



COMMISSION MEETING MINUTES
February 26, 2019

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Name	Title	Present for Item Nos.
Elofson, Frederick N.	Commission Chair	1-18
Lynch, Maurice P.	Commission Vice-Chair	1-18
Glenn, Michael E.	Commissioner	Absent
Lakdawala, Vishnu K.	Commissioner	1-18
Levenston, Jr., Willie	Commissioner	1-18
Rodriguez, Stephen C.	Commissioner	1-18
Taraski, Elizabeth	Commissioner	1-18
Templeman, Ann	Commissioner	1-18

1. **AWARDS AND RECOGNITION**

Action: Approve resolution.

Moved: Vishnu Lakdawala

Ayes: 7

Seconded: Maurice Lynch

Nays: 0

Brief:

a. Commending Resolution

Upon approval, the Commission Chair presented a commending [resolution](#) to a representative of T. A. Sheets General Contractors, Inc. in recognition of the company's extraordinary assistance with the challenging emergency force main repairs near Semple Farm Road in Hampton.

b. Service Awards

- (1) Chair Elofson presented a service award to Mr. Roger Brown who marked his 30th year of service with HRSD on February 6, 2019. Roger was hired in February 1989 as an Account Investigator, the position he still holds today.

Before coming to HRSD, Roger worked for VDOT for three years as a Highway Bridge Tunnel Patrolman and for CFS Air Cargo as a Cargo Technician at the Norfolk Naval Air Station. His combined work history amounts to 40 years of customer service experience.

Roger has been very active in serving his community. He is a Past Master of Malachi Lodge #136, Norfolk, Virginia Prince Hall Masons; a 32nd Degree Scottish Right Mason of Alpha Omega Consistory #9 Norfolk, Virginia; Honorary Past Potentate of the Ancient Egyptian Arabic Order Nobles Mystic



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Shrine of North and South America and its Jurisdictions, and Public Relations State Director for the Improved Benevolent Protective Order of Elks of the World for the Virginia State Association.

In the course of 30 years, Roger has performed customer interactions numbering in the hundreds of thousands in communities throughout our service area. The tools used to perform his work have ranged from largely manual in the earlier years to the mobile workforce technology we enjoy today. This year Roger will be involved in implementation and testing of Oracle Field Service Cloud, our new Mobile Workforce project.

- (2) Chair Elofson presented a service award to Mr. Lee Heath who marked his 25th year of service with HRSD on January 19. Lee was hired in May 1993 as a Summer Helper at the Atlantic Treatment Plant and returned as a permanent employee in January 1994 as a Plant Operator. He became a Systems Helper in July 1995 with the South Shore Interceptor Division, and then was promoted to Reliability Technician in May 1996. In September 2001 he was promoted to Engineering Assistant, then to Systems Manager in August 2014. He is currently the Support Systems Manager, a position he has held since December 2016.

Lee graduated from the apprenticeship program in 2000 and received his Bachelor of Science degree in Civil Engineering Technology with a concentration in Construction Management from Old Dominion University in 2014. He was part of the Operations Challenge Team that finished First in Division II in 2014. Lee currently serves as the Virginia Water Environment Association (VWEA) Chair for Operations Challenge.

c. 2018 National Environmental Achievement Awards (NEAA)

Mr. Henifin announced the receipt of six NEAA awards during a ceremony at the National Association of Clean Water Agencies' (NACWA) Winter Conference. The NEAA program honors individuals and Member Agencies that have made significant contributions through outstanding advocacy or innovative projects that positively impact the environment, their utility, their community, NACWA, and/or the water sector. These special environmental achievement awards include honors for both individual and NACWA Member Agencies – including two new categories, Utility Leadership and Workforce Development. The complete list of categories for the NEAA Individual Achievement Awards includes: Public Service, Distinguished Service, Utility Leadership and Environment. Member Agency NEAA categories are: Water Resources Utility of the Future, Research & Technology, Operations &



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Environmental Performance, Public Service, Public Information & Education, and Workforce Development. HRSD received the following awards:

- (1) Commissioner Lakdawala received the Public Service Award
- (2) Water Quality Director, Jim Pletl, received the Distinguished Service Award
- (3) Public Information and Education: E-Media for our environmental education partnership with WHRO
- (4) Operations and Environmental Performance for the SWIFT Research Center
- (5) Workforce Development for HRSD's partnership program with Hampton Roads Public Works Academy
- (6) Research and Technology for Williamsburg Aeration Tank Modifications

d. Elizabeth River Project Awards

Commissioners Elofson, Lakdawala, Levenston, Lynch, Taraski and Templeman, along with staff, represented the organization on January 24 when HRSD was recognized by the Elizabeth River Project for Sustained Distinguished Performance as a Model Level River Star Business. HRSD also received the Eastern Branch Award for 2019. This award was presented to a River Star Business making the most progress in the restoration of the Elizabeth's "invisible branch."

e. American Council of Engineering Companies (ACEC)

Mr. Bruce Husselbee, with Mr. Chris Stephan and Mr. Eddie Abisaab along with representatives from HDR, Inc. received one of three ACEC National Grand Awards at the 2019 Engineering Excellence Awards Gala on February 7 for the design of the Bridge Street Pump Station. The pump station was nominated for this award by the design engineer, HDR, Inc. The Grand Awards are presented to projects that showcase engineering excellence through innovation, creativity and exceptional social, economic and environmental benefits.

Attachment #1: [Resolution](#)

Public Comment: None



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2. **CONSENT AGENDA**

Action: Approve the items listed in the Consent Agenda.

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

Brief:

- a. Approval of minutes from previous meeting.
- b. Contract Awards
 - 1. [James River and Nansemond Treatment Plants Dewatering Building Modifications and Centrifuge Replacement](#) \$481,000
 - 2. [Sewer Repairs and Condition Assessment Services](#) \$15,000,000
- c. Task Orders
 - 1. [Pump Station Wet Well Rehabilitation](#) \$289,102
 - 2. [Suffolk Regional Landfill Transmission Force Main](#) \$1,436,255
- d. Sole Source
 - 1. [Environmental Dynamics International, Inc. Aeration Tank Diffusers](#)
 - 2. [Horizon Technology, Inc. Smart Prep II Extractor System](#)
 - 3. [Westech Industrial, Inc. DBA Varec Biogas Varec Components and Replacement Parts](#)
- e. HRSD Use of Existing Competitively Awarded Contract Vehicle
 - 1. [GPS Fleet Management Services](#) \$240,519

Item(s) Removed for Discussion: None

Discussion Summary:

Attachment #2: [Consent Agenda](#)

Public Comment: None



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3. **BOAT HARBOR TREATMENT PLANT SWITCHGEAR AND CONTROLS REPLACEMENTS
VIRGINIA CLEAN WATER REVOLVING LOAN FUND (VCWRLF)**

Action: Approve the terms and conditions of the resolution authorizing the issuance of a subordinate wastewater revenue bond, not to exceed \$8,314,638 in principal amount, for the purpose of providing funds, with other available money, to pay the costs of certain improvements for Boat Harbor Treatment Plant Switchgear and Controls Replacements, fixing the principal installment maturity dates, the interest rate, the redemption provisions and certain other details of the bond, directing the authentication and delivery of the bond, and authorizing the execution of a financing agreement with the Virginia Resources Authority.

Moved:	Stephen Rodriguez	Ayes:	7
Seconded:	Willie Levenston	Nays:	0

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

The attached [resolution](#) for the Boat Harbor Treatment Plant Switchgear and Controls Replacements is scheduled to close in March. The loan amount is set at a not-to-exceed amount of \$8,314,638 at 2.4 percent for 20 years. The rate is based on a 1.5 percent subsidy for a 20-year loan. The interest savings compared to HRSD issuing debt in the open market is estimated at \$1,100,000.

These documents have been reviewed by bond and local counsels.

Attachment #3: [Resolution](#)

Public Comment: None



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4. **ORCUTT AVENUE AND MERCURY BLVD GRAVITY SEWER IMPROVEMENTS
VIRGINIA CLEAN WATER REVOLVING LOAN FUND (VCWRLF)**

Action: Approve the terms and conditions of the resolution authorizing the issuance of a subordinate wastewater revenue bond, not to exceed \$8,789,526 in principal amount, for the purpose of providing funds, with other available money, to pay the costs of certain improvements for Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements, fixing the principal installment maturity dates, the interest rate, the redemption provisions and certain other details of the bond, directing the authentication and delivery of the bond, and authorizing the execution of a financing agreement with the Virginia Resources Authority.

Moved:	Willie Levenston	Ayes:	7
Seconded:	Stephen Rodriguez	Nays:	0

Brief: The VCWRLF provides subsidized interest rates for local governments for projects that improve water quality or prevent future problems. The Virginia Resources Authority (VRA) manages the loans and the Department of Environmental Quality administers the program and policy aspects of the fund on behalf of the State Water Control Board (SWCB). On December 7th, 2017, the SWCB approved a total of three HRSD projects to received subsidized interest rates that vary based on the term and project type. The loans require adhering to Davis-Bacon wages and using American Iron and Steel, which increases total project cost. Staff determined that the interest savings far outweigh the potential increased project costs.

The attached [resolution](#) for the Orcutt Avenue and Mercury Blvd Gravity Sewer Improvements is scheduled to close in March. The loan amount is set at a not-to-exceed amount of \$8,789,526 at 3.35 percent for 30 years. The rate is based on a one percent subsidy for a 30-year loan. The interest savings compared to HRSD issuing debt in the open market is estimated at \$1,250,000.

These documents have been reviewed by bond and local counsels.

Attachment #4: [Resolution](#)

Public Comment: None



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5. **DIESEL ENGINE EMISSIONS TREATMENT SYSTEM AND DEMAND RESPONSE (DR) PROGRAM CONTRACT AWARD**

Action: Award a contract to NRG Curtailment Solutions, Inc. to design and install diesel engine emissions after-market treatment systems and provide a demand response (DR) program for one year with five annual renewal options.

Moved: Willie Levenston **Ayes:** 7
Seconded: Maurice Lynch **Nays:** 0

Type of Procurement: Competitive Bid

Bidder	Bid Amount
NRG Curtailment Solutions, Inc.	\$0

Contract Description: This contract is an agreement for the design and installation of diesel engine emissions after-treatment systems on two of our Caterpillar 3516 diesel generators (1500kW) located at the Boat Harbor Treatment Plant and one 3516C (2500 kW) generator and two of our 3516 (1600 kW) DITA Caterpillar generators at the Nansemond Treatment Plant.

There is no direct cost to HRSD to participate in the program. Under this program, to alleviate the burden on the electrical grid, HRSD, when requested, will run its generators. The after-treatment system will enable the generators to operate in compliance with the Commonwealth of Virginia and the Environmental Protection Agency’s emissions requirements for stationary power generation equipment registered in revenue generating demand response programs. Because of grandfathering provisions in the U.S. EPA regulations, only those generators that were manufactured prior to 2012 are eligible. The emissions after-treatment system will include an air clarity monitoring systems and diesel oxidation catalysts (DOC) which will reduce Carbon Monoxide (CO) emissions in excess of 70 percent of current levels. This program includes all system monitoring and maintenance of the equipment for the duration of the six year term. Participation in the program will not restrict our ability to run the generators when needed.

The agreement will cover the cost of the generator retrofits and HRSD will be paid for participating in the program. The revenue from the program is based on the Pennsylvania, Jersey, Maryland Power Pool (PJM) Base Residual Auction and is anticipated to be \$330,000 over the next six fiscal years.

Attachment: None

Public Comment: None



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6. **HAMPTON TRUNK A AND B REPLACEMENT – JEFFERSON AVENUE TO WALNUT AVENUE AGREEMENT**

Action: Approve the terms and conditions of the agreement with the City of Newport News for the construction of improvements along Jefferson Avenue between 14th Street and 16th Street and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications, and deletions as the General Manager may deem necessary.

Moved: Maurice Lynch **Ayes:** 7
Seconded: Willie Levenston **Nays:** 0

CIP Project: BH015600

Budget	\$12,230,742
Previous Expenditures and Encumbrances	(\$204,264)
Available Balance	<u>\$12,026,478</u>

Project Description: This project involves the replacement of approximately 5,000 linear feet (LF) of 36-inch Ductile Iron (DI) and 4,800 linear feet of 36-inch/34-inch Reinforced Concrete Pressure (RCP) pipe from just north of the intersection of 14th Street and Jefferson Avenue to the intersection of 16th Street and Walnut Avenue. This project will replace the existing force main from the upstream terminus of the Hampton “A” Replacement project to the downstream terminus of the Hampton Trunk “B” – Claremont Force Main (FM) project.

Agreement Description: The [attached agreement](#) between HRSD and the City of Newport News establishes the terms and conditions for HRSD to compensate the City for the piping installation along Jefferson Avenue between 14th Street and 16th Street. HRSD recently initiated the preliminary engineering report (PER) phase for this project and learned of the Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvement project being completed by the City, which includes major utility relocation and roadway reconstruction along Jefferson Avenue between 12th Street and 20th Street. After discussions with City staff, HRSD and the City agreed that it was in the best interest of the public to complete a portion of the HRSD project (section of piping along Jefferson Avenue) as part of the City project. HRSD will retain Whitman, Requardt and Associates, LLP (WRA) to provide engineering services and will pay WRA directly. The City will pay the City contractor directly, and HRSD will reimburse the City for construction costs. The agreement has been reviewed by HRSD legal counsel.

Attachment #5: [Agreement](#)

Public Comment: None



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7. **MATHEWS MAIN VACUUM PUMP STATION REPLACEMENT
ADDITIONAL APPROPRIATION, CONTRACT AWARD AND TASK ORDER**

Actions:

- a. **Appropriate additional project funding in the amount of \$1,489,080.**
- b. **Award a contract to Shaw Construction Corporation in the amount of \$2,251,210.**
- c. **Approve a task order with Hazen and Sawyer in the amount of \$423,310.**

Moved: Maurice Lynch **Ayes:** 7
Seconded: Ann Templeman **Nays:** 0

CIP Project: MP012500

Budget	\$2,240,000
Previous Expenditures and Encumbrances	(\$795,670)
Available Balance	\$1,444,330
Proposed Contract Award to Contractor	(\$2,251,210)
Proposed Task Order to Hazen and Sawyer	(\$423,310)
Proposed Contingency	(\$258,890)
Project Shortage/Requested Additional Funding	(\$1,489,080)
Revised Total Project Authorized Funding	\$3,729,080

Contract Status:	Amount
Original Contract with Hazen and Sawyer	\$10,347
Total Value of Previous Task Orders	\$493,177
Requested Task Order	\$423,310
Total Value of All Task Orders	\$916,487
Revised Contract Value	\$923,834
Engineering Services as % of Construction	41%

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Shaw Construction Corporation	\$2,251,210*
Corman Kokosing Construction Company	\$2,659,143*
J Sanders Construction	\$2,973,000
Southwood Building Systems, Inc.	\$3,101,230
Waco Inc.	\$3,931,650*

HRSD/Engineer Estimate: \$2,606,107



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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. Five 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 \$2,251,210.

Project Description: This project is to build a new main vacuum/pumping station in Mathews County on a new parcel that has been purchased. The new station will include vacuum pumps, sewage pumps, sewage holding tank, trailer-mounted vacuum pump, emergency bypass pump connections, abandonment of the existing Court House pump station, and evaluate the potential of abandoning the existing booster pump station on Buckley Hall Road.

Task Order Description: This task order will provide construction phase services for this project. A fee of \$423,764 was negotiated with Hazen and Sawyer and was based upon anticipated construction administration and inspection hours required for this effort. This cost for construction phase service is roughly 18.8 percent of the total construction cost and is higher than anticipated; however, this is a complex project that requires many different disciplines to be involved.

Analysis of Cost: The revised total project cost is currently \$3,729,534. This amount is based on construction costs of \$2,251,210, engineering services costs of \$913,141, real estate costs of \$242,000, other miscellaneous costs of \$64,293, and an 11.5 percent contingency of \$258,890. The contingency amount is to accommodate any potential unforeseen conditions. The additional appropriation of \$1,489,534 is requested to execute the construction phase.

An error in the bid specifications resulted in confusion by a number of the bidders (indicated by asterisk above). These three bids listed an incorrect value for equipment to be provided by the owner due to HRSD’s mistake. Since the value of the bid item in question did not impact the the order of any of the bidders, the error was declared an informality.

<u>Schedule:</u>	Construction	March	2019
	Project Completion	August	2020

Discussion Summary: Staff explained the bidding error in detail. Since the specifications were not clear, and did not affect the order of the bidders, staff declared the errors an informality due to HRSD’s mistake. Staff informed the Commission that a representative from J. Sanders would like to address the Commission, but had yet to arrive. The Commission delayed voting on this item until the arrival of the company representative.

Mr. Ben Sanders of J. Sanders Construction Company addressed the Commission. He stated he does not agree with staff’s decision that the bid errors were an informality. It is his opinion the two lowest bids should be declared non-responsive, thereby making J. Sanders the lowest responsible bidder.



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Chair Elofson said the only other option would be to cancel this bid and rebid it. However, staff feels that would create an unfair advantage in that all bidders know the price of their competitors and would further delay the project. Commissioner Rodriguez clarified J. Sanders' challenge is based on a technicality and not the price difference. Mr. Sanders said three bidders did not bid correctly and, at minimum, the information needs to be clarified and the project rebid.

The Virginia Public Procurement Act (VPPA) allows a public body to waive informalities in bids. The VPPA defines an "informality" as a minor defect or variation of a bid or proposal from the exact requirements of the Invitation to Bid, or the Request for Proposal, which does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured.

Attachment: None

Public Comment: None



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Project Description: The project will include a pump station, two force mains, equalization tank, electrical/instrumentation and controls, generator, maintenance building, and the closure and demolition of the Town of Surry WWTP. The flow will be conveyed to the County of Surry WWTP. Necessary upgrades to the County of Surry WWTP to accommodate the flow will be accomplished under existing project Surry Treatment Plant Infrastructure Improvements.

Funding Description and Analysis of Cost: The CCLs from both short-listed firms were higher than the project's CIP budget of \$20,000,000. MEB's original CCL was \$27,467,000. Negotiations were held with the top ranked firm on December 27, 2018 where details of the CCL were reviewed. Significant reduction and modifications to Scope were discussed with MEB's design-build team on January 15. MEB's team provided a revised CCL of \$8,978,000 on February 5, 2019. The estimated total project cost is \$10,000,000, which is the Design-Builder's CCL plus an 11 percent contingency to accommodate any additional unforeseen conditions and Owner's Advisor services. Staff provided a briefing describing the revised scope of work.

<u>Schedule:</u>	Design-Build	February 2019
	Project Completion	November 2020

Discussion Summary: Staff described three alternatives and associated present-worth cost projections considered for this project. Commissioner Rodriguez expressed his concern for the alternative that crosses the James River. Staff agreed and included that fact in the ultimate selection of a different alternative. However, if the river crossing alternative was used, the pipe would be installed 30 to 40 feet below the river bottom, making it a very high risk endeavor. Staff anticipates adequate capacity for currently planned growth in the area with the option selected.

Attachment #6: [Presentation](#)

Public Comment: None



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9. **WILLARD AVENUE PUMP STATION REPLACEMENT
ACQUISITION OF REAL PROPERTY – 302 S. WILLARD AVENUE, HAMPTON, VIRGINIA**

Actions:

- a. **Approve the purchase of 302 S. Willard Avenue for \$260,000 in accordance with the terms and conditions of the Purchase and Sale Agreement with Jamie Given, owner of subject property in Hampton, Virginia.**
- b. **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: Ann Templeman **Ayes:** 7
Seconded: Vishnu Lakdawala **Nays:** 0

CIP Project: BH013020

Project Description: The purpose of this project is to design and construct a replacement pump station for the existing station located at 219 National Avenue in Hampton. The current pump station is undersized for the current and future development in the Phoebus area and the proposed pump station will be designed to accommodate the planned new development in this part of Hampton.

After a preliminary engineering, location and cost evaluation, HRSD staff and engineering consultants selected 12 potential sites based on size, location, aesthetics and engineering feasibility considerations. Locations were all within approximately six blocks of the existing station at 219 National Avenue. Letters of interest were sent to 12 property owners and three of the 12 expressed an interest to sell. 302 S. Willard Avenue was determined to be the most feasible site upon which to build. The [Purchase and Sale Agreement](#) was reviewed by HRSD staff and legal counsel. The deed of bargain and sale is forthcoming and will also be reviewed by HRSD staff and legal counsel before execution. A facilities orientation [map](#) is provided for clarification purposes.

Analysis of Cost: HRSD will purchase the property for the negotiated price of \$260,000. The offer amount is reflective of sales of single family homes and current listings in the area.

Attachment #7: [Purchase and Sale Agreement, Deed of Bargain and Sale \(forthcoming\), Facilities Orientation Map](#)

Public Comment: None



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10. **WATER QUALITY SERVICES BUILDING (WQSB) PHASE II
ADDITIONAL APPROPRIATION AND COMPREHENSIVE AGREEMENT**

Actions:

- a. **Appropriate additional funding in the amount of \$9,700,312.**
- b. **Approve a comprehensive agreement with Henderson, Inc. including a Construction Cost Limit of \$16,445,004.**

Moved: Vishnu Lakdawala
Seconded: Willie Levenston

Ayes: 7
Nays: 0

CIP Project: AD012200

Budget	\$9,800,000
Previous Expenditures and Encumbrances	(\$200,228)
Available Balance	\$9,599,772
Proposed Comprehensive Agreement with Henderson	(\$16,445,004)
Proposed Contingency	(\$822,250)
Furniture, Fixtures and Equipment (FFE)	(\$1,903,602)
Proposed Task Order to Guernsey Tingle, Inc.	(\$129,228)
Project Shortage/Requested Additional Funding	(\$9,700,312)
Revised Total Project Authorized Funding	\$19,500,312

Type of Procurement: Competitive Negotiation – Design-Build

Proposers	Statement of Qualifications	Technical Points	Price Proposal	Total Score	Recommended Selection Ranking
Henderson, Inc.	25.67	27.42	30.00	83.09	1
Haskell Company	26.60	28.16	27.88	82.64	2
MEB General Contractors, Inc.	27.86	29.12	22.70	79.68	3

Contract Description: The use of the Design-Build project delivery method was approved by the Commission at the September 2017 meeting. A Public Notice of the Request for Qualifications was issued on September 16, 2018. Six teams submitted Statements of Qualifications on October 16, 2018 and all six were considered to be responsive and deemed to be fully qualified, responsible, and suitable to the requirements of the Request for Qualifications. Three teams were short-listed. All three short-listed teams submitted Technical Proposals on December 4, 2018, were interviewed on December 14, 2018 and submitted Price Proposals on January 10, 2019.



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The Selection Committee selected the top ranked team, comprised of Henderson, Inc. and DJG, Inc. as the design consultant.

Project Description: The project includes demolition and offsite disposal of the existing storage building (referred to as the Meekin's Building), construction and commissioning of a new two-story building to provide laboratory clean space, office, staging and facility support spaces for the Pretreatment and Pollution Prevention Division (P3) and Technical Services Division (TSD) of the Water Quality Department.

Funding Description: This project requires additional funding to support design and construction of the WQSB Phase II project. The proposed Construction Cost Limit (CCL) of \$16,445,004 reflects a complete facility. The request also includes \$129,228 for construction phase services to be provided by Guernsey Tingle Architects, \$1,903,602 for Furniture, Fixtures and Equipment (FFE) and an \$822,250 Owner's contingency, which is five percent of the Contract Cost Limit, to accommodate any additional unforeseen conditions.

Initial funding for the project was requested based on an April 2017 Space Study, which identified current space deficiencies and future space needs of TSD, P3 and the Central Environmental Laboratory (CEL). The Study included a budgetary estimate useful for planning purposes only. Throughout the conceptual design process the project increased in scope to include relocating all of TSD and P3 to the new facility. This change required the building footprint to grow from 24,000 net square feet of space to approximately 36,000 net square feet. Additionally, the building is to be designed and constructed to meet LEED® 4.0 Silver certification, with Henderson estimating achieving LEED 4.0 Silver at approximately 10 to 12 percent of the overall design and construction cost.

Additional funding is required to accommodate the growth in scope and increased costs associated with the design/build delivery method, such as development of General Conditions, contractor involvement during design and preconstruction services and LEED® 4.0 Silver certification, which is more rigorous than earlier certifications. Henderson's estimate also includes construction of an access road between the new building and 1436 Air Rail Avenue, whole building backup generator, disposal of remaining refuse in the Meekins Building, electric vehicle charging station and modified air handling units. Additionally, contractors have experienced increases in material and labor costs (25 percent) over the last 24 months since the original project scope and fee was prepared.



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The following table compares costs for this project to other similar projects:

Item	WQSB II Cost	Price Per Square Foot (SF)			
		2019 WQSB II (39,600 SF)	2017 Atlantic Treatment Plant Admin. Bldg. (7,791 SF)	2011 South Shore Operations Center (75,000 SF)	2011 North Shore Operations Center (55,000 SF)
Design	\$1,209,200	\$30.54	\$35.56	\$13.83	\$13.02
Construction	\$14,416,800	\$364.06	\$313.88	\$142.24	\$101.30
Site Work/Demolition	\$819,000	\$20.68	-	\$20.01	\$35.21
Data Center/North Shore Specialties	-	-	-	\$36.00	\$5.01
South Shore Maintenance Center Renovation	-	-	-	\$12.13	\$0
Total Cost per SF		\$415.28	\$349.44	\$224.21	\$154.54
Total Cost		\$16,445,000	\$2,722,419	\$16,816,000	\$8,500,000
Total Cost (2019 dollars)		\$16,445,000	\$2,891,000	\$20,925,300	\$10,663,500

Schedule: Design March 2019
Construction May 2019
Project Completion September 2020

Discussion Summary: Staff explained the requirements for the specialized “lab-type” clean space needed for special samples (clean metals, low parts per billion, pathogen). These special samples require detailed prep work prior to transfer to the Central Environmental Laboratory for analysis. Additionally the sequencing batch reactor (SBR) space requires specialized ventilation as well.

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
February 26, 2019

11. YORK RIVER TREATMENT PLANT SOLIDS HANDLING ELECTRICAL IMPROVEMENTS
INITIAL APPROPRIATION

Action: Appropriate total project funding in the amount of \$602,600.

Moved: Maurice Lynch **Ayes:** 7
Seconded: Willie Levenston **Nays:** 0

CIP Project: YR013600

Project Description: This project is to replace Solids Handling Building (SHB) motor control center (MCC) located on the second floor of the York River Treatment Plant Dewatering building and provides backup power (treatment plant diesel generators) to the solids handling building through SHB MCC. It additionally provides a main breaker with remote open/close operator, 5kV and 600V feeders, switch fuses, 1000kVA transformer with housekeeping pad, duct bank, pull box, conduit as well as startup, commissioning, and testing services.

Funding Description: The estimated total project cost is \$602,600, which is based on a construction cost estimate of \$420,000 combined with an engineering services estimate of \$67,540, and a contingency allowance of \$105,000. Engineering services will be provided by HDR Engineering Inc. for design engineering, bid phase services, and construction services. Dominion Energy estimated cost to remove the existing transformer is \$10,000.

Analysis of Cost: This cost is in agreement with other similar efforts from other firms.

Schedule:

PER	July 2018
Design	September 2018
Bid	April 2019
Construction	June 2019
Project Completion	October 2019

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
February 26, 2019

12. **SWIFT RESEARCH CENTER
BRIEFING**

Action: No action required.

Background: Staff briefed the Commission on what appeared to be some premature corrosion on some of the steel in several locations throughout the SWIFT Research Center process equipment. Complete investigation into the extent of the corrosion and development of a corrective action plan required suspension of operations at the SWIFT Research Center in early December 2018.

Staff has been working with the design-build team to get the corrosion issues corrected and the SWIFT Research Center back up and running as soon as possible. Staff provided the latest information in a briefing at the February meeting.

Discussion Summary: The lessons learned will be used in the design for our full-scale facilities. Concrete tanks will be used in the full-scale facilities and staff does not anticipate these types of corrosion issues.

We continue to receive great cooperation from all vendors and parties involved.

Attachment #8: [Presentation](#)

Public Comment: None



COMMISSION MEETING MINUTES
February 26, 2019

13. **UNFINISHED BUSINESS – None**

14. **NEW BUSINESS – None**

15. **COMMISSIONER COMMENTS**

Commissioner Rodriguez asked several questions related to the management reports.

- Mr. Henifin explained 30 senior leadership staff met at the Kroc Center to participate in group team-building activities during the inaugural “HRSD Leadership Day.”
- The former North Shore Operations Center was marketed as potential for leased space without success. We are now marketing it for sale.
- Staff only tracks time spent working with the localities who participate in the Municipal Assistance Program.

Commissioner Lakdawala said it was an honor to receive the NEAA Public Service Award. He enjoyed the event.

Commissioner Templeman thanked staff for their hard work during the incredibly rainy weather.

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

17. **INFORMATIONAL ITEMS**

Action: No action required.

Brief: The items listed below were presented for information.

- [Management Reports](#)
- [Strategic Planning Metrics Summary](#)
- [Effluent Summary](#)
- [Air Summary](#)
- [Emergency Declaration – Westminister Drive Force Main Replacement](#)

Attachment #9: [Informational Items](#)

Public Comment: None



COMMISSION MEETING MINUTES
February 26, 2019

18. **WORK SESSION – FISCAL YEAR-2020 ANNUAL BUDGET AND INTERNAL AUDIT UPDATE**

Action: No action required.

Brief: Staff presented the high-level drivers of the Fiscal Year-2020 budget. The following topics were covered:

- Review of Internal Audits in process and complete
- Review of Internal Audit FY-2020 Work Plan
- Proposed investments in cyber security for FY-2020 and beyond
- Review of current financials and financial forecast
- Review of Customer Assistance Pilot Program
- Proposed updates to the HRSD Revenue Policy
- The implementation schedule of the revised Surcharge Program for non-permitted high-strength wastes

Staff sought input and guidance from the Commission regarding Commission priorities for the coming year.

Attachment #10: [Presentation](#)

Public Comment: None

19. **ANNOUNCEMENTS**

- The Finance Committee will meet on February 28, 2019 to review the draft Capital Improvement Program for FY 2020-2029.

Next Commission Meeting Date: **March 26, 2019** at the HRSD South Shore Operations Complex, 1434 Air Rail Avenue, Virginia Beach, VA 23455

Meeting Adjourned: 12:04 p.m.

SUBMITTED:

Jennifer L. Cascio

Jennifer L. Cascio
Secretary

APPROVED:

Frederick N. Elofson

Frederick N. Elofson, CPA
Chair

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #1

AGENDA ITEM 1. – Awards and Recognition – Commendation Resolution



RESOLUTION

Commending T. A. Sheets General Contractors, Inc.

WHEREAS, HRSD experienced a catastrophic failure of a 30-inch diameter force main in Hampton adjacent to 96 Semple Farm Road on December 20, 2018; and

WHEREAS, the failure of the pipe was the result of significant interior corrosion requiring replacement of several sticks of pipe; and

WHEREAS, the force main could not be isolated and required line stops and by-pass pumping to facilitate the replacement; and

WHEREAS, T. A. Sheets General Contractors Inc.'s (TAS) team of skilled professionals immediately mobilized to aid HRSD in the repair of this force main, working throughout the Christmas holidays including around the clock as needed; and

WHEREAS, the saturated ground, continued rainfall, the proximity to neighboring residential properties and the necessity to cross Semple Farm Road, a busy narrow City of Hampton thoroughfare that had to remain active throughout the repair made this effort particularly challenging; and

WHEREAS, TAS employees demonstrated great dedication and commitment as they worked to complete this challenging repair quickly to minimize the effects on the environment, local residents and City of Hampton sanitary sewer customers; now, therefore, be it

RESOLVED by the HRSD Commission, that it hereby commend T. A. Sheets General Contractors Inc. for its efforts and, be it

RESOLVED FURTHER, that the Secretary of the HRSD Commission prepares a copy of this resolution for presentation to T.A. Sheets General Contractors, Inc. as an expression of the Commission's appreciation of the company's commitment to serving area residents.

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

Frederick N. Fofson

Frederick N. Elofson
HRSD Commission Chair



HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #2

AGENDA ITEM 2. – Consent Agenda

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

Subject: James River and Nansemond Treatment Plants Dewatering Building Modifications and Centrifuge Replacement
Contract Award (>\$200,000)

Recommended Action: Award a contract to Shaw Construction Corporation in the amount of \$481,000.

CIP Project: GN016500

Budget	\$2,127,903
Previous Expenditures and Encumbrances	(\$1,541,886)
Available Balance	<u>\$586,017</u>

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Shaw Construction Corporation	\$481,000
RepairTech LLC	\$581,148

HRSD/Engineer Estimate: \$976,487

Contract Description: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. Two 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 \$481,000.

Project Description: The project will identify, design and construct necessary modifications to dewatering buildings at Nansemond Treatment Plant (NTP) and James River Treatment Plant (JRTP) and for the installation of new dewatering centrifuges.

Analysis of Cost: The total project cost is currently \$2,127,903. This amount is based on construction costs of \$481,000, engineering services costs of \$431,282, equipment purchase cost of \$1,098,435, and a 24.3 percent contingency of \$117,186. The contingency amount is to accommodate any potential unforeseen conditions.

Schedule: Construction March 2019
Project Completion October 2019

CONSENT AGENDA ITEM 2.b.2. – February 26, 2019

Subject: Sewer Repairs and Condition Assessment Services
Contract Award (>\$200,000)

Recommended Action: Award a contract for sewer repairs and condition assessment services to TA Sheets General Contractors, Inc. and Tidewater Utility Construction Inc. This is a Job Order based estimated use contract for one year with two annual renewal options. Individual job orders are limited to \$500,000. Potential annual maximum contract spend \$5,000,000 with a potential cumulative value of \$15,000,000 per individual contract.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
TA Sheets General Contractors, Inc.	\$13,811,810
Tidewater Utility Construction, Inc.	\$22,874,100
Gaston Brothers Utilities, LLC	\$23,236,350

Engineer Estimate: \$17,455,000

Contract Description: This contract is an agreement for force main and gravity sewer repairs and force main condition assessment and inspection services for HRSD. Contractors will provide all necessary labor, equipment, materials and supervision to perform services required by HRSD to respond to failures or potentially imminent failures and/or malfunctions of existing HRSD owned facilities, structures, sanitary sewer force mains, gravity sewer mains and appurtenances. Task orders will be assigned to either TA Sheets General Contractors, Inc. or Tidewater Utility Construction, Inc. based on HRSD needs. There are no guaranteed minimums. All task orders will be issued based on the unit prices submitted with the bids.

Analysis of Cost: The engineering consultant reviewed submitted bid prices and provided a bid gap analysis. The bid amount is determined by multiplying the bidder's unit price by the estimated number of units provided in the bid sheet for each bid item. The total sum of all bid items is the bidder's total bid amount.

CONSENT AGENDA ITEM 2.c.1. – February 25, 2019

Subject: Pump Station Wet Well Rehabilitation
Task Order (>\$200,000)

Recommended Action: Approve a task order with Brown and Caldwell in the amount of \$289,102.

CIP Project: GN012140

Budget	\$3,519,659
Previous Expenditures and Encumbrances	(\$3,061,668)
Available Balance	\$457,991

Contract Status:	Amount
Original Contract with Brown & Caldwell	\$301,280
Total Value of Previous Task Orders	\$616,314
Requested Task Order	\$289,102
Total Value of All Task Orders	\$905,416
Revised Contract Value	\$1,206,696
Engineering Services as % of Construction	49%

Project Description: Rehabilitation of wet wells, and installation of miscellaneous piping, valves, safety rails and decking along with other appurtenances at North Shore Road Pump Station, Norview Avenue Pump Station, Newtown Road Pump Station, Virginia Beach Boulevard Pump Station, Washington District Pump Station, Dovercourt Road Pump Station, Luxembourg Avenue Pump Station, Willoughby Avenue Pump Station and Bainbridge Boulevard Pump Station are referred for action. Each station has unique characteristics for bypassing the pump station so that the rehabilitation work can be completed.

Task Order Description and Analysis of Cost: This task order will provide additional contract administration and inspection services due to an increased construction project duration and additional effort required for coating inspection. The coating inspection work was originally planned to be conducted by HRSD staff but was transferred to Brown and Caldwell after construction began. The labor rates match those used in the original agreement. The fee is reasonable based on the projected contract completion date. The engineering services are a significant part of this overall project budget due to the need to provide full-time inspection using highly qualified and certified (NACE) individuals to assure quality at these numerous pump station locations.

Schedule: Construction August 2017
Project Completion August 2019

CONSENT AGENDA ITEM 2.c.2. – February 26, 2019

Subject: Suffolk Regional Landfill Transmission Force Main
Task Order (>\$200,000)

Recommended Action: Approve a task order with HDR Engineering, Inc. in the amount of \$1,436,255.

CIP Project: AT014100

Budget	\$7,000,000
Previous Expenditures and Encumbrances	(\$97,000)
Available Balance	\$6,903,000

Contract Status:	Amount
Original Contract with HDR	\$97,000
Total Value of Previous Task Orders	\$0
Requested Task Order	\$1,436,255
Total Value of All Task Orders	\$1,436,255
Revised Contract Value	\$1,533,255

Project Description: This project is to install a force main from the Suffolk Southeastern Public Service Authority (SPSA) landfill to the HRSD Washington District Pump Station.

Task Order Description: HRSD and SPSA have entered into an agreement for the design, construction, and related land acquisition for a sewer force main to convey the leachate from the SPSA Regional Landfill (RLF) in Suffolk, Virginia to a discharge point in the HRSD Atlantic Treatment Plant (ATP) system in Chesapeake, Virginia. This is necessary because the HRSD Nansemond Treatment Plant (NTP) will no longer be able to cost effectively treat the leachate with the addition of the HRSD Sustainable Water Initiative for Tomorrow (SWIFT) facility at the NTP. HRSD tasked HDR Engineering, Inc. (HDR) with evaluating route and connection alternatives for the Suffolk Regional Landfill to Bainbridge Boulevard (SPSA) Force Main.

The Commission approved the use of the Design-Build project delivery method for this project on March 27, 2018, to construct the improvements needed for this preferred alternative. The evaluation, design, and construction of the force main are divided into four phases. This task order involves preparing 30 percent Design Documents for the force main and SPSA pump station improvements. A detailed field survey is also included in this effort. During the development of these documents, construction delivery methods will be further evaluated and one will be selected.

Analysis of Cost: Based on the hourly rates included in the contract with HDR Engineering, Inc., a fee has been negotiated based upon the anticipated hours required to perform the additional design services.

<u>Schedule:</u>	Pre Planning	April 2018
	Design	January 2019
	Construction	January 2020
	Project Completion	October 2020

CONSENT AGENDA ITEM 2.d.1. – February 26, 2019

Subject: Environmental Dynamics International, Inc.
Aeration Tank Diffusers
Sole Source (>\$10,000)

Recommended Action: Approve Environmental Dynamics International as the provider of Ethylene Propylene Diene Monomer (EPDM) Aeration Tank Diffuser membranes and membrane rings for use at York River Treatment Plant (YRTP)

Sole Source Justification:

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

Details: Product includes disc membrane and disc retainer ring. YRTP has mixed different brand membranes in the past but because of slight differences in the membranes it can create issues with uneven air flow throughout the aeration system. Without a proper functioning air diffuser system the activated sludge process will not provide proper wastewater treatment.

Environmental Dynamics International is the manufacturer distributor of EPDM membrane and membrane rings.

CONSENT AGENDA ITEM 2.d.2.– February 26, 2019

Subject: Horizon Technology, Inc.
Smart Prep II Extractor System
Sole Source (>\$10,000)

Recommended Action: Approve Horizon Technology, Inc. as the provider of the Smart Prep II Extractor System for use at the Central Environmental Laboratory.

Sole Source Justification:

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

Details: Product includes the Smart Prep II Extractor System. The Organics Section of the Central Environmental Laboratory uses the Smart Prep II Extractor System in the analysis and detection of semi-volatile organic compounds and contaminants in drinking water to support SWIFT. The Smart Prep II Extractor System will be used in conjunction with currently owned Smart Prep II Extractor System that was previously competitively bid.

Horizon Technology, Inc. is the manufacturer of the system.

CONSENT AGENDA ITEM 2.d.3. – February 26, 2019

Subject: Westech Industrial, Inc. DBA Varec Biogas
Varec Components and Replacement Parts
Sole Source (>\$10,000)

Recommended Action: Approve Westech Industrial, Inc. DBA Varec Biogas as the provider of Varec Biogas Components and Replacement Parts for use at Atlantic James River, Nansemond and York River Treatment Plants

Sole Source Justification:

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

Details: Product includes Varec Biogas various valves, regulators and replacement parts for inventory. The components are part of the digester biogas system which regulates and maintains gases, control digester gas flow, and provide gas pressure and vacuum safety reliefs. The replacement parts allow for the use of existing equipment without modifications to existing infrastructure or process.

Westech Industrial, Inc. DBA Varec Biogas is the manufacturer of Varec Biogas equipment and parts.

CONSENT AGENDA ITEM 2.e.1. – February 26, 2019

Subject: GPS Fleet Management Services
HRSD Use of Existing Competitively Awarded Contract Vehicle (>\$200,000)

Recommended Action: Approve the use of Sourcewell Contract #022217 – GEO for GPS fleet management and vehicle information services to Fleetistics with an estimated cumulative value in the amount of \$240,519.

HRSD Estimate: \$240,519

Contract Description: In 2018 HRSD entered into a contract for GPS fleet management and vehicle information services that monitors engine performance and critical functions including speed, driving habits and location information of our vehicles. The contract was competitively solicited by Sourcewell (a Minnesota governmental entity). Virginia procurement law allows local governments to use competitively bid contracts from other public entities under certain conditions.

HRSD has over 280 vehicles in its fleet. The initial contract was for the installation of equipment and the first year of service fees (\$108,357). As this total was below the Commission approval threshold, no Commission action was required at that time.

Staff is pleased with the service and proposes to extend the contract for the two years remaining in the cooperative contract. Service fees are \$66,081 per year. The cumulative value of the initial contract and two additional years of service is \$240,519 and extension of the contract requires Commission action at this time.

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #3

AGENDA ITEM 3. – Boat Harbor Treatment Plant Switchgear and Controls
Replacements Virginia Clean Water Revolving Loan Fund (VCWRLF) Resolution

Hampton Roads Sanitation District
Resolution of
February 26, 2019

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION
PROVIDING FOR THE ISSUANCE OF

A SUBORDINATE WASTEWATER REVENUE BOND

Adopted February 26, 2019

Boat Harbor Treatment Plant Switchgear and Controls Replacements Project: #C-515604-02

Resolution

RESOLUTION AUTHORIZING THE ISSUANCE OF A SUBORDINATE WASTEWATER REVENUE BOND, NOT TO EXCEED \$8,314,638 IN PRINCIPAL AMOUNT, FOR THE PURPOSE OF PROVIDING FUNDS, WITH OTHER AVAILABLE MONEY, TO PAY THE COSTS OF CERTAIN IMPROVEMENTS TO THE BOAT HARBOR TREATMENT PLANT PROJECT, FIXING THE PRINCIPAL INSTALLMENT MATURITY DATES, THE INTEREST RATE, THE REDEMPTION PROVISIONS AND CERTAIN OTHER DETAILS OF THE BOND, DIRECTING THE AUTHENTICATION AND DELIVERY OF THE BOND, AND AUTHORIZING THE EXECUTION OF A FINANCING AGREEMENT WITH THE VIRGINIA RESOURCES AUTHORITY.

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

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

WHEREAS, the Hampton Roads Sanitation District Commission (the “Commission”) heretofore received an offer from the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund (the “Fund”), to make a loan from the Fund to the Borrower in an amount expected not to exceed \$8,314,638 for the purpose of financing a project described in such offer as Boat Harbor Treatment Plant Switchgear and

Controls Replacements Project, together with related expenses; and

WHEREAS, the Commission, as the governing body of the Borrower, has determined to accept such offer and close on the loan from the Authority, as Administrator of the Fund, by authorizing and issuing its subordinate wastewater revenue bond for the purpose of financing Capital Improvement Program Costs (as defined in the Trust Agreement) of improvements to the Borrower's Boat Harbor Treatment Plant (the "2019 Boat Harbor Local Bond"), to be payable solely from the Net Revenues Available for Debt Service (as defined in the Trust Agreement) on a parity with all Parity Obligations (as defined in the Trust Agreement) of the Borrower and subordinated to all Senior Indebtedness, as defined in, and to extent set forth, in the Trust Agreement, all in conformity with the terms and provisions of the Trust Agreement; now, therefore,

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

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

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

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

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

Section 2. Authorization of 2019 Boat Harbor Local Bond. Pursuant to Sections 209(b) and 704(a) of the Trust Agreement and for the purpose of financing the Capital

Improvement Program Costs of the Project, which are Project Costs within the definition thereof found in the Financing Agreement, the 2019 Boat Harbor Local Bond of the Borrower is hereby authorized to be issued in the principal amount not to exceed \$8,314,638. The 2019 Boat Harbor Local Bond shall be issuable as a single registered bond without coupons and shall be dated as of its date of issue. The 2019 Boat Harbor Local Bond shall be substantially in the form attached to this Resolution as Exhibit B, with such variations, omissions and insertions as may be necessary or appropriate to conform to the provisions of this Resolution. The 2019 Boat Harbor Local Bond shall be a Parity Obligation and shall be a VRA Subordinate Obligation, each as defined in the Trust Agreement, shall be secured on a parity with all other Parity Obligations of the Borrower under the Trust Agreement, and shall be senior to all Junior Obligations (as defined in the Trust Agreement), as set forth therein.

The 2019 Boat Harbor Local Bond shall be dated as of its date of issue and shall bear interest (or “Cost of Funds” as described in the 2019 Boat Harbor Financing Agreement Supplement) on the disbursed principal balance of the 2019 Boat Harbor Local Bond at a rate not to exceed 2.40% per annum. Such interest shall be payable commencing on the date set forth in a certificate of the General Manager delivered on the date of issue of the 2019 Boat Harbor Local Bond (the “General Manager’s Certificate”), such principal and interest shall be payable in essentially equal semi-annual installments (rounded to the nearest \$100), with the balance due on the date set forth in the General Manager’s Certificate, but not later than December 1, 2041.

Section 3. Redemption Provisions. The principal installments on the 2019 Boat Harbor Local Bond shall be subject to redemption prior to their respective maturities, at the option of the Borrower, from any money that may be made available for such purpose, either in whole or in part on any date at the redemption price of par plus accrued interest on ten (10) days’ written

notice to the Authority and otherwise as provided in the Financing Agreement. Any such partial redemption shall not postpone the due date of any subsequent payment on the 2019 Boat Harbor Local Bond, or change the amount of such installment, unless the Borrower and the Authority agree otherwise in writing.

Section 4. Deposits to Local Bond Fund. The Borrower shall deposit money with or to the order of the Authority, as Administrator of the Fund, in amounts sufficient to pay in full, when due (whether by maturity, redemption, acceleration or otherwise), the 2019 Boat Harbor Local Bond issued under this Resolution, together with the interest thereon, all as set forth in the 2019 Boat Harbor Local Bond.

Section 5. Authority to Execute 2019 Boat Harbor Financing Agreement Supplement. The execution and delivery of the 2019 Boat Harbor Financing Agreement Supplement, substantially in the form presented at this meeting, relating to the loan from the Authority, as Administrator to the Fund, to the Borrower and the repayment of the loan by the Borrower in accordance with the 2019 Boat Harbor Local Bond, are hereby authorized, with such changes, insertions and omissions as may be approved by the Chairman or Vice Chairman of the Commission, the execution of the 2019 Boat Harbor Financing Agreement Supplement by the Chairman or the Vice Chairman to be conclusive evidence of his approval of any changes, insertions and omissions therein.

Section 6. Manner of Execution of 2019 Boat Harbor Local Bond. The 2019 Boat Harbor Local Bond shall be executed by the Chairman or Vice Chairman and the Secretary or an Assistant Secretary of the Commission, and the seal of the Commission shall be impressed on the 2019 Boat Harbor Local Bond. The 2019 Boat Harbor Local Bond shall be delivered to or for

the account of the Authority, as Administrator of the Fund, upon execution and delivery of the 2019 Boat Harbor Financing Agreement.

Section 7. Obligations of Borrower Unconditional. Subject to the terms of the Trust Agreement, nothing contained in this Resolution or the 2019 Boat Harbor Local Bond is intended to or shall impair, as between the Borrower, its creditors, and the holder of the 2019 Boat Harbor Local Bond, the obligation of the Borrower, which is absolute and unconditional, to pay to the holder of the 2019 Boat Harbor Local Bond the principal of, redemption premium, if any, and interest on the 2019 Boat Harbor Local Bond as and when the same shall become due and payable in accordance with its terms, or affect the relative rights of the holder of the 2019 Boat Harbor Local Bond and creditors of the Borrower, nor shall anything herein or therein prevent the holder of the 2019 Boat Harbor Local Bond from exercising all remedies otherwise permitted by applicable law and under the Trust Agreement upon default under the 2019 Boat Harbor Local Bond and the 2019 Boat Harbor Financing Agreement Supplement.

Section 8. Payments on 2019 Boat Harbor Local Bond Permitted. Nothing contained in this Resolution or the 2019 Boat Harbor Local Bond shall affect the obligation of the Borrower to make, or prevent the Borrower from making, payment of the principal of, redemption premium, if any, or interest on the 2019 Boat Harbor Local Bond in accordance with the provisions hereof, except as otherwise provided in this Resolution.

Section 9. Benefits of Resolution. Nothing in this Resolution or the 2019 Boat Harbor Local Bond, express or implied, shall give to any person, other than the holder of the 2019 Boat Harbor Local Bond, any benefit or any legal or equitable right, remedy or claim under this Resolution.

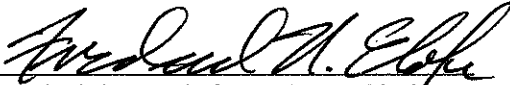
Section 10. Further Action. The Chairman, Vice Chairman, the Secretary and any

Assistant Secretary of the Commission and the General Manager, the Director of Engineering and the Director of Finance of the Borrower are authorized and directed (without limitation except as may be expressly set forth therein) to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary or appropriate to effect the transactions contemplated by the 2019 Boat Harbor Financing Agreement Supplement.

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

[END OF RESOLUTION]

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


Frederick N. Elofson, CPA, Chairman

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #4

AGENDA ITEM 4. – Orcutt Avenue and Mercury Boulevard Gravity Sewer Improvements Virginia Clean Water Revolving Loan Fund (VCWRLF) Resolution

Hampton Roads Sanitation District
Resolution of
February 26, 2019

HAMPTON ROADS SANITATION DISTRICT COMMISSION

RESOLUTION
PROVIDING FOR THE ISSUANCE OF

A SUBORDINATE WASTEWATER REVENUE BOND

Adopted February 26, 2019

Orcutt Avenue and Mercury Boulevard Gravity Sewer Improvements Project: #C-515621-02

Resolution

RESOLUTION AUTHORIZING THE ISSUANCE OF A SUBORDINATE WASTEWATER REVENUE BOND, NOT TO EXCEED \$8,789,526 IN PRINCIPAL AMOUNT, FOR THE PURPOSE OF PROVIDING FUNDS, WITH OTHER AVAILABLE MONEY, TO PAY THE COSTS OF CERTAIN IMPROVEMENTS TO THE ORCUTT AVENUE AND MERCURY BOULEVARD GRAVITY SEWER IMPROVEMENTS PROJECT, FIXING THE PRINCIPAL INSTALLMENT MATURITY DATES, THE INTEREST RATE, THE REDEMPTION PROVISIONS AND CERTAIN OTHER DETAILS OF THE BOND, DIRECTING THE AUTHENTICATION AND DELIVERY OF THE BOND, AND AUTHORIZING THE EXECUTION OF A FINANCING AGREEMENT WITH THE VIRGINIA RESOURCES AUTHORITY.

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

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

WHEREAS, the Hampton Roads Sanitation District Commission (the “Commission”) heretofore received an offer from the Virginia Resources Authority (the “Authority”), as Administrator of the Virginia Water Facilities Revolving Fund (the “Fund”), to make a loan from the Fund to the Borrower in an amount expected not to exceed \$8,789,526 for the purpose of financing a project described in such offer as Orcutt Avenue and Mercury Boulevard Gravity

Sewer Improvements Project, together with related expenses; and

WHEREAS, the Commission, as the governing body of the Borrower, has determined to accept such offer and close on the loan from the Authority, as Administrator of the Fund, by authorizing and issuing its subordinate wastewater revenue bond for the purpose of financing Capital Improvement Program Costs (as defined in the Trust Agreement) of improvements to the Borrower's Orcutt Avenue and Mercury Boulevard Gravity Sewer Improvements (the "2019 Orcutt Avenue Local Bond"), to be payable solely from the Net Revenues Available for Debt Service (as defined in the Trust Agreement) on a parity with all Parity Obligations (as defined in the Trust Agreement) of the Borrower and subordinated to all Senior Indebtedness, as defined in, and to extent set forth, in the Trust Agreement, all in conformity with the terms and provisions of the Trust Agreement; now, therefore,

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

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

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

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

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

Section 2. Authorization of 2019 Orcutt Avenue Local Bond. Pursuant to Sections 209(b) and 704(a) of the Trust Agreement and for the purpose of financing the Capital

Improvement Program Costs of the Project, which are Project Costs within the definition thereof found in the Financing Agreement, the 2019 Orcutt Avenue Local Bond of the Borrower is hereby authorized to be issued in the principal amount not to exceed \$8,789,526. The 2019 Orcutt Avenue Local Bond shall be issuable as a single registered bond without coupons and shall be dated as of its date of issue. The 2019 Orcutt Avenue Local Bond shall be substantially in the form attached to this Resolution as Exhibit B, with such variations, omissions and insertions as may be necessary or appropriate to conform to the provisions of this Resolution. The 2019 Orcutt Avenue Local Bond shall be a Parity Obligation and shall be a VRA Subordinate Obligation, each as defined in the Trust Agreement, shall be secured on a parity with all other Parity Obligations of the Borrower under the Trust Agreement, and shall be senior to all Junior Obligations (as defined in the Trust Agreement), as set forth therein.

The 2019 Orcutt Avenue Local Bond shall be dated as of its date of issue and shall bear interest (or “Cost of Funds” as described in the 2019 Orcutt Avenue Financing Agreement Supplement) on the disbursed principal balance of the 2019 Orcutt Avenue Local Bond at a rate not to exceed 3.35% per annum. Such interest shall be payable commencing on the date set forth in a certificate of the General Manager delivered on the date of issue of the 2019 Orcutt Avenue Local Bond (the “General Manager’s Certificate”), such principal and interest shall be payable in essentially equal semi-annual installments (rounded to the nearest \$100), with the balance due on the date set forth in the General Manager’s Certificate, but not later than December 1, 2049.

Section 3. Redemption Provisions. The principal installments on the 2019 Orcutt Avenue Local Bond shall be subject to redemption prior to their respective maturities, at the option of the Borrower, from any money that may be made available for such purpose, either in whole or in part on any date at the redemption price of par plus accrued interest on ten (10) days’

written notice to the Authority and otherwise as provided in the Financing Agreement. Any such partial redemption shall not postpone the due date of any subsequent payment on the 2019 Orcutt Avenue Local Bond, or change the amount of such installment, unless the Borrower and the Authority agree otherwise in writing.

Section 4. Deposits to Local Bond Fund. The Borrower shall deposit money with or to the order of the Authority, as Administrator of the Fund, in amounts sufficient to pay in full, when due (whether by maturity, redemption, acceleration or otherwise), the 2019 Orcutt Avenue Local Bond issued under this Resolution, together with the interest thereon, all as set forth in the 2019 Orcutt Avenue Local Bond.

Section 5. Authority to Execute 2019 Orcutt Avenue Financing Agreement Supplement. The execution and delivery of the 2019 Orcutt Avenue Financing Agreement Supplement, substantially in the form presented at this meeting, relating to the loan from the Authority, as Administrator to the Fund, to the Borrower and the repayment of the loan by the Borrower in accordance with the 2019 Orcutt Avenue Local Bond, are hereby authorized, with such changes, insertions and omissions as may be approved by the Chairman or Vice Chairman of the Commission, the execution of the 2019 Orcutt Avenue Financing Agreement Supplement by the Chairman or the Vice Chairman to be conclusive evidence of his approval of any changes, insertions and omissions therein.

Section 6. Manner of Execution of 2019 Orcutt Avenue Local Bond. The 2019 Orcutt Avenue Local Bond shall be executed by the Chairman or Vice Chairman and the Secretary or an Assistant Secretary of the Commission, and the seal of the Commission shall be impressed on the 2019 Orcutt Avenue Local Bond. The 2019 Orcutt Avenue Local Bond shall

be delivered to or for the account of the Authority, as Administrator of the Fund, upon execution and delivery of the 2019 Orcutt Avenue Financing Agreement.

Section 7. Obligations of Borrower Unconditional. Subject to the terms of the Trust Agreement, nothing contained in this Resolution or the 2019 Orcutt Avenue Local Bond is intended to or shall impair, as between the Borrower, its creditors, and the holder of the 2019 Orcutt Avenue Local Bond, the obligation of the Borrower, which is absolute and unconditional, to pay to the holder of the 2019 Orcutt Avenue Local Bond the principal of, redemption premium, if any, and interest on the 2019 Orcutt Avenue Local Bond as and when the same shall become due and payable in accordance with its terms, or affect the relative rights of the holder of the 2019 Orcutt Avenue Local Bond and creditors of the Borrower, nor shall anything herein or therein prevent the holder of the 2019 Orcutt Avenue Local Bond from exercising all remedies otherwise permitted by applicable law and under the Trust Agreement upon default under the 2019 Orcutt Avenue Local Bond and the 2019 Orcutt Avenue Financing Agreement Supplement.

Section 8. Payments on 2019 Orcutt Avenue Local Bond Permitted. Nothing contained in this Resolution or the 2019 Orcutt Avenue Local Bond shall affect the obligation of the Borrower to make, or prevent the Borrower from making, payment of the principal of, redemption premium, if any, or interest on the 2019 Orcutt Avenue Local Bond in accordance with the provisions hereof, except as otherwise provided in this Resolution.

Section 9. Benefits of Resolution. Nothing in this Resolution or the 2019 Orcutt Avenue Local Bond, express or implied, shall give to any person, other than the holder of the 2019 Orcutt Avenue Local Bond, any benefit or any legal or equitable right, remedy or claim under this Resolution.

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

Assistant Secretary of the Commission and the General Manager, the Director of Engineering and the Director of Finance of the Borrower are authorized and directed (without limitation except as may be expressly set forth therein) to take such action and to execute and deliver any such documents, certificates, undertakings, agreements or other instruments as they, with the advice of counsel, may deem necessary or appropriate to effect the transactions contemplated by the 2019 Orcutt Avenue Financing Agreement Supplement.

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

[END OF RESOLUTION]

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


Frederick N. Elofson, CPA, Chairman

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #5

AGENDA ITEM 6. – Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue Agreement

AGREEMENT FOR COST SHARING

OF THE

**HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue
BH015600**

AND

**CITY OF Newport News
Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements**

THIS AGREEMENT FOR COST SHARING (the "Agreement"), between the CITY OF Newport News ("CITY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), is entered into this 29th day of April, 2019 (the "Effective Date").

RECITALS

R:1. HRSD is constructing its Hampton Trunk A and B Replacement - Jefferson Avenue to Walnut Avenue project as shown on **Exhibit 1** (the "HRSD Facilities"); and

R:2. The CITY is constructing its own Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements project as shown on **Exhibit 2** (the "CITY Facilities"); as part of the City of Newport News Capital Improvement Program; and

R:3. The construction of the HRSD Facilities and the construction of the CITY Facilities (collectively referred to as the "Improvements") will necessitate the construction of the HRSD Facilities as part of the City project. The HRSD Facilities will be located in Jefferson Avenue from 14th Street to 16th Street and in 16th Street from Jefferson Avenue to Ridley Circle; and

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

R:5. The City has started construction of CITY Facilities with a construction contractor hired by the CITY; and

R:6. The City agrees to include the construction of the HRSD Facilities as part of the construction of the City Facilities, in accordance with the approved plans and specifications; and

R:7. HRSD agrees to reimburse the City for that portion of the costs for the construction of the Improvements attributable to the HRSD Facilities under the terms and conditions set forth herein.

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Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
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TERMS

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

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

1. HRSD will employ Whitman Requardt and Associates (ENGINEER I), to prepare plans and specifications for the HRSD Facilities. A location map of the HRSD Facilities is shown on Exhibit 1.
2. CITY will employ Atkins North America, Inc, (ENGINEER II), to prepare plans and specifications for the CITY Facilities. A location map of the CITY Facilities is shown on Exhibit 2.
3. HRSD and the CITY will meet to coordinate, review, and approve a final set of construction documents for the HRSD Facilities (the "Final Plans and Specifications for the HRSD Facilities").

B. Payment of the Design Costs

1. HRSD will compensate ENGINEER I for all engineering design costs and any amendments related to the HRSD Facilities.
2. CITY will compensate ENGINEER II for all engineering design costs and any amendments related to the CITY Facilities.

C. Compliance

1. All HRSD design work shall comply with HRSD Standards for use in Engineered Construction Projects, latest edition. Any changes to the Final Plans and Specifications for the HRSD Facilities shall be approved by HRSD and the CITY.

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

1. The total cost of the Improvements, as more particularly defined by the Final Plans and Specifications, prepared by ENGINEER I for

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HRSD and Engineer II for the CITY (the “Improvements Costs”) shall include:

- a. Cost of construction of the Improvements;
 - b. Cost of approvals and permits required for the construction of the Improvements;
 - d. Costs for construction contract administration and inspection;
 - e. Costs of services rendered by ENGINEER I and ENGINEER II;
 - f. Costs for all temporary or permanent easements and fee simple land acquisitions; and
 - g. Any related miscellaneous essential expenses.
2. The current estimated cost of the construction of the HRSD Facilities is \$825,000 and the actual bid cost of the construction of the CITY Facilities is \$8,851,633.60.
 3. The CITY has awarded a construction contract for construction of the CITY Facilities. The CITY will issue a change request to the City contractor to request costs for construction of the HRSD Facilities.

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 for the HRSD Facilities. This approval shall be in writing.
2. HRSD shall acquire all necessary plan approvals and property acquisitions related to HRSD Facilities prior to the award of the construction contract.
3. Contractors shall be responsible for all necessary permits and approvals necessary for the Improvements.
4. HRSD will review and approve shop drawings related to the HRSD Facilities. CITY will review and approve shop drawings related to the CITY Facilities.

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5. HRSD will review and approve scope of work and fee for the construction contract administration and inspections related to the HRSD Facilities. CITY will review and approve scope of work and fee for the construction contract administration and inspections related to the CITY Facilities.
6. HRSD will review and approve change orders related to the HRSD Facilities. CITY will review and approve change orders related to the CITY Facilities.

C. Payment of Improvement Costs

1. The Improvement Costs shall be apportioned among the parties as follows:
 - a. HRSD will administer and be responsible for bearing one hundred percent (100%) of the cost of the HRSD Facilities.
 - b. The CITY will be responsible for bearing one hundred percent (100%) of the cost of the CITY Facilities.
 - c. Costs associated with any change to the initial construction cost ("Change Order") shall be as follows:
 - (1) HRSD shall be solely responsible for costs due to a Change Order requested by HRSD; and
 - (2) The CITY shall be responsible for costs due to a Change Order requested by the CITY.
2. During the course of construction, CITY shall compensate the Contractors and other individuals and entities providing materials and/or services related to the Improvements for all Improvement Costs, including those for which the HRSD is responsible. The HRSD shall reimburse CITY for all such payments made on its behalf. The HRSD shall pay its share of the Improvements Costs to CITY in one lump sum payment upon completion of construction (as determined by CITY). CITY shall provide the HRSD with an invoice detailing the HRSD's share of the Improvement Costs. Within thirty (30) days of its receipt of such invoice, the HRSD shall reimburse CITY for the HRSD's share of the Improvement Costs as detailed in the invoice.
3. In conjunction with the above, and for additional clarity, it is agreed

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that the HRSD shall pay ENGINEER I directly for the construction administration and construction inspection costs (the “CA and CI Costs”) associated with the HRSD Improvements. It is agreed that the CITY shall pay ENGINEER II directly for the construction administration and construction inspection costs (the “CA and CI Costs”) associated with the CITY Improvements.

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

1. HRSD shall be responsible for operation and maintenance of the HRSD Facilities during and after construction.
2. CITY shall be responsible for operation and maintenance of the CITY Facilities during and after construction.
3. HRSD and the CITY agree to cooperate and coordinate for the operations and maintenance of any interconnections between the HRSD Facilities and CITY Facilities.

III. SCHEDULE

The construction is anticipated to begin by March 2019 and be complete by July 2020. If the construction dates listed herein are substantially delayed, HRSD reserves the right to terminate this Agreement.

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Hearing or Meeting

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

B. Change Request for the HRSD Facilities

1. CITY agrees to issue a change request to the CITY contractor requesting costs for construction of the HRSD Facilities. The HRSD agrees to provide administrative and technical support by ENGINEER I as required during the change request phase. In particular the HRSD shall:

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- a. Provide plans and specifications for the HRSD Facilities to be issued to the City contractor with the change request.
 - b. Provide timely responses to the CITY for any questions, requests for clarification, or addenda during the change request phase.
 - c. Provide miscellaneous support to CITY as required during the change request phase.
2. HRSD will review and evaluate the costs received in response to the change request issued by the CITY to the CITY contractor. The costs received will be reviewed and approved by the CITY and HRSD prior to award of the construction contract change order to the CITY contractor. The CITY will assist HRSD with any negotiations as required with the CITY contractor to obtain a fair and equitable price for the change request. The change request procedure shall be conducted in accordance with the Virginia public Procurement Act and the CITY Procurement Policy.

C. Administration

HRSD shall provide contract administration of the HRSD Facilities. The HRSD shall compensate Engineer I directly for the contract administration of the HRSD Facilities.

D. Inspection

HRSD shall provide full-time inspection for the HRSD Facilities. The HRSD shall compensate Engineer I directly for the inspection of the HRSD Facilities. The HRSD inspector(s) shall have the authority to assure the HRSD Facilities are constructed in accordance with the Final Plans and Specifications.

E. Deeds and Easements

1. HRSD shall obtain any and all necessary fee simple deeds and/or deeds of easement needed for the HRSD Facilities.
2. CITY shall obtain any and all necessary fee simple deeds and/or deeds of easements for the CITY Facilities.

F. Correction of Construction Defects in the Improvements

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

G. Construction Record Drawings

ENGINEER I shall provide HRSD approved construction record drawings in accordance with HRSD Standards for use in Engineered Construction Projects, latest edition.

V. GOVERNING LAW

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

VI. TERMINATION

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

VII. NOTICE

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
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For: HRSD

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

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

With Copy to:

Conway H. Shield, III
Jones, Blechman, Woltz and Kelly
701 Town Center Drive, Suite 800
Newport News, VA 23606

For: City of Newport News

Cynthia D. Rohlf, City Manager
City of Newport News, Virginia
2400 Washington Avenue
Newport News, VA 23607
Telephone: 9757) 727-6392
Facsimile: (757) 926-3505

With Copy to:

City Attorney
2400 Washington Avenue
Ninth Floor City Hall
Newport News, VA 23607

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. SEVERABILITY

If any provision of this Agreement or the application thereof to any circumstance shall be determined to be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and

shall continue to be valid, in effect and enforceable to the fullest extent permitted by law.

XI. DAMAGES

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

XII. INSURANCE

HRSD and the CITY have the right to review and approve insurance coverage in the various insurance categories that HRSD and the CITY deem necessary to be carried by the Contractor or any other parties to this Agreement. Proof of insurance shall be provided at the request of HRSD or the CITY and the insurance coverage shall be maintained during the term of this Agreement.

XIII. TERM OF AGREEMENT

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

XIV. FORCE MAJEURE

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

XV. INDEPENDENT CONTRACTOR

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

XVI. SUBCONTRACTOR

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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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
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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 February 26, 2019, 2019.

HAMPTON ROADS SANITATION DISTRICT

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

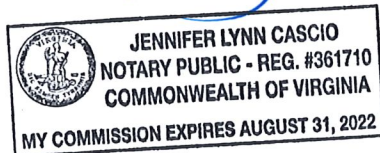
COMMONWEALTH OF VIRGINIA,
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Agreement was acknowledged before me this 29th day of April, 2019, by Edward G. Henifin, HRSD General Manager.


Notary Public

My commission expires:

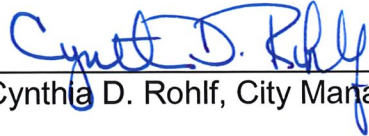
Registration No.:



Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
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IN WITNESS WHEREOF, the City of Newport News has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on April 9, 2019.

CITY OF NEWPORT NEWS

By: 
Cynthia D. Rohlf, City Manager

ATTEST:


City Clerk

APPROVED AS TO FORM:

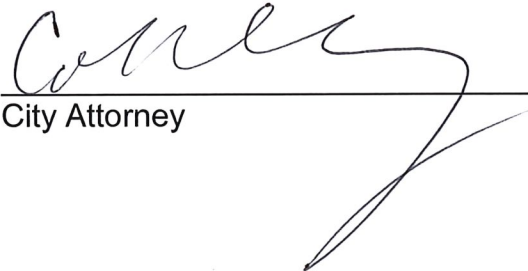

City Attorney

Exhibit 1 - HRSD Facilities Location Map

BH015600 HAMPTON TRUNK A & B REPLACEMENT
JEFFERSON AVENUE TO MONITOR MERRIMAC OVERLOOK PARK
PRELIMINARY ENGINEERING REPORT
FEBRUARY 2019

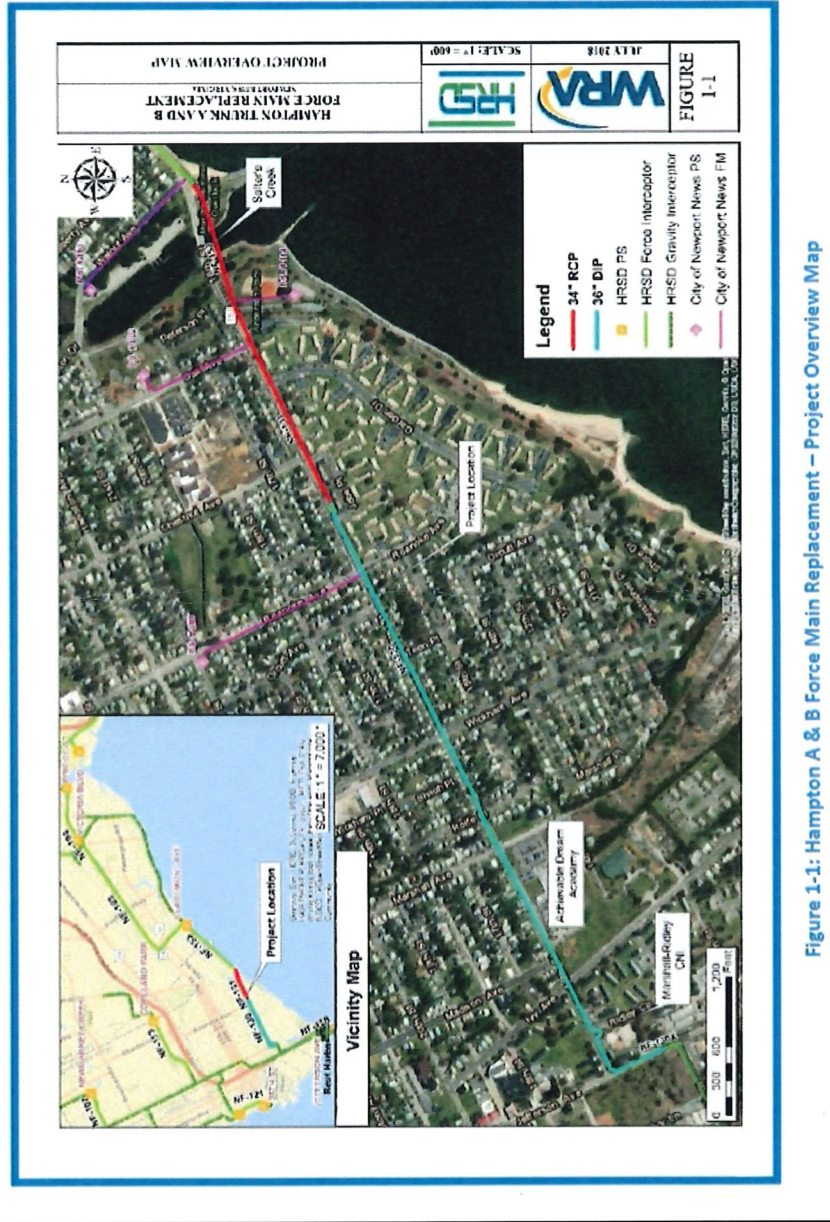
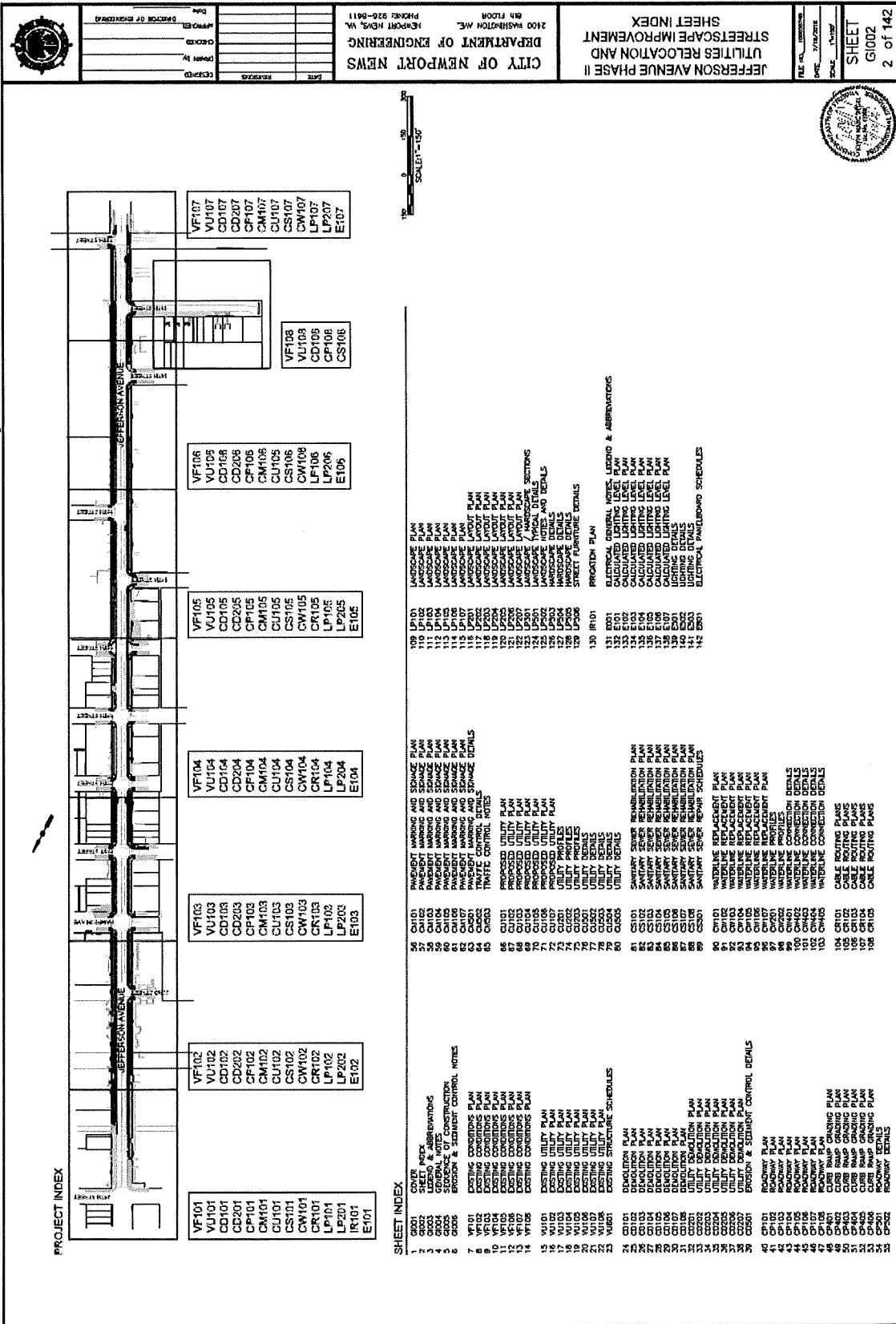


Exhibit 2 - CITY Facilities Location Map



CITY OF NEWPORT NEWS
DEPARTMENT OF ENGINEERING
2100 WASHINGTON AVE.
REPORT NO. 14, 15
PROJECT NO. 20-0811

JEFFERSON AVENUE PHASE II
UTILITIES RELOCATION AND
STREETScape IMPROVEMENT
SHEET INDEX

DATE: _____
DESIGNED: _____
CHECKED: _____
APPROVED: _____
DRAWN: _____

PROJECT NO: 20-0811
SHEET NO: 14, 15
SCALE: 1"=100'

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF101	VF101	VF101	VF101
VU101	VU101	VU101	VU101
CD101	CD101	CD101	CD101
CF101	CF101	CF101	CF101
CU101	CU101	CU101	CU101
CS101	CS101	CS101	CS101
CW101	CW101	CW101	CW101
CR101	CR101	CR101	CR101
LP101	LP101	LP101	LP101
IR101	IR101	IR101	IR101
E101	E101	E101	E101

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VF102	VF102	VF102	VF102
VU102	VU102	VU102	VU102
CD102	CD102	CD102	CD102
CF102	CF102	CF102	CF102
CU102	CU102	CU102	CU102
CS102	CS102	CS102	CS102
CW102	CW102	CW102	CW102
CR102	CR102	CR102	CR102
LP102	LP102	LP102	LP102
E102	E102	E102	E102

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VF103	VF103	VF103	VF103
VU103	VU103	VU103	VU103
CD103	CD103	CD103	CD103
CF103	CF103	CF103	CF103
CU103	CU103	CU103	CU103
CS103	CS103	CS103	CS103
CW103	CW103	CW103	CW103
CR103	CR103	CR103	CR103
LP103	LP103	LP103	LP103
E103	E103	E103	E103

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF104	VF104	VF104	VF104
VU104	VU104	VU104	VU104
CD104	CD104	CD104	CD104
CF104	CF104	CF104	CF104
CU104	CU104	CU104	CU104
CS104	CS104	CS104	CS104
CW104	CW104	CW104	CW104
CR104	CR104	CR104	CR104
LP104	LP104	LP104	LP104
E104	E104	E104	E104

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF105	VF105	VF105	VF105
VU105	VU105	VU105	VU105
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CF105	CF105	CF105	CF105
CU105	CU105	CU105	CU105
CS105	CS105	CS105	CS105
CW105	CW105	CW105	CW105
CR105	CR105	CR105	CR105
LP105	LP105	LP105	LP105
E105	E105	E105	E105

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF106	VF106	VF106	VF106
VU106	VU106	VU106	VU106
CD106	CD106	CD106	CD106
CF106	CF106	CF106	CF106
CU106	CU106	CU106	CU106
CS106	CS106	CS106	CS106
CW106	CW106	CW106	CW106
CR106	CR106	CR106	CR106
LP106	LP106	LP106	LP106
E106	E106	E106	E106

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF107	VF107	VF107	VF107
VU107	VU107	VU107	VU107
CD107	CD107	CD107	CD107
CF107	CF107	CF107	CF107
CU107	CU107	CU107	CU107
CS107	CS107	CS107	CS107
CW107	CW107	CW107	CW107
CR107	CR107	CR107	CR107
LP107	LP107	LP107	LP107
E107	E107	E107	E107

PROJECT INDEX	SHEET INDEX	PROJECT INDEX	SHEET INDEX
VF108	VF108	VF108	VF108
VU108	VU108	VU108	VU108
CD108	CD108	CD108	CD108
CF108	CF108	CF108	CF108
CU108	CU108	CU108	CU108
CS108	CS108	CS108	CS108
CW108	CW108	CW108	CW108
CR108	CR108	CR108	CR108
LP108	LP108	LP108	LP108
E108	E108	E108	E108

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #6

AGENDA ITEM 8. – Surry Hydraulic Improvements and Interceptor Force Main Presentation



Surry Hydraulic Improvements and Interceptor Force Main Initial Appropriation and Comprehensive Agreement

February 26, 2019

- Project Background
- Project Status and Project-Related Costs
- Alternative 1 – Upgrade Surry County WWTP
- Alternative 2 – Transmission to James City County
- Alternative 3 – Transmission to Smithfield
- Recommendation

Project Background

- Purpose of this project is to take the Town of Surry WWTP off line by the DEQ Consent Order deadline of November 1, 2020.
- Design-Build Selection process complete
- Construction Cost Limit (CCL) was based on Alternative 2 project description
- CCL from highest ranked team: \$27,467,000
- CIP Budget: \$20,000,000

Project Status and Project-Related Costs

- Proposed CCL is higher than existing CIP budget (\$27,467,000 vs \$20,000,000)
- Engineering costs to date have been \$253,499. Estimated CA/CI costs are \$705,900
- Additional cost for rehabilitation/replacement of JCSA LS-1-1 pump station (\$4,500,000) was not known when original study and Alternatives evaluation was done.
- Adding the engineering cost and the proposed pump station CIP cost to the proposed CCL brings total cost of this project to **\$32,926,400**

Project Description - Alternative 1

- Scope of Work:
 - Decommission and demolish the Town of Surry WWTP
 - Install a pump station, equalization tank and force main (5,000 feet)
 - Install force main from the marina
 - Improvements to the Surry County WWTP
 - Cost to implement = \$13.2M

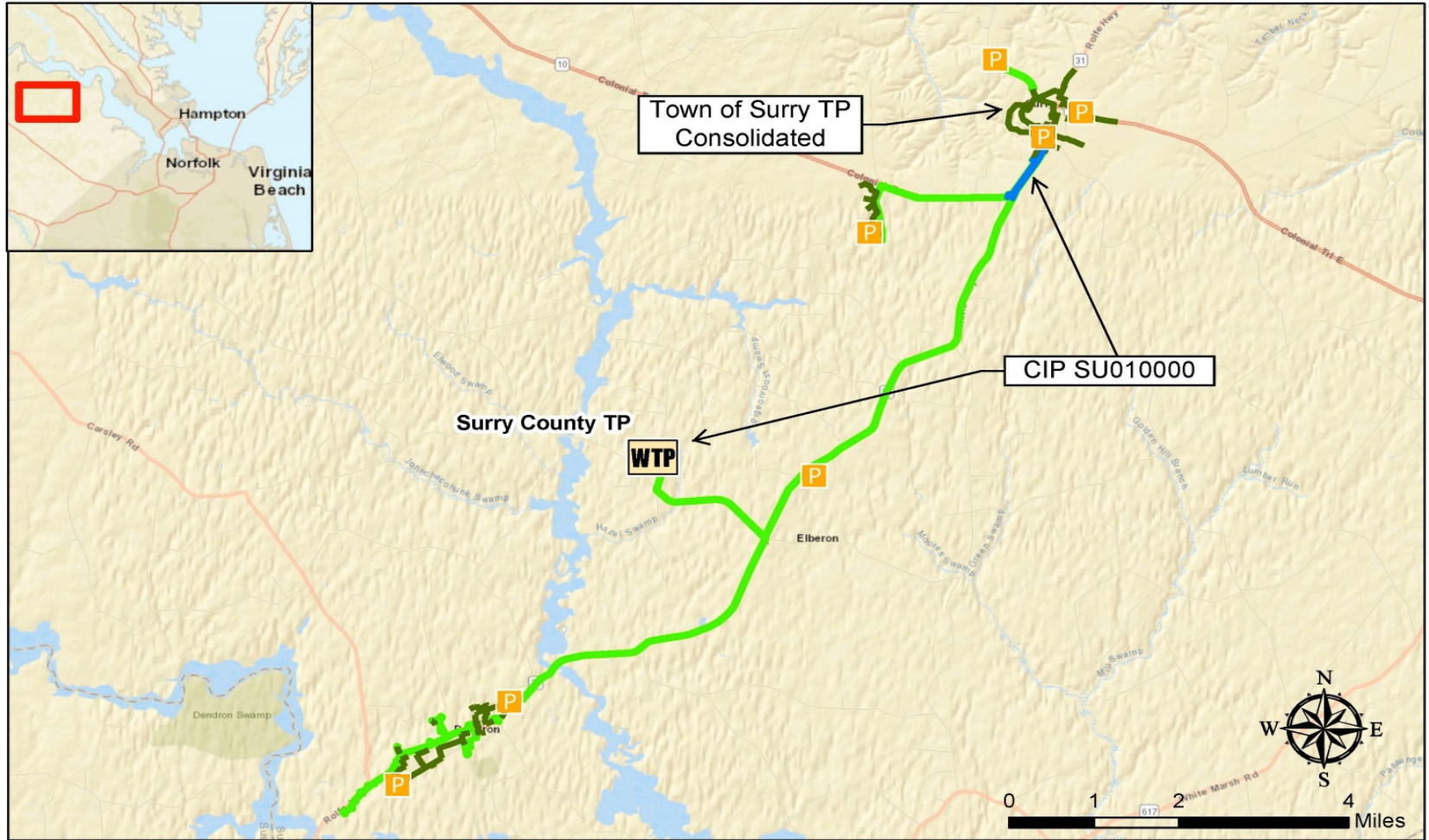
Existing Town of Surry WWTP



Existing Surry County WWTP



Alternative 1 – Upgraded Surry County WWTP



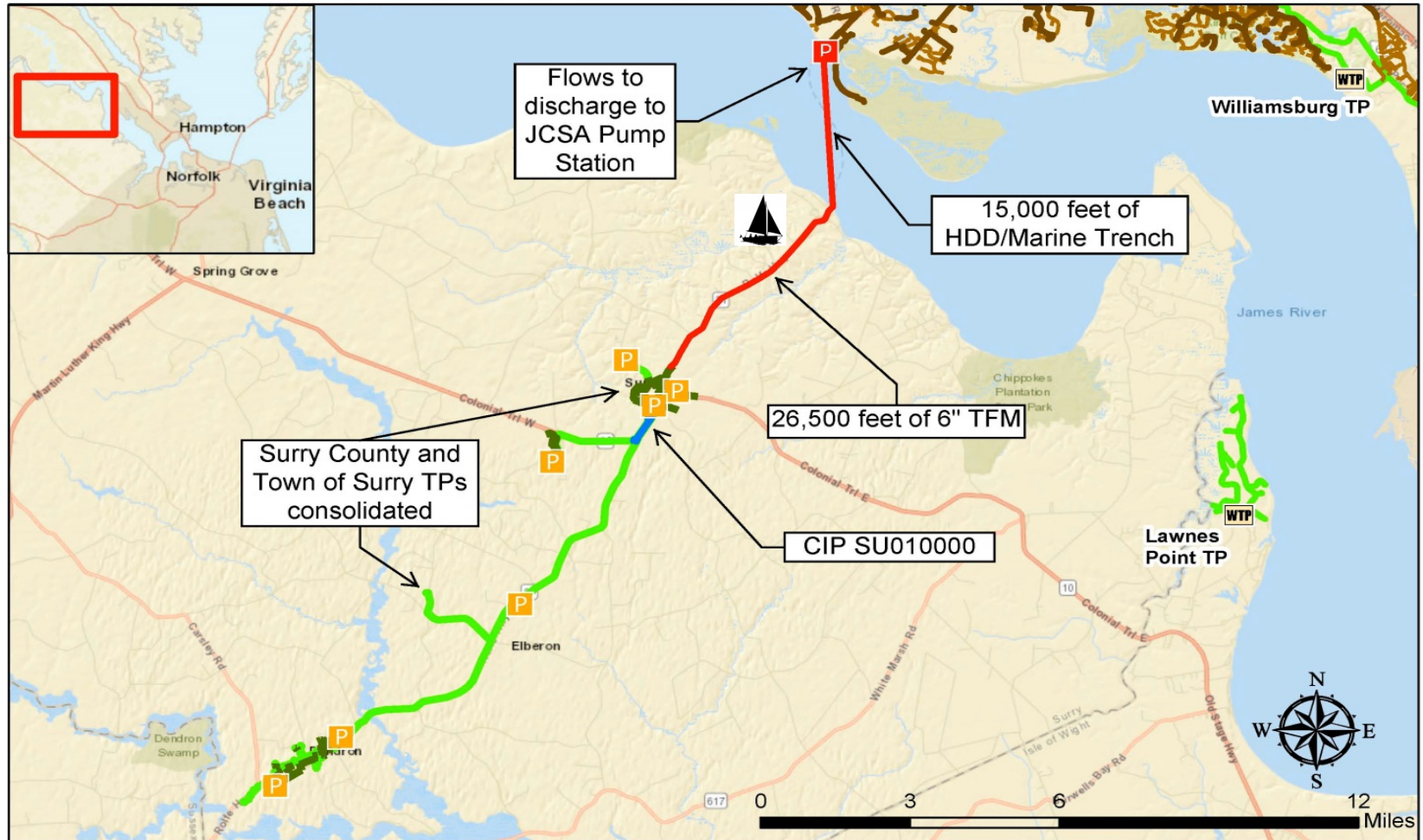
Surry Sewer Evaluation Alternative 1 (CIP SU010000)

- Legend**
- HRSD Pump Station
 - HRSD Gravity
 - Proposed Forcemain
 - HRSD Forcemain
 - Treatment Plant

Project Description – Alternative 2

- Scope of Work (Basis of CCL):
 - Decommission and demolish the Town of Surry WWTP and Surry County WWTP
 - Install approximately 31,500 LF of 8-inch HPDE pipe on land
 - HDD approximately 15,000 LF of 6-inch diameter steel pipe under the James River
 - Construct 2 pump stations, 2 equalization tanks
 - The interceptor force main will generally follow VA Route 31 and will end at JCSA Pump Station LS-1-1. Project work will be in the Town of Surry, the County of Surry and James City County.
 - Cost to implement = \$32.9M

Alternative 2 – Transmission to James City County



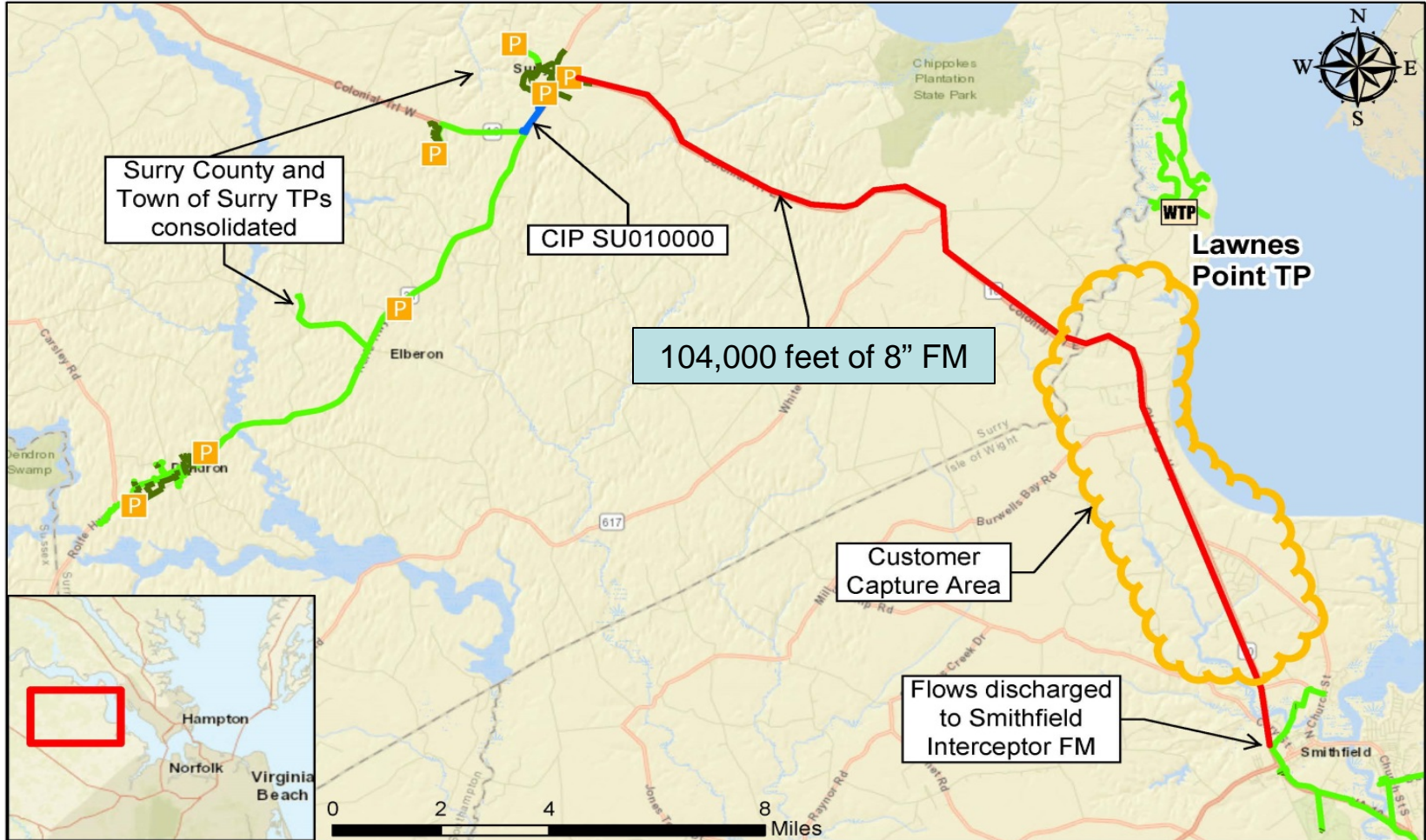
Surry Sewer Evaluation Alternative 2 (JCSA Transmission FM)

- Legend**
- Treatment Plant Point selection
 - City Pump Station
 - HRSD Pump Station
 - Transmission Forcemain
 - CIP Forcemain
 - City Forcemain
 - City Gravity
 - HRSD Gravity
 - HRSD Forcemain

Project Description – Alternative 3

- Scope of Work:
 - Decommission and demolish the Town of Surry WWTP and Surry County WWTP
 - Install approximately 104,000 LF of 8-inch HPDE pipe
 - Install force main from the marina
 - Construct 2 pump stations, 2 equalization tanks
 - The interceptor force main will generally follow VA Route 10 and will end at the Smithfield IFM at Berry Hill Road. Project work will be in the Town of Surry, the County of Surry, Isle of Wight County and the Town of Smithfield.
 - Cost to implement = \$30.8M

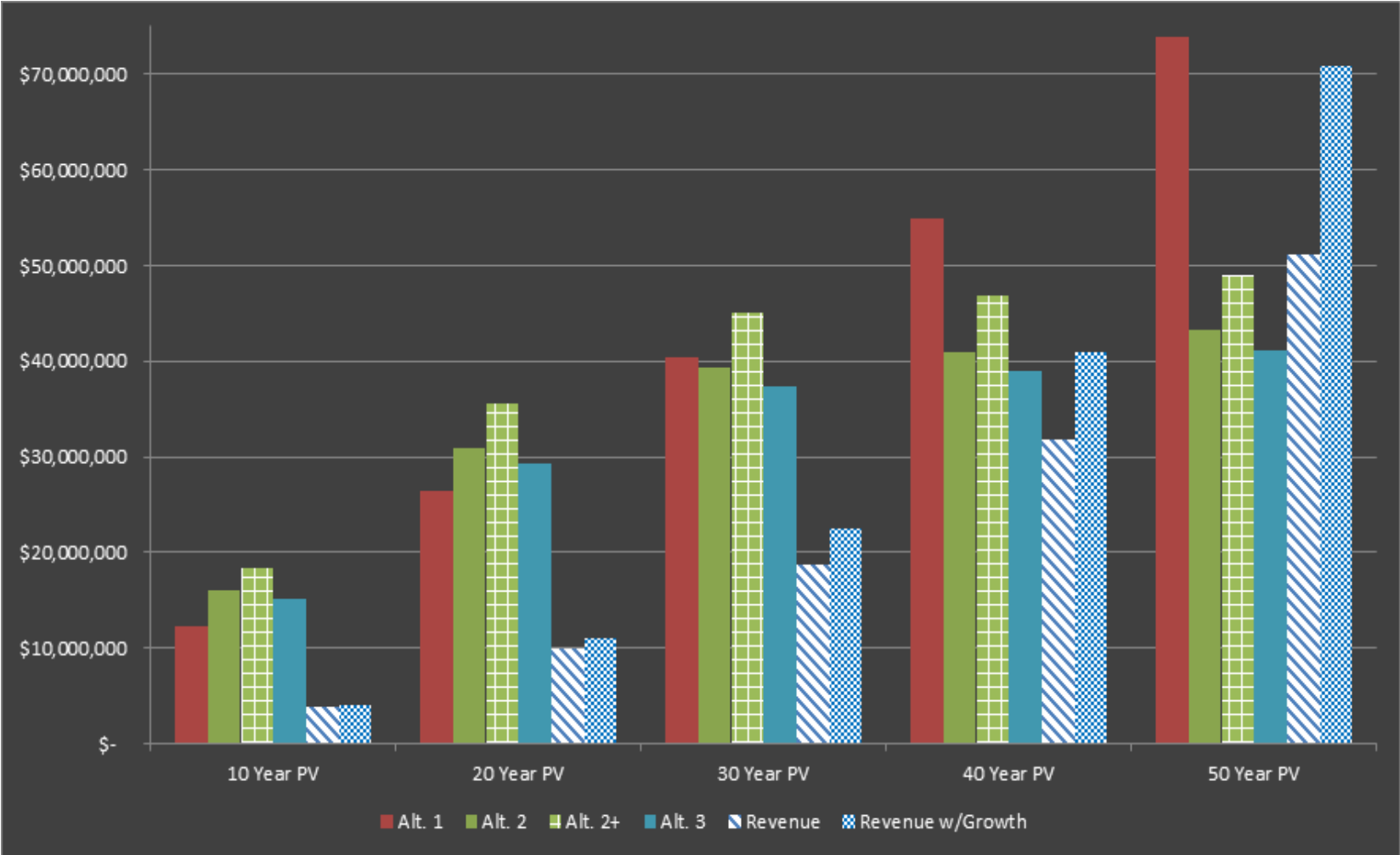
Alternative 3 – Transmission to Smithfield



Surry Sewer Evaluation Alternative 3 (Smithfield Transmission FM)

Legend			
	Treatment Plant		HRSD Gravity
	HRSD Pump Station		HRSD Forcemain
	Transmission Forcemain		CIP Forcemain

Present Worth (PW) Cost Projections



- Alternative 1 – Upgrade Surry County WWTP
 - Benefits:
 - Much lower initial investment cost
 - Shorter timeframe to construct than the other two alternatives
 - Conventional construction, no river crossing, less risk
 - Risks:
 - Approach to leave Surry County WWTP in service is not the current option discussed with DEQ and Surry
 - The \$2.7 Million to improve the Surry County WWTP, could be lost if we eventually close this plant.

- Alternative 2 - Transmission to James City County
 - Benefits:
 - Shorter route and ROW/easements further along than Alternative 3.
 - Compatible with Marina connection and the Town of Surry's recently proposed "Residential Investment Area"
 - Risks:
 - Very challenging HDD river crossing.
 - Must make successful pull first try to meet DEQ Consent Order deadline.
 - Sensitive historic and environmental areas.
 - HRSD will inherit infrastructure of unknown/substandard quality.

- Alternative 3 – Transmission to Smithfield
 - Benefits:
 - Conventional construction, no river crossing.
 - Allows future connection of Lawnes Point and possibly Dominion Energy's Surry Power Plant.
 - Addresses requests for service on Route 10, including a school.
 - More potential connections and more flow in Smithfield IFM.
 - Risks:
 - Can not be completed by 2020 deadline.
 - ROW/easements could be challenging.
 - Approach to build FM to Smithfield is not the current option discussed with DEQ and Surry.
 - Marina connection required.

Recommendation

- Move forward with Alternative 1 to improve the Surry County WWTP, decommission the Town of Surry WWTP and direct flow from the Town to the County Plant.
- Approve total project funding of \$10,000,000.
- Approve a Comprehensive Agreement with MEB General Contractors, Inc. including a CCL of \$8,978,000.

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #7

AGENDA ITEM 9. – Willard Avenue Pump Station Replacement Acquisition of Real Property – 302 S. Willard Avenue, Hampton

- [Purchase and Sale Agreement](#)
- Deed of Bargain and Sale (forthcoming)
- [Facilities Orientation Maps](#)

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 22nd day of Jan., 2019, by and **JAMIE GIVEN**, 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 .25 acres in area (more or less), located at 302 S. Willard Avenue in the City of Hampton, 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 Willard Avenue 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 building and other property situated thereon, (excluding personal property except to the extent that Seller chooses to leave on premises upon vacation) attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called "the Property".
- 2. **PURCHASE PRICE.** The purchase price ("Purchase Price") for the Property is **TWO HUNDRED, SIXTY THOUSAND and 00/100 DOLLARS** (\$260,000.00); and shall be paid by HRSD to the Seller as follows:

\$	2,000.00	Deposit with the Contract (the "Deposit")
\$	258,000.00	Remainder to be paid at Settlement by cash or certified funds (minus any payment required by lien holder)
<hr/>		
\$	260,000.00	Total Purchase Price

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, and with all defects.

- 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 15 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, per attached Possession Agreement (attached as Exhibit B) 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 and other applicable closing costs.
 - 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 PRECEDENT.
- a. Seller hereby acknowledges that Buyer is acquiring the property for the purpose of operating twenty-four hours a day a pump station for use and the infrastructure of the HRSD sewage treatment facilities, in accordance with the ordinances of the City of Hampton, and the parties agree that all Conditions Precedent that are relevant to the Buyer must be satisfied within 180 days of the effective date of this

Agreement. Should the Conditions Precedent mentioned herein not be satisfied within the 180-day timeframe, Seller may keep the deposit as liquidated damages, and shall have no other remedies should Buyer terminate this Agreement. Accordingly, during the period of 180 days from the date of the full execution of this Agreement, or as such period may be extended in accordance with the mutual extension agreement of the parties to this Agreement, the parties shall use commercially reasonable efforts to satisfy the following Conditions Precedent: (i) the receipt of satisfactory construction bids and/or cost estimates for Buyer's construction in connection with Buyer's intended use of the property having been obtained which in Buyer's sole opinion makes Buyer's construction and use for its intended use of the property economically feasible; (ii) all permits, licenses, and approvals with conditions acceptable to Buyer required for the construction or installation of Buyer's pump station in accordance with its intended use of the property having been obtained at the expense of Buyer, including without limitation, approvals required under all applicable zoning, environmental, wetlands, subdivision control, sanitary, health, safety and land-use law and regulations of the City of Hampton; (iii) all other operational licenses City and Governmental approvals and conditions acceptable to Buyer required for the completion of construction and operation of the pump station anticipated in accordance with Buyer's intended use; (iv) environmental testing to include wetlands delineation, which reports are satisfactory, in Buyer's sole discretion, to the completion of Buyer's intended use of the property.

- b. In the event these initial Conditions Precedent have not been satisfied or waived by Buyer on or before the conclusion of the 180th day from the effective date of this Agreement, this Agreement may be terminated in its entirety by Buyer sending written notice to Seller of the same in accordance with the Notices paragraph in this Agreement (Paragraph 7), in which event Seller may keep the deposit as its sole remedy, and both parties mutually agree that \$2,000.00 is acceptable to both parties as liquidated damages in the event of termination of this Agreement.
- 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. 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 Owner's Affidavit (prepared by HRSD) and all other documents required by the title company to issue an owner's policy 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; other than deeds of trust or other documents of record.
- (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.

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

HRSD: Ayanna R. Williams, R.E. Manager
1434 Air Rail Avenue
Virginia Beach, Virginia 23471-0911

Copy to: Conway Sheild, III, Esq.
Jones, Blechman, Woltz & Kelly, P.C.
701 Town Center Drive, Suite 800
Newport News, Virginia 23606

Seller: Jamie Given
302 S. Willard Avenue
Hampton, VA 23663

8. 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 _____.
9. SURVIVAL. The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
10. PRORATIONS. All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.
11. 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.
12. RIGHT OF FIRST REFUSAL. 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.

13. 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.
14. 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.
15. 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.

16. 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.
17. 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.
18. 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.
19. CAPTIONS. Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
20. GOVERNING LAW. This Agreement is to be construed in accordance with the laws of the Commonwealth of Virginia.
21. 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 Hampton, 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 Hampton, 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.
22. 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.

23. 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.
24. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
25. FACSIMILE SIGNATURES. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.

[SIGNATURE PAGES TO FOLLOW]

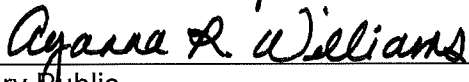
SELLER:


Jamie Given (signature)

COMMONWEALTH OF VIRGINIA
CITY OF Hampton, to-wit:

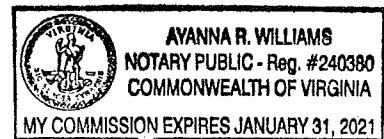
I, Ayanna R. Williams, a Notary Public in and for the City of _____, in the Commonwealth of Virginia, whose term of office expires on Jan. 31 2021, do hereby certify that Jamie Given, Seller herein, whose name is signed to the foregoing Purchase and Sale Agreement, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this 22nd day of January, 2019.


Notary Public

My Commission Expires: Jan. 31, 2021

Registration Number: 240380




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 February 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 February, 2019, by Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District.


Notary Public

My Commission Expires: _____

Registration No.: _____

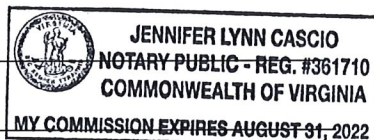


Exhibit "A"

Formal Legal Description

ALL THAT certain lot, piece or parcel of land, situate, lying and being in the City of Hampton, VA containing 0.25 acre as shown on that certain plat entitled, "PLAT OF THE PROPERTY OF CHERYL R. TYLER, A PARCEL OF THE PROPERTY BEING 0.25 ACRES LOCATED ON SOUTH WILLARD AVENUE, CITY OF HAMPTON, VIRGINIA", which said plat was made by Andrew Becouvarakis (misspelled Becouvarkais in previous deed), Surveyor and Planner, Hampton, Virginia, dated December 21, 1976, which said plat is recorded in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia in Deed Book 499 at page 162.

Exhibit "B"
Post-Closing Agreement

Legend

- Parcels
- Lot Lines



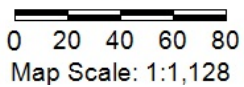
302 S. Willard Avenue
(Proposed)

Existing PS Site
219 National Avenue

Title: Willard Avenue PS

Date: 10/25/2018

Feet



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

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #8

AGENDA ITEM 12. – SWIFT Research Center Presentation

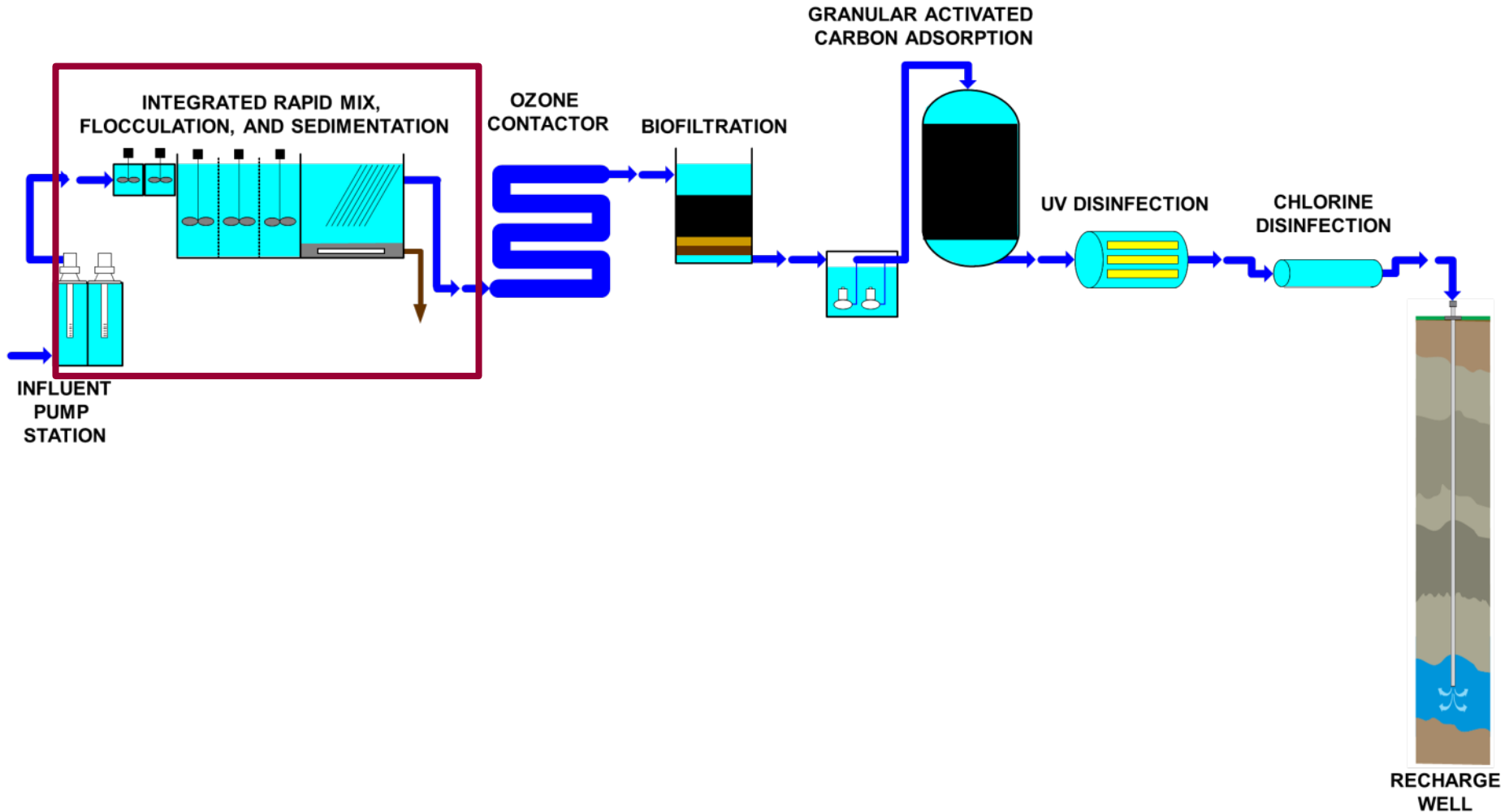
SWIFT Research Center Update



HRSD Commission
February 26, 2019



Process Flow Diagram for the Demonstration Facility



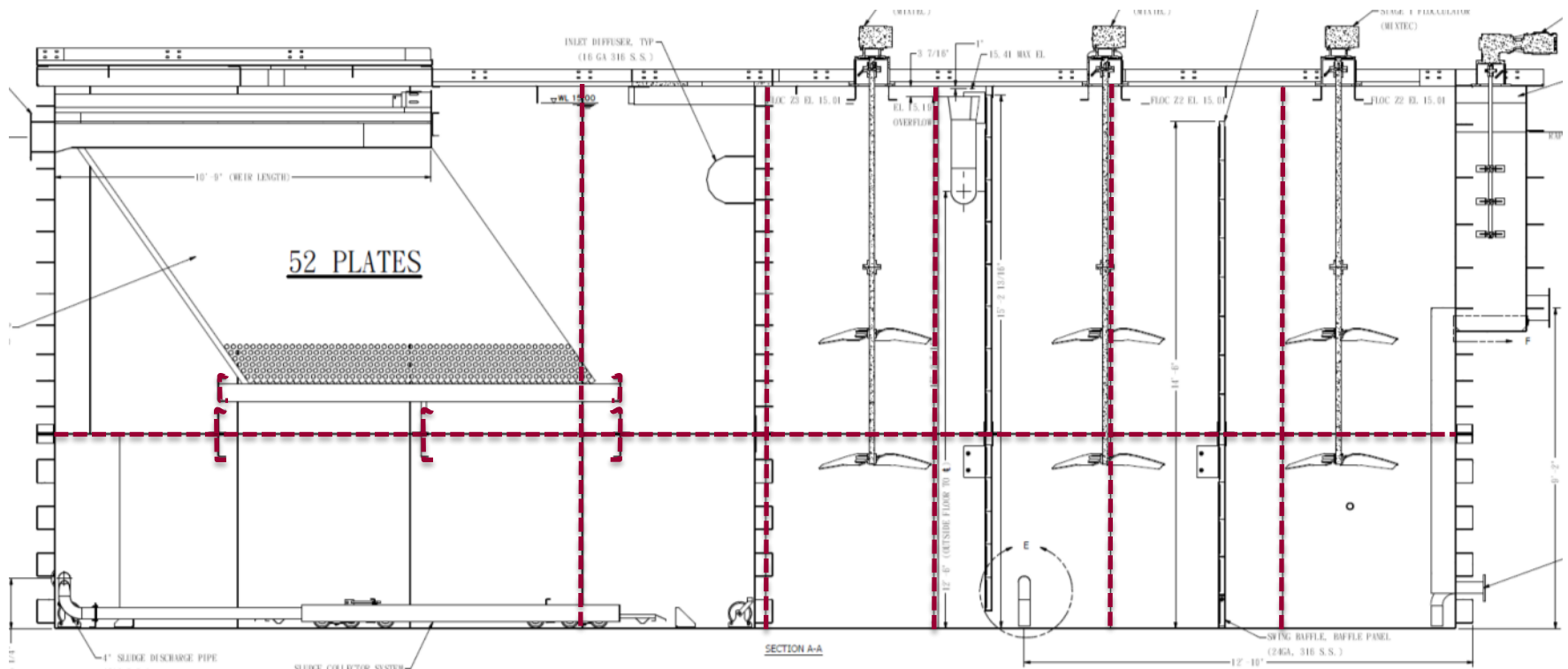
Floc-Sed tank corrosion is primarily located at welds identified with low alloy fill (304/308)



Tanks were delivered in two major sections and field welded on site; all other welds were completed by three different weld shops prior to delivery.

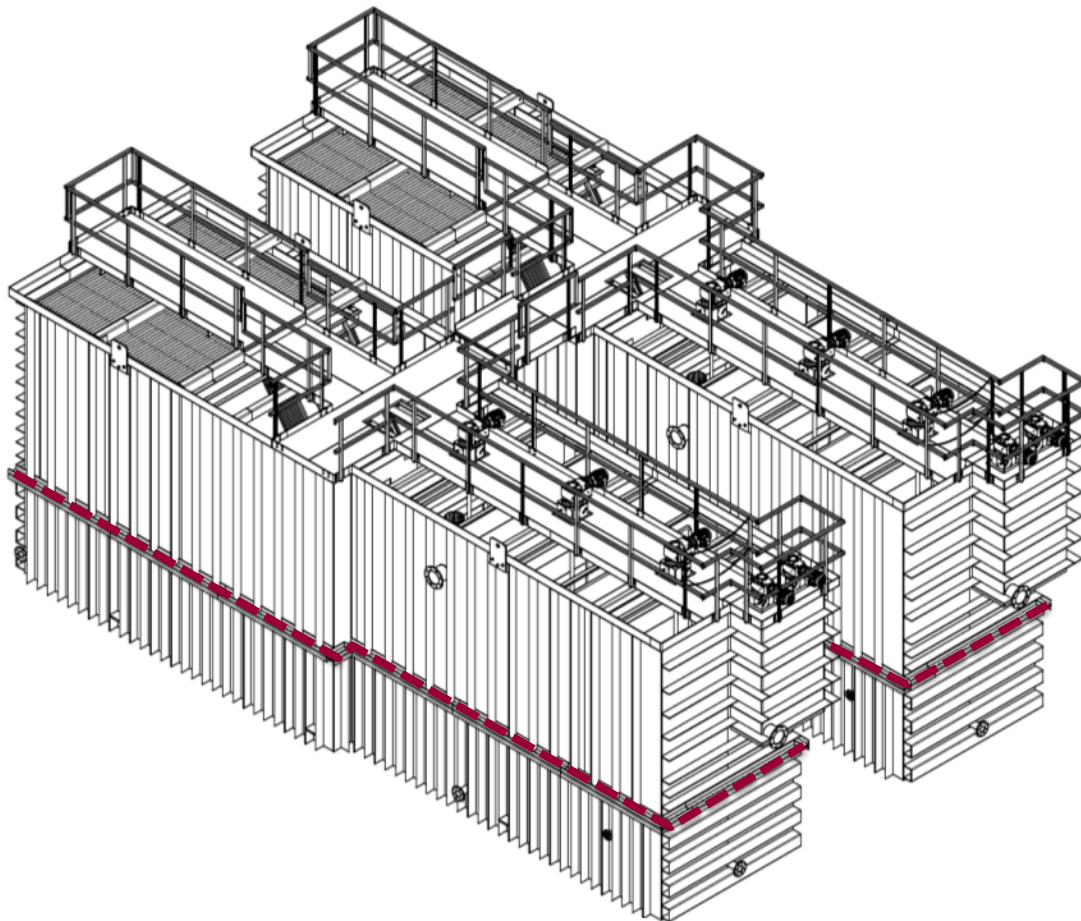


Low alloy welds were identified along the field weld, tanks welds, and plate support structures.



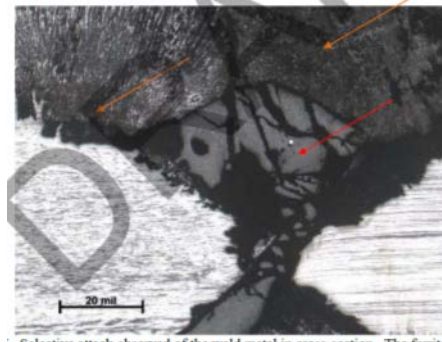
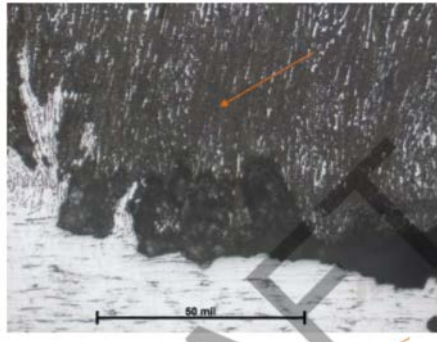
----- Example weld seam location

Field weld repair has been prioritized as the weld is primarily accessed on the inside of the tank

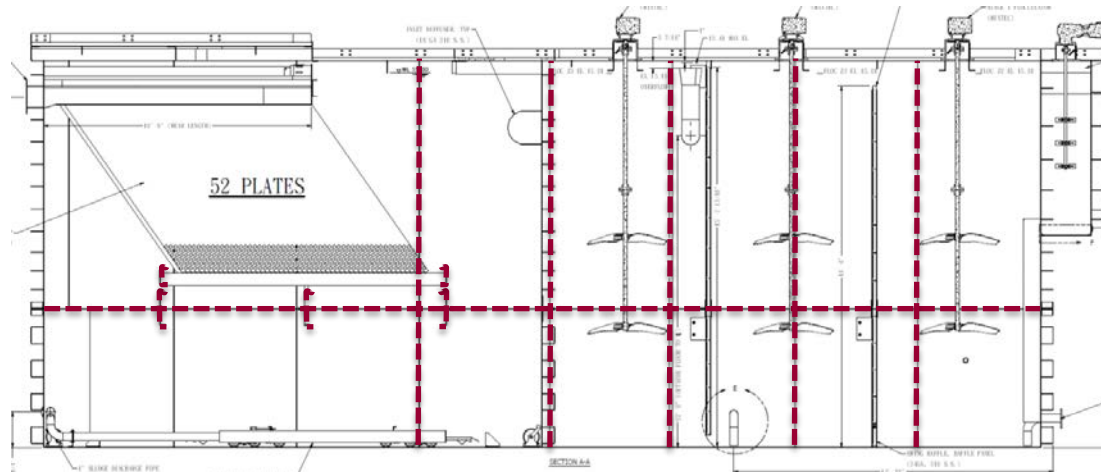


External stitch welds only

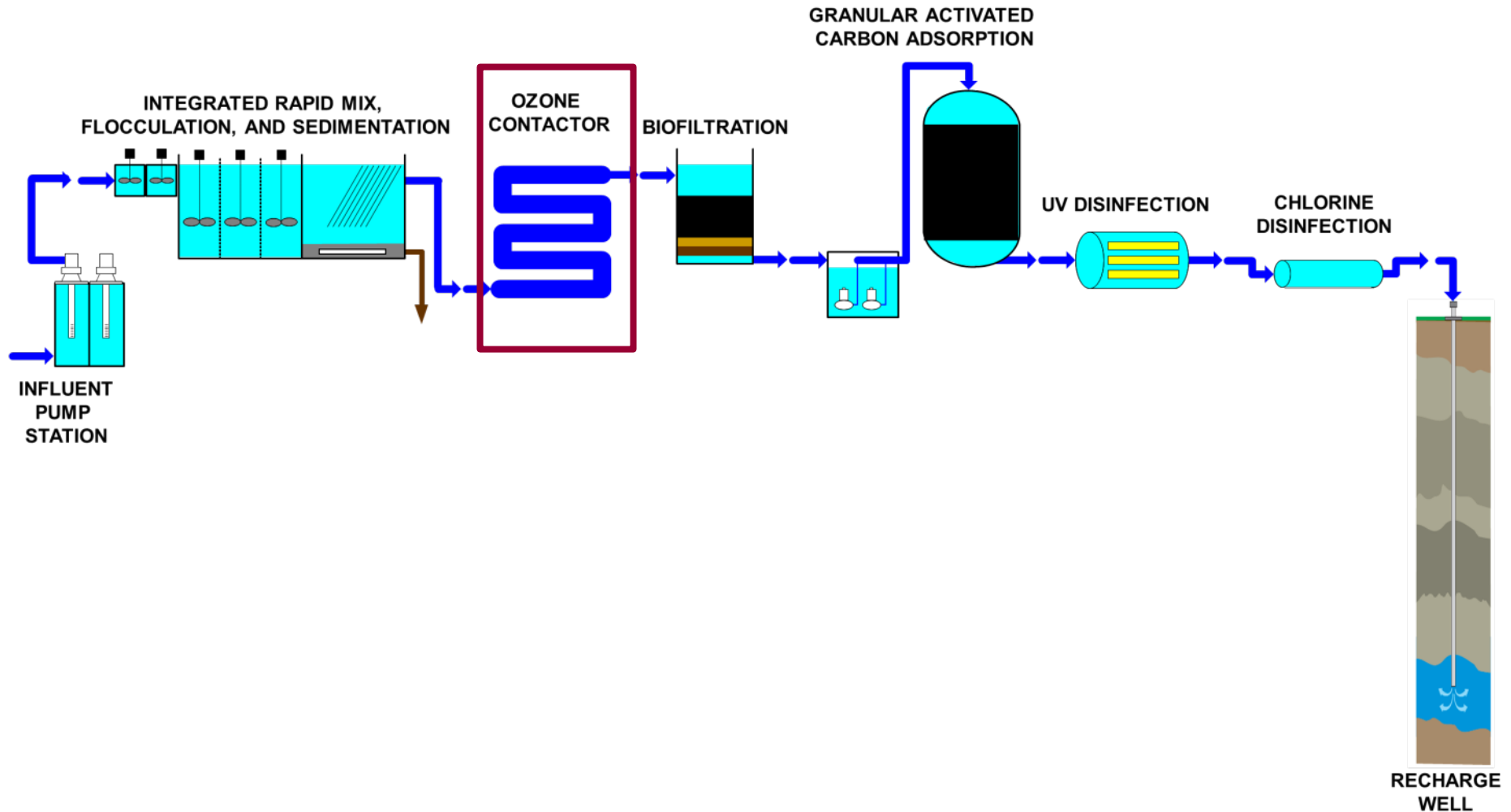
Recommended repair is to grind all accessible low alloy welds and cap with higher alloy material.



Galvanic attack observed of the weld metal in some sections. The fracture



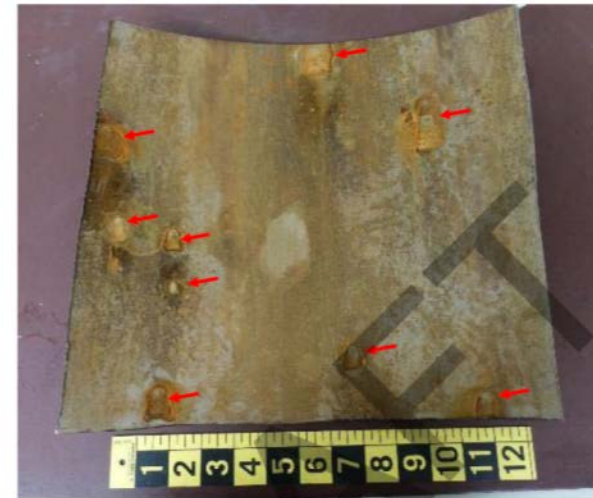
Ozone Contactor and Sidestream Piping



External evidence of corrosion was observed at welds and along pipe surfaces of the ozone contactor.



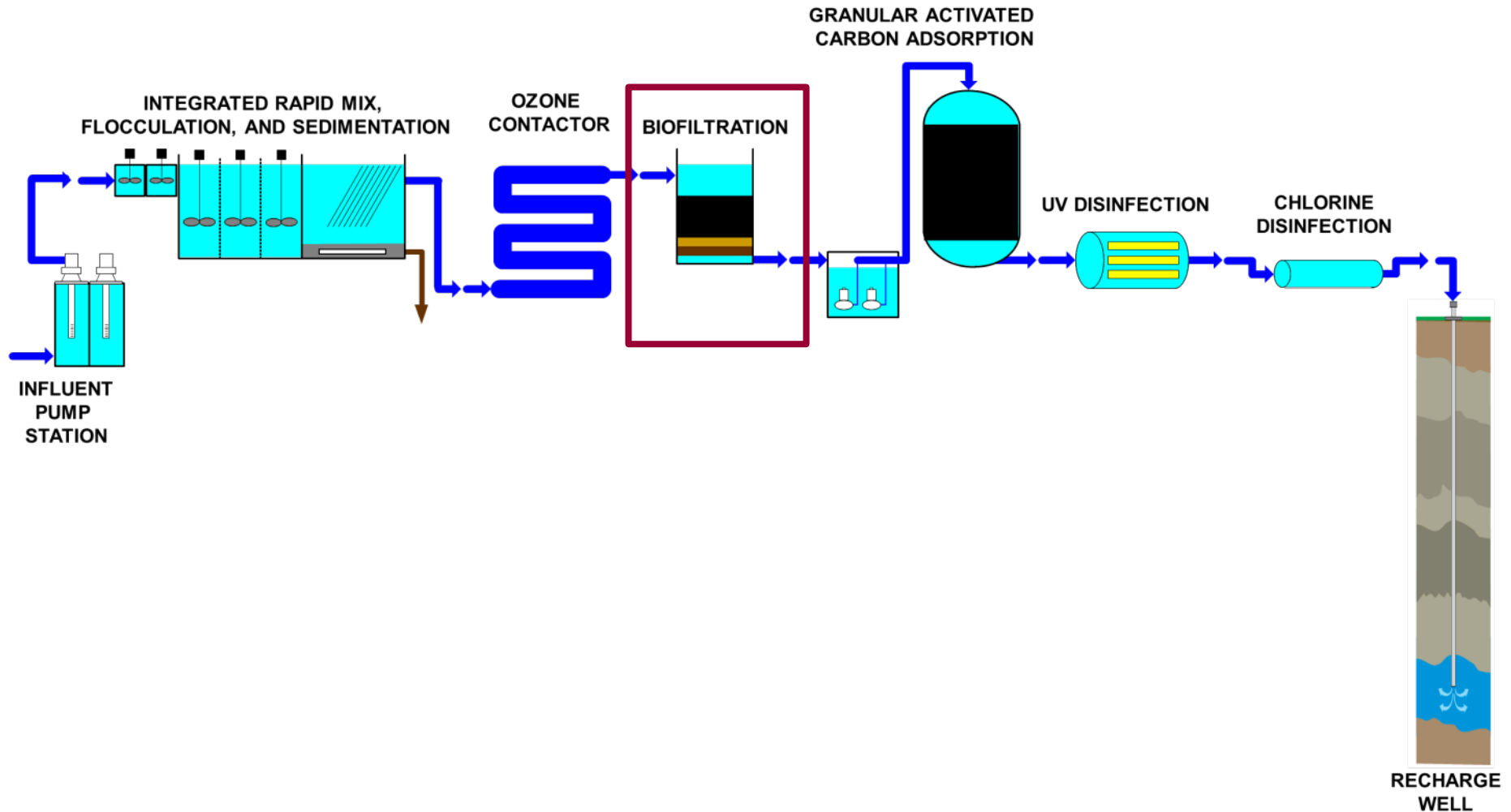
A third party specialty firm determined that the contactor and sidestream piping was impacted by microbially influenced corrosion.



Contactors will be put back into service for short term operation while an alternative material of construction is determined.



Biofiltration

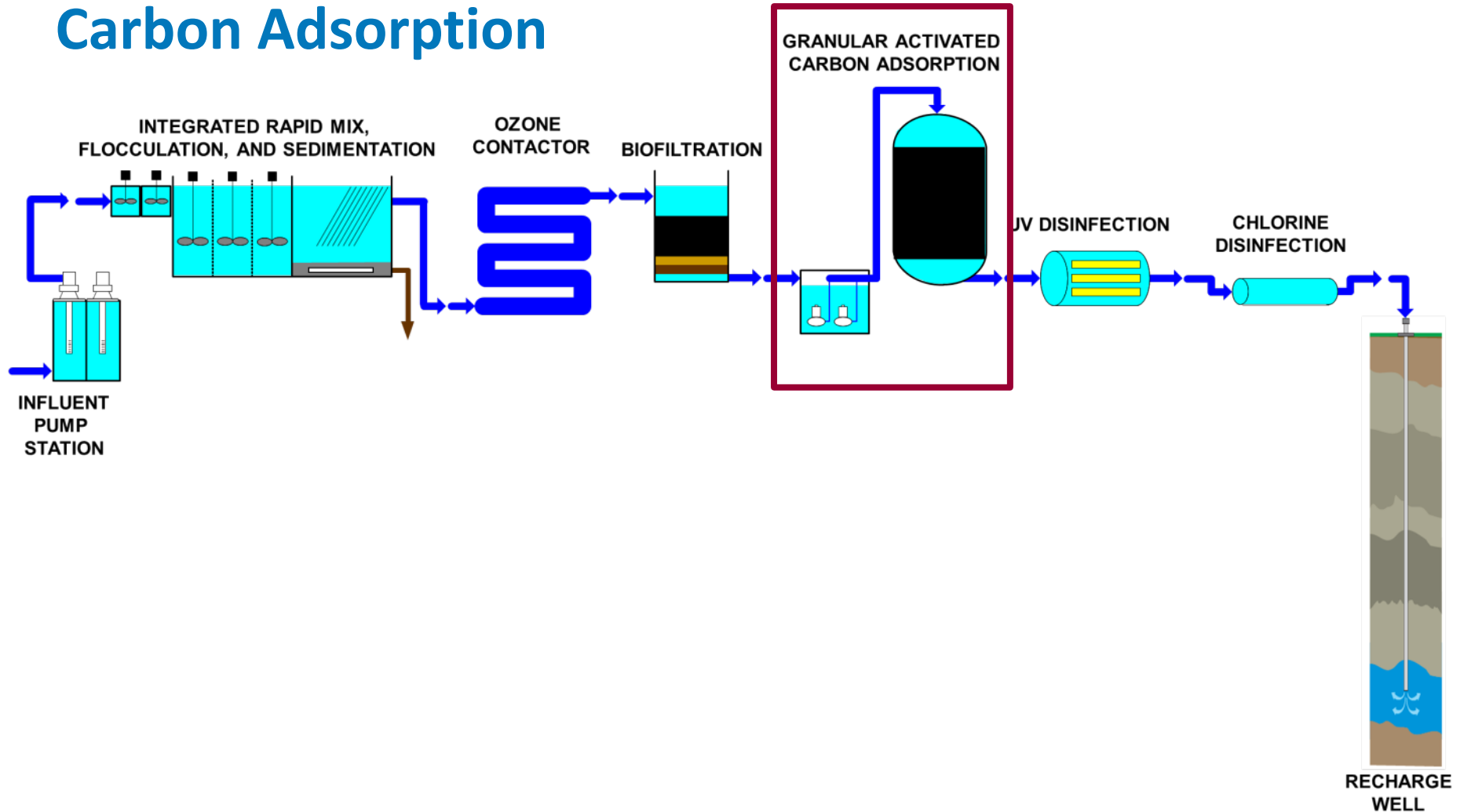


Biofilter vendor and contractor are working to remove all prior coating and completely replace the coating.



This repair is currently on the critical path to restoring operations.

Granular Activated Carbon Adsorption



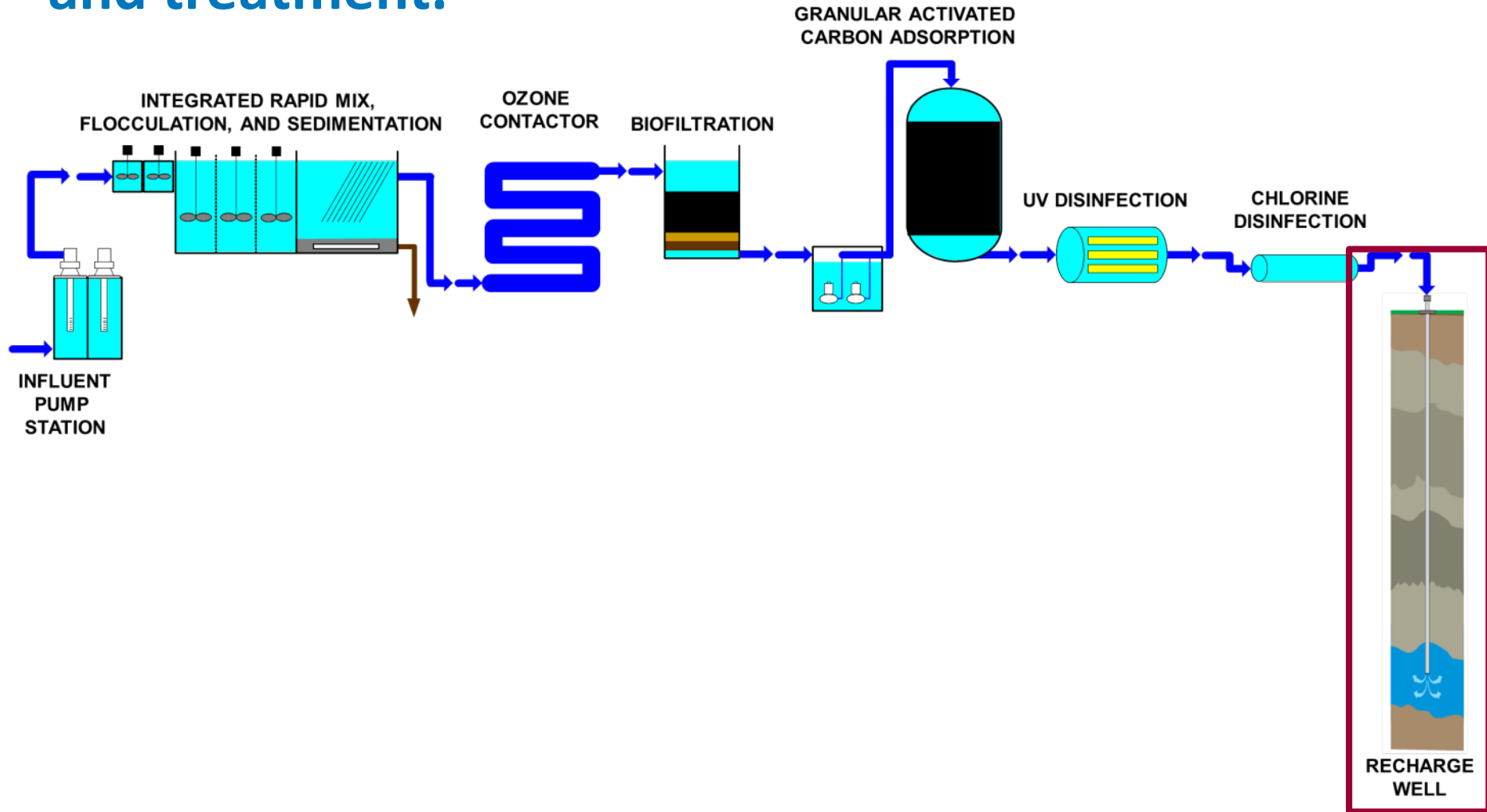
Carbon was removed and GAC vessel coating was found to be primarily in good condition.



Nozzles were found to be corroded and are being replaced with a plastic based product; coating will be patched around nozzles



Recharge well will be rehabilitated through brushing and treatment.



Biofiltration repairs are on the critical path to restoring operation. It is expected that this work will be completed by the end of April.

- Future contactor piping replacement will be scheduled to minimize down time.

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #9

AGENDA ITEM 17. – Informational Items

- a. Management Reports
 - (1) [General Manager](#)
 - (2) [Communications](#)
 - (3) [Engineering](#)
 - (4) [Finance](#)
 - (5) [Information Technology](#)
 - (6) [Operations](#)
 - (7) [Talent Management](#)
 - (8) [Water Quality](#)
 - (9) [Report of Internal Audit Activities](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Effluent Summary](#)
- d. [Air Summary](#)
- e.. [Emergency Declaration – Westminister Drive Force Main Replacement](#)



February 20, 2019

Re: General Manager's Report

Dear Commissioners:

Wet weather continued to impact HRSD facilities in January. Flows at four treatment plants (Town of Surry, Surry County, West Point and York River) were in excess of 95 percent of rated capacity. While we were able to successfully handle the flows at all of those facilities, meeting all permit requirements, regulations require we notify the Virginia Department of Environmental Quality (DEQ) should flows exceed 95 percent of the rated capacity of any treatment plant for three consecutive months. That is the case for both Surry plants and West Point.

The Surry capacity issue will be resolved with the current capital improvement project to close the Town of Surry plant and move those flows to an expanded County Plant. Staff will provide an update on this project at the February Commission meeting. The West Point capacity issue is directly related to seasonal wet weather. We do not project needing any additional capacity at West Point as we are able to treat the elevated wet weather flows, but we will continue our rehabilitation of the West Point collection system to reduce the amount of inflow and infiltration that gets to the treatment plant during wet weather to reduce the elevated wet weather flows.

The York River Treatment Plant elevated flow issue is also a seasonal wet weather issue. We have been tracking flows to York River regularly and can divert some flow to the Boat Harbor Treatment Plant when conditions are right. Staff sees no dry weather demand for additional capacity at the York River Treatment Plant and will continue to manage flows to the plant through diversions and on-going inflow and infiltration removal efforts.

The other issue related to the recent wet weather has impacted the Atlantic Treatment Plant land application program. Regulatory restrictions on Class B biosolids have severely limited the number of days each year when biosolids can be land applied. Wet weather during these times reduces the actual number of days even further. Longer serving Commissioners may recall a second covered biosolids storage pad was added to the Atlantic Treatment Plant when the plant was expanded in 2010 for just this reason. Unfortunately, the timing of the wet weather this year has limited land

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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. • Ann W. Templeman • Elizabeth A. Taraski, PhD
www.hrsd.com

application to the point we have run out of storage room on the pads at Atlantic and are now hauling biosolids from to one of our incinerator plants for disposal. The ultimate solution to this issue will be the thermal hydrolysis process (THP) currently under construction. The THP project is a multi-benefit project that provides increased energy recovery while creating a Class A biosolids product that is dryer, easier to handle, lower solids volume per million gallons treated and potentially subject to fewer restrictions for land application. This final point regarding regulations continues to be a sticking point with Virginia DEQ but staff is confident protective regulations can be developed that will allow land application of Class A biosolids many more days per year than are currently allowed with Class B biosolids.

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

- A. **Treatment Compliance and System Operations:** All treatment plants met permit but we did have several minor spills at various plants, mainly non-potable water (NPW). We had one significant system spill. On the air side we failed a stack test at the Army Base Treatment Plant generating a Notice of Violation (NOV) from DEQ. The details of these events and highlights of the month are included in the attached monthly reports.
- B. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:
1. A new employee orientation sessions
 2. A length of service recognition breakfast
 3. The inaugural "HRSD Leadership Day"
 4. The Senior Leadership Team retreat
 5. A meeting to discuss a possible mentoring program concept
 6. A meeting to review pathogen source tracking on the Nansemond River
 7. A meeting to review the land stabilization project for the Nansemond Shore line
 8. Several meetings to discuss strategy and planning for small community growth
 9. A review of medium voltage arrangements at various treatment plants
 10. A meeting to discuss disposition of HRSD facilities on the Portsmouth Marine Terminal property
 11. Several reviews of compensation plan study results and plans for incorporating results in FY-2020 budget
 12. A meeting to discuss well siting issue related to the Williamsburg Treatment Plant and the Underground Injection Control (UIC) program requirements

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

1. Provided a tour of the SWIFT® Research Center for a consultant's senior leadership team including their national reuse practice leader
2. Hosted two garden clubs at the SWIFT® Research Center (70+ people)
3. A meeting with representatives from the Eastern Shore to discuss potential next steps
4. A meeting with James City County staff regarding the notification and approval process related to Agricultural and Forestal Districts (AFD) in James City County
5. The quarterly meeting of the James City County AFD Advisory Committee
6. Participated in a conference calls as a member of the U.S. EPA Environmental Financial Advisory Board
7. Hosted LEAD Peninsula's environmental day at North Shore Operations
8. A call with the Director of the Tidewater Region, Virginia DEQ
9. Multiple Virginia Association of Municipal Wastewater Agencies (VAMWA) legislative monitoring calls
10. Multiple calls with senior Xylem officials related to warranty issues at the SWIFT® Research Center
11. The Elizabeth River Project's River Star Luncheon
12. The U.S. Water Alliance's monthly One Water Council webinar
13. The Chesapeake Bay Foundation's Virginia legislative reception
14. The monthly meeting of the Hampton Roads Planning District Commission's (HRPDC's) Director of Utilities Committee

C. Consent Decree Update:

1. The annual public meeting was held on January 22 at the North Shore Operations Training Room. Six local government employees attended with one consultant. No members of the general public were in attendance.
2. Negotiations related to the demand for stipulated penalties related to Sanitary Sewer Overflows in 2016 and 2017 continue.

The SWIFT® monitoring and oversight legislation has been signed by the Governor after moving through the legislative process without a single "no" vote in any subcommittee, committee or on the floor of either chamber. Commissioner Rodriguez was instrumental in getting this important legislation passed and signed into law. I anticipate a formal SWIFT® event in the early summer to celebrate the first meeting of the Potomac Aquifer Recharge Oversight Committee (PAROC) and formal chartering of the Potomac Aquifer Recharge Monitoring Laboratory (PARML).

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, February 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 January 2019
DATE: February 8, 2019

A. Publicity and Promotion

1. **Suffolk oysterman sues Suffolk, Hampton Roads Sanitation District over polluted oyster beds | January 3, 2018 | WAVY TV**
<https://www.wavy.com/news/local-news/suffolk/suffolk-oysterman-sues-suffolk-hampton-roads-sanitation-district-over-polluted-oyster-beds/1685885658>
2. **Watermen sue city, HRSD over pollution | January 5, 2019| Suffolk News Herald** <https://www.suffolknewsherald.com/2019/01/04/oystermen-sue-city-hrsd-over-pollution/>
3. **General Assembly bill would add oversight to HRSD water treatment project | January 17, 2019 | The Virginia Gazette**
<https://www.vagazette.com/news/va-vg-mason-swift-project-0119-story.html>
4. **Sustained Distinguished Performance 2019|Elizabeth River Stars |January 21, 2019 | The Virginian Pilot**
https://pilotonline.com/inside-business/special-reports/elizabeth-river-stars/article_3e8ff9b4-1358-11e9-80ed-778ea8b4fb93.html
5. **HRSD tackles Indian River Challenges|2019 River Star Eastern Branch Award | January 21, 2019 | The Virginian Pilot**
https://pilotonline.com/inside-business/special-reports/elizabeth-river-stars/article_1f94fa1c-1364-11e9-9d42-8fbda442a2a6.html
6. **Project Profile: Replenishing the Potomac Aquifer | January 28, 2019 |Stormwater Magazine**
<https://foresternetwork.com/stormwater-magazine/project-profile-stormwater-magazine/replenishing-the-potomac-aquifer/>

7. **Suffolk residents pay 2 to 3 times more for water than other South Hampton Roads cities | January 31, 2019 | [Virginian Pilot](https://pilotonline.com/ask/article_b5eb0f1a-248f-11e9-ae16-c7a0fa3a4325.html?spMailingID=15057577&spUserID=MTc1MDc2ODYxNjgyS0&spJobID=1580052381&spReportId=MTU4MDA1MjM4MQS2#utm_source=pilotonline.com&utm_campaign=%2Fnewsletters%2Fpilot%2Fdaily%2F%3Fmailing%3Ddaily&utm_medium=email&utm_content=headline)**
https://pilotonline.com/ask/article_b5eb0f1a-248f-11e9-ae16-c7a0fa3a4325.html?spMailingID=15057577&spUserID=MTc1MDc2ODYxNjgyS0&spJobID=1580052381&spReportId=MTU4MDA1MjM4MQS2#utm_source=pilotonline.com&utm_campaign=%2Fnewsletters%2Fpilot%2Fdaily%2F%3Fmailing%3Ddaily&utm_medium=email&utm_content=headline

B. Social Media and Online Engagement

1. Facebook: 42,516 post impressions and Facebook Engagement of 966
2. Twitter: 14,400 impressions
3. SWIFT website visits: 557
4. LinkedIn Impressions: 12
5. Blog posts: 1
6. Construction Project Page Visits: 710 total (this number does not include direct visits from home page), broken down as follows:
 - a. 416 visits to construction status page
 - b. 294 visits to individual project pages
7. Next Door unique impressions: 21,892

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

1. News Releases/Traffic Advisories/Construction Notices: 1
2. Advertisements: 0
3. Project Notices: 5
4. Project/Community Meetings: 0
5. New Project Web Pages/Blogs/Videos: 1 blog post

D. Special Projects and Highlights

1. Director provided a SWIFT update and presentation to the Chesapeake Rotary.
2. Director attended the Elizabeth River Project's River Star Luncheon and Awards presentation.
3. Director attended HRSD's annual EPA Public Presentation, given by General Manager.
4. Staff participated in monthly meetings with the Virginia Water Environment Association (VWEA) Communications committee and askHRgreen.org FOG (Fats Oils Grease) and Water Awareness meetings.
5. Staff met with environmental partners, Lynnhaven RiverNOW and Elizabeth River Project.
6. Staff met with STEM faculty members at Ocean Lakes High School to discuss opportunities to
7. Director, with engineering staff attended the Providence Road Offline Storage Facility (PROLSF) Identity Review Meeting together with City of Virginia Beach staff.

E. Internal Communications

1. Director participated in the following internal meetings:
 - a. Strategic Carbon Footprint Reduction team meetings
 - b. Engineering Week event and activity planning meeting
 - c. Design and Construction Standards review meeting
 - d. Senior leadership meeting
 - e. Leadership Day and Senior Management Retreat
 - f. New Employee Orientation
 - g. SWIFT Risk management workshop
 - h. SWIFT QST and QST meetings
2. Director conducted bi-weekly communications department status meetings and project update check-ins with Community Relations Liaison.
3. Director and staff, along with members of HRSD's Water Quality Department met to explore opportunities to develop/support a new pharmaceutical take back initiative in the HRSD service area.

F. Metrics

1. Educational and Outreach Activities: 2

- a. 1/28/19 – STREAM Community Event –St. Gregory the Great Catholic School (500 attendees)
- b. 1/9/19 – SWIFT presentation – Chesapeake Rotary (approximately 45-50 attendees)

2. Number of Community Partners: 2

- a. St. Gregory the Great Catholic School
- b. Chesapeake Rotary

3. Additional Activities Coordinated by Communications Department: 1

01/08/19 – assisted with SWIFT Research Center tours led by General Manager to two Peninsula-based Garden Clubs

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	6.5
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	48.2
M-5.2	Educational and Outreach Events	Number	2
M-5.3	Number of Community Partners	Number	2

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for January 2019

DATE: February 9, 2019

A. General

1. Capital Improvement Program (CIP) spending for the sixth month of Fiscal Year (FY) 2019 was lower than the planned spending target.

CIP Spending (\$M):

	Current Period	FYTD
Actual	8.63	40.41
Plan	11.20	66.10

No Water Quality Improvement Fund Grant reimbursements were received in the month of January, but a final payment is expected for the VIP Nutrient Reduction Improvements project in February.

2. The Engineering Department completed the annual update to the HRSD Design and Construction Standards document in January. This document is used by in-house staff and the consultants designing CIP projects for HRSD. It covers many aspects of both design and construction and documents of past knowledge on a wide range of infrastructure-related issues. Some of the new items in this document include details about the use of 3D CADD, Building Information Modeling (BIM) and Information Technology Hardware requirements. This document is a key repository of HRSD's history of best design and construction practices and helps new individuals become aware of our preferences as they implement projects. This document is publicly available on HRSD's website and is often requested by groups outside of our region for use as a reference and guide in creating their own standards.

B. Asset Management Division

1. Staff is working with the Procurement Division to draft an annual services contract for coatings and related repair services. A draft request for proposals (RFP) has been prepared and we plan to issue this RFP in the coming months to hire the needed firm to support HRSD in the future.

2. As part of the ongoing Condition Assessment Program for the sanitary sewer system, our consultant has recently completed a desktop analysis for the Middle Peninsula and Surry County. The analysis helped to prioritize areas for future investigation and created a suggested budget for future work.

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

1. Construction has begun for the Orcutt Avenue and Mercury Boulevard Gravity Sewer Improvements project. This project is located along both Orcutt Avenue and Mercury Boulevard in a congested section of the City of Hampton. Maintenance of traffic and close coordination with the residents and businesses in this area will be an important part of the success of the construction effort. We are also working together with the City of Hampton to include some of their sewer rehabilitation work into this project. This is one of the many Sewer Rehabilitation Plan projects included in the EPA Consent Decree to reduce sanitary sewer overflows in the region.
2. Construction efforts are progressing as planned on the Atlantic Treatment Plant Thermal Hydrolysis Process and FOG Receiving Station project. The new dewatering building is progressing well and the many mechanical, electrical and related systems are on schedule. Numerous equipment packages have been ordered and are under fabrication. The schedule has a planned completion date of June 2020 and this date is achievable based on the latest updates from the contractor and the many subcontractors involved in this large project.
3. The SWIFT Program is focused on the planned work at the Williamsburg Treatment Plant. We have held internal meetings with plant staff to begin discussing project issues and to review the planned schedule. Coordination with the many consultants involved in the work at the Williamsburg Treatment Plant including design and permitting issues is also underway. Coordination with James City County continues as we work to address property acquisition issues. We hope to have final approval to move forward with this project in March. Plant staff members are also beginning to make needed treatment improvements at the plant to optimize the downstream SWIFT process.

D. Planning & Analysis Division

1. Staff is coordinating with our auditors, SC&H, to conduct and audit HRSD's Disaster Recovery and Business Continuity Program. A draft audit document has been prepared and is under review by staff. We plan to address the report in the coming month and will meet with a larger group of HRSD staff to address issues of concern.

2. Preparation of the Fiscal Year 2020 CIP continues. Internal coordination meetings with the Operations Department have been held to discuss new projects and update existing efforts. CIP project updates were received in January and the first CIP Review Meeting is scheduled for February 28. There are 46 new CIP projects proposed this year. Many of these new projects are related to the SWIFT Program and the high priority projects included in the Regional Wet Weather Plan. Quality Assurance/Quality Control of project data is underway and each CIP project will be given an initial prioritization score to help as we decide which of these projects to approve and how to prioritize each effort.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 1
 - a. Staff participated in a STREAM Day event at St. Gregory School on January 28, 2019.
2. Number of Community Partners: 1
 - a. St. Gregory the Great Catholic School
3. Number of Research Partners: 0
4. Metrics Summary

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Total Training Hours per Full Time Employee (43) - Current Month	Hours / #FTE	0.62
M-1.4b	Total Training Hours per Full Time Employee (43) - Cumulative Fiscal Year-to-Date	Hours / #FTE	15.26
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, P.E.

Bruce W. Husselbee, P.E.

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for January 2019
DATE: February 13, 2019

A. General

1. The Hampton Roads Planning District Commission (HRPDC) is projecting an increase in growth with higher defense spending and a 2.6 percent increase in military pay for 2019, which is the largest increase in nine years. The number of jobs increased by 13,000 over the last year and the unemployment rate is at 3.3 percent. Single family home permits have been inconsistent month over month, but spiked in October, which is the most recent data point available.
2. Water consumption continues to be higher than budget and flat relative to last year. In addition, Interest Income continues to exceed budget as short-term rates remain higher than anticipated. As a result, revenues are higher than budget and slightly higher than last year. Personal services and fringe benefit expenses are generally on budget at 59 percent and 57 percent respectively, compared with the prior year's 59 percent for each. Major repairs and capital assets expenses continue to be significantly lower than budget at this time, since many purchases earlier in the fiscal year related to prior year encumbrances. Debt service is recorded based on actual year-to-date payments, currently at 68 percent of budget, and we anticipate it being near budget at year end. Overall, revenues are above target at 60 percent and expenses and transfers are under budget at 56 percent and continue to be controlled.
3. The Retiree Health Plan declined in the last quarter of 2018 due to market volatility. These investments have a long time horizon, so intermediate bumps in the road are expected. We expect the next quarterly report to be much better as The Wall Street Journal reported that U.S. Stocks posted their best January performance in 30 years, which is partially due to the Federal Reserve's change in tone from hawkish to dovish for 2019 (i.e. there may be fewer rate hikes in the future). The Quarterly investment summary for [HRSD's Operating Cash Strategies and Retiree Health Trust \(OPEB\)](#) is attached.
4. Feedback from one of the financial counselor's involved in our Customer Assistance Program:
One client after our class this Tuesday pulled me aside and said this class was exactly what she needed. She said she saw a lot of things she was doing wrong from learning from the class and she wants to make changes in her life. She is very positive about her financial situation and wanting to do better for her and her family. Another client on the phone was so appreciative of the program and wanted to thank you and everyone involved in the program to help people in difficult situations. He shared how he just lost his wife and this is going to help him get back on his feet financially.

B. Interim Financial Report

1. Operating Budget for the Period Ended January 31, 2019

	Amended Budget	Current YTD	Current YTD as % of Budget (58% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 289,967,000	\$ 174,110,990	60%	60%
Surcharge	1,425,000	883,547	62%	46%
Indirect Discharge	2,750,000	1,664,176	61%	63%
Fees	2,855,000	1,728,127	61%	56%
Municipal Assistance	875,000	364,952	42%	64%
Miscellaneous	595,000	733,221	123%	85%
Total Operating Revenue	298,467,000	179,485,013	60%	60%
Non Operating Revenues				
Facility Charge	6,075,000	3,744,900	62%	61%
Interest Income	2,500,000	4,254,991	170%	89%
Build America Bond Subsidy	2,400,000	1,145,118	48%	49%
Other	820,000	244,533	30%	103%
Total Non Operating Revenue	11,795,000	9,389,542	80%	66%
Total Revenues	310,262,000	188,874,555	61%	60%
Transfers from Reserves	8,847,824	5,161,231	58%	58%
Total Revenues and Transfers	\$ 319,109,824	\$ 194,035,786	61%	60%
Operating Expenses				
Personal Services	\$ 55,331,886	\$ 32,543,191	59%	59%
Fringe Benefits	24,321,670	13,894,774	57%	59%
Materials & Supplies	7,686,154	4,298,963	56%	56%
Transportation	1,446,906	761,347	53%	45%
Utilities	12,306,952	7,042,651	57%	53%
Chemical Purchases	10,894,183	5,013,765	46%	44%
Contractual Services	42,104,030	16,664,477	40%	47%
Major Repairs	10,315,534	3,606,191	35%	32%
Capital Assets	1,232,144	474,593	39%	65%
Miscellaneous Expense	2,945,304	1,448,418	49%	62%
Total Operating Expenses	168,584,763	85,748,370	51%	53%
Debt Service and Transfers				
Debt Service	62,811,000	42,661,721	68%	58%
Transfer to CIP	87,475,061	51,027,116	58%	58%
Transfer to General Reserve	-	-	0%	58%
Transfer to Risk management	239,000	139,419	58%	58%
Total Debt Service and Transfers	150,525,061	93,828,256	62%	58%
Total Expenses and Transfers	\$ 319,109,824	\$ 179,576,626	56%	55%

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 January 31, 2019

	General	Risk Management	Reserve	Capital
Beginning of Period - July 1, 2018	\$ 193,623,393	\$ 3,260,531	\$ 15,266,324	\$ 75,874,029
Add: Current Year Sources of Funds				
Cash Receipts	188,210,635			-
Capital Grants				-
VRA Draws				11,567,621
Bond Proceeds (includes interest)				684,837
Transfers In	-	139,419		51,027,116
Sources of Funds	<u>188,210,635</u>	<u>139,419</u>	<u>-</u>	<u>63,279,574</u>
Total Funds Available	<u>\$ 381,834,028</u>	<u>\$ 3,399,950</u>	<u>\$ 15,266,324</u>	<u>\$ 139,153,603</u>
Deduct: Current Year Uses of Funds				
Cash Disbursements	134,059,134			56,203,948
Transfers Out	51,166,535			-
Uses of Funds	<u>185,225,669</u>	<u>-</u>	<u>-</u>	<u>56,203,948</u>
End of Period - January 31, 2019	<u>\$ 196,608,359</u>	<u>\$ 3,399,950</u>	<u>\$ 15,266,324</u>	<u>\$ 82,949,655</u>

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended January 31, 2019

Classification/ Treatment Service Area	Expenditures		Year to Date		Outstanding Encumbrances	Available Balance
	Budget	prior to June 30, 2018	FY 2019 Expenditures	Total Expenditures		
Administration	\$ 64,885,711	\$ 40,373,105	\$ 488,200	\$ 40,861,305	\$ 3,396,825	\$ 20,627,581
Army Base	158,584,000	124,056,440	733,594	124,790,034	1,878,307	31,915,659
Atlantic	127,815,138	56,021,559	14,912,907	70,934,466	33,974,406	22,906,266
Boat Harbor	132,009,450	55,186,498	2,226,154	57,412,652	10,228,445	64,368,353
Ches-Eliz	170,731,513	10,416,092	3,966,005	14,382,097	38,013,006	118,336,410
James River	89,151,802	55,333,203	2,165,766	57,498,969	1,568,943	30,083,890
Middle Peninsula	53,285,811	7,951,942	1,290,370	9,242,312	4,457,658	39,585,841
Nansemond	84,434,179	39,238,100	1,876,340	41,114,440	3,680,873	39,638,866
Surry	3,236,000	101,724	279,401	381,125	192,216	2,662,659
VIP	292,496,378	250,845,561	5,415,251	256,260,812	3,800,887	32,434,679
Williamsburg	19,338,971	10,079,626	378,216	10,457,842	2,483,885	6,397,244
York River	47,597,249	40,864,038	779,955	41,643,993	1,370,954	4,582,302
General	482,765,843	216,595,238	5,894,031	222,489,269	26,995,001	233,281,573
	<u>\$ 1,726,332,045</u>	<u>\$ 907,063,126</u>	<u>\$ 40,406,190</u>	<u>\$ 947,469,316</u>	<u>\$ 132,041,406</u>	<u>\$ 646,821,323</u>

5. Debt Management Overview

	Debt Outstanding (\$000's)				
	Principal Dec 2018	Principal Payments	Principal Draws	Principal Jan 2019	Interest Payments
Fixed Rate					
Senior	\$ 318,713	\$ (2,680)	\$ -	\$ 316,033	\$ (2,857)
Subordinate	441,255	(42)	-	441,213	(10)
Variable Rate					
Subordinate	50,000	-	-	50,000	(68)
Line of Credit					
Total	<u>\$ 809,968</u>	<u>\$ (2,722)</u>	<u>\$ -</u>	<u>\$ 807,246</u>	<u>\$ (2,935)</u>

Series 2016 Variable Rate Interest Summary - Variable Rate Debt Benchmark (SIFMA) as of 2/1/19

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	1.81%	1.81%	0.00%
Average	0.43%	0.42%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 2/1/19	1.43%	1.46%	0.03%

* Since October 20, 2011 HRSD has averaged 42 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended January 31, 2019

	Current YTD	Policy Minimum
Days Cash on Hand (Unrestricted)	561 days	270-365 days
Days Cash on Hand (Excl Reserve \$15m and Risk Mgmt \$3m)	475 days	270-365 days
Risk Management Reserve as % of Projected Claims Costs	25%	25%

HRSD - SOURCES OF FUNDS

January 31, 2019

Primary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value Jan 31, 2019	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	10,669,597	338,689,434	335,473,682	30,425	13,915,774	11.1%	N/A	0.50%
VIP Stable NAV Liquidity Pool	-	146,000,000	36,000,000	1,148,078	111,148,078	88.9%	AAAm	2.57%
Va Local Government Investment Pool	68,984,048	5,000,000	74,115,221	131,173	-	0.0%	AAAm	2.56%
Total Primary Source	\$ 79,653,645	\$ 489,689,434	\$ 445,588,903	\$ 1,309,676	\$ 125,063,852	100.0%		

VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.01% in the month of January.

Secondary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income & Realized G/L	Ending Market Value Jan 31, 2019	Ending Cost	YTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	-	124,728,039	1,011,723	1,493,550	125,899,850	125,209,866	689,983	2.52%
Total Secondary Source	\$ -	\$ 124,728,039	\$ 1,011,723	\$ 1,493,550	\$ 125,899,850	\$ 125,209,866	\$ 689,983	

VIP 1-3 Year High Quality Bond Fund performance equaled ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) in the month of January.

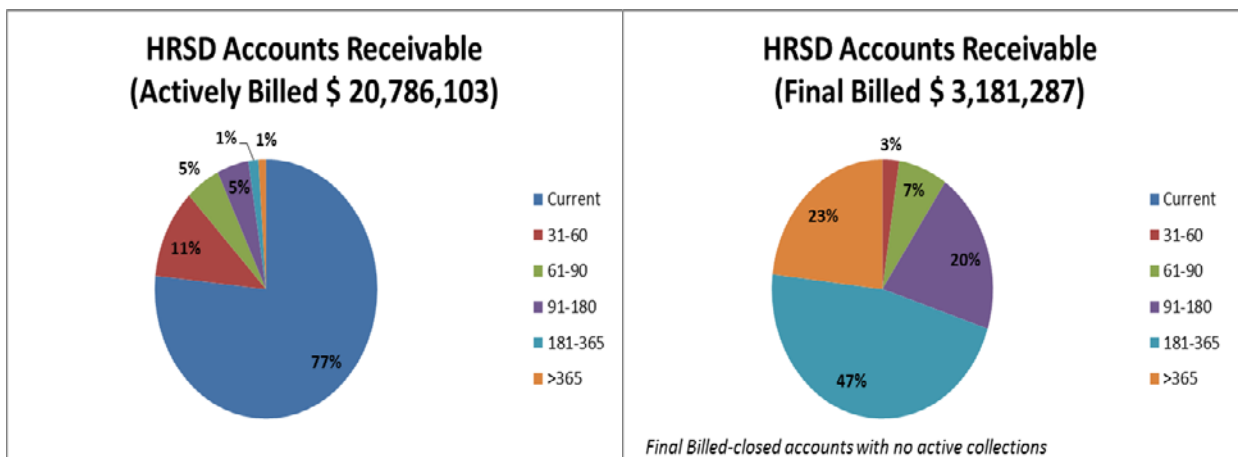
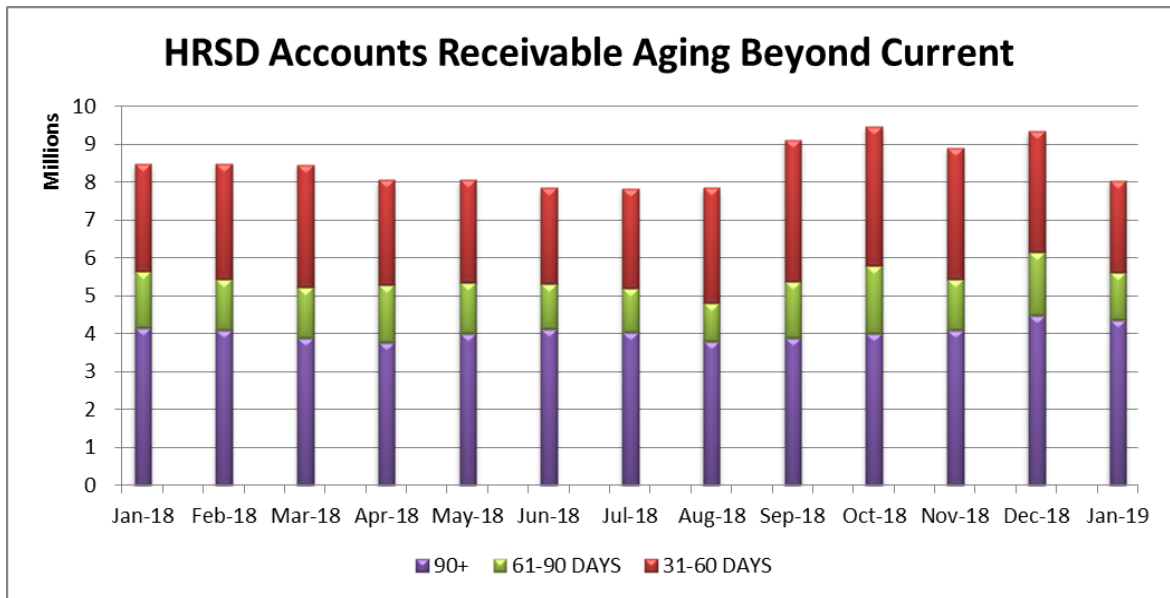
Total Primary Source	\$ 125,063,852	49.8%
Total Secondary Source	\$ 125,899,850	50.2%
TOTAL SOURCES	\$ 250,963,702	100.0%

7. Summary of Billed Consumption

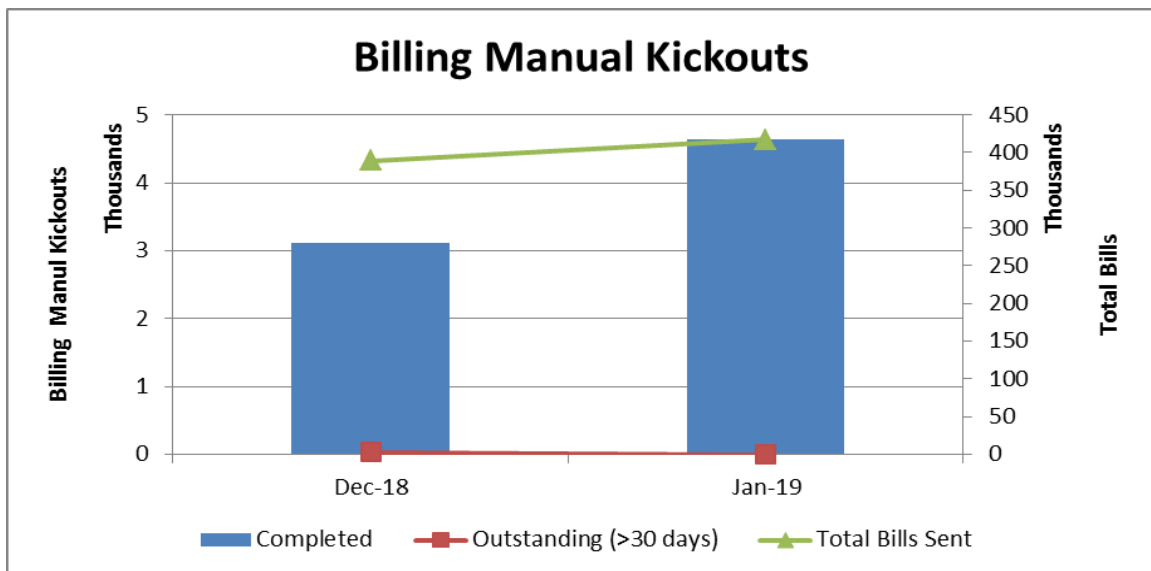
Summary of Billed Consumption (,000s ccf)							
Month	FY2019 Cumulative Budget Estimate	FY2019 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2018 Actual	From FY2018	Cumulative 3 Year Average	From 3 Year Average
July	4,737	5,175	9.3%	4,869	6.3%	4,821	7.3%
Aug	9,595	10,233	6.6%	9,939	3.0%	9,666	5.9%
Sept	14,442	14,294	-1.0%	14,632	-2.3%	14,383	-0.6%
Oct	18,768	19,087	1.7%	19,006	0.4%	18,999	0.5%
Nov	22,834	23,249	1.8%	23,305	-0.2%	23,358	-0.5%
Dec	27,166	27,376	0.8%	27,462	-0.3%	27,616	-0.9%
Jan	31,486	32,010	1.7%	31,965	0.1%	31,948	0.2%
Feb	36,154	-	N/A	36,519	N/A	36,247	N/A
March	40,096	-	N/A	40,741	N/A	40,654	N/A
Apr	43,612	-	N/A	44,732	N/A	44,649	N/A
May	47,887	-	N/A	49,018	N/A	48,864	N/A
June	52,927	-	N/A	53,298	N/A	53,391	N/A

C. Customer Care Center

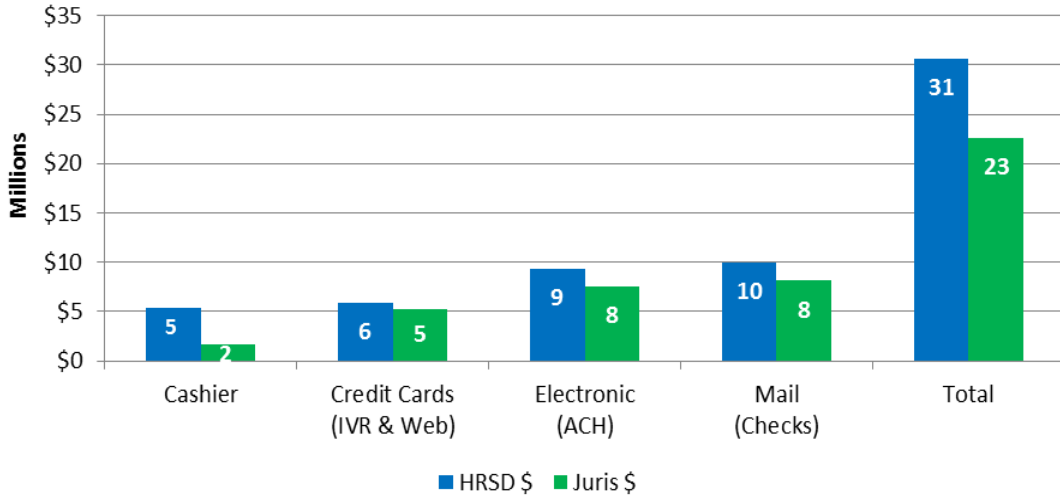
1. Accounts Receivable Overview



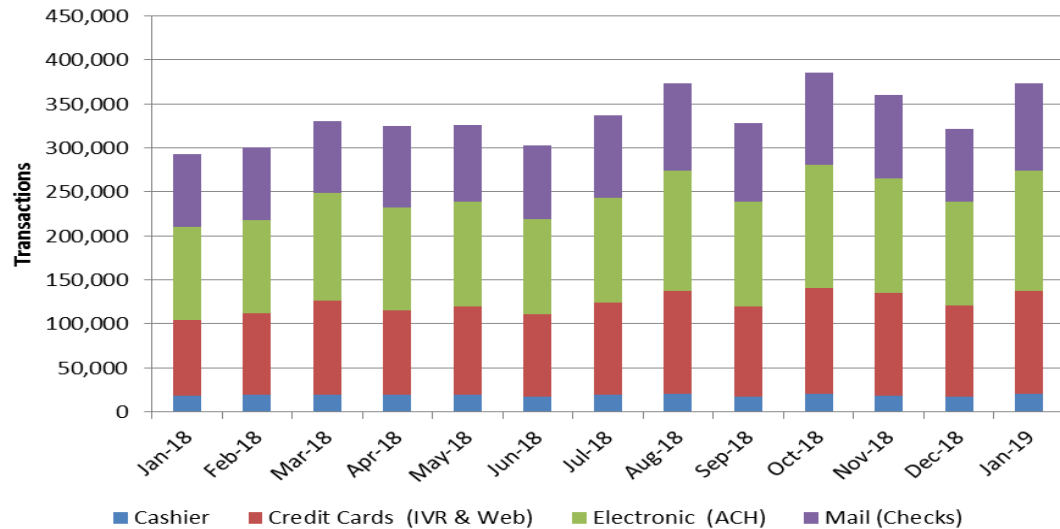
2. Customer Care Center Statistics



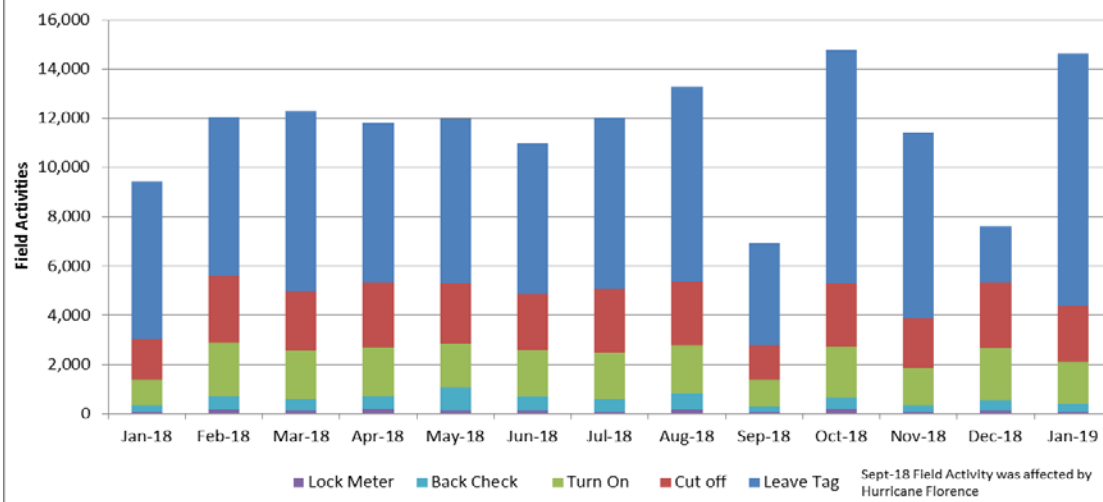
Payments Processed January 2019

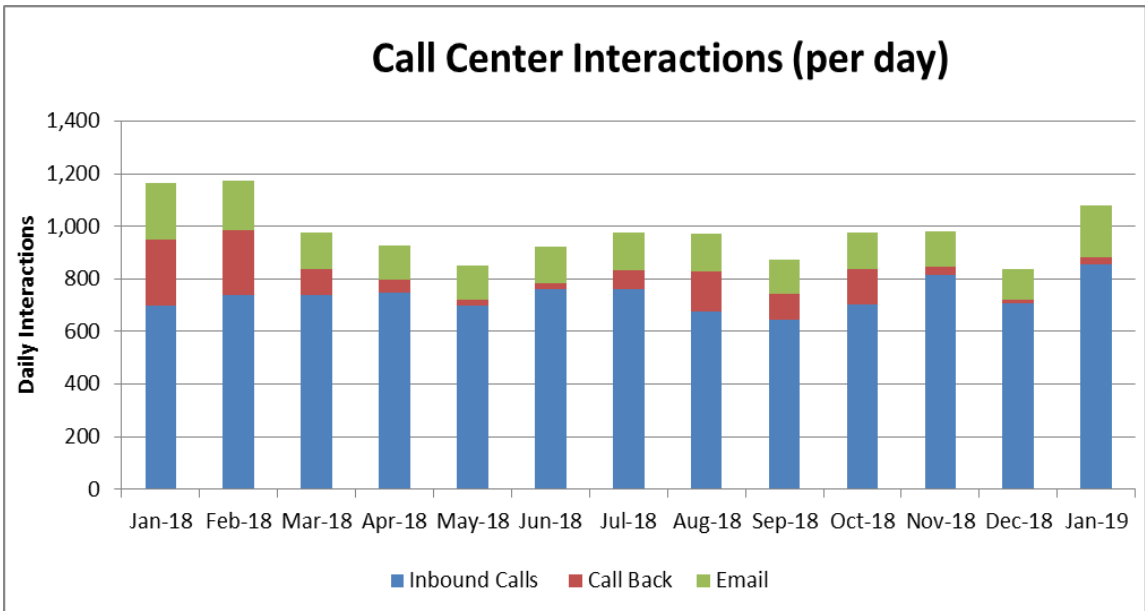
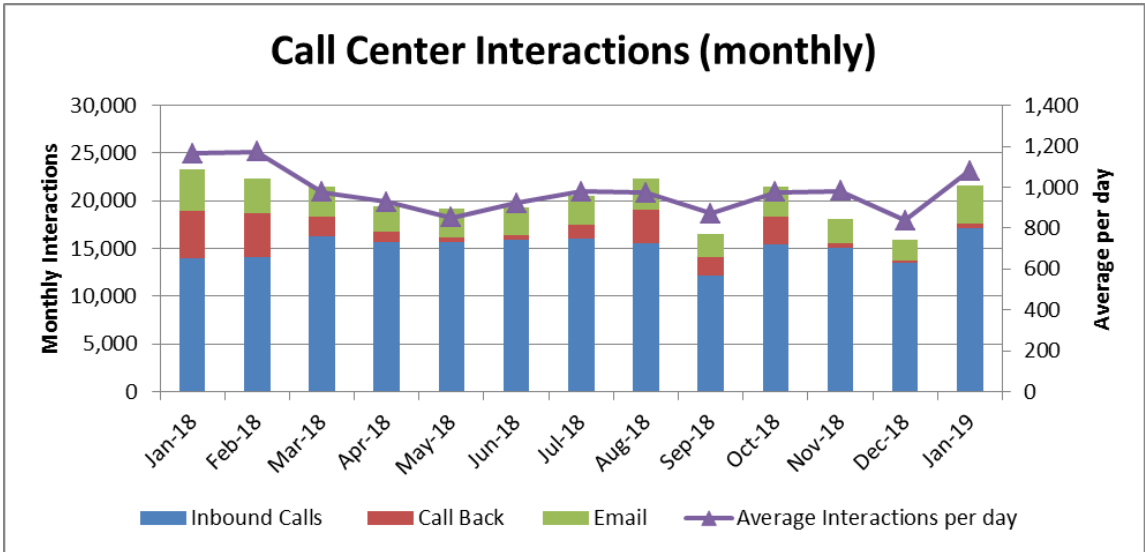
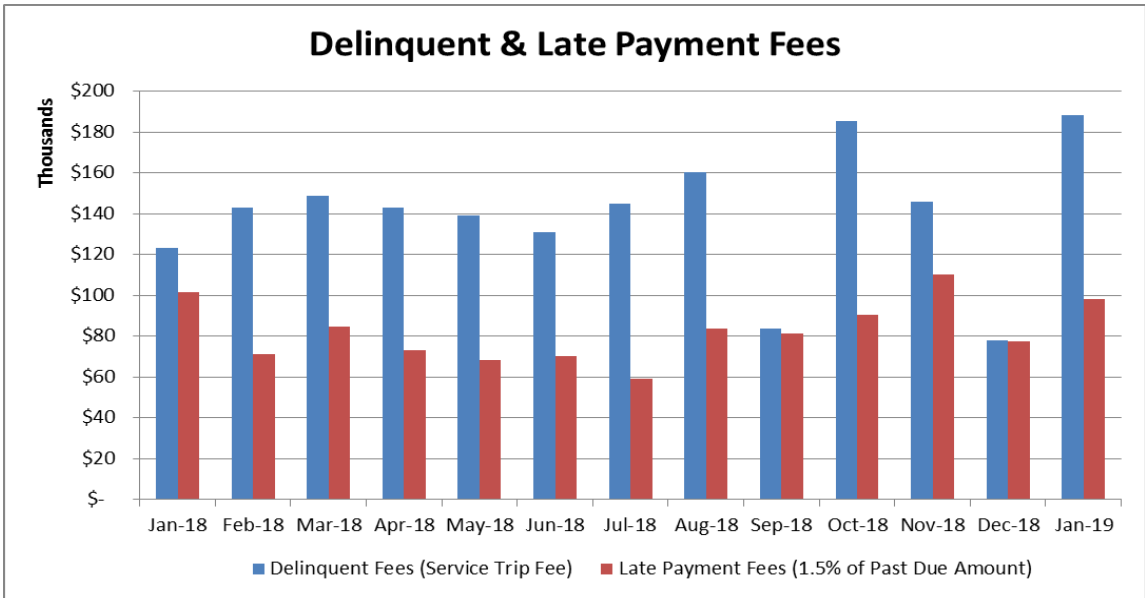


Payment Transactions



Field Activity

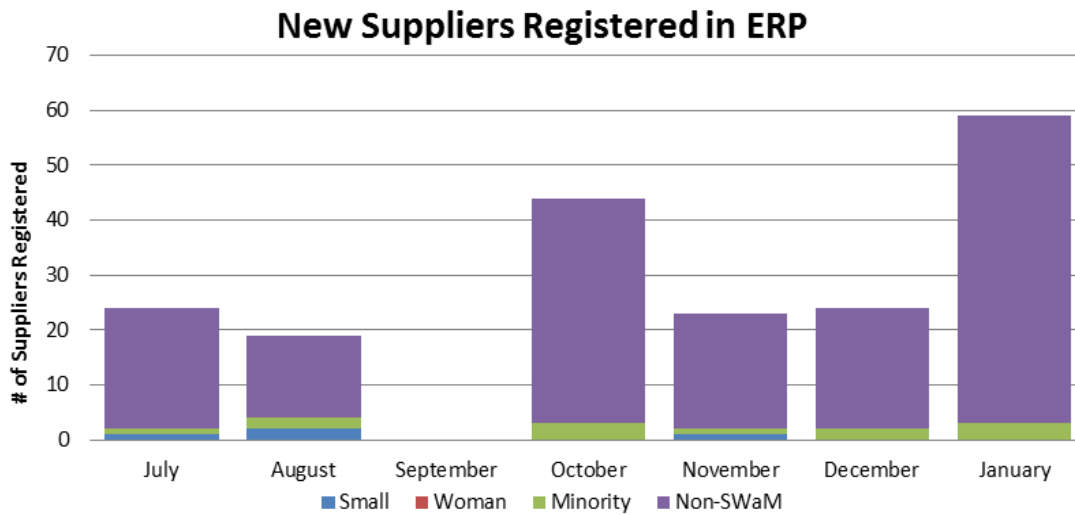




Customer Interaction Statistics	Aug	Sep	Oct	Nov	Dec	Jan
Calls Answered within 3 minutes	56%	68%	61%	89%	93%	85%
Average Wait Time (minutes)	4:22	3:02	3:50	1:12	0:38	1:20
Calls Abandoned	14%	11%	14%	6%	4%	6%

D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings ¹	\$30,292	\$947,297
Negotiated Savings ²	\$175,712	\$271,069
Salvage Revenues	\$2,161	\$136,901
Corporate VISA Card - Estimated Rebate	\$17,672	\$125,218

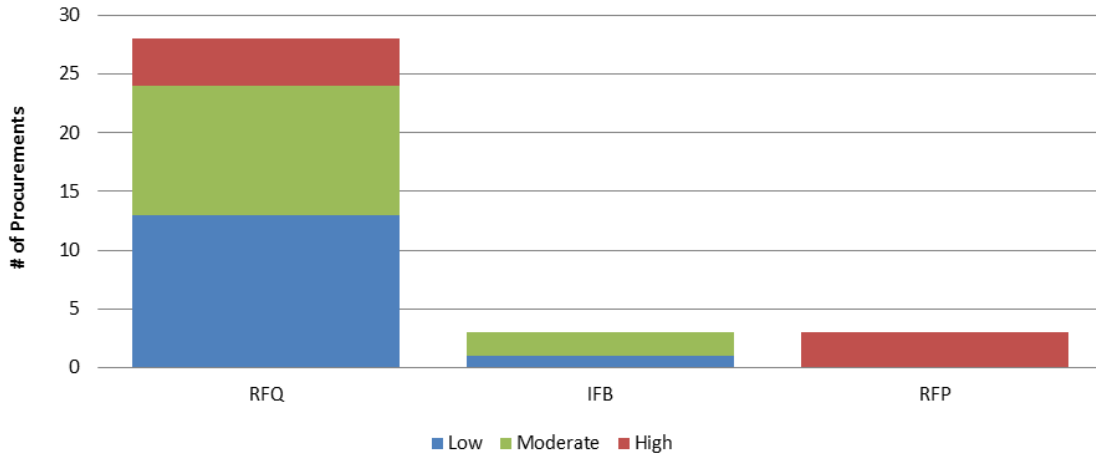


**Increased supplier registration due to supplier outreach at NIGP Forum 8/21/18, Water Jam 9/12/18, WEFTEC 10/2/18, VASCUPP® SWaMFest 10/4/18, DGS Public Procurement Forum 10/23/18, CNU SWaM Fair 11/7/18, Virginia Beach Minority Business Council Conference and Expo 11/8/18*

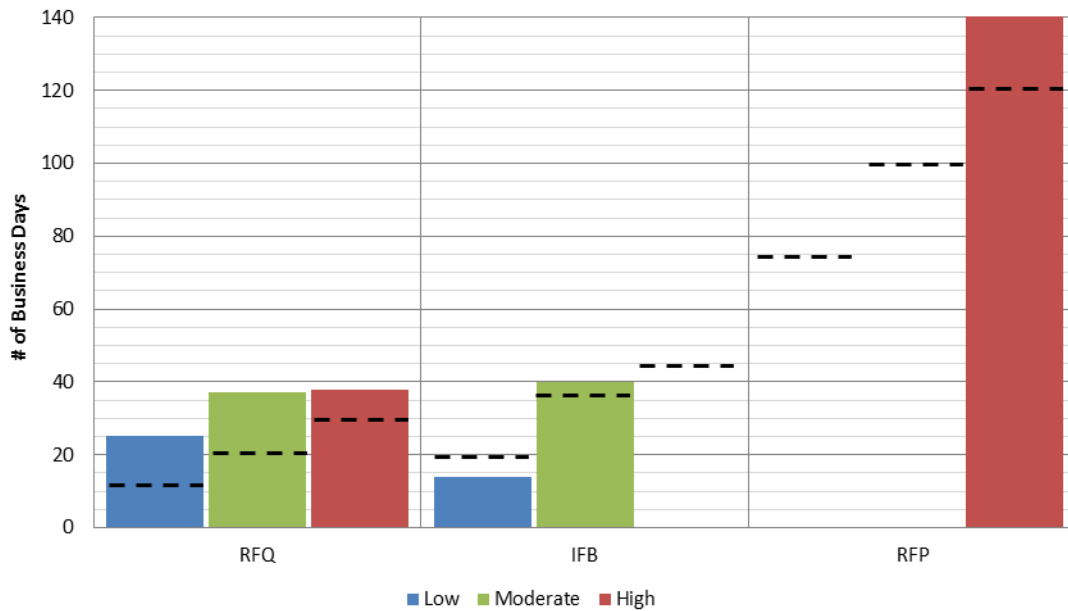
¹ Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsive/responsible bidder.

² Negotiated savings are savings obtained during a Request for Proposal process, or if all bids received exceed the budgeted amount, or if only one bid is received.

Procurements Completed Based on Complexity



Cycle Time per Method of Procurement and Complexity

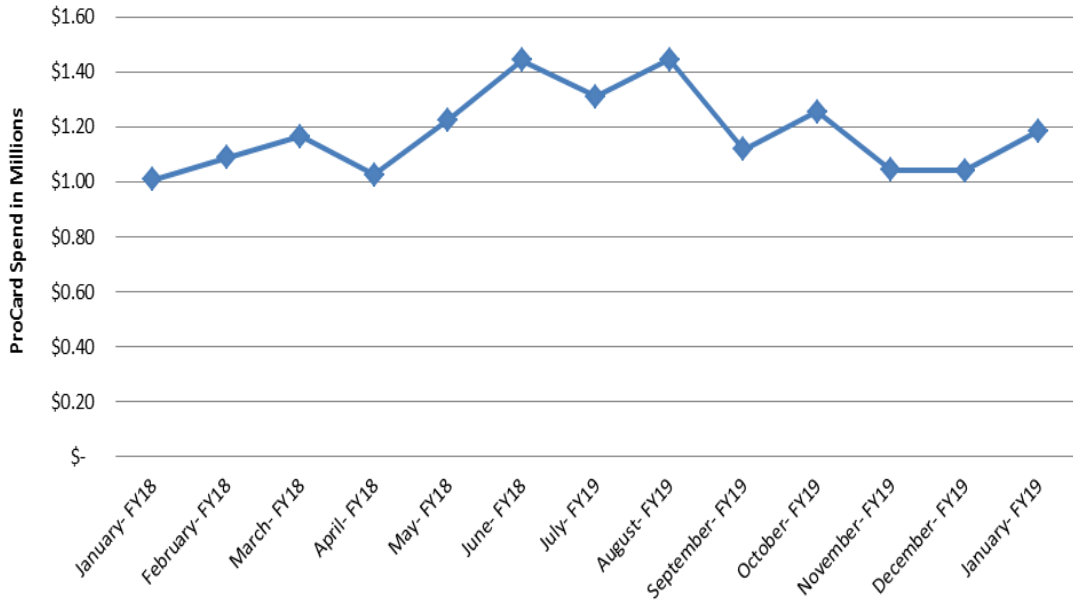


Dashed Line: Target Service Level Cycle Time

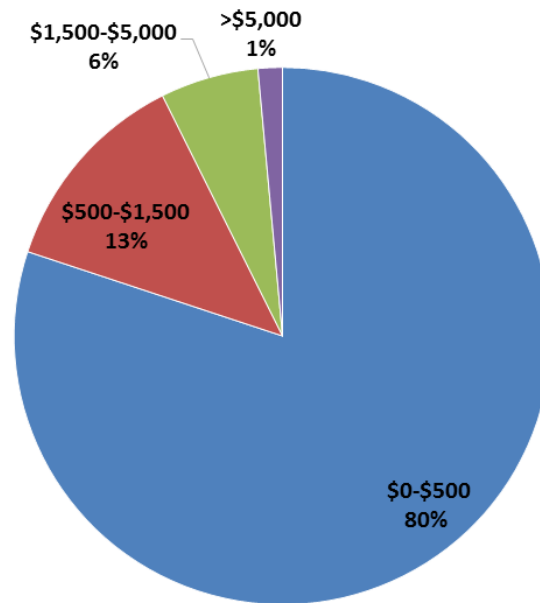
	Low	Moderate	High
RFQ	12	20	30
IFB	20	35	45
RFP	75	100	120

Low: Low technical, quick turnaround, **Moderate:** Technical, routine, **High:** Highly technical, time intensive,

ProCard Spend



ProCard Transaction Dollar Amounts



ProCard Fraud	External Fraud Transactions *	Comments
July	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
August	0	n/a
September	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
October	1	Caught by Cardholder
November	2	1 Caught by bank immediately; 1 caught by cardholder
December	0	n/a
January	1	Caught by bank immediately
Total	10	

***External Fraud:** Fraud from outside HRSD (i.e.: a lost or stolen card, phishing, or identity theft) Accidental Use, which is anything that is not purchased for use and ownership by HRSD, was at 0 transactions (0%) out of the 2,385 January ProCard transactions, with a combined total of \$0.

Procurement Client Training		
	Current Period	YTD
ProCard Policy and Process	5	24
Procurement Cycle	1	21
Total	6	45

E. Business Intelligence – Enterprise Resource Planning (ERP)

1. ERP Helpdesk currently has 159 open work orders in the following statuses:

Escalated	2
In progress	67
On Hold	21
Open	66
Waiting on User	3

2. ERP Helpdesk received 302 work orders in January. In January, 323 work orders were closed and 121 were closed within one hour.
3. ERP staff continues to work with consultants on functionality and improvements to the system.

F. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Community Partners: 0
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Training During Work Hours Per Full Time Employee (101) – Current Month	Hours / #FTE	1.42
M-1.4b	Total Training During Work Hours Per Full Time Employee (101) – Cumulative Fiscal Year-to-Date	Hours / #FTE	16.89
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	103%
	General Reserves	Percentage of Operating Budget less Depreciation	117%
	Liquidity	Days Cash on Hand	561 Days
	Accounts Receivable (HRSD)	Dollars	\$23,967,390
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	18%

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

Attachment: [HRSD's Operating Cash Strategies and Retiree Health Trust \(OPEB\)](#)

Hampton Roads Sanitation District
Quarterly Performance Report
For the Quarter Ending December 31, 2018

Total Portfolio Summary

Operating Strategies	December 31, 2018	September 30, 2018
Primary Source	\$ 119,814,088	\$ 96,943,914
Secondary Source	125,471,810	124,107,797
SNAP Investment	40,026,308	49,642,989
	\$ 285,312,206	\$ 270,694,701

Primary Source Summary

The Primary Source Portfolio consists of BAML Corp Disbursement Account \$8.9m and VaCo/VML VIP Stable NAV Liquidity Pool \$110.9m. BAML Corp Disbursement Account returned 0.50% for the quarter ending December 31, 2018. VaCo/VML VIP Stable NAV Liquidity Pool 30 Day Average Net Yield was 2.45% for the quarter ending December 31, 2018, an increase from 2.16% 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 2.36% for the quarter ending December 31, 2018, an increase from 2.25% 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

The SNAP Investments current yield was 2.57% as of December 31, 2018, an increase from 2.24% as of September 30, 2018.

Retirement Health Plan Trust	December 31, 2018	September 30, 2018
Investment Assets	45,303,820	49,091,465
Liquidity Assets	3,770	5,265
Combined Assets	\$ 45,307,590	\$ 49,096,730

Retiree Health Plan Trust Summary

The Retiree Health Plan Trust Portfolio returned -8.68% (combined assets) for the quarter ending December 31, 2018, which was below the -7.44% return of the Blended Benchmark. The one-year trailing return for the Retiree Health Plan Trust portfolio was -5.21% compared to the Blended Benchmark return of -4.86%. The weighted average credit quality of fixed income holdings for the Retiree Health Plan Trust portfolio is A for the quarter.

TO: General Manager

FROM: Director of Information Technology

SUBJECT: Information Technology Department Report for January 2019

DATE: February 12, 2019

A. General

1. The Industrial Automation Programmers are working on the consolidation of multiple alarm processing servers into a single fault tolerant platform. This will increase administrative efficiency and minimize licensing costs.
2. Members of the IT department installed Office 365, the online version of Microsoft Office, within the IT department for further testing and configuration ahead of deployment throughout HRSD.
3. Industrial automation staff performed a full backup of the Distributed Control Systems (DCSs) at the Nansemond and Army Base treatment plants in preparation for a technology refresh of the DCS platforms. The backup will be sent to Emerson Power and Water Solutions so that the upgraded components can be preconfigured prior to shipment and installation.
4. As part of the migration to the Small Communities division data center, numerous telephones, equipment, and data circuit reconfigurations were completed.
5. Staff participated in vendor demonstrations for a new fuel management system to be installed at all HRSD managed fuel pumps.

B. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 0
2. Number of Community Partners: 0

C. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Training During Work Hours Per Full Time Employee (51) – Current Month	Total Training Hours / # FTE	3.22
M-1.4b	Total Training During Work Hours Per Full Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	15.70
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 January 2019
DATE: February 19, 2019

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. There was one Sanitary Sewer Overflow (SSO) this month when the 10-inch cast iron force main failed on Westminster Drive in Hampton. A total of 19,000 gallons was released with approximately 3,500 gallons recovered. Staff isolated and repaired the force main that evening. The break was the fifth one on this section of the interceptor system. An emergency designation was declared and a capital improvement project for this stretch of 'at risk' pipeline is set to be executed without delay.
- b. There was one odor complaint, one interceptor complaint and three system alarms during the month. The alarms and complaints were fully resolved.
- c. Staff assisted a contractor with the insertion and removal of line stops in the Langley Magruder 30-Inch Ductile Iron Force Main (Semple Farm Road) break. The work took place over the weekend of January 12 and line stops were removed on January 14. A total of 270 linear feet of 30-inch force main and related appurtenances were replaced. The system was returned to normal status and flow diversions were reversed on January 14. Completion of the project should occur in February with final restoration to the affected properties in the spring.
- d. Staff provided support to the Small Communities Division (SCD) with the inspection of numerous development projects. These developments are driving collection system expansions, primarily in the King William service area.

2. South Shore (SS) Interceptor Systems

- a. There were two interceptor complaints reported this month. Staff responded and found that one was a locality issue and the other was an unfastened HRSD valve casting. Staff replaced and secured the casting.
- b. There were ten system alarms reported this month. Staff responded and resolved all of the alarms.
- c. Staff assisted the Chesapeake-Elizabeth Treatment Plant (CETP) by removing approximately five yards of material from the septic well and cleaning the gravity thickener suction line.
- d. Staff supported the Army Base Treatment Plant (ABTP) by cleaning two yards of material from the rock trap.
- e. Staff aided the Nansemond Treatment Plant (NTP) by removing approximately 6.5 yards of material from the Regional Residuals Facility (RRF).
- f. Staff assisted the City of Chesapeake in repairing a broken force main in Bowers Hill near Airline Boulevard and West Military Highway.
- g. Staff assisted the City of Virginia Beach in installing a new valve on a force main near the intersection of Round Hill Drive and Belspring Drive.
- h. On January 29, staff learned that a paving contractor damaged an HRSD air vent on Southern Boulevard in Virginia Beach. Staff corrected the issue without spilling any sewage.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. There were several power anomalies on January 18 that caused problems with the Distributed Control System (DCS) system and various other plant equipment.
- b. Staff replaced the solids feed belt to the incinerators this month.

- c. A contractor replaced the #1 Influent Pump Station (IPS) pump and discharge check valve. The pumps that were replaced were originally installed in 1978 and required excessive maintenance staff hours to keep them in service.

2. Atlantic Treatment Plant (ATP)

- a. There were three Combined Heat and Power engine (CHP) shutdowns this month. The first occurred on January 12 when the hydrogen sulfide (H₂S) sensor malfunctioned. As a precaution, the CHP was taken offline until the sensor could be repaired or replaced. The second occurred on January 16 when H₂S levels reached 50 parts per million (ppm). The H₂S sensor is being replaced. On January 22, the odor control blower failed and the CHP was taken offline until a new blower was delivered. The digester gas line was placed in bypass to reactivate the Bioscrubber. The CHP is anticipated to be back online the first week of February.
- b. On January 8 a non-potable water (NPW) spill occurred while Digester #2 was filling with NPW in order to float the cover to realign it for maintenance. The side hatch to the digester was not properly secured, resulting in 250 gallons spilled on the ground.
- c. Construction of the Thermal Hydrolysis Process (THP) continues. Staff worked with the contractors to perform many coordinated shutdowns.
- d. Staff continued installing handrails around the top of the digesters.
- e. Staff discovered the conduit feeding two of the four mixers for Digester #4 needs to be replaced. The conduit was rusted, allowing water to intrude. Staff ran new temporary conduit to correct the issue until a permanent replacement can be installed.
- f. Staff began hauling biosolids to the Virginia Initiative Plant (VIP) and the ABTP since the storage pads are near capacity. We anticipate the hauling operation to last until mid-February when land application of the biosolids can begin.

3. Boat Harbor Treatment Plant (BHTP)

- a. Staff worked with a contractor to replace the defective medium voltage power cables connecting the emergency generator switchgear to the 4 & 5 substations. This project required careful coordination and two flow diversions in early morning hours.
- b. Staff completed cleaning aeration tank #1.

4. CETP

- a. A contractor repaired the #2 secondary clarifier influent gate.
- b. Staff continues to de-slag the furnace on a regular basis. The frequent slag problem is attributed to the ferric feed rates that are required to meet permitted phosphorus limits.

5. James River Treatment Plant (JRTP)

- a. Staff replaced a motor on a non-potable water booster pump; installed a rebuilt mixer on the #3 integrated fixed film activated solids tank; replaced a ball check valve on the #3 centrifuge polymer feed pump; installed a drip trap on the waste gas burner, and plugged a leak on a 14-inch return solids gate valve.
- b. Staff transplanted several shrubs removed from the South Shore Operations Main Office complex to the JRTP in preparation for construction of the new Water Quality Services building.
- c. The contractor completed drilling of the Sustainable Water Initiative for Tomorrow (SWIFT) test well.

6. NTP

- a. There was a NPW spill of 9,600 gallons from a clogged pipe at the septic offloading station. The clogged pipe was cleared.
- b. Staff continues to work closely with the electrical contractor in preparation for the replacement of 800 and 600 Motor Control Centers (MCCs). The new MCCs are expected the second week of February.

- c. The coatings repairs have started on the concrete in the chemical containment area of the SRF (struvite recovery facility) chemical containment.
- d. The contractor finished coating the secondary clarifier #5.
- e. The carbon media and underdrains on all the biological filters in the SWIFT Research Center were removed in preparation for the coating repairs.

7. VIP

- a. A frozen valve outside the Preliminary Treatment Facility (PTF) broke on January 22, causing a 50-gallon NPW spill onto the ground.
- b. Contractors diverted flow from a plant effluent sample sink for a drainage project on January 29, inadvertently pumping approximately 10,000 gallons of plant effluent to a storm drain instead of pumping to the process drain.
- c. Staff replaced a grit pump, installed a backup ammonium hydroxide metering pump and rehabilitated one primary clarifier.
- d. Staff assisted contractors with the startup of the biological odor control towers at the PTF. Acclimation of the bio-towers will take approximately eight weeks.
- e. Staff and contractors continued reconfiguring incinerator #2 for a zero-hearth operation to better facilitate efficient air permit compliance.

8. Williamsburg Treatment Plant (WBTP)

- a. Staff completed temporary repairs on one of the solids cake screw conveyors servicing the #1 incinerator. The conveyor sheared in half last month. A new screw conveyor is being manufactured.
- b. Staff assisted with the repair of a malfunctioning valve.

9. York River Treatment Plant (YRTP)

- a. Staff continued nutrient removal enhancement modifications on aeration tank #2.

- b. The digester cover project is nearing completion. The new cover passed pressure testing and the contractor worked on punch list items, demobilization and site restoration.
- c. A contractor performed earth stabilization work on the SWIFT test well. The contractor pumped aluminum chloride into the well.

10. Minor Incinerator Operations Events Summary

Condition	Cause	ABTP	BHTP	CETP	VIP	WBTP
Use of emergency bypass stack	Power anomaly/loss	1		1		
Use of emergency bypass stack	Equipment malfunction				1	
Total Hydrocarbon Emission Monitor Failure	Unit out of calibration				1	5
Total Hydrocarbon Emission Monitor Failure	Failed DO Probe			1	1	
THC - Failure to record two readings in an hour	THC air compressor malfunction	4		1	1	
Less than minimum pressure drop	Venturi/ Equipment Malfunction			2		
Less than minimum scrubber pH	Operator Error			1		

C. SCD

1. Middle Peninsula Treatment and Collections

- a. The Enterprise Data Solutions portal system went live January 10.
- b. Staff replaced the carbon in a manhole air scrubber in King William County after receiving an odor complaint. In the future, carbon in the odor control unit will be replaced annually.
- c. The West Point Treatment Plant was above the 95 percent design flow for the third month in a row. The high flows are attributed to continuously wet conditions with no ability to direct flows to other locations. In spite of the elevated flow, the plant met all permit parameters.
- d. Staff completed the rehabilitation of the West Point #3 pump station, which included conversion from shaft-driven to dry-pit submersible pumps and the complete replacement of all dry well piping.

- e. Staff cleaned the #1 equalization (EQ) tank at the Urbanna Treatment Plant and replaced all the diffusers with repurposed aeration drops from the plant's treatment trains. EQ tank #2 will be cleaned in February. Staff also installed the repurposed bar screen obtained from the Lawnes Pointe Treatment Plant this month while we await a replacement motor for the unit. Once it is installed, we will start up the mechanical bar screen which will improve the plant's headworks.
- f. A clean-in-place was performed on train #2 membranes at the King William Treatment Plant. To study the effectiveness of the membranes, we have begun a chemical back-pulse cleaning on both sets of membranes three times per week. The zinc removal granular activated carbon media was replaced in both vessels this month. The new plant generator has been ordered as part of the King William Improvements project and should arrive in 12-16 weeks.

2. SCD – Surry Systems

On January 22, Sussex Service Authority (SSA) operators located a leaking sludge return line from the secondary clarifiers to the IMHOFF tank. SSA turned off the sludge return pump to stop the leak. The line was repaired the following day. Approximately 1,000 gallons of secondary clarifier effluent/sludge entered a storm drain leading to the Dark Swamp and could not be recovered.

3. SCD - Lawnes Point

There were five pump and haul operations of the Lawnes Point Treatment Plant.

D. Support Systems

1. Automotive

Staff performed load bank tests at Chesapeake Boulevard, Coliseum, Steamboat Creek, and Willard Avenue pump stations and tested portable generator #316. Staff performed monthly generator tests at the NS and SS Operations Main Office Complexes. All generators operated as designed and were returned to service.

2. Condition Assessment

- a. Condition Assessment used Closed-Circuit Television (CCTV) to inspect 868.8 linear feet (LF) of gravity main, 91 manholes, and completed nine siphon chamber inspections.
- b. Staff began CCTV and manhole surveys in the SCD.
- c. Staff supported the Engineering Department by inspecting nine manholes.
- d. Staff attended numerous site visits with SWIFT personnel to develop resolutions for equipment with coatings issues.

3. Facilities Maintenance

- a. Renovation of NTP solids handling locker room continues. The project is 75 percent complete. Installation of new tile flooring and suspended ceiling continues. Painting will begin soon.
- b. Staff hung 64 shading umbrellas in one light well at the SS Main Operations building. A second light well will be completed in February.
- c. Staff prepared the warehouse at 1460 Air Rail Avenue for its demolition, relocating 90 percent of stored items from this location to the new storage building on Bayside Road.
- d. Staff constructed a prototype strainer for the Technical Services Division (TSD).
- e. Staff completed 26 PS roof inspections and 22 PS building inspections.
- f. Staff rebuilt three pumps for SS Interceptors and one pump for NS Interceptors, and continues to rebuild an IPS pump at BHTP. Staff bored and keyed couplings for BHTP, NTP and JRTP. Staff fabricated a prototype sampler for TSD, fabricated pump support brackets for CETP, and made connector shafts for both ABTP and WBTP.

E. Electrical and Energy Management (EEM)

1. Staff planned and coordinated the replacement of 1,000 feet of 15,000 volt cables between two substations (4 and 5) and the emergency switchgear at the BHTP which faulted in late December. There were several plant shutdowns, removal of bad cable, installation of the new cable, terminating the cable and testing. The electrical system is now restored and fully operational.
2. Staff refurbished the 480V breakers in switchgear at NTP to extend the life of the switchgear.
3. Staff installed a more robust battery and charging system on the master generator controls at VIP.
4. Staff completed testing on four oil-filled transformers at the WTP. Three transformers will be replaced and are included in the switchgear replacement project.
5. Staff continues to assist with the development of the nitrogen dioxide (NO₂) wet chemical analyzer. This nitrite analyzer prototype was built in-house and deployed in the denitrification building for testing at YRTP. Range on this instrument is much higher than other analyzers on the market and accuracy has been excellent with automatic daily calibration and cleaning.
6. Staff responded to 39 Supervisory Control and Data Acquisition (SCADA) communication failures and 20 Telog communication failures this month.
7. Staff is coordinating with an electrical contractor to upgrade the electrical power and control equipment at Newtown PS. The project replaces the MCC, the obsolete motor controllers with variable frequency drives (VFDs), a transfer switch and a generator as an alternate power source to provide power to the pump station electrical system.
8. Staff continues to remove third generation (3G) modems and replace them with fourth generation long-term evolution (4G LTE) modems at Master Metering Program (MMP) sites. Firewall access and internet protocol (IP) address testing continues with the contractor, Telog. The 4G modems will be in place by April.

F. Water Technology and Research

Highlighted Project: Over the last month, WBTP secondary effluent was hauled to the SWIFT Research Center by tanker truck to perform pilot testing of the coagulation, flocculation, sedimentation, and ozonation processes targeted at providing additional input for the full-scale WB SWIFT facility design. Testing focused on optimizing chemical selection and dose requirements for coagulation, evaluating ozone dose requirements and bromate control methods, and comparing sidestream versus fine-bubble dissolution for ozone transfer approaches. The results of this work were favorable, suggesting that modest coagulant doses will be effective, that the ozone demand is somewhat less than that observed for Nansemond, and that bromate can be controlled reasonably well with preformed monochloramine at the relatively high bromide concentrations present at WB and at ozone doses that provide sufficient virus inactivation. The work also suggests that pre-chlorination is effective at decreasing ozone demand and minimizing bromate formation.

G. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	2	2	3	3	2	1	7					
2.7	# of PS Annual PMs Performed (SS)	6	3	5	4	6	3	5					
2.7	# of Backup Generator PMs Performed (Target is 4.6)	6	19	7	8	10	4	11					
2.8	# of FM Air Release Valve PMs Performed (NS)	128	33	124	268	213	191	181					
2.8	# of FM Air Release Valve PMs Performed (SS)	193	221	222	275	161	230	225					
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	7,548	5,980	3,241	7,880	2,739	3,458	1,990					
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	5,990	7,971	2,460	11,882	3,938	5,029	4,680					
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	8,637	16,671	5,816*	5,062	9,115	340	869					

*Adjusted monthly total

H. Strategic Measurement Data

1. Education and Outreach Events: 13
 - a. A plant tour was conducted for 50 professionals from the Peninsula LEAD Group – January 3, 2019
 - b. YRTP staff conducted a tour for 35 environmental science students from York High School - January 7, 2019
 - c. Garden Club tour of SWIFT – January 8, 2019
 - d. Master of Science Committee Meeting Presentation on SWIFT at Virginia Tech – Thomas Dziura – January 11, 2019
 - e. Invited podium presentation – SWIFT, WEF Barnard Research Forum on Biological Phosphorus Removal – Bott – January 14-16 2019
 - f. Invited podium presentation – CE BNR Pilot Work, WEF Barnard Research Forum on Biological Phosphorus Removal – Stephanie Klaus – January 14-16 2019
 - g. Invited podium presentation – VIP Plant Controls Work, WEF Barnard Research Forum on Biological Phosphorus Removal – Ali Gagnon – January 14-16 2019
 - h. Invited podium presentation – P-Release and Dewatering, WEF Barnard Research Forum on Biological Phosphorus Removal – Jeff Nicholson – January 14-16 2019
 - i. South Shore Interceptor staff met with City of Virginia Beach Public Utilities Operations staff to collaborate and discuss locality issues - January 22, 2019
 - j. South Shore Interceptor staff met with City of Norfolk Public Utilities Operations staff to collaborate and discuss locality issues – January 24, 2019
 - k. South Shore Interceptor staff attended the St. Gregory the Great School STREAM (Science, Technology, Religion, Engineering, Art, and Math) Event in Virginia Beach. Staff demonstrated a pump demonstration for nearly 500 students – January 28, 2019
 - l. The NS Electrical Manager attended the Cooperating Hampton Roads Organization for Minorities in Engineering Club (CHROME) board meeting – January 31, 2019
 - m. Chesapeake Bay Foundation – oyster cage maintenance at Boat Harbor Treatment Plant (BHTP) for oyster gardening program – January 2019

2. Community Partners: 7

- a. Bayside Middle School “Green Team”
- b. Chesapeake Bay Foundation
- c. City of Norfolk Public Utilities
- d. City of Virginia Beach Public Utilities
- e. ODU
- f. Tidewater Area Fleet Managers Association
- g. VIMS

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (510) – Current Month	Hours / FTE	2.81
M-1.4b	Total Training During Work Hours per FTE (510) – Cumulative Year-to-Date	Hours / FTE	18.12
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	29,136.50
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	59%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	17%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	24%
M- 4.1a	Energy Use: Treatment *reported for November 2018	kWh/MG	2,300
M-4.1b	Energy Use: Pump Stations *reported for January 2019	kWh/MG	224
M-4.1c	Energy Use: Office Building *reported for January 2019	kWh/MG	78

Item #	Strategic Planning Measure	Unit	January 2019
M-5.2	Educational and Outreach Events	Number	13
M-5.3	Number of Community Partners	Number	7

Respectfully submitted,
Steve de Mik
Director of Operations

TO: General Manager
FROM: Director of Talent Management (TM)
SUBJECT: Monthly Report for January 2019
DATE: February 13, 2019

A. Human Resources (HR)

1. Recruitment

a. Summary

New Recruitment Campaigns	12
Job Offers Accepted – Internal Selections	2
Job Offers Accepted – External Selections	5
Internal Applications	30
External Applications	185
Average Days to Fill Position	45

b. HR and South Shore Interceptors staff planned an on-site career open house event.

2. Enterprise Resource Planning (ERP)

a. HRSD worked with the Managed Services consultant on updates to the system setup for Short Term Disability.

b. The Business Analyst worked with Information Technology staff on benefit interface updates.

c. Accounting, Talent Management and Information Technology staff met to begin reviewing 2018 Internal Revenue Service Affordable Care Act mandatory reporting requirements and data validation.

3. Benefits and Compensation

a. Staff worked with the benefit consultant on:

- (1) Fiscal Year 2020 (FY2020) medical, dental and vision benefits renewal meeting
- (2) Options for voluntary benefits

- b. Staff continued working with the consultant to finalize the report for the custom and market-based compensation study.
- c. FY2020 Medical Loan requirements were restructured and communicated to employees.

4. Wellness

a. Participation Activities

Year Six Participation Activities	Unit	January 2019	Year to Date (March 2018–February 2019)
Biometric Screenings	Number	19	54
Preventive Health Exams	Number	13	81
Preventive Health Assessments	Number	169	452
Coaching Calls	Number	0	0
Online Health Improvement Programs	Number	322	986
Web-MD Online Health Tracking	Number	480	1580
Challenges Completed	Number	0	48
Fit-Bit Promotion	Number	7	81

- b. Onsite biometric screenings were held at nine work centers.
- c. The Wellness Specialist continued to participate in calls with HRSD, Cigna and Omada staff to discuss implementation of a diabetes prevention program beginning March 1st with the new Wellness year.
- d. The Wellness Specialist presented the Annual Wellness Program review to the Quality Steering Team (QST), including health engagement and biometric screening trends and program highlights and changes.
- e. *The Neighborhood Harvest (TNH) Community Ambassador* presented information during lunch and learn meetings on their mission to educate busy professionals and active families about how *Neighborhood Harvest* greens are grown, the benefits of eating “clean” vegetables and how TNH can provide a convenient way to

accomplish healthy eating. Additional lunch and learn presentations are planned during February.

5. Workers Compensation

- a. Four new cases were opened with nine cases remaining active.
- b. HR and Safety staff worked to complete the Occupational Health and Safety Administration (OSHA) 300 Log summarizing 2018 lost time on the job injuries to meet the January 31st deadline for work center posting.
- c. HR and Accounting staff, along with HRSD's insurance broker, participated in the annual workers compensation claims review meeting with the provider, reviewing claims status and discussing improvements to administrative and case management procedures.

6. Employee Relations

Staff continued partnering with work center supervisors and employees to support employee relations and address HR issues. Staff worked on updating a job description and training level requirements for Engineering.

7. General

- a. HR and Accounting staff continued to meet to streamline and improve HR and payroll processes.
- b. Reorganization of the HR file room and new storage areas continued.
- c. Staff participated in the following HRSD activities:
 - (1) Inaugural Leadership Day
 - (2) Leadership Day planning meetings
 - (3) Senior Leadership Retreat
 - (4) Facilitated Your Role in Quality
 - (5) Leadership Forum
 - (6) Senior Leadership Meeting
- d. Staff participated in the following training:
 - (1) Water Research Foundation's Lunch and Learn
 - (2) A Hyperion Budget Information Session

B. Organization Development and Training (OD&T)

1. Training

- a. Staff continued compiling Work Center Planning Day results and creating a Parking Board listing for QST review.
- b. The updating and categorizing of training program procedures continued.
- c. Communication materials for 2019 training offerings were distributed. Materials were prepared for February events.
- d. The Organizational Professional Services Request for Proposal (RFP) was initiated. An organizational needs survey was conducted. The RFP was finalized, a selection team was formed, and the team reviewed the scope of work.
- e. An OD&T staffing analysis was conducted to clarify staffing needs, roles and responsibilities.
- f. The OD&T Manager coordinated with regional OD&T managers on participation in training held by the City of Norfolk in July.
- g. The following programs were conducted:
 - (1) Beginning and Advanced Coaching
 - (2) Emotional Intelligence Intensive

2. Apprenticeship Program

- a. The Learning Management System (LMS) team participated in an LMS demonstration of a product available through a Virginia shared services contract. Team members are testing the product for effectiveness and plan to report findings next month.
- b. Work continued with the subject matter experts on developing a Wastewater Analysis e-Learning course scheduled to begin in early spring.
- c. Entry of historical training and program information and scanning of historical records into ERP continued.

- d. Apprenticeship Program information was provided to the Director of Communications for an article in Water Environment Federation's publication, *Currents*.
- e. A Pre-Apprenticeship orientation was held for new apprentices.

3. General

- a. The internal Quality Facilitator Recruitment process continued.
- b. Staff participated in the following HRSD activities:
 - (1) Inaugural Leadership Day
 - (2) Document Retention team
- c. Staff participated in the following training:
 - (1) Mentor Coach's *Executive Coaching*
 - (2) A Hyperion Budget Information Session

C. Safety

1. Mishaps and Work Related Injuries

- a. HRSD-Wide Injury Mishap Status to Date (OSHA Recordable)

	<u>2018</u>	<u>2019</u>
Mishaps	45	3
Lost Time Mishaps	6	1
<i>Numbers subject to change pending HR review of each case.</i>		

- b. MOM Program Year Performance Measure Work-Related Injuries

January 2019 Injuries For Operations	January 2019 Injuries for Other HRSD Departments	Total Lost Time Injuries Since July 2018	Total HRSD Injuries Since July 2018
3	0	3	29

- c. Follow-up investigations were performed on three reported work-related injuries.

2. HRSD Safety Training

Strategic Planning Measure	Unit	January 2019
Total Safety Training Hours per Full Time Employee (836) All HRSD – January 2019	224.25 Hours / 836 FTE	0.27
Total Safety Training Hours Per Full Time Employee (836) – Cumulative July 2018	2263.55 Hours / 836 FTE	2.7

3. In addition to regularly scheduled safety training and medical monitoring, the following sessions were conducted:

- a. Three external briefings for contractors working at treatment plants and pump stations
- b. Telehandler Safety Training for Army Base Treatment Plant (TP) employees
- c. Boom Lift Safety Training for Machine Shop employees
- d. Seven Chemical Hygiene Plan training sessions for Water Quality, and SWIFT Research Center (SWIFT RC) employees.
- e. An Industrial Hygienist coordinated 29 onsite Commercial Driver's License (CDL) physicals for North Shore Operations employees.

4. Safety Inspections, Testing and Monitoring

- a. Weekly onsite inspections of the following construction sites:
 - (1) Army Base TP
 - (2) Atlantic TP
 - (3) Newtown Road Pump Station
 - (4) Rodman Pump Station
 - (5) Shipp's Corner Pump Station
 - (6) Virginia Initiative Plant
 - (7) Willoughby Avenue Pump Station
 - (8) York River TP

b. Quarterly safety inspections of the following work centers:

- (1) Apprenticeship Classrooms
- (2) Army Base TP
- (3) Boat Harbor TP
- (4) Lawnes Point TP
- (5) Nansemond TP
- (6) North Shore Automotive, Carpentry, and Electrical Shops
- (7) North Shore Interceptors
- (8) North Shore Pretreatment and Pollution Prevention (P3)
- (9) Surry TPs and Pump Stations
- (10) SWIFT RC

c. Monitoring and testing for the following:

- (1) Monthly velocity tests on Central Environmental Laboratory (CEL) and Technical Services Division (TSD) lab hoods
- (2) An asbestos survey of the Washington Avenue pump station
- (3) Ventilation surveys of drywells at fourteen North Shore and four South Shore pump stations

d. Safety walk-throughs and evaluations:

- (1) An Industrial Hygienist evaluated a potential aeration tank fall risk hazard at the Army Base TP
- (2) The Safety Manager and Industrial Hygienist evaluated an Unsafe Work Condition report at the Nansemond TP

5. Safety Programs

a. Twenty-two work centers received full recognition for no OSHA recordable lost time work-related injuries and ten work centers received partial recognition for a reduced number of work related injuries.

b. The following was performed in relation to the Confined Space Entry Program:

- (1) Met with VIP Superintendents to develop confined space entry permits for new construction
- (2) Reviewed North Shore and South Shore Interceptor confined space permits

- c. Various hot work permits were issued for contractors working at the following pump stations:
 - (1) Rodman Avenue
 - (2) Shipps Corner
- d. The Safety Manager worked with HR on completion of the Occupational Health and Safety Administration (OSHA) 300 Log which was distributed and posted at all work centers prior to the deadline.
- e. Staff began developing reports and updates to emergency response procedures for work centers to meet Superfund and Reauthorization Act (SARA) Title III requirements.
- f. A Safety Notice on Ladder Labels was developed and distributed.
- g. Lock Out/Tag Out procedures were updated for Army Base TP centrifuges.
- h. The 2019 Safety Calendar was posted on SharePoint.
- i. A Safety Data Sheet was developed for a TSD custom micro-nutrient mix.
- j. Order forms were distributed to employees for the Prescription Safety Glasses program.

6. General

- a. The Safety Manager participated in the inaugural Leadership Day.
- b. The Safety Manager attended Hyperion Budget Model training.

D. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (5)

- a. Water Environment Federation's *Virtual Career Fair*, January 16
- b. City of Norfolk's Local Emergency Planning Commission meeting, January 16.

- c. Hosted a Hampton Roads Public Works Academy meeting, January 25
 - d. Instructed Hampton Roads Public Works Academy's *You're Hired, Now What?*, January 29
 - e. Christopher Newport University's Career Fair, January 30.
2. Community Partners: (3)
- a. City of Norfolk's Local Emergency Planning Commission
 - b. Hampton Roads Public Works Academy
 - c. Christopher Newport University
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2019
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.88
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0.25
M-1.4a	Total Training Hours Per Full Time Employee (17) – Current Month	Total Training Hours/ FTE	0.88
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	30.44
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Community Partners	Number	3

Respectfully submitted,
Paula A. Hogg
 Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for January 2019
DATE: February 12, 2019

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed four civil penalties this month.

Miller's Neighborhood Market – Williamsburg

An Enforcement Order was issued to Miller's Neighborhood Market in December 2018 for an Unauthorized Discharge, Harm Caused. The Order contained an invoice totaling \$2,500 in Civil Penalties.

In October 2018, a neighboring business complained of gasoline odors inside their business. An investigation ensued with James City Service Authority and York County Fire and Rescue. Gasoline odors were detected in the sanitary sewer system which resulted in elevated Lower Explosive Limits (LELs). The Miller's Neighborhood Market was isolated as the source, resulting from a contractor mistakenly dumping what they believed to be only water into an oil/water separator.

The contractor has been instructed not to dispose of water from gasoline tanks into any oil water separators or into the sanitary sewer or storm water system in any way.

The Enforcement Order was accepted and the Civil Penalty was paid in January 2019. Additionally, Miller's Neighborhood Market has paid a Cost Recovery invoice in the amount of \$1,922.87 for investigative costs associated with this incident.

Norfolk International Terminals – Norfolk

An Enforcement Order was issued to Norfolk International Terminals in December 2018 for technical violations that occurred between April and October 2018. The Order contained an invoice totaling \$4,200 in Civil Penalties.

The technical violations included three violations for use of expired pH buffer solution and three COD:BOD ratio permit limit exceedances. A Show Cause meeting was held in January 2019. The permittee coordinated with their contract laboratory to prevent future use of expired pH buffer. The permittee is currently identifying potential sources and developing a sample plan to pinpoint the source of the elevated COD concentrations. The Enforcement Order was accepted and the Civil Penalty was paid in January 2019.

Marva Maid Dairy – Newport News

An Enforcement Order was issued to Marva Maid Dairy in December 2018 for multiple technical violations. The Order contained an invoice totaling \$12,000 in Civil Penalties.

The majority of the Civil Penalty (\$8,000) was related to repeated oil and grease exceedances. Marva Maid Dairy has hired a consulting firm to assist with the selection and installation of additional pretreatment equipment. An Administrative Order, with a Compliance Schedule, has been issued to the facility for oil and grease.

The remaining Civil Penalty (\$4,000) was associated with a low pH and failure to maintain their pH monitoring equipment. In September 2018, a roof collapse resulted in the need to move chemicals from one area of the facility to another. During this transfer, a pump seal failed, resulting in an acidic solution being released to the sanitary sewer.

During an October 2018 HRSD sampling event, HRSD staff observed that the continuous pH monitoring equipment had been removed from the waste stream and placed in a bucket of water. There were repeated occurrences of this over multiple days, even after notification had been made to facility representatives. Installation of this pH monitoring equipment was required due to previous pH non-compliance (with Civil Penalty).

The Enforcement Order was accepted and the Civil Penalty was paid in January 2019.

Norfolk Naval Shipyard– Portsmouth

An Enforcement Order was issued to Norfolk Naval Shipyard in December 2018 for multiple technical violations and one administrative violation. The Order contained an invoice totaling \$15,000 in Civil Penalties.

The technical violations included a total of eight permit limit exceedances for Copper, Zinc, and Nickel from April through October 2018. The administrative violation was issued for a late response to a Notice of Violation in November 2018. A Show Cause meeting was held in August 2018. To date, the permittee has been unable to identify a source of the elevated metal concentrations. Internal investigation and source tracking sampling is ongoing.

As a Federal Facility, Norfolk Naval Shipyard is not required to pay Civil Penalties.

2. The Director and the Chief of the Technical Services Division met with staff of the Virginia Department of Environmental Quality (DEQ) and others to discuss the possibility of, and issues associated with, developing a general permit in Virginia for the land application of Class A biosolids. HRSD currently produces Class B biosolids and land application of those biosolids is regulated through a plant-specific permit with the state. The HRSD Atlantic Plant is currently building technology to produce Class A biosolids, but the interpretation of state regulations for Class A biosolids land application differs greatly between permittees and the state, so much so that HRSD cannot follow both interpretations and properly serve its ratepayers. These differences have resulted in a significant delay of issuance of the Atlantic Plant permit. A general permit approach has the potential to address state concerns while giving HRSD the ability to readily land apply Class A biosolids. Discussions during this meeting should help HRSD and DEQ complete development of the Atlantic Plant permit.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy Group (SEA) reported three activities for the month of January.
 - a. Communications: An article was written on the recycling problem nationally and at HRSD; specifically, Waste Management turning away our recycling. SEA is looking for an avenue to distribute the article.
 - b. Community Clean-Ups: Members will identify areas of interest and pilot a clean-up effort in those areas to be sure we have the necessary support before officially requesting Adopt-a-Spot recognition.
 - c. R3 Support: Multiple initiatives are under development to get the message out to staff of the recycling problem nationally and at HRSD.

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 Hanover County to support monitoring required for its Virginia Pollution Discharge Elimination System (VPDES) permit.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 2

- a. Provided a Technical Services Division(TSD)/ Central Environmental Lab (CEL) tour to VIMS Staff Writers for VA Sea Grant Program on January 22, 2019
- b. Provided TSD WQSB / CEL tour to University of Virginia Environmental Studies student on January 7, 2019

2. Community Partners: 7

- a. City of Hampton
- b. City of Newport News
- c. City of Suffolk
- d. City of Virginia Beach
- e. Elizabeth River Project
- f. Virginia Department of Environmental Quality
- g. Virginia Department of Health Division of Shellfish Sanitation

3. Odor Complaint: 1

An odor complaint was received by Small Communities Division (SCD) on January 17, 2109. Tibbs Automotive in King William, VA reported the detection of sewer odors at their business. SCD and TSD investigated and found the manhole behind Tibbs as the source of the complaint. This location was addressed two years ago by installing a manhole carbon filter insert. The carbon media had reached its useful life and was replaced to abate any further odors. No further complaints have been received.

4. IWD System Related Issues: 1

On January 3, P3 was notified by Arconic in Hampton of a hazardous material spill of Zyglo dye penetrant and water mixture to the sanitary

sewer. The material was contained and removed for proper disposal and the HRSD system was not impacted.

5. Monthly Metrics

Item #	Strategic Planning Measure	Unit	January 2019
M-1.4a	Training During Work Hours Per Full Time Employee (109) (Current Month)	Total Hours / # FTE	7.11
M-1.4b	Total Training During Work Hours Per Full Time Employee (109) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	30.55
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	1:35,513
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	111,617,007
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	18%
M-5.2	Educational and Outreach Events	#	2
M-5.3	Community Partners	#	7
	Average Daily Flow	Total MGD for all Treatment Plants	168.15
	Industrial Waste Related System Issues	#	1

Respectfully submitted,
James Plett, 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 projects, and the status of current management action plan (MAP) monitoring.

I. Projects in Process

Business Continuity and Disaster Recovery

- **Upcoming Tasks (Q1 2019)**
 - 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.
 - SC&H will present an annual update to the Commission at the February 2/26 meeting, which will include a summary of this audit and resulting observations

Customer Care

- **Tasks Completed (January 2019)**
 - Finalized flowchart documentation
 - Prepared finalized audit objectives and discussed with process owners
 - Finalized audit program testing steps
 - Communicated fieldwork documentation requests
 - Began fieldwork testing/ sampling
- **Upcoming Tasks (February 2019)**
 - Continue fieldwork procedures, including testing and desk side walkthrough
 - Draft observations as noted
 - Draft final audit report

2018 Risk Assessment Refresh

- **Tasks Completed (January 2019)**
 - Requested and incorporated feedback from external audit and HRSD Commission
 - Finalized HRSD risk assessment and audit plan
 - Discussed updates with HRSD management contacts
 - Drafted updated risk assessment and audit plan for presentation to Commission
- **Upcoming Tasks (February 2019)**
 - Finalize risk assessment update for presentation to Commission
 - Present to Commission on 2/26/19

Safety

- **Tasks Completed (January 2019)**
 - Coordinated with process owners to schedule entrance meeting
 - Began internal project planning and coordination
- **Upcoming Tasks (February 2019)**
 - Conduct entrance meeting with applicable process owners
 - Identify main points of contact
 - Communicate initial documentation request list
 - Prepare project framework documentation



II. Upcoming Projects (FY2019)

SC&H’s next audit will pertain to the Permitting/ Reporting/ QA functions at HRSD and is scheduled to begin in Q2 of calendar year 2019.

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.

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/2016	June-19	11	2	13
Biosolids Recycling	10/8/2016	July-19 Pending Permit	7	1	8
HR Benefits	11/22/2016	In Process	15 (3 pending final verification)	0	15
Inventory	4/20/2017	May-19	1	4	5

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
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%
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%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%	69.00%	68.00%	85.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1
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
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
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
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%
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
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66
M-3.6	Alternate Energy	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256
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
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423
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%
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
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	73%	76%	76%
	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%
	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%

Monthly Updated Metrics													FY-19	FY-19
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	Dec-18	Jan-19
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	161.8	168.2
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	0	1
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	102%	103%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	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	\$24,086,401	\$23,967,390
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	19%	18%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	1:30440	1:35513
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	1	1
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	95,990,708	111,617,007
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	18%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	19	20
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	14	19

EFFLUENT SUMMARY FOR JANUARY 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	12.86	71%	6	6.5	8	4	0.25	0.25	4.5	4.5	NA	NA	11
ATLANTIC	27.73	51%	11	11	3	2	NA	NA	NA	NA	NA	NA	4
BOAT HARBOR	19.28	77%	7	9.0	2	1	0.49	0.49	19	19	NA	NA	5
CENT. MIDDLESEX	0.008	32%	<2	1.6	<1	<1	NA	NA	NA	NA	0.73	0.03	NA
CHES-ELIZ	18.25	76%	17	14	8	5	0.89	0.89	30	30	NA	NA	8
JAMES RIVER	16.13	81%	5	6.5	2	2	0.62	0.62	8.1	8.1	NA	NA	2
KING WILLIAM	0.063	63%	<2	<1.0	NA	<1	0.03	0.03	1.0	1.0	0.97	NA	NA
NANSEMOND	18.34	61%	7	8.2	3	3	1.3	1.3	6.4	6.4	NA	NA	11
SURRY, COUNTY	0.089	136%	4	<1.0	NA	NA	NA	NA	NA	NA	<0.50	NA	0
SURRY, TOWN	0.084	140%	5	15	NA	30	NA	NA	NA	NA	0.99	0.18	NA
URBANNA	0.044	44%	11	19	3	5	2.6	2.6	10	10	NA	0.05	NA
VIP	30.71	77%	5	4.5	2	1	0.54	0.54	3.7	3.7	NA	NA	0
WEST POINT	0.701	117%	21	13	1	2	1.5	1.5	12	12	NA	NA	0
WILLIAMSBURG	8.20	36%	4	4.4	1	2	0.51	0.51	4.0	4.0	NA	NA	3
YORK RIVER	15.65	104%	7	1.3	1	<1	0.27	0.27	6.2	6.2	NA	NA	3
	<u>168.15</u>												

	% of Capacity
North Shore	72%
South Shore	65%
Small Communities	99%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection	CY19	YTD	Projection	CY19
	%	Lbs	%	%	Lbs	%
James River	8%	4,116,554	90%	7%	278,486	87%
York River	9%	266,402	92%	7%	16,100	83%
Rappahannock	9%	NA	NA	33%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY19 to Date: 1:35,513
Pounds of Pollutants Removed in FY19 to Date: 111,617,007
Pollutant Lbs Discharged/Permitted Discharge FY19 to Date: 18%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	3.29"	3.81"	3.84"
Normal for Month	3.36"	3.05"	3.43"
Year to Date Total	3.29"	3.81"	3.84"
Normal for YTD	3.36"	3.05"	3.43"

AIR EMISSIONS SUMMARY FOR JANUARY 2019

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	BZ Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave (F)	12 hr ave (in. WC)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	12 hr ave (GPM)	pH 3 hr ave	Bypass Stack Use	Mo. Ave (PPM)	DC (%)	Daily Ave Days >Max
ARMY BASE	0	0	0	0	0	0	0	1	24	90	0
BOAT HARBOR	0	0	0	n/a	0	0	4	0	34	97	0
CHES-ELIZ	1	3	0	0	0	0	1	1	16	99	0
VIP	0	0	0	n/a	0	0	0	1	79	100	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	9	98	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action (RCA):	0
DEQ Warning Letter:	0
DEQ Notice of Violation (NOV):	1
Other Air Permit Deviations:	0
Odor Complaints Received:	1
HRSD Odor Scrubber H2S Exceptions:	1

AGENDA ITEM 17.e. – February 26, 2019

Subject: Westminister Drive Force Main Replacement
Emergency Declaration

CIP Project: YR013500

Recommended Action: No action is required. Information Only

Brief: On January 30, 2019, North Shore Interceptors responded to a failure of a 10-inch cast iron force main along Westminister Drive in Hampton. The failure was quickly isolated to minimize sewage loss and impacts to the environment. An estimated total of 15,500 gallons of sewage was lost.

This was the fifth failure along this force main since 2014. Previous failures occurred in April 2014, March 2016, November 2016 and May 2018. A metallurgic analysis was performed after the March 2016 failure and determined that the failure was ‘consistent with brittle failure possibly caused by an overload. The analysis also noted that “significant graphitic corrosion” was present along the bottom of the pipe and results in substantial reduction of pipe wall strength. The latest failure is consistent with the graphitic corrosion along the bottom of the pipe as a hole was observed at the six o’clock position (bottom).

An emergency declaration was authorized on January 30, 2019. This authorization was for engineering services, procurement of materials and contract(s) with licensed contractor(s) to complete the installation of a replacement force main. North Shore Operation’s crews responded to and fixed the failure quickly, however, diversions remain in place to minimize the pressures this pipe experiences until the replacement is completed.

With five failures within a four-year window, it is imperative that HRSD act to replace this pipe without delay. The emergency declaration will also provide a means to enact the complete replacement of this pipe quickly. The approach for this work is to do a very simplified design and bid package and obtain a minimum of three independent contractor prices. Materials for this project are currently being procured through HRSD to speed up the process. We are hoping to have this work complete by mid-April.

The estimated cost of this work is \$833,090 and the initial repair will be funded from the Operations Department Fiscal Year 2019 Operating Budget. A future request to fund the planned CIP project for this work will be forthcoming.

HRSD COMMISSION MEETING MINUTES
FEBRUARY 26, 2019

ATTACHMENT #10

AGENDA ITEM 18. – Fiscal Year-2020 Annual Budget and Internal Audit Update
Presentation



FY2020 Budget Work Session
February 26, 2019

- Internal Auditor Update and FY20 Work Plan
- Information Technology Work Plan
- Review of Current Financials and Financial Forecast
- Customer Assistance Pilot Program Update
- Revenue Policy Update
- New Surcharge Program Implementation
- FY20 Preliminary Hospitalization Forecast
- Compensation Study

SC&H Update and FY20 Work Plan



HRSD

Hampton Roads Sanitation District

Internal Audit Update
February 26, 2019



INTERNAL AUDIT TEAM PRESENT

Matthew Simons, CPA, CIA, CGAP
Engagement Principal

Ryan Kohan, CPA
Manager, Team Lead

Sam Fitzgerald, ITIL, CISA, CISM
IT Audit Manager

AGENDA

Meeting Topics

- Internal Audit Impact
- Internal Audit Progress Update
- Internal Audit Summaries
- Internal Audit Plan: FY20
- Discussion and Questions
- Supplemental Information

INTERNAL AUDIT IMPACT

Statistics

- 4 risk assessment exercises
- 17 audits through FY2020
- 18 of 29 high risk functions to be assessed (62%)
- 26 of 58 total functions to be assessed (45%)
- 34 closed management action items (46%)

HRSD Effort

Effort = Risk reduction; process enhancement; strategic development

- On-going departmental commitment to improvement
- Enhanced awareness of risks and controls within processes
- Collaboration with Internal Audit

INTERNAL AUDIT PROGRESS UPDATE

Audit/Task	Department	Status
Treatment Plants	Operations	Completed
Business Continuity/ Disaster Recovery	Organization-Wide	Completed*
Customer Care	Finance	Fieldwork Phase
Safety	Talent Management	Planning Phase
Permitting, Regulatory Reporting, Quality Assurance	Water Quality/ Operations	Planned: Q4 FY2019
Risk Assessment Refresh	Organization-Wide	Completed
Management Action Plan Evaluation	Organization-Wide	Ongoing

*Audit and report complete. Management action plan development in process.

INTERNAL AUDIT SUMMARIES

Treatment Plant Operations

Summary Results

- User access review (DCS and CMMS)
- CMMS work order documentation review
- Preventative maintenance schedules in CMMS
- Preventative maintenance timeframes
- Availability of preventative maintenance instructions to field staff
- Segregation of duties over work order entries in CMMS

INTERNAL AUDIT SUMMARIES

Business Continuity/ Disaster Recovery

Summary Results

- Organization-wide Business Continuity Plan (BCP)
- Organization-wide Disaster Recovery Plan (DRP)
- Centralization of key processes and periodic maintenance of disaster recovery procedures and documentation
- Damage assessment procedures

INTERNAL AUDIT PLAN: FY20

Audit/Task	Department	Status
Payroll and Timekeeping	Organization-Wide/ Finance and Accounting	Q1, FY 2020
Pollution Source Control	Water Quality	Q2, FY 2020
SWIFT	Engineering	Q3, FY 2020
Fleet Management	Operations	Q4, FY 2020
Risk Assessment Refresh	Organization-Wide	Q2, FY 2020
Management Action Plan Evaluation	Organization-Wide	On-going

DISCUSSION AND QUESTIONS

SUPPLEMENTAL INFORMATION

Enclosed Information

- Management Action Plan Progress
- Risk Assessment Refresh Summary
- Risk Ranking Matrix: Year 3 vs Year 4
- Audit Universe Summary: High Risk
- Audit Universe Summary: Low Risk

MANAGEMENT ACTION PLAN PROGRESS

Department	Audit	Obs.	Rec	Open	Close	Follow Up
Engineering	Design and Construction: Construction: CIP Project Project Management	8	13	2	11	Q3, 2019
Water Quality	Biosolids Recycling Program	5	8	1	7	Q3, 2019
Talent Management	HR Administration of Employee Health Insurance Insurance	6	15	-	15	Q1, 2019
Operations	Inventory Management	5	5	4	1	Q2, 2019
Finance	Procurement and P-Card Administration	6	11	11	-	Q2, 2019
Engineering	Engineering Procurement Procurement	4	8	8	-	Q3, 2019
Organization-wide wide	Corporate Governance	3	5	5	-	Q3, 2019
Operations	Treatment Plants	6	9	9	-	Q2, 2020

*Totals are not inclusive of confidential/ sensitive audit results.

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RISK ASSESSMENT REFRESH SUMMARY

Summary

- Objectives
 - Reassess existing audit universe and risk factors
 - Determine if risks and audit priorities have changed/ shifted since the previous risk assessment
 - Prepare/revise the FY2019-20 audit plans
 - Determine opportunities for potential future audits, beyond FY2020
- Contributing factors
 - Interviews with HRSD leadership and external auditors
 - HRSD knowledge gained through FY2016-19 audit procedures
 - Informational research and analysis
- Results
 - Revised Audit Universe risk rankings
 - Revised FY2019 and 2020 audit plans

RISK RANKING MATRIX: YEAR 3 VS. YEAR 4

Year 3: 2017

IMPACT	High	0	6	16
	Moderate	2	21	5
	Low	1	5	0
		Low	Moderate	High
		LIKELIHOOD		

Total by color:	27
	21
	8
Grand Total	56

Year 4: 2018

IMPACT	High	0	8	15
	Moderate	2	21	6
	Low	1	5	0
		Low	Moderate	High
		LIKELIHOOD		

Year 4

Total by color:	29
	21
	8
Grand Total	58

AUDIT UNIVERSE SUMMARY: HIGH RISK

Background		Year 4			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Likelihood	Impact	Overall Risk	Last Audited	Audit Year
Engineering	Design & Construction: CIP Project Management	H	H	H	FY2016	FY2016
Engineering	Design & Construction: Procurement Process	H	H	H	<i>FY17/18</i>	FY17/18
Engineering	Design & Construction: Emergency Repairs	H	H	H	<i>N/A</i>	<i>TBD</i>
Engineering	SWIFT Program	H	H	H	<i>N/A</i>	FY2020
Finance & Accounting	Accounting: Debt Management	H	H	H	<i>N/A</i>	<i>TBD</i>
Finance & Accounting	Customer Care: Billing	H	H	H	<i>N/A</i>	FY2019
Finance & Accounting	Procurement: Process	H	H	H	FY2017	FY2017
Information Technology	IT: Applications (e.g. ERP, GIS, SCADA, CMMS, CC&B, and other)	H	H	H	<i>N/A</i>	<i>TBD</i>
Information Technology	IT: Network Security/Cybersecurity	H	H	H	FY2018	FY2018
Information Technology	IT: Disaster Recovery	H	H	H	<i>FY2019</i>	FY2019
Operations	Electrical & Energy Management	H	H	H	<i>N/A</i>	<i>TBD</i>
Operations	Treatment Plants	H	H	H	<i>FY18/19</i>	FY18/19
Water Quality	Regulatory/Reporting (e.g. Water, Air, Solids, Nutrients)	H	H	H	<i>N/A</i>	FY2019
Water Quality	Quality Assurance (Accreditation)	H	H	H	<i>N/A</i>	FY2019
Enterprise-Wide	Business Continuity & Disaster Recovery (Operations)	H	H	H	<i>FY2019</i>	FY2019

AUDIT UNIVERSE SUMMARY: HIGH RISK, CONTINUED

Background		Year 4			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Likelihood	Impact	Overall Risk	Last Audited	Audit Year
Engineering	Planning & Analysis	H	M	H	N/A	TBD
Finance & Accounting	Accounting: Payroll	H	M	H	N/A	FY2020
Finance & Accounting	Accounting: Cash Management and Investments	M	H	H	N/A	TBD
Finance & Accounting	Procurement: Contract Management	M	H	H	N/A	TBD
Information Technology	IT: Data Management and Operations	H	M	H	N/A	TBD
Information Technology	IT: Governance	M	H	H	N/A	TBD
Information Technology	IT: Data Center Physical Security and Environmental Controls	M	H	H	N/A	TBD
Talent Management	HR: Compensation and Benefits	H	M	H	FY2017	FY2017
Talent Management	Safety	M	H	H	N/A	FY2019
Water Quality	Permitting Operations	M	H	H	N/A	FY2019
Water Quality	Pollution Source Control	M	H	H	N/A	FY2020
Enterprise-Wide	Insurance (Risk Management)	H	M	H	N/A	TBD
Communications	Communications	M	H	H	N/A	TBD
Communications	Construction Claims	H	M	H	N/A	TBD

AUDIT UNIVERSE SUMMARY: MODERATE & LOW RISK

Background		Year 4			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Likelihood	Impact	Overall Risk	Last Audited	Audit Year
Engineering	Asset Management (Y3 Implementation)	M	M	M	N/A	TBD
Finance & Accounting	Accounting: General Accounting, Financial Reporting, and Process	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Accounts Payable	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Fixed Assets	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Revenue/Accounts Receivable	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Grants Management	M	M	M	N/A	TBD
Finance & Accounting	Customer Care: Mail Center & Payments	M	M	M	N/A	FY2019
Finance & Accounting	Customer Care: A/R & Delinquent Accounts	M	M	M	N/A	FY2019
Finance & Accounting	Procurement: P-Card Administration	M	M	M	FY17/18	FY17/18
Finance & Accounting	Procurement: Surplus Program	M	M	M	N/A	TBD
Information Technology	IT: Vendor and Contractor Management	M	M	M	N/A	TBD
Operations	Support Systems: Facilities Management	M	M	M	N/A	TBD
Operations	Support Systems: Fleet	M	M	M	N/A	FY2020
Operations	Water Technology & Research	M	M	M	N/A	TBD
Operations	Inventory	M	M	M	FY2017	FY2017
Talent Management	HR: Recruiting/Onboarding/Offboarding	M	M	M	N/A	TBD

AUDIT UNIVERSE SUMMARY: MODERATE & LOW RISK, CONTINUED

Background		Year 4			Planning	
AUDIT DETAILS		RISK RANKINGS			HISTORY	
Department	Audit Area	Likelihood	Impact	Overall Risk	Last Audited	Audit Year
Talent Management	Organizational Development & Training	M	M	M	N/A	TBD
Water Quality	BioSolids (Special Project)	M	M	M	FY16/17	FY16/17
Water Quality	Operations	M	M	M	N/A	TBD
Enterprise-Wide	Corporate Governance	M	M	M	FY2018	FY2018
Enterprise-Wide	Corporate Policies and Procedures	M	M	M	N/A	TBD
Finance & Accounting	Accounting: Budgeting	M	L	L	N/A	TBD
Finance & Accounting	Customer Care: Call Center	L	M	L	N/A	FY2019
Information Technology	IT: Mobile	M	L	L	N/A	TBD
Operations	Support Systems: Machine Shop and Carpentry Shop	L	M	L	N/A	TBD
Talent Management	HR: Strategy	M	L	L	N/A	TBD
Enterprise-Wide	Physical Security	M	L	L	N/A	TBD
Enterprise-Wide	Media & Public Relations	M	L	L	N/A	TBD
Enterprise-Wide	Legal Operations (Managing Attorneys)	L	L	L	N/A	TBD
Information Technology	IT: SDLC and Change Management	N/A	N/A	N/A	N/A	TBD
Information Technology	IT: Access Provisioning/De-Provisioning	N/A	N/A	N/A	N/A	TBD

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Proposal to Establish a Cybersecurity Division

- The concept of security is simple, but executing security is a journey for which there are no shortcuts. It changes often and is no longer simply about technology. It's expensive and requires continuous investment. It takes time and requires constant attention and evolution. It forms complex relationships and is part of everything you do, and the need for it never ends. Endeavor to persevere.*

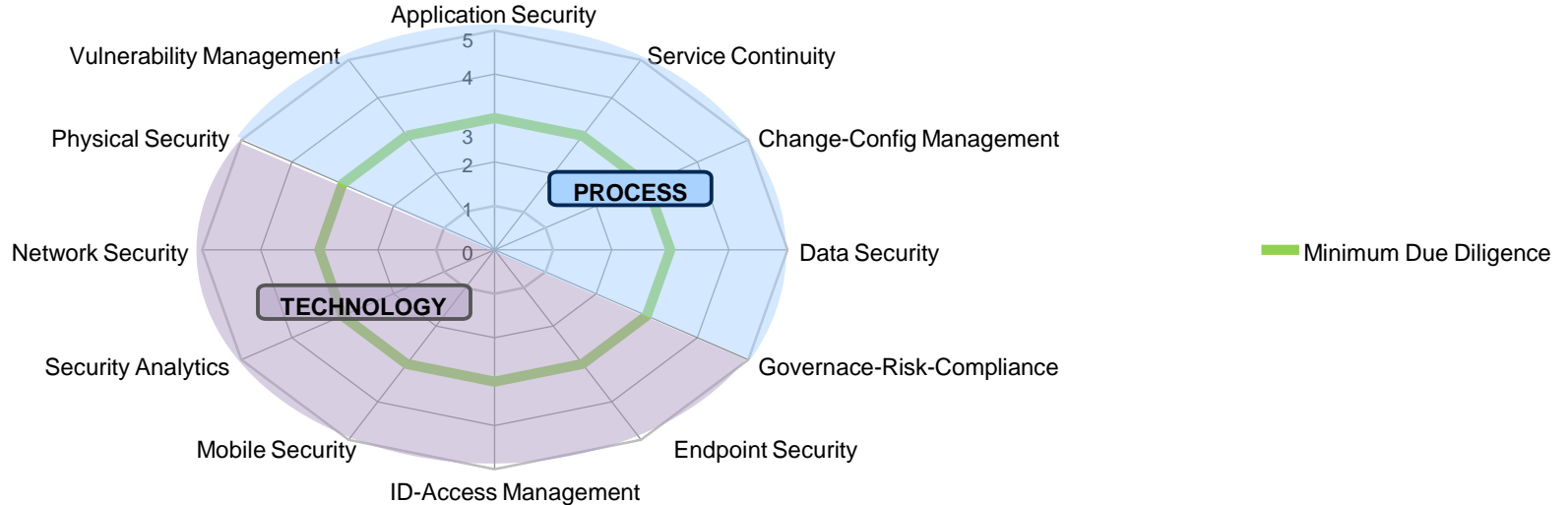
Gartner



Cybersecurity Proposal

Security Maturity and the Minimum Standard of Due Diligence

Security Maturity is a measure of an organization's ability to protect itself and its services in the current threat landscape

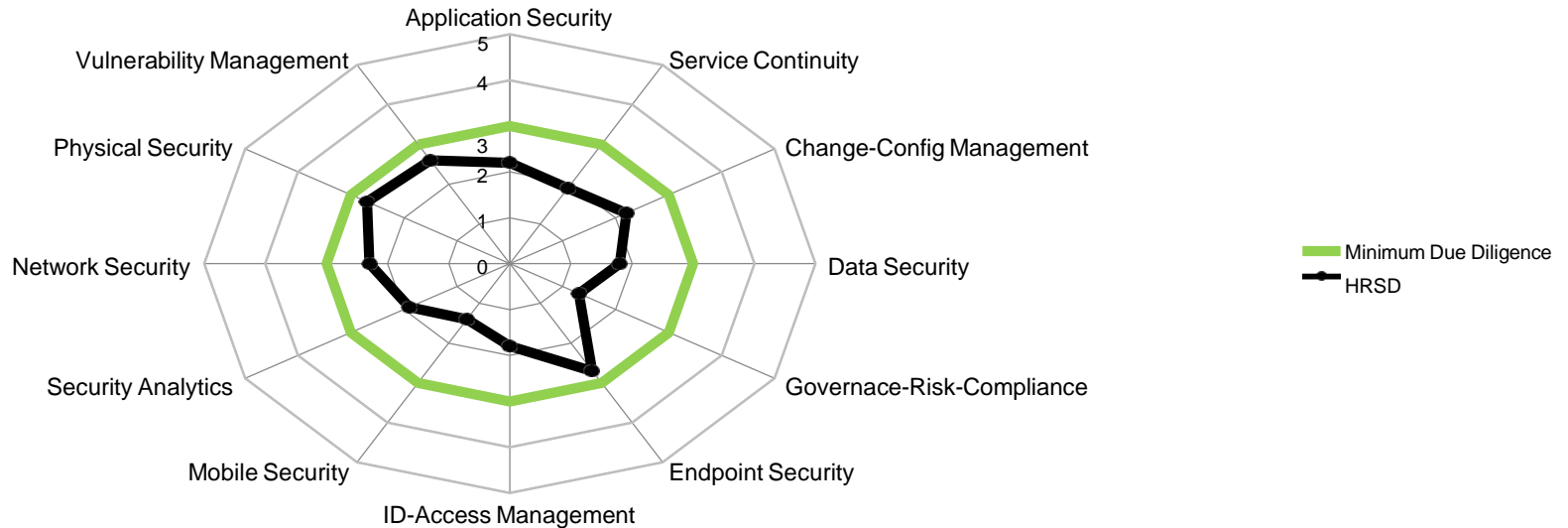


“By 2020, organizations that are below maturity Level 3 in their InfoSec program will have increased judicial, legislative, and regulatory liability over those at Level 3 and above”

Gartner

Cybersecurity Proposal

Security Maturity: HRSD Current-state

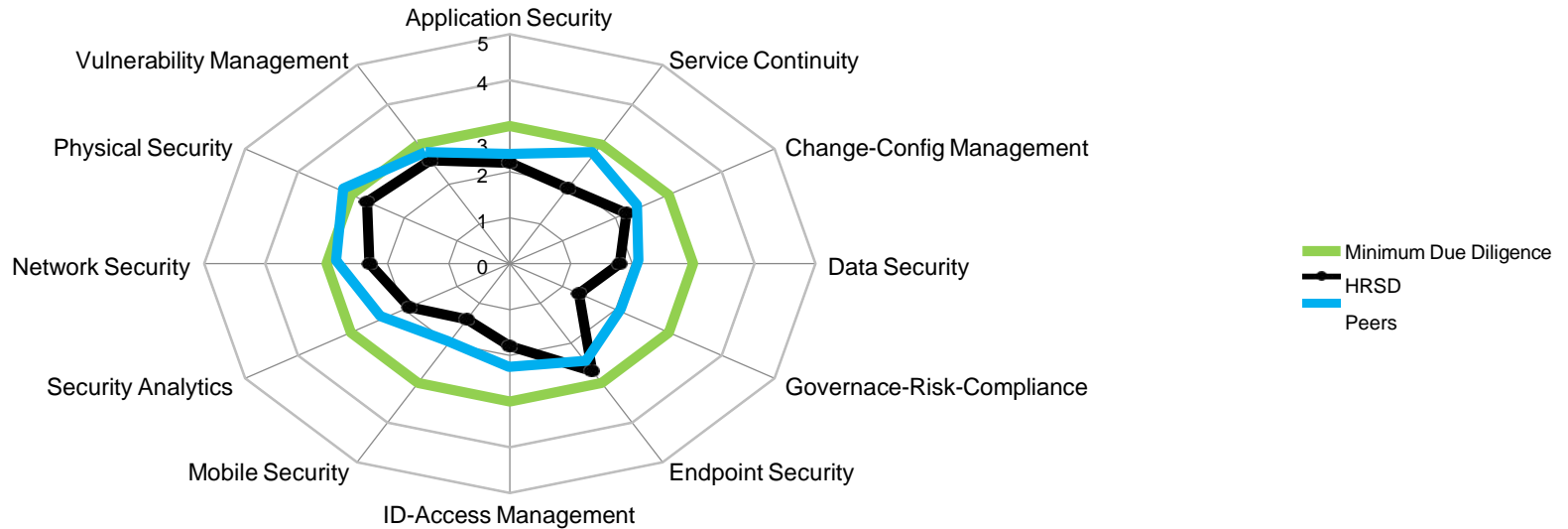


“By 2020, organizations that are below maturity Level 3 in their InfoSec program will have increased judicial, legislative, and regulatory liability over those at Level 3 and above”

Gartner

Cybersecurity Proposal

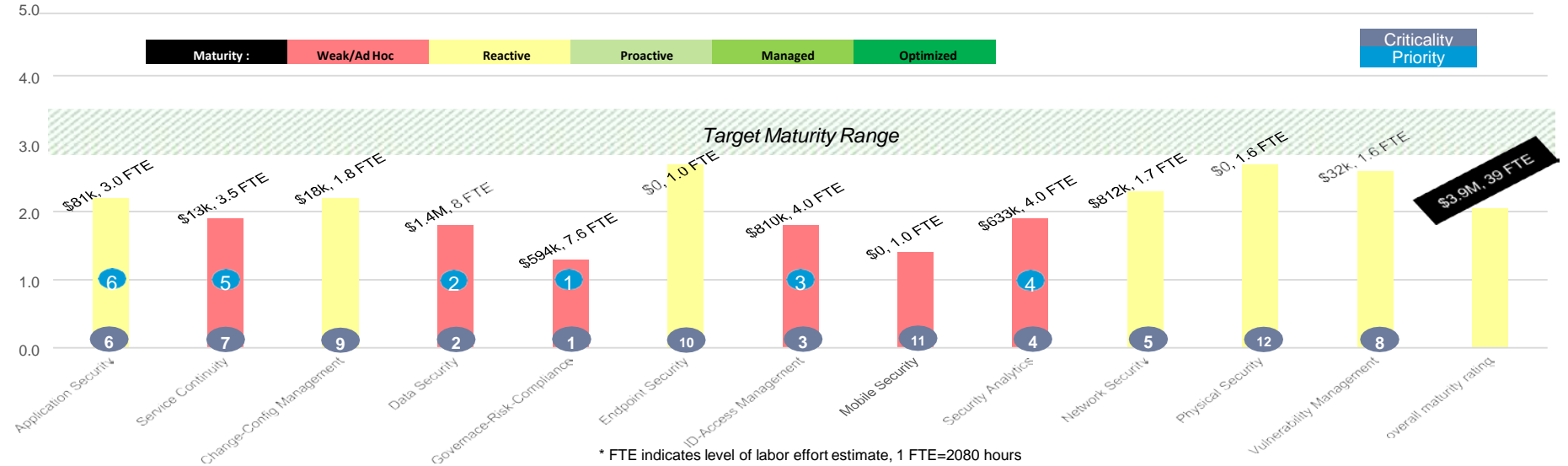
Security Maturity Comparison: HRSD ▲ Peers



Peer Group is comprised of water/wastewater treatment/resource management/critical infrastructure entities of similar size and complexity of operations

Cybersecurity Proposal

Security Maturity: Relationship to HRSD Security Investment



- Five Year Prescriptive Plan Containing 54 Action Items
- Standards-Based and Iterative
- Maximizes Outsource Opportunities
- Minimizes Long Term FTE Support



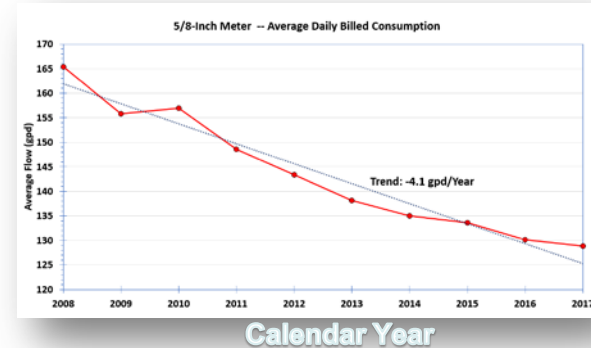
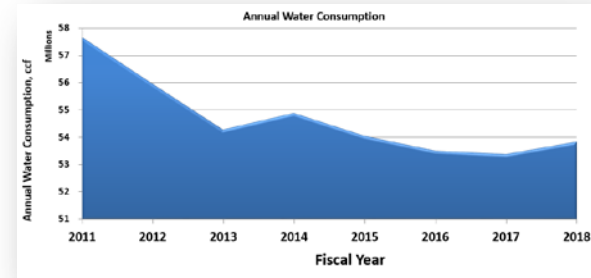
Cybersecurity Proposal

- RECOMMENDED ACTIONS
 - Create a Cybersecurity Division Within IT
 - Hire a Chief Information Security Officer (CISO) Grade 11
 - Hire an Information Systems Security Manager Grade 9
 - First Year Funding of \$1 Million
 - Plan of Action to Execute Year Objectives
 - Best-Fit Sustainable Solution
 - Annual Commission Updates on Cybersecurity

Current Financials and Financial Forecast

Current FY19 Financials

- Revenue slightly higher than budget
 - Water consumption flat relative to FY18 Actuals
 - Continued declines on a per meter basis offset by new accounts
- Expenses less than budget
 - Expect to be closer by June



FY19 Financial Metrics

Unrestricted Cash as of Jan 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	\$ 238,172,795		516
Risk Management Reserve	\$ (3,399,949)	-7	509
Reserve	\$ (15,266,324)	-33	476
Capital (PAYGO only)	\$ (48,892,256)	-106	370

- Debt Service Coverage Ratio on track to exceed 2.0x

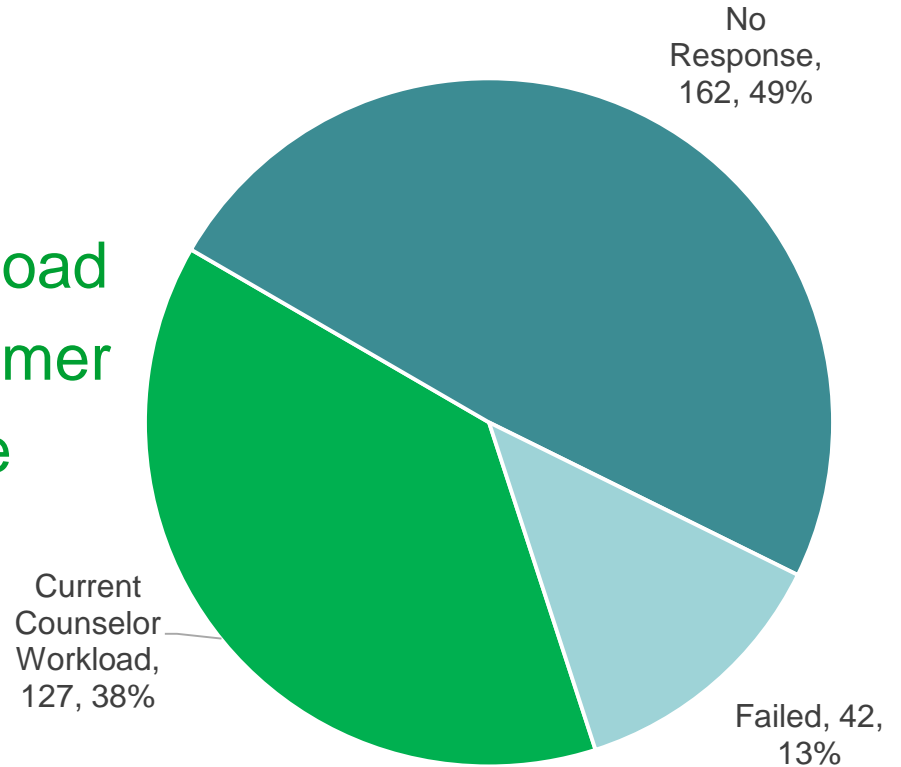
Customer Assistance Pilot Program

Customer Assistance Pilot Program

- Customers on the verge of a second shut-off within 12 months
- Referred to financial counselor, which suspends delinquent account process
- Upon program completion and financial counselor's recommendation, some or all past due balances may be determined to be uncollectible

Customer Assistance Pilot Program – Latest Numbers

- Customers Contacted = 331
 - Current Counselor Workload
 - No Response from customer
 - Failed – did not complete process



Revenue Policy Updates

- Additional clarifications and definitions
- Clarify Facility Charge Waiver for residential septic tanks
- Target AA+ Financial Metrics in the Financial Forecast
- Flat Rate Definition
- New Surcharge Categories

Facility Charge Waiver for Septic Tanks

- Facility Charges – Cost recovery of consumed capacity by new connections or redevelopment
 - “Fair Share” for the costs of creating and maintaining the system
- Revisions clarifies this waiver is for single family residential septic tank conversions
- New internal guidelines developed for different cases (Multifamily, Commercial in single family structure)

Targeting AA+ Financial Metrics for the Financial Forecast

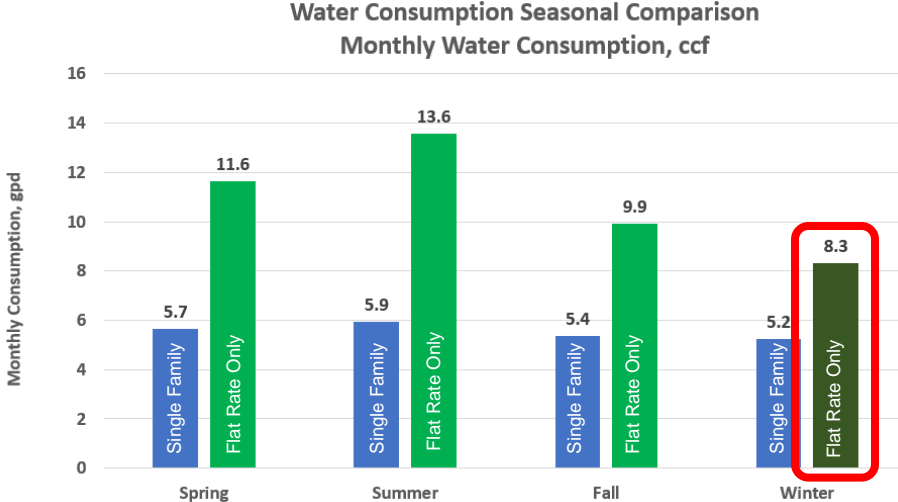
- HRSD will analyze water consumption, regional economic and population data periodically to identify any trends that may impact its long-range financial forecast. HRSD will also analyze and conservatively project major expense drivers, such as construction costs, inflation, operating cost increases,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

Revised Flat Rate Definition

This account type uses a monthly consumption amount based on the **winter average water consumption of existing Flat Rate accounts as determined periodically**. This account type is typically limited to single family residential households with a 1-inch meter or smaller. These are primary residence accounts without water meters or that use a significant amount of water that is not discharged to the sanitary sewer system.

Previous Avg Flat Rate Bill @ **6.5 ccf** = \$34.91
Proposed Avg Flat Rate Bill @ **8.3 ccf** = \$44.57
- 4,257 Flat Rate Accounts

Avg Residential Bill @ 5.6 ccf = \$30.07



Annual Average
All Single Family = 5.6 ccf
Flat Rate Only = 10.9 ccf
FY15-FY18 Billed Data



- Definitions added
- Guiding Principal

*An acceptable industry standard to fairly apply surcharge rates to non-permitted commercial facilities is to **create surcharge categories and assign average concentrations using sampling data for groups of businesses that produce similar goods or services** using the North American Industry Classification System (NAICS).*

New Surcharge Program Implementation

What is HRSD's Surcharge Program?

- All customers pay the same wastewater treatment rate for volume
 - FY 2019 rate \$5.37 per 100 cubic feet (CCF)
 - This includes the cost to treat domestic strength BOD, TSS, TP and TKN
- High strength users pay a surcharge for these pollutants greater than domestic strength

FY 2019 Rate Schedule Surcharges

<u>Type</u>	<u>In Excess of</u>	<u>Per mg/L per CCF</u>	<u>Per 100 pounds</u>
Biochemical Oxygen Demand (BOD)	282 mg/L	\$0.000104	\$1.67
Total Suspended Solids (TSS)	261 mg/L	\$0.000592	\$9.49
Total Phosphorus (TP)	6 mg/L	\$0.009535	\$152.74
Total Kjeldahl Nitrogen (TKN)	47 mg/L	\$0.003595	\$57.59

*FY 2020 Rates not available yet.

Current Surcharge Categories (last updated in 2008)

1. Arby's
2. Bakery/Cafe
3. Bar & Grill
4. Bowling Alley
5. Breakfast
6. Burger King
7. Cafeteria
8. Calz Pizza
9. Chic-Fil-A
10. Chicken
11. Dairy Queen
12. Deli/Sandwich
13. Dunkin Donuts
14. Farm Fresh
15. Food Lion
16. GAS
17. Grocery Store W/Deli
18. Hardees
19. Holiday Inn
20. Ice Cream/Food Bar
21. Kentucky Fried Chicken
22. KFC w/Taco Bell
23. Long John Silvers
24. Major Shopping Mall
25. McDonalds
26. Medical Fac w/Cafeteria
27. Mexican
28. Multi-function Store
29. Asian
30. Pizza
31. Pizza Hut
32. Pizza Take-Out
33. Pollards Chicken
34. Rallys
35. Seafood
36. Seafood Fast Food
37. Sonic
38. Starbucks
39. Steak
40. Strip Mall - Small
41. Taco Bell
42. Variety
43. Wal-Mart
44. WAWA
45. Wendys
46. Seven Eleven (7-11)

New Surcharge Categories (Per Commission guidance 12/2018)

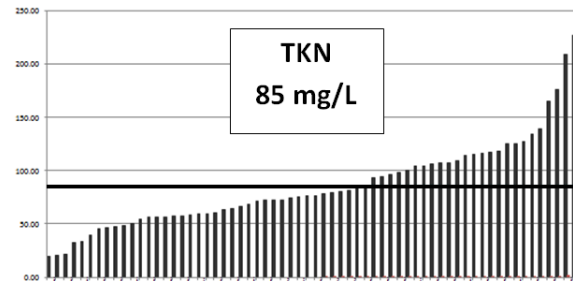
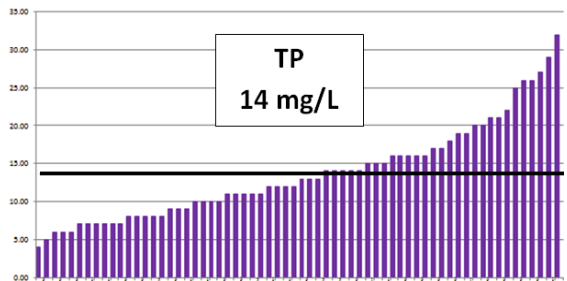
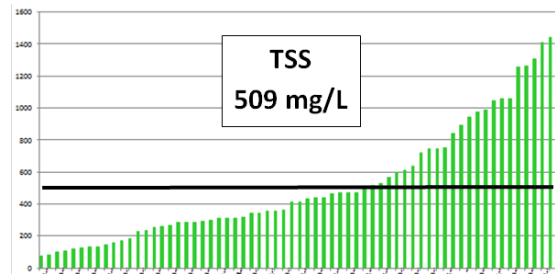
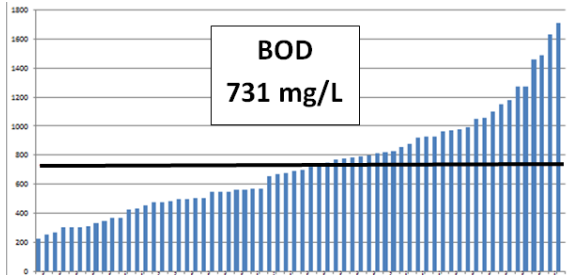
New Category Code	Type of Business
44511	Supermarkets and Other Grocery (except Convenience) Stores
44711_44512	Gas Stations and/or Convenience Stores
452910 (452311)	Warehouse Clubs and Supercenters
721	Accommodation
623	Nursing and Residential Care Facilities
3121	(Alcohol) Beverage Manufacturing
722_53112_311811	Food Service and Drinking Places (including Shopping Centers)
722515	Snack and Nonalcoholic Beverage Bars (Coffee, Ice Cream and Donuts)

Surcharge Category Average Values

Will be applied in 2020 using these averages in 8 categories – down from 46 current categories.

New Category Code	New Category Name	BOD (mg/l)	TSS (mg/l)	TP (mg/l)	TKN (mg/l)
44511	Supermarkets and Other Grocery	731	509	14	85
44711_44512	Gas Stations and/or Convenience Stores	964	389	13	118
452910 (452311)	Warehouse Clubs and Supercenters	1,043	833	20	133
721	Accommodation	261	219	7	54
623	Nursing and Residential Care Facilities	286	222	5	32
3121	(Alcohol) Beverage Manufacturing	2,930	487	26	120
722_53112_311811	Food Service Establishments including Shopping Centers	1,111	388	9	60
722515	Coffee, Ice Cream and Donuts	3,791	691	13	89
<i>Current Domestic Concentration</i>		282	261	6	47

Supermarket Category Example (NAICS Code 44511)



Moving all to average means some will pay more and others less. Out of 2,250 surcharge customers, 1,475 will pay more.

- FY 2020 surcharge rates will be applied using averages in 8 NAICS based categories
- Recommend all changes in surcharges be implemented beginning January 1, 2020 to permit time to communicate with surcharged customers. (Not enough time from May budget approval until July 1 to communicate with customers.)

Questions?
