue final report

Payroll/ Timekeeping

- **Tasks Completed (October 2019)**
 - Prepared and communicated fieldwork documentation requests
 - Conducted fieldwork testing procedures

- **Upcoming Tasks (November 2019)**
 - Continue fieldwork testing procedures
 - Document testing results and confirm understanding with process owners
 - Begin preparation final report draft

Pollution Source Control

- **Tasks Completed (October 2019)**
 - Conducted entrance meeting with process owners and communicated initial document requests
 - Reviewed documentation provided and prepared audit planning materials
 - Scheduled walkthrough discussions

- **Upcoming Tasks (November 2019)**
 - Perform additional onsite walkthrough discussions
 - Finalize planning documentation
 - Prepare fieldwork audit objectives

Risk Assessment Refresh

- **Tasks Completed (October 2019)**
 - Prepared risk assessment documentation for refresh procedures
 - Performed research and updates to risk assessment documentation

- **Upcoming Tasks (November 2019)**
 - Schedule and conduct risk assessment discussions with process owners
 - Document risk assessment results and update overall risk assessment documentation



Business Continuity and Disaster Recovery (Audit Fieldwork Complete/ Management Response in Process)

- **Upcoming Tasks (Q4 2019)**
 - HRSD management has communicated its continued progress to develop a plan to address the recommendations included in the BC/DR report. SC&H will continue to work with HRSD process owners and management to finalize the audit report, incorporating management action plans. A specific completion date has not been identified at this time.

II. Upcoming Projects (FY2020)

SC&H’s next audit will pertain to the SWIFT functions at HRSD and is scheduled to begin in Q1 (January) of calendar year 2020.

III. Management Action Plan (MAP) Monitoring

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

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

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

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/2016	February 2020	11	2	13
Biosolids Recycling	10/8/2016	Pending Permit	7	1	8
HR Benefits	11/22/2016	Closed	15	0	15
Inventory	4/20/2017	February 2020	1	4	5
Procurement/ ProCard	8/23/2017	October 2019	8	3	11
Engineering Procurement	4/20/2018	February 2020	4	4	8
Corporate Governance: Ethics Function*	3/21/18	In-process	0	5	5
Treatment Plant Operations*	10/15/18	November 2019	0	9	9
Customer Care Division*	7/26/19	August 2020	0	4	4
Safety Division*	9/12/19	September 2020	0	3	3
Totals			46	35	81

*SC&H has not yet performed formal follow-up procedures for the implementation status of these MAPs. Actual status may vary within the associated process areas and will be updated upon follow-up.

Annual Metrics													
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%	6.63%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%	2.10%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%	69.00%	68.00%	85.00%	85.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1	40.9
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7	4.1
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%	27%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%	1.8%
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423	\$1,348
M-4.4	Affordability	8 CCF Monthly Charge/Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%
M-4.5	Total Operating Cost/MGD	Total Operating Expense/365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959	\$3,823
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8	152.23
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24	53.1
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%
	Total Debt Coverage	Net Revenue/Total Annual Debt	>1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%

Monthly Updated Metrics														FY-20	FY-20
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	Sep-19	Oct-19
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	131.6	129.7
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	108%	109%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	115%	117%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,900,803	\$27,499,894	\$27,391,182
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	15%	16%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters			12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	2:60879	1:55220	2:20293
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	0	2
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	47,663,562	64,181,950
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	15%	15%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	50	47
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	26	31

EFFLUENT SUMMARY FOR OCTOBER 2019

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	9.96	55%	1	3.2	3	1	0.76	0.51	3.7	3.6	NA	NA	20
ATLANTIC	22.67	42%	18	9.7	7	1	NA	NA	NA	NA	NA	NA	13
BOAT HARBOR	11.39	46%	3	6.9	1	1	0.77	0.69	17	19	NA	NA	11
CENT. MIDDLESEX	0.009	36%	<2	<1.0	1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	17.41	73%	12	13	14	4	1.1	1.2	31	32	NA	NA	10
JAMES RIVER	11.06	55%	9	2.7	1	1	0.73	0.34	11	7.3	NA	NA	0
KING WILLIAM	0.058	58%	<2	<1.0	NA	<1	0.03	0.06	0.40	1.0	0.25	NA	NA
NANSEMOND	14.55	48%	5	3.6	2	1	0.79	1.0	3.8	4.3	NA	NA	1
SURRY, COUNTY	0.046	71%	2	<1.0	NA	NA	NA	NA	NA	NA	NA	0.03	0
SURRY, TOWN	0.035	59%	8	12	NA	32	NA	NA	NA	NA	1.8	0.23	NA
URBANNA	0.053	53%	1	8.3	10	2	5.8	5.9	18	19	NA	1.85	NA
VIP	23.76	59%	2	3.4	2	4	0.87	0.88	4.7	3.7	NA	NA	3
WEST POINT	0.312	52%	40	24	21	12	3.5	2.6	23	16	NA	NA	0
WILLIAMSBURG	7.58	34%	1	3.2	12	14	0.68	0.56	3.6	3.1	NA	NA	5
YORK RIVER	10.82	72%	2	0.86	1	4	0.40	0.29	6.0	5.3	NA	NA	1
	<u>129.71</u>												

	% of Capacity
North Shore	50%
South Shore	53%
Small Communities	51%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged		Operational	Discharged		Operational
	YTD	Projection CY19		YTD	Projection CY19	
	%	Lbs	%	%	Lbs	%
James River	65%	3,716,676	82%	67%	266,362	84%
York River	66%	233,563	81%	62%	15,538	80%
Rappahannock	200%	NA	NA	856%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY20 to Date: 2:20,293
Pounds of Pollutants Removed in FY20 to Date: 64,181,950
Pollutant Lbs Discharged/Permitted Discharge FY20 to Date: 15%

	Rainfall (inch)		
	North Shore (PHF)	South Shore (ORF)	Small Communities (FYJ)
Month	5.36"	3.73"	6.30"
Normal for Month	4.23"	3.79"	4.26"
Year to Date Total	41.22"	41.98"	42.06"
Normal for YTD	44.03"	43.68"	42.03"

AIR EMISSIONS SUMMARY FOR OCTOBER 2019

	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
MHI PLANT											
ARMY BASE	0	0	0	0	0	0	0	0	39	91	0
BOAT HARBOR	0	0	0	n/a	0	0	0	1	16	100	0
CHES-ELIZ	0	0	0	0	0	0	0	0	24	92	0
VIP	0	0	0	n/a	0	0	1	1	58	99	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	1	15	100	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action:	1
DEQ Warning Letter:	0
DEQ Notice of Violation:	0
Other Air Permit Deviations:	0
Odor Complaints Received:	2
HRSD Odor Scrubber H2S Exceptions:	5

AGENDA ITEM 18.e.1. – November 26, 2019

Subject: Kempsville Road Interceptor Force Main Section II (Stillwater Drive)
Emergency Declaration

CIP Project: AT014400

Recommended Action: No action is required. Information Only

Brief: On October 4, 2019, the City of Chesapeake reported a force main break on Kempsville Road near the intersection of Stillwater Drive and Kempsville Road. The hardware holding an abandoned 4-inch valve onto the 30-inch ductile iron pipeline had corroded causing the failure. The failure leaked approximately 107,000 gallons into a storm drain leading to a nearby stormwater pond.

Staff isolated the leak by diverting flow with two mainline valves. Pumping and hauling was performed at six City of Chesapeake pump stations and private pump stations. The contractor, Bridgeman Civil, Inc., provided traffic control and excavation while staff created and used an expandable plug device to isolate the valve and replace the bolts. The contractor poured concrete around the valve to prevent further corrosion.

An emergency declaration was authorized on October 31, 2019.

This emergency was declared to utilize the Prompt Repair On-Call Services contract with Bridgeman Civil, Inc. to establish traffic control, pump and haul services, and roadway repairs. The Environmental On-Call Services contract with Tetra Tech will be used to provide a remediation plan to address water quality of the adjacent stormwater pond.

The estimated cost of this work is \$500,000 and will be funded from a new CIP (AT014400) appropriation.

AGENDA ITEM 18.e.2 – November 26, 2019

Subject: Virginia Beach Boulevard Force Main Repair – Pine Tree Pressure Reducing Station
Emergency Declaration

Recommended Action: No action is required. Information Only

Brief: On September 21, 2019, the City of Virginia Beach reported a force main break along Virginia Beach Boulevard near the Pine Tree Pressure Reducing Station. The line failure leaked approximately 225 gallons into a storm drain leading to a Lynnhaven River tributary.

The contractor, Bridgeman Civil, Inc., uncovered the force main and found a circumferential crack on the 24-inch concrete pipeline at a bend. The bend is located near a 20-inch cast iron water transmission main that has an extensive failure history. The contractor was able to slow the leak and redirect it to a dewatering system that is emptied on a regular basis by staff.

A consultant, Kimley-Horn and Associates, has designed a solution to replace approximately 800 feet concrete pipe with ductile iron pipe. The design relocates the force main away from the suspect water transmission main and replaces the concrete pipeline.

An emergency declaration was authorized on November 5, 2019

This emergency was declared to utilize the existing Virginia Beach Boulevard Force Main Phase VI construction contract with Bridgeman Civil, Inc. to establish traffic control, replacement of the existing force main, and roadway repairs.

The estimated cost of this work is \$1,600,000 and will be funded from the Virginia Beach Boulevard Force Main Phase VI (CE011823) Capital Improvement Project.