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

1. AWARDS AND RECOGNITION

Action: Approve resolution.

Moved:Vishnu LakdawalaAyes:7Seconded:Elizabeth TaraskiNays:0

Brief:

a. Commending Resolution

Upon approval, the Commission Chair presented a commending <u>resolution</u> to Mr. Phillip Hubbard, in recognition of his extraordinary achievement in negotiating a consent decree with the U.S. Environmental Protection Agency, the Virginia Department of Environmental Quality and the U.S. Department of Justice, which led to new approaches including regionalization and integrated planning among 13 independent Hampton Roads localities.

b. Service Award

Chair Elofson presented a service award to Mr. Kevin Parker who marked his 20th year of service with HRSD on March 1. Kevin was hired in October 1997 as part-time Technical Services Assistant with the Water Quality Department and became a full-time Water Quality Specialist with the Technical Services Division (TSD) in March 1999. In June 2006 he was promoted to Water Quality Supervising Specialist, then again to Environmental Scientist in January 2008, the position he holds today.



Kevin is committed to education and promoting a learning environment. He holds multiple degrees including a Master in Environmental Science from Christopher Newport University (CNU) and a Master in Business Administration (MBA) from Regent University. He served as chair for the Virginia Water Environment Association (VWEA) Water Reuse Committee, restoring an essentially defunct committee to one that is engaged and active in supporting water reuse projects throughout the state. As the manager for HRSD's water reuse program, he implemented reuse at our King William facility, recycling 60 percent of its flow in 2018 for use at the neighboring Purina facility. He has devoted much of his career at HRSD to creating learning opportunities for staff. One of his first efforts was to develop a wastewater class on treatment and biological nutrient removal for Water Quality employees so that they could better support Operations in research and process troubleshooting. For broader reach to other parts of the organization, Kevin worked with the Organizational Development and Training Division to create an online module. He continues to initiate and support activities which promote learning within HRSD and has recently expanded that reach to include those that aren't already employed at HRSD. In 2018, he implemented an internship program for TSD to engage students enrolled at local colleges and universities and introduce them to career opportunities in environmental monitoring.

Attachment #1: Resolution



2. **CONSENT AGENDA**

Action: Approve the items listed in the Consent Agenda.

Moved:Vishnu LakdawalaAyes:7Seconded:Elizabeth TaraskiNays:0

Brief:

a. Approval of minutes from previous meeting.

b. Contract Awards

1.	Atlantic Treatment Plant Influent Screen Expansion	\$1,064,091

2. <u>Gasoline and Diesel Fuel Supply Services</u> \$3,159,265

3. Work Safety Shoes \$277,350

c. Task Orders

1. <u>Kingsmill Pump Station Piping Replacement and Wet Well</u> \$204,994 Rehabilitation

2. <u>Surry County Treatment Plant Infrastructure Improvements</u> \$298,155

d. Sole Source

 Engineered Systems and Products, Inc. Vertical Turbine Centrifugal Pump

2. Nansemond Treatment Plant Struvite Recovery Facility
Equipment Upgrade Sole Source, Contract Award and
Task Order

\$2,492,463

3. <u>Shimadzu Scientific Instruments Total Organic Carbon</u> Analyzer

Item(s) Removed for Discussion: None

Attachment #2: Consent Agenda



3. EXPANSION OF HRSD TERRITORY – ACCOMACK AND NORTHAMPTON COUNTIES

<u>Action</u>: Authorize the General Manager to enter into discussions with the Counties of Accomack and Northampton to become part of the territory included in the District in accordance with the Enabling Act and subject to the terms contained herein.

Moved:Maurice LynchAyes:7Seconded:Michael GlennNays:0

<u>Brief</u>: HRSD has been engaged with Accomack and Northampton Counties since October 2018, when the Commission approved participation and management of a force main study for the Eastern Shore. As a result of that work, several civic leaders have expressed interest in exploring the concept of adding the two counties on the Eastern Shore to the territory included within the District.

Staff will explore this concept in the following manner:

- Hold discussions with the Boards of Supervisors (BOS) in both counties to determine interest and outline the pros and cons of becoming part of HRSD
- If supported by the BOS, prepare and file the required petitions to the Circuit Courts

The order of the court is only the first step in assuming ownership and operation of the existing sewer systems in the counties. The individual systems would each require their own service agreement, between HRSD and the system owner. The key terms of the service agreements shall include but not be limited to:

- All sewer assets including all real and personal property will be conveyed to HRSD at no cost to HRSD, including all easements
- Any disputed ownership issues related to any sewer assets shall be resolved prior to conveyance to HRSD
- All sewer assets shall be operated and maintained in accordance with industry standards and in accordance with applicable permits, laws and regulations during the due diligence period
- All sewer assets must be free of all debt and/or liens. HRSD will assume no debt.
- HRSD published rates will be the basis for rates charged to customers. The treatment rate will be as published per hundred cubic feet with a monthly minimum charge specific for these accounts.



- The rate for maintenance and operation of the collection systems shall be no more than HRSD actually costs or the average of the collection system rate charged by the 17 localities currently within the District.
- HRSD will provide treatment capacity for all land developed in accordance with the approved Comprehensive Plan and specifically designated as a sewer service area by the appropriate governing body.
- HRSD will provide sewer interceptor services to within two miles of any sewer service area at HRSD cost at the time public water service is provided to serve such areas, or at the time a sewer collection system is constructed. Cost to connect to HRSD interceptors shall be funded by the locality.
- Localities are fully responsible for all costs associated with construction of collection systems. Collection systems shall be constructed in accordance with HRSD standards. Collection systems shall be conveyed to HRSD upon completion at no cost to HRSD.
- Accounts will be billed as Model 3 accounts with locality representatives reading meters and entering meter reads directly into HRSD's billing system.

In addition to the service agreements with the localities, an agreement with the Virginia Department of Environmental Quality is required before HRSD assumes permit liabilities for any sewer assets. The form of this agreement is yet to be determined but shall include an appropriate compliance schedule for addressing any existing compliance issues.

The Enabling Act outlines the process required for any territory to be added to the District in Section 48. That section includes four alternatives for starting the legal process and staff is recommending the first, in which the Commission files the petition with the circuit court. Staff will work with counsel to draft that petition for Commission approval prior to filing. Once the petition is filed, the circuit court must enter an order fixing the date and hour and place for a public hearing. There are advertising requirements and a minimum of 30 days advance notice of the hearing must be provided. The court may then grant such petition with modifications, if any, as it may deem advisable. If the court is of the opinion the area proposed to be added will not be benefitted by the District, then said area shall not be added.



<u>Discussion Summary</u>: Mr. Henifin explained the process for a locality to join HRSD and become part of the district. Depending on when petitions are filed, the local circuit court could hear the case by the end of the year. Staff estimates it could be an additional year or more to negotiate the ownership and operation of the existing sewer systems and memorialize a service agreement with each county.

Some of the members of the Board of Supervisors are also involved in the Eastern Shore Study Committee.

Attachment: None

Public Comment: Mr. Stephen A. Johnsen of Onancock, Virginia, a current member of the Virginia Commonwealth Transportation Board and former member of the Chesapeake Bay Bridge-Tunnel Board addressed the Commission. He detailed the actions that led the Accomack and Northampton counties steering committee to develop the study, the results of which will be presented at their next meeting on April 11. He stated there is nobody who knows this business better than HRSD. This is a huge issue on the Eastern Shore from an economic development standpoint as well as the damage to the aqua-culture industry from the runoff. He thinks from an environmental standpoint it would be a good idea to have sewers on both sides of the bay as the HRSD service area on the Middle Peninsula extends further north than Accomack County. He said he looks forward to seeing what we can do to develop a further relationship.



The Commission deferred the Public Hearing until the end of the meeting when a member of the public arrived to address the Commission.

4. JEFFERSON AVENUE EXTENSION GRAVITY IMPROVEMENTS
PUBLIC HEARING ON DETERMINATION OF PUBLIC NEED FOR EASEMENT
ACQUISITION

Action: Conduct public hearing.

CIP Project: BH014800

Project Description: The Jefferson Avenue Extension Gravity Improvements project is included in the Rehabilitation Plan Phase 1 with a Consent deadline of May 2021. This project will rehabilitate approximately 4,800 linear feet of gravity pipeline and associated manholes, with pipe diameters ranging from 27-inches to 36-inches. The existing gravity pipeline is located in Newport News on Jefferson Avenue between Sam Walton Way and 72nd Street with a small section between Arch Street and 50th Street. In order to move forward with the project, temporary construction easements are needed to temporarily bypass existing flows. In September 2018, HRSD began reaching out to property owners and successfully negotiated all but two of the temporary construction easements needed to begin construction. Design was completed in December 2018, but advertisement of the project has been delayed by the inability to acquire the two remaining temporary construction easements. With the May 2021 deadline rapidly approaching it is imperative to move forward with construction.

In accordance with Section 15.2-1903.B of the Code of Virginia, the Commission must hold a public hearing prior to initiating condemnation proceedings. Staff will continue to attempt to negotiate an agreement up until commencement of construction.

Staff provided a short overview for the Commission and the public immediately prior to the Public Hearing. Two acquisition plats are <u>attached</u> for information.

<u>Discussion Summary</u>: Staff has been working very closely with City of Newport News staff to find a solution to meet our needs while keeping, the very busy, Jefferson Avenue open and functioning during construction. A cured-in-place-pipe (CIPP) trenchless technology will be used during construction, which allows the sequential replacement from manhole to manhole. While this approach will



minimize the impact during construction, the project cannot start until all easements are in place. Temporary piping and hoses, which will allow the flow to be bypassed, will run along the temporary easements while the pipe is being rehabilitated. The piping and hoses will have barriers on them allowing vehicles to drive over them. Once the project begins, it is a fairly short process from manhole to manhole and should only take 30-60 days depending on the size of the pipe. There will be no permanent damage to the properties. All properties will be returned to like condition after construction.

Attachment #3: Presentation and Plats

<u>Public Comment</u>: Chair Elofson opened the public hearing by acknowledging Mr. Steve Wolf who requested to speak on this matter. Mr. Wolf, owner of SDW Properties, LLC located at 6022 Jefferson Avenue in Newport News, said his property is only 75-feet wide with one ingress/egress in the center. The taking of this entrance will impact all the tenants of his building. Not knowing how long the construction will last, he is concerned with the loss of business and he doesn't know how to compensate his tenants for the disruption. He feels the easement will make it impossible to access his property. He thanked the Commission for hearing his side.

Chair Elofson thanked Mr. Wolfe for his comments. The Commission will take all comments received into consideration in any action taken on this topic at a future Commission meeting.

Hearing no further public comments, the public hearing was closed.



5. CAROLINA ROAD INTERCEPTOR FORCE MAIN INTEREST PARTICIPATION AGREEMENT (IPA) ADDENDUM

<u>Action</u>: Accept the terms and conditions of Addendum No. 2 to the Carolina Road Interceptor Force Main IPA with the City of Suffolk, Virginia and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved:Maurice LynchAyes:7Seconded:Michael GlennNays:0

Project Description: An Interest Participation Agreement is a contract wherein the local jurisdiction provides financial assistance to HRSD for the construction of interceptor lines to serve a new area which would not otherwise be planned and/or financially practical for HRSD to construct at that time. Projections for the new area must show that revenue from future wastewater flows will support the construction costs of the interceptor line. The local jurisdiction(s) make quarterly payments to HRSD that are equal to the interest rate times the construction cost minus a credit of 70 percent of the wastewater treatment charges collected from new connections to the interceptor line. Payments are terminated when the credit equals or exceeds the interest for four consecutive quarters.

Staff performed an evaluation of active IPA agreements and has determined that the City of Suffolk is not projected to fulfill the obligations required for payment termination in the near future. Current quarterly revenue credit is approximately \$14,000 versus a quarterly interest charge of approximately \$37,000. However, the City's total interest payments made since 2002 exceeds the estimated amortized interest of the original loan. Therefore, the intent of the IPA will be fulfilled upon payment of invoices through March 31, 2019 and further financial obligations are not warranted.

<u>Agreement Description</u>: The <u>attached addendum No. 2</u> to the <u>original agreement</u> dated June 24, 1998, and <u>subsequent addendum No. 1</u> dated February 1, 2004 between HRSD and the City of Suffolk eliminates future financial obligations of either party including interest payments. The agreement has been reviewed by HRSD legal counsel.



<u>Discussion Summary</u>: These are the last two active Interest Participation Agreements (item #6 – Lackey IFM). Staff does not anticipate issuing any new IPAs. New service agreements require the locality to build a collection system and extend water prior to bringing an interceptor force main within two miles of the proposed development.

Attachment #4: Addendums and Agreement



6. LACKEY INTERCEPTOR FORCE MAIN PART I INTEREST PARTICIPATION AGREEMENT (IPA) AMENDMENT

<u>Action</u>: Accept the terms and conditions of Amendment No. 3 to the Lackey Interceptor Force Main IPA with the City of Newport News, Virginia and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved:Willie LevenstonAyes:7Seconded:Maurice LynchNays:0

<u>Project Description</u>: An Interest Participation Agreement is a contract wherein the local jurisdiction provides financial assistance to HRSD for the construction of interceptor lines to serve a new area which would not otherwise be planned and/or financially practical for HRSD to construct at that time. Projections for the new area must show that revenue from future wastewater flows will support the construction costs of the interceptor line. The local jurisdiction(s) will make quarterly payments to HRSD that are equal to the interest rate times the construction cost minus a credit of 70 percent of the wastewater treatment charges collected from new connections to the interceptor line. Payments are terminated when the credit equals or exceeds the interest for four consecutive quarters.

Staff performed an evaluation of active IPA agreements and has determined that the City of Newport News is not projected to fulfill the obligations required for payment termination in the near future. Current quarterly revenue credit is approximately \$140 versus a quarterly interest charge of approximately \$23,000. However, the City's total interest payments made since 2004 exceeds the estimated amortized interest of the original loan. Therefore, the intent of the IPA will be fulfilled upon payment of invoices through March 31, 2019 and further financial obligations are not warranted.



<u>Agreement Description</u>: The <u>attached amendment No. 3</u> to the <u>original agreement</u> dated August 12, 1997, and <u>subsequent amendment No. 1</u> dated October 14, 1997, and <u>amendment No. 2</u> dated March 23, 2004, between HRSD and the City of Newport News eliminates future financial obligations of either party including interest payments. The agreement has been reviewed by HRSD legal counsel.

Attachment #5: Amendments and Agreement



7. ELBOW ROAD PRESSURE REDUCING STATION
ACQUISITION OF REAL PROPERTY – ELBOW ROAD, CHESAPEAKE,
VIRGINIA

Actions:

- a. Approve the purchase of a parcel of land on Elbow Road (Tax Map#: 039-0-000-00011-0) for \$50,000 in accordance with the terms and conditions of the Purchase and Sale Agreement with J and L Sawyer Holdings, LLC, owner of subject property in Chesapeake, 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:Michael GlennAyes:7Seconded:Willie LevenstonNays:0

CIP Project: CE011821

Budget \$8,984,000
Previous Expenditures and Encumbrances (\$755,571)
Available Balance \$8,228,429

Project Description: This project is to construct a Pressure Reducing Station (PRS) on Elbow Road. The PRS will be located adjacent to the existing Elbow Road Interceptor Force Main (IFM). HRSD currently owns a small piece of property at the proposed location, which is approximately 48,286 square feet. However, an additional 1.2 acres will be required to accommodate the planned PRS. This project is needed to provide reliable capacity and maintain HRSD pressure policy when flow is diverted in support of the Chesapeake-Elizabeth Plant closure and for the ultimate Regional Wet Weather Management Plan (RWWMP). This project is a part of the Chesapeake-Elizabeth offline solution set and must be substantially complete by June 2021.



Agreement Description: The <u>Purchase and Sale Agreement</u> is attached and was reviewed by HRSD staff and legal counsel. The <u>deed of bargain and sale</u> is attached and was reviewed by HRSD staff and legal counsel before execution. A <u>facilities orientation map</u> is also provided for clarification purposes.

<u>Analysis of Cost</u>: HRSD will purchase the property for the negotiated price of \$50,000. The acquisition cost is reflected of a negotiated purchase price and an appraisal performed by Brian Dundon and Associates Commercial Real Estate Appraisers.

Attachment #6: Agreement, Deed and Map



8. VIRGINIA BEACH BOULEVARD FORCE MAIN PHASE VI ACQUISITION OF REAL PROPERTY – VIRGINIA BEACH BOULEVARD, VIRGINIA BEACH, VIRGINIA

Actions:

- a. Approve the purchase of a parcel of land (7,074 SF) located at 2954 Virginia Beach Boulevard for \$146,150 in accordance with the terms and conditions of the Purchase and Sale Agreement with Pine Tree Inn Associates, L.L.C., (t/a Wawa, Inc.) owner of subject property in Virginia Beach, 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:Vishnu LakdawalaAyes:7Seconded:Elizabeth TaraskiNays:0

CIP Project: CE011823

Budget \$15,913,000
Previous Expenditures and Encumbrances (\$1,514,810)
Available Balance \$14,398,190

<u>Project Description</u>: This project will upgrade the existing 24-inch reinforced concrete flat bottom pipe to a 42-inch pipe from North Lynnhaven Road to North Great Neck Road. The new pipeline alignment falls within the Virginia Beach Boulevard right-of-way from North Lynnhaven Road to Eureka Avenue, travels through the Southern Boulevard right-of-way until it crosses London Bridge Creek and will connect back into the existing force main at Great Neck Road by way of Parker Lane. As a result, the total length of the new pipeline will be approximately 12,000 linear feet. This project must be substantially complete by June 2021. The project is needed to provide reliable capacity and maintain HRSD pressure policy



when flow is diverted in support of the Chesapeake-Elizabeth Plant closure and for the eventual Regional Wet Weather Management Plan (RWWMP). The subject property is needed to both construct the 42-inch force main and to stage materials for the adjacent Pine Tree Pressure Reducing Station Reliability Modifications project.

<u>Agreement Description</u>: The <u>Purchase and Sale Agreement</u> is attached and was reviewed by HRSD staff and legal counsel. The deed of bargain and sale is forthcoming and will also be reviewed by HRSD staff and legal counsel before execution. A <u>facilities orientation map</u> is provided for clarification purposes.

<u>Analysis of Cost</u>: HRSD will purchase the property for the negotiated price of \$146,150. The acquisition cost is reflected of a negotiated purchase price and an appraisal performed by Smith and Company Commercial Real Estate Appraisers.

Attachment #7: Agreement, Deed and Map *Deed of Bargain & Sale added 07/17/19



9. RODMAN AVENUE PUMP STATION WET WELL REHABILITATION ADDITIONAL APPROPRIATION AND CONTRACT CHANGE ORDER (>25%)

Actions:

- a. Appropriate additional funding in the amount of \$51,333.
- b. Approve a change order to the contract with Shaw Construction Corporation in the amount of \$51,645.

Moved:Willie LevenstonAyes:7Seconded:Ann TemplemanNays:0

CIP Project: VP017300

Budget	\$1,460,380
Previous Expenditures and Encumbrances	(\$1,459,068)
Available Balance	\$1,312
Proposed Change Order No. 3 to Shaw Construction	(\$51,645)
Proposed Contingency	(\$1,000)
Project Shortage/Requested Additional Funding	(\$51,333)
Revised Total Project Authorized Funding	\$1,511,713

Contract Status	Amount	Cumulative % of Contract
Original Contract for Shaw Construction	\$864,000	
Total Value of Previous Change Orders	\$171,182	19.8 %
Requested Change Order	\$51,645	
Total Value of All Change Orders	\$222,827	25.8%
Revised Contract Value	\$1,086,827	

Time (Additional Calendar Days)	183

<u>Project Description</u>: This project is to rehabilitate the wet well at the Rodman Avenue Pump Station, the influent manhole and the influent line. This project will also install a sluice gate, bar screen, exhaust fan and a grinder in the wet well.



<u>Funding Description</u>: This project requires additional funding due to additional bypass pumping that was required due to unforeseen work in the pump station wet well. A final change order was negotiated for this work that exceeds the balance available for this CIP project. This request also includes a \$1,000 contingency to accommodate any additional unforeseen conditions.

<u>Analysis of Cost</u>: The Engineer prepared an independent estimate of costs for the proposed changes and recommends approval of the change order. Although this project received VCWRLF funding, a loan adjustment will not be requested to cover the additional funding.

<u>Change Order Description</u>: This change order includes a number of items to close out the contract. The contractor's original request for bypass pumping \$156,884. This amount was negotiated over several meetings to a revised request of \$72,895. The amount was further reduced through a series of project credits to \$51,645.

Schedule: Project Completion December 2018

Attachment: None



10. SMITHFIELD INTERIM PRESSURE REDUCING STATION (PRS) NEW CIP AND INITIAL APPROPRIATION

Actions:

- a. Approve a new CIP project NP014300 for the Smithfield Interim PRS
- b. Appropriate total project funding in the amount of \$1,460,000

Moved:Maurice LynchAyes:7Seconded:Willie LevenstonNays:0

CIP Project: NP014300

<u>Project Description</u>: This new CIP project will construct an interim PRS which will provide the Town of Smithfield with much needed system pressure relief.

Off-gassing in the Smithfield Interceptor Force Main causes HRSD system pressures in this force main to routinely exceed the ability for some of the Town of Smithfield pump stations to adequately pump. The Town of Smithfield has seen detrimental effects from the high system pressures resulting in routine pump seal failures and the purchase of emergency diesel pumps to avoid overflows in this system. Original design parameters for pressure head given to the Town of Smithfield are routinely exceeded.

There is an existing VDOT project, Turner Drive Turning Lane Improvements, which is scheduled to bid in April and start construction in June 2019. The VDOT project will consist of utility relocations, adding a north turn lane to Turner Drive, and repaving Turner Drive. In order to avoid excavation in areas of new pavement, two 18-inch direct taps along with 1,000 feet of ductile iron pipe will be installed as a bid alternate with the existing VDOT Project. Coordination of this roadway improvement with this HRSD capital improvement project is imperative.



This project will acquire the site and easements, perform the design, and construct a new interim PRS along the Smithfield Interceptor Force Main in the Town of Smithfield on Turner Drive. The PRS will consist of one electric driven pump and a diesel backup pump along with necessary piping. A mainline check valve, pump controls, flow and pressure metering, and SCADA controls will also be included with this project. This project will also include funds for replacement of pumps at Smithfield's Wellington Circle and Rising Star Pump Stations.

<u>Funding Description</u>: The total cost for this project is estimated at \$1,460,000 based on a Class 5 cost estimate and a 20 percent construction contingency is included in the requested appropriation.

Schedule: PER January 2019

Design February 2019
Bid April 2019
Construction June 2019

Project Completion May 2020

Attachment: None



11. WESTMINISTER DRIVE FORCE MAIN REPLACEMENT INITIAL APPROPRIATION

Action: Appropriate total project funding in the amount of \$1,354,555.

Moved:Ann TemplemanAyes:7Seconded:Michael GlennNays:0

CIP Project: YR013500

Contract Description: This project was declared an emergency on January 30, 2019 after a failure occurred. HRSD staff installed a temporary repair to this pipeline, so that a more permanent replacement could be provided, and worked with the annual services Interceptor Systems Projects consultant Rummel, Klepper and Kahl, LLP (RK&K) to put a set of plans together to provide to the proposers. Three firms were invited to review the job on March 7, 2019, and two firms submitted quotes on March 13, 2019. RK&K evaluated the quotes and found them to be responsive, deemed fully qualified, responsible, and suitable to the requirements in the Request for Proposals. The contract was awarded on March 14, 2019 to MEB General Contractors, Inc., based on schedule and quoted amount.

- MEB General Contractors, Inc. proposed a cost of \$907,000 with a schedule of 126 days to substantial completion and 168 days to final completion.
- TA Sheets General Contractors, Inc. proposed a cost of \$960,000 with a schedule of 120 days to substantial completion and 120 days to final completion.

<u>Project Description</u>: This existing CIP project will replace approximately 1,450 linear feet of 10-inch cast iron pipe along Westminister Drive from Mercury Boulevard to just south of Canterbury Road, to include the valving and connection to existing piping south of Mercury Boulevard.



<u>Analysis of Cost</u>: The estimated total project cost is \$1,354,555 and is based on a construction cost estimate of \$907,000 combined with an engineering services estimate of \$177,671, material cost of \$88,484, and a 20 percent contingency allowance of \$181,400. Engineering services will be provided by RK&K and include design and construction phase services.

Schedule: Design February 2019

Proposal March 2019
Construction March 2019
Project Completion August 2019

Attachment: None



12. WATER TECHNOLOGY AND RESEARCH ANNUAL UPDATE

Action: No action required.

<u>Brief</u>: This update provided an overview of projects and studies targeted at developing and implementing more cost-effective technologies for solids handling, nutrient removal and recovery, and advanced water treatment.

<u>Discussion Summary</u>: The driver of these projects and studies is to find ways to reduce operating costs. While some metrics are available, it is difficult to quantify the cost of research and development and how it affects the end cost of operations and capital investment.

Attachment #8: Presentation



13. ETHICS POLICY COMMISSION ADOPTED POLICY

Action: Approve revised Ethics Policy.

Moved:Vishnu LakdawalaAyes:7Seconded:Willie LevenstonNays:0

<u>Brief</u>: The Commission approved the original Ethics Policy in October 2015 in response to the Ethics Reform Bill passed during the 2015 session. An argument could be made (and has in the past) that Chapter 31 of Title 2.2, the State and Local Government Conflict of Interests Act does not apply to HRSD as we fall somewhere between a state agency and a local government. Despite this ambiguity, given the political climate at the time and HRSD's desire to continue to operate as a model governmental entity, staff proposed the policy and the Commission adopted it. It has been amended with minor changes as a result of an internal audit review.

The original policy required all employees to comply with all provisions prohibiting acceptance of gifts and all existing conflict of interest provisions. The policy also required formal written disclosure by Commissioners and employees in "positions of trust" on an annual basis. HRSD recently received guidance from the Virginia Conflict of Interest and Ethics Advisory Council indicating disclosure forms were not required in accordance with the Code of Virginia, nor could they be required from Commissioners or employees. As a result, our policy has been updated to eliminate this requirement.

Recognizing disclosure of conflicts is still required under the Virginia Public Procurement Act, the revised Ethics Policy (<u>tracked changes version</u> and <u>final version</u>) requires all HRSD Commissioners and employees to continue to disclose conflicts of interest as soon as practicable after they are identified. The policy also requires disclosure of gifts in excess of \$100 at widely attended events as this situation arises from time to time and creates a potential conflict of interest. Both conflicts of interest and gifts will be disclosed on HRSD generated forms and retained locally for HRSD use only.

Attachment #9: Policy



- 14. UNFINISHED BUSINESS None
- 15. **NEW BUSINESS** None
- 16. **COMMISSIONER COMMENTS**

Commissioner Lynch commented on the Cook's Corner Revitalization project announcement by Governor Ralph Northam during a ceremony he attended on March 25. He said the County hopes this \$2 million project will stimulate jobs and the economy leading to further expansion of HRSD. He further emphasized the importance of water and wastewater in rural communities.

- 17. PUBLIC COMMENTS NOT RELATED TO AGENDA None
- 18. **INFORMATIONAL ITEMS**

Action: No action required.

<u>Brief</u>: The items listed below were presented for information.

- a. <u>Management Reports</u>
- b. Strategic Planning Metrics Summary
- c. <u>Effluent Summary</u>
- d. Air Summary

Attachment #10: Informational Items



19. FISCAL YEAR-2020 ANNUAL BUDGET AND INTERNAL AUDIT UPDATE WORK SESSION

Action: No action required.

<u>Brief</u>: Staff presented high-level drivers of the Fiscal Year-2020 budget as a continuation of the Work Session held in February. The following topics were covered:

- Revenue Policy Updates
- Regional Economy
- Revenues
- Operating Budget
- Hospitalization
- Compensation Study

Attachment #11: Presentation

Public Comment: None

20. ANNOUNCEMENTS

The follow-up CIP review scheduled for the April 1, 2019 meeting of the Finance Committee has been cancelled. The CIP has been balanced and a memo explaining the few changes will be circulated to Commissioners this week. Questions will be answered and more details available during the Finance Committee budget meeting following the ribbon cutting ceremony at the Atlantic Treatment Plant Administration Building on April 12, 2019.

<u>Next Commission Meeting Date</u>: April 23, 2019 at the HRSD North Shore Operations Center, 2389 G. Avenue, Newport News, VA 23602

Meeting Adjourned: 11:33 a.m.

SUBMITTED: APPROVED:

Jennifer L. Cascio Maurice P. Lynch

Jennifer L. Cascio Maurice P. Lynch, PhD

Secretary Vice-Chair

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #1

AGENDA ITEM 1. – Awards and Recognition – Commendation Resolution



RESOLUTION Recognition of Phillip L. Hubbard, P.E. For Extraordinary Achievement

WHEREAS, Phil Hubbard came to HRSD as the first Special Assistant for Compliance Assurance in 2007; and,

WHEREAS, Phil was tasked with negotiating a consent decree with the US Environmental Protection Agency, the Virginia Department of Environmental Quality and the U.S. Department of Justice; and,

WHEREAS, Phil had to manage and coordinate all work with 13 independent Hampton Roads localities; and,

WHEREAS, over the course of nearly 12 years, he successfully negotiated and modified a consent decree with flexibility to accommodate new approaches including regionalization and integrated planning; and,

WHEREAS, Phil managed a significant consulting engineering effort to accomplish this work, using his knowledge of local collection systems and pump stations to ensure locality interests were addressed, developing HRSD's first "Find and Fix" contract, executing the region's first pilot projects for private lateral rehabilitation and HRSD's first comprehensive condition assessment program; and,

WHEREAS, Phil worked to help all parties see the regional benefits and the impact on the ratepayer, regardless of which entity collected the rate; and,

WHEREAS, as a result of Phil's work, HRSD and the localities in Hampton Roads work on wastewater issues in a more coordinated fashion with regular communication and a focus on achieving best value for the ratepayer; now, therefore,

BE IT RESOLVED by the HRSD Commission that it hereby commend Phil Hubbard for his extraordinary achievement in developing and negotiating a regional and integrated response to the Federal Consent Decree; and,

BE IT FURTHER RESOLVED, that the Secretary of the HRSD Commission prepares a copy of this resolution for presentation to Phil Hubbard as an expression of the Commission's appreciation and esteem.

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

Frederick N. Elofson

Frederick N. Elofson, CPA HRSD Commission Chair



HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #2

AGENDA ITEM 2. – Consent Agenda

Resource: Bruce Husselbee

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

Subject: Atlantic Treatment Plant Influent Screen Expansion

Contract Award (>\$200,000)

<u>Recommended Action</u>: Award a contract to Clark Construction LLC in the amount of \$1,064,091.

CIP Project: AT013900

Budget	\$2,152,435
Previous Expenditures and Encumbrances	(\$507,703)
Available Balance	\$1,644,732

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Clark Construction LLC	\$1,064,091
American Contracting & Environmental Services, Inc.	\$1,071,000
MEB General Contractors Inc.	\$1,095,670
Crowder Construction Company	\$1,359,000

HRSD/Engineer Estimate:

\$1,442,951

<u>Contract Description</u>: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised January 13, 2019, and four bids were received on February 20, 2019. The design engineer, HDR Engineering, evaluated the bids and recommends award to the lowest responsive and responsible bidder Clark Construction LLC, in the amount of \$1,064,091.

<u>Project Description</u>: This project will install a fourth influent screen in the Preliminary Treatment Facility (PTF) building of the Atlantic Treatment Plant. The PTF building was designed for four screens and three screens were installed in the last upgrade of the plant. The project will include the screen, washer/compactor, diverter chute, platform, non-potable water (NPW) modifications, and HVAC modifications.

<u>Analysis of Cost</u>: The total project cost is \$2,152,435. This amount is based on construction costs of \$1,064,091, engineering services costs of \$506,090, and a contingency of \$582,254. The contingency amount is to accommodate any potential unforeseen conditions.

Schedule: Construction April 2019

Project Completion August 2019

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.b.2. - March 26, 2019

Subject: Gasoline and Diesel Fuel Supply Services

Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for gasoline and diesel fuel supply to James River Solutions in the estimated amount of \$631,853 for year one with four annual renewal options and an estimated cumulative value in the amount of \$3,159,265.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
James River Solutions	\$631,853
Papco Inc.	\$657,216
Dime Oil Company LLC	\$676,256

HRSD Estimate: \$654,298

<u>Contract Description</u>: This contract is an agreement for the supply and delivery of ultra-low sulfur diesel, premium and regular gasoline as needed to maintain HRSD vehicles, machinery and generators.

<u>Analysis of Cost</u>: Costs are evaluated based on the market price plus differential plus taxes and fees for March 1, 2019 multiplied by the annual estimated usage.

Resource: Paula Hogg

CONSENT AGENDA ITEM 2.b.3. - March 26, 2019

Subject: Work Safety Shoes

Contract Award (>\$200,000)

<u>Recommended Action</u>: Award multiple blanket purchase contracts for Work Safety Shoes to the Suppliers listed below in the total estimated amount of \$92,450 for year one with two annual renewal options and a total estimated cumulative value in the amount of \$277,350.

Type of Procurement: Competitive Bid

Bidder	List Price Discounts
Saf-Gard Safety Shoes, Inc.	26%
Red Wing Brands of America, Inc.	15%
Tidewater Safety Shoe Co.	10%
Lehigh Outfitters	25%

HRSD Estimate: \$92,450

<u>Contract Description</u>: Each contract will be an agreement for the supplier to furnish and deliver work safety shoes to all HRSD facilities. Multiple supplier contracts will be awarded to provide employees with a range of shoe selections within HRSD's safety shoe classifications. Ordering options include onsite mobile trucks, online ordering and walk-in service locations.

<u>Analysis of Cost:</u> HRSD employees are provided with an annual allowance for purchase of safety shoes as identified and approved by the Safety Division. The allowance is calculated based on the discounted average shoe cost.

Resource: Bruce Husselbee

CONSENT AGENDA ITEM 2.c.1. – March 26, 2019

Subject: Kingsmill Pump Station Piping Replacement and Wet Well Rehabilitation

Task Order (>\$200,000)

<u>Recommended Action</u>: Approve a task order with Rummel, Klepper & Kahl, LLP (RK&K) in the amount of \$204,994.

CIP Project: WB012600

Budget	\$1,345,000
Previous Expenditures and Encumbrances	(\$99,400)
Available Balance	\$1,245,600

Contract Status:	Amount
Original Contract with RK&K	\$99,400
Total Value of Previous Task Orders	\$0
Requested Task Order	\$204,994
Total Value of All Task Orders	\$204,994
Revised Contract Value	\$304,394
Engineering Services as % of Construction	11.9%

<u>Project Description</u>: This project involves the rehabilitation of the Kingsmill Pump Station wet well and will require complete bypass of the pump station. Additionally, yard piping, interior and exterior buried valves, and a portion of the interceptor force main upstream and downstream of the pump station will be replaced as part of this project.

<u>Task Order Description</u>: This task order will provide design and bid phase services for this project.

<u>Analysis of Cost</u>: The cost for this task order is based on a negotiated price between RK&K and HRSD. The design phase services as a percentage of construction is six percent, which compares well with percentages from similar projects.

Schedule: PER November 2018

Design April 2019
Bid October 2019
Construction December 2019
Project Completion January 2021

Resource: Bruce Husselbee

CONSENT AGENDA ITEM 2.c.2. - March 26, 2019

Subject: Surry County Treatment Plant Infrastructure Improvements

Task Order (>\$200,000)

<u>Recommended Action</u>: Approve a task order with Hazen and Sawyer, P.C. (Hazen) in the amount of \$298,155.

CIP Project: SU010100

Budget	\$550,000
Previous Expenditures and Encumbrances	(\$208,374)
Available Balance	\$341,626

Contract Status:	Amount
Original Contract with Hazen	\$100,000
Total Value of Previous Task Orders	\$0
Requested Task Order	\$298,155
Total Value of All Task Orders	\$298,155
Revised Contract Value	\$398,155
Engineering Services as % of Construction	13%

<u>Project Description</u>: This project provides infrastructure improvements at the Surry County Treatment Plant. The project will design and construct needed hydraulic and treatment process upgrades to the plant so it can accept flows from the Town of Surry Treatment Plant. Necessary improvements to convey flow to the County of Surry Treatment Plant from the Town of Surry Treatment Plant and decommissioning of this plant will be accomplished under existing project Surry Hydraulic Improvements and Interceptor Force Main (CIP SU010200).

<u>Task Order Description and Analysis of Cost</u>: This task order will provide for design phase engineering services for the Surry County Treatment Plant Infrastructure Improvements.

The cost for this task order is based on a negotiated scope and fee with Hazen. The design engineering services is 13 percent of the estimated cost of construction. This compares well to other similar projects of this size and type.

Schedule: Design March 2019

Bid August 2019
Construction November 2019
Project Completion November 2020

Resource: Steve de Mik

CONSENT AGENDA ITEM 2.d.1. - March 26, 2019

Subject: Engineered Systems and Products Inc.

Vertical Turbine Centrifugal Pump

Sole Source (>\$10,000)

<u>Recommended Action</u>: Approve Engineered Systems and Products Inc. as the provider of an American Marsh Vertical Turbine Centrifugal Pump for use at the Chesapeake-Elizabeth Treatment Plant.

Sole Source Justification:

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

<u>Details</u>: Product includes purchase of a 480 series non-potable water (NPW), short set, 3-stage American Marsh vertical turbine centrifugal pump with motor. The pump will supply NPW for several processes including cooling water for the standby generator. This pump is the second in a line of two pumps and acts as a drop in replacement without modifications to existing base and piping. The first pump was previously purchased in 2018 through a competitive bid.

Engineered Systems and Products Inc. is currently the authorized distributor for Virginia.

Resource: Bruce Husselbee

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

Subject: Nansemond Treatment Plant Struvite Recovery Facility

Equipment Upgrade

Sole Source (>\$10,000), Contract Award (>\$200,000) and

Task Order (>\$200,000)

Recommended Actions:

- a. Approve Ostara USA LLC as the provider of equipment and implementation of equipment associated with upgrades and the WASSTRIP® technology for use at Nansemond Treatment Plant Struvite Recovery Facility.
- b. Award a contract to Ostara USA, LLC in the amount of \$2,140,754.
- c. Approve a task order with Hazen and Sawyer, P.C. (Hazen) in the amount of \$351,709.

CIP Project: NP013700

Budget	\$ 6,628,400
Previous Expenditures and Encumbrances	(\$1,132,041)
Available Balance	\$5,496,359

Contract Status:	Amount
Original Contract with Hazen	\$70,255
Total Value of Previous Task Orders	\$706,103
Requested Task Order	\$351,709
Total Value of All Task Orders	\$1,057,812
Revised Contract Value	\$1,128,067
Engineering Services as % of Construction	11.3%

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

Project Description: This project involves the implementation of the WASSTRIP® (Waste Activated Sludge Stripping to Remove Internal Phosphorus) process and modifications to the Struvite Recovery Facility (SRF). The WASSTRIP process consists of the storage of thickened WAS (on existing gravity belt thickeners) in a tank for a period sufficient to allow phosphorus and magnesium release, followed by post thickening, and transfer of thickened solids to digestion. The thickening filtrate (WASATE) will be transferred to the SRF separate from the centrate stream. This project also includes solids removal steps for both centrate and WASATE. The SRF upgrades include replacement of the struvite product drying equipment, replacement of the chemical system, and other miscellaneous improvements including modifications necessary for the WASSTRIP® technology implementation.

<u>Contract Description</u>: This contract is for the purchase and implementation of equipment associated with the SRF upgrades and the WASSTRIP® technology at Nansemond Treatment Plant. This purchase is an update to the Ostara system previously purchased in accordance with the Public-Private Education Facilities and Infrastructure Act (PPEA) and HRSD PPEA guidelines.

<u>Task Order Description and Analysis of Cost</u>: This task order will provide engineering associated with the SRF improvements previously delayed due to the ongoing pilot work. Engineering services will also modify the system to include co-dewatering of stripped thickened waste activated sludge with primary sludge which is expected to significantly limit polymer demand associated with thickening. This effort includes modeling, analysis, and design.

The cost for this task order is based on a negotiated price between Hazen and HRSD. The design phase services as a percentage of construction is higher than normal, but this effort also includes process modeling and input from technical experts within Hazen.

<u>Analysis of Cost</u>: Costs were compared to past similar projects and were determined to be fair and reasonable.

Schedule: PER August 2017

Design April 2018
Bid August 2019
Construction October 2019
Project Completion May 2021

Resource: Jim Pletl

CONSENT AGENDA ITEM 2.d.3. - March 26, 2019

Subject: Shimadzu Scientific Instruments

Total Organic Carbon Analyzer

Sole Source (>\$10,000)

<u>Recommended Action</u>: Approve Shimadzu Scientific Instruments as the provider of a Total Organic Carbon (TOC) Analyzer 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

<u>Details</u>: Product includes purchase of a TOC analyzer to be used for analysis of Total Nitrogen (TN) at the Central Environmental Laboratory. Purchase will allow the lab to meet the increased demand, workload and data turnaround requirements relative to SWIFT. A similar instrument was previously purchased in 2014 through a competitive bid and will be used in conjunction with the new analyzer for compatibility of analysis and data results.

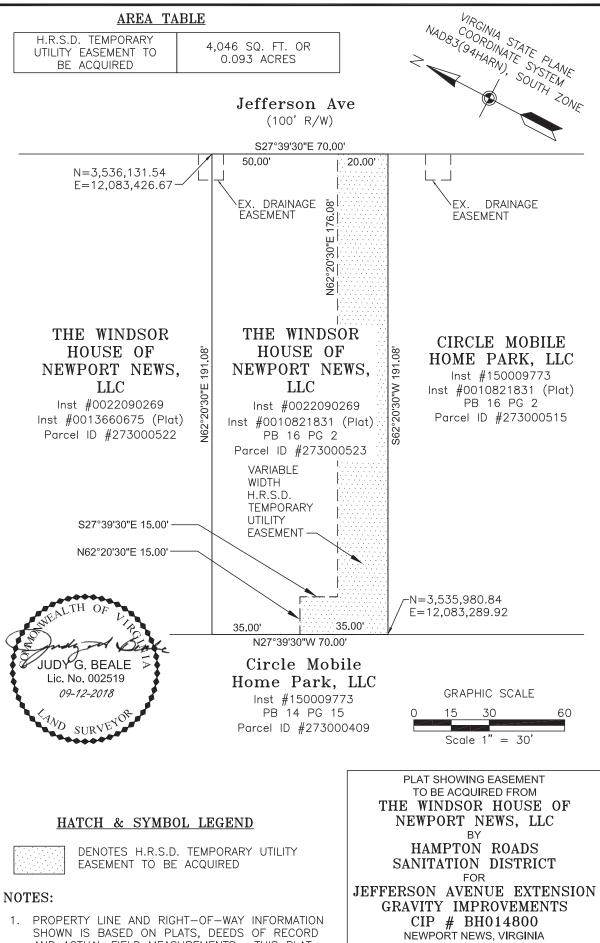
Shimadzu Scientific Instruments is the direct manufacturer.

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #3

AGENDA ITEM 4. – Jefferson Avenue Extension Gravity Improvements
Public Hearing on Determination of Public Need for Easement
Acquisition

- Plats
- Presentation



AND ACTUAL FIELD MEASUREMENTS. THIS PLAT

DOES NOT REPRESENT A CURRENT BOUNDARY SURVEY.

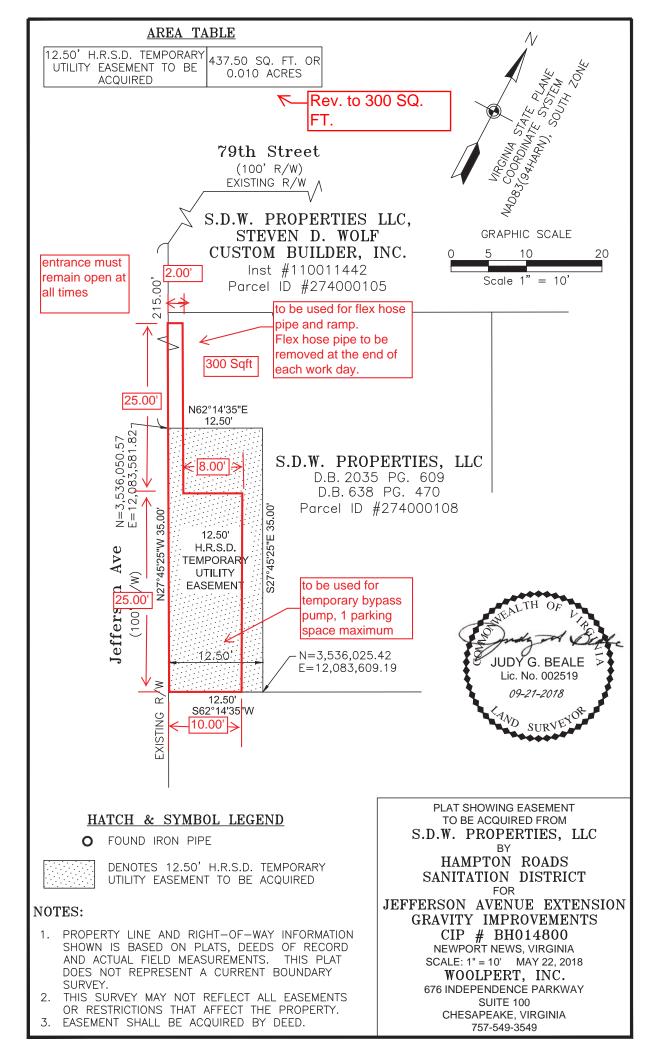
THIS SURVEY MAY NOT REFLECT ALL EASEMENTS OR RESTRICTIONS THAT AFFECT THE PROPERTY.

EASEMENT SHALL BE ACQUIRED BY DEED.

SCALE: 1" = 30' SEPTEMBER 11, 2018

WOOLPERT, INC. 676 INDEPENDENCE PARKWAY SUITE 100

> CHESAPEAKE, VIRGINIA 757-549-3549





Acquisition of Easements Jefferson Avenue Extension Gravity Improvements Public Hearing

March 26, 2019

Project Overview

Project Description

- This project will rehabilitate approximately 4,800 linear feet of gravity sewer ranging in diameter from 27" to 36" and associated manholes along Jefferson Avenue in Newport News.
- This project is included in the Rehabilitation Plan Phase 1 with a Consent Decree deadline of May 2021.
- The design is nearing completion and the project should be ready to advertise for bids later this year.

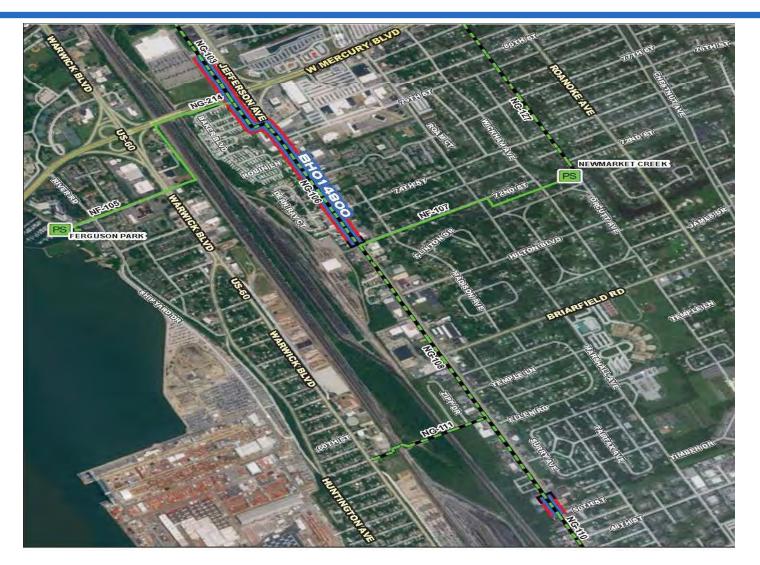


Project Overview (cont.)

Project Alignment and Design

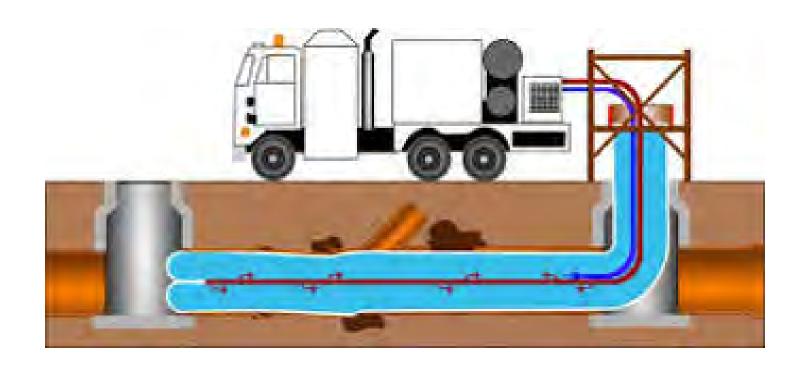
- During the design it was determined that the best solution to address this aging pipeline was to rehabilitate the pipe using a cured in place pipe (CIPP) solution.
- This rehabilitation technique requires the temporary by-pass of sewage flow while the pipe is repaired.
- A temporary by-pass pipe alignment is needed to facilitate this work and temporary construction easements are required for this effort.

Site Map



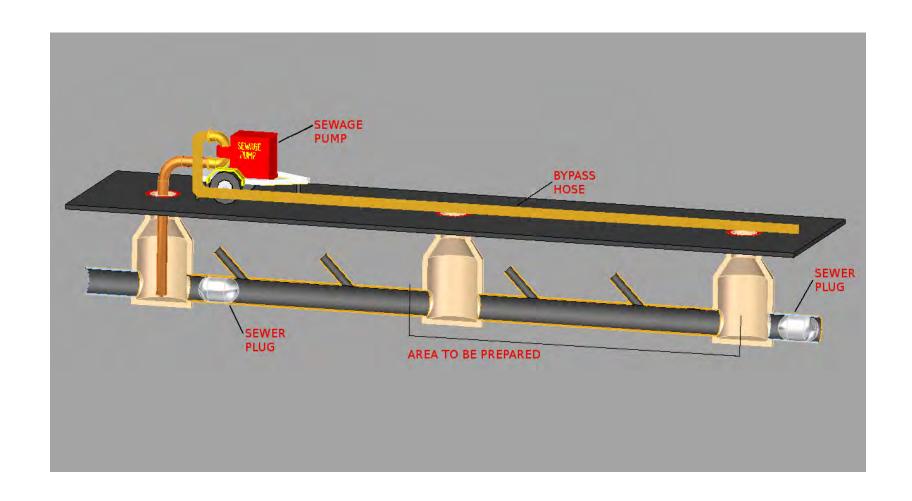


CIPP Process Schematic





By-Pass Piping Schematic





Property Photographs





Property Photographs



6022 Jefferson Avenue (View of easement area from Jefferson Avenue facing North)



Property Photographs



6031 Jefferson Avenue (View of easement area from Jefferson Avenue facing south)



Questions?

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #4

AGENDA ITEM 5. - Carolina Road Interceptor Force Main Interest Participation Agreement (IPA) Addendum

ADDENDUM 2 to the

AGREEMENT FOR CONSTRUCTION

of the

CAROLINA ROAD INTERCEPTOR FORCE MAIN CITY OF SUFFOLK, VIRGINIA

Original Agreement Dated June 24, 1998 Addendum I dated February 1, 2004 This Addendum II dated March 26, 2019

THIS ADDENDUM dated March 26, 2019 to that certain Agreement dated June 24, 1998 and as amended February 1, 2004, by and between the CITY OF SUFFOLK (hereinafter referred to as the "CITY") and HAMPTON ROADS SANITATION DISTRICT (hereinafter referred to as "HRSD"), a political subdivision of the Commonwealth of Virginia.

WITNESSETH:

WHEREAS, HRSD and the CITY entered into an Agreement for the Construction of Carolina Road Interceptor Force Main dated the 24th day of June, 1998; and

WHEREAS, the Carolina Road Interceptor Force Main was activated for service in 2002; and

WHEREAS, HRSD owns and operates the Carolina Road Interceptor Force Main, also known as lines SF-264, SF-265, SF-266, and SF-267, and located between the intersection of Constance Road with Pitchkettle Road and the Suffolk Airport in the City of Suffolk, Virginia; and

WHEREAS, the CITY has made interest payments to HRSD according to the Agreement; and

WHEREAS, the requirement for interest payment termination has not been satisfied; and

WHEREAS, the sum of the interest payments received exceeds the projected estimated interest for this construction; and

WHEREAS, the parties now wish to AMEND the Agreement.

TERMS

NOW, THEREFORE, it is mutually agreed between the parties hereto as follows:

- 1. III. <u>OBLIGATIONS OF HRSD</u>, paragraph B. <u>Revenue Credit to the CITY</u> is hereby deleted in its entirety. Paragraph C. <u>Payment to the CITY</u> is hereby deleted in its entirety.
- 2. IV. <u>OBLIGATIONS OF THE CITY</u>, paragraph A. <u>Payment to HRSD</u> is hereby deleted in its entirety.
- 3. V. <u>PAYMENT TERMINATION</u> is hereby deleted in its entirety and replaced as follows:

The parties acknowledge that this Addendum terminates any interest payment due from the CITY to HRSD after the quarter ending March 31, 2019. The parties acknowledge that the last interest payment was received on August 10, for the quarter ended June 30, 2018. Invoices for the quarter ended September 30, 2018, billed on November 16, 2018, for the quarter ended December 31, 2018, billed on March 7, 2019, and for the quarter ending March 31, 2019, which will be billed in April 2019, are the remaining invoices to be paid to HRSD. The parties further acknowledge that no further financial obligations are owed by either party to the other under this Agreement.

4. All other provisions of the Agreement and Addendum remain in full force and effect unless modified herein.

Signature Pages Follow

IN WITNESS WHEREOF, the CITY has caused this Addendum to be signed by the City Manager.

CITY OF SUFFOLK

STATE OF VIRGINIA SUFFOIK The foregoing Addendum was acknowledged before me this 2011, 2019, by Patrick 6. Robert 5 City Manager, City of Suffolk.

My Commission Expires: 7/31/2020

Registration Number:

IN WITNESS WHEREOF, HRSD has caused this Addendum to be signed in its behalf its General Manager and its seal affixed and attested by its Secretary in accordance authorization granted at its regular meeting held on March 26, 2019.



HAMPTON ROADS SANITATION DISTRICT

Edward G. Henifin, P.E.

General Manager

ATTEST:

Secretary

STATE OF VIRGINIA

CITY/COUNTY OF Virgini

The foregoing Addendum was acknowledged before me this Addendum day of ______, 2019, by Edward G. Henifin, HRSD.

My Commission Expires:

Registration Number:

JENNIFER LYNN CASCIO NOTARY PUBLIC - REG. #361710 COMMONWEALTH OF VIRGINIA

MY COMMISSION EXPIRES AUGUST 31, 2022

File: Suris/Suffolk/IPA

AGREEMENT FOR THE CONSTRUCTION

of

CAROLINA ROAD INTERCEPTOR FORCE MAIN

for

THE CITY OF SUFFOLK, VIRGINIA

THIS AGREEMENT, between the City of Suffolk (CITY) and the HAMPTON ROADS SANITATION DISTRICT (HRSD), entered this 24^{TA} day of June, 1998.

WITNESSETH:

WHEREAS, the Carolina Road Interceptor Force Main is planned to provide for the systematic expansion of HRSD facilities to meet the needs of customers in accordance with the Development Plan; and

WHEREAS, the CITY finds it necessary to pursue the construction of the Carolina Road Interceptor Force Main in a manner consistent with the City's Comprehensive Land Use Plan as specifically described below; and

WHEREAS, HRSD agrees to have such facilities constructed at HRSD's cost and in accordance with the description of the facilities stated and referred to herein and under the terms and conditions herein defined;

NOW, THEREFORE, it is mutually agreed between the parties hereto as follows:

I. DESCRIPTION OF FACILITIES

In keeping with the policies set forth in HRSD's Development Plan and the CITY's Comprehensive Land Use Plan, HRSD and/or the CITY will construct:

Approximately 21,000 feet of force main beginning at the existing HRSD force main at the intersection of Constance Road and Pitchkettle Road and then proceeding south through the City along Route 13 (Carolina Road) from Kilby Road to the Suffolk Airport.

II. CONSTRUCTION OF FACILITIES

A. Cost of Construction:

The total cost of the interceptor facilities described above, as specifically defined by the plans and specifications for the work, prepared by or for HRSD and approved by the CITY, shall include (a) construction contract costs for the facility; (b) cost of engineering design, construction supervision and inspection; (c) the cost of advertising for bids, review by HRSD consultants, and other miscellaneous essential expense; and (d) the cost of land and rights-of-way acquired for construction from property other than that owned by the CITY or in public rights-of-way.

The records of these costs shall be available for review by the CITY at any mutually convenient time. The cost shall not include administrative or salary cost of the CITY or HRSD.

B. Approval of Plans and Specifications:

HRSD and the CITY agree that before any construction work is begun under this AGREEMENT, each will submit to and secure approval from the other party (in writing) of final plans and specifications for the work.

The above approvals include but are not limited to force main size, type of material, routing, and outlets.

C. Ownership, Operation and Maintenance of Facilities:

The Facilities constructed hereunder shall be and remain the property of HRSD.

III. OBLIGATIONS OF HRSD

A. Collection of Service Charges:

HRSD and the CITY agree that a Wastewater Facility Charge normally made by HRSD will be charged for each new connection served by the lines previously described in Section I. No Wastewater Facility Charge will be required for the connection of existing facilities which are served by septic tank or other inadequate wastewater treatment facilities which are to be abandoned. A Wastewater Treatment Charge shall be collected by HRSD in accordance with provisions of the rate schedule in effect at the time of collection. The CITY, however, reserves the right to charge and collect facility and service charges as appropriate in addition to HRSD charges. HRSD shall maintain a complete and accurate record of all Wastewater Treatment Charge collections and such records shall be available for inspection by authorized representatives of the CITY during normal working hours.

B. Revenue Credit to the CITY:

When HRSD begins treatment of flows generated through the facilities described in Section I (the "Facilities") at its treatment plants, HRSD agrees to credit the CITY, at the end of each quarterly period, 70% of all revenues collected by HRSD for Wastewater Treatment Charges from new connections to the Facilities during the preceding three months, or portion thereof. Such new connections eligible for the 70% credit will be those located in the City of Suffolk within the service areas of CITY pump stations #21 and #22 when they are rerouted to the new force main and all other new connections to the Facilities which has not been or will not be credited towards another Agreement.

C. Payment to the CITY:

HRSD agrees that the CITY may construct any portion of the described force main and that the allowable costs of construction as described herein shall be reimbursed to the CITY through monthly progress payments. It is further understood that one half of the monthly progress payment to the CITY will be credited to HRSD to reimburse HRSD for the CITY's share of the Nansemond Water Main. The CITY's share of the Nansemond Water Main is one half of the construction cost or \$200,000 which ever is less.

IV. OBLIGATIONS OF THE CITY

A. Payment to HRSD:

The CITY agrees to pay to HRSD, at the end of each quarterly period, one-fourth of the annual interest sum arrived at by multiplying the total construction costs, as described in Section II.A., by the agreed interest rate of 5.7% less the 70% credit to the CITY as outlined in Section III.B. above. If a Virginia Revolving Loan is obtained for this project, the interest rate will be lowered to the Virginia Revolving Loan Fund interest rate.

Payments will begin as of the date of completion of the interceptor and at the time it becomes available for use.

B. Future Relocating of Lines:

If any of such lines are required to be relocated to accommodate other CITY projects, relocation shall be at the expense of the project.

V. PAYMENT TERMINATION

Payment shall terminate when such 70% credits equal the amount of the CITY's quarterly payments and such 70% credits have not, for any quarterly period within one year prior thereto, been less than the CITY's quarterly payment.

IN WITNESS WHEREOF, the CITY has caused this AGREEMENT to be signed by		
the City Manager in its behalf and its seal affixed and attested by its clerk, pursuant to		
ordinance adopted by the City Council on <u>Nov. 5</u> , 19 <u>97</u> and the Hampton Roads		
Sanitation District Commission has caused this AGREEMENT to be signed in its behalf by its		
General Manager and its seal affixed and attested by its Secretary in accordance with		
authorization granted at its regular meeting held on July 22, 1997.		
THE CITY OF SUFFOLK		
By Weller Harle (City Manager		
ATTEST:		
Mary Lyn Dyon		
STATE OF VIRGINIA,		
CITY/COUNTY OF Suffolk, to-wit:		
The foregoing agreement was acknowledged before me this 17th day of		
June, 1998, by Myles E. Standish		
City Manager, City of Suffolk.		
My commission expires: June 30, 1998		
My commission expires:		

HAMPTON ROADS SANITATION DISTRICT By

General Manager

ATTEST:

State of Virginia,

CITY/COUNTY OF Virginia Reach, to-wit:

The foregoing agreement was acknowledged before me this 24 day of

June, 1998, by D. R. Wheeler,

General Manager, Hampton Roads Sanitation District.

My commission expires:

Notary Public

ADDENDUM 1

To

AGREEMENT FOR CONSTRUCTION

Of

CAROLINA ROAD INTERCEPTOR FORCE MAIN

For

THE CITY OF SUFFOLK, VIRGINIA

Original Agreement Dated June 24, 1998 This Addendum Dated February 1, 2004

THIS ADDENDUM, BETWEEN the CITY OF SUFFOLK (CITY), and the HAMPTON ROADS SANITATION DISTRICT (HRSD), entered the ___ day of ____, 2004, hereby amends the above mentioned AGREEMENT FOR CONSTRUCTION as follows:

1. Paragraph IV is hereby amended to read as follows:

OBLIGATIONS OF THE CITY

A. Payment to HRSD:

The CITY agrees to pay to HRSD, at the end of each quarterly period, one-fourth of annual interest sum arrived at by multiplying the total construction cost, as described in Section II. A. by the agreed interest rate of 5.7% 3.6% effective January 1, 2004 less the 70% credit to the CITY as outlined in Section III, B, above.

2. All other provisions of the Agreement remains in full force and effects as originally stated.

IN WITNESS WHEREOF, the CITY has caused this ADDENDUM to			
be signed by the City Manager in its behalf and its seal affixed and attested by its			
Clerk, pursuant to ordinance adopted by the City Council on, 2004			
and the DISTRICT has caused this ADDENDUM to be signed in its behalf by its			
General Manager and its seal affixed and attested by its Secretary in accordance			
with authorization granted at its regular meeting held on December 23, 2003.			
with authorization granted at its regular meeting held on December 23, 2003.			
THE CITY OF SUFFOLK			
, THE CIT OF SUFFORM			
ВУ			
BYCity Manager			
ATTEST:			
Secretary			
STATE OF VIRGINIA			
CITY/COUNTY OF, to-wit:			
The foregoing addendum was acknowledged before me this day of			
, 2004, by, City Manager,			
City of Suffolk.			
Notary Public			

My commission expires:

HAMPTON ROADS SANITATION DISTRICT

	BY
	General Manager
ATTEST:	
Secretary	·
STATE OF VIRGINIA,	
CITY/COUNTY OF	, to-wit:
The foregoing addendum w, 2004, Roads Sanitation District.	vas acknowledged before me this day of, General Manager, Hampton
Notary Public	·
My commission expires:	

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #5

Agenda Item 6. - Lackey Interceptor Force Main Part I Interest Participation Agreement (IPA) Amendment

AMENDMENT NO. 3 to the

AGREEMENT FOR CONSTRUCTION

of the

LACKEY INTERCEPTOR FORCE MAIN PART I CITY OF NEWPORT NEWS, VIRGINIA

Original Agreement dated August 12, 1997 Amendment dated October 14, 1997 Amendment No. 2 dated March 23, 2004 This Amendment No. 3 dated March 26, 2019

THIS AMENDMENT dated March 26, 2019 to that certain Agreement dated August 12, 1997, and as amended by Amendment dated October 14, 1997, and Amendment No. 2 dated March 23, 2004, by and between the CITY OF NEWPORT NEWS (hereinafter referred to as the "CITY") and HAMPTON ROADS SANITATION DISTRICT (hereinafter referred to as "HRSD"), a political subdivision of the Commonwealth of Virginia.

WITNESSETH:

WHEREAS, HRSD and the CITY entered into an Agreement for the Construction of Lackey Interceptor Force Main dated August 12, 1997; and

WHEREAS, the Lackey Interceptor Force Main was activated for service in 2003; and

WHEREAS, HRSD owns and operates the Lackey Interceptor Force Main, also known as line NF-205, and located between the intersections of Yorktown Road with Crafford Road and Yorktown Road with Warwick Boulevard in the City of Newport News, Virginia; and

WHEREAS, the CITY has made interest payments to HRSD according to the Agreement; and

WHEREAS, the requirement for interest payment termination has not been satisfied; and

WHEREAS, the sum of the interest payments received exceeds the projected estimated interest for this construction; and

WHEREAS, the parties now wish to AMEND the Agreement.

TERMS

NOW, THEREFORE, it is mutually agreed between the parties hereto as follows:

- 1. III. <u>OBLIGATIONS OF HRSD</u>, paragraph B. <u>Revenue Credit to the CITY</u> is hereby deleted in its entirety.
- IV. <u>OBLIGATIONS OF THE CITY</u>, paragraph A. <u>Payment to HRSD</u> is hereby deleted in its entirety. Paragraph B. <u>Identification of Accounts</u> is hereby deleted in its entirety.
- 3. V. <u>PAYMENT TERMINATION</u> is hereby deleted in its entirety and replaced as follows:

The parties acknowledge that this Addendum terminates any interest payment due from the CITY to HRSD after the quarter ending March 31, 2019. The parties acknowledge that the last interest payment was received on August 10, for the quarter ended June 30, 2018. Invoices for the quarter ended September 30, 2018, billed on November 16, 2018, for the quarter ended December 31, 2018, billed on March 7, 2019, and for the quarter ending March 31, 2019, which will be billed in April 2019, are the remaining invoices to be paid to HRSD. The parties further acknowledge that no further financial obligations are owed by either party to the other under this Agreement.

4. All other provisions of the Agreement and Addendum remain in full force and effect unless modified herein.

Signature Pages Follow

IN WITNESS WHEREOF, the CITY has caused this Addendum to be signed by the City Manager in its behalf and its seal affixed and attested by its Clerk, pursuant to adopted by the City Council on April 9, 2019.

CITY OF NEWPORT NEWS

BY Cvott	nia Rohlf, City Manager
Jul.	na rem, sity major
ATTEST:	APPROVED AS TO FORM:
Mahel Washington Jenkins Mabel Washington benkins, City Clerk	City Attorney
STATE OF VIRGINIA.	
CITY/GOUNTY OF Newport News, to	
The foregoing Addendum was acknowledged, 2019, by Cynthia Rohlf, 0	before me this <u>20</u> day of City Manager, City of Newport News.
Notar	y Public
My Commission Expires: 11/30/2020	ZINA F. MIDDLETON NOTARY PUBLIC
Registration Number: 298439	REGISTRATION NUMBER 200439 COMM EXPIRES: NOVEMBER 30, 20 2 6

IN WITNESS WHEREOF, HRSD has caused this Addendum to be signed in its behalf by its General Manager and its seal affixed and attested by its Secretary in accordance with authorization granted at its regular meeting held on March 26, 2019.



HAMPTON ROADS SANITATION DISTRICT

Edward G. Henifin, P.E. General Manager

ATTEST:

Secretary Cocio

STATE OF VIRGINIA

CITY/COUNTY OF Virginia Beach, to-wit:

The foregoing Addendum was acknowledged before me this <u>36</u> day of _______, 2019, by Edward G. Henifin, General Manager, HRSD.

Notary Public

My Commission Expires:

Registration Number:

JENNIFER LYNN CASCIO NOTARY PUBLIC - REG. #361710 COMMONWEALTH OF VIRGINIA

MY COMMISSION EXPIRES AUGUST 31, 2022

AGREEMENT FOR THE CONSTRUCTION OF LACKEY INTERCEPTOR FORCE MAIN PART I IN THE CITY OF NEWPORT NEWS, VIRGINIA

THIS AGREEMENT, dated the 12th day of August, 1997, by and between CITY OF NEWPORT NEWS (CITY) and HAMPTON ROADS SANITATION DISTRICT (HRSD).

WITNESSETH:

WHEREAS, the construction of the Lackey Interceptor Force Main Part I is planned to provide for the systematic expansion of HRSD facilities to meet the needs of HRSD's existing and future customers in accordance with a Development Plan prepared and approved by HRSD; and

WHEREAS, HRSD agrees to have such facilities constructed at HRSD's cost and in accordance with the description of the facilities stated and referred to herein and under the terms and conditions herein defined; and

WHEREAS, CITY agrees to participate in the construction of the Lackey Interceptor Force Main Part I as specifically described herein.

NOW, THEREFORE, it is mutually agreed between the parties hereto as follows:

I. <u>DESCRIPTION OF FACILITIES</u>

In keeping with the policies set forth in HRSD's Development Plan, HRSD will construct the following:

Approximately 9,900 feet of 36-inch force main northerly along Yorktown Road from HRSD's 24-inch Williamsburg-James River Connecting Force Main Section II on Route 60 to the intersection of Yorktown Road and Crafford Road.

II. CONSTRUCTION AND MAINTENANCE OF FACILITIES

A. <u>Cost of Construction</u>:

The total cost of the interceptor facilities (also referred to herein as "inteceptor"), as specifically defined by the plans and specifications for the work, prepared by or for HRSD and approved by CITY, shall include (a) construction contract costs for the interceptor facilities; (b) cost of engineering design, construction, supervision and inspection; (c) the cost of advertising for bids, review by HRSD consultants, and other miscellaneous essential expenses; and (d) the cost of land and rights-of-way acquired for construction from property other than that owned by CITY or in public rights-of-way; the total amount of these costs to be reduced by any Federal or State grant funds received from the construction of facilities. The records of these costs shall be available for review by CITY at any mutually convenient time. The cost shall not include administrative or salary cost of CITY or HRSD.

B. Approval of Plans and Specifications:

HRSD agrees that before any construction work is begun under this AGREEMENT, it will submit to and secure approval from CITY (in writing) of final plans and specifications for the work.

This approval includes, but is not limited to, routing of the force main as well as size, type of material, and outlets for the project.

C. Ownership, Operation and Maintenance of Facilities:

The inteceptor facilities constructed hereunder shall be and remain the property of HRSD.

III. OBLIGATIONS OF HRSD

A. <u>Collection of Service Charges</u>:

HRSD and CITY agree that a Wastewater Facility Charge normally made by HRSD will be charged for each new connection served by the lines previously described in Section I. No Wastewater Facility Charge will be required for the connection of existing facilities which are served by septic tank or other inadequate wastewater treatment facilities which are to be abandoned. A Wastewater Treatment Charge shall be collected by HRSD in accordance with provisions of the rate schedule in effect at the time of collection. CITY, however, reserves the right to charge and collect facility and service charges as appropriate in addition to HRSD charges. HRSD shall, at the end of each quarterly period, provide a report to CITY of Wastewater Treatment Charge collection. HRSD shall maintain a complete and accurate record of all Wastewater Treatment Charge collections and such records shall be available for inspection by authorized representatives of CITY during normal working hours.

B. Revenue Credit to CITY:

When HRSD begins treatment of flows generated through the facilities described in Section I at its treatment plants, HRSD agrees to credit CITY, at the end of each quarterly period, with seventy percent (70%) of all revenues collected by HRSD for Wastewater Treatment Charges from connection to the aforesaid facilities. Such connections considered for the seventy percent (70%) credit will be those located in the CITY of Newport News within the service area shown on Attachment I. The areas outside this service area will be credited towards this interceptor if they are new connections to this interceptor and have not been or will not be credited towards another Interest Participation Agreement. Areas within this service area that have been credited towards another Interest Participation Agreement are not eligible for credit to this AGREEMENT.

IV. OBLIGATIONS OF CITY

A. Payment to HRSD:

CITY agrees to pay to HRSD, on March 31, June 30, September 30, and December 30 of each year, one-fourth of the annual interest sum arrived at by multiplying total construction costs, as described in Section II.A., by the agreed interest rate on the debt instrument less the seventy percent (70%) credit to CITY as outlined in Section III.B. above.

Payments will be required once the interceptor becomes available for use, with the first payment prorated to the appropriate quarterly payment date.

B. <u>Identification of Accounts</u>:

CITY agrees to periodically review the boundaries of this AGREEMENT and identify accounts that qualify for credit within same. Identified accounts shall be encoded within CITY's customer billing system as accounts eligible for this AGREEMENT. Accounts initially omitted or not identified by CITY shall be reported to HRSD within sixty (60) days of the date of each quarterly report. Accounts not identified within this time frame shall be eligible for credit, but not back credit.

C. <u>Future Relocating of Lines</u>:

If any such lines are required to be relocated to accommodate other public projects, relocation shall be at the expense of that other project.

V. <u>PAYMENT TERMINATION</u>

The obligation of City for payment to HRSD shall terminate when CITY's permitted seventy percent (70%) credits equal the amount of CITY's quarterly payments and such seventy percent (70%) credits have not, for any quarterly period within one year prior thereto, been less than CITY's quarterly payment.

IN WITNESS WHEREOF, CITY has caused this AGREEMENT to be signed by the City Manager in its behalf and its seal affixed and attested by the City Clerk, pursuant to resolution adopted by the City Council on August 12, 1997, and the Hampton Roads Sanitation District Commission has caused this AGREEMENT to be signed in its behalf by its General Manager and its seal affixed and attested by its Secretary in accordance with authorization granted at its regular meeting held on

June 24, 1997.

CITY OF NEWPORT NEWS, VIRGINIA

By: City Manager

ATTEST:

Approved as to form:

By: Linda It. Phillips Deputifity Clerk

City Attomey

HAMPTON ROADS SANITATION DISTRICT

By:

D. R. Wheeler, General Manager

ATTEST:

By: Mulley S. Croff
Secretary

kdk3200

AMENDMENT

THIS AMENDMENT, dated the 14th day of October, 1997, to that certain Agreement dated August 12, 1997, by and between the CITY OF NEWPORT NEWS, hereinafter referred to as "City", and the HAMPTON ROADS SANITATION DISTRICT, hereinafter referred to as "HRSD."

WHEREAS, the Parties to this Amendment have heretofore entered into an agreement for the Lackey Interceptor Force Main Part I, hereinafter referred to as "the Agreement"; and

WHEREAS, representatives of City and HRSD have established that the rate of interest referred to in paragraph IV.A. of the Agreement is 5.49% which results in the following amendment to paragraph IV.A. of the Agreement:

IV. <u>OBLIGATIONS OF CITY</u>

A. Payment to HRSD:

City agrees to pay to HRSD, on March 31, June 30, September 30, and December 30 of each year, one-fourth of the annual interest sum arrived at by multiplying total construction costs, ad described in Section II.A., by the agreed interest rate of 5.49% less the seventy percent (70%) credit to CITY as outlined in Section III.B. above.

Payments will be required once the interceptor becomes available for use, with the first payment prorated to the appropriate quarterly payment date.

NOW, THEREFORE, it is understood and agreed by City and HRSD that the Agreement shall be amended as follows:

- That paragraph IV.A is hereby amended in accord with the provisions of this Amendment.
 - 2. That all other terms of the Agreement shall remain in effect.

WITNESS the following signatures and seals:

CITY OF NEWPORT NEWS, VIRGINIA

By:

ATTEST:

APPROVED AS TO FORM:

HAMPTON ROADS SANITATION DISTRICT

By:

D. R. Wheeler, General Manager

ATTEST:

sdg04069

AMENDMENT NO. 2

THIS AMENDMENT NO. 2, dated the 23rd day of March, 2004, to that certain Agreement dated August 12, 1997, by and between the CITY OF NEWPORT NEWS, hereinafter referred to as "City", and the HAMPTON ROADS SANITATION DISTRICT, hereinafter referred to as "HRSD," hereby amends the above mentioned Agreement as follows:

1. Paragraph IV is hereby amended to read as follows:

OBLIGATIONS OF THE CITY

A. Payment to HRSD:

The City agrees to pay to HRSD, on March 31, June, 30, September 30 and December 30 of each year, one-fourth of annual interest sum arrived at by multiplying the total construction cost, as described in Section II.A. by the agreed interest rate of 3.6% effective January 1, 2004 less the 70% credit to the City as outlined in Section III.B. above.

2. All other provisions of the Agreement remain in full force and effect as originally stated.

WITNESS the following signatures and seals:

CITY OF NEWPORT NEWS, VIRGINIA

By:

City Manager

APPROVED AS TO FORM:

ATTEST:

MIK. V S

Cital Attorney

City Clerk

HAMPTON ROADS SANITATION DISTRICT

Ву:

General Manager

sdm1646

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #6

AGENDA ITEM 7. - Elbow Road Pressure Reducing Station Acquisition of Real Property – Elbow Road, Chesapeake, Virginia

- Purchase and Sale Agreement
- Deed
- Facilities Map

PURCHASE AND SALE AGREEMENT

RECITALS

A. The land and improvements subject to this Purchase and Sale Agreement (hereinafter referred to as "the land") are described as follows:

A portion of Tax Map #: 039-0-000-00011-0 "the Property":

All that certain lot, piece, or parcel of land containing 53,572 square feet or 1.2 acres (+/-) more or less, situate, lying, and being in the City of Chesapeake, Virginia, and as shown on that certain plat entitled: "RESUBDIVISION PLAT OF PARCEL 11A BETWEEN THE PROPERTIES OF THE HAMPTON ROADS SANITATION DISTRICT AND THE PROPERTY OF J AND L SAWYER HOLDINGS LLC", bearing a date of August 9, 2018 and signed 8/9/18 _____, by Michael Surveying and Mapping, P.C., 41 Old Oyster Point Road, Suite B, Newport News, VA 23602. Said plat is attached hereto as Exhibit "A" for reference and made a part of this legal description and Agreement.

Together with all and singular the buildings and improvements, tenements, hereditaments, rights, privileges and appurtenances thereunto belonging or in anywise appertaining (the "Property").

- B. HRSD desires to purchase the Property from the Seller for wastewater and infrastructure and upgrades.
- 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:

 SALE. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. The real property and the personal property are called "the Property".

2. <u>PURCHASE PRICE</u>. The purchase price (the Purchase Price) for the Property is <u>Fifty Thousand and 00/100 Dollars</u> (\$50,000.00), and the Purchase Price shall be paid to the Seller by certified check or wired funds at closing.

3. CONVEYANCE.

- a. At the Closing, Seller shall convey title to the Property in fee simple, by general warranty deed, free and clear of any and all liens, mortgages, deeds of trust, security interests, leases, covenants, conditions, restrictions, easements, rights-of-way, licenses, encroachments, judgments or encumbrances of any kind, except for the following permitted exceptions: (a) the lien of real estate taxes not yet due and payable; (b) zoning and building restrictions and other laws, ordinances, and regulations of governmental bodies having jurisdiction over the Property; and (c) matters of record affecting title to the property, subject to the terms of this Agreement. Except as expressly stated in this Agreement, the Property shall be conveyed in "AS IS" condition.
- b. Title to the Property shall be good and marketable, subject to the terms of this Agreement and insurable by a nationally recognized ALTA title insurance company of HRSD's choice. In the event that a title examination discloses defects of title or other matters unsatisfactory to HRSD at HRSD's sole determination, HRSD shall notify Seller in writing (an "Objection Notice"), within 90 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects. exceptions or other matters referenced in such Objection Response and proceed to Closing hereunder with no reduction of

the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD.

- c. Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
- d. Seller agrees to pay proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at settlement. HRSD will pay all other fees charged in connection with preparation and recordation of the deed, including grantor's tax.
- e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
- AIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including but not limited to the cutting of survey lines and putting up markers and driving stubs and stakes, site analysis, engineering studies, core sampling for engineering reports, and locating existing rights of way, easements, and utilities. HRSD will exercise this right of entry in such a way so as to not cause unreasonable damage to the Property. HRSD agrees to indemnify and save harmless the Seller from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property before or after Closing.

5. <u>CONDITIONS AND CONTINGENCIES.</u>

a. HRSD's obligations are expressly conditioned upon the waiver or satisfaction of each of the following conditions in the sole determination of HRSD. If any one of the following conditions cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both

HRSD and Seller), HRSD may unilaterally terminate this Agreement:

- i. Receipt of a satisfactory title commitment with all unacceptable title exceptions, encumbrances, and conditions as deemed by HRSD removed or cured at Seller's cost; however, if Seller chooses not to remove or cure any such title exception, HRSD's sole remedy shall be to terminate this Agreement;
- ii. Receipt of a Phase I Environmental Assessment and Report (Phase I Report) conducted and prepared by an environmental engineering and inspection company selected by HRSD at HRSD's expense and such other testing and reports as may be reasonably required by HRSD or recommended in the Phase I Report;
- iii. Seller's compliance of all of its obligations under this Agreement.
- b. This Agreement is expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to HRSD within the 90 day period. In the event HRSD fails to notify the Seller in writing within such 90 day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and shall be addressed as set forth in this Agreement.
- c. This Agreement is contingent on the review and approval by the Hampton Roads Sanitation District Commission and upon such Commission granting authorization to the General Manager to proceed under the terms of this Agreement.

6. <u>ENVIRONMENTAL AND RELATED MATTERS</u>.

a. As a condition precedent to HRSD's obligation to purchase, HRSD, at HRSD's expense, may have a Phase I Environmental Assessment of the Property performed by a qualified environmental consultant (the Consultant) selected by HRSD and reasonably acceptable to Seller, conducted in accordance with standard

commercial practice at the time of the assessment. A copy of the Phase I Environmental Assessment will be made available to Seller, together with copies of any supplemental reports or assessments.

- b. If the Consultant recommends soil, water, or structural remediation or further assessment activity after or as a result of performing a Phase I Environmental Assessment or if HRSD otherwise determines, in its reasonable judgment, that further assessment activity (including, but not limited to, a Phase II Environmental Assessment) is desirable, HRSD may at its option:
 - (i) Terminate this Agreement; or
 - (ii) Extend the time for closing for an additional period of sixty (60) days in order to perform any such additional assessment at HRSD's expense; or
 - (iii) Waive the environmental defect and proceed to Closing.

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

- (i) Terminate this Agreement; or
- (ii) Waive the environmental defect and proceed to Closing.
- 7. REPRESENTATIONS AND WARRANTIES BY SELLER. Seller represents and warrants as of the date of this Agreement and as of the date of Closing that: Seller has the right, title, and authority to enter into this Agreement and to perform its obligations hereunder.

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

- (i) Other than this Agreement, there are no other contracts for sale or options involving the Property now in effect;
- (ii) To the best of Seller's knowledge, no other party has any right, title or interest in the Property;
- (iii) There are no unrecorded leases, options, licenses or easements existing in connection with the property to which the Seller has knowledge;

- (iv) There are no adverse government notifications or proceedings and there is no pending or threatened litigation or any other potentially adverse claims affecting the property to which the Seller has knowledge.
- (v) Foreign Status. Seller is not a foreign corporation, person or entity and is a "United States Corporations, Person or Entity" as such terms is defined in Section 1445 and in Section 7701 (a)(30) of the Internal Revenue Code of 1986, as amended (the "Code") and shall deliver to HRSD at or prior to the Settlement an Affidavit prepared by HRSD evidencing such fact and such other documents as may be required under the Code.
- (vi) From and after the date of this Agreement, Seller shall not transfer any interest in, or grant any easements or enter into any contractual agreement or understanding, written or oral, with respect to the Property or any portion thereof or make any changes at all that require recordation and therefore modifications to title, without the prior written consent of HRSD.
- 8. <u>NOTICES</u>. All notices to the parties hereto will be delivered by hand, via certified mail return receipt requested, or via facsimile and all be deemed effective upon delivery if by hand and upon confirmation of receipt if by other means, to the following address until the address is changed by notice in writing to the other party:

HRSD: Edward G. Henifin, P.E.

General Manager P.O. Box 5911

Virginia Beach, Virginia 23471-0911

Copy to: William A. Cox, III, Esq.

Janice Pickrell Anderson, Esq.

Kellam, Pickrell, Cox & Anderson, PC

403 Boush Street, Suite 300

Norfolk, VA 23510

Seller: J and L Sawyer Holdings, LLC

1701 Elbow Road

Chesapeake, VA 23320

Copy to:

Green Hampton & Kelly, PLLC

Attn: Edwin Green, Esq. 501 Independence Parkway Chesapeake, VA 23320

- CLOSING. Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent within 120 days of the Effective Date, unless extended by terms of this agreement or by mutual agreement of the parties.
- 10. <u>SURVIVAL</u>. The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
- 11. <u>PRORATIONS</u>. All rents, interest, taxes, insurance premiums, utility bills, and fuel oil, if any, will be prorated as of the date of Closing.
- 12. <u>RISK OF LOSS</u>. All risk of loss or damage to the Property by fire, windstorm, casualty, or other cause is assumed by Seller until Closing. In the event of substantial loss or damage to the Property before Closing, HRSD will have the option of either:
 - a. Terminating this Agreement, or
 - b. Affirming this Agreement and proceeding to Closing.
- 13. <u>FUTURE SALE BY HRSD</u>. In the event that HRSD shall determine to sell all or a portion of the property for private development within two (2) years of the Settlement Date, it agrees to notify Seller and give Seller first opportunity to purchase the property on such terms as the parties shall mutually agree. Such notice shall be writing addressed in accordance with the provisions of Section 8 herein or such other address provided to HRSD by the Seller and shall provide Seller with at least thirty (30) calendar days to present HRSD with an offer to purchase the property.
- 14. BROKERS. Seller and HRSD both represent and warrant to the other that it has not hired, engaged, or consulted with any broker or agent in regard to this transaction. Each party agrees to indemnify and hold harmless the other from any and all costs, expenses, or damages resulting from any claim for brokerage fees or other similar forms of compensation made by any real estate broker or other person or entity with whom a party has dealt, and who is not expressly named herein.

15. <u>CONDEMNATION</u>. Seller covenants and warrants that Seller has not heretofore received any notice of any condemnation proceeding or other proceeding in the nature of eminent domain in connection with the Property. If prior to Settlement any such proceeding is commenced or any change is made, or proposed to be made, to the current means of ingress and egress to the Property or to the roads or driveways adjoining the Property, or to change such ingress or egress or to change the grade thereof, Seller agrees immediately to notify HRSD thereof. HRSD then shall have the right, at HRSD's option, to terminate this Agreement by giving written notice to Seller within thirty (30) days after receipt of such notice.

16. <u>DEFAULT AND REMEDIES</u>.

- 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:
 - Terminate this Agreement;
 - ii Seek and obtain specific performance of this Agreement; or
 - iii Pursue all other rights or remedies available at law or in equity, including an action for damages.
- b. If either Seller or HRSD defaults under this Agreement, the defaulting party will be liable for any expenses incurred by the non-defaulting party in connection with the enforcement of its rights under this Agreement.
- c. These remedies are cumulative and non-exclusive and may be pursued at the option of the non-defaulting party without a requirement of election of remedies.
- 17. <u>ENTIRE AGREEMENT</u>. This Agreement contains the entire agreement of the parties and will supersede the terms and conditions of all prior written and oral agreements, if any, concerning the matters it covers. The parties acknowledge there are no oral agreements, understandings, representations, or warranties that supplement or explain the terms and conditions contained in this Agreement. This Agreement may not be modified except by an agreement in writing signed by the parties.

- 18. <u>WAIVER</u>. Failure to insist upon strict compliance with any of the terms, covenants, or conditions hereof will not be deemed a waiver of the term, covenant, or condition, nor will any waiver or relinquishment of any right or power at any one time or more times be deemed a waiver or relinquishment of the right or power at any other time or times.
- 19. <u>SEVERABILITY</u>. This Agreement will be construed in its entirety and will not be divisible, except that the invalidity or unenforceability of any provision hereof will in no way affect the validity or enforceability of any other provision.
- 20. <u>CAPTIONS</u>. Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
- 21. <u>GOVERNING LAW</u>. This Agreement is to be construed in accordance with the laws of the Commonwealth of Virginia.
- 22. CHOICE OF FORUM/JURISDICTION. The parties hereby consent to the jurisdiction and venue of the courts of the Commonwealth of Virginia, specifically to the courts of the City of <u>Chesapeake</u>, 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 <u>Chesapeake</u>, Virginia, or the Eastern District of Virginia that the parties are not personally subject to the jurisdiction of these courts, that the action, suit, or proceeding is brought in an inconvenient forum or that venue is improper.
- 23. WAIVER OF TRIAL BY JURY. THE PARTIES WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM BROUGHT BY EITHER PARTY AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ANY RELATED AGREEMENTS OR INSTRUMENTS AND THE ENFORCEMENT THEREOF, INCLUDING ANY CLAIM OF INJURY OR DAMAGE TO ANY PARTY OR THE PROPERTY OF ANY PARTY.
- 24. <u>SUCCESSOR/ASSIGNMENT</u>. 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.
- COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
- 26. <u>FACSIMILE SIGNATURES</u>. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.

SELLER: J and L Sawyer Holdings	, LLC, a Vir	ginia l	imited	d liability	company	
1 3 1	SEAL)					
The state of the s	, , , ,			4 ,		
By: James E. Sawyer, Sr.						
(Print name)	4			-1. ***		
Title: Member/Manager		1.5		, , ,		
				S. Carrie		
STATE OF Virginia						
CITY/COUNTY OF Chesapeake	, to-wit:		× **			
OII 1/0000II OI						
The formation instrument was	مرادم مريام مام	- d b - 6-		Ala:a 12	th	
The foregoing instrument was a	lamas E Sa	ed beid	ore me	this 12	day of	
February , 2019 , by					(name),	
Manager/Member (title) of	J and L Sav	wyer H	olding	s, LLC, a	Virginia limite	90
liability company. He is personally kno	wn to me or	provid	led			
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17-21	Notary Pt	JUIC				
My Commission expires: 12-51	- dd		_			
Notary Registration No.:	056		, A			

EMMA L. TYMUL
NOTARY PUBLIC
REGISTRATION # 311036
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES
DECEMBER 31: 200

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 day of ______, 201 _____, by Edward G. Henifin, P.E., General Manager, Hampton Roads Sanitation District.

Vered

My Commission Expires:

Registration No.:

JENNIFER LYNN CASCIO NOTARY PUBLIC - REG. #361710

Notary Public

MY COMMISSION EXPIRES ALIGHST 37 2022

BK 10036 PGS 0836 - 0838

Jul 25, 2019 11:15 am INST# 18902

DEED OF BARGAIN AND SALE

Part of Tax ID #: 0390000000110

Elbow Road

Consideration: \$50,000.00 Assessment: \$36,900.00

J AND L SAWYER HOLDINGS, LLC, A Virginia Limited Liability Company Grantor,

TO:

C. .

HAMPTON ROADS SANITATION
DISTRICT
Grantee.

PURSUANT TO THE PROVISIONS OF SECTION 58.1-811(A)(3) OF THE CODE OF VIRGINIA OF 1950, AS AMENDED, THIS DOCUMENT IS EXEMPT FROM THE PAYMENT OF RECORDATION TAXES.

THIS DEED made this day of April 2019, by and between, <u>J AND L SAWYER HOLDINGS</u>, <u>LLC</u>, A VIRGINIA LIMITED LIABILITY COMPANY, GRANTOR, and <u>HAMPTON ROADS SANITATION DISTRICT</u>, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, GRANTEE, whose mailing address is: 1434 Air Rail Avenue, Virginia Beach, VA 23455.

WITNESSETH:

That for and in consideration of the sum of ten (\$10.00) dollars, and other good and valuable consideration, the receipt of which is hereby acknowledged, the said Grantor does grant, bargain, sell, assign and convey, in fee simple, with **GENERAL WARRANTY** and with **ENGLISH COVENANTS OF TITLE** unto the said GRANTEE, the following described property, to-wit:

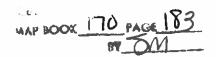
"SEE ATTACHED EXHIBIT A"

RECEIVED
FOR RECORDING ONLY
O19 JUL 25 AM 8: 55
ESAPEAKE CIRCUIT COUR

Title underwriter: Stewart Title Guaranty Company

Prepared by: Edwin H. Green, VSB# 38493, Green Hampton & Kelly, PLLC 501 Independence Pkwy., Suite 201, Chesapeake, VA 23320

Return to: Kellam, Pickrell, Cox & Anderson, P.C., 403 Boush Street, Suite 300, Norfolk, VA 23510



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

WITNESS the following signatures and seals:

J AND L SAWYER HOLDINGS, LLC, A Virginia Limited Liability Company

James E. Sawyer, Sr., Manager

STATE OF VIRGINIA, CITY/COUNTY OF CHESAPEAKE to-wit:

The foregoing instrument was acknowledged before me this James E. Sawyer, Sr., and Linda Maud Davis Sawyer, Managers of J and L Sawyer Holdings, LLC, A Virginia Limited Liability Company.

COMMONWEALTH OF VIRGINIA

Notary Public

My commission expires

My Registration #:

EXHIBIT A

LEGAL DESCRIPTION

ALL THAT certain strip or parcel of land situate in the City of Chesapeake, State of Virginia, and being described as follows, to-wit:

Starting at a point lying on the South side of Elbow Road which is the northeast corner of Parcel 11A. Parcel ID No. 039000000111, thence along the East property line of Parcel 11A S 24° 46° 09" East a distance of 15 feet to an iron rod set; thence continuing South 24° 46' 09" East a distance of 186.29 feet to a point which is the southeast corner of old Parcel 11A which is the point of beginning; thence from the point of beginning South 24° 46' 09" East a distance of 172.74 feet to an iron rod set; thence turning South 67° 10' 08" West a distance of 356.18 feet to an iron rod set; thence turning North 00° 40' 09" West a distance of 144.96 feet to a large pine stub, thence N 00° 55' 09" W 31 feet to a point which is the southwest corner of old Parcel 11A and thence turning South 65° 13' 51" West a distance of 284.27 feet to the point of beginning, which said strip of land contains 50,593 square feet or 1.1615 acres, more or less, as more particularly shown on that plat entitled "RESUBDIVISION PLAT OF PARCEL 11A BETWEEN THE PROPERTIES OF THE HAMPTON ROADS SANITATION DISTRICT AND THE PROPERTY OF J AND L SAWYER HOLDINGS LLC, WASHINGTON BOROUGH, CITY OF CHESAPEAKE, VIRGINIA, DATE: AUGUST 9, 2018 - REVISED: JUNE 12, 2019", made by Michael Surveying & Mapping, P.C., which plat is recorded contemporaneously herewith in the Clerk's Office of the Circuit Court of the City of Chesapeake. As indicated on the aforementioned subdivision plat, said strip of land shall be combined with the existing portion of Parcel 11A creating new Parcel 11A containing 98,879 square feet or 2.270 acres.

It being a part of the same property conveyed to J and L Sawyer Holdings, LLC by deed of gift of Linda Maud Davis Sawyer and James E. Sawyer, Sr. dated March 17, 2005 and recorded in the aforesaid Clerk's Office in Deed Book 6047 at page 872.

INSTRUMENT # 190018902
RECORDED CHESAPEAKE CIRCUIT COURT CLERK'S OFFICE
Jul 25, 2019 AT 11:15 am
ALAN P. KRASNOFF, CLERK by SWM
\$50.00 GRANTOR TAX WAS PAID
AS REQUIRED BY SEC 58.102 OF THE VA. CODE
STATE: \$25.00 LOCAL: \$25.00

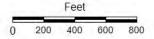
City of Chesapeake, Virginia

Legend

Parcels

City Boundary





Title: Elbow Road PS Improvements

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 City of Chesapeake is not responsible for its accuracy or how current it may be.

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #7

AGENDA ITEM 8. - Virginia Beach Boulevard Force Main Phase VI Acquisition of Real Property – Virginia Beach Boulevard, Virginia Beach, Virginia

- Purchase and Sale Agreement
- Deed
- Facilities Map

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") made this 4th day of March, 2019, by and between PINE TREE INN ASSOCIATES, L.L.C., a Virginia limited liability company, 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 seven thousand seventy-four [7,074] square feet in area, being a part of 2954 Virginia Beach Boulevard, Virginia Beach, Virginia, GPIN 1497-26-6065-0000, such property being more particularly described in Exhibit A and shown on Exhibit B, both of which are attached to and made a part of this Agreement (the "Property").
- B. HRSD desires to purchase the Property from the Seller in lieu of condemnation for the purpose of expanding and improving the pump station site located at 2924 Virginia Beach Boulevard.
- 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. <u>SALE</u>. Seller agrees to sell and HRSD agrees to purchase the Property, together with all rights and appurtenances thereto, including all right, title and interest of Seller in and to any land lying in the bed of any highway, street, road, or avenue, open or proposed, in front of or abutting, or adjoining such tract or piece of land and any riparian rights, if any, and any rights, easements, and appurtenances pertaining thereto, and any building and other property situated thereon, including all personal property, attached or appurtenant to, located in or on, or used in connection with the real property, if any. (This excludes the Declaration of Easement as mentioned in paragraph 11 herein and attached as Exhibit C"). The real property and the personal property are called "the Property".

 PURCHASE PRICE. The purchase price (the Purchase Price) for the Property is One Hundred Forty-Six Thousand One Hundred Fifty Dollars (\$146,150.00), and the Purchase Price shall be paid to the Seller by certified check or wired funds at closing.

3. CONVEYANCE.

- a. At the Closing, Seller shall convey title to the Property in fee simple, by general warranty deed, free and clear of any and all liens, mortgages, deeds of trust, security interests, leases, covenants, conditions, restrictions, easements, rights-of-way, licenses, encroachments, judgments or encumbrances of any kind, except for the following permitted exceptions: (a) the lien of real estate taxes not yet due and payable; (b) zoning and building restrictions and other laws, ordinances, and regulations of governmental bodies having jurisdiction over the Property; and (c) matters of record affecting title to the property, as reviewed and approved (or deemed approved) by HRSD in accordance with this Agreement. Except as expressly stated in this Agreement, the Property shall be conveyed in "AS IS" condition.
- b. Title to the Property shall be good and marketable and, if HRSD chooses to obtain title insurance, insurable by a nationally recognized ALTA title insurance company of HRSD's choice at or below normal rates. In the event that a title examination discloses defects of title or other matters unsatisfactory to HRSD at HRSD's sole determination, HRSD shall notify Seller in writing (an "Objection Notice"), within 90 days of the Effective Date, of such title defects or other matters to which HRSD objects. Seller covenants that it shall cure all monetary encumbrances and all title objections which may be cured by execution of a document requiring the signature of no party other than Seller (including any affidavits which may reasonably be required by the title insurer). Seller may notify HRSD in writing (an "Objection Response"), within ten (10) business days after receiving an Objection Notice if it believes that the Objection Notice makes reference to any title defect or other matter that Seller cannot or elects not to cure. Upon receipt of an Objection Response from Seller, HRSD shall have the option either to (i) terminate this Agreement by notice to Seller given within ten (10) business days of the Objection Response or (ii) accept the defects, exceptions or other matters referenced in such Objection Response and proceed to Closing

hereunder with no reduction of the Purchase Price. Seller shall have the period until the Closing date within which to correct all defects, exceptions or other matters that it is required or elects to cure. Seller shall provide such documents (including evidence of authority), affidavits, and other instruments that may be reasonably required for the issuance of a title insurance policy to HRSD.

- Possession of the Property will be given to HRSD at Closing, except that HRSD will have access to the Property for the purposes specified herein.
- d. Seller agrees to pay Grantor's tax, proration of real estate taxes and storm water fees and agrees to deliver possession of the Property to HRSD at settlement. HRSD will pay all other fees charged in connection with preparation and recordation of the deed and resubdivision plat. HRSD also agrees to pay Seller's attorney fees incurred in the review of the sale and closing documents, to include the review of the easement agreement as mentioned in paragraph 11 and documents related to the release of Seller's lease with Wawa, Inc. up to the amount of \$6,500.00.
 - e. Seller and HRSD agree that the attorney selected by HRSD shall act as the Settlement Agent at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
- 4. RIGHT OF ENTRY. HRSD and HRSD's authorized representatives may at any reasonable time and after giving reasonable notice to Seller, enter upon the Property for the purpose of making inspections, appraisals, surveys, including but not limited to the cutting of survey lines and putting up markers and driving stubs and stakes, site analysis, engineering studies, core sampling for engineering reports, and locating existing rights of way, easements, and utilities. HRSD will exercise this right of entry in such a way so as to not cause unreasonable damage to the Property. HRSD agrees to indemnify and save harmless the Seller and its tenant from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by any action or omission of HRSD or its agents on the Property before or after Closing.

5. CONDITIONS AND CONTINGENCIES.

1

- a. HRSD's obligations are expressly conditioned upon the waiver or satisfaction of each of the following conditions in the sole determination of HRSD. If any one of the following conditions cannot be met within 90 days after the Effective Date (the Effective Date being defined as the date the contract is endorsed by both HRSD and Seller), HRSD may unilaterally terminate this Agreement:
 - Receipt of a satisfactory title commitment with all unacceptable title exceptions, encumbrances, and conditions as deemed by HRSD removed or cured at Seller's cost; however, if Seller chooses not to remove or cure any such title exception, HRSD's sole remedy shall be to terminate this Agreement;
 - ii. Receipt of a Phase I Environmental Assessment and Report (Phase I Report) conducted and prepared by an environmental engineering and inspection company selected by HRSD at HRSD's expense and such other testing and reports as may be reasonably required by HRSD or recommended in the Phase I Report;
 - iii. Seller's compliance of all of its obligations under this Agreement.
 - iv. Seller's obligation(s) is subject to its securing a release of the Property from the Wawa, Inc. lease. Seller will certify at closing that it has obtained such release; if release cannot be obtained, then Purchase Agreement becomes null and void.
- b. This Agreement is expressly conditioned upon the completion of all title and environmental "due diligence" by HRSD and notification to the Seller in writing of any conditions that are unsatisfactory to HRSD within the 90 day period. In the event HRSD fails to notify the Seller in writing within such 90 day period, any objection to such conditions shall be deemed waived by HRSD and the parties shall proceed to closing; provided, however, in no event shall any mortgage, deed of trust, security agreement or monetary lien against the Property be deemed waived objections and the Seller

- agrees that the same shall be removed and released as liens on the Property on or before Closing.
- c. This Agreement is contingent upon HRSD receiving approval by the City of Virginia Beach of a resubdivision plat upon terms acceptable to HRSD at their sole discretion, which incorporates this purchase into their existing Parcel B, together to be known as Parcel B-1.
- d. This Agreement is contingent on the review and approval of the purchase by the Hampton Roads Sanitation District Commission and upon such Commission granting authorization to the General Manager to proceed under the terms of this Agreement.

6. ENVIRONMENTAL AND RELATED MATTERS.

1

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

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

- (i) Terminate this Agreement; or
- (ii) Waive the environmental defect and proceed to Closing.
- 7. REPRESENTATIONS AND WARRANTIES BY SELLER. Seller represents and warrants as of the date of this Agreement and as of the date of Closing that: Seller has the right, title, and authority to enter into this Agreement and to perform its obligations hereunder (subject to Seller's obligation to secure a release of the Property from the Wawa, Inc. lease).

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

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

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

- (vii) The Seller warrants that to the best of his knowledge there are no hazardous wastes which would prevent HRSD's intended use of the land. To the best of the Seller's knowledge: (i) none of the Property has been excavated (except for standard grading related to site development); (ii) no hazardous materials, toxic chemicals, or similar substances, as defined by 42 U.S.C. §1251, et seg. or 42 U.S.C. §6901, et seq. or 42 U.S.C. §9601, et seq., or 33 U.S.C. §1317(1), or 15 U.S.C. §2606(f), or 49 U.S.C. §1801, et seq., or regulations adopted pursuant thereto, or any similar provision of any applicable state, Federal, or local law (collectively "Hazardous Materials"), are or were stored or used on or under or otherwise were or are in existence or were in any way dealt with on or under the Property; and (iii) no owner or occupant to the best of Seller's knowledge, has received any notice from any governmental agency with regard to such Hazardous Materials contained on the Property.
- 8. NOTICES. All notices to the parties hereto will be delivered by hand, via certified mail return receipt requested, or via facsimile and all be deemed effective upon delivery if by hand and upon confirmation of receipt if by other means, to the following address until the address is changed by notice in writing to the other party:

HRSD: Edward G. Henifin, P.E.

General Manager P.O. Box 5911

Virginia Beach, Virginia 23471-0911

Fax: (757) 363-7917

Copy to: William A. Cox, III, Esq.

Janice Pickrell Anderson, Esq.

Kellam, Pickrell, Cox & Anderson, PC

403 Boush Street, Suite 300

Norfolk, VA 23510 Fax: (757) 625-2189 Seller:

Pine Tree Inn Associates, L.L.C., a Virginia limited liability company

Katherine Davis Moore, Administrative Member

5008 Fable Avenue

Portsmouth, VA 23703-2583

Fax: (757) 483-3507

- CLOSING. Unless this Agreement is terminated pursuant to its terms or by mutual agreement of the parties, Closing will be made at the offices of the Settlement Agent within 120 days of the Effective Date, unless extended by terms of these agreements or by mutual agreement of the parties.
- SURVIVAL. The provisions contained in this Agreement will be true as of the date of this Agreement and as of the date of Closing.
- DECLARATION OF EASEMENT. This document is attached as Exhibit C and will be recorded simultaneously with the Deed of Bargain and Sale.
- 12. <u>RISK OF LOSS</u>. All risk of loss or damage to the Property by fire, windstorm, casualty, or other cause is assumed by Seller until Closing. In the event of substantial loss or damage to the Property before Closing, HRSD will have the option of either:
 - a. Terminating this Agreement, or
 - b. Affirming this Agreement and proceeding to Closing.
- 13. FUTURE SALE BY HRSD. In the event that HRSD shall determine to sell all or a portion of the property for private development within two (2) years of the Settlement Date, it agrees to notify Seller and give Seller first opportunity to purchase the property on such terms as the parties shall mutually agree. Such notice shall be writing addressed in accordance with the provisions of Section 8 herein or such other address provided to HRSD by the Seller and shall provide Seller with at least thirty (30) calendar days to present HRSD with an offer to purchase at the same price as stated in this Purchase Agreement.

- 14. <u>BROKERS</u>. Seller and HRSD both represent and warrant to the other that it has not hired, engaged, or consulted with any broker or agent in regard to this transaction. Each party agrees to indemnify and hold harmless the other from any and all costs, expenses, or damages resulting from any claim for brokerage fees or other similar forms of compensation made by any real estate broker or other person or entity with whom a party has dealt, and who is not expressly named herein.
- 15. CONDEMNATION. Seller covenants and warrants that Seller has not heretofore received any notice of any condemnation proceeding or other proceeding in the nature of eminent domain in connection with the Property. If prior to Settlement any such proceeding is commenced or any change is made, or proposed to be made, to the current means of ingress and egress to the Property or to the roads or driveways adjoining the Property, or to change such ingress or egress or to change the grade thereof, Seller agrees immediately to notify HRSD thereof. HRSD then shall have the right, at HRSD's option, to terminate this Agreement by giving written notice to Seller within thirty (30) days after receipt of such notice. HRSD has not issued any notice of condemnation proceedings to seller prior to this document.

16. <u>DEFAULT AND REMEDIES</u>.

- a. If the sale and purchase contemplated by this Agreement is not consummated because of Seller's or HRSD's default, the nondefaulting 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 nondefaulting party in connection with the enforcement of its rights under this Agreement.
- c. These remedies are cumulative and non-exclusive and may be pursued at the option of the non-defaulting party without a requirement of election of remedies.

- 17. ENTIRE AGREEMENT. This Agreement contains the entire agreement of the parties and will supersede the terms and conditions of all prior written and oral agreements, if any, concerning the matters it covers. The parties acknowledge there are no oral agreements, understandings, representations, or warranties that supplement or explain the terms and conditions contained in this Agreement. This Agreement may not be modified except by an agreement in writing signed by the parties.
- 18. WAIVER. Failure to insist upon strict compliance with any of the terms, covenants, or conditions hereof will not be deemed a waiver of the term, covenant, or condition, nor will any waiver or relinquishment of any right or power at any one time or more times be deemed a waiver or relinquishment of the right or power at any other time or times.
- 19. <u>SEVERABILITY</u>. 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.
- CAPTIONS. Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
- 21. <u>GOVERNING LAW</u>. This Agreement is to be construed in accordance with the laws of the Commonwealth of Virginia.
- 22. CHOICE OF FORUM/JURISDICTION. The parties hereby consent to the jurisdiction and venue of the courts of the Commonwealth of Virginia, specifically to the courts of the City of Virginia Beach, 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 Virginia Beach, Virginia, or the Eastern District of Virginia that the parties are not personally subject to the jurisdiction of these courts, that the action, suit, or proceeding is brought in an inconvenient forum or that venue is improper.
- 23. WAIVER OF TRIAL BY JURY. THE PARTIES WAIVE TRIAL BY JURY IN ANY ACTION, PROCEEDING, OR COUNTERCLAIM BROUGHT BY EITHER PARTY AGAINST THE OTHER ON ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ANY RELATED AGREEMENTS OR INSTRUMENTS AND THE ENFORCEMENT THEREOF, INCLUDING

ANY CLAIM OF INJURY OR DAMAGE TO ANY PARTY OR THE PROPERTY OF ANY PARTY.

- 24. <u>SUCCESSOR/ASSIGNMENT</u>. This Agreement will be binding upon and the obligations and benefits hereof will accrue to the parties hereto, their heirs, personal representatives, successors, and assigns. This Agreement is assignable by HRSD only upon written consent of the Seller, which consent will not be unreasonably withheld. If this Agreement is assigned by HRSD with Seller's consent, HRSD will nevertheless remain fully liable for its performance.
- 25. <u>COUNTERPARTS</u>. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
- 26. <u>FACSIMILE SIGNATURES</u>. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.
- 27. ETHICS IN PUBLIC CONTRACTING. By executing this Agreement, the undersigned Seller or its representative, and the representative of HRSD, certify that the prices agreed to in this Agreement were arrived at without collusion or fraud and that they have not offered or received any payment, kickbacks or other inducement from any other party to this Agreement or its agent or employee in connection with this Agreement, and that they have not conferred on any public employee having responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services (or anything of more than nominal value, present or promised) unless disclosed in this Agreement.

(Remainder of page intentionally left blank - Signature Pages follow)

SELLER:

PINE TREE INN ASSOCIATES, L.L.C.

Katherine Davis Moore

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 through the state of the st 2019. [This Agreement is expressly subject to approval by the HRSD Commission]

HAMPTON ROADS SANITATION DISTRICT

Edward G. Henifin, P.E.

General Manager

HRSD/AGREEMENTS/PURCHASE AND SALE AGREEMENT PINE TREE INN ASSOCIATES 2.20.2019

EXHIBIT A

ALL THAT certain strip or parcel of land situate in the City of Virginia Beach, State of Virginia, and being described as follows, to-wit:

BEGINNING at a pin (found) on the south side of North Lynnhaven Road, which is the northwest corner of Parcel Z, then along the south side of North Lynnhaven Road, S78009'04"E 371.52', then N83°13'52"E 51.47', then S84°47'45"E 71.51' to a pin set which is the point of beginning. From said point of beginning, S84⁰47'45"E 52.27', then turning S11⁰44'00"E a distance of 133.87', then turning S78°16'00"W 50', thence turning N11^o44'00"W 149.10' to the point of beginning, which said strip of land contains 7,074 sq. ft. or 0.1624 acres, more or less, as more particularly shown on plat entitled "Resubdivision of Parcel "Z" (M.B. 275, P. 14-15) and Remaining Portion of Parcel "B" (M.B. 74, P. 47) Virginia Beach, Virginia" dated November 12, 2018 by Rouse-Sirine Associates, Ltd., which is recorded in the Clerk's Office of the Circuit Court of the City of Virginia Beach as 20190422000314880 Instrument No. . As indicated on the aforementioned subdivision plat, said strip of land shall be combined with the remaining portion of Parcel B and to create a track of land known as Parcel B-1, GPIN: 1497-26-xxxx.

IT BEING part of the same property conveyed to Grantor herein by deed dated April 27, 1988 from Sovran Bank NA and W. Shepherd Drewry, Jr., Co-Executors and Co-Trustees of the Estate of J. E. Clayton Davis, which is recorded in the aforesaid Clerk's Office in Deed Book 2760, Page 499 and deed dated May 31, 2002 from Bank of America NA, as Trustee under Will of J. E. Clayton Davis, deceased which is recorded in the aforesaid Clerk's Office in Deed Book 4715, Page 1668.

EXHIBIT B

See attached Plat entitled "Resubdivision of PARCEL "Z" and REMAINING PORTION OF PARCEL "B", Virginia Beach, Virginia" dated November 12, 2018 prepared by Rouse-Sirine Associates, Ltd.

11711.806 /615998 (07-18-2018)

SOURCE OF TITLE

THE PROPERTY EMBRACED WITHIN THE LIMITS OF THIS RESUBDIVISION WAS CONVEYED ACCORDING TO THE FOLLOWING INFORMATION, AND RECORDED IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF VIRGINIA BEACH:

GPIN: 1497-26-6065; PARCEL "Z"

TO PINE TREE INN ASSOCIATES FROM SOVRAN BANK, N.A., AND W. SHEPHERD DREWRY, JR., CO-EXECUTORS AND CO-TRUSTEES OF THE ESTATE OF J. E. CLAYTON DAVIS, DATED APRIL 27, 1988, RECORDED IN DEED BOOK 2760, PAGE 499 AND FROM BANK OF AMERICA, N.A., AS TRUSTEE UNDER THE WILL OF J. E. CLAYTON DAVIS, DATED MAY 31, 2002, RECORDED IN DEED BOOK 4715, PAGE 1668 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF VIRGINIA BEACH, VIRGINIA.

GPIN: 1497-26-9094 REMAINING PORTION OF PARCEL "B"

TO HAMPTON ROADS SANITATION DISTRICT FROM DAVIS BROTHERS CORPORATION, DATED JANUARY 2, 1968, RECORDED IN DEED BOOK 1044, PAGE 440 IN THE CLERK'S OFFICE OF THE CITY OF VIRGINIA BEACH, VIRGINIA.

THE PLATTING OR DEDICATION OF THE FOLLOWING DESCRIBED LAND," RESUBDIVISION OF PARCEL "Z" (M.B. 275, P. 14-15) AND REMAINING PORTION OF PARCEL "B" (M.B. 74, P. 47)" LOCATED IN VIRGINIA BEACH, VIRGINIA IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRE OF THE UNDERSIGNED OWNERS, WHO CERTIFY THAT THEY ARE THE FEE SIMPLE OWNERS OF SAID LAND, AND THAT THERE ARE NO ENCUMBRANCES ON THIS PROPERTY. THE DEDICATION OF THE STREETS AND EASEMENTS ARE SUBJECT TO THE RIGHTS OF THE CITY OF VIRGINIA BEACH, VIRGINIA AND ARE FOR THE PURPOSES REFERENCED ON THE PLAT AS WELL AS FOR SURFACE AND UNDERGROUND DRAINAGE AND UTILITIES.

PINE TREDINN ASSOCIATES, LLC A VIRGINIA LIMITED LIABILITY COMPANY KATHERINE DAVIS MOORE

HAMPTON ROADS SANITATION DISTRICT A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA

GENERAL MANAGER

ADMINISTRATIVE MEMBER

DATE: PRUZUE ZO19

Hyanne Willems , A NOTARY PUBLIC IN AND FOR THE CITY AND STATE FORESAID. DO HEREBY CERTIFY THAT KATHERINE DAVIS MOORE, ADMINISTRATIVE MEMBER FOR PINE TREE INN ASSOCIATES, LLC, WHOSE NAME IS SIGNED TO THE FOREGOING WRITING, BEARING DAY OF ______, 2019 HAS ACKNOWLEDGED THE SAME BEFORE ME IN MY CITY AND STATE AFORESAID. THEY ARE PERSONALLY KNOWN TO ME OR HAVE PRODUCED DEVELOP LIE.

GIVEN UNDER MY HAND THIS ZE DAY OF MERCH , 20 1.9

MY COMMISSION EXPIRES

STATE OF VIRGINIA/-CITY/COUNTY OF VIGINIC Deach, TO WIT:

Jenniter Lynn Coscio, A NOTARY PUBLIC IN AND FOR THE CITY AND STATE AFORESAID, DO HEREBY CERTIFY THAT EDWARD G. HENIFIN, GENERAL MANAGER FOR HAMPTON ROADS SANITATION DISTRICT, WHOSE NAME IS SIGNED TO THE FOREGOING WRITING, BEARING DATE ON THE 200 DAY OF RPRIVE , 20 19 HAS ACKNOWLEDGED THE SAME BEFORE ME IN MY CITY AND STATE AFORESAID. THEY ARE PERSONALLY KNOWN TO MEJOR HAVE PRODUCED ____

GIVEN UNDER MY HAND THIS 200 DAY OF RPLIC

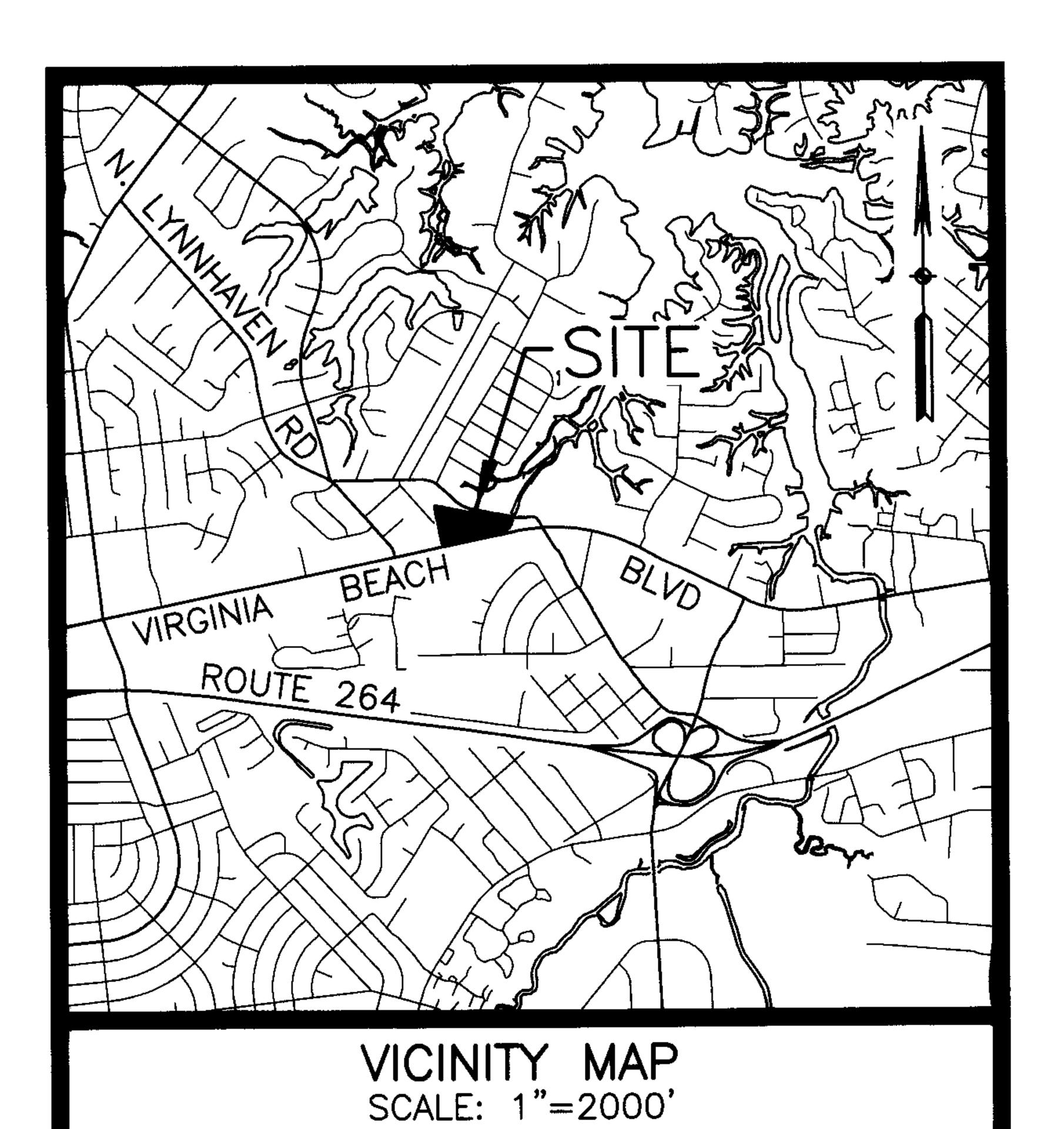
APPROVED:_

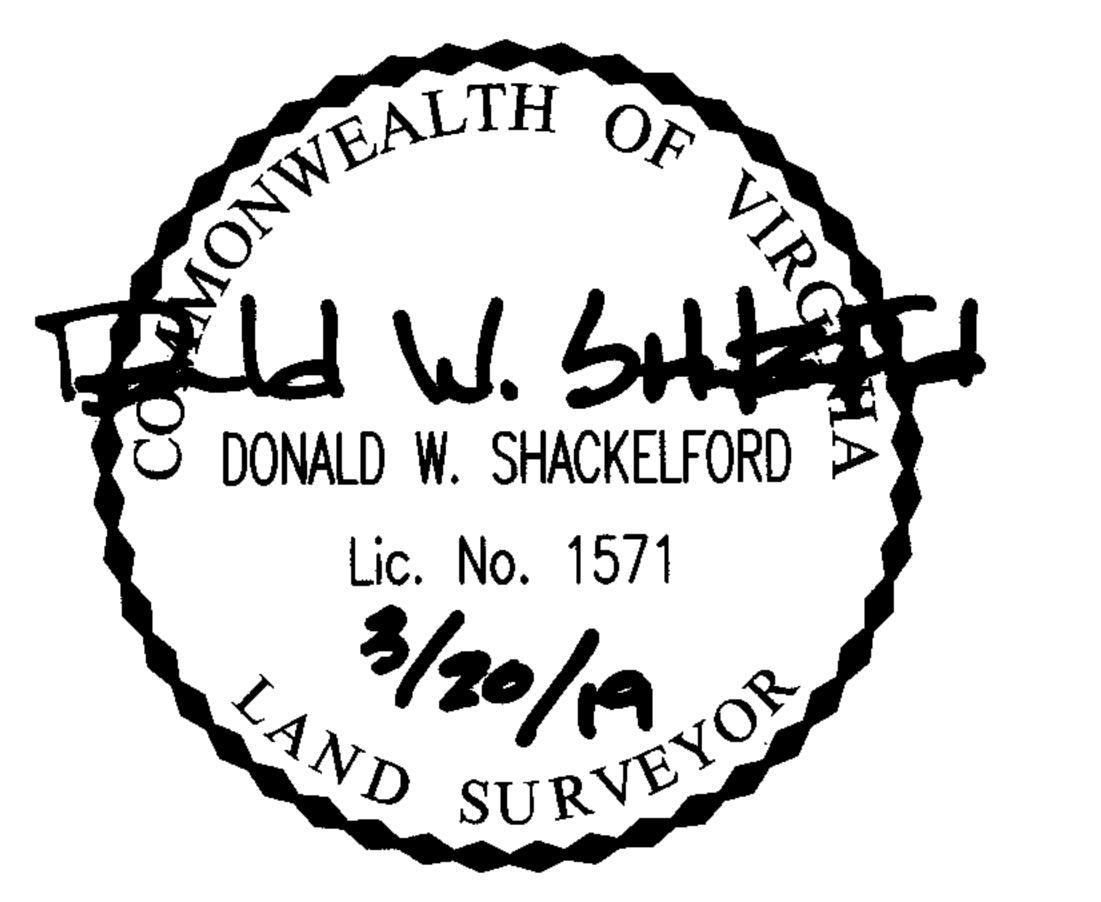
NOTARY REGISTRATION NUMBER: ろりつゆ

MY COMMISSION EXPINES AUGUST 31, 2022

THE UNDERSIGNED CERTIFY THAT THE RESUBDIVISION, AS IT APPEARS ON THIS PLAT, CONFORMS TO THE APPLICABLE REGULATIONS RELATING TO THE SUBDIVISION OF LAND AND IS ACCORDINGLY APPROVED. BY SUCH APPROVAL, THE UNDERSIGNED DO NOT CERTIFY AS TO THE CORRECTNESS OF THE BOUNDARY, STREET OR OTHER LINES SHOWN ON THIS PLAT. EXISTING PUBLIC RIGHTS-OF-WAY, EASEMENTS, OR OTHER PUBLIC INTERESTS NOT SHOWN ON THIS PLAT REMAIN IN EFFECT AND ARE NOT TERMINATED OR EXTINGUISHED BY OMISSION FROM THIS PLAT.

DATE: 4/19/19





I, DONALD W. SHACKELFORD, A LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT THIS PLAT WAS MADE BY ME, THE UNDERSIGNED, AT THE DIRECTION OF THE OWNERS, AND THAT THIS RESUBDIVISION IS ENTIRELY WITHIN THE BOUNDARIES OF LAND COVERED BY DEEDS DESCRIBED BELOW, AND THAT CONCRETED STEEL PINS AS SPECIFIED BY THE SUBDIVISION REGULATIONS OF THE CITY OF VIRGINIA BEACH, VIRGINIA ARE ACTUALLY IN PLACE AT POINTS MARKED THUS " ● " AND/OR AS SHOWN ON THE ACCOMPANY LEGEND, AND THAT THEIR LOCATIONS ARE CORRECTLY SHOWN.

City of Virginia Beach 04/22/2019 02:15:13 PM PLAT Tina E. Sinnen, Clerk

NOTES:

THE MERIDIAN SOURCE OF THIS PLAT IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983/1993 (HARN). COORDINATE VALUES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET.

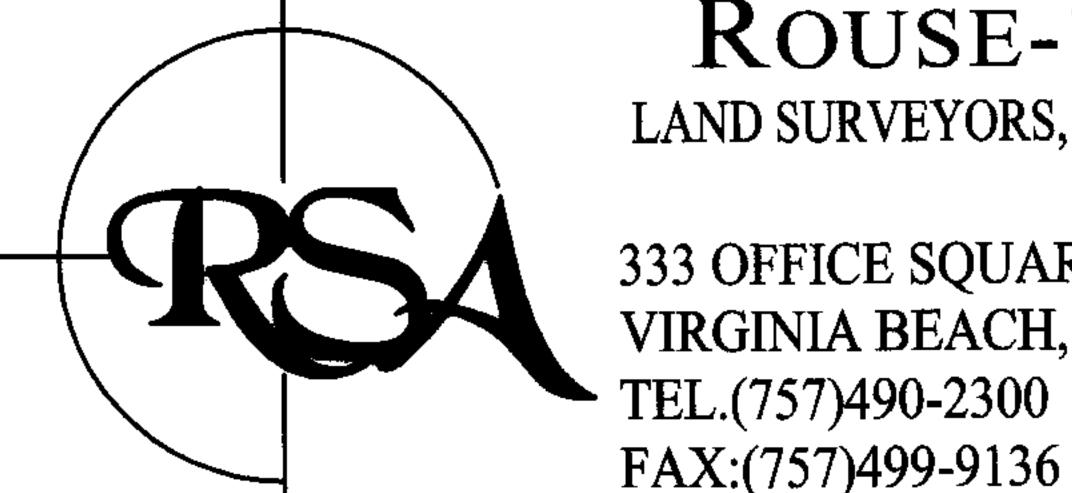
THE CITY OF VIRGINIA BEACH CONTROL REFERENCE POINTS USED TO ESTABLISH THE COORDINATE VALUES SHOWN HEREON WERE PS 252 AND CVB 4593.

- 2. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT SHOW PHYSICAL IMPROVEMENTS. ALL EASEMENTS AND RESTRICTIONS THAT MAY AFFECT THE PROPERTY MAY NOT BE SHOWN.
- 3. THIS PLAT IS A RESUBDIVISION OF A PARCEL "Z", RECORDED IN MAP BOOK 275, AT PAGES 14-15 AND THE REMAINING PORTION OF PARCEL "B", RECORDED IN MAP BOOK 74, AT PAGE 47, IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF VIRGINIA BEACH, VIRGINIA.
- . THIS SITE LIES WITHIN AIRCRAFT ACCIDENTAL POTENTIAL ZONE N/A AND/OR NOISE ZONE(S) GREATER THAN 70-75 dB Ldn AND MAY BE SUBJECT TO AIRCRAFT ACCIDENTS AND/OR ABOVE AVERAGE NOISE LEVELS DUE TO ITS PROXIMITY TO AIRPORT OPERATIONS. NOISE ATTENUATION MEASURES FOR NEW CONSTRUCTION MAY BE REQUIRED IN ACCORDANCE WITH THE AIRPORT NOISE ATTENUATION AND SAFETY ORDINANCE AND HEIGHT RESTRICTIONS HAVE BEEN IMPOSED IN ACCORDANCE WITH SECTION 202(B) OF THE CITY ZONING ORDINANCE.
- 5. ALL OR A PORTION OF THIS SUBDIVISION IS LOCATED IN A CHESAPEAKE BAY PRESERVATION (CBPA) AREA AND IS SUBJECT TO THE PROVISIONS OF THE CHESAPEAKE BAY PRESERVATION AREA ORDINANCE.
- 6. FURTHER DEVELOPMENT OF THESE LOTS INCLUDING ANY FILLING OR PHYSICAL ALTERATION OF THE LOTS MAY REQUIRE ADDITIONAL PERMITS FROM THE CITY OF VIRGINIA BEACH OR OTHER GOVERNMENTAL AGENCIES.
- 7. NO ENCROACHMENTS (I.E., PERMANENT OR TEMPORARY ABOVE GRADE STRUCTURES) WILL BE ALLOWED WITHIN THE PUBLIC DRAINAGE, PEDESTRIAN, AND/OR UTILITY EASEMENTS UNLESS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS AND/OR PUBLIC UTILITIES.
- 8. ALL INTERIOR LOT LINES ARE HEREBY VACATED.
- 9. THE PROPERTY SHOWN HEREON APPEARS TO FALL IN FLOOD ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN; ZONE X(SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD; ZONE AE(EL 8), BASE FLOOD ELEVATIONS DETERMINED AND THAT PORTION OF ZONE AE(EL 8) WHERE THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANGE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS, AREAS ARE AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 5155310102G. MAP REVISED JANUARY 16, 2015.
- 10. THIS RESUBDIVISION PLAT WAS PREPARED IN ACCORDANCE WITH SECTION 6.3 OF THE SUBDIVISION REGULATIONS OF THE CITY OF VIRGINIA BEACH.
- 11. THE TOTAL AREA ENCOMPASSED WITHIN THIS RESUBDIVISION = 118,780 SQ.FT/2.7268 ACRES.
- 12. A TEN (10) FOOT PRIVATE DRAINAGE EASEMENT IS TO BE ESTABLISHED OVER AN EXISTING 15-INCH STORM DRAIN PIPE BY DECLARATION OF EASEMENT RECORDED CONTEMPORANEOUSLY HEREWITH.

RESUBDIVISION OF PARCEL "Z" (M.B. 275, P. 14-15)

REMAINING PORTION OF PARCEL "B" (M.B. 74, P.47)

VIRGINIA BEACH. VIRGINIA DATE: NOVEMBER 12, 2018 SCALE: N/A



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

www.rouse-sirine.com 333 OFFICE SQUARE LANE VIRGINIA BEACH, VIRGINIA 23462 TEL.(757)490-2300

1311 JAMESTOWN ROAD SUITE 103 WILLIAMSBURG, VIRGINIA 23185

TEL.(757)903-4695

SHEET 1 OF 2




EXHIBIT C

Declaration of Easement

DECLARATION OF EASEMENT

THIS DECLARATION OF EASEMENT made this 16th day of April, 2019, by HAMPTON ROADS SANITATION DISTRICT, a political subdivision of the Commonwealth of Virginia, hereinafter called the "Grantor" and PINE TREE INN ASSOCIATES, L. L. C., a Virginia limited liability company, hereinafter called the "Grantee".

WHEREAS, Grantor is the owner of 2924 Virginia Beach Boulevard, Virginia Beach, Virginia, known as Parcel B-1 on plat entitled "Resubdivision of Parcel "Z" (M.B. 275, P. 14-15) and Remaining Portion of Parcel "B" (M.B. 74, P. 47) Virginia Beach, Virginia" dated November 12, 2018, prepared by Rouse-Sirine Associates, Ltd. and recorded contemporaneously herewith in the Clerk's Office of the Circuit Court of the City of Virginia Beach.

WHEREAS, Grantee is the owner of 2954 Virginia Beach Boulevard, Virginia Beach, Virginia, known as Parcel Z-1 on plat entitled "Resubdivision of Parcel "Z" (M.B. 275, P. 14-15) and Remaining Portion of Parcel "B" (M.B. 74, P. 47) Virginia Beach, Virginia" dated November 12, 2018, prepared by Rouse-Sirine Associates, Ltd. and recorded contemporaneously herewith in the Clerk's Office of the Circuit Court of the City of Virginia Beach.

WHEREAS, due to the resubdivision of Parcel Z and Remaining Portion of Parcel B and the new relocated boundary line between these parcels, Grantor wishes to create a private easement over the existing 15" storm drain pipe from Grantee's BMP outfall.

NOW, THEREFORE, in consideration of the mutual benefits accruing to the Grantor and the Grantee and to future owners and their current and future tenants of the lots and parcels hereinabove described, the Grantor does hereby declare, create and constitute a 10' private drainage easement (the Easement) as more particularly shown and entitled "Centerline 10' Private Drainage Easement (See Note #12)" on plat entitled "Resubdivision of Parcel "Z" (M.B. 275, P. 14-15) and Remaining Portion of Parcel "B" (M.B. 74, P. 47) Virginia Beach, Virginia" dated November 12, 2018, prepared by Rouse-Sirine Associates, Ltd. and recorded contemporaneously herewith in the Clerk's Office of the Circuit Court of the City of Virginia Beach.

Prepared by: Janice Pickrell Anderson, Esq., VSB #36930

KELLAM, PICKRELL, COX & ANDERSON, P.C.

403 Boush Street, Suite 300

Norfolk, VA 23510 Telephone: 757-627-8365

Facsimile: 757-625-2189

GPIN #: Parcel Z-1 1497-26-6073-0000

Parcel B-1 1497-26-9064-0000

20190422000314850 174 City of Virginia Beach 04/22/2019 02:09:08 PM OTHER

02:09:08 PM OTHER Tina E. Sinnen, Clerk

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THA L. SHINEN. CLERK

KELLAM, PICKRELL,
COX & ANDERSON
A PROFESSIONAL COMPONATION
ATTORNEYS AT LAW

This Easement is subject to the following conditions and provisions:

- A. The Facilities (a stormwater system and outflow pipe) existing or constructed under the Easement and all replacements, substitutions, and repairs thereto, shall remain the property of **GRANTEE**. **GRANTEE** or its then current tenant(s), shall have the right to inspect, rebuild, remove, and repair its Facilities within the boundaries of said Easement as are consistent with the purpose expressed herein. All construction, maintenance, equipment and Facilities shall comply with all applicable laws, ordinances, codes and regulations.
- B. Any disturbance of the premises by the GRANTEE or its contractor will be restored by the GRANTEE as nearly as practicable. This includes paving, fences, backfilling of trenches, grass, reseeding, replacing or replanting landscaping, and removal of trash and debris and removal of any equipment, accessories or appurtenances not consistent with the construction, maintenance or operation of the Facilities. GRANTEE shall maintain the Easement and the Facilities in such repair as not to endanger or otherwise limit the enjoyment and use of adjacent properties.
- C. GRANTOR, its successors and assigns, may use said Easement for any purpose not inconsistent with the rights hereby granted, provided such use does not interfere with the safe and efficient use, construction, operation or maintenance of the Easement and/or Facilities. GRANTOR may install fences, driveways, pavement and landscaping (trees and shrubs shall be varieties that will not exceed 20 feet tall at maturity).
- D. Any damage to the Facilities within the designated Easement area caused by GRANTOR or its designees, shall be repaired within thirty (30) days, upon GRANTOR receiving written notice or within a mutually agreed time frame. If not repaired within the designated time frame, GRANTEE or GRANTEE's tenant have the right to repair such damage and such cost shall be reimbursed by GRANTOR provided prior written notice was given and received.
- E. GRANTEE covenants and agrees that it will be responsible for any claims of injury to any persons or property resulting from its sole negligence in the installation, operation, maintenance, repair, or use of any of the Facilities and/or the Easement, or which result from GRANTEE'S exercise of any of the rights herein granted. Any contractor performing work for GRANTEE in the Easement shall be required to furnish a certificate of insurance satisfactory to GRANTOR.

THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK SIGNATURE PAGES TO FOLLOW

KELLAM, PICKRELL,
COX & ANDERSON
A PROFESSIONAL CONFUNCTION
ATTORNEYS AT LAW

THE FOLLOWING SIGNATURES ARE PART OF THE DECLARATION OF EASEMENT BETWEEN HRSD AND PINE TREE INN ASSOCIATES, L.L.C.

WITNESS the following signatures and seals.

GRANTOR:

HAMPTON ROADS SANITATION DISTRICT

A political subdivision of the Commonwealth of Virginia

By: Ayanna R. Williams, Real Estate Manager

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

I, Laure Fig. Kre I Andrews a Notary Public in and for the City/County and State aforesaid, whose term of office expires on the Manager of HAMPTON ROADS SANITATION DISTRICT, whose name as such is signed Under Seal to the foregoing Declaration of Easement, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this 18 day of April , 2019.

Notary Public

Registration Number: 200448

My Commission Expires: Way 31 8000

KELLAM, PICKRELL, COX & ANDERSON A PROFESSIONAL CORPORATION ATTORNAYS AT LAW THE FOLLOWING SIGNATURES ARE PART OF THE DECLARATION OF EASEMENT BETWEEN HRSD AND PINE TREE INN ASSOCIATES, L.L.C.

GRANTEE:

PINE TREE INN ASSOCIATES, L.L.C., A Virginia limited liability company A Virginia limited liability company A Virginia limited liability company (SEAL) Katherine Davis Moore, Administrative Member
STATE OF Florid A CITY/COUNTY OF Palm Beach, to-wit: I, Name Beach, to-wit: and State aforesaid, whose term of office expires on the Day of May 2022, do hereby certify that Katherine Davis Moore, Administrative Member of Pine Tre Inn Associates, L.L.C., whose name as such is signed Under Seal to the foregoing Declaration of Easement, has acknowledged the same before me in my City and State aforesaid.
Given under my hand this 17 day of April 2019.
HANCY BARLOW BODE Notary Public - State of Florida Commission # GG 219247 My Comm. Explres May 17, 2022 Bonded through National Notary Assn. Notary Public
Registration Number: 99-219247 My Commission Expires: May 17, 2022

DOCHRSD/DEEDS/PINE TREE INN DECLARATION OF EASEMENT REDLINED 3 25,19

KELLAM, PICKRELL, COX & ANDERSON \PROFESSIONAL CORPORATION ATTORNEYS AT LAW EXEMPT from State and Local Grantee taxes pursuant to Section 58.1-811(A)(3) Code of Virginia, 1950, as amended

PINE TREE INN ASSOCIATES, L. L. C., a Virginia limited liability company

20190422000314840 1/3 City of Virginia Beach 04/22/2019 02:09:07 PM DEED Tina E. Sinnen, Clerk Grantor Tax Pd - \$146.50

to

DEED OF BARGAIN AND SALE

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

THIS DEED, made this 16th day of April, 2019, by and between, <u>PINE TREE INN</u>

<u>ASSOCIATES, L. L. C.</u>, a Virginia limited liability company, **GRANTOR**, and <u>HAMPTON ROADS</u>

<u>SANITATION DISTRICT</u>, a political subdivision of the Commonwealth of Virginia, **GRANTEE**, whose mailing address is: Post Office Box 5911, Virginia Beach, VA 23471-0911.

WITNESSETH:

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

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

Prepared by and Return to:
Janice Pickrell Anderson VA State Bar #36930
KELLAM, PICKRELL, COX & ANDERSON, P.C.
403 Boush Street, Suite 300
Norfolk, VA 23510
Telephone: 757-627-8365

Facsimile: 757-625-2189
Consideration: \$146,150.00; Assessment: Not yet assessed

GPIN: 1497-26-9064 (Part of 1497-26-6065-0000)

Title Insurance: None

Lization of Court of

2019 APR 22 PH 1: 46

alls a. Stater. CLERK

subdivision of the Commonwealth of Virginia, Grantee, the following described property, towit:

ALL THAT certain strip or parcel of land situate in the City of Virginia Beach, State of Virginia, and being described as follows, to-wit:

BEGINNING at a pin (found) on the south side of North Lynnhaven Road, which is the northwest corner of Parcel Z, then along the south side of North Lynnhaven Road, S78°09'04"E 371.52', then N83°13'52"E 51.47', then S84°47'45"E 71.51' to a pin set which is the point of beginning. From said point of beginning, S84°47'45"E 52.27', then turning S11°44'00"E a distance of 133.87', then turning S78°16'00"W 50', thence turning N11°44'00"W 149.10' to the point of beginning, which said strip of land contains 7,074 sq. ft, or 0.1624 acres, more or less, as more particularly shown on plat entitled "Resubdivision of Parcel "Z" (M.B. 275, P. 14-15) and Remaining Portion of Parcel "B" (M.B. 74, P. 47) Virginia Beach, Virginia" dated November 12, 2018 by Rouse-Sirine Associates, Ltd., which is recorded contemporaneously herewith in the Clerk's Office of the Circuit Court of the City of Virginia Beach. As indicated on the aforementioned subdivision plat, said strip of land shall be combined with the remaining portion of Parcel B and to create a track of land known as Parcel B-1, GPIN: 1497-26-9064-0000.

IT BEING part of the same property conveyed to Pine Tree Inn Associates, a Virginia General Partnership, by deed dated April 27, 1988 from Sovran Bank NA and W. Shepherd Drewry, Jr., Co-Executors and Co-Trustees of the Estate of J. E. Clayton Davis, which is recorded in the aforesaid Clerk's Office in Deed Book 2760, Page 499 and deed dated May 31, 2002 from Bank of America NA, as Trustee under Will of J. E. Clayton Davis, deceased which is recorded in the aforesaid Clerk's Office in Deed Book 4715, Page 1668. Pine Tree Inn Associates, a Virginia General Partnership was converted to Pine Tree Inn Associates, L.L.C., a Virginia limited liability company, effective May 31, 2002, as evidenced by Certificate of Conversion from the State Corporation Commission dated June 4, 2002 and recorded in the aforesaid Clerk's Office in Deed Book 4715, Page 1667, and recorded on June 14, 2002.

KELLAM, PICKRELL, COX & ANDERSON A PROFESSIONAL COMPONATION ATTORNEYS AT LAW The above property is conveyed subject to the conditions, restrictions, reservations covenants and easements of record in the chain of title, if any, constituting constructive notice.

WITNESS the following signature and seal:

PINE TREE INN ASSOCIATES, L. L. C., A Virginia limited liability company

By Katton Dan Bone (SEAL)

Name: Katherine Davis Moore Title: Administrative Member

STATE OF_	Florida		
CITY/COUN	TY OF Palm	Beach	, to-wit:

i, the undersigned, a Notary Public in and for the City/County and State aforesald, do hereby certify that KATHERINE DAVIS MOORE, who is Administrative Member of Pine Tree Inn Associates, L. L. C., a Virginia limited liability company, whose name is signed to the foregoing instrument, has acknowledged the same before me in my City/County and State

aforesaid this 17 day of 14pri

HANCY BARLOW BODE Notary Public - State of Florida Commission # GG 219247

My Comm. Expires May 17, 2022 Bonded through National Notary Assn.

Notary Public

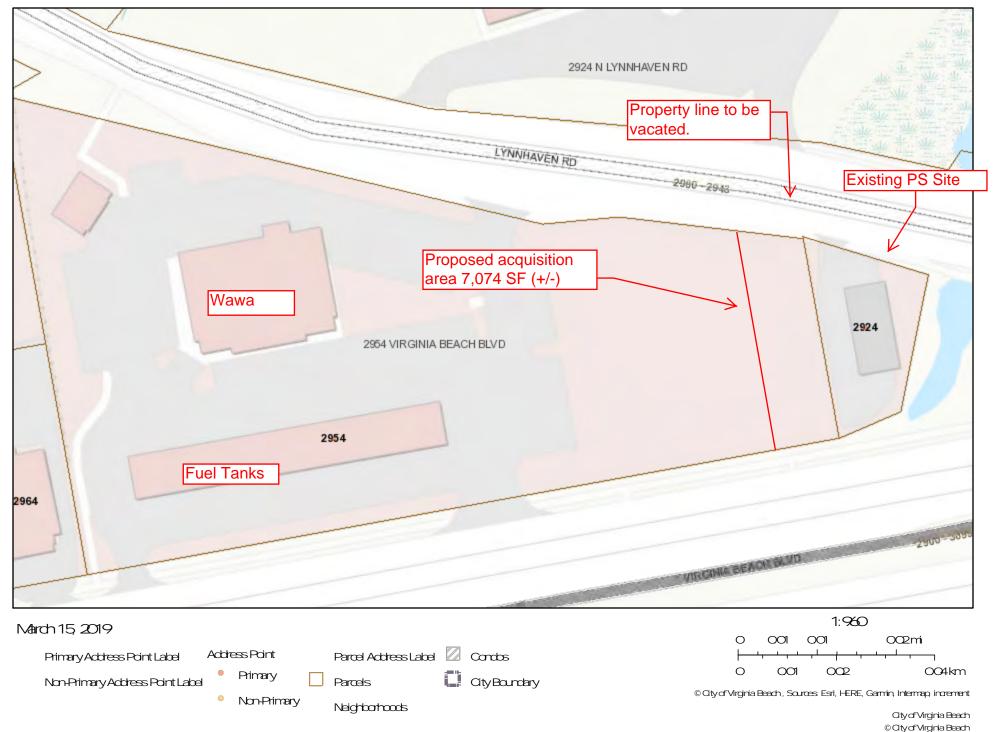
Registration No. $G\theta 21924$

My Commission expires: 5.17.2022

KELLAM, PICKRELL, COX & ANDERSON PROFESSIONAL CONTOSTION ATTURNEYS AT LAW

DOC/HRSD/DEEDS/PINE TREE INN DBS

City of Virginia Beach



HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #8

AGENDA ITEM 12. Water Technology and Research Presentation



Water Technology and Research Update

March 26, 2019

Topics for Today

- 1. HRSD Research Program Interns
- Nansemond Plant Struvite Recovery Facility (SRF) Upgrade
 - Review of current facility and issues
 - Combining biological P removal and anaerobic digestion
 - WASSTRIP®
 - Change of chemicals for struvite recovery
 - Other plants...



Operations - Water Technology, Research, Process Engineering

- Plant operations assistance and troubleshooting
- Participation in capital project planning and design
- University projects of interest to HRSD
 - HRSD funds/efforts leveraged to obtain grant funding
 - WERF, EPA, NSF
- HRSD Water Technology & Research projects
 - HRSD staff support TSD, CEL, Treatment, Facility Support, etc
 - MS and PhD student interns from ODU & VT (~12)
 - Environmental Engineering, but with varied backgrounds
 - Project work at an HRSD facility
 - Benefits cost, education, university collaboration
- Chris Wilson, PhD, P.E. –Chief of Process Engineering & Research
- Treatment Process Engineers (4)



HRSD Collaborative Research Program MS & PhD

- Required: US citizen or permanent resident
 - Some exceptions require research contract, CPT/OPT
 - US drivers license
- HRSD Provides
 - Internship salary (from start to finish)
 - Undergraduate assistant \$11.92/hour
 - MS ~\$32k/year
 - PhD starting ~\$32k/yr; post qualifier ~\$35k/yr; post prelim exam ~\$42k/yr
 - Tuition paid on behalf of student MS and PhD
 - Health insurance, if needed
 - Travel and conference expenses
 - Furnished apartment/house if needed (\$700/month rent)



2932 Chesapeake Ave, Hampton





HRSD Collaborative Research Program MS & PhD

- Required: US citizen or permanent resident
 - Some exceptions require research contract, CPT/OPT
 - US drivers license
- HRSD Provides
 - Internship salary (from start to finish)
 - Undergraduate assistant \$11.92/hour
 - MS ~\$32k/year
 - PhD starting ~\$32k/year; post qualifier ~\$35k/year; post proposal ~\$42k/year
 - Tuition paid on behalf of student MS and PhD
 - Health insurance, if needed
 - Travel and conference expenses
 - Furnished apartment/house if needed (\$700/month rent)
- Student Expectations
 - Produce MS thesis or PhD dissertation
 - Conference presentations and journal publications
 - Research work fulltime in Hampton Roads area
- Schedule MS (18-24 months)
 - Pre-summer located Hampton Roads for initial project training
 - Fall and Spring semesters complete coursework at VT
 - Summer fulltime research work at HRSD
 - MS thesis defense and final thesis submission



Name	Date	MS/PhD	School	Collaborator	Support	Where now
Michael Parsons	2007	MS	U. Cincinnati	Oerther	DCWater	HRSD full-time
Pusker Regmi	2008	MS	ODU	Schafran	HRSD grant	Brown & Caldwell
Karen Bill	2009	MS	VT		DCWater	HDR
Wesley Thomas	2009	MS	VT		HRSD grant	Arcadis
David Riedel	2009	MS	VT	Novak	WERF	Arcadis
Phill Yi	2010	MS	VT		HRSD grant	Hazen
Mark Miller	2010	MS	VT		WERF	Brown & Caldwell
Daniel Hingley	2010	MS	VT		HRSD internship	AQUA Virginia
Anna Kazasi	2011	MS	VT	Boardman	HRSD internship	Arcadis
Carolina Funkey	2011	MS	VIMS	Bronk	HRSD internship	U. Hawaii
Kshitiz Uprety	2012	MS	VT		HRSD internship	HRSD full-time
Evan Bowles	2013	MS	VT	Novak	HRSD internship	Hazen
Andrea Nifong	2013	MS	ODU		HRSD internship	Hazen
Ryder Bunce	2013	MS	ODU		HRSD internship	Hazen
Holly Anne Hillard	2013	MS	ODU		HRSD internship	Pancopia
Wei Liang	2013	MS	VT	Boardman	HRSD grant	consultant in China
Ross Varin	2013	MS	VT	Novak	HRSD internship	CDM Smith
Dana Fredericks	2014	MS	VT		HRSD internship	Hazen
Stephanie Klaus	2014	MS	VT		HRSD internship	HRSD intern
Andre Freitas	2014	MS	VT	Boardman/Cox	HRSD internship	Arcadis
Rebecca Holgate	2014	MS	ODU		HRSD internship	Hazen
Jeffrey Nicholson	2014	MS	VT	Chiesa	HRSD internship	HRSD intern
Michael Sadowski	2015	MS	VT		HRSD internship	US Navy
Johnnie Godwin	2015	MS	ODU		HRSD internship	Jacobs
Jon DeArmond	2015	MS	ODU		HRSD internship	Carollo
Peerawat Charuwat	2015	MS	VT	Novak	HRSD grant	Thailand, Army
Claire Welling	2015	MS	VT		HRSD internship	Research Ass., Duke U.
Germano Salazar-Benites	2016	MS	VT		HRSD full-time	HRSD full-time
Alexandria Gagnon	2016	MS	VT		HRSD internship	HRSD full-time
Andrew DeVries	2016	MS	U. Notre Dame	Nerenberg	HRSD internship	Carollo
Matthew Elliott	2016	MS	ODU		HRSD internship	AECOM
Amanda Ford	2017	MS	ODU		HRSD internship	Hazen
Tyler Brickles	2017	MS	ODU		HRSD internship	US Army
Timothy Kent	2018	MS	VT	Wang	HRSD internship	AECOM
Robert Pearce	2018	MS	VT		HRSD internship	HRSD intern
Prarthana Pradham	2018	MS	VT	Widdowson	HRSD grant	Carollo
Cody Campolong	2019	MS	VT		HRSD internship	HRSD intern
Lindsey Ferguson	2019	MS	ODU		HRSD internship	Tetra Tech
Peter Buehlmann	ongoing	MS	VT		HRSD internship	
Allison Partin	ongoing	MS	VT		HRSD internship	
Kathryn Printz	ongoing	MS	VT		HRSD internship	
Dana Gonzalez	ongoing	MS	VT		HRSD full-time	
Samantha Hogard	ongoing	MS	VT		HRSD internship	
Sydney Goy	ongoing	MS	VT		HRSD internship	
Sarah Schoepflin	ongoing	MS	VT		HRSD internship	
Amber Disomma	ongoing	MS	ODU		HRSD internship	
Matt Poe	ongoing	MS	ODU		HRSD full-time	
		•	,		•	*

Masters Students

Complete = 38

Ongoing = 9

Working for consultants on HRSD projects = 13

Working for HRSD, full-time or PhD = 7

Failed to finish = 2



PhD Students & Post-Doctoral Research Associates

Name	Date	MS/PhD	School	Collaborator	Support	Where now
Pusker Regmi	2014	PhD	ODU		HRSD grant	Brown & Caldwell
Mark Miller	2015	PhD	VT		HRSD internship	Brown & Caldwell
Thomas Nogaj	2015	PhD	UCF	A. Randall	HRSD internship	Cardno
Stephanie Klaus	ongoing	PhD	VT		HRSD internship	
Jeffey Nicholson	ongoing	PhD	VT	Wilson/Novak/Higgins	HRSD internship	
Ramola Vaidya	ongoing	PhD	VT	Wilson/Novak	HRSD grant	
Zerihun Bekele	ongoing	PhD	U. Michigan	Love	HRSD internship	
Alexandria Gagnon	ongoing	PhD	VT		HRSD full-time	HRSD full-time
Matthew Blair	ongoing	PhD	VT	Pruden	HRSD grant	
Meredith Bullard	ongoing	PhD	VT	Widdowson	HRSD grant	
Kester McCullough	ongoing	PhD	VT		HRSD internship	
Jeff Sparks	ongoing	PhD	U. Laval	Vanrolleghem	HRSD full-time	HRSD full-time
	2212	5	0 1 11			
Maureen Kinyua	2016	Postdoc	Columbia	Chandran	EPA grant	U. California at Davis
Ankit Pathak	2018	Postdoc	Columbia	Chandran	EPA grant	Hazen

Complete = 5 (3 PhD, 2 Postdoc)

Nearly complete = 3

Ongoing = 6

Working for consultants on HRSD projects = 3

PhD while working full-time for HRSD = $\frac{2}{3}$

Failed to finish = 1

Scale of "Research"

Lab/Bench

Pilot facilities:

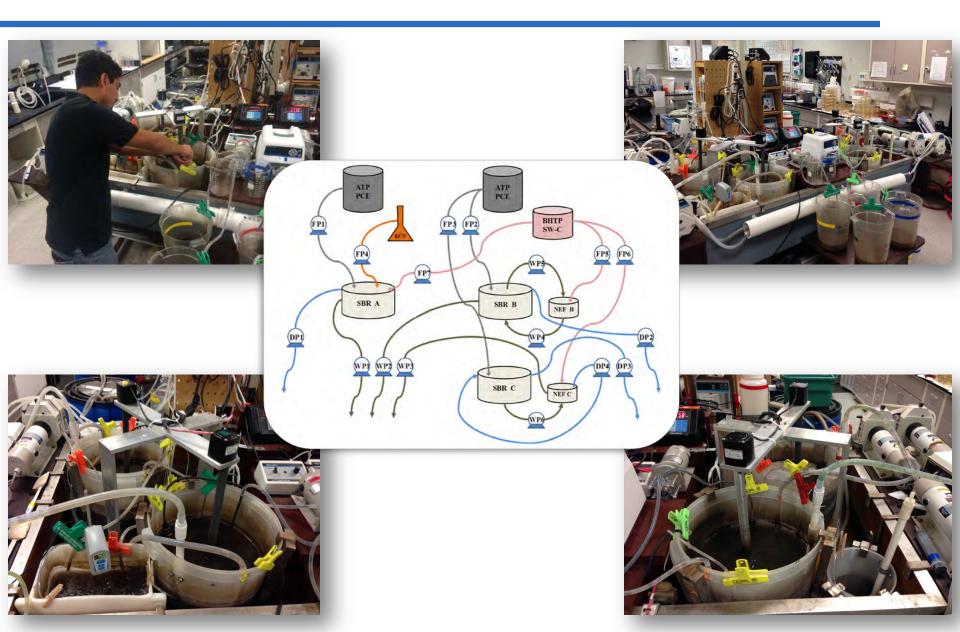
- Chesapeake-Elizabeth BNR Pilot Facility
- SWIFT Research Center

Full-scale plants - examples:

- DEMON and AnitaMox startups
- Ostara struvite recovery pilot testing
- Ammonia-based aeration control implementation
- Hydrograv technology evaluation
- inDENSE® testing
- Primary solids + FOG fermentation pilot study



Bench-scale SBRs in the HRSD Technical Services Lab



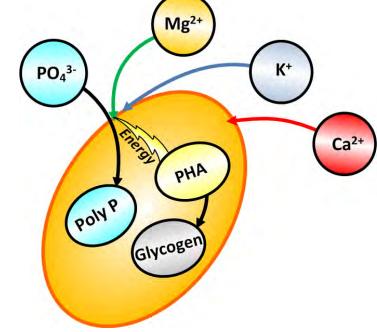
Chesapeake Elizabeth BNR Pilot



STRUVITE@HRSD.and related topics







What is Struvite?





How Bad Can it Get?



Centrifuge Bowl Scoring

Pipe Restrictions

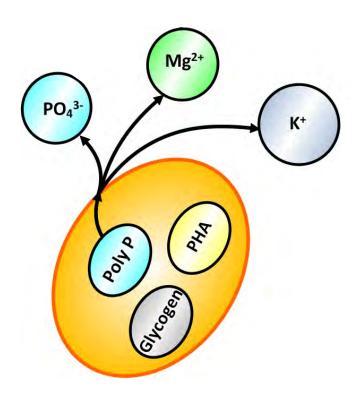
But, it's a great fertilizer...

(mostly for providing a source of slow release P)

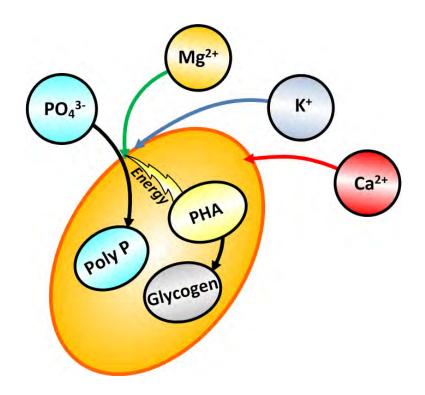
Biological Phosphorus Removal (Bio-P)

Phosphorus accumulating organisms (PAOs) have a unique anaerobic/aerobic metabolism

Anaerobic Conditions



Aerobic Conditions

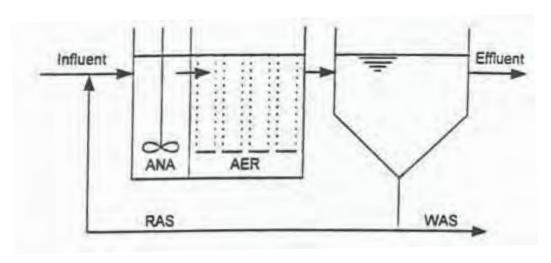


Poly-P = granule of poly-phosphate

PHA = granule of polyhydroxyalkanoate

Bio-P in A/O Process

A/O Process

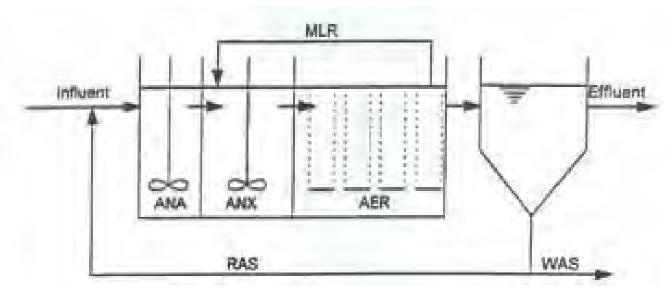


ANA = Anaerobic

AER = Aerobic

Addition of an anaerobic selector...

Add Bio-P to MLE... - A2/O Process



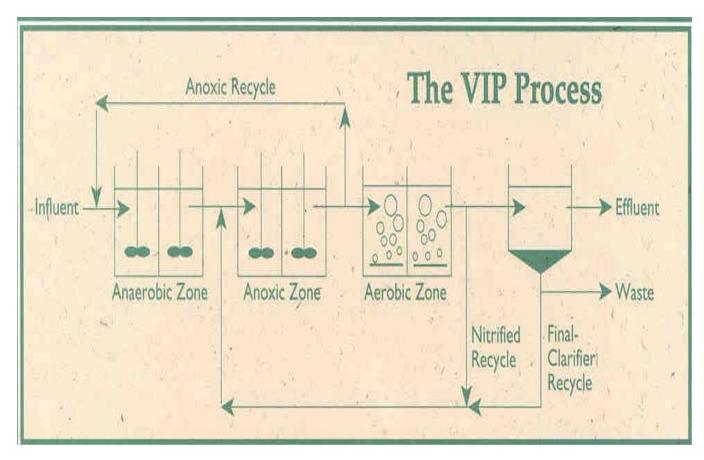
A²/O or Phoredox Process

ANA = Anaerobic

ANX = Anoxic

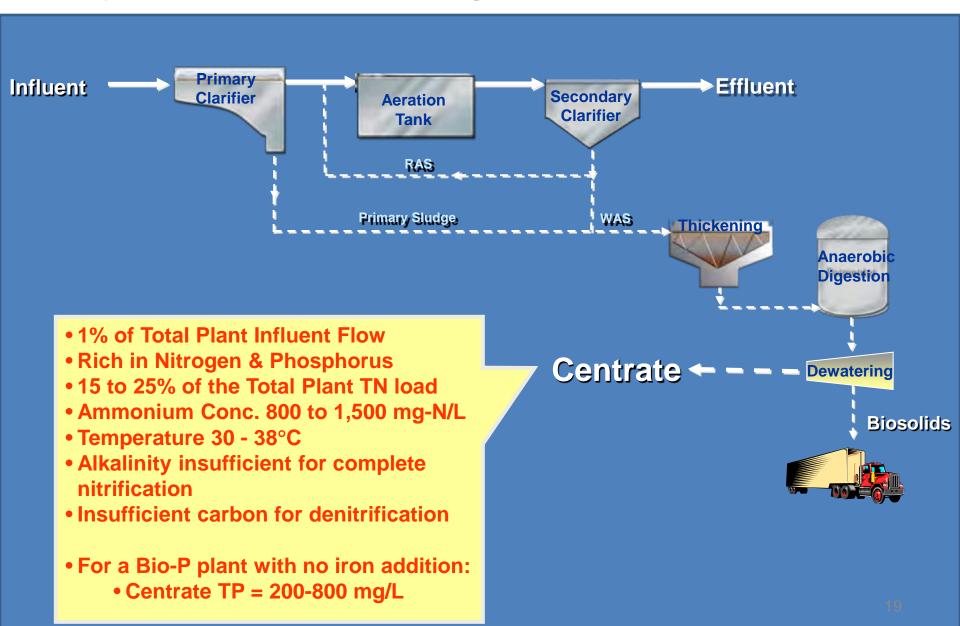
AER = Aerobic

Virginia Initiative Process (VIP)

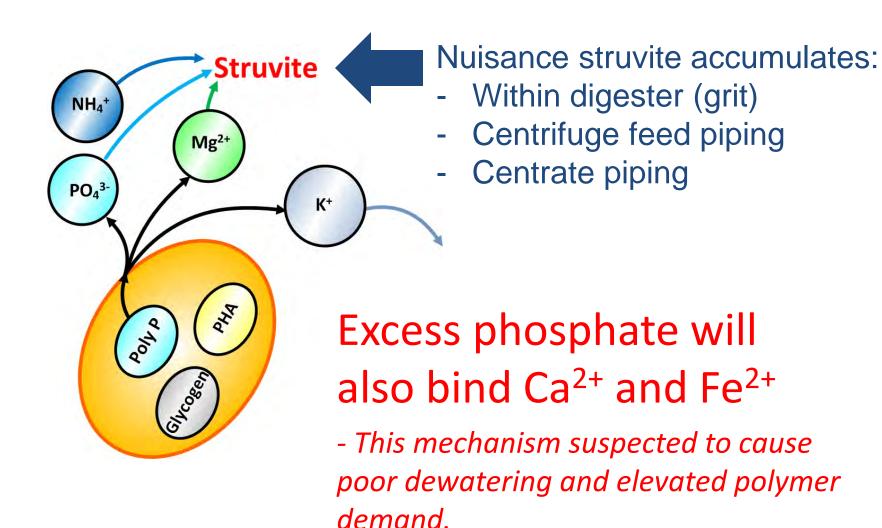


- Developed collaboratively by HRSD, Virginia Tech, and CH2M Hill
- Biological N and P removal

Recycle Streams with High N & P - Sidestream



What happens? Within and Downstream of Anaerobic Digestion



HRSD Plants with Anaerobic Digestion

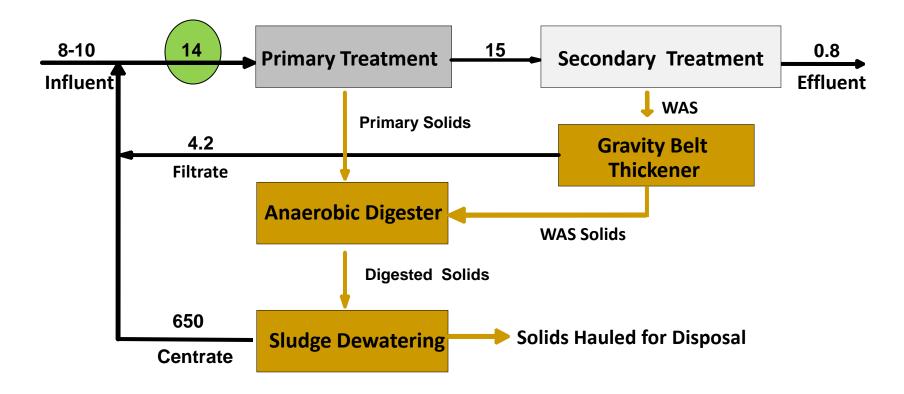
- Nansemond BioP + Ostara struvite recovery →
 WASSTRIP® upgrade in design & change in Mg chemical selection
- Atlantic unintentional BioP → THP with upstream P-release under construction
- James River BioP + ChemP/ferric + AnitaMox
 → testing Mg addition post-digestion full-scale
- York River ChemP + DEMON → transition to BioP (then what?)

HRSD Nansemond Treatment Plant (pre-2008)





Phosphorus Profile



Values in mg/L TP

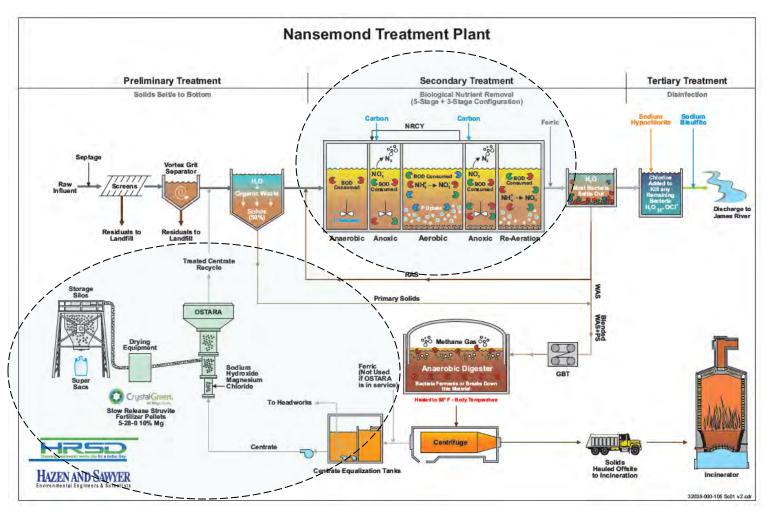


Nansemond Treatment Plant Upgrade (2009)





Process Flow Diagram





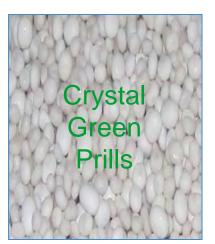
Original Implementation of Struvite Recovery Facility





Ostara Facility

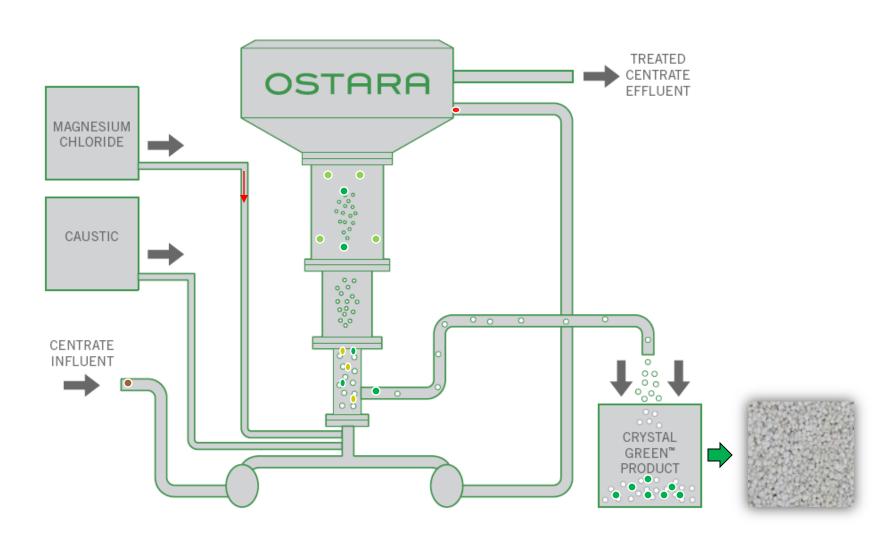






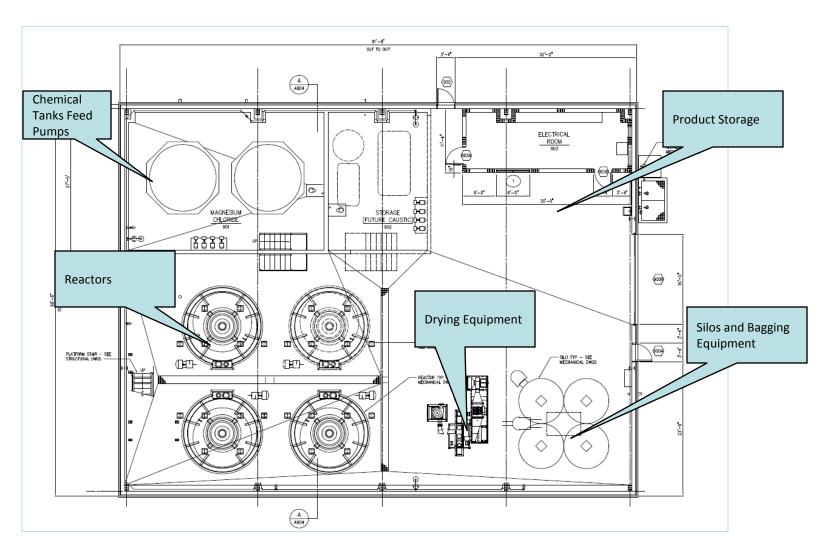


What is the Ostara Pearl® Process?



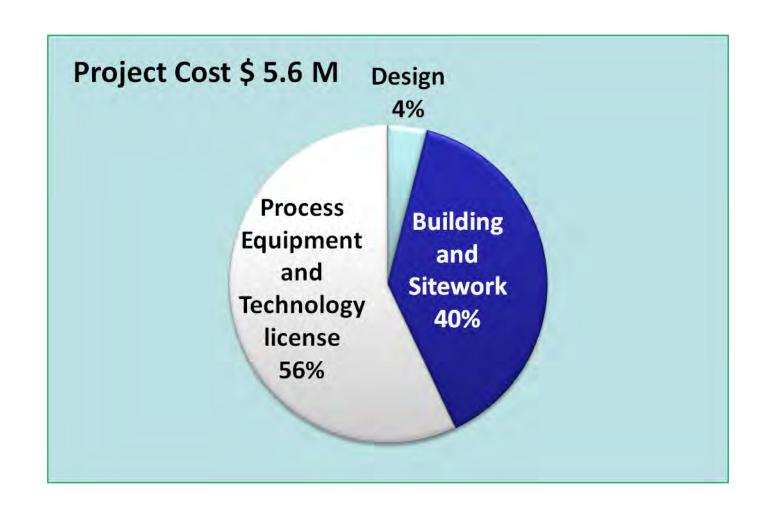


Struvite Facility Layout





Struvite Facility Cost





HRSD and Ostara's Agreement (2009)

- 10 year contract with Ostara to purchase all product produced at the facility with increases to purchase price based on the CPI
- Ostara pays for chemicals
- Ostara provided the equipment and process oversight
- HRSD retains ownership of the building and equipment after contract expires
- Ostara markets and distributes the fertilizer product under the name as CrystalGreen™. HRSD's name is not used on any packaging.

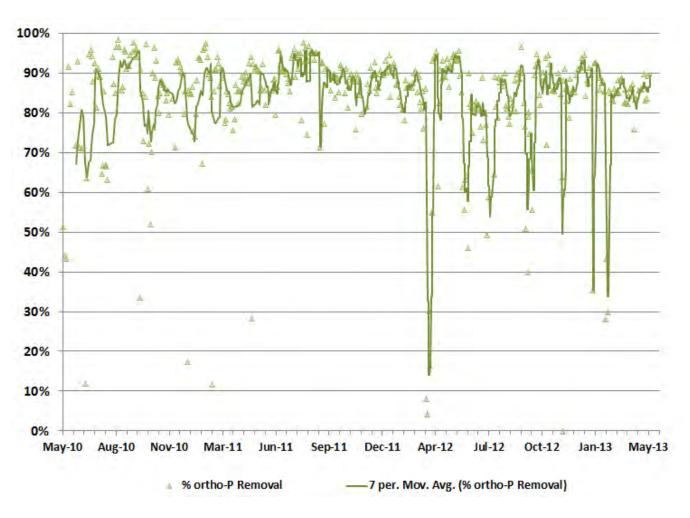


Cost Review

	Option 1 Side Stream Treatment Cost Estimate	Option 2 Original Ostara Cost Estimate	Ostara CY 2013 Actual Costs	Ostara CY 2014 Actual Costs	Ostara Recent Actual Costs
Product Sales		165,000	65,300	111,900	~140,000
Annual Operating Costs	(514,800)	(88,800)	(141,900)	(86,600)	~(90,000)
Annual Debt Service		(425,300)	(425,300)	(425,300)	(425,300)
Net Annual Operating Costs	(559,000)	(349,100)	(501,900)	(400,000)	~(375,000)

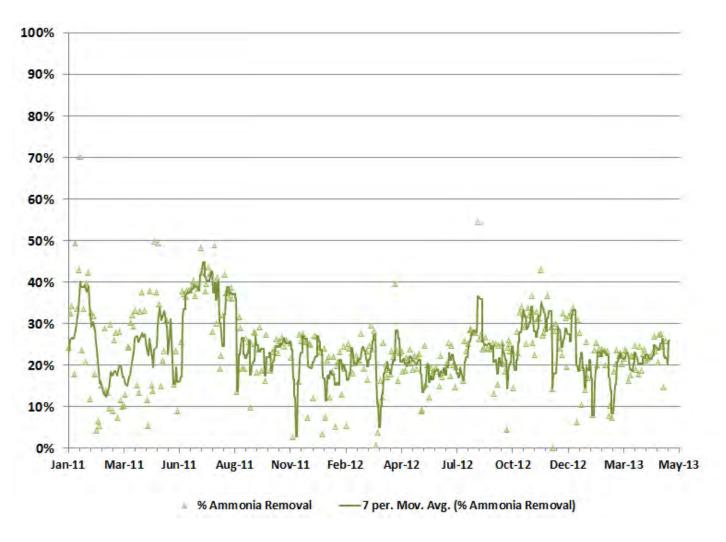


% Ortho-Phosphate Removal





% Ammonia Removal





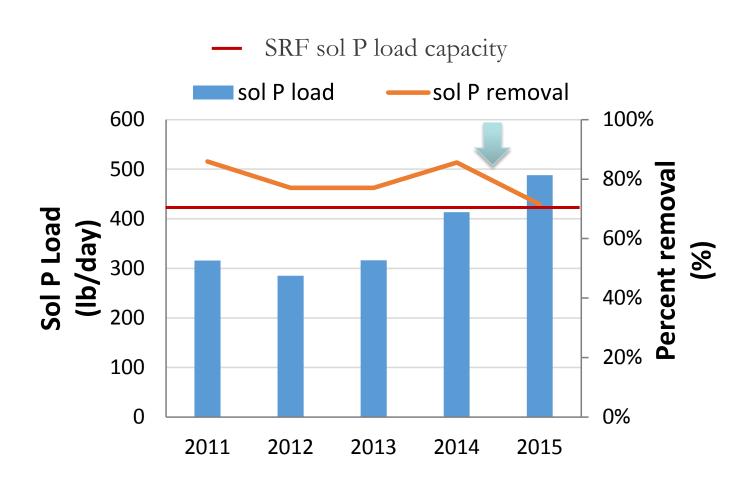
SRF Influent P Load Increased in 2014 and 2015

	SRF Inf TP Ib/day	SRF Inf Sol P lb/day	SRF Eff TP lb/day	Raw Inf TP Ib/day
2011	361	316	214	1,052
2012	311	285	194	1,044
2013	349	316	211	1,087
2014	448	413	213	1,012
2015	584	488	322	1,103

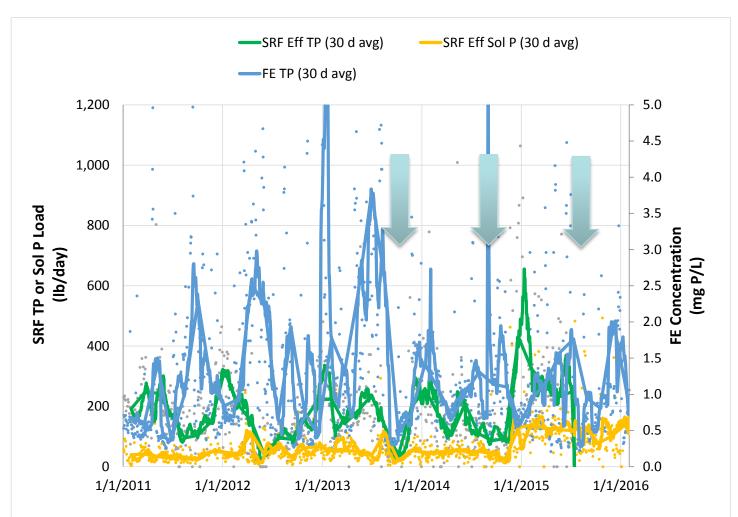
Capacity of three Pearl reactors ~ 3,300 lb struvite/day

~ 420 lb P/day

Increase in SRF P Load Caused Poor Performance

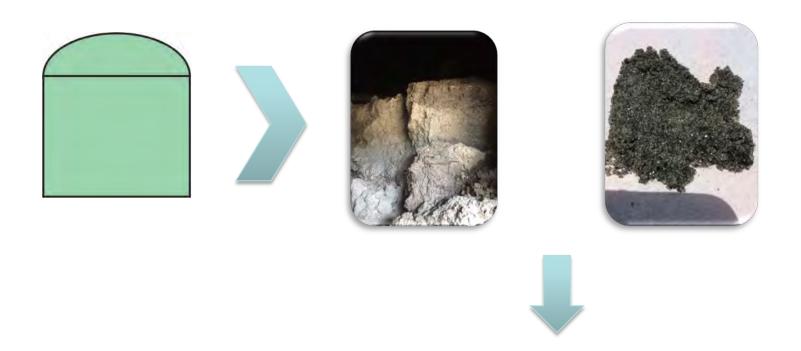


Increased Sidestream P Load to the Mainstream Impacted P Removal



Dosing of ferric to the main plant occurred to stabilize effluent TP

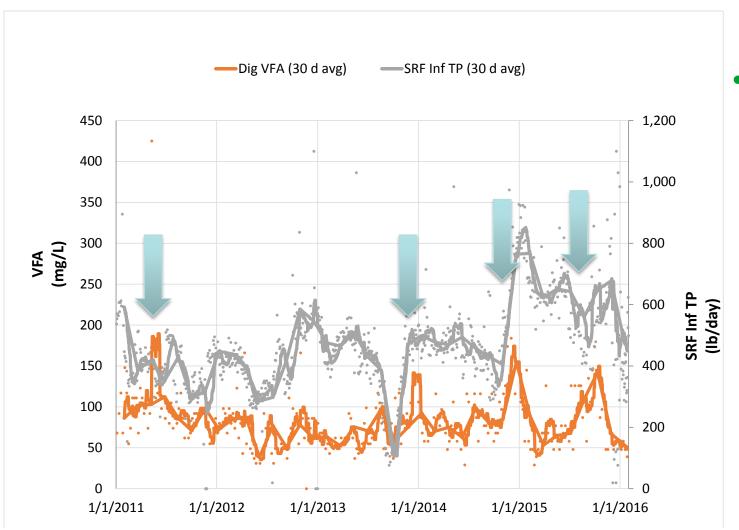
Significant Deposition of Phosphorus Occurs in the Anaerobic Digesters



~ 120 dry ton material collected from cleanout in 2016

Testing has demonstrated that 50 to 60% of material is struvite = **60 to 72 ton struvite**

Increase in SRF P Load Is Linked to Digester Operation



Increase in digester VFA coincided with SRF P load increase



(12) United States Patent

Baur

(10) Patent No.: (45) Date of Patent:

US 7,604,740 B2 Oct. 20, 2009 WASSTRIP® Process

(54) WASTE ACTIVATED SLUDGE STRIPPING TO REMOVE INTERNAL PHOSPHORUS

- (75) Inventor: Robert James Baur, Lake Oswego, OR
- (73) Assignee: Clean Water Services, Hillsboro, OR
- Subject to any disclaimer, the term of this (*) Notice: patent is extended or adjusted under 35 U.S.C. 154(b) by 100 days.

Screens

Residuals to

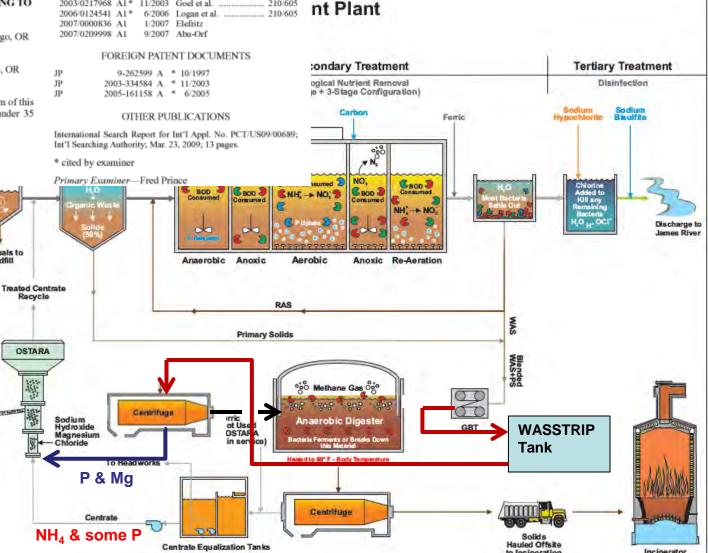
Landfill

Drying Equipment

Landfill

- (21) Appl. No.: 12/012,362
- (22) Filed: Feb. 1, 2008

2003/0217968 A1* 11/2003 Goel et al. 210/605 6/2006 Logan et al. 210/605 2006/0124541 A1* 2007/0000836 A1 1/2007 Elefritz







Storage

to Incineration

Incinerator

32035-000-105 Sc01 v2.cdr

Benefits of WASSTRIP® Implementation

Quantifiable benefits

- More struvite production (revenue)
 - ~325 tons/year to ~560 tons/year (current annual average load)
- Improve sidestream P-removal (avoid overloading SRF)
- Decrease struvite accumulation in digesters
- Decrease P content of biosolids
- Minimize ferric addition and recycled P concentrations to meet effluent P targets
- Stabilize nitrification (essential for SWIFT)





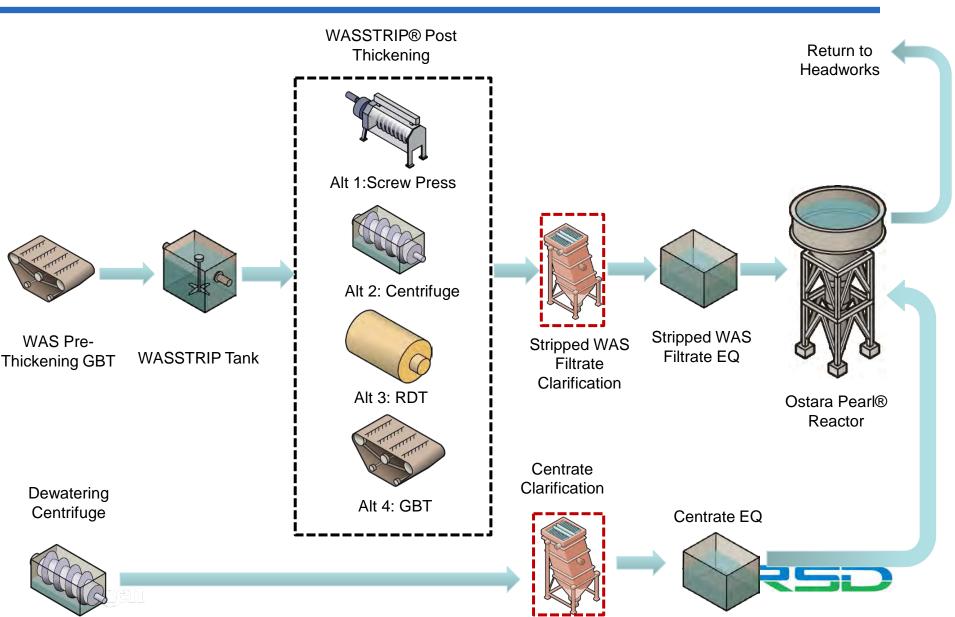
Benefits of WASSTRIP® Implementation

- Less certain or more variable benefits
 - Improve dewatering increase in cake biosolids
 - Slightly decrease dry biosolids produced
 - Decrease polymer demand
 - Reduce potential for struvite build up in pipes and equipment
 - Reduce frequency of digester cleanouts
 - Improve digester capacity (hold on)

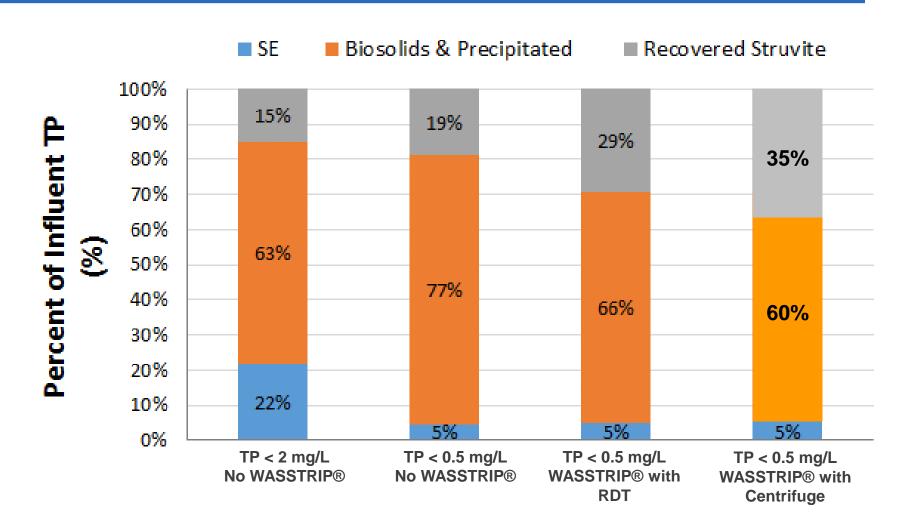




Summary of Alternatives and Components



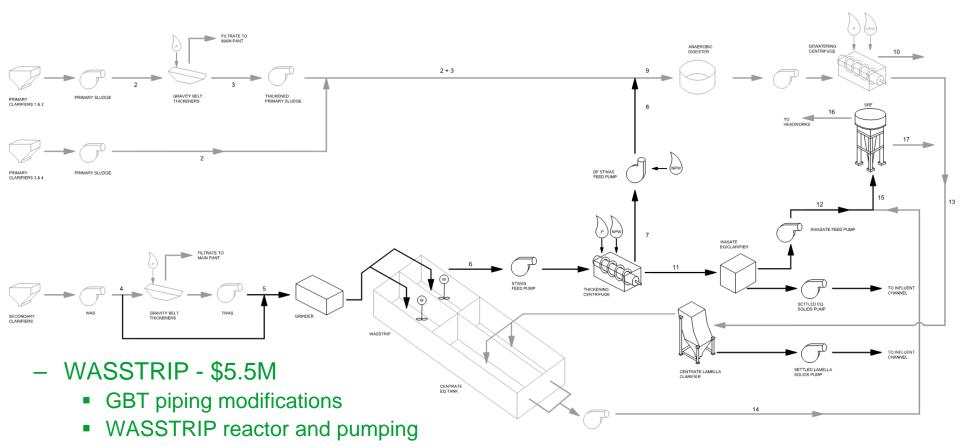
Fate of P in Treatment Plant







WASSTRIP® Design



- Centrifuges and digester feed pumps
- Solids removal for both Centrate and Wasate (lamella clarifiers) and associated piping/pumping
- Pre-digester dewatering + mixing improvements = considerable additional digester capacity

HRSD Plants with Anaerobic Digestion

- Nansemond BioP + Ostara struvite recovery →
 WASSTRIP® upgrade in design & change in Mg chemical selection
- Atlantic unintentional BioP → THP with upstream P-release under construction
- James River BioP + ChemP/ferric + AnitaMox
 → testing Mg addition post-digestion full-scale
- York River ChemP + DEMON → future transition to BioP (then what?)

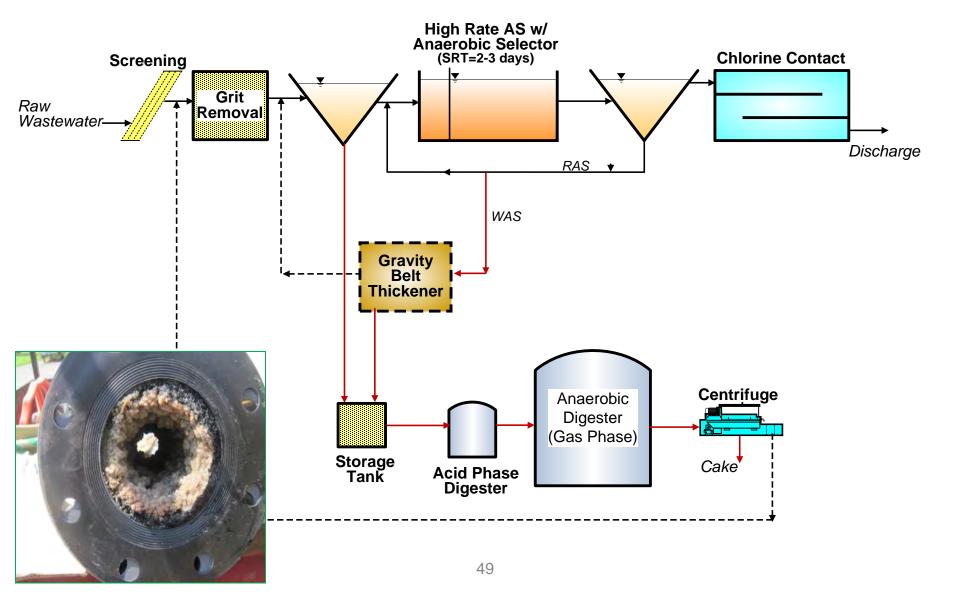
HRSD Atlantic Treatment Plant – Expanded and Upgraded from CEPT/HPO to A/O



Atlantic Treatment Plant (54 MGD) – Upgrade Complete



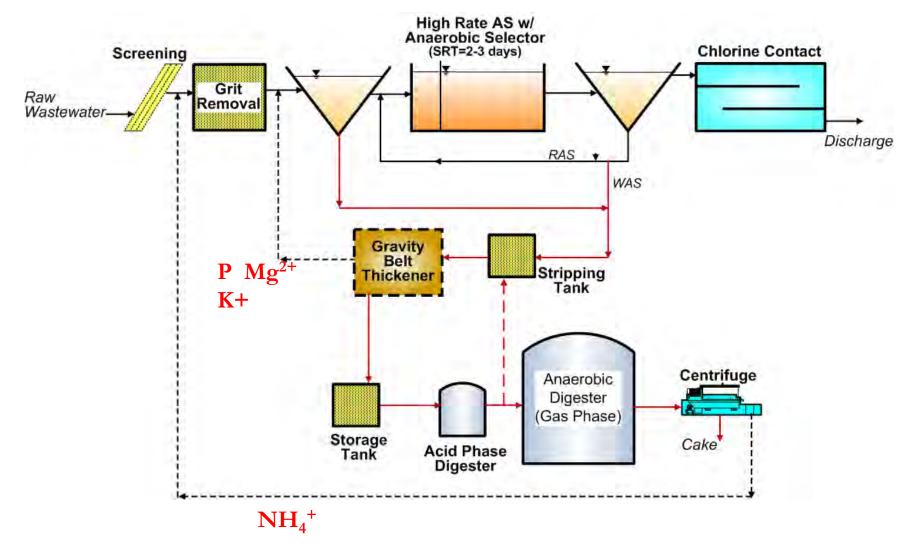
Atlantic Plant: Post Upgrade



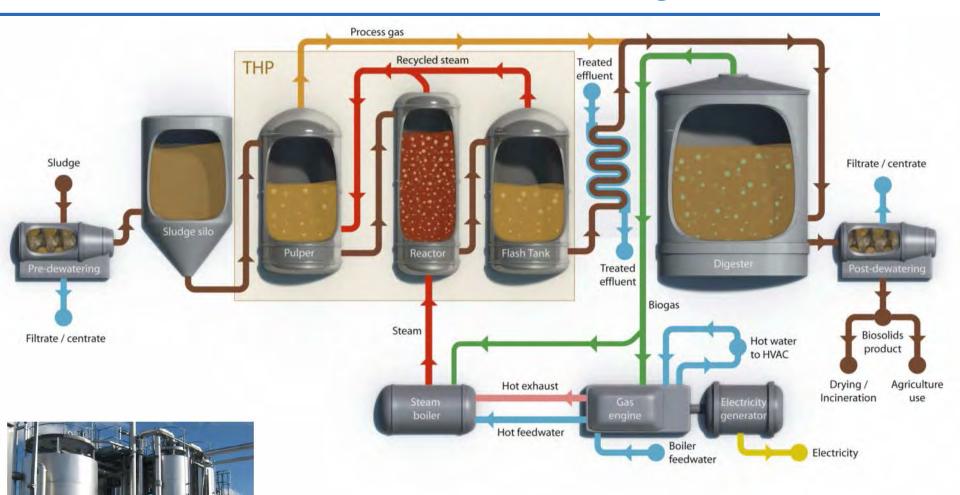
ATP Pad No. 2 South Side – 28 Feb 2013



Atlantic with P-RELEASE – No Struvite Recovery

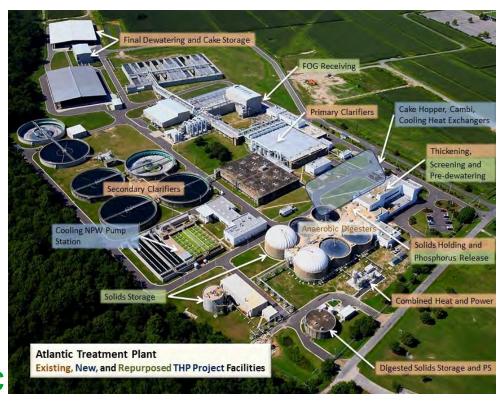


CAMBITHP



Motivation for THP at Atlantic Plant

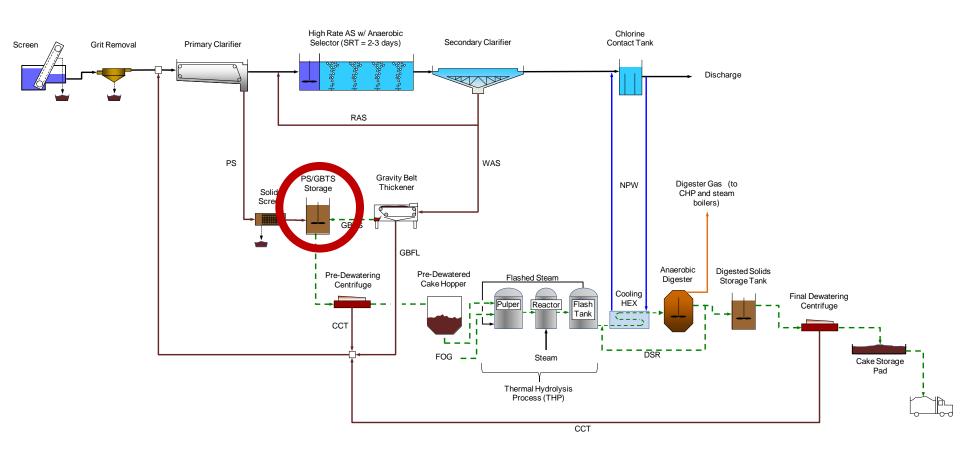
- Class A (with certainty)
 - Land Application
 - Marketable products
- High quality, low odor
- Improve dewaterability
 - Storage at plant (or field)
 - Stackability
- Regionalize on anaerobic digestion (intensification)



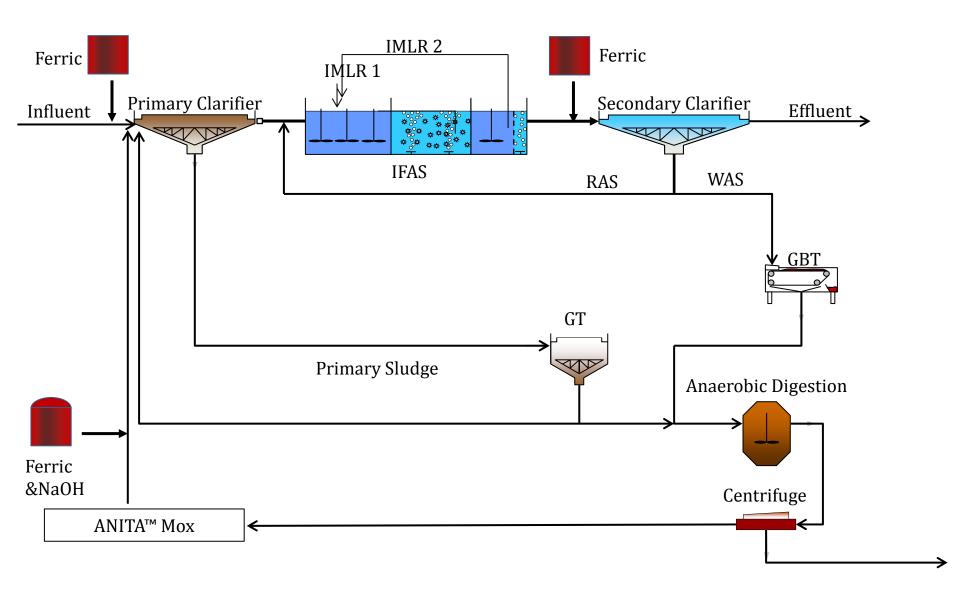
FOG and high strength waste co-digestion

 Energy

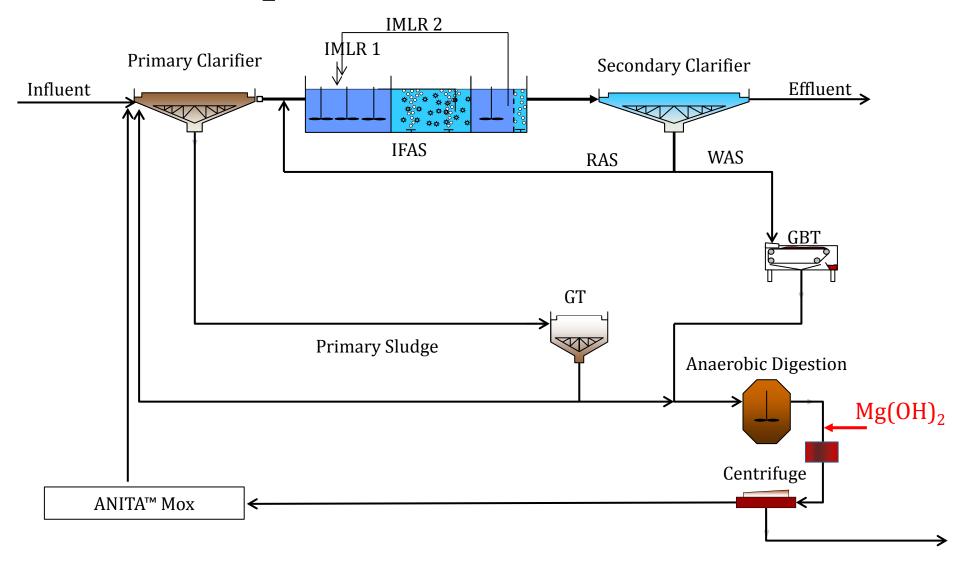
Atlantic Plant Process Flow Diagram P-release + THP



A2O/IFAS at James River Plant – BioP + ChemP



Mg(OH)₂ Addition at James River Plant















Questions?



HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #9

AGENDA ITEM 13. – Ethics Policy



Revised: March 26, 2019
Adopted: October 27, 2015 Effective: April 1, 2019 Page 1 of 4

1.0 Purpose and Need

As a public body, gaining and keeping the trust of the public is paramount. HRSD Commissioners and employees are committed to maintaining high ethical standards in every aspect of their business as members of a public body. As a political subdivision of the Commonwealth, HRSD Commissioners and employees are committed to complying with all applicable laws and regulations governing ethics and conflicts of interest. **This policy is applicable to all HRSD employees.**

2.0 <u>Definitions</u>

Conflict of Interest – A situation in which a person is in a position to derive personal benefit from actions or decisions made in their official capacity.

HRSD Commissioner – A non-salaried citizen member of the HRSD Commission

Gift – Any goods, meals, services, loans, tickets to events, greens fees, travel, lodging or similar items with monetary value or discounts, favors, gratuities, hospitality, forbearance, etc. This includes prizes awarded from drawings or similar games of chance at events attended in an official capacity. This also includes wreaths, candy, cookies, fruit baskets, etc., whether addressed to an individual or to HRSD.

Not a Gift – For the purposes of this policy the following are not considered gifts:

- Offer of a ticket, coupon, admission or pass if such item is **not** used
- Honorary degrees
- Food or beverage consumed and mementos received at an event at which an individual is performing official duties or is a speaker
- Registration or attendance fees (not travel costs) at an event at which individual is a speaker or event coordinator
- Unsolicited awards of appreciation or recognition (plaque, trophy, wall or desk memento)
- Gifts from relatives or Personal Friends
- Travel paid for by the government
- Travel, meals and activites directly associated with and paid for by a professional association that HRSD pays dues to on behalf of the agency or individual as part of their official duties
- Scholarships awarded competitively
- Travel related to an official meeting of HRSD
- Travel, lodging, meals, activities and logo clothing and related similar items associated with recruitment activities for permanent employment outside of HRSD while employed in an intern position



Revised: March 26, 2019
Adopted: October 27, 2015 Effective: April 1, 2019 Page 2 of 4

Immediate Family – Includes spouse and any other person who resides in the same household and who is a dependent of the Commissioner or employee.

Intern Positions – On-the-job experience for high school students, college and university students, or post-graduate adults, hired on a part-time seasonal or part-time temporary basis.

Personal Friend – An individual whose relationship with an HRSD employee or Commissioner pre-dates employment/appointment with HRSD and the relationship has a history of gift exchange or with whom a personal relationship developed totally unrelated to the employee's or Commissioner's position with HRSD.

Widely Attended Event – An event to which at least 25 persons have been invited or there is a reasonable expectation that at least 25 persons will attend the event and the event is open to individuals (i) who are members of a public, civic, charitable or professional organization, (ii) who are from a particular industry or profession, or (iii) who represent persons interested in a particular issue. Golf outings are never considered a widely attended event or a part of a widely attended event.

3.0 **Guiding Principles**

HRSD Commissioners and employees shall conduct themselves beyond reproach. Improprieties or the appearance of improprieties will not be tolerated. All prohibitions herein apply to Commissioners, employees and their immediate families.

Soliciting, accepting or receiving any Gift from a lobbyist, lobbyist's principal or any entity or person seeking to contract with HRSD is prohibited subject to exemptions for Gifts from relatives or Personal Friends.

Personal interest in or benefit from any contract with HRSD other than the employee's own employment contract is prohibited. Where such interest preexists, it shall be disclosed and the Commissioner or employee shall refrain from voting on or acting on behalf of HRSD in any manner in relation to the contract.

Participation in a transaction with HRSD where the employee has a personal interest in or may benefit from the transaction is prohibited. Such interest shall be disclosed and the Commissioner or employee shall refrain from voting on or acting on behalf of HRSD in any manner in relation to the transaction.



Revised: March 26, 2019
Adopted: October 27, 2015 Effective: April 1, 2019 Page 3 of 4

Engaging in transactions (excluding those associated with connection, payment or maintenance of a sewer service account or related activities available to all HRSD customers) with HRSD is prohibited for a period of six months post employment or appointment (excluding employees in intern positions).

Food, beverages, mementos, entertainment or the cost of admission may be accepted when such a Gift is accepted or received while in attendance at a Widely Attended Event and is associated with the event.

Gifts received without specific recipients identified shall be returned whenever practicable. If return is not practicable, perishable gifts may be shared with the entire work center. Non-perishable gifts shall be collected and distributed to local charities as appropriate.

4.0 Procedures

This policy shall be communicated and provided to all HRSD Commissioners and employees upon commencement of appointment/employment and an acknowledgement of such shall be retained permanently in each employee's personnel file [Enterprise Resource Planning (ERP) System]. Commissioners' acknowledgements shall be retained by the Commission Secretary.

HRSD Commissioners or employees who have a personal interest in a company doing business with HRSD, or believe they have any other conflict requiring disclosure, shall disclose those interests immediately upon discovery of the personal interest in a company doing business with HRSD or other potential conflict. The Conflict of Interest Disclosure Form will include name and address of company doing business with HRSD, name and position of person at the company, as well as start and end date of the conflict.

HRSD Commissioners or employees who receive gifts at widely attended events that exceed \$100 in value shall disclose those gifts within 60 days of receiving a qualifying gift. The Gift Disclosure Form will include the name of the company/vendor and date the gift was received.

Employee disclosure forms will be available in the ERP system. HRSD Commissioner disclosure forms shall be obtained through, filed with and retained by the Commission Secretary. All disclosure forms may be reviewed by legal counsel.

Training on the Ethics Policy shall be provided to all HRSD employees on a biannual basis with records of attendance maintained in the ERP system. Training on the Ethics Policy will be provided to HRSD Commissioners at time of appointment and periodically thereafter.



Adopted:

October 27, 2015

Revised: Effective:

March 26, 2019 April 1, 2019

Page 4 of 4

5.0 Responsibility and Authority

This policy shall be reviewed annually by the Operations and Nominations Committee and revised as required to conform to current law and regulations.

Approved:

Frederick N. Elofson, CPA

Commission Chair

Attest:

Jennifer L. Cascio Commission Secretary



Revised: June 26, 2018 March 26, 2019

Adopted: October 27, 2015 Effective: April 1, 2019 Page 1 of 5

1.0 Purpose and Need

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HRSD Positions of Trust - Positions requiring annual disclosure filing

- General Manager
- Director of Communications
- Director of Engineering
- Director of Finance
- Director of Information Technology
- Director of Operations
- Director of Talent Management
- Director of Water Quality
- Director of Water Technologies and Research
- Special Assistant for Compliance Assurance
- Chief of Procurement
- Real Estate Manager

Gift – Any goods, meals, services, loans, tickets to events, greens fees, travel, lodging or similar items with monetary value or discounts, favors, gratuities, hospitality, forbearance, etc. This includes prizes awarded from drawings or similar games of chance at events attended in an official capacity. This also includes wreaths, candy, cookies, fruit baskets, etc., whether addressed to an individual or to HRSD.



| Revised: June 26, 2018 | Revised: June 26, 2019 | Page 2 of 5

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Revised: June 26, 2018 March 26, 2019

Adopted: October 27, 2015 Effective: April 1, 2019

Page 3 of 5

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Participation in a transaction with HRSD where the employee has a personal interest in or may benefit from the transaction is prohibited. Such interest shall be disclosed and the Commissioner or employee shall refrain from voting on or acting on behalf of HRSD in any manner in relation to the transaction.

Engaging in transactions (excluding those associated with connection, payment or maintenance of a sewer service account or related activities available to all HRSD customers) with HRSD is prohibited for a period of six months post employment or appointment (excluding employees in intern positions).

Food, beverages, mementos, entertainment or the cost of admission may be accepted when such a Gift is accepted or received while in attendance at a Widely Attended Event and is associated with the event. Commissioners and employees in HRSD Positions of Trust must disclose Gifts received at Widely Attended Events in excess of \$100 pursuant to Section 4.0.

Gifts received without specific recipients identified shall be returned whenever practicable. If return is not practicable, perishable gifts may be shared with the entire work center. Non-perishable gifts shall be collected and distributed to local charities as appropriate.



Revised: June 26, 2018 March 26, 2019

Adopted: October 27, 2015 Effective: April 1, 2019 Page 4 of 5

4.0 Procedures

This policy shall be communicated and provided to all HRSD Commissioners and employees upon commencement of appointment/employment and an acknowledgement of such shall be retained permanently in each employee's personnel file [Enterprise Resource Planning (ERP) System]. Commissioners' acknowledgements shall be retained by the Commission Secretary.

HRSD Commissioners and employees in HRSD Positions of Trust as defined herein shall file disclosure forms as specified in the *Code of Virginia* prior to assuming his or her position and then annually as required. The report on the previous 12 months from January 1 to December 31 may not be dated or filed prior to January 1.

- Commissioners shall file the form found in Virginia Code § 2.2-3118
- Employees in HRSD Positions of Trust shall file the form found in Virginia Code § 2.2-3117.
- Employees who are designated as "Acting" in a Position of Trust in excess
 of 60 days shall file the form found in Virginia Code § 2.2-3117 prior to
 assuming their position. Employees in an "Acting" position at the time of
 the filing deadline shall also file the required forms.
- Any disclosure forms to be filed with HRSD shall be maintained by the Commission Secretary as public records for a period of five years.
- Completed disclosure forms shall be reviewed by legal counsel to include follow-up and necessary actions to communicate potential conflict of interest with internal stakeholders.

HRSD Commissioners or employees who have a personal interest in a company doing business with HRSD, or believe they have any other conflict requiring disclosure, shall disclose those interests immediately upon discovery of the personal interest in a company doing business with HRSD or other potential conflict. The Conflict of Interest Disclosure Form will include name and address of company doing business with HRSD, name and position of person at the company, as well as start and end date of the conflict.

HRSD Commissioners or employees who do not hold Positions of Trust and who receive gifts at widely attended events that exceed \$100 in value, or who have a personal interest in a company doing business with HRSD, or believe they have any other conflict requiring disclosure shall disclose those interests and/or gifts on the HRSD Ethics Disclosure Form within 60 days of receiving a qualifying gift, or immediately upon discovery of the personal interest in a company doing business with HRSD or other potential conflict. These The Gift Disclosure Form will include the name of the company/vendor giving the gift, estimated value and date received.



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Employee disclosure forms will be available in the ERP system. HRSD Commissioner disclosure forms—and—shall be obtained through, filed with and retained by the Commission Secretary. Completed disclosures shall be filed with and retained by the Commission Secretary. and All disclosure forms may be reviewed by legal counsel.
with all required filings herein.

Training on the Ethics Policy and ethics in public contracting for HRSD Commissioners and employees in Positions of Trust shall be conducted in accordance with Virginia Code §2.2-3128 and §2.2-3130. Records of attendance shall be maintained in accordance with Virginia Code §2.2-3129.

Training on the Ethics Policy shall be provided to all HRSD employees on a biannual basis with records of attendance maintained with individual training records by the Talent Management Department in the ERP system. Training on the Ethics Policy will be provided to HRSD Commissioners at time of appointment and periodically thereafter.

5.0 Responsibility and Authority

This policy shall be reviewed annually by the Operations and Nominations Committee and revised as required to conform to current law and regulations. and changes in positions designated as HRSD Positions of Trust.

Approved:		
	Frederick N. Elofson, CPA Commission Chair	Date
Attest:	Jannifar I. Cassis	Data
	Jennifer L. Cascio Commission Secretary	Date

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #10

AGENDA ITEM 18. - Informational Items

- a. Management Reports
 - (1) General Manager
 - (2) <u>Communications</u>
 - (3) Engineering
 - (4) Finance
 - (5) <u>Information Technology</u>
 - (6) Operations
 - (7) <u>Talent Management</u>
 - (8) Water Quality
 - (9) Report of Internal Audit Activities
- b. <u>Strategic Planning Metrics Summary</u>
- c. <u>Effluent Summary</u>
- d. Air Summary



March 19, 2019

Re: General Manager's Report

Dear Commissioners:

For years, our customer care staff struggled to meet internal expectations for customer response. That appears to no longer be the case. Performance from the past four months is very impressive with more than 90 percent of calls answered in under three minutes and average wait times falling to less than one minute - truly remarkable performance when compared to the past.

There are times when we get so caught up in the science, engineering, capital investments and innovations that we lose sight of the great things being done daily by our staff on the front lines beyond Engineering and Operations. Customer interactions with our call center are critical to customer awareness and our reputation. For the majority of our customers, the only direct contact they have with HRSD is through their bill, and occasionally our call center staff should they have questions or problems with their bill. The work is demanding, with customers often upset before they even call. Providing fast, friendly response goes a long way in de-escalating issues, and our staff is doing a great job. To provide that service efficiently, day in and day out, takes very special people. We are lucky to find special people throughout our organization. It is the people that make the difference and the reason why I am so proud to be part of HRSD, and I know you share that pride.

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

- A. **Treatment Compliance and System Operations:** All treatment plants met permit but we did have a few minor issues and a significant overflow at the Surry County Plant due to excessive flow. We had four spills in the system with three attributed to wet weather. 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. Two new employee orientation sessions
 - 2. A length of service recognition breakfast
 - 3. Several meetings on the Fiscal Year 2020 budget preparations
 - 4. A meeting to discuss an employee's pursuit of a Ph.D. at Laval University

- 5. Architectural review of several pump stations
- A meeting to review Combined Heat and Power (CHP) options at the Atlantic Treatment Plant
- 7. A breakfast celebration for the staff that contributed to the challenging repair of the Semple Farm break
- 8. A meeting with the HRSD facilitators on re-design of the Leadership And Management Program training course
- A celebration lunch with the staff of the Army Base Treatment Plant in recognition of their achievements related to nutrient compliance in 2018

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

- 1. Attended the NACWA Winter Meeting and quarterly board meeting
- 2. Participated on a preparation call for a panel presentation at the WaterNOW Summit in March
- A conference call meeting of the Utility of the Future Today awards committee
- 4. Convened the Hampton Roads Planning District Commission (HRPDC) Affordability workgroup
- 5. Participated on a panel at the leadership retreat for Suez North America
- 6. A meeting with representatives from the Virginia Seafood Agricultural Research and Extension Center to discuss opportunities in aquaculture
- 7. A call with the Director of the Tidewater Regional Office of Department of Environmental Quality (DEQ)
- 8. Several calls to discuss U.S. Environmental Protection Agency/U.S. Department of Justice comments on HRSD's Integrated Plan
- A meeting with the consultant and project manager for the Eastern Shore sewer study
- 10. A meeting with Isle of Wight schools to explore partnership opportunities
- 11. Presented HRSD history and SWIFT to the Institute for Learning in Retirement in Virginia Beach
- 12. A call with senior DEQ staff regarding tax exempt certifications for water pollution equipment
- 13. A webex meeting with Loudoun Water to learn about their triple bottom line business case modeling tool
- 14. The monthly U.S. Water Alliance's One Water Council webinar
- 15. A planning call for the Water Environment Federation Technical Exhibition and Conference (WEFTEC) Public Official's Forum

D. Consent Decree Update:

- 1. Negotiations on the demand for stipulated penalties related to Sanitary Sewer Overflows in 2016 and 2017 led to an agreement in concept. Final agreement is expected in March.
- 2. Comments on our Integrated Plan submitted in September 2017 were received on February 15, 2019. Comments focus largely on schedule. Our attorney and consultant are working on a response, but discussions will be ongoing for the foreseeable future as we are far from any agreement. Staff will brief the Commission once a path forward becomes more defined.

The Potomac Aquifer Recharge Monitoring Lab (PARML) is moving closer to fruition. With the Governor's signature of the legislation in February, we have modified the draft agreement (approved by the Commission in December 2018) to incorporate appropriate references to the new sections of the Code of Virginia. We anticipate some minor changes from Virginia Department of Health (VDH) and DEQ this week, and execution of the agreement by all parties by the end of March. Virginia Tech and Old Dominion University have been laying the ground work for start-up and with all these puzzle pieces coming together; it appears the PARML will become a reality by July 1, 2019.

Work to correct the coating and rusting issues at the SWIFT Research Center is progressing well and on track to permit restart by the end of April. To meet that schedule, HRSD staff will supplement the contractor's staff to bring the facility back online. This will be a challenge, but our team is eager to get the facility back online and uniquely qualified to perform many of the tasks necessary to make that happen.

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, March 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 February 2019

DATE: March 14, 2019

A. <u>Publicity and Promotion</u>

- 1. James City Planning Commission to hear HRSD request for Carter's Grove land acquisition | February 4, 2019 | Virginia Gazette

 https://www.vagazette.com/news/va-vg-james-city-planning-hrsd-plant-0206-story.html
- 2. Wawa and HRSD plant expansion: Here's what's on tap for the James City County Planning Commission this week | February 5, 2019 | Williamsburg Yorktown Daily https://wydaily.com/local-news/2019/02/05/wawa-and-hrsd-plant-expansion-heres-whats-on-tap-for-the-james-city-county-planning-commission-this-week/
- 3. JCC Planning Commission supports HRSD request for Carter's Grove land |February 6, 2019 | The Virginia Gazette https://www.vagazette.com/news/va-vg-james-city-planning-commission-hrsd-carters-grove-0206-story.html
- 4. Water clinic open to Suffolk, Chesapeake |February 8, 2019 | Suffolk News Herald https://www.suffolknewsherald.com/2019/02/08/water-clinic-open-to-suffolk-chesapeake/
- 5. Governor signs legislation to create oversight for HRSD water treatment project | February 21, 2019 | The Virginia Gazette https://www.vagazette.com/news/va-vg-hrsd-general-assembly-bill-signed-0223-story.html
- 6. Sewage system approved for Cooks Corner project | February 21, 2019 | Southside Sentinel

 http://www.ssentinel.com/index.php/news/article/sewage system approved for cooks corner project/

7. HRSD's Williamsburg plant has its eye on the future | February 26, 2019 | The Virginia Gazette
https://www.vagazette.com/opinion/va-vg-edit-lynch-0227-story.html

8. Cooks Corner sewer collection will cost county \$1.6 million | February 28, 2019 | Southside Sentine| http://www.ssentinel.com/index.php/news/article/cooks_corner_sewer_collection_will_cost_county_16_million/

B. Social Media and Online Engagement

- 1. Facebook: 16,778 post impressions and Facebook Engagement of 679
- 2. Twitter: 12,500 impressions
- 3. SWIFT website visits: 516
- 4. LinkedIn Impressions: 0
- 5. Blog posts: 0
- 6. Construction Project Page Visits: 730 total (this number does not include direct visits from home page), broken down as follows:
 - a. 424 visits to construction status page
 - b. 306 visits to individual project pages
- 7. Next Door unique impressions: 0 (no posts made in February)
- C. <u>News Releases, Advisories, Advertisements, Project Notices, Community Meetings and Project Websites</u>
 - 1. News Releases/Traffic Advisories/Construction Notices: 6
 - 2. Advertisements: 0
 - 3. Project Notices: 6 (all delivered via door hanging/door knocking
 - 4. Project/Community Meetings: 0
 - New Project Web Pages/Blogs/Videos: 2 new project web pages, both for Virginia Beach – Pumping Station upgrades and Virginia Beach Boulevard and Pine Tree

D. <u>Special Projects and Highlights</u>

- 1. Director and staff, along with engineering staff held the second annual Engineering Open House in celebration of Engineering Week.
- 2. Director and General Manager met with Isle of Wight County Executive Director of Administration and Operations regarding educational partnering opportunities.
- 3. Staff participated in meetings with Ocean Lakes High School staff to plan and coordinate Earth Action Day activities and events.
- 4. Director and staff participated in Value of Water (VOW) campaign meeting.
- 5. Director and staff met with Marketing Director at MacArthur Mall in Norfolk to explore educational and career outreach partnering opportunities.
- 6. Staff participated in the Virginia Water Environment Association (VWEA) Communications Meeting.

E. <u>Internal Communications</u>

- 1. Director participated in the following internal meetings:
 - a. Senior Leadership Retreat
 - b. Design and Construction Standards review meeting
 - c. New Employee Orientation
 - d. SWIFT QST and QST meetings
 - e. New employee probationary review meeting
 - f. Interviews for new Public Information Specialist position
 - g. Architectural review committee meeting
 - h. SWIFT sustainability workshop
 - i. Capital Improvement Plan (CIP) review meeting
- 2. Director conducted bi-weekly communications department status meetings and project update check-ins with staff.
- 3. Director and staff, along with members of HRSD's Water Quality Department continue to explore opportunities to develop/support a new pharmaceutical take back initiative in the HRSD service area.

F. Metrics

- 1. Educational and Outreach Activities: 4
 - a. 02/23/19 Engineering Open House, HRSD Main Office (80 attendees)
 - b. 02/25/19 Amazing Aquifers activity– Chesapeake Library (25 attendees)
 - c. 02/26/19 Kings Fork Middle School Career Day, Suffolk (100 attendees)
 - d. 02/27/19 Isaac Walton Civic League presentation on SWIFT, Chesapeake, 25 attendees
- 2. Number of Community Partners: 3
 - a. Chesapeake Public Library
 - b. Suffolk Public Schools
 - c. Isaac Walton Civic League
- Additional Activities Coordinated by Communications Department: 1
 Career Night Out, John B. Dey Elementary School, Virginia Beach
- 4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	6.33
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	54.5
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	3

Respectfully,

<u>Leila Rice, APR</u> Director of Communications TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for February 2019

DATE: March 12, 2019

A. General

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

CIP Spending (\$M):

. <u>.</u>	Current Period	FYTD
Actual	3.13	43.54
Plan	10.20	76.30

Since actual spending is tracking well below plan spending for FY 2019, internal discussions are underway to consider implications to projected CIP spending in FY 2020. The final Water Quality Improvement Fund Grant reimbursement for the Virginia Initiative Plant (VIP) Nutrient Reduction Improvements project was received in February in the amount of \$2.44 million.

2. The Engineering Department coordinated a number of activities for National Engineers Week from February 18-23. The week began with a game of engineering and science trivia, which allowed individuals to compete against some of HRSD's interns. Next a "build your own cantilever using only tape and spaghetti" was held. Five teams competed for the award given to the group that could build the longest standing cantilever. The Egg Drop Competition was a fun event, which included 13 contestants this year. Each entrant was required to create a design to protect an egg from a 20-foot fall. The winner was the entry whose egg survived the fall and whose device weighed the least. The week ended with an Open House for students. The attendees were able to learn about engineering, Science, Technology, Engineering and Math (STEM) careers, water and wastewater systems and sustainability. We were able to share this information with 36 young adults and their parents during a 2-hour event at HRSD.

B. <u>Asset Management Division</u>

1. Staff created an Asset Management survey, which was recently sent to members of the Operations Department. The survey results indicated that

the awareness of the program was high but the perceived value of the program to their work was relatively low. This will be the focus of upcoming communications and change management efforts.

2. A recent report was prepared by Pond Consultants based on field inspections of HRSD's existing cathodic protection systems. The report highlighted the need to better understand the cause of anode depletion in certain areas. A recommendation was made to conduct a soil corrosivity assessment to better understand cathodic protection system failures. This soil survey will be considered in the coming year.

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

- 1. The award of the Surry Pump Station and Discharge Force Main project was recently made to the team of Rummel Klepper & Kahl (RK&K), Timmons and Mid-Eastern Builders (MEB) General Contractors. This project will be delivered using a Design-Build method and will involve the ultimate abandonment of the Town of Surry Treatment Plant. This effort will be fast tracked to meet the Virginia Department of Environmental Quality (VDEQ) Consent Order deadline of November 2020.
- 2. The Providence Road Offline Storage Facility project is proceeding with 60 percent design documents delivered to HRSD for review in February. This project includes the construction of a 5.2 million gallon storage tank in the City of Virginia Beach's Woodstock Park. Design and regulatory approval efforts continue with a planned construction start date of later this year. This project is being closely coordinated with the City of Virginia Beach who is partially funding the efforts to improve the park as part of the overall program.
- 3. Staff continues their efforts to reach out to potential companies interested in the design, construction and equipment supply for the SWIFT Program. Due to the size and aggressive schedule, finding interested and qualified firms is an important part of the program's success. In addition to one—onone meetings, an Industry Day is planned for later this summer. This event will provide attendees with information about the program and allow for individuals to meet and network. Staff will also be attending the Design-Build Institute of America Water/Wastewater Conference in April. A presentation on the SWIFT Program will be made at the conference and advertising for the program will be included in the conference brochure.

D. <u>Planning & Analysis Division</u>

- 1. Preparation of the FY 2020 CIP continues. The first CIP Review Meeting was held on February 28 with the second CIP Review Meeting scheduled for April 1. There are 53 new CIP projects proposed this year. Quality Assurance/Quality Control (QA/QC) of project data is underway and each CIP project has been given an initial prioritization score. Revisions and updates to project information are underway as a result of the first review meeting, and work to balance the projected spending is under review. Based on initial estimates, there is approximately \$73 million in spending that exceeds financial targets in the first three years of the program.
- 2. The Capital Program Management Enhancements project is underway. The project kick-off was held in February and work is underway to configure and design an improved project scheduling tool using Primavera P6. Design workshops are planned through March.

E. <u>Strategic Planning Metrics Summary</u>

- 1. Educational and Outreach Events: 1
 - a. Staff participated in a "Celebrate Engineers Week with HRSD" for students on February 23.
- 2. Number of Community Partners: 0
- 3. Number of Research Partners: 0
- 4. Metrics Summary

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Total Training Hours per Full Time Employee (43) - Current Month	Hours / #FTE	2.84
M-1.4b	Total Training Hours per Full Time Employee (43) - Cumulative Fiscal Year-to-Date	Hours / #FTE	18.10
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	0
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 February 2019

DATE: March 13, 2019

A. <u>General</u>

- 1. Staff has included a new Days Cash on Hand' table. Since our reserves and PAYGO for capital projects are included under the definition of unrestricted cash, we are managing our cash to maintain our Financial Policy liquidity requirements using the "Net Unassigned Cash." At the end of February, our Net Unassigned Cash was at the top end of our Financial Policy of 365 Days Cash on Hand. Once we spend our remaining bond proceeds (which we try to spend within eighteen months according to the IRS arbitrage rebate guidelines), we will start using PAYGO. When we get within three to four months of using this entire balance, we will seek either interim financing or issue new revenue bonds, depending on market conditions to fund our capital program.
- 2. Billed water consumption continues to trend flat relative to Fiscal Year 2018 Actual. As a result, wastewater revenues remain slightly higher than budget. Interest Income remains robust as our Virginia Investment Pool funds continue to offer high yields. Facility Charges are higher than expected, especially with the seasonality and poor winter weather. With the strong economy, we expect this line item to exceed budget by fiscal year end. Expenses are generally in-line except for some of the larger expense categories. We expect those items to be closer to budget near fiscal year end. Overall, revenues continue to exceed expenses and is in-line with the previous year.

B. <u>Interim Financial Report</u>

1. Operating Budget for the Period Ended February 28, 2019

				Current YTD as % of	
				Budget (67%	Prior YTD as
		Amended		Budget to	% of Prior
	_	Budget	Current YTD	Date)	Year Budget
Operating Revenues					
Wastewater	\$	289,967,000	\$ 198,925,225	69%	69%
Surcharge		1,425,000	1,004,718	71%	52%
Indirect Discharge		2,750,000	1,943,701	71%	71%
Fees		2,855,000	1,947,507	68%	64%
Municipal Assistance		875,000	406,643	46%	66%
Miscellaneous		595,000	758,532	127%	88%
Total Operating Revenue		298,467,000	204,986,326	69%	69%
Non Operating Revenues					
Facility Charge		6,075,000	4,279,960	70%	74%
Interest Income		2,500,000	4,692,413	188%	107%
Build America Bond Subsidy		2,400,000	1,145,118	48%	49%
Other		820,000	279,533	34%	107%
Total Non Operating Revenue		11,795,000	10,397,024	88%	77%
Total Revenues		310,262,000	215,383,350	69%	69%
Transfers from Reserves		8,847,824	5,898,549	67%	67%
Total Revenues and Transfers	\$	319,109,824	\$ 221,281,899	69%	69%
Operating Expenses					
Personal Services	\$	55,331,886	\$ 36,942,026	67%	66%
Fringe Benefits		24,321,670	15,897,047	65%	68%
Materials & Supplies		7,686,154	4,888,427	64%	64%
Transportation		1,446,906	875,092	60%	56%
Utilities		12,306,952	8,392,799	68%	62%
Chemical Purchases		10,894,183	5,545,302	51%	48%
Contractual Services		42,104,030	18,183,758	43%	53%
Major Repairs		10,315,534	4,025,737	39%	37%
Capital Assets		1,232,144	520,092	42%	68%
Miscellaneous Expense		2,945,304	1,631,859	55%	73%
Total Operating Expenses		168,584,763	96,902,139	57%	60%
Debt Service and Transfers					
Debt Service		62,811,000	48,463,485	77%	68%
Transfer to CIP		87,475,061	58,316,704	67%	67%
Transfer to General Reserve		· -	- -	0%	67%
Transfer to Risk management		239,000	159,336	67%	67%
Total Debt Service and Transfers		150,525,061	106,939,525	71%	67%
Total Expenses and Transfers	\$	319,109,824	\$ 203,841,664	64%	63%

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 February 28, 2019

				Risk				
		General	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		213,045,856						-
Capital Grants								2,444,140
VRA Draws								11,567,621
Bond Proceeds (includes interest)								746,674
Transfers In		-		159,336				58,316,704
Sources of Funds		213,045,856		159,336		-		73,075,139
Total Funds Available	\$	406,669,249	\$	3,419,867	\$	15,266,324	\$ 1	48,949,168
Deduct: Current Year Uses of Funds								
Cash Disbursements		148,634,516						62,019,674
Transfers Out		58,476,040						
Uses of Funds		207,110,556		-		-		62,019,674
End of Period - February 28, 2019	\$	199,558,693	\$	3,419,867	\$	15,266,324	\$	86,929,494

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended February 28, 2019

Classification/ Treatment			Ex	penditures	Ye	ear to Date FY 2019		Total	(Outstanding	Available
Service Area		Budget	Ju	ne 30, 2018	Ex	penditures	Ex	penditures	Ε	ncumbrances	Balance
Administration	\$	74,586,023	\$	40,373,105	\$	577,046	\$	40,950,151	\$	3,437,207	\$ 30,198,665
Army Base		158,584,000		124,056,440		742,988		124,799,428		1,868,847	31,915,725
Atlantic		127,815,138		56,021,559		15,723,149		71,744,708		35,005,711	21,064,719
Boat Harbor		132,009,450		55,186,498		2,266,874		57,453,372		16,782,658	57,773,420
Ches-Eliz		170,731,513		10,416,092		4,275,910		14,692,002		60,671,174	95,368,337
James River		89,151,802		55,333,203		2,321,511		57,654,714		1,335,990	30,161,098
Middle Peninsula		54,774,891		7,951,942		1,474,839		9,426,781		5,217,081	40,131,029
Nansemond		84,434,179		39,238,100		2,037,627		41,275,727		3,516,417	39,642,035
Surry		13,236,000		101,724		331,036		432,760		240,582	12,562,658
VIP		292,496,378		250,845,561		5,791,426		256,636,987		3,678,374	32,181,017
Williamsburg		19,338,971		10,079,626		382,763		10,462,389		2,634,729	6,241,853
York River		48,199,849		40,864,038		788,496		41,652,534		1,521,244	5,026,071
General		482,765,843		216,595,238		6,819,365		223,414,603		26,133,508	233,217,732
	\$:	1,748,124,037	\$	907,063,126	\$	43,533,030	\$	950,596,156	\$	162,043,522	\$ 635,484,359

5. Debt Management Overview

	Principal Jan 2019		ncipal ments	Principal Principal Draws Feb 2019			Interest Payments		
Fixed Rate									
Senior	\$ 316,033	\$	(143)	\$	-	\$ 315,890	\$ (62)		
Subordinate	441,213		(199)		-	441,014	(5,340)		
Variable Rate									
Subordinate	50,000		-		-	50,000	(58)		
Line of Credit									
Total	\$ 807,246	\$	(342)	\$	-	\$ 806,904	\$ (5,460)		

Series 2016 Variable Rate Interest Summary - Variable Rate Debt Benchmark (SIFMA) as of 3/1/19

	SIFMA		Spread to
	Index	HRSD	SIFMA
Maximum	1.81%	1.81%	0.00%
Average	0.45%	0.44%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 3/1/19	1.74%	1.75%	0.01%

^{*} Since October 20, 2011 HRSD has averaged 44 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended February 28, 2019

HRSD - UNRESTRICTED CAS	Н			
Can be used for any purpose since it is no	earmarked fo	r a specific use ar	nd is extremely liquid	d
			Days Cash on	Days Cash on
		_	Hand	Hand
Total Unrestricted Cash	\$	243,811,609		528
Risk Management Reserve	\$	(3,419,867)	(7)	521
Reserve	\$	(15,266,324)	(33)	488
Capital (PAYGO only)	\$	(56,748,984)	(123)	365
Net Unassigned Cash	\$	168,376,434		365

Risk Management Reserve as a % of Projected Claims Cost is 25% YTD compared to 25% Policy Minimum Days Cash on Hand Policy Minimum is 270-365 days.

HRSD - SOURCES OF FUNDS	ry 28, 2019							
Primary Source	Beginning Market Value	YTD	YTD	YTD Income	Ending Market Value	Allocation of		Current Mo Avg
	July 1, 2018	Contributions	Withdrawals	Earned	Feb 28, 2019	Funds	Credit Quality	Yield
BAML Corp Disbursement Account	10,669,597	370,144,500	368,093,665	35,9	12,756,385	9.2%	N/A	0.70%
VIP Stable NAV Liquidity Pool	-	161,000,000	36,000,000	1,393,2	126,393,260	90.8%	AAAm	2.59%
Va Local Government Investment Pool	68,984,048	5,000,000	74,115,221	131,1	73 -	0.0%	AAAm	2.57%
Total Primary Source	\$ 79,653,645	\$ 536,144,500	\$ 478,208,886	\$ 1,560,3	36 \$ 139,149,645	100.0%	-	

February 28, 2019

VIP Stable NAV Liquidity Pool out performed Va Local Government Investment Pool (the market benchmark) by 0.02% in the month of February.

Secondary Source	Beginning			YTD	Ending			Yield to
	Market Value	YTD	YTD	Income Earned	Market Value		YTD	Maturity
	July 1, 2018	Contributions	Withdrawals	& Realized G/L	Feb 28, 2019	Ending Cost	Mkt Adj	at Market
VIP 1-3 Year High Quality Bond Fund	-	124,728,039	1,013,856	1,733,029	126,014,509	125,447,212	567,297	2.56%
Total Secondary Source	\$ -	\$ 124,728,039	\$ 1,013,856	\$ 1,733,029	\$ 126,014,509	\$ 125,447,212	\$ 567,297	=

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 February.

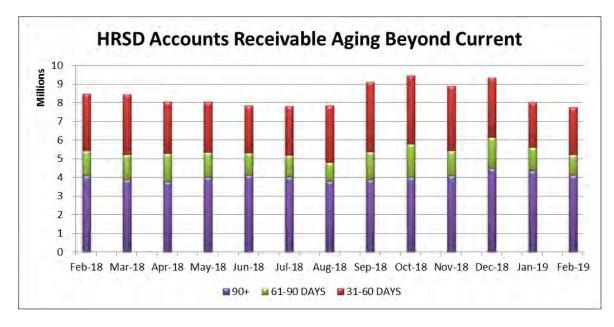
Total Primary Source	\$ 139,149,645	52.5%
Total Secondary Source	\$ 126,014,509	47.5%
TOTAL SOURCES	\$ 265,164,154	100.0%

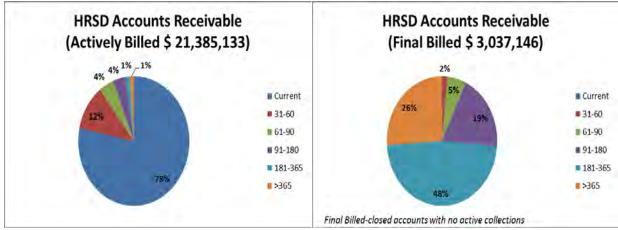
7. Summary of Billed Consumption

Summary of Billed Consumption (,000s ccf)							
	% Difference % Difference			ce	% Difference		
Month	FY2019 Cumulative Budget Estimate	FY2019 Cumulative Actual	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	36,551	1.1%	36,519	0.1%	36,247	0.8%
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

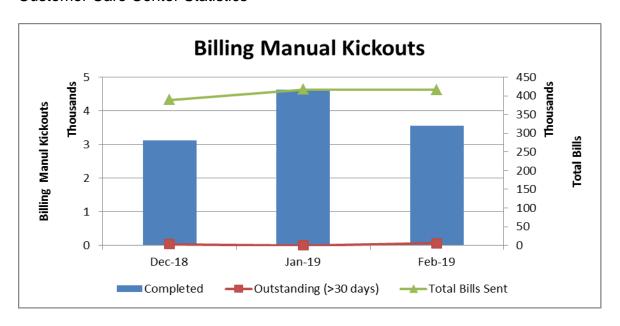
C. <u>Customer Care Center</u>

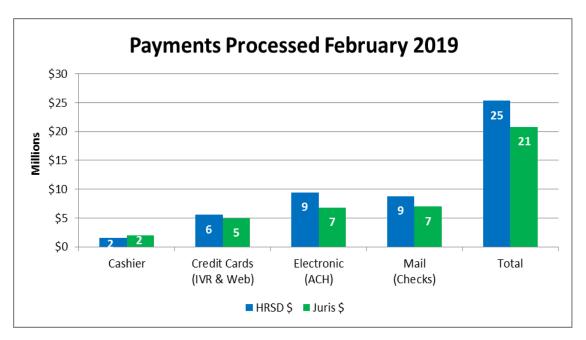
1. Accounts Receivable Overview

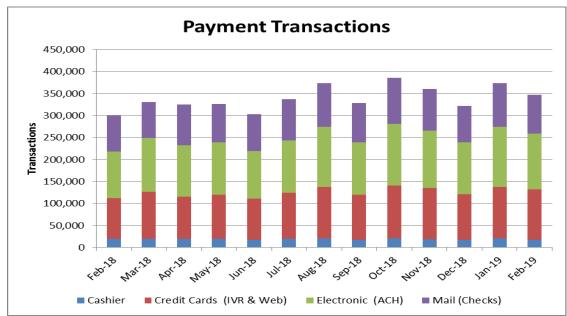


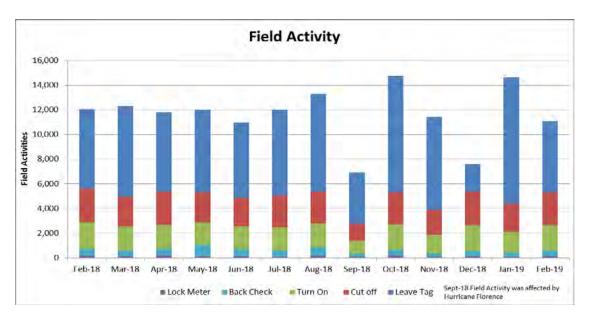


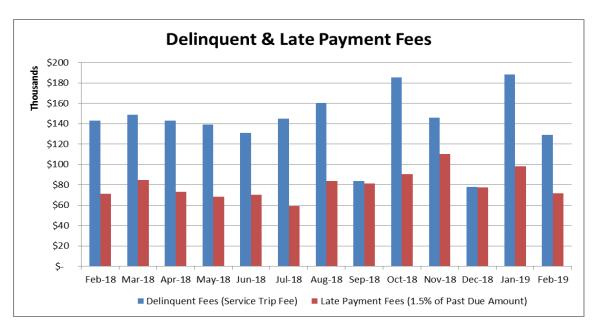
2. Customer Care Center Statistics

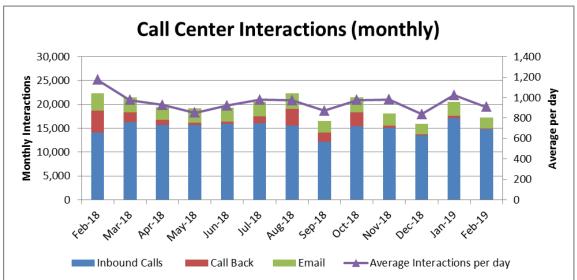


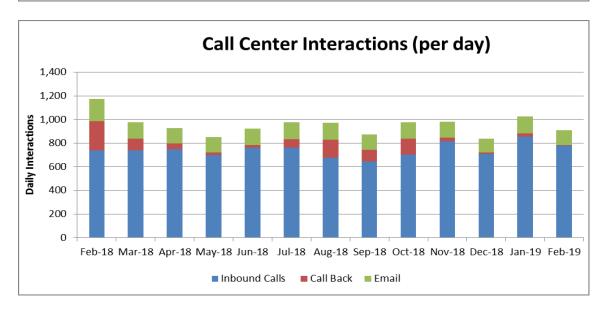








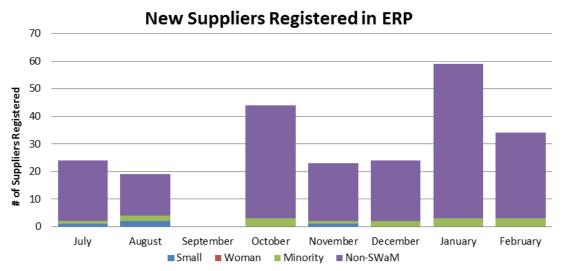




Customer Interaction Statistics	Sep	Oct	Nov	Dec	Jan	Feb
Calls Answered within 3 minutes	68%	61%	89%	93%	85%	94%
Average Wait Time (minutes)	3:02	3:50	1:12	0:38	1:20	0:37
Calls Abandoned	11%	14%	6%	4%	6%	4%

D. <u>Procurement Statistics</u>

Savings	Current Period	FYTD
Competitive Savings ¹	\$204,211	\$1,151,508
Negotiated Savings ²	\$17,127	\$288,197
Salvage Revenues	\$0	\$136,901
Corporate VISA Card - Estimated Rebate	\$17,008	\$142,226

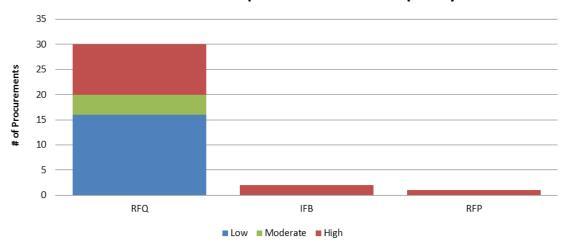


*Increased supplier registration due to supplier outreach at NIGP Forum 8/21/18, Water Jam 9/12/18, WEFTEC 10/2/18, VASCUPP® SWaMFest 10/4/18, DGS Public Procurement Forum 10/23/18, CNU SWaM Fair 11/7/18, Virginia Beach Minority Business Council Conference and Expo 11/8/18

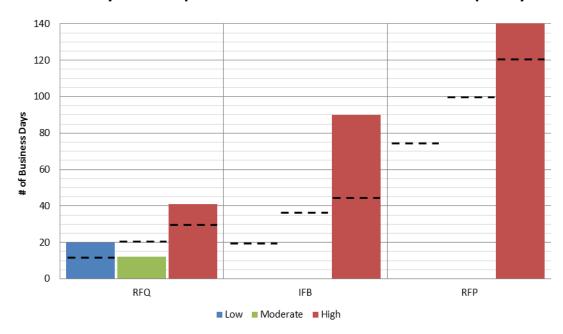
¹ Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsible bidder.

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

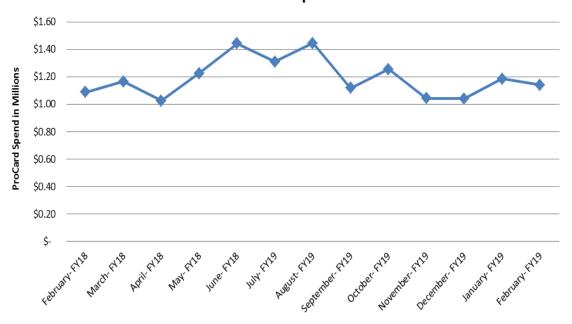


Dashed Line: Target Service Level Cycle Time

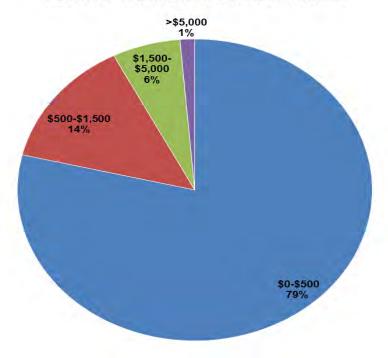
	Low	Moderate	High
RFQ	12	20	30
IFB	20	35	45
RFP	75	100	120

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
February	4	3 Caught by bank immediately; 1 caught by cardholder.
Total	14	

^{*}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 2,399 February ProCard transactions, with a combined total of \$0.

Procurement Client Training		
	Current Period	YTD
ProCard Policy and Process	2	26
Procurement Cycle	0	21
Total	2	47

E. <u>Business Intelligence – Enterprise Resource Planning (ERP)</u>

1. ERP Helpdesk currently has 166 open work orders in the following statuses:

Escalated	2
In progress	64
On Hold	20
Open	77
Waiting on User	3

- 2. ERP Helpdesk received 307 work orders in February. In February, 294 work orders were closed and 127 were closed within one hour.
- 3. ERP staff continues to work with consultants on functionality and improvements to the system.

F. <u>Strategic Planning Metrics Summary</u>

1. Educational and Outreach Events: 0

2. Community Partners: 0

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Training During Work Hours Per Full Time Employee (101) – Current Month	Hours / #FTE	1.45
M-1.4b	Total Training During Work Hours Per Full Time Employee (101) – Cumulative Fiscal Year-to-Date	Hours / #FTE	16.95
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	118%
	Liquidity	Days Cash on Hand	528 Days
	Accounts Receivable (HRSD)	Dollars	\$24,422,279
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	17%

Respectfully, Jay A. Bernas Jay A. Bernas, P.E. Director of Finance TO: General Manager

FROM: Director of Information Technology

SUBJECT: Information Technology Department Report for February 2019

DATE: March 14, 2019

A. General

1. Staff, in conjunction with Verizon, has completed the consolidation, upgrade, and relocation of all data circuit and telecommunications support equipment into the Small Communities Division server room.

- 2. Functionality and compatibility testing of the Office 365 application suite is ongoing within the IT department.
- 3. As part of HRSD's ongoing cybersecurity program, numerous updates and enhancements were made to the existing internet filter, firewall, and auditing platforms. Stronger security and better device management will allow staff the ability to more efficiently mitigate problems when they occur.
- 4. IT is investigating the feasibility and potential cost savings associated with the deployment of tablet computers in lieu of multiple end user devices. Rather than using some combination of a laptop, desktop and iPad, users would be issued a single device to meet all their computing needs. Compatibility, costs, and ergonomic considerations are all being evaluated to determine overall suitability.

B. <u>Strategic Planning Metrics Summary</u>

1. Educational and Outreach Events: 0

2. Number of Community Partners: 0

3. Metrics Summary

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Training During Work Hours Per Full Time Employee (51) – Current Month	Total Training Hours / # FTE	3.75
M-1.4b	Total Training During Work Hours Per Full Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	19.45
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

TO: General Manager

FROM: Director of Operations

SUBJECT: Operations Report for February 2019

DATE: March 7, 2019

A. <u>Interceptor Systems</u>

1. North Shore (NS) Interceptor Systems

- a. There were four Sanitary Sewer Overflows (SSOs) this month. One SSO occurred on February 4 when a contractor broke an air release valve with a backhoe at the Semple Farm Road repair site. The other three SSOs occurred on February 27 and were the result of a severe rain event coupled with already elevated ground water levels. The total volume lost during the month was estimated to be 27,465 gallons.
- b. There were two interceptor complaints and 16 system alarms during the month. The interceptor complaints were unrelated to HRSD infrastructure. A noise complaint from the Bridge Street pump station was fully resolved. The system alarms were mostly due to wet weather events and the elevated ground water levels in the system.
- c. Staff assisted a contactor with the insertion and removal of two line stops in the emergency repair of the Semple Farm Road break. The two line stop insertions were necessary to fix the air release valve damaged by the contractor and to remove the failed 24-inch bypass line valve. Both operations were successful. Pipeline restoration work continues.
- d. Staff provided support to the Small Communities Division with the inspection of numerous development projects. These developments are driving collection system expansions, primarily in the King William service area. These facilities will be conveyed to HRSD for perpetual maintenance.
- e. Staff offered significant effort and collaboratively worked with the Town of Smithfield on solutions for the high pressures experienced in that system. Work was completed with the Town and Isle of Wight County to coordinate the design of the suction and discharge piping for a future interim Smithfield Pressure Reducing Station (PRS).

2. South Shore (SS) Interceptor Systems

- a. There was one SSO reported this month. On February 23, high rainfall coupled with elevated groundwater levels resulted in a spill of approximately 2,500 gallons.
- b. There were four interceptor complaints reported this month. Staff responded and found that two were locality issues, one was a loose valve casting lid that was subsequently corrected, and the fourth was a City of Chesapeake pressure issue that was resolved by running a couple of PRSs in Virginia Beach.
- c. There were 23 system alarms reported this month. Staff responded and resolved all of the alarms
- d. 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.
- 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 a private pump station owner in repairing a broken force main in Isle of Wight County. We assisted in the repair by isolating the system and then bringing the system back on-line once the repairs were completed.

B. <u>Major Treatment Plant Operations</u>

1. <u>Army Base Treatment Plant (ABTP)</u>

- a. Staff replaced two foam pumps on the secondary clarifiers.
- A contractor completed the installation of #1 intermediate pump station pump.
- c. Staff coordinated with contractors to upgrade the plant's distributed control system (DCS). The upgrade included new controllers, networking gear, work stations, servers, and upgraded software. During the upgrade, staff had to operate the plant without DCS for 13 hours. They performed admirably throughout the entire duration of the outage.
- d. Staff received and incinerated a load of biosolids from Henrico County. The incinerator processed the solids without any issues.

2. <u>Atlantic Treatment Plant (ATP)</u>

- a. There were three odor complaints in the month of February. The first was on February 5 the plant received an odor complaint, after investigation, the bio-solids were being moved around on the storage pad creating the odor. The second odor complaint was received on February 7. Plant staff worked to identify the source of the offsite odors. Contractors hauling biosolids off plant site was believed to be the initial source of the odors. Plant staff also found odorous air coming from the Acid Phase Digester. Staff worked to minimize odors in that area. After a third odor complaint on February 10, staff discovered a condensate drain valve used to remove water for the digester gas system was stuck in the open position causing digester gas and high levels of hydrogen sulfide (H2S) to vent. The valve was manually closed to stop the leak and repairs were made.
- b. Construction of the Thermal Hydrolysis Process (THP) continues. Contractors continued to pour the pads needed for the THP skids and the two heat exchangers. Staff worked with the contractors to perform a shutdown of the digester gas system. The shutdown was needed to remove the old gas piping and allow for the digester gas piping upgrade to handle the increase in gas production once the THP system is on line. Also work continued on the steam boiler piping and water softener system. The steam boiler is scheduled to be delivered on the end of March.
- c. The Combined Heat & Power engine (CHP) was down most of the month when the oxygen blower failed and needed replacement. The new blower was ordered and installed. While the CHP was down, the contractor for the THP project started work on the digester gas line tie in. This tie in will connect the digester gas line that feeds the CHP to the new steam boiler gas line. The system must be down in order for this pipe to be tied in. The contactor also started work to replace the temporary digester gas recirculation line with a permeant line.
- d. Staff completed the hand rail installation around digesters 1, 3 & 4.
- e. Hauling of biosolids to the incinerator plants stopped this month with the commencement of the spring land application process providing space on the drying pads.
- f. Staff started work on the return activated solids building motor control center breaker panel replacement.

3. Boat Harbor Treatment Plant (BHTP)

- An odor exception occurred on February 17 when a hydrogen sulfide (H2S) probe malfunctioned. The operator switched to pH control mode and resolved the problem.
- b. Replacement of the substations 4&5 feeder cable from the emergency generator to the substation was completed on February 1. Staff efforts enabled the repairs with minimal plant disruptions.
- c. The side stream wet well pumps were both rehabilitated.
- d. New afterburners were installed on Incinerator #1. These afterburners have now been installed on both furnaces.

4. CETP

Staff replaced worn bearings on #1 bandscreen; completed annual preventive maintenance activity on aeration tanks 6, 11 and 12; repaired leaking hypochlorite feed lines; and built a platform for the removal and replacement of a leaking hypochlorite tank.

5. <u>James River Treatment Plant (JRTP)</u>

- a. Staff performed routine maintenance and repairs that included rebuilding a solids pump, replacing a 3-inch chlorinated effluent line valve, replacing pipe supports on the digester boiler, removing a failed check valve on the gravity thickener solids line, and unplugging floor drains in the headworks building.
- b. Staff completed a rebuild of the #2 raw influent flow step screen and put the screen in service.
- Staff continued with landscaping and grading around buildings and other structures.
- d. Testing continued on the magnesium hydroxide feed system for struvite removal. Testing centered on the release of carbon dioxide from the centrate stream to enhance struvite formation.

6. NTP

a. There was one reportable spill of 1,547 gallons of sodium hydroxide on February 15 when the caustic transfer line to the struvite recovery facility ruptured. Staff recovered all but 100 gallons. The contaminated soil was taken to the RRF for disposal. The hose was replaced and area

was backfilled with fresh soil.

- b. Coatings of the Struvite recovery chemical containment facility continued.
- c. Staff cleared grit lines and a centrate line that had become clogged.
- d. Work continues at the Sustainable Water Initiative for Tomorrow Research Center (SWIFT RC). Welds are now complete both inside and outside the ozone contactor. Contractors began coating repairs on the biofilters. That work should be completed by the end of March. Staff also started working on the restart of the facility by coordinating with various parties from the Departments of Operations and Water Quality.

7. <u>Virginia Initiative Plant (VIP)</u>

- a. There was one reportable event when a sump pump hose broke free from a sample hatch at the preliminary treatment facility on February 24. The resulting raw influent spill of approximately 5,700 gallons was completely contained on plant site and pumped back into the process stream.
- b. Staff continued work on the rabble arm configuration and upper hearth burner control in Incinerator #2 in preparation for zero hearth operation. Staff switched to Incinerator #2 for operational testing in late February. Stack testing will occur on March 12.
- Staff updated the control program for the Solids Handling polymer mixing system.

8. Williamsburg Treatment Plant (WBTP)

- a. Staff replaced the drive mechanism on the #2 secondary clarifier.
- b. Staff also completed the clean out of #2 incinerator in preparation for inspection.
- c. Staff assisted with maintenance efforts at the Town of Surry Treatment Plant by repairing one of the micro screen units.

9. <u>York River Treatment Plant (YRTP)</u>

- a. The digester cover project is nearly complete. All that remains is to modify the overflow pipe for the gas seal launderer.
- b. Earth stabilization work on the SWIFT test well was completed by a contractor. The contractor pumped aluminum chloride solution used to stabilize the well into a waste tank at a rate of 90 gallons per minute. Staff pumped the solution into the plant at the primary clarifier influent chamber for treatment.

10. Minor Incinerator Operations Events Summary

Condition	Cause	ABTP	ВНТР	CETP	VIP	WBTP
Use of emergency bypass stack	Power anomaly/loss		3		2	
Use of emergency bypass stack	Equipment malfunction		2			
Use of emergency bypass stack	Equipment maintenance	1				
THC - Failure to record two readings in an hour	Analyzer failed O2 calibration					4
THC - Failure to record two readings in an hour	Burner out during bottle change					1
THC - Failure to record two readings in an hour	THC Drift	1				
THC Monitor Failure	Malfunctioning Oxygen Probe			1		
Less than minimum scrubber pH	Insufficient chemical feed	2			3	

C. <u>Small Communities (SC)</u>

1. Middle Peninsula Small Communities Treatment and Collections

- a. The Small Communities Division (SCD) West Point Treatment Plant had one reportable event for the month. During the monthly data review it was noted that staff failed to record the daily final effluent (FNE) pH reading on February 20. Staff was retrained on the procedure and reminded of the importance of collecting and recording FNE pH values. Plant effluent quality remained high and pH was consistent over previous and subsequent days. Additional quality assurance and quality control measures have also been enacted to aid in preventing a similar situation from occurring in the future.
- b. The West Point Treatment Plant was above the 95 percent design flow for the fourth month in a row.
- c. A new positive displacement pump was installed for the return and waste activated sludge (RAS/WAS) at the Urbanna Treatment Plant (UBTP). Staff completed cleaning the equalization tank # 2 and air diffuser replacement.
- d. Installation and rehabilitation of piping was completed for the Kirby Street Rehabilitation capital improvement project.
- e. Staff discovered two previously unknown eight-inch gravity lateral lines during a service call at 508 Main Street. Staff also discovered that one

of these lines had collapsed allowing silt and dirt into the lines, which is believed to be the underlying cause for the initial customer service call. Information is being compiled for a repair.

- f. A new style (Doppler radar) flow meter is being utilized in conjunction with data loggers on the recently upgraded King William (KW) Main PS in order to review in service performance.
- A residential development was connected to the KW system this month. g. This project added approximately 80 apartment houses and a clubhouse to the system. Development installation of Kennington Section 3 and 2A began this month. There are 177 proposed connections for Kennington Section 2 and 90 proposed connections for Kennington Section 3. From a plant capacity standpoint, economic development pressures in KW County are concerning. If fully executed, at buildout, developments already approved by KW County and those that are in the process of review by KW County would exceed the current plant capacity by approximately 250%. Our current CIP includes a King William Phase II Improvement project to address these capacity concerns proposed to begin this July and complete within a 5-7 year timeframe. There is also a current ongoing CIP project with an estimated 1.5 year timeframe to improve treatment reliability at the current KWTP. This improvement, however, does not address the capacity challenges.

2. <u>Small Communities – Surry Systems</u>

- a. Sussex Service Authority (SSA) continued contract operations of the Town of Surry TP and the Surry County TP.
- b. On Sunday, February 24 SSA personnel noticed the County treatment plant pump station was overflowing. A float ball alarm switch failed in the sequencing batch reactor (SBR) tank leading to an overflow of all the plant tanks to the treatment plant pump station. Plant flows during and before the overflow event were double the plant's hydraulic capacity. The ground was very saturated and a major rain event on the night of February 23 led to the overflow. The float ball was replaced and is now performing properly. The overall spill amount was estimated to be 93,500 gallons.
- c. Both the County treatment plant and the Town treatment plants were well above their hydraulic capacity for the month.

3. Small Communities - Lawnes Point

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

D. Support Systems

1. <u>Automotive</u>

Staff performed load bank tests at Fort Eustis, Freeman Drive, Buckley Hall, and Camden Avenue pump stations (PS). Staff performed monthly generator tests at the North Shore (NS) and South Shore (SS) Main Operations Complexes. All generators operated as designed and were returned to service.

2. Condition Assessment

- a. Condition Assessment, through the use of Closed-Circuit Television (CCTV), inspected 148 LF of gravity main and five manholes.
- b. Staff continued to West Point and King William County to perform both CCTV and manhole surveys.
- c. Staff inspected roof repairs at CETP, SS Main Office and the Town of Surry Plant.
- d. Staff attended numerous site visits with the SWIFT team inspecting the coating and welding repairs.

3. <u>Facilities Maintenance</u>

- a. Renovation continues on the NTP solids handling locker room. The project is 80 percent complete.
- b. Staff moved forward with preparing the warehouse at 1460 Air Rail Avenue for its demolition. Storage for all work centers was relocated.
- c. Staff completed the North Shore Electrical and Instrumentation/ Automotive women's bathroom floor replacement.
- d. Staff rebuilt four pumps for SS Interceptors and two pumps for NS Interceptors. Staff completed three shafts for YRTP and fabricated ash hopper chute for ABTP.

E. <u>Electrical and Energy Management (EEM)</u>

- 1. Staff continued research on the development of several analyzers. We are monitoring a nitrite analyzer designed and installed at YRTP in January. Accuracy is very good and sample filtering shows no signs of degradation. Research and design of a nitrate and nitrite (NOx) wet chemical analyzer also continues. Staff is investigating the use of vanadium in the analyzer in lieu of cadmium, because vanadium is less harmful to humans, as well as, the environment. Staff plans to use three dimensional (3D) printed parts to help reduce analyzer production costs. The first analyzer should be ready for use at the WTP in March. We are also starting research and design work for developing an ammonia analyzer.
- 2. Staff assisted the Information Technology (IT) Department with the planned distributive control systems (DCS) upgrade at ABTP. Automatic systems were placed in manual while the servers, operator work stations, engineering work stations, and software were upgraded. The DCS interface was tested and returned to service.
- 3. Staff continues to provide support to the consultants and contractors for the thermal hydrolysis process (THP) project at Atlantic Treatment Plant (ATP).
- 4. Staff manually returned the electrical system to utility power at BHTP when the diesel generator's automation didn't return the plant to utility power after the monthly diesel generator operational test. We are investigating the reason for the failure.
- 5. Staff worked with an electrical contractor to upgrade the lighting in two buildings at CETP.
- 6. Staff assisted the Technical Service Division (TSD) with flow pacing samples from the effluent flow equipment at the Onancock Treatment Plant.
- 7. Staff worked with an electrical contractor and the furnace manufacturer to install furnace actuators on one of the furnaces at VIP. The new actuators provide better control of the furnace supply air. In addition, this work required modifying and testing of the DCS graphics and programming.
- 8. Staff installed a stand-alone video and intercom system for the front vehicle gate at WPTP.
- 9. Staff installed temporary Supervisory Control and Data Acquisition (SCADA) alarms on bypass pumping for the Dover court and Virginia Beach Boulevard PSs while the wet well is rehabilitated.

- 10. Staff discovered an inoperable transfer switch at the Normandy Lane PS. The team replaced a defective circuit board. The transfer switch was tested and returned to service.
- 11. Staff discovered radiator leaks on the diesel engine generators for the Rolling Hills and Williamsburg PSs. The team connected temporary diesel generators to each station allowing contractors to repair the existing radiators. The diesel generators were tested and returned to service.
- 12. Staff responded to 14 SCADA communication failures and 12 Telog communication failures. A communication failure is a total loss of communication at a site that requires staff to respond to the site.

F. Water Technology and Research

Highlighted Project: Iron salts are currently used for chemically enhanced primary treatment (BHTP only) and phosphorus removal at all of the larger HRSD treatment plants except Atlantic. Historically ferric chloride was used for this purpose, but a bid in 2015 resulted in ferric sulfate being less expensive per mass of iron provided. Ferric sulfate has been used for phosphorus removal since early 2016. The cost of both chemicals has increased significantly in the last few years, and these costs will continue to escalate based on information received recently from our suppliers. A recent bid of ferric chemicals confirmed this, and other utilities in Virginia are seeing similar trends.

HRSD has steadily been upgrading treatment plants to rely more heavily on biological phosphorus removal, and ferric chemical usage has decreased in the last 10 to 15 years at the same time that our phosphorus removal requirements have become much more stringent. The largest users remain York River and Chesapeake-Elizabeth treatment plants. Upgrades are underway at both of these facilities and at James River treatment plant to implement or to maximize the effectiveness of biological phosphorus removal.

A preliminary evaluation and budget-level pricing have suggested that alum (aluminum sulfate) may be cost competitive for phosphorus removal; in fact, this chemical is already used at King William treatment plant. This would be a significant change for HRSD treatment plants. Jar testing to evaluate alum requirements for phosphorus removal will be completed in the coming months, and if this seems reasonable, a formal bid of alum will eventually be required.

G. MOM reporting numbers

MOM Reportin g #	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	4				
2.7	# of PS Annual PMs Performed (SS)	6	3	5	4	6	3	5	6				
2.7	# of Backup Generator PMs Performed (Target is 4.6)	6	19	7	8	10	4	11	11				
2.8	# of FM Air Release Valve PMs Performed (NS)	128	33	124	268	213	191	181	42				
2.8	# of FM Air Release Valve PMs Performed (SS)	193	221	222	275	161	230	225	326				
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	3,815				
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	10,109				
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	148				

^{*}Adjusted monthly total

H. <u>Strategic Measurement Data</u>

1. Education and Outreach Events: 8

- a. 2/2/19: Southshore Interceptor (SS Int.) staff hosted a job fair in the Interceptor Operations, South Shore office. Staff met with approximately thirty individuals about current vacancies in the division.
- b. 2/5/19: SS Int. staff attended Get Hired Hampton career event in Hampton.
- c. 2/10/19: Invited Seminar Presentation at Cornell University on SWIFT Bott
- d. 2/11/19: SS Int. staff met with the City of Chesapeake Public Utilities
 Operations staff to collaborate and discuss locality issues quarterly
 meeting.
- e. 2/20/19: Tour for SE VA Association of General Contractors at the VIP Plant Ghosn and Lamp
- f. 2/20/19: Mary Strong accepted the 2019 Community Builder United Way Award
- g. 2/22/19: Recruiting Presentation at Virginia Tech Bott
- h. Tour and collaboration meeting at Jefferson Laboratory Bott

2. Community Partners: 4

- a. VIMS
- b. Old Dominion University (ODU)
- c. Chesapeake Bay Foundation oyster cage maintenance at BHTP for oyster gardening program
- d. City of Chesapeake Public Utilities Operations

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (510) – Current Month	Hours / FTE	3.85
M-1.4b	Total Training During Work Hours per FTE (510) – Cumulative Year-to-Date	Hours / FTE	21.29
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	27,198.75
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	55%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	17.5%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	27%
M- 4.1a	Energy Use: Treatment *reported for January 2019	kWh/MG	2,247
M-4.1b	Energy Use: Pump Stations *reported for January 2019	kWh/MG	209
M-4.1c	Energy Use: Office Building *reported for January 2019	kWh/MG	79
M-5.2	Educational and Outreach Events	Number	8
M-5.3	Number of Community Partners	Number	4

Respectfully submitted, Steve de Mik Director of Operations TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for February 2019

DATE: March 13, 2019

A. <u>Human Resources (HR)</u>

1. Recruitment Summary

New Recruitment Campaigns	9
Job Offers Accepted – Internal Selections	5
Job Offers Accepted – External Selections	9
Internal Applications	17
External Applications	190
Average Days to Fill Position	68

2. Enterprise Resource Planning (ERP)

- a. HRSD worked with the Managed Services consultant on updates to system setup for Short Term Disability.
- b. The Business Analyst worked with Information Technology staff on benefit interface updates.
- c. Staff worked with Oracle Support on i-Recruitment notifications and appraisal functionality.
- d. Accounting, Talent Management and Information Technology staff met to begin reviewing 2018 Internal Revenue Service Affordable Care Act reporting requirements and to continue data validation. 1095-C forms were mailed to employees.

3. Benefits and Compensation

- a. Staff worked with the benefit consultant on:
 - (1) Fiscal Year 2020 (FY 2020) medical, dental and vision benefits renewal, including evaluation of several cost savings strategies.
 - (2) Options for voluntary benefits and development of a *Brain Shark* presentation to be used as part of a voluntary benefits employee survey.

- b. Preparations were made to implement a new diabetes and heart disease prevention program, *Omada*. Multiple conference calls were held with HR, Wellness, Omada and Cigna staff to finalize communication and administrative processes.
- c. Staff continued working with the consultant to finalize the report for the custom and market-based compensation study.
- The Compensation and Classification team began evaluating positions based on Department requests and budget proposals.
- d. Multiple educational communications were sent to employees to promote *America Saves Week*.

4. Wellness

a. Participation Activities

Year Six Participation Activities	Unit	February 2019	Year to Date (March 2018– February 2019)
Biometric Screenings	Number	227	281
Preventive Health Exams	Number	103	184
Preventive Health	Number	256	708
Assessments			
Coaching Calls	Number	0	0
Online Health	Number	247	1233
Improvement Programs			
Web-MD Online Health	Number	114	1694
Tracking			
Challenges Completed	Number	0	48
Fit-Bit Promotion	Number	18	99

- b. On-site biometric screenings were held at remaining work centers.
 197 employees and spouses participated in January screenings and 278 in February screenings.
- c. The Wellness Year ended February 28. The Wellness Specialist worked with program participants to ensure activities were completed and documented in the system and assisted with completing biometric screenings and rechecks.

d. Two *Neighborhood Harvest* presentations were held at the Air Rail office. Due to the program's success and employee interest in the community supported agriculture program, additional presentations were scheduled in March.

5. Workers Compensation

Two new cases were opened with five cases remaining active.

6. Employee Relations

Staff continued partnering with work center supervisors and employees to support employee relations and address HR issues. Staff participated on interview panels and assisted with job descriptions for Operations.

7. General

- a. HR and Accounting staff continued to meet to streamline and improve HR and payroll processes.
- The HR Manager worked with Operations, Engineering and Accounting staff to implement organization changes affecting position set-up and control within ERP and to document changes for the proposed budget.
- c. Reorganization of the HR file room continued.
- d. Staff participated in the following HRSD activities:
 - (1) Facilitated Your Role in Quality (YRIQ) training
 - (2) Leadership Forum
 - (3) Senior Leadership Meeting
- e. Staff participated in the following training:
 - (1) Emotional Intelligence
 - (2) Mercer's Family Medical Leave Act and Employee Benefits webinar
 - (3) Mercer's Health Benefit Trends and Insights
 - (4) Inclusion 2.0 Going from Words to Understanding to Action Webinar

B. <u>Organization Development and Training (OD&T)</u>

1. Training

- a. Yvonne Johnson was selected as the Resource Specialist. The primary focus of this position will be to transition appropriate instructor-led courses into e-Learning environments.
- b. The Leadership facilitator team met with the General Manager to discuss revamping the Leadership and Management Program, (LAMP). The current format, used since the late 1990s, has been updated throughout the years, but a major revision is needed based on organizational culture and leadership changes.
- c. Staff attended the first *Cyber Security Awareness* team meeting. Several ideas were generated to introduce Cyber Security topics to the organization.
- d. The Project Management team reconvened and worked on the last training modules. A pilot is scheduled for late April.
- e. Staff continued compiling Work Center Planning Day results and creating a Parking Board listing for the HRSD Quality Steering Team (QST) review.
- f. The Organizational Professional Services Request for Proposal (RFP) team met to review the scope of work and prepare comments for the pre-proposal conference.
- g. The following programs were conducted:
 - (1) YRIQ Full Day
 - (2) Teams and Problem Solving (TAPS)
 - (3) Leadership Forum
 - (4) Beginning and Advanced Coaching
 - (5) Emotional Intelligence Intensive

2. Apprenticeship Program

- The Learning Management System (LMS) team contacted current end-users of potential products and identified key issues to determine if products will meet HRSD's needs.
- b. Work continued with subject matter experts on developing a *Wastewater Analysis* e-Learning course.

c. Entry of historical training and program information and scanning of historical records into ERP continued.

3. General

- a. The internal Quality Facilitator recruitment process continued.
- b. Staff participated in the following HRSD activities:
 - (1) FY 2020 Budget preparation
 - (2) Created an Asset Management Survey
- c. Staff participated in the following training:
 - (1) Mentor Coach's Executive Coaching
 - (2) Mentor Coach's Individual Intensive Coaching
 - (3) Hampton Roads Society for Human Resources Management monthly meeting- Business Ethics

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	5			
Lost Time Mishaps	6	1			
Numbers subject to change pending HR review of each case.					

b. MOM Program Year Performance Measure Work-Related Injuries

February 2019 Injuries For Operations	February 2019 Injuries for Other HRSD Departments	Total Lost Time Injuries Since July 2018	Total HRSD Injuries Since July 2018
2	0	3	31

c. Follow-up investigations were performed on two reported workrelated injuries and one property damage incident.

2. HRSD Safety Training

Strategic Planning Measure	Unit	February 2019
Total Safety Training Hours per Full Time Employee (836) All HRSD – February 2019	593.96 Hours / 836 FTE	0.71
Total Safety Training Hours Per Full Time Employee (836) – Cumulative July 2018	2857.47 Hours / 836 FTE	3.41

- 3. In addition to regularly scheduled safety training and medical monitoring, the following sessions were conducted:
 - Four external briefings for contractors working at treatment plants and pump stations
 - b. Telehandler Safety Training for James River Treatment Plant (TP) employees
 - Forklift Safety Training for South Shore Interceptor and James River TP employees
 - d. Virtual and onsite Chemical Hygiene Plan training for SWIFT Research Center (SWIFT RC) employees
 - e. Confined Space Training for Williamsburg TP employees
- 4. Safety Inspections, Testing and Monitoring
 - a. Weekly onsite inspections of the following construction sites:
 - (1) Army Base TP
 - (2) Atlantic TP
 - (3) Dover Court Pump Station
 - (4) Newtown Pump Station
 - (5) Rodman Pump Station
 - (6) Shipps Corner Pump Station
 - (7) Virginia Beach Boulevard Pump Station
 - (8) Virginia Initiative Plant (VIP)
 - (9) Willoughby Avenue Pump Station

- b. Quarterly safety inspections of the following work centers:
 - (1) 1434 and 1460 Air Rail Avenue buildings
 - (2) Central Environmental Laboratory (CEL)
 - (3) South Shore Pretreatment and Pollution Prevention (P3)
 - (4) Technical Services Division (TSD)
 - (5) VIP
 - (6) York River TP
- c. Monitoring and testing for the following:
 - (1) Monthly velocity tests on CEL, TSD, SWIFTRC and VIP lab hoods
 - (2) Quarterly radiation screening of Army Base, Boat Harbor, Chesapeake- Elizabeth, VIP and Williamsburg TP incinerator ash samples
 - (3) Air sampling for heavy metals during a milling operation in the Machine Shop
- 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 completed an evaluation and made recommendations for improvements to chemical delivery procedures and systems at Nansemond TP based on an Unsafe Work Condition report
 - (3) Industrial Hygienist evaluated a property damage incident involving the Nansemond TP gate
 - (4) Escorted a vendor through North Shore shops to exchange fire extinguishers scheduled for hydrostatic testing

5. Safety Programs

a. Superfund Amendments and Reauthorization Act (SARA) Title I, II, and III reports for all HRSD facilities were submitted to the Department of Environmental Quality and to Local Emergency Planning Commissions. Emergency response procedures were updated for all facilities.

- b. The following was performed for the Confined Space Entry Program:
 - North Shore and South Shore Interceptors completed confined space permits were reviewed.
- c. Hot work permits were issued for contractors working at the Shipps Corner pump station.
- d. A Safety Notice on Hand Protection was developed and distributed.

6. General

- a. The Internal Audit kick-off meeting was held with SC&H staff. Initial documentation was submitted to initiate the audit process.
- b. Staff provided support to Design and Construction for the following:
 - (1) Participated in the Williamsburg SWIFT design kick-off meeting
 - (2) Met with a Project Manager to discuss construction safety for an upcoming project
 - (3) Met with Tetra Tech staff to discuss future work; attended a permitting meeting, and escorted Army Corps of Engineers, Virginia Marine Resources Commission and Kimley-Horn staff onto the former Nansemond Ordnance Depot site
- Staff escorted a film crew on several locations for a safety training video.
- d. Staff met with an ERP Business Analyst to discuss learning module capabilities.
- The Safety Manager met with Procurement staff to discuss contract needs for fire extinguisher services, Personal Protective Equipment (PPE) and First Aid Supplies.
- f. An Industrial Hygienist met with HR staff to finalize the Medical Services RFP.
- g Staff attended the following training:
 - (1) The Safety Manager attended annual Asbestos Worker/Supervisor refresher training at Marine Chemists
 - (2) The Safety Technician attended Telehandler training at James River TP and annual response training at the Boat Harbor TP

D. <u>Monthly Strategic Planning Metrics Summary</u>

- 1. Education and Outreach Events: (9)
 - a. City of Hampton Phoebus High School Career Fair, February 4
 - b. City of Hampton, *Get Hired* Career Fair at Hampton Convention Center, February 5
 - City of Suffolk Public School's Career and Technical Education Advisory Board meeting, February 5
 - d. City of Norfolk Technical Centers Annual College and Career Fair, February 13
 - e. City of Virginia Beach Technical and Career Education Center Career Fair, February 14
 - f. Hampton University Career Fair, February 14
 - g. Hosted a Hampton Roads Public Works Academy meeting, February15
 - h. City of Suffolk Local Emergency Planning meeting, February 27
 - i. Virginia Wesleyan University Career Fair, February 28
- 2. Community Partners: (8)
 - a. City of Hampton Public Schools
 - b. City of Suffolk Public Schools
 - c. City of Norfolk Technical Center
 - d. City of Virginia Beach Technical and Career Education Center
 - e. Hampton University
 - f. Hampton Roads Public Works Academy
 - g. City of Suffolk Local Emergency Planning Commission
 - h. Virginia Wesleyan University

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2019
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.01
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0.63
M-1.4a	Total Training Hours Per Full Time Employee (17) – Current Month	Total Training Hours/ FTE	1.50
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year- to-Date	Hours / FTE	31.94
M-5.2	Educational and Outreach Events	Number	9
M-5.3	Community Partners	Number	8

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

TO: General Manager

FROM: Director of Water Quality (WQ)

SUBJECT: Monthly Report for February, 2019

DATE: March 13, 2019

A. General

1. Pretreatment and Pollution Prevention (P3) division staff did not assess civil penalties this month.

- 2. The Director attended the annual National Association of Clean Water Agencies (NACWA) Winter Conference in Albuquerque, New Mexico and led the meeting of NACWA's Water Quality (WQ) Committee as its chair. The WQ Committee asked attendees in advance to think about the most significant water quality-related challenge that their respective organizations expected to face over the next 20 years. A survey was taken at the beginning of the WQ Committee meeting to evaluate the input of the attendees. The most prevalent response to the survey was nutrient issues, followed by affordability. Contaminants of emerging concern was the third most popular choice; this includes pharmaceuticals and personal care products, in addition to perfluorinated compounds, but also includes more conventional contaminants like dissolved salts found in reverse osmosis reject water. These survey results very much reflect the thoughts of HRSD WQ staff; particularly with regard to the challenges facing SWIFT. Despite these hurdles, conferences like this bring to light more practical and defensible approaches that others around the country and the world are implementing. These approaches can then be considered and tested here in Hampton Roads, ensuring that HRSD brings its rate payers the most cost-effective outcomes possible.
- The Chief of the Central Environmental Laboratory (CEL), Stacie Crandall, accepted a position on The National Environmental Laboratory Accreditation Conference (NELAC) Institute Board of Directors based on membership voting. She will serve a three-year term.

B. Quality Improvement and Strategic Activities

- 1. The Sustainability Environment Advocacy Group (SEA) reported two activities for the month of February.
 - a. Metrics Reporting: SEA started collecting recycling data, specifically, from the Virginia Initiative (VIP) and Army Base treatment plants (ABTP) to develop an Elizabeth River Star award application. SEA is also drafting a survey to gauge staff's knowledge of recycling.
 - b. Community Clean-Ups: Potential Adopt-a-Spot locations are being identified and SEA is working through the logistics for start-up.
- 2. The WQ Communication Team continues monitoring and measuring interdivisional communication issues within the WQ Department.

C. <u>Municipal Assistance</u>

HRSD provided sampling and analytical services to Spotsylvania County, Hanover County, and the City of Fredericksburg to support monitoring required for its Virginia Pollution Discharge Elimination System (VPDES) permit.

D. <u>Strategic Planning Metrics Summary</u>

- 1. Educational and Outreach Events: 4
 - a. Technical Services Division (TSD) staff provided a James River Treatment Plant tour to Christopher Newport University microbiology students on February 22, 2019.
 - b. TSD staff provided a James River Treatment Plant tour to Christopher Newport University microbiology students on February 25, 2019.
 - P3 staff attended the Hampton Bass Pro Spring Fish Classic event to promote the Boater Education/Pump-Out Program on February 23, 2019.
 - d. WQ, CEL and TSD staff participated in an educational career night for students at John B. Dey Elementary school in Virginia Beach on February 28, 2019.

2. Community Partners: 9

- 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
- h. United Way
- i. Hampton Roads Planning District Commission Fats Oils and Grease

3. Odor Complaints: 3

- a. Three odor complaints were received due to offsite odors from the Atlantic Treatment Plant. TSD and plant personnel responded and investigated each complaint, identified odor sources and took corrective action where possible:
 - (1) February 5, a complaint of "dead fish" odors was made. The plant solids storage pads were at capacity with solids being handled and moved around at the pad. This activity, coupled with worse case meteorological conditions (East wind @ 5 mph and an evening inversion) was the cause of these odors.
 - (2) February 7, a complaint of "nasty gases" was made. Odors from the acid phase digesters (APD) were observed, and solids hauling from storage pads was underway at the time. The plant implemented efforts to minimize odors from the APD including ferric additions.
 - (3) February 10, a complaint of "rotten egg" odors was made.
 Odors were found originating from the uncontrolled release of raw digester gas. A failed auto drain valve on the waste gas handling system was emitting digester gas out of the drain pipe. This valve was closed and periodic draining of accumulated water in the system is being done manually.

4. IWD System Related Issues: 1

On February 4 an HRSD Interceptor Systems crew noticed foaming at the Chesterfield Pump Station in Norfolk. They stopped work and notified P3. P3 assessed and noted minimal foaming. A sample was collected up-line at C&M Industries; a permitted centralized waste treatment facility. It was determined that C&M caused the foaming; likely the result of the addition of oxidizers to remove phenols. No enforcement action was necessary because some minimal foaming from C&M is not unusual. There was no adverse impact on the system.

5. Monthly Metrics

Item #	Strategic Planning Measure	Unit	February 2019
M-1.4a	Training During Work Hours Per Full Time Employee (109) (Current Month)	Total Hours / # FTE	5.86
M-1.4b	Total Training During Work Hours Per Full Time Employee (109) (Cumulative Fiscal Year- to-Date)	Total Hours / # FTE	36.41
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	3
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	1:40,586
M-3.2	Odor Complaints	#	3
M-3.4	Pollutant Removal	Total Pounds Removed	125,131,342
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	19%
M-5.2	Educational and Outreach Events	#	4
M-5.3	Community Partners	#	9
	Average Daily Flow	Total MGD for all Treatment Plants	174.10
	Industrial Waste Related System Issues	#	1

Respectfully submitted, James Platl, PhD Director of Water Quality



Hampton Roads Sanitation District Internal Audit Status February 28, 2019



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

- Tasks Completed (February 2019)
 - SC&H presented an update to the Commission at the February 2/26 meeting, which included a summary of this audit and resulting observations

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.

Customer Care

- Tasks Completed (February 2019)
 - Selected and obtained transactional testing samples
 - Continued fieldwork procedures, including desk side walkthrough
 - o Drafted observations, as noted
 - Began draft of final audit report

Upcoming Tasks (March 2019)

- Complete fieldwork procedures
- o Finalize observations and conduct exit discussion with process owners
- Draft final audit report

2018 Risk Assessment Refresh

- Tasks Completed (February 2019)
 - Finalized risk assessment update for presentation to Commission
 - o Presented to Commission on 2/26/19

Upcoming Tasks (March 2019)

 No additional tasks are planned for March; SC&H has concluded the 2018 Risk Assessment Refresh

Safety

- Tasks Completed (February 2019)
 - Conducted entrance meeting with applicable process owners
 - Communicated initial documentation request list
 - Prepared project framework documentation

Upcoming Tasks (March 2019)

- o Review documentation provided by process owners
- o Schedule and conduct process walkthroughs
- o Prepare flowchart documentation
- o Finalize fieldwork objectives and prepare audit plan



Hampton Roads Sanitation District Internal Audit Status February 28, 2019



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 (April) 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.

			Recommendations			
Audit	Report Date	Next Follow-up	Closed	Open	Total	
D&C: CIP Project						
Management	5/11/2016	June-19	11	2	13	
		July-19				
Biosolids Recycling	10/8/2016	Pending Permit	7	1	8	
			15 (3 pending final			
HR Benefits	11/22/2016	In Process	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%
	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
	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
	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
	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
	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%
		Personal Services + Fringe Benefits/365/5-Year										
M-4.3	Total Labor Cost/MGD	Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423
		8 CCF Monthly Charge/										
M-4.4	Affordability	Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%
		Total Operating Expense/										
	Total Operating Cost/MGD	365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959
	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%
	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%	72%	73%	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	Jan-19	Feb-19
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	168.2	174.1
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	1	1
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	103%	103%
	General Reserves													ĺ
		Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	118%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,967,390	\$24,422,279
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	18%	17%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	0	3
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	1:35513	1:40586
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	1	3
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	111,617,007	125,131,342
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	18%	19%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	20	23
M-5 3	Number of Community Partners	Number			280	289	286	297	321	354	3/15	381	19	23

EFFLUENT SUMMARY FOR FEBRUARY 2019

	FLOW	% of	BOD	TSS	FC	ENTERO	TP	TP	TN	TN	TKN	NH3	CONTACT
PLANT	mgd	Design	mg/l	mg/l	#/UBI	#/UBI	mg/l	CY Avg	mg/l	CY Avg	mg/l	mg/l	TANK EX
ARMY BASE	13.11	73%	6	6.7	9	5	0.34	0.29	3.4	4.0	NA	NA	14
ATLANTIC	28.54	53%	11	12	2	1	NA	NA	NA	NA	NA	NA	6
BOAT HARBOR	20.79	83%	7	7.6	1	1	0.45	0.47	19	19	NA	NA	10
CENT. MIDDLESEX	0.008	33%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	18.72	78%	13	15	3	3	0.90	0.89	28	29	NA	NA	13
JAMES RIVER	16.54	83%	5	3.4	1	<1	0.19	0.40	8.4	8.2	NA	NA	1
KING WILLIAM	0.062	62%	<2	<1.0	NA	<1	0.028	0.029	2.2	1.6	2.1	NA	NA
NANSEMOND	18.73	62%	7	8.5	3	2	0.87	1.1	5.7	6.1	NA	NA	12
SURRY, COUNTY	0.091	140%	4	3.0	NA	3	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.085	142%	3	14	NA	4	NA	NA	NA	NA	0.86	0.12	NA
URBANNA	0.039	39%	6	12	2	2	1.4	2.0	8.3	9.2	NA	2.78	NA
VIP	33.36	83%	5	4.5	3	1	0.35	0.45	3.5	3.6	NA	NA	0
WEST POINT	0.698	116%	18	15	1	2	1.5	1.5	12	12	NA	NA	0
WILLIAMSBURG	8.63	38%	3	2.7	2	2	0.23	0.37	3.0	3.5	NA	NA	3
YORK RIVER	14.71	98%	5	0.06	3	1	0.21	0.24	6.4	6.3	NA	NA	4
	174.10												

	% of
	Capacity
North Shore	74%
South Shore	68%
Small Communities	98%

Tributary Summary									
	<u>Annu</u>	al Total Nitro	<u>gen</u>	<u>Annual</u>	Annual Total Phosphorus				
	Discharged	Operation	onal	Discharged	Operational				
	YTD	Projection CY19		YTD	Projectio	n CY19			
Tributaries	%	Lbs	%	%	Lbs	%			
James River	15%	4,102,604	90%	12%	271,227	85%			
York River	18%	270,668	94%	12%	15,815	82%			
Rappahannock	< 14%	NA	NA	47%	NA	NA			

Permit Exceedances:Total Possible Exceedances, FY19 to Date: 1:40,586

Pounds of Pollutants Removed in FY19 to Date: 125,131,342 Pollutant Lbs Discharged/Permitted Discharge FY19 to Date: 19%

	North	South	Small
	Shore	Shore	Communities
	(PHF)	(ORF)	(FYJ)
Month	4.61"	4.69"	3.85"
Normal for Month	2.78"	2.72"	2.61"
Year to Date Total	7.90"	8.50"	7.69"
Normal for YTD	6.14"	5.77"	6.04"

Rainfall (inch)

AIR EMISSIONS SUMMARY FOR FEBRUARY 2019

	No	of Permit Dev		Part 503e Limits							
	BZ Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	рН	Bypass	Mo. Ave	DC	Daily Ave
MHI PLANT	(F)	(in. WC)	(GPM)	(GPM)	(GPM)	(GPM)	3 hr ave	Stack Use	(PPM)	(%)	Days >Max
ARMY BASE	0	0	0	0	0	0	2	1	21	100	0
BOAT HARBOR	0	0	0	n/a	0	0	0	3	30	94	0
CHES-ELIZ	0	0	0	0	0	0	0	0	19	94	0
VIP	0	0	0	n/a	0	0	3	2	89	99	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	14	98	0

ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action (RCA):	1
DEQ Warning Letter:	0
DEQ Notice of Violation (NOV):	0
Other Air Permit Deviations:	0
Odor Complaints Received:	3
HRSD Odor Scrubber H2S Exceptions:	1

HRSD COMMISSION MEETING MINUTES MARCH 26, 2019

ATTACHMENT #11

AGENDA ITEM 19. – Fiscal Year-2020 Annual Budget and Internal Audit Update Presentation



FY2020 Budget Work Session March 26, 2019

Agenda

- Revenue Policy Update
- Regional Economy
- Revenues
- Operating Budget
- Hospitalization
- Compensation Study



Bottom-Line Up Front (BLUF)











Revenue Policy Update

Minimum Charge = \$0.30 per day

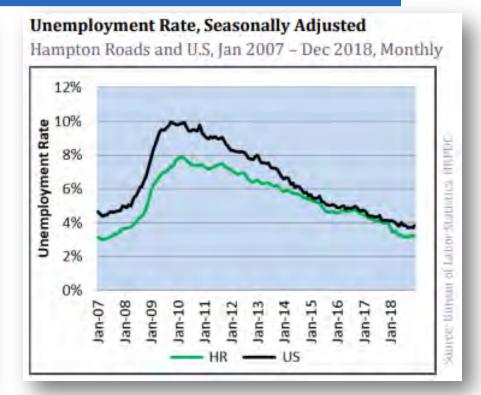
- Premise: Operations' labor costs are required to ensure public health and protect the environment regardless of flow
- Minimum Charge Based on:
 - FY20 Operations salary and fringe budget = \$49,919,798
 - 10-year rolling average of accounts = 461,900
- Calculation:
 - Budget/# of Accounts/365 days
 - \$0.296 or **\$0.30 per day**



Regional Economy (Hampton Roads Planning District Commission Data)

Regional Employment (HRPDC)

Civilian Employment, Seasonally Adjusted Hampton Roads, Jan 2007 - Dec 2018, Monthly 800 781.6K 790 780 770 Employment (Thousands) 760 Statistics 750 791.0K 740 730 Titroot of Labor 720 731.8K 710 700 Jan-08 Jan-07 Salling



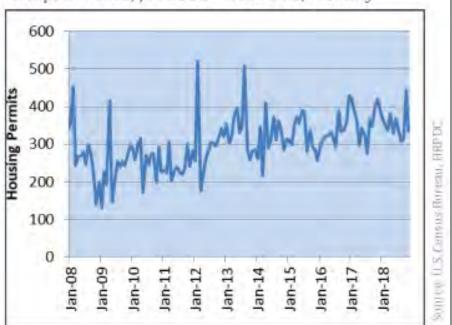
Hampton Roads added 13,200 jobs

Unemployment rate fell by 0.87% in 2018

Housing Market

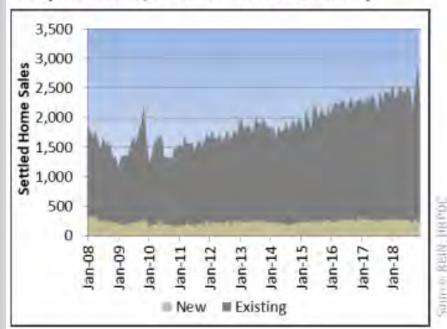
Single Family Housing Permits, Seasonally Adjusted

Hampton Roads, Jan 2008 - Nov 2018, Monthly

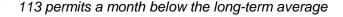


Number of Homes Sold, Seasonally Adjusted

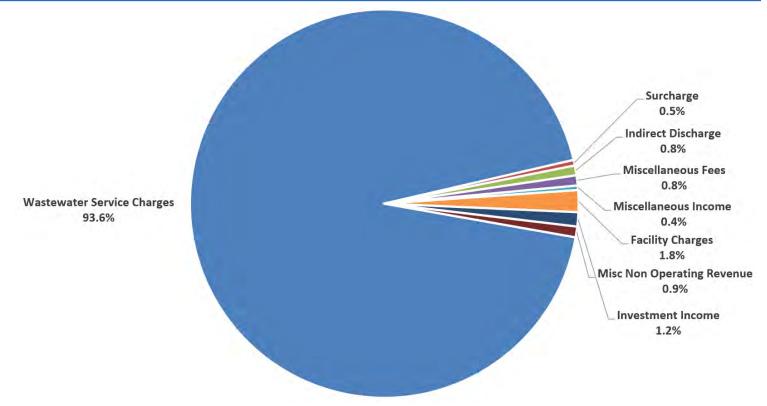
Hampton Roads, Jan 2008 - Dec 2018, Monthly



Significant volatility – possibly due to fluctuating interest rates

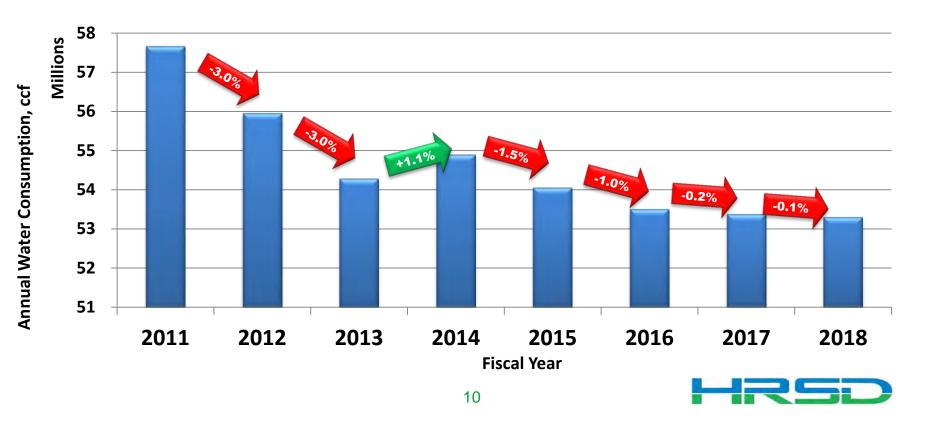


Revenues (93.6% of Revenues = Water Consumption * Rate)





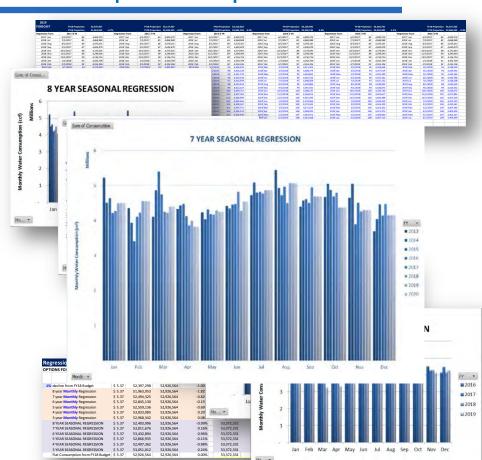
Billed Water Consumption Trend



FY20 Water Consumption Proposal Details

mccf = million ccf

- FY17 Actual = 53.4 mccf
- FY18 Actual = 53.3 mccf
- FY19 Projected = 53.5 mccf
 - +1.2% **increase**, +\$3.36M
- FY20 Budget = 53.0 mccf
 - -1.1% decline compared to FY19 Projected
 - Aligns with 7 Year Seasonal Regression Projection



Proposed Rate Increase

- FY20 9.1% rate increase
 - \$5.86 per ccf (up from \$5.37 per ccf)
 - Avg monthly bill = \$32.82 @ 5.6 ccf
 - Up @\$2.75 from last year
 - About \$0.09 per day



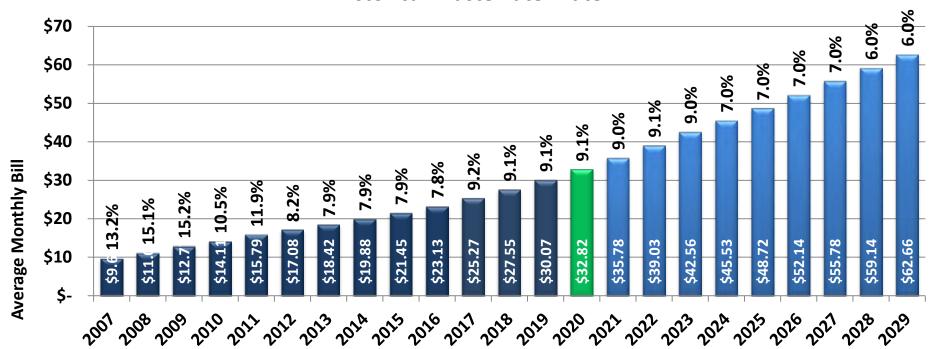
Historical and Projected Rate Increases





Average Monthly Bill @ 5.6 ccf

Historical Wastewater Rate



Operating Budget

Proposed FY2020 Revenues

		Adopted	Increase/	
	FY2020	FY2019	(Decrease)	Percent
Operating Revenues				
Wastewater Treatment Charges	\$ 320,537,000	\$ 294,207,000	\$26,330,000	8.9%
Miscellaneous	\$ 4,113,000	\$ 4,260,000	\$ (147,000)	-3.5%
Total Operating Revenue	\$ 324,650,000	\$ 298,467,000	\$26,183,000	8.8%
Non-Operating Revenue				
Wastewater Facility Charges	\$ 6,160,000	\$ 6,075,000	\$ 85,000	1.4%
Investment Earnings	\$ 4,000,000	\$ 2,500,000	\$ 1,500,000	60.0%
Build America Bond Subsidy	\$ 2,400,000	\$ 2,400,000	\$ -	0.0%
Other	\$ 595,000	\$ 820,000	\$ (225,000)	-27.4%
Total Non-Operating Revenues	\$ 13,155,000	\$ 11,795,000	\$ 1,360,000	11.5%
Total Revenues	\$ 337,805,000	\$ 310,262,000	\$27,543,000	8.9%

Municipal Assistance

FY19 Interest rate hikes

IPA Agreement Revenue



Budget Summary – Expenditures (Spreadsheet provided)

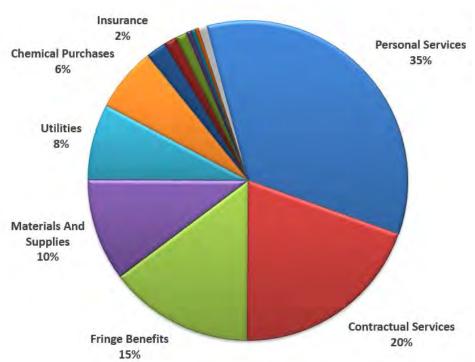
Summary of Expenses Grouped by Object Code												
FY18		FY19 FY19		FY20		FY20 Proposed vs F			0 Proposed vs			
Actuals			Actuals Budget		Proposed		Budget		Budget			
OBJECT CODE Year Total		Er	nding 12/31	Year Total		Year Total		\$ Dif		% D	if from Budget	
Column1		Column2 🔽		Column3 🔽		Column4		Column6 💌		Column7 💌		Column8
AC_51000:Personal Services	\$	55,160,111	\$	28,146,200	\$	55,331,885	\$	57,346,224	\$	2,014,339	W	3.6%
AC_52000:Fringe Benefits	\$	20,050,916	\$	11,903,365	\$	24,296,169	\$	24,216,574	\$	(79,595)		-0.3%
AC_53000:Materials And Supplies	\$	14,851,091	\$	6,823,131	\$	15,022,670	\$	17,130,000	\$	2,107,330	W	14.0%
AC_53500:Transportation	\$	685,352	\$	386,640	\$	771,141	\$	867,526	\$	96,385	W	12.5%
AC_53600:Transportation Fuels	\$	586,121	\$	250,427	\$	673,600	\$	711,280	\$	37,680	W	5.6%
AC_54000:Utilities	\$	11,967,955	\$	5,809,028	\$	12,245,138	\$	12,725,560	\$	480,422	W	3.9%
AC_54500:Chemical Purchases	\$	8,750,127	\$	4,171,471	\$	10,703,626	\$	10,714,718	\$	11,092	W	0.1%
AC_55000:Contractual Services	\$	24,068,693	\$	10,956,228	\$	31,319,715	\$	32,562,428	\$	1,242,713	W	4.0%
AC_55500:Consulting Services	\$	2,182,617	\$	582,901	\$	2,042,200	\$	1,908,800	\$	(133,400)		-6.5%
AC_56000:Miscellaneous Expenses	\$	2,080,225	\$	1,114,993	\$	1,897,894	\$	2,127,594	\$	229,700	W	12.1%
AC_56500:Recruitment Expenses	\$	382,440	\$	148,293	\$	411,000	\$	402,700	\$	(8,300)		-2.0%
AC_57000:Bond Issues	\$	1,061,015	\$	-	\$	350,000	\$	350,000	\$	-		
AC_57500:Apprentice Program	\$	212,764	\$	73,364	\$	251,972	\$	245,246	\$	(6,726)		-2.7%
AC_58000:Insurance	\$	3,216,604	\$	2,362,734	\$	3,262,000	\$	3,470,000	\$	208,000	W	6.4%
AC_58500:District Memberships	\$	529,875	\$	450,640	\$	556,429	\$	578,569	\$	22,140	W	4.0%
AC_60000:Capital Assets	\$	1,640,615	\$	352,340	\$	601,500	\$	301,600	\$	(299,900)		-49.9%
Total Operating Expenses	\$	147,426,519	\$	73,531,756	\$	159,736,939	\$	165,658,819	\$	5,921,880	W	3.71%

- Up 3.7%YOY
- Less than FY19 Forecast



Operating Expenses, 50% = People

Total Operating Expenses





Proposed New Positions, Total FTEs = 836 + 11 = 847 (+1.3%)

Information Technology = 5

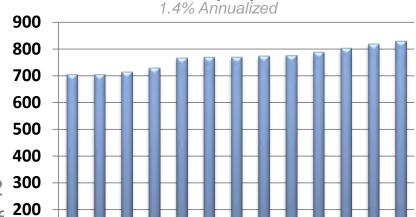
- Chief Information Security Officer
- IT Systems Security Manager
- Senior Systems Engineer
- Senior Programmer Analyst (2)

• Water Quality = 4

- Tech Services Division Investigator
- Tech Services Division Specialist (2
- WQ/Ops Quality Assurance Manage

• Operations = 1

- Electrical & Instrumentation Speciali
- Engineering = 1
 - Data Analyst



of Employees



FY08 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY16

100

Chemicals – Bad News/Good News!

- Many polymers and chemicals increased up to 35%
 - Ferric Sulfate = +35%
 - Polydyne = +26%
 - Praestol = +11%
- Practically no increase in Ops chemical budget (+0.1%)
 - Process improvements
 - More experience running new processes



Materials and Supplies (M&S)

- Major Repairs and Replacements
 - Digester cleaning
 - VIP biosolids improvements (centrifuge, afterburner, incinerator repairs)
 - Pump and Drive replacements
 - Mixers
- Computer and Software upgrades



SWIFT Oversight

- New cost center previously budgeted under General Expenses
 - Monitoring Lab = \$1M
 - Va Dept of Health Water Resources Engineer Grant = \$140k
 - USGS Monitoring and Research = \$102k



Contractual Services

- Williamsburg Distributive Control System (DCS) Upgrade
- Outsourcing condition assessment and gravity system inspection
- Ebill/Epay Fees Newport News and Va Beach switch to monthly billing
- Software maintenance



Talent Management

Talent Management Overview

Health Benefits Renewal

- Benefit Overview
- Medical & Wellness Trends
- Strategies
- Renewal & Budget Projections
- 2018 Compensation Study
 - Policy & Methodology
 - Key Findings
 - Recommendations
 - Budget



FY20 Preliminary Hospitalization Forecast

HRSD Health Benefits Renewal

High Deductible Health Plan- No Premiums

Туре	Deductible	Out of Pocket Max
*Wellness –Single	\$1500	\$3000
Non-Wellness - Single	\$2000	\$4000
Wellness - Family	\$3000	\$6000
Non-Wellness -Family	\$4000	\$8000

^{*}Assuming Entry Level \$30k, target healthcare costs <10% gross income = \$3,000

- Pharmacy
 - No Cost Preventative Generics
 - \$10/\$30/\$50 Co-Pays after deductibles
- Health Savings Account
- Basic Vision & Dental No Premiums
- Premium Vision Low Monthly Premiums

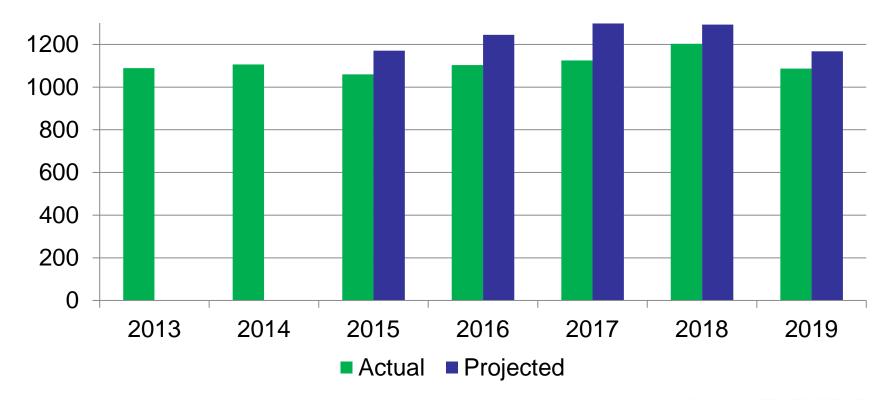


Medical & Pharmacy Cost Trends

Budget Year	Forecast Total	Actual Total	Forecast PEPM	Actual PEPM	Enrollment
FY16	\$11,529,937	\$10,218,226	\$1245	\$1103	772
FY17	\$12,224,595	\$10,661,118	\$1298	\$1125	790
FY18	\$12,488,281	\$11,706,042	\$1293	\$1203	811
FY19 (YTD Basis)	\$11,603,119	\$10,774,344	\$1168	\$1087	826



PEPM Cost Trends





FY18 Highlights

- Catastrophic claims cost increased 48.7%
 - Represents 41% of medical and pharmacy spend
 - 87% of claimants had chronic conditions
- Specialty pharmacy cost increased 13.7%
- Chronic conditions overall represent 78% of spend
- 7% of members diagnosed with pre-diabetes
- Cigna Programs Cost Savings
 - Cigna 90 Now Pharmacy- \$15,000
 - Inpatient Management \$45,023
 - Specialty Case Management \$418,830
 - Cigna Care Designation \$155,803



FY18/19 Strategies

- Benefit Consultant
 - Performance guarantees
 - Pharmacy audit & negotiated savings
 - Benchmarking
 - Technology enhancements
- Programs to Increase Value, Efficiency & Experience
 - Health Advocacy
 - Expert Medical Opinion
- New Diabetes Prevention Program
 - Implementation March 2019
 - Projected 0.25% Cost Savings in Claims



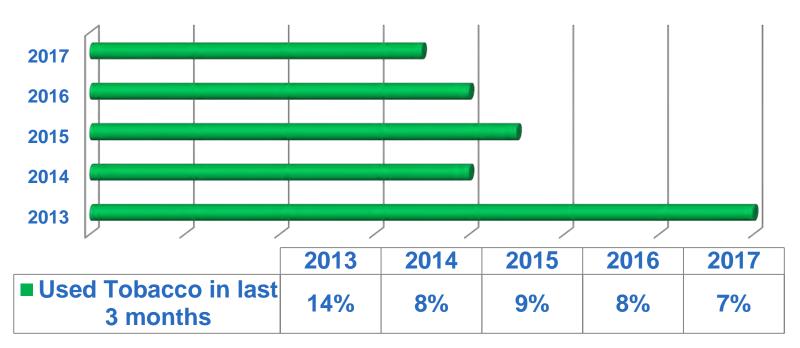
Wellness Data Highlights Year 5

- Overall participation increased 3%
 - 487 employees and 80 spouses
- Weight-loss
 - >5% weight loss = 85 people
 - > 10% weight loss = 23 people
 - > 15% weight loss = 7 people
- Wellness participant health engagement higher than norm
 - Cancer Screening rates
 - Well Visits
 - Health Improvement Activities
 - Preventive Care
 - Biometric Screening Trends



Tobacco Use Trends

Used Tobacco In Last 3 Months





Current Evaluation of Cost Savings Strategies

- Stop Loss Evaluation
- Changes to Pharmacy Formulary
- Changes to Non-Wellness Deductible
- Addition of a 4th Tier for Specialty Pharmacy
- Emergency Room Co-Pay



Stop-Loss

Plan Year	Carrier	Specific Deductible	Average Enrollment	Monthly Premium PEPM Total Annual Spec Premium Premium Reimbursements		# of Large Claims	Loss Ratio	
FY2012	Cigna	\$250,000	717	\$36.95	\$317,918	\$0	0	\$0
FY2013	Cigna	\$250,000	718	\$33.93	\$292,378	\$224,938	3	77%
FY2014	Munich RE	*\$250,000	721	\$36.99	\$320,042	\$104,297	2	33%
FY2015	Munich RE	\$250,000	749	\$38.21	\$343,437	\$330,205	1	96%
FY2016	Symetra	\$250,000	791	\$37.75	\$358,292	\$346,552	2	97%
FY2017	Symetra	\$250,000	772	\$41.30	\$382,608	\$12,442	1	3%
FY2018	Symetra	\$250,000	811	\$48.28	\$469,835	\$310,238	4	61%
FY2019	Symetra	\$250,000	826	\$51.11	\$506,648	\$0	0	0%
				Total	\$2,991,158	\$1,328,672		
			Poten	tial Savings	\$1,662,486			

FY20 Projected Stop-Loss Premium = **\$644,000**, **up 15% 93.5% Likelihood** claims would be less than \$1M



Preliminary FY20 Hospitalization (Medical, Dental, Vision)

- FY19 Forecast = \$11.3M
- FY20 MMA Proposed = \$12.2M Includes Stop-Loss Premium
- FY20 HRSD Proposed = \$11.6M
 - \$200k Plan Design Changes
 - \$400k Net Stop-Loss Savings
 - FY20 Premium \$650k
 - Estimated \$250k Self-Insured Claims Previously Reimbursed/Catastrophic Coverage Premium



Compensation Study

Commission Adopted Policy Compensation Policy

Philosophy

- HRSD provides market-based total compensation that ensures HRSD can attract, develop and retain talented, high performing employees
- HRSD jobs are classified within salary ranges through HRSD's
 Classification and Compensation System ultimate value of all jobs is at top of salary range typically reached in 10± years
- Market based salary ranges with focus on keeping top of the range near the 90th percentile of the market



Market Surveys

- Compensation Market Strategy
 - Articulates markets most likely to be talent competitors
 - Establishes comparison groups by job type, industry, geography, size, and target salary
- Methodology
 - Custom and Market surveys every 3-5 years
 - Benchmark Jobs
- Compensation Targets
 - Salary range minimum targeted at market median
 - Salary range mid-point targeted at market 75th percentile
 - Salary range maximum within 10% of market 90th percentile



2018 Study

- Executive & Staff Survey
 - Data Subsets
 - 58 Benchmark jobs to represent HRSD
 - Difficult to retain and recruit OR represent a large population
- Custom Survey of 21 Peer Organizations
- Composite Market Review
 - Seven published surveys compiled with Custom Survey data
- Calibration
 - Geographic, Job Fit & Aging Data to 7/1/2019

Custom Survey Participants

Alexandria Renew Enterprises	City of Norfolk	Henrico County
City of Charlotte	City of Phoenix	James City County
City of Chesapeake	City of Virginia Beach	Metropolitan St. Louis Sewer District
City of Columbus Sewer Enterprise	County of York	Metropolitan Water Reclamation District of Greater Chicago
City of Houston	Fairfax Water	Norfolk Airport Authority
City of Lynchburg	Hampton Roads Transit	Northeast Ohio Regional Sewer District
City of Newport News	Hanover County	Washington Suburban Sanitary Commission



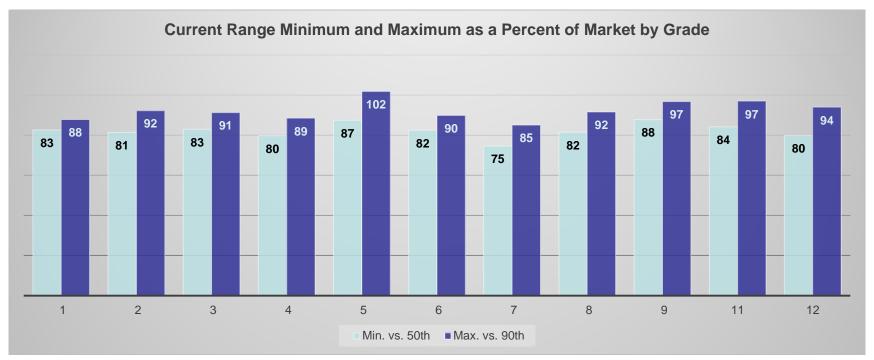
Key Findings – Compiled Data

- HRSD Salary Ranges are below market
 - Minimums are 18 % below market median
 - Mid-Points are 10 % below market 75th percentile
 - Maximums are 7% below market 90th percentile (within 10%)
- Average HRSD Salaries
 - Overall aligned with 75th percentile of market 97.9% Fit
 - 88% of market 90th percentile
- 31% of Job Maximum Salaries did not meet policy goals
 - 15 jobs >10% below market 90th percentile
 - 3 jobs >20% below market 90th percentile



Key Findings –Grade Differences

There is a greater misalignment of Grade 7 salaries with the market





Recommendations - Salary Range Adjustments

All Grades - add new Step 10 to improve market alignment

Salary Range	w/o Adjustment	w/ Adjustment
Maximum	94% of market 90 th P	98% of market 90 th P

Grade 7- remove Step 1 & add new Step 9 and 10

Salary Range	w/o Adjustment	w/ Adjustment
Entry	75% of market median	78% of market median
Maximum	86% of market 90thP	93% of market 90thP

- Budget
 - FY2020 \$150,000
 - < 0.3% increased salary cost per year future merit increases</p>



Key Findings – IT Job Subset

There is a greater misalignment of IT Jobs with the market

- Compiled Data
 - Salary range minimum 22% below market median
 - Salary range maximum 15% below market 90th percentile
 - Average salaries are 14% below market 90th percentile
- Custom Survey
 - Salary range minimum 19% below market median
 - Salary range maximum 13% below market 90th percentile
- Benchmark IT Jobs
 - 67% of maximum salaries > 10% below market 90th percentile



Recommendation -IT Jobs Market Differential

 In addition to Salary Range Adjustments - add a 5% market differential to IT jobs

Salary Range	w/o IT Adjustment*	w/ IT Adjustment
Maximum	90% of market maximum	95% of market maximum

^{*}Includes other adjustments- Step 10 and Grade 7

- Excludes administrative only position(s)
- 44 Employees
- Budget Impact
 - \$200,000 Annually



Recommendations Job Evaluations

 Further evaluate Benchmark Jobs with maximum salaries greater than 10% below market 90th percentile after adjustments

Telecommunications Support Coordinator

Automotive Administrative Assistant

Community Educator

Training Specialist

Chief Inspector, Coatings, Concrete and Roofing

IT Help Desktop Support Supervisor

Plant Superintendent

Human Resources Manager



Next Steps

- March 26 Budget Work Session
- April 1 Final CIP Meeting (cancelled combined with April 12 meeting)
- April 12 Finance Committee meeting (Atlantic Plant)
- April 23 Draft Budget and Revenue Policy Submittal
- May 28 Formal Budget Adoption
- Newspaper advertisement 4 consecutive weeks
- July 1 Budget Effective



Questions?