



COMMISSION MEETING MINUTES
June 25, 2019

<u>No.</u>	<u>Topic</u>	<u>Page</u>
1.	<u>Awards and Recognition</u>	3-4
	a. <u>New Commissioner Introduction</u>	3-4
	b. <u>Promotion Announcement</u>	4
	c. <u>Awards</u>	4
2.	<u>Consent Agenda</u>	5
	a. <u>Approval of Minutes</u>	5
	b. <u>Contract Awards</u>	5
	c. <u>HRSD Use of Existing Competitively Awarded Contract Vehicle</u>	5
3.	<u>Virginia Beach Boulevard Force Main Phase VI Public Hearing on Determination of Public Need for Easement Acquisition</u>	6-7
4.	<u>Elizabeth River Crossing Reliability Improvements Initial Appropriation</u>	8
5.	<u>Urbanna Wastewater Treatment Plant Reliability Improvements Initial Appropriation</u>	9
6.	<u>Mathews Nursing Home Line Vacuum Sewer Main Improvements Additional Appropriation and Contract Award</u>	10-11
7.	<u>Surry Hydraulic Improvements and Interceptor Force Main Approval of Fixed Price and Additional Appropriation</u>	12-13
8.	<u>Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue Agreement</u>	14
9.	<u>James River SWIFT Facility and James River Treatment Plant Advanced Nutrient Reduction Improvements Alternative Project Delivery</u>	15-16
10.	<u>SWIFT (Sustainable Water Initiative for Tomorrow) Update</u>	17



COMMISSION MEETING MINUTES
June 25, 2019

<u>No.</u>	<u>Topic</u>	<u>Page</u>
11.	<u>WHRO Partnership for Environmental Journalism</u>	18
12.	<u>Election of Officers</u>	19
13.	<u>Finance Committee Appointment for Fiscal Year 2020</u>	20
14.	<u>Staff Appointment</u>	21
15.	<u>Unfinished Business</u>	22
16.	<u>New Business</u>	22
17.	<u>Commissioner Comments</u>	22
18.	<u>Public Comments Not Related to Agenda</u>	22
19.	<u>Informational Items</u>	22
	a. <u>Management Reports</u>	22
	b. <u>Strategic Planning Metrics Summary</u>	22
	c. <u>Effluent Summary</u>	22
	d. <u>Air Summary</u>	22
20.	<u>Announcement</u>	22

Attachments (6)



COMMISSION MEETING MINUTES
June 25, 2019

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

Prior to beginning the agenda, the Commission held a Moment of silence in remembrance of the Virginia Beach shooting victims. This was the first meeting of the HRSD Commission since the tragic events of May 31, 2019. Many of the victims were connected to many of the HRSD staff – both professionally and personally. One of those killed was a former HRSD employee and the father of a current employee. One of those wounded was also a former HRSD employee. The regional utility and public works community is pretty small – a significant number of HRSD staff worked in Virginia Beach prior to joining HRSD – and the impact of this tragedy is deeply felt by everyone here.

1. **AWARDS AND RECOGNITION**

Action: No action required.

Brief:

a. New Commissioner Introduction

While we pause to remember, we recognize a common trait shared by all touched by the Virginia Beach tragedy is service to our community. We are lucky to have so many great people serving our community in many roles. Along those lines Chair Elofson said it was his pleasure to introduce our newest Commissioner Ms. Molly Joseph Ward of Hampton.

Ms. Ward currently serves as Treasurer for the City of Hampton, a position she previously served in from 2002 to 2008. She has also served as a member of Governor Terry McAuliffe’s cabinet as Secretary of Natural Resources, in the Obama Administration as a Special Assistant to the President and Deputy Director of Intergovernmental Affairs at the White House, and as the Mayor of the City of Hampton.

Ms. Ward has served on numerous boards and commissions including the Virginia Outdoors Foundation, the Chesapeake Bay Program Principal’s Staff Committee, and



COMMISSION MEETING MINUTES

June 25, 2019

the Chesapeake Bay Commission. Ms. Ward was also recently appointed to the boards of the Chesapeake Conservancy, the Virginia Living Museum and the Virginia Science Museum. Ms. Ward is a graduate of the University of Virginia and William and Mary Law School, and remains an active member of the Virginia State Bar.

Ms. Ward succeeds Ms. Ann Templeman who resigned in May.

Staff believes Ms. Ward is the first Commissioner appointed that had a family member serve previously. Molly's grandfather, George C. Bentley served on the Commission from 1965 – 1972.

b. Promotion Announcement

Mr. Henifin introduced Mr. Charles Wright, Jr., who was recently promoted to Chief of the Electrical and Instrumentation Division within the Operations Department. Charles holds a bachelor's degree in Electrical Engineering from Louisiana State University in Baton Rouge, LA. Charles began his career with HRSD in 2014 as an Electrical Manager where he provided engineering project support, performed power system analysis studies and managed the daily operations of the Electrical and Instrumentation Shop. He recently passed his E.I.T. exam and is currently pursuing his P.E. Licensure.

c. Awards

HRSD's IT Department was recently recognized for the HRSD.com website redesign in three international award competitions, receiving the MarCom Award 2018 Gold Winner, the Hermes Creative Award 2019 Gold Winner, and Communicator Award 2019 Distinction Winner.

MarCom Awards honor excellence in marketing and communication, while recognizing the creativity, hard work and generosity of industry professionals and is one of the largest, most respected creative competitions in the world.

The Hermes Creative Awards is an international competition for creative professionals involved in concept, writing and design of traditional materials, marketing and communication programs and emerging technologies.

The Communicator Awards is also an international awards program which recognizes big ideas in marketing and communications and honors work that "transcends innovation and craft."

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

2. **CONSENT AGENDA**

Action: Approve the items listed in the Consent Agenda.

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

Brief:

- a. Approval of minutes from previous meeting.
- b. Contract Awards
 - 1. [Aluminum Sulfate](#) \$4,382,600
 - 2. [Atlantic Treatment Plant Digester #5 Cleanout](#) \$325,088
 - 3. [Electrical Services](#) \$2,000,000
 - 4. [Ovivo Influent Screen Parts and Onsite Field Technician Support](#) \$288,384
 - 5. [Protective Coatings Services](#) \$7,900,000
 - 6. [South Shore High Point Air Vent Installation Phase I](#) \$470,151
- c. HRSD Use of Existing Competitively Awarded Contract Vehicle
 - 1. [Electrical, Lighting, Data Communications and Security Products](#) \$350,000

Item(s) Removed for Discussion: None

Attachment #1: [Consent Agenda](#)

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

3. **VIRGINIA BEACH BOULEVARD FORCE MAIN PHASE VI
PUBLIC HEARING ON DETERMINATION OF PUBLIC NEED FOR EASEMENT
ACQUISITION**

Action: Conduct public hearing.

CIP Project: CE011823

Project Description: 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 Treatment Plant closure and for the eventual Regional Wet Weather Management Plan. This is a very significant effort with an estimated total program cost of \$25,000,000.

Seven permanent and five temporary construction easements are required to construct this project. The easements have not yet been acquired and are located at the following:

Address	Tax Parcel ID Number	Property Name/Location
2924 N. Lynnhaven Road	1497-26-9301-0000	Susan Browney Dillon, Trustee / Golden Slippers Dance Academy
2533 Virginia Beach Blvd.	1497-74-4485-0000	CKC Properties, LLC.
2403 Virginia Beach Blvd.	1497-85-7195-0000	Lowe's
2858 Virginia Beach Blvd.	1497-36-7543-0000	Lynnhaven Shopping Center, LLC / McLeskey Group
207 Parker Lane	1497-74-8394-0000	Sadler Materials Corporation / Vulcan
2312 Virginia Beach Boulevard	2407-05-0493-0000	315 N. Great Neck Road / Pollard's Square
2300 Virginia Beach Boulevard	2407-05-2316-0000	Starbucks



COMMISSION MEETING MINUTES
June 25, 2019

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. The [CIP Location Map](#) and [acquisition plats](#) are provided for clarification purposes.

Staff provided a short [overview](#) for the Commission and the public immediately prior to the Public Hearing.

Discussion Summary: Staff explained the project alignment, logistics and timing of construction in detail. The Commission discussed the proposed alignment and access through the Lowe's parking lot and requested that staff review an alternate alignment.

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

Staff will review the alignment options to determine if the alignment can be adjusted to minimize impact to the Lowe's property.

Attachment #2: [Presentation, Plats and Location Map](#)

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

4. **ELIZABETH RIVER CROSSING RELIABILITY IMPROVEMENTS
INITIAL APPROPRIATION**

Action: Appropriate total project funding in the amount of \$1,250,000.

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

CIP Project: VP018500

Project Description: This project will install two metering vaults and a bypass pump connection. One metering vault will replace the failed direct bury meter at Pinners Point. The other metering vault will be located in Norfolk to provide information about the condition of the river crossing. An emergency pump connection will be installed at the Pinners Point diversion structure, and that structure will be demolished.

The existing meter at Pinners Point is a direct-bury style meter, making it inaccessible for maintenance. It is at the end of its useful life and has failed. This metering location is necessary to capture flow information from the south side of the Elizabeth River in Portsmouth, including flows from the Camden, Rodman, and Elmhurst Pump Stations. The new meter location in Norfolk will provide critical, missing information on the condition of the river crossing, as currently there is not a means to easily identify failure of that crossing.

The new emergency pump connection at the abandoned diversion structure at Pinners Point will provide a means for conveying flow in the event of a failure of the Elizabeth River crossing. At present, if the crossing fails, overflows will occur in downtown Portsmouth. The new connection provides a single point of collection for the overflow, and removes the risk to the downtown area. The abandoned diversion structure at Pinners Point will be demolished, as it is currently a safety risk.

Funding Description and Analysis of Cost: The initial appropriation of \$1,250,000 is based on a Class 5 CIP-prioritization level estimate. The Preliminary Engineering Report for this project will be completed by Rummel Klepper and Kahl, LLP under the Interceptor Systems Projects annual services contract. The fee for the study phase work on the meter vaults and bid-ready documents for the structure demolition is \$99,533.

Schedule:	PER	July 2019
	Design	September 2019
	Bid	April 2020
	Construction	June 2020
	Project Completion	June 2021

Attachment: None
Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

5. **URBANNA WASTEWATER TREATMENT PLANT RELIABILITY IMPROVEMENTS
INITIAL APPROPRIATION**

Action: Appropriate total project funding in the amount of \$270,000.

Moved: Michael Glenn **Ayes:** 8
Seconded: Maurice Lynch **Nays:** 0

CIP Project: MP013900

Project Description: The project will consist of converting the Urbanna Wastewater Treatment Plant to operate as an Anaerobic, Anoxic, Aerobic (A²O) and Integrated Fixed Film Activated Sludge (IFAS) process. The project will include improving automation of existing equipment and of dissolved oxygen control for the IFAS and downstream aeration basins.

Funding Description: The estimated total project cost is \$270,000. This is based on a construction cost estimate of \$250,000 combined with an engineering services estimate of \$20,000. HRSD staff will complete the process, mechanical and instrumentation design work in-house then advertise the project for construction. Collins Engineers Inc. will complete the structural design and inspection for conversion of the existing equalization tank to a biological reactor.

Schedule:	Pre-Planning	May 2019
	Design	July 2019
	Bid	October 2019
	Construction	January 2020
	Project Completion	July 2020

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

6. **MATHEWS NURSING HOME LINE VACUUM SEWER MAIN IMPROVEMENTS
ADDITIONAL APPROPRIATION AND CONTRACT AWARD (>\$200,000)**

Actions:

- a. **Appropriate additional funding in the amount of \$739,928.**
- b. **Award a contract to Howard Brothers Contractor, Inc. in the amount of \$984,608.**

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

CIP Project: MP012900

Budget	\$626,000
Previous Expenditures and Encumbrances	(\$130,821)
Available Balance	\$495,179
Proposed Task Order to WR&A	(\$152,038)
Proposed Contract Award to Howard Brothers Contractor, Inc.	(\$984,608)
Proposed Contingency	(\$98,461)
Project Shortage/Requested Additional Funding	(\$739,928)
Revised Total Project Authorized Funding	<u>\$1,365,928</u>

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Howard Brothers Contractor, Inc.	\$984,608
Walter C. Via Enterprises, Inc.	\$995,677

HRSD/Engineer Estimate: \$ 676,144

Contract Description: This contract is for the Mathews Nursing Home Line Vacuum Sewer Main Improvements project. In accordance with HRSD’s competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders on April 19, 2019. Two bids were received on May 23, 2019 and evaluated based upon the requirements for the invitation for bid. Howard Brothers Contractor, Inc. is the apparent low bidder with a bid amount of \$ 984,608.

Project Description: This project provides for the replacement of 1,483 linear feet of vacuum sewer on Main Street and Irvinville Lane in Mathews. There will be buffer tanks,



COMMISSION MEETING MINUTES

June 25, 2019

diversion tanks, and valve pits installed at an existing pump station on Brickbat Road and in front of Riverside Nursing Home on Main Street. There will also be approximately 321 linear feet of vacuum pipe installed which will connect to an existing sewer on Court Street. The installation of the piping and connection on Court Street will allow an existing pump station to be taken out of service and improve operations.

Funding Description and Analysis of Cost: The total cost estimate for this project is approximately \$1,365,928. The estimate includes \$283,000 in engineering costs, \$984,608 in construction costs, a 10 percent construction contingency of \$98,461, and other miscellaneous costs. The apparent low bid of \$984,608 as submitted by Howard Brothers Contractor, Inc. is within one percent of the second bid submitted by Walter C. Via Enterprises, Inc. and is therefore reflective of current market conditions for the specialized construction of vacuum sewers in Mathews County at this time. The lowest bid amount of \$984,608 exceeds the balance available for this CIP project. Therefore, this project requires approximately \$739,927 in additional funding to execute the construction phase.

Schedule: Construction July 2019
 Project Completion February 2020

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

7. **SURRY HYDRAULIC IMPROVEMENTS AND INTERCEPTOR FORCE MAIN APPROVAL OF FIXED PRICE AND ADDITIONAL APPROPRIATION**

Actions:

- a. **Approve a Fixed Price of \$9,892,250 for the Agreement with MEB General Contractors, Incorporated.**
- b. **Approve additional funding in the amount of \$744,950.**

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

CIP Project: SU010200

Budget	\$10,000,000
Previous Expenditures and Encumbrances	(\$9,080,700)
Available Balance	\$919,300
Proposed Added Cost to Contract Changes	(\$914,250)
Proposed Owner Contingency (7.5%)	(\$750,000)
Project Shortage/Requested Additional Funding	(\$744,950)
Revised Total Project Authorized Funding	\$10,744,950

Contract Status:	Amount
Contract Cost Limit (CCL) with MEB General Contractors, Inc.	\$8,978,000
Added Cost for Contract Changes	\$914,250
Fixed Price	\$9,892,250

Project Description: This project is to construct two 4-inch force mains and one 6-inch force main; an equalization tank; a pump station including electrical, instrumentation and controls, and generator; and the closure and demolition of the Town of Surry Treatment Plant. The flow will be conveyed to the County of Surry Treatment Plant and necessary upgrades to the County of Surry Treatment Plant to accommodate the flow will be accomplished under the existing project SU010100 Surry Treatment Plant Infrastructure Improvements.

This work is to meet the DEQ Consent Order deadline of taking the Town of Surry Treatment Plant offline by November 1, 2020.

Fixed Price Description and Analysis of Cost: This project is being procured through the Design-Build delivery process. On February 26, 2019, the Commission approved an Agreement with MEB General Contractors, Inc. with a Construction Cost Limit (CCL) of \$8,978,000. Having completed a 60 percent design and conducted detailed negotiations with all the regulatory agencies that must approve this project, a fixed price has been



COMMISSION MEETING MINUTES
June 25, 2019

negotiated with the Design-Build Team. Some of the more significant increases in cost from the concept to the sixty percent design include: 1) addition of approximately 3,500 linear feet of force main from the Industrial Park to the proposed pump station at the Town of Surry Treatment Plant, 2) increase size of the equalization tank, 3) easement assistance and acquisition, 4) bore and jack crossing of the entrance to Kings Landing subdivision, and 5) two additional manholes and a flushing vault. HRSD and MEB have also negotiated several cost saving items resulting in a savings of \$190,153.

The Fixed Price proposal was prepared by MEB General Contractors, Inc. The cost increases and savings as described above resulted in a net increase from the CCL to the Fixed Price of 10.2 percent. MEB provided a breakdown of the costs for review. Staff reviewed and negotiated costs with MEB and recommends the Agreement be amended to include the proposed \$914,250 contract changes. An Owner Contingency of 7.5 percent of the project budget is included as an additional appropriation to accommodate additional easement purchases, Owner's Advisor services, Owner requested changes, and any unforeseen site conditions.

<u>Schedule:</u>	Design	February 2019
	Construction	August 2019
	Project Completion	November 2020

Discussion Summary: The Commission expressed concern over the proposed contingency. Staff explained the requested contingency would be used for Owner Requested scope of work changes or for unknown conditions (i.e., archaeological finds, etc.) that could affect construction. Staff also explained the deadline constraints of this project and the timeliness of using the Design-Build project delivery method. While the Design-Build project delivery method will save time, it does not necessarily provide the lowest initial cost.

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

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

Action: Approve the terms and conditions of Addendum #1 to the Agreement with the City of Newport News for the construction of improvements along Jefferson Avenue between 14th Street and 16th Street, and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

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

CIP Project: BH015600

Budget	\$12,230,742
Previous Expenditures and Encumbrances	<u>(\$819,174)</u>
Available Balance	\$11,411,568

Project Description: This project involves the replacement of approximately 5,000 linear feet of 36-inch ductile iron and 4,800 linear feet of 36-inch and 34-inch reinforced concrete pressure pipe from just north of the intersection of 14th Street and Jefferson Avenue to the intersection of 16th Street and Walnut Avenue.

Agreement Description: The original [Cost Sharing Agreement](#) approved at the February 2019 Commission meeting, estimated a construction cost of \$825,000. However, pricing recently received from the contractor, Basic Construction Company, was substantially higher than anticipated.

[Addendum #1](#) revises the estimated construction cost to \$1,508,000. Staff believes the pricing received from Basic Construction Company is fair based on the bid results of a similar size project that was received in May. This Addendum has been reviewed by HRSD legal counsel.

Attachment #3: [Agreement and Addendum #1](#)

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

9. **JAMES RIVER SWIFT FACILITY AND JAMES RIVER TREATMENT PLANT ADVANCED NUTRIENT REDUCTION IMPROVEMENTS ALTERNATIVE PROJECT DELIVERY**

Action: Approve the Design-Build project delivery method for the James River SWIFT Facility and the James River Treatment Plant Advanced Nutrient Reduction Improvements.

Moved: Willie Levenston **Ayes:** 8
Seconded: Michael Glenn **Nays:** 0

CIP Projects: GN016360 and JR013400

Brief: The James River SWIFT Facility project will include advanced water treatment facilities needed to produce SWIFT water at the James River Treatment Plant (JRTP). The scope includes advanced water treatment facilities, conveyance of SWIFT water to the recharge wells, and modifications to the non-potable water system. The scope does not include land acquisition, modifications to the existing outfall system or improvements to the existing wastewater treatment process to improve the quality of the secondary effluent, to be compatible with the SWIFT facilities. The scope does not include drilling of the recharge and monitoring wells. This project has an estimated total cost of \$182,000,000.

The JRTP Advanced Nutrient Reduction Improvements project will include the design and construction of improvements to the secondary treatment process at the JRTP. The scope includes equalization of primary effluent, modifications to the Integrated Fixed Film Activated Sludge (IFAS) system, increased IFAS media fill, demolition of existing secondary clarifiers (1, 2, and 3), replacement with new rectangular secondary clarifiers, conversion of clarifier 5 to a post denitrification moving bed bio-reactor (MBBR), chemical storage and feed systems, and all pumping, piping, instrumentation, and site work required. The JRTP requires significant advanced secondary treatment improvements, including nutrient reduction measures, to provide stable source water quality that meets the influent requirements of SWIFT treatment. Full scale SWIFT operation requires consistent wastewater treatment plant operation. Therefore, this project is critical for implementation of full scale SWIFT at JRTP. Design and construction of the wastewater treatment upgrade project need to be coordinated with the SWIFT facility project, due to the need for balancing treatment and hydraulic design requirements at project interfaces, coordinating the sequential timing of start-up of wastewater treatment and SWIFT treatment, coordinating use of common plant utilities, and managing use of limited open space for staging construction activities. This project has an estimated total cost of \$121,000,000.

HRSD staff and the Program Management Team evaluated the benefits and challenges of delivering the James River SWIFT Facility (GN016360) and the James River Advanced Nutrient Reduction Improvements (JR013400) projects separately or as one single contract. Due to a number of factors, including the need for balancing treatment and hydraulic design



COMMISSION MEETING MINUTES
June 25, 2019

requirements at project interfaces, coordinating the sequential timing of start-up of wastewater treatment and SWIFT treatment, coordinating use of common plant utilities, and managing use of limited open space for staging construction activities, utilizing a single contract for the delivery of both James River projects is recommended.

As a result of the commitments in the Integrated Plan to prioritize implementation of the SWIFT initiative, it is critical for HRSD to implement the SWIFT Full Scale Implementation Program projects at the JRTP in an expeditious manner to maintain the proposed financial plan. Per HRSD’s Procurement Policy, the competitive sealed bid process is the preferred method of construction procurement that reflects the Design–Bid–Build project delivery method. However, this project delivery method will not meet the critical schedule requirements for implementing the James River projects.

Use of a competitive Design-Build delivery method is more advantageous than a competitive sealed bid contract. The Design-Build approach will minimize project risk and mitigate schedule risk by providing HRSD with:

- a shortened schedule by overlapping the detailed design and construction phases;
- a single point of accountability;
- the opportunity to select the best value team, considering qualifications, technical approach, and cost; and
- the greatest potential for flexibility in delivering the first full-scale SWIFT facility while leveraging the new insight gained from Research Center operation.

Staff provided a briefing for these projects and described how the work will be integrated into the larger SWIFT Full Scale Implementation Program.

<u>Schedule:</u>	Preliminary design begins	July 2019
	Preliminary design approval and begin RFQ/RFP process	February 2020
	Selection of Design-Build firm / establish CCL	October 2020
	Detailed design development/Stipulated Fixed Final Price	July 2021
	Construction Completion	September 2025

Discussion Summary: Staff explained the contract documents, including Performance Bonds, required for this delivery method are the same as the traditional design-bid-build. Well drilling is a specialty area and will be bid separately.

Attachment #4: [Presentation](#)

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

10. **SWIFT UPDATE**

Action: No action required.

Brief: The SWIFT (Sustainable Water Initiative for Tomorrow) Research Center is back online after completion of the various warranty issues related to coating failure in the biological activated carbon filters and other corrosion issues in the flocculation and sedimentation tanks and the ozone contactor. Staff provided a briefing on current research center operations, pilot work underway to support full-scale design, permitting and regulatory status, and related issues.

Attachment #5: [Presentation](#)

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

11. **WHRO PARTNERSHIP FOR ENVIRONMENTAL JOURNALISM**

Action: Provide staff direction regarding further development of a partnership with WHRO.

Brief: With the continuing consolidation of media outlets and competition from online news sources, local media coverage of environmental issues is becoming rare in many markets including Hampton Roads. While this phenomenon is not restricted to environmental reporting, HRSD has a vested interest in the region having the capacity to cover and report on environmental issues.

Earned media coverage of HRSD and related environmental issues provides HRSD needed exposure to our ratepayers. In today's noisy environment, news reports from respected sources are critical in building and maintaining public trust. The role of the media as the public's watchful eye over government (at all levels) is foundational to our democracy.

WHRO is expanding their local journalism capacity, building a local news team. As a respected non-profit, environmental coverage from WHRO could amplify many of the issues HRSD struggles to inform our ratepayers about from the clean-up of the Chesapeake Bay to the impact flushing pharmaceuticals has on our local waterways and aquatic life.

WHRO is looking for underwriters for building their journalism capacity. HRSD could underwrite this work to ensure local coverage of environmental issues is available from a respected source. As a reminder, the General Manager serves on the WHRO Board of Directors in a voluntary role. However, any underwriting decision would need Commission approval.

Staff is seeking commission input and guidance on this issue at the June meeting. No discussions have taken place with WHRO on this topic to date.

Discussion Summary: The Commission requested additional information on this proposed partnership. Staff will schedule a presentation to be given by a representative of WHRO at an upcoming Commission meeting.

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

12. **ELECTION OF OFFICERS**

Action: Elect Frederick Elofson as Chair and Maurice Lynch as Vice-Chair of the Commission for the coming fiscal year.

<u>Moved:</u>	Willie Levenston	<u>Ayes:</u>	8
<u>Seconded:</u>	Not required (Motion made by Committee)	<u>Nays:</u>	0

Action: Motion to close nominations.

<u>Moved:</u>	Stephen Rodriguez	<u>Ayes:</u>	8
<u>Seconded:</u>	Michael Glenn	<u>Nays:</u>	0

Brief: The Commission is required by the Enabling Act to elect a Chair and Vice-Chair each year. Chair Elofson appointed Commissioners Glenn and Levenston to the Operations and Nominations Committee in May. The Committee made its nominating report at the June meeting.

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

13. **FINANCE COMMITTEE APPOINTMENT
FISCAL YEAR 2020**

Action: The Chair appointed Stephen Rodriguez (Committee Chair) and Maurice Lynch to the Finance Committee for Fiscal Year 2020.

Brief: In accordance with the HRSD Commission Governance Guidelines (adopted October 2013), the Commission maintains two standing committees: (1) Finance and (2) Operations and Nominations. These committees report as needed to the full Commission. The Finance Committee meets periodically to review HRSD’s financing activities, budgets and annual audits. Two members of the Commission are appointed each year by the Chair to serve on the Finance Committee for a one-year term beginning July 1. The Finance Committee will meet as follows for FY-2020:

- Comprehensive Annual Financial Report (CAFR) review Sep/Oct 2019
- Commissioner budget work session (after regular meeting) January 28, 2020
- First CIP review and prioritization meeting TBD March 2020
- Commissioner budget work session (after regular meeting) March 24, 2020
- Final CIP review meeting TBD March 2020
- Preliminary annual operating budget review March/April 2020
- Other financial issues As needed

All meetings of the Finance Committee are public meetings subject to the Virginia Freedom of Information Act (FOIA) requirements. Committee members serve at the pleasure of the Chair without limitation as to the number of one-year terms. Committee members continue serving until a replacement is appointed by the Chair.

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

14. **STAFF APPOINTMENT**

Action: Appoint Ms. Bobbi Hermans as the Assistant Commission Secretary.

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

Brief: The Enabling Act requires the Commission to appoint a secretary. In 2008, the Commission recognized the duties for the Secretary as specified in the Enabling Act (see excerpt below) can be time sensitive, depending on the requested information. To address this issue, the Commission appointed Ms. Beverli Austin in October of 2013 as the Assistant Secretary to perform the duties of the Secretary when the Secretary is unavailable to perform the required duties. Ms. Austin has been promoted to a new position in the Finance Department. Consequently, she is no longer readily available to perform the duties of Assistant Secretary.

Ms. Bobbi Hermans, the Finance Department Administrative Coordinator, has the skills and is available to perform the duties of the Secretary when warranted. Staff recommends the Commission appoint Ms. Bobbi Hermans as the Assistant Secretary with the specific duty of fulfilling the role of Secretary to the Commission when the Secretary is unavailable to perform required duties.

Excerpt from the Enabling Act:

“The Commission shall appoint a secretary, who may or may not be a member of the Commission, and a treasurer, who shall not be a member of the Commission. The compensation of the secretary and of the treasurer shall be fixed by the Commission. The secretary and the treasurer shall serve at the pleasure of the Commission.

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

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
June 25, 2019

- 15. **UNFINISHED BUSINESS** – None
- 16. **NEW BUSINESS** – None
- 17. **COMMISSIONER COMMENTS** – None
- 18. **PUBLIC COMMENTS NOT RELATED TO AGENDA** – None
- 19. **INFORMATIONAL ITEMS**

Action: No action required.

Brief: The items listed below were presented for information.

- a. [Management Reports](#)
- b. [Strategic Planning Metrics Summary](#)
- c. [Effluent Summary](#)
- d. [Air Summary](#)

Attachment #6: [Informational Items](#)

Public Comment: None

20. **ANNOUNCEMENT**

The HRSD Apprenticeship Graduation will take place on July 20, 2019 at the Hampton Roads Convention Center.

Next Commission Meeting Date: July 23, 2019 at the HRSD North Shore Operations Center, 2389 G. Avenue, Newport News, VA 23602

Meeting Adjourned: 10:44 a.m.

SUBMITTED:

Jennifer L. Cascio

Jennifer L. Cascio
Secretary

APPROVED:

Frederick N. Elofson

Frederick N. Elofson, CPA
Chair

HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #1

AGENDA ITEM 2. – Consent Agenda

CONSENT AGENDA ITEM 2.b.1. – June 25, 2019

Subject: Aluminum Sulfate
Contract Award (>\$200,000)

Recommended Action: Award a Blanket Purchase Agreement for Aluminum Sulfate to Univar USA, Inc. in the estimated amount of \$876,520 for year one with four annual renewal options and an estimated cumulative value in the amount of \$4,382,600.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Univar USA, Inc.	\$876,520
Chemtrade Chemicals Corporation DBA Chemtrade Chemicals US LLC	\$890,699

HRSD Estimate: \$998,888

Contract Description: This contract is an agreement to supply and deliver bulk Aluminum Sulfate, 47-50 percent solution to various HRSD treatment plants. Aluminum Sulfate will be used in place of Ferric Sulfate for phosphorous removal for the treatment plants that utilize multiple hearth incinerators (MHI) and meeting necessary effluent concentrations.

Analysis of Cost: Estimated cost is compared to that of bulk Ferric Sulfate at the projected unit rate increase for the MHI treatment plants. Cost avoidance with switching to Aluminum Sulfate is approximately 13 percent.

CONSENT AGENDA ITEM 2.b.2. – June 25, 2019

Subject: Atlantic Treatment Plant Digester #5 Cleanout
Contract Award (>\$200,000)

Recommended Action: Award a contract to Synagro-WWT Inc. in the amount of \$325,088.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Synagro-WWT Inc.	\$325,088
Merrell Brothers LLC	\$425,600

HRSD Estimate: \$400,000

Contract Description: This contract is an agreement for Digester Cleanout Services for Digester #5 at Atlantic Treatment Plant. The digester facilitates anaerobic digestion. This is routine cleaning to increase the digester capacity and performance due to the accumulation of grit and struvite.

Analysis of Cost: Cost is determined fair and reasonable based on past projects of similar scope and size.

CONSENT AGENDA ITEM 2.b.3. – June 25, 2019

Subject: Electrical Services
Contract Award (>\$200,000)

Recommended Action: Award a Contract Agreement for Electrical Services to REW Corporation in the estimated amount of \$400,000 for year one with four annual renewal options and an estimated cumulative value in the amount of \$2,000,000.

Type of Procurement: Competitive Negotiation

Proposers	Technical Points	Recommended Selection Ranking
REW Corporation	84	1

HRSD Estimate:

\$400,000

Contract Description: This contract is an agreement for various electrical services on an as-needed basis through scheduled requests and/or emergency contact for the Electrical & Energy Management division. Services include but are not limited to switchgear, motor control centers, lighting, variable frequency drives, transformers, panel boards, motors, generators, transfer switches, cable, duct banks and medium voltage work.

A Public Notice was issued on March 11, 2019. One firm submitted a proposal on April 22, 2019 and was determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. An informal interview was held with REW Corporation and the proposal was determined to be fully qualified.

Analysis of Cost: The HRSD estimate is based on the past five year contract term spend. REW Corporation has maintained all labor and equipment rental rates which calculate to approximately 13 percent in cost avoidance.

CONSENT AGENDA ITEM 2.b.4. – June 25, 2019

Subject: Ovivo Influent Screen Parts and Onsite Field Technician Support
Contract Award (>\$200,000)

Recommended Action: Award a contract to Ovivo, USA LLC in the amount of \$288,384.

Type of Procurement: Sole Source

All parts and services were previously approved as a sole source with Ovivo, USA LLC in March 2017.

HRSD Estimate: \$151,537

Contract Description: This contract is an agreement for the purchase of various replacement parts and onsite field technician support for a comprehensive overhaul of three influent screens located at the Army Base Treatment Plant. The influent screening system and parts are needed to remove solids, grit and other debris from the influent wastewater.

Analysis of Cost: Staff requested and received a quote from Ovivo, USA LLC in the amount of \$288,384 to perform the work. Cost is higher than anticipated due to an increase in the number of screens to be overhauled from two to three and the corresponding increase in quantity of parts needed. In addition, there is an increase of field technicians from one to two including travel, food and lodging at separate times in an effort to minimize interruption in plant operations. Ovivo has offered a preferred customer bulk quantity discount that translates to a 30 percent cost savings. The unit rates associated with the two onsite field technicians have been found to be fair and reasonable.

CONSENT AGENDA ITEM 2.b.5. – June 25, 2019

Subject: Protective Coatings Services
Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Award a contract for annual protective coatings services to Commonwealth Epoxy Coatings Inc. in the estimated amount of \$1,165,000 for year one with four annual renewal options and an estimated cumulative value in the amount of \$7,900,000.
- b. Approve a task order with Commonwealth Epoxy Coatings Inc. in the amount of \$1,165,000.

Type of Procurement: Competitive Negotiation

Proposers	Technical Points	Recommended Selection Ranking
Commonwealth Epoxy Coatings Inc.	91	1

HRSD Estimate: \$1,165,000

Contract Description: This contract is an agreement to provide, apply and install protective coatings systems to various structures and substrates throughout HRSD's service area. A Public Notice was issued on March 1, 2019. One firm submitted a proposal on April 4, 2019 and it was determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. The firm was short listed and technically ranked. The proposal submitted by Commonwealth Epoxy Coatings Inc. was ranked by technical points to be the highest qualified.

Task Order Description: This task order will provide for the coating and rehabilitation for the Gravity Thickener Tank #2 & Odor Control Piping System at the James River Treatment Plant, Primary Clarifiers #1 & #2 and Intermediate Clarifiers #1 and #2 at the Williamsburg Treatment Plant, and Primary Clarifiers 2-4 at the Army Base Treatment Plant. The scope of work includes complete removal of the coating system, spot repairs of steel surfaces, re-coating of the tanks & odor control system and replacement of deteriorated steel angles as needed.

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

CONSENT AGENDA ITEM 2.b.6. – June 25, 2019

Subject: South Shore High Point Air Vent Installation Phase I
Contract Award (>\$200,000)

Recommended Action: Award a contract to Tidewater Utility Construction, Inc. in the amount of \$470,151.

CIP Project: GN016600

Budget	\$562,500
Previous Expenditures and Encumbrances	(\$0)
Available Balance	\$562,500

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Tidewater Utility Construction, Inc.	\$470,151
TA Sheets General Contractors, Inc.	\$774,200

HRSD Estimate: \$562,500

Contract Description: This contract is an order for the installation of 20 manual air vents at potential unvented high points along the south shore interceptor force main system. Contractor will provide all necessary labor, materials, tools, products, equipment, related items and services for required construction.

Project Description: This project involves subsurface utility engineering of HRSD's facilitates and installation of new manual air vents at the most critical unvented high points in the South Shore Interceptor Force Main system.

Analysis of Cost: Cost is determined fair and reasonable based on past projects of similar scope and size.

<u>Schedule:</u>	Bid	June 2019
	Construction	July 2019
	Project Completion	July 2020

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

Subject: Electrical, Lighting, Data Communications and Security Products
HRSD Use of Existing Competitively Awarded Contract Vehicle (>\$200,000)

Recommended Action: Approve the use of the Omnia Partners ® contract for electrical, lighting, data communications and security products to Graybar Electric Company, Inc. in the estimated amount of \$140,000 for the initial four year period with three additional two year renewal options and an estimated cumulative value in the amount of \$350,000.

Contract Description: This contract is for various electrical, lighting, data communications and security products used throughout HRSD. This contract provides discounted pricing off of the Graybar list price.

HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #2

AGENDA ITEM 3. – Virginia Beach Boulevard Force Main Phase VI Public Hearing
on Determination of Public Need for Easement Acquisition

* [Presentation](#)

* [Plats](#)

* [Orientation Map](#)



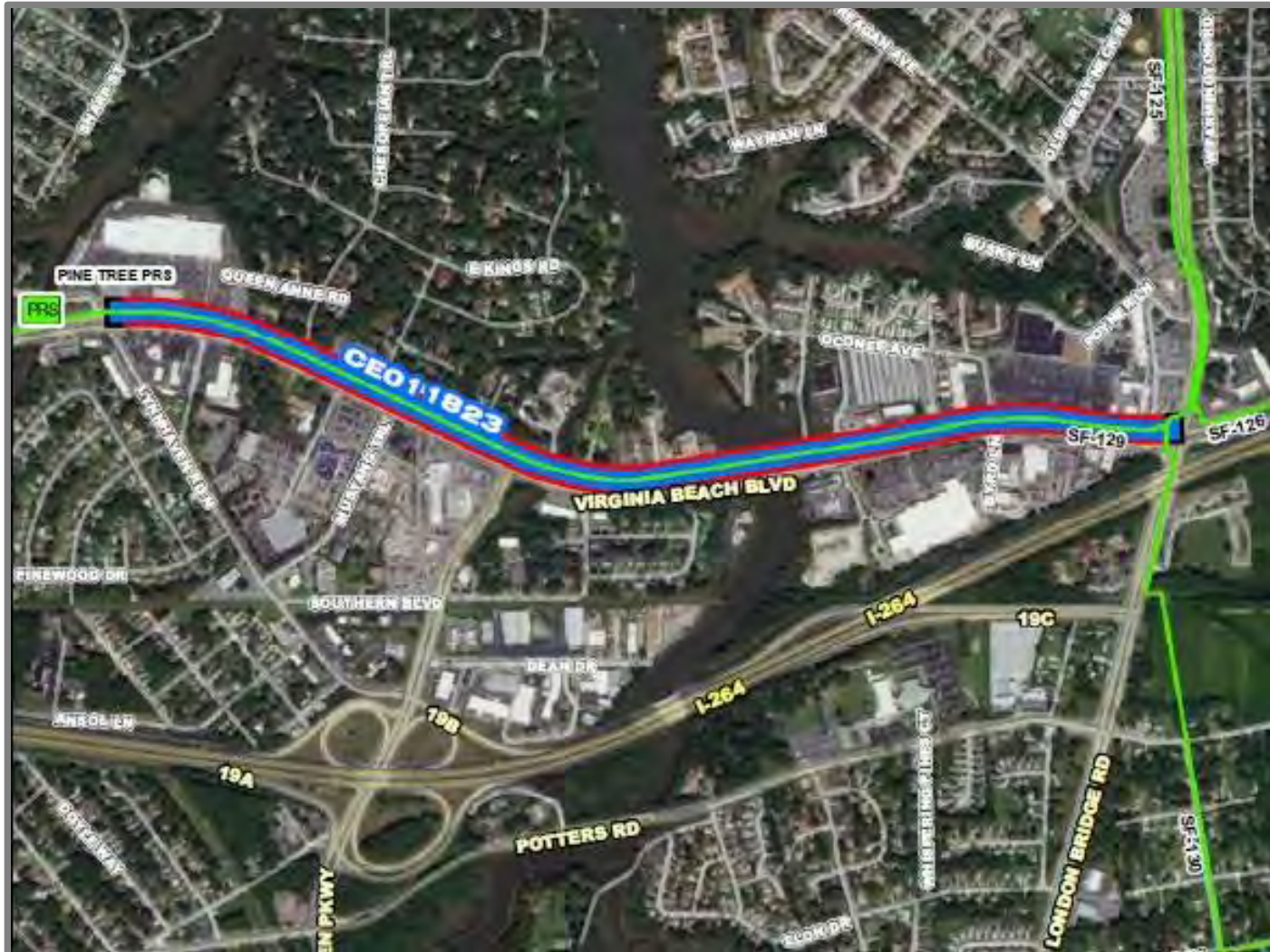
Acquisition of Easements
Virginia Beach Boulevard
Force Main Phase VI
Public Hearing

June 25, 2019

Project Description

- This project is part of the Chesapeake–Elizabeth Interceptor System Diversion Improvement Program which supports the Chesapeake-Elizabeth Treatment Plant decommissioning and the re-routing of wastewater flow as a cost effective alternative for addressing multiple regulatory mandates.
- This project will increase the hydraulic capacity of the existing sewer force main with the installation of approximately 9,500 linear feet of 42” diameter pipe along Virginia Beach Boulevard in Virginia Beach.
- The design is nearing completion and the project should be ready to advertise for bids in the coming months.

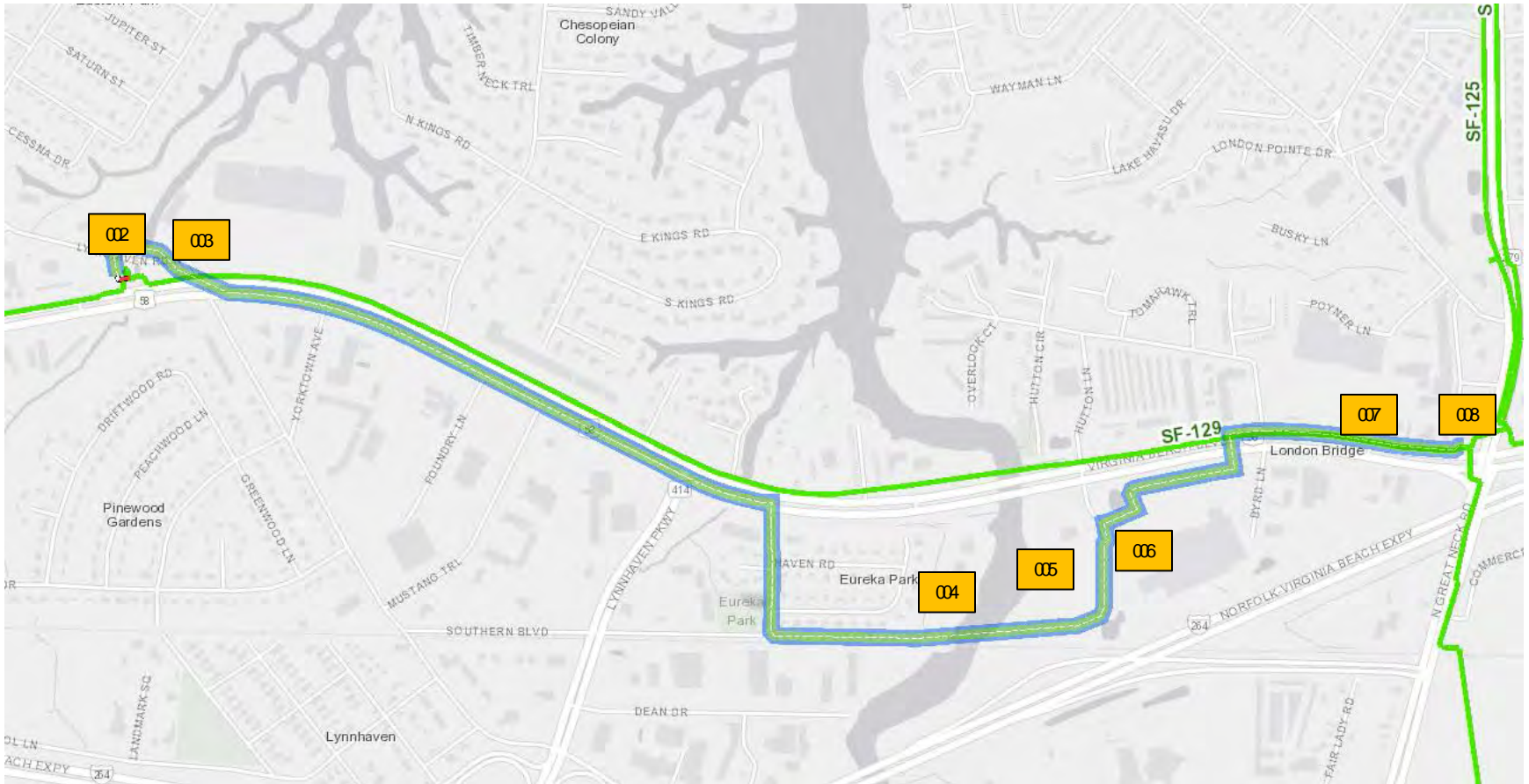
Initial Concept Alignment



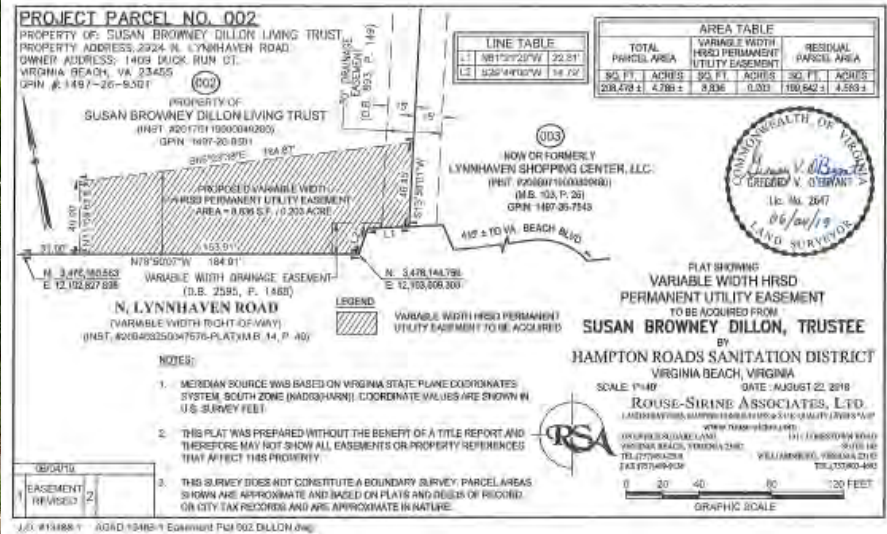
Project Alignment and Design

- Numerous alignment alternatives were considered as part of the preliminary engineering design. The chosen alignment is located in the Virginia Beach Boulevard right-of-way except where conflicts exist with other utilities and structures within the roadway.
- Several drilling/tunneling efforts are needed throughout the alignment to facilitate this work and additional temporary construction easements are required for these efforts.

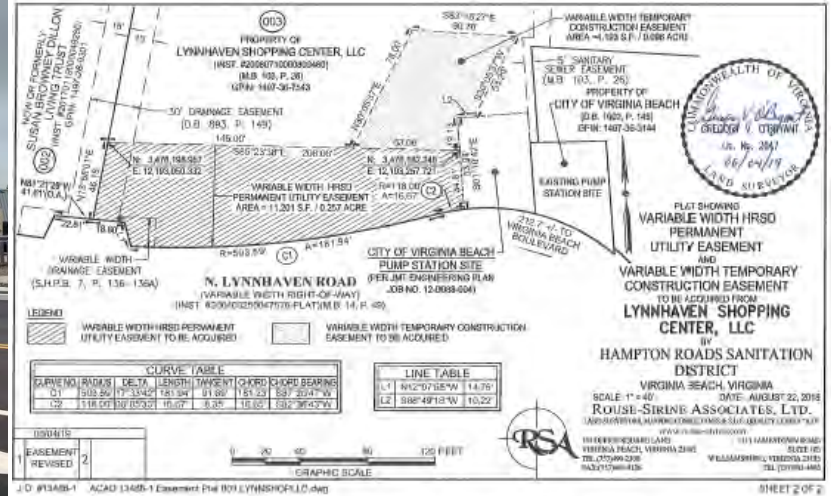
Proposed Alignment and Easement Sites



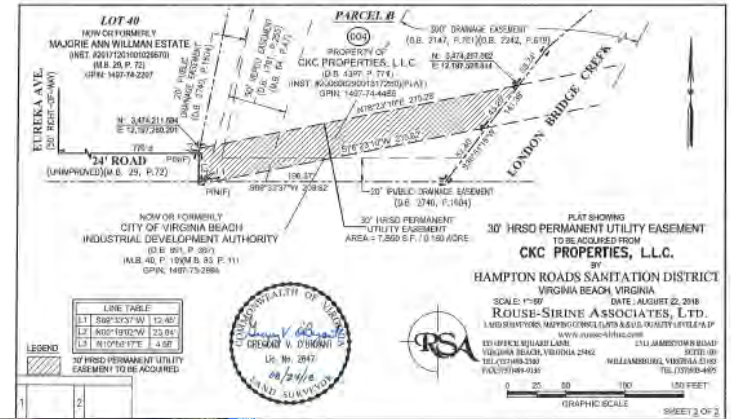
Parcel-002 Plan Sheet and Property Photo



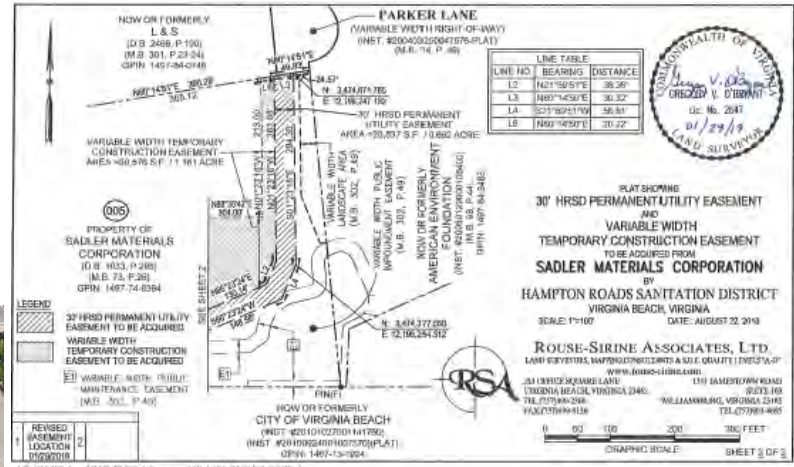
Parcel 003 Plan Sheet and Property Photo



Parcel 004 Plan Sheet and Property Photo



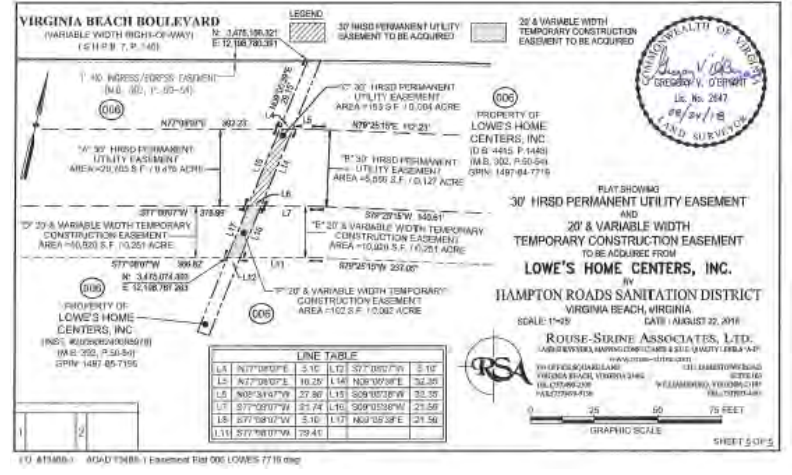
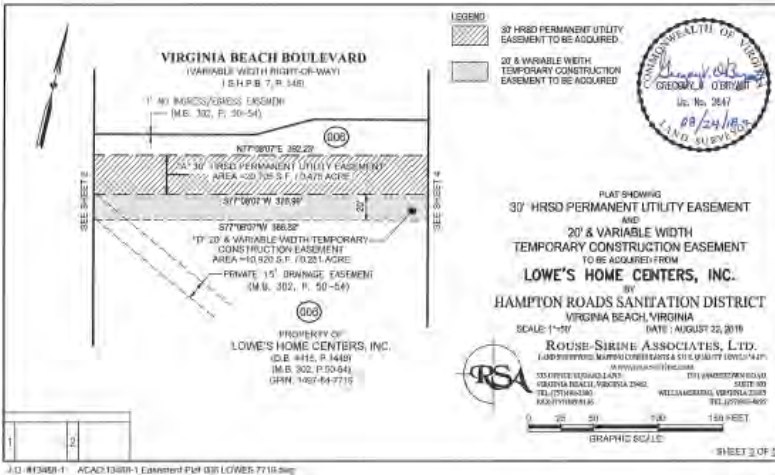
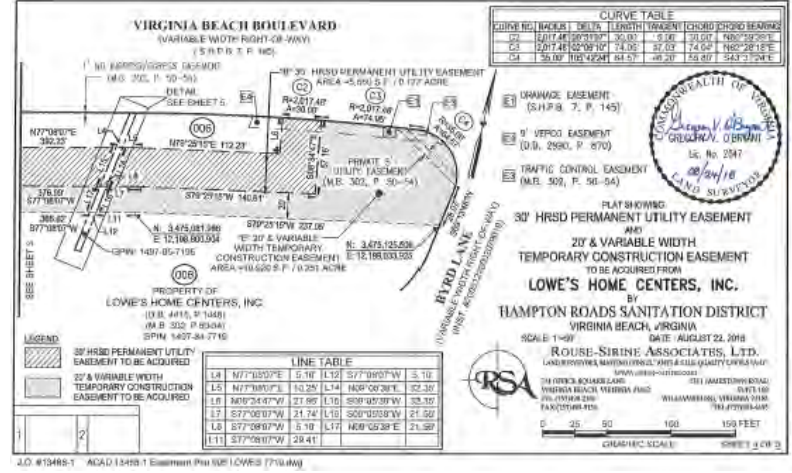
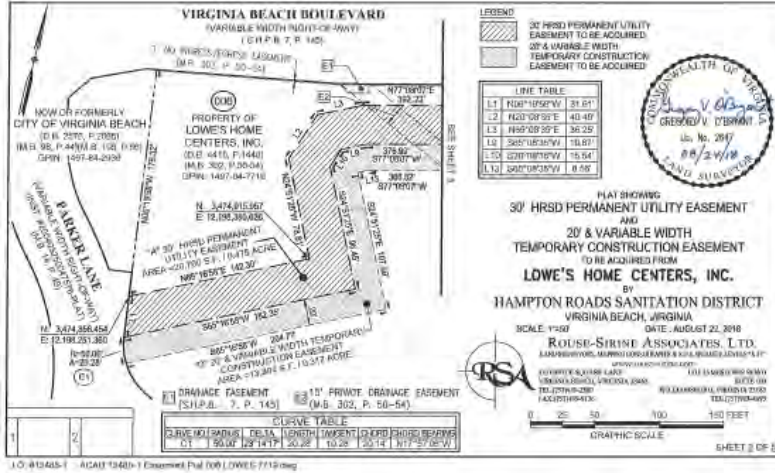
Parcel 005 Plan Sheet and Property Photo



Parcel 006 - Property Photo



Parcel 006- Plan Sheet



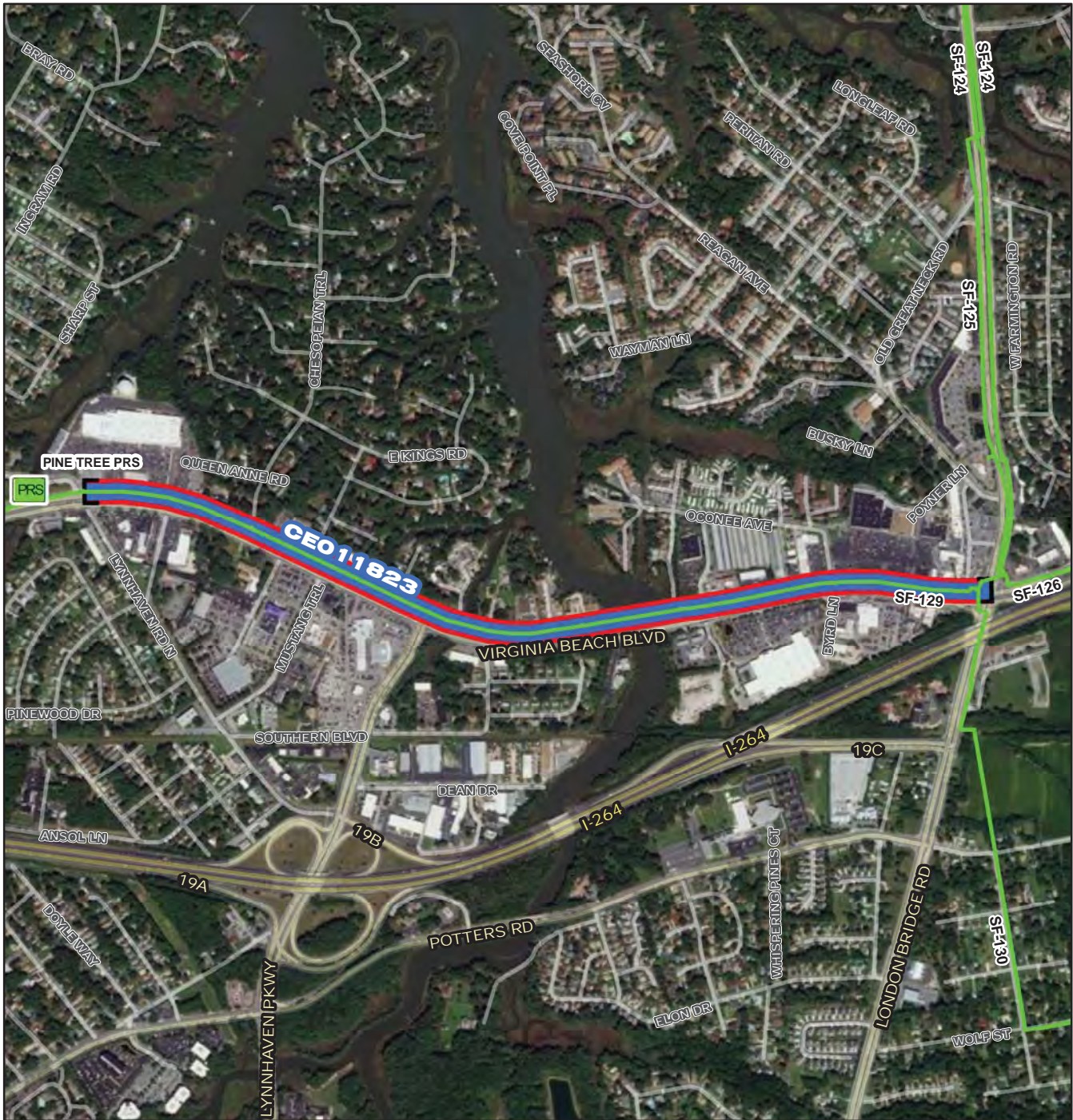
Parcel 007 Plan Sheet and Property Photo



Parcel 008 Plan Sheet and Property Photo



Questions?

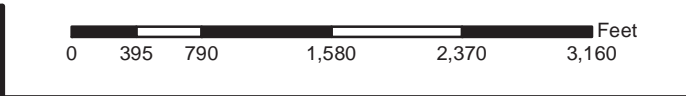


CEO 11823

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

Legend

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



CEO 11823

Virginia Beach Boulevard Force Main Phase VI

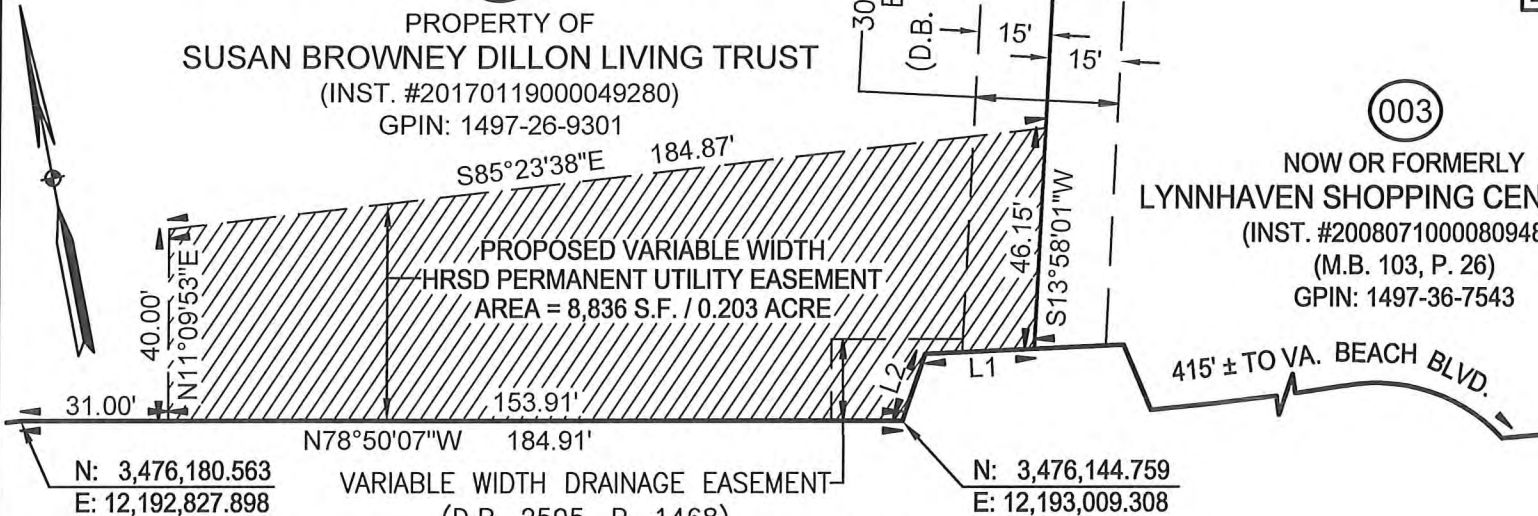
CIP Location

PROJECT PARCEL NO. 002

PROPERTY OF: SUSAN BROWNEY DILLON LIVING TRUST
 PROPERTY ADDRESS: 2924 N. LYNNHAVEN ROAD
 OWNER ADDRESS: 1409 DUCK RUN CT.
 VIRGINIA BEACH, VA 23455
 GPIN #: 1497-26-9301

002

PROPERTY OF
 SUSAN BROWNEY DILLON LIVING TRUST
 (INST. #20170119000049280)
 GPIN: 1497-26-9301



LINE TABLE

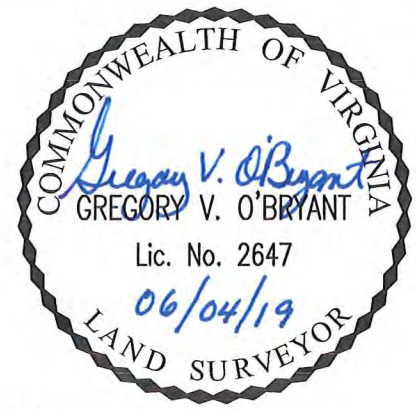
L1	N81°21'29\"W	22.81'
L2	S29°44'00\"W	14.79'

AREA TABLE

TOTAL PARCEL AREA		VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT		RESIDUAL PARCEL AREA	
SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
208,478 ±	4.786 ±	8,836	0.203	199,642 ±	4.583 ±

003

NOW OR FORMERLY
 LYNNHAVEN SHOPPING CENTER, LLC
 (INST. #20080710000809480)
 (M.B. 103, P. 26)
 GPIN: 1497-36-7543



PLAT SHOWING
 VARIABLE WIDTH HRSD
 PERMANENT UTILITY EASEMENT
 TO BE ACQUIRED FROM

SUSAN BROWNEY DILLON, TRUSTEE
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

SCALE: 1"=40' DATE: AUGUST 22, 2018

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

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



N. LYNNHAVEN ROAD
 (VARIABLE WIDTH RIGHT-OF-WAY)
 (INST. #200403250047576-PLAT)(M.B. 14, P. 49)

LEGEND
 VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED

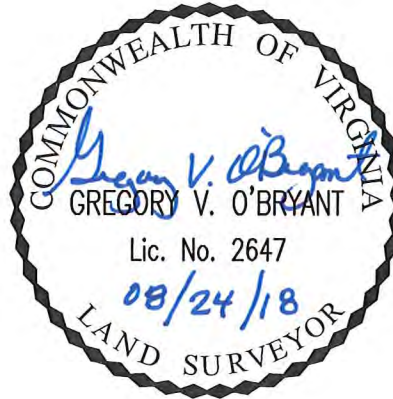
NOTES:

- MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATES SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN IN U.S. SURVEY FEET.
- THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE MAY NOT SHOW ALL EASEMENTS OR PROPERTY REFERENCES THAT AFFECT THIS PROPERTY.
- THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY. PARCEL AREAS SHOWN ARE APPROXIMATE AND BASED ON PLATS AND DEEDS OF RECORD, OR CITY TAX RECORDS AND ARE APPROXIMATE IN NATURE.

06/04/19		
1	EASEMENT REVISED	2

PROJECT PARCEL NO. 003

PROPERTY OF: LYNNHAVEN SHOPPING CENTER, LLC
 PROPERTY ADDRESS: 2858 VIRGINIA BEACH BOULEVARD
 OWNER ADDRESS: 2859 VIRGINIA BEACH BLVD. SUITE 106
 VIRGINIA BEACH, VA. 23452
 GPIN #: 1497-36-7543



NOTES:

1. MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATES SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN IN U.S. SURVEY FEET.
2. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE MAY NOT SHOW ALL EASEMENTS OR PROPERTY REFERENCES THAT AFFECT THIS PROPERTY.
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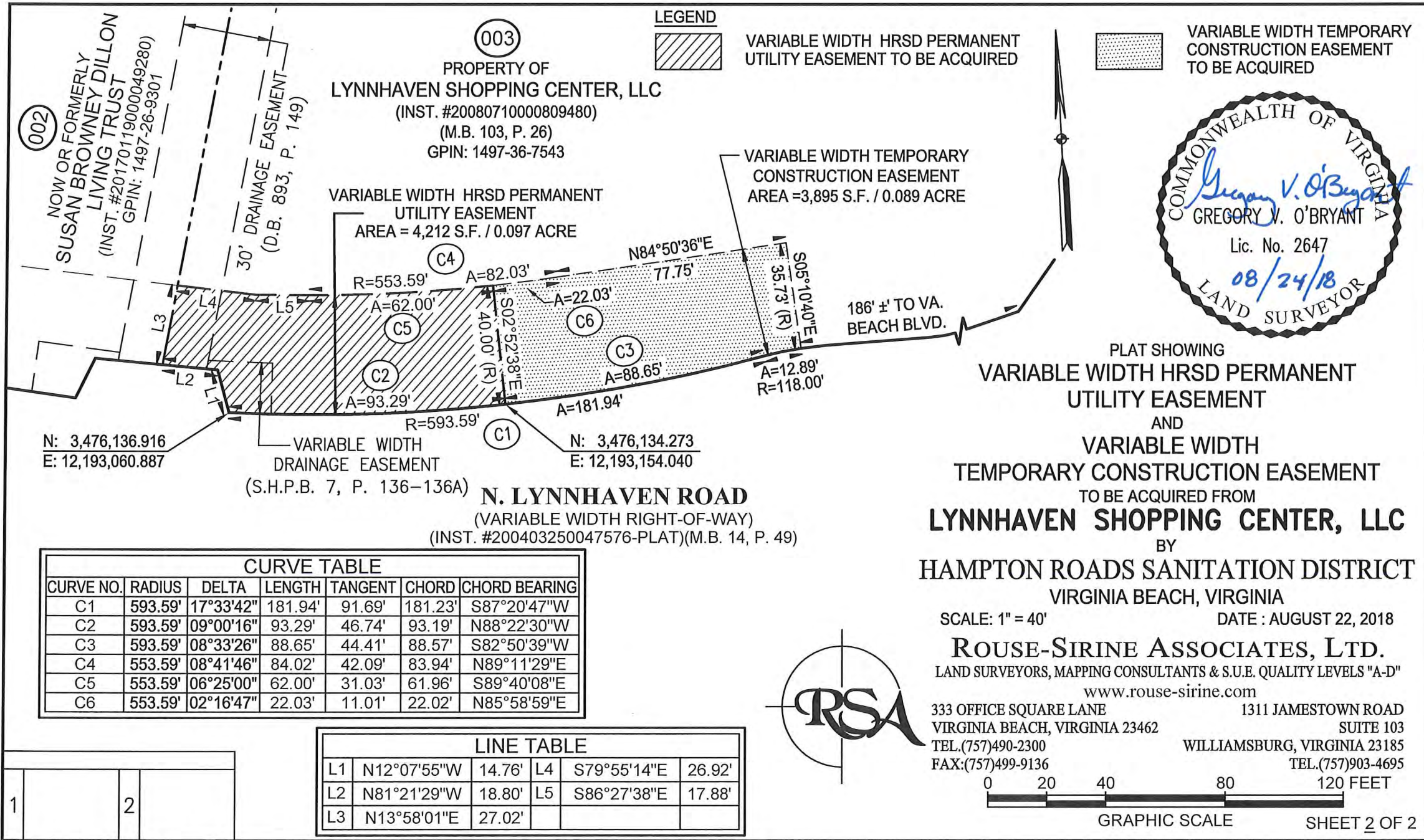
AREA TABLE							
TOTAL PARCEL AREA		VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT		VARIABLE WIDTH TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
1,025,223±	23.536 ±	4,212	0.097	3,895	0.089	1,017,116±	23.350 ±

PLAT SHOWING
**VARIABLE WIDTH HRSD PERMANENT
 UTILITY EASEMENT**
 AND
**VARIABLE WIDTH
 TEMPORARY CONSTRUCTION EASEMENT**
 TO BE ACQUIRED FROM
LYNNHAVEN SHOPPING CENTER, LLC
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA
 DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.
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 1311 JAMESTOWN ROAD SUITE 103 WILLIAMSBURG, VIRGINIA 23185
 TEL.(757)490-2300 TEL.(757)903-4695
 FAX:(757)499-9136



1	2
---	---



002
 NOW OR FORMERLY
 SUSAN BROWNEY DILLON
 LIVING TRUST
 (INST. #20170119000049280)
 GPIN: 1497-26-9301

003
 PROPERTY OF
 LYNNHAVEN SHOPPING CENTER, LLC
 (INST. #20080710000809480)
 (M.B. 103, P. 26)
 GPIN: 1497-36-7543

LEGEND
 VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED
 VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED

VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED



VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT
 AREA = 4,212 S.F. / 0.097 ACRE

VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT
 AREA = 3,895 S.F. / 0.089 ACRE

VARIABLE WIDTH DRAINAGE EASEMENT
 (S.H.P.B. 7, P. 136-136A)

N. LYNNHAVEN ROAD
 (VARIABLE WIDTH RIGHT-OF-WAY)
 (INST. #200403250047576-PLAT)(M.B. 14, P. 49)

PLAT SHOWING
 VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT
 AND
 VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
LYNNHAVEN SHOPPING CENTER, LLC
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

SCALE: 1" = 40' DATE: AUGUST 22, 2018

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 VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695



GRAPHIC SCALE SHEET 2 OF 2

CURVE TABLE						
CURVE NO.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
C1	593.59'	17°33'42"	181.94'	91.69'	181.23'	S87°20'47"W
C2	593.59'	09°00'16"	93.29'	46.74'	93.19'	N88°22'30"W
C3	593.59'	08°33'26"	88.65'	44.41'	88.57'	S82°50'39"W
C4	553.59'	08°41'46"	84.02'	42.09'	83.94'	N89°11'29"E
C5	553.59'	06°25'00"	62.00'	31.03'	61.96'	S89°40'08"E
C6	553.59'	02°16'47"	22.03'	11.01'	22.02'	N85°58'59"E

LINE TABLE					
LINE NO.	BEARING	LENGTH	LINE NO.	BEARING	LENGTH
L1	N12°07'55"W	14.76'	L4	S79°55'14"E	26.92'
L2	N81°21'29"W	18.80'	L5	S86°27'38"E	17.88'
L3	N13°58'01"E	27.02'			

PROJECT PARCEL NO. 004

PROPERTY OF: CKC PROPERTIES, L.L.C.
 PROPERTY ADDRESS: 2533 VIRGINIA BEACH BOULEVARD
 OWNER ADDRESS: 2533 VIRGINIA BEACH BLVD.
 VIRGINIA BEACH, VA. 23452-7635
 GPIN #: 1497-74-4485

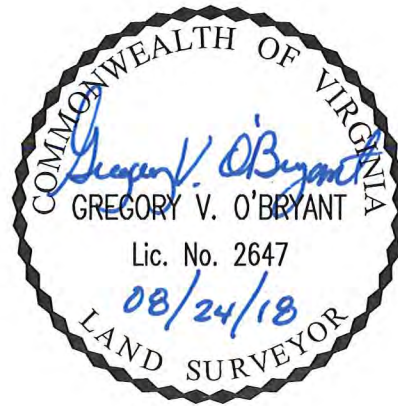
AREA TABLE					
TOTAL PARCEL AREA		30' HRSD PERMANENT UTILITY EASEMENT		RESIDUAL PARCEL AREA	
SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
161,779±	3.714 ±	7,850	0.180	153,929±	3.534±

NOTES:

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

PLAT SHOWING
 30' HRSD PERMANENT UTILITY EASEMENT
 TO BE ACQUIRED FROM
CKC PROPERTIES, L.L.C.

BY
 HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA
 DATE : AUGUST 22, 2018



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 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695

1	2
---	---

LOT 40

NOW OR FORMERLY
MAJORIE ANN WILLMAN ESTATE
(INST. #20171201001029570)
(M.B. 29, P. 72)
GPIN: 1497-74-2207

PARCEL B

(004)
PROPERTY OF
CKC PROPERTIES, L.L.C. N: 3,474,267.082
(D.B. 4397, P. 771) E: 12,197,529.844
(INST. #20060829001317280)(PLAT)
GPIN: 1497-74-4485

EUREKA AVE.
(50' RIGHT-OF-WAY)

N: 3,474,211.664
E: 12,197,260.201

24' ROAD

(UNIMPROVED)(M.B. 29, P.72)

20' PUBLIC
DRAINAGE EASEMENT
(D.B. 2740, P.1604)

50' VEPCO EASEMENT
(D.B. 1791, P.255)
(M.B. 64, P.47)

300' DRAINAGE EASEMENT
(D.B. 2147, P.761)(D.B. 2242, P.619)

LONDON BRIDGE CREEK

NOW OR FORMERLY
CITY OF VIRGINIA BEACH
INDUSTRIAL DEVELOPMENT AUTHORITY
(D.B. 891, P. 367)
(M.B. 40, P. 19)(M.B. 83, P. 11)
GPIN: 1497-73-2994

30' HRSD PERMANENT
UTILITY EASEMENT
AREA = 7,850 S.F. / 0.180 ACRE

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
TO BE ACQUIRED FROM
CKC PROPERTIES, L.L.C.

BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

SCALE: 1"=50'

DATE: AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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

www.rouse-sirine.com

333 OFFICE SQUARE LANE

1311 JAMESTOWN ROAD

VIRGINIA BEACH, VIRGINIA 23462

SUITE 103

TEL:(757)490-2300

WILLIAMSBURG, VIRGINIA 23185

FAX:(757)499-9136

TEL:(757)903-4695



GRAPHIC SCALE

SHEET 2 OF 2

LINE TABLE		
L1	S89°33'37"W	12.45'
L2	N00°19'02"W	23.84'
L3	N10°56'17"E	4.56'

LEGEND



30' HRSD PERMANENT UTILITY
EASEMENT TO BE ACQUIRED

1	2
---	---



PROJECT PARCEL NO. 005

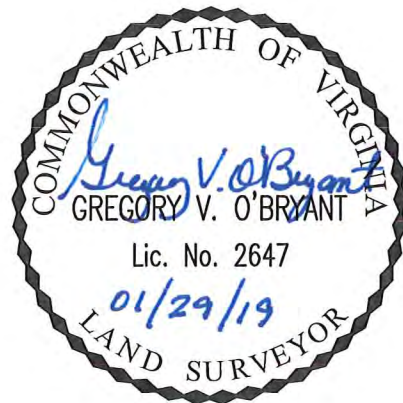
PROPERTY OF: SADLER MATERIALS CORPORATION
 PROPERTY ADDRESS: 207 PARKER LANE
 OWNER ADDRESS: 1200 URBAN CENTER DR. VESTAVIA, AL. 35424-2545
 GPIN #: 1497-74-8394

NOTES:

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

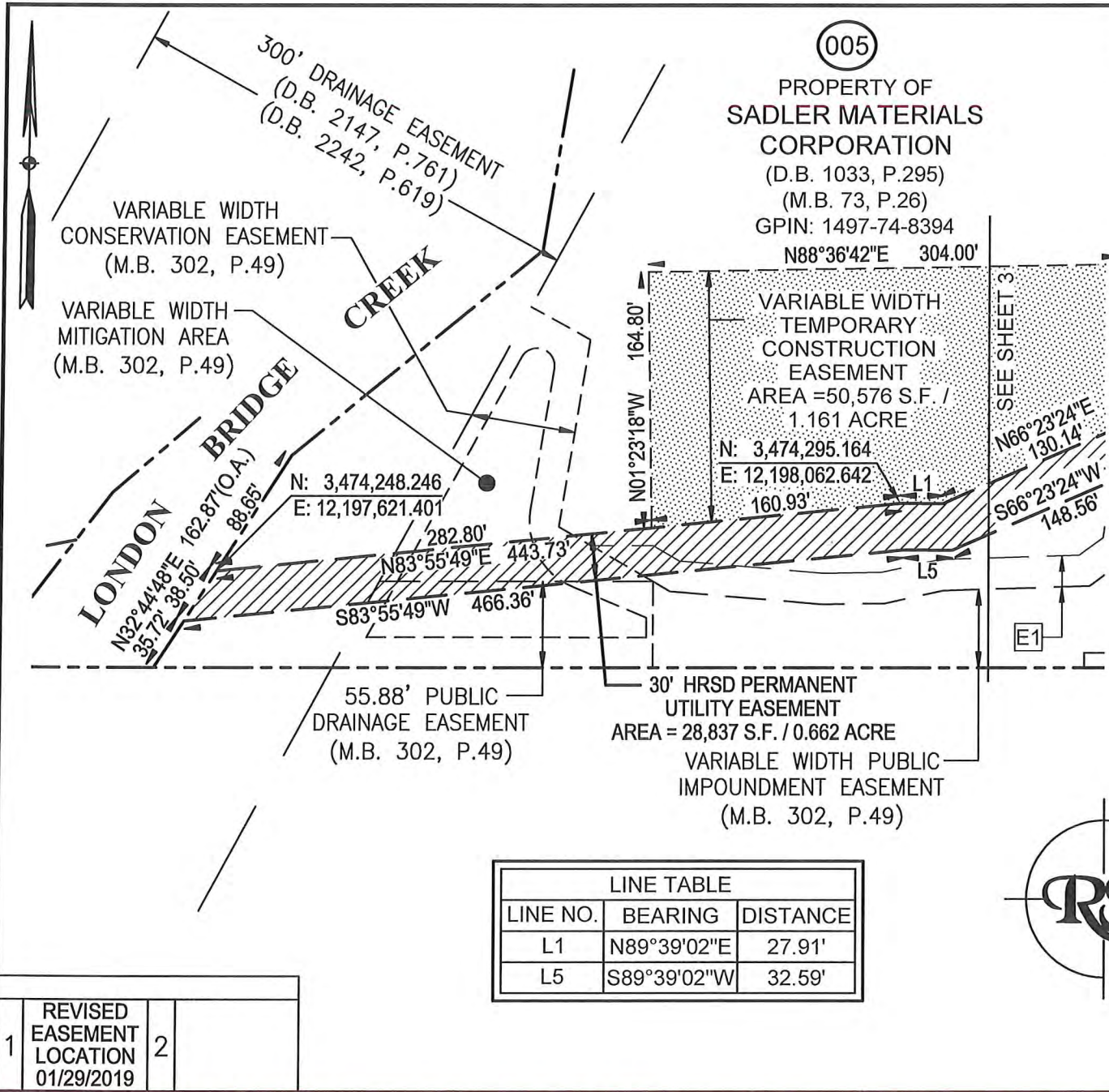
AREA TABLE							
TOTAL PARCEL AREA		30' HRSD PERMANENT UTILITY EASEMENT		VARIABLE WIDTH TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
242,978 ±	5.578 ±	28,837	0.662	50,576	1.161	163,565 ±	3.755 ±

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
 AND
VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
SADLER MATERIALS CORPORATION
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA
 DATE : AUGUST 22, 2018



ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
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 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695

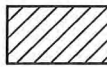
1	REVISED EASEMENT LOCATION 01/29/2019	2
---	-----------------------------------------	---



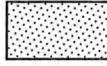
005

PROPERTY OF
SADLER MATERIALS CORPORATION
 (D.B. 1033, P.295)
 (M.B. 73, P.26)
 GPIN: 1497-74-8394
 N88°36'42"E 304.00'

LEGEND



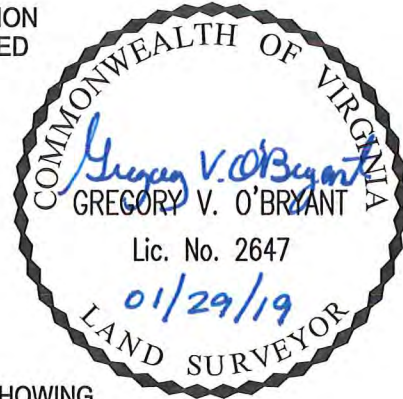
30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED



VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED

E1

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



PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
 AND
VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
SADLER MATERIALS CORPORATION

BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

SCALE: 1"=100' DATE: AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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

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1311 JAMESTOWN ROAD

VIRGINIA BEACH, VIRGINIA 23462

SUITE 103

TEL:(757)490-2300

WILLIAMSBURG, VIRGINIA 23185

FAX:(757)499-9136

TEL:(757)903-4695



GRAPHIC SCALE

SHEET 2 OF 3

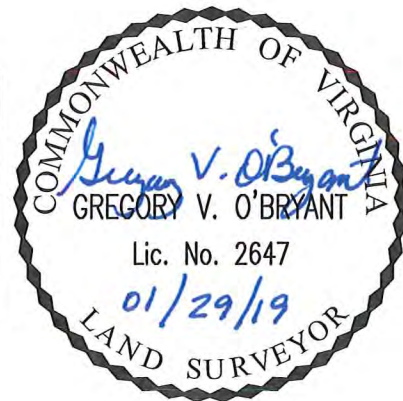
LINE TABLE		
LINE NO.	BEARING	DISTANCE
L1	N89°39'02"E	27.91'
L5	S89°39'02"W	32.59'

1	REVISED EASEMENT LOCATION 01/29/2019	2
---	--------------------------------------	---

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

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

LINE TABLE		
LINE NO.	BEARING	DISTANCE
L2	N21°59'51"E	38.36'
L3	N80°14'50"E	30.32'
L4	S21°59'51"W	56.81'
L6	N80°14'50"E	20.22'



VARIABLE WIDTH TEMPORARY
CONSTRUCTION EASEMENT
AREA =50,576 S.F. / 1.161 ACRE

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

005
PROPERTY OF
**SADLER MATERIALS
CORPORATION**
(D.B. 1033, P.295)
(M.B. 73, P.26)
GPIN: 1497-74-8394

VARIABLE WIDTH
LANDSCAPE AREA
(M.B. 302, P.49)
VARIABLE WIDTH PUBLIC
IMPOUNDMENT EASEMENT
(M.B. 302, P.49)
NOW OR FORMERLY
**AMERICAN ENVIRONMENT
FOUNDATION**
(INST. #20080129000106400)
(M.B. 98, P.44)
GPIN: 1497-84-3488




PLAT SHOWING
**30' HRSD PERMANENT UTILITY EASEMENT
AND
VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT**
TO BE ACQUIRED FROM
SADLER MATERIALS CORPORATION
BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA
SCALE: 1"=100' DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.
LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
www.rouse-sirine.com
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VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
FAX:(757)499-9136 TEL.(757)903-4695

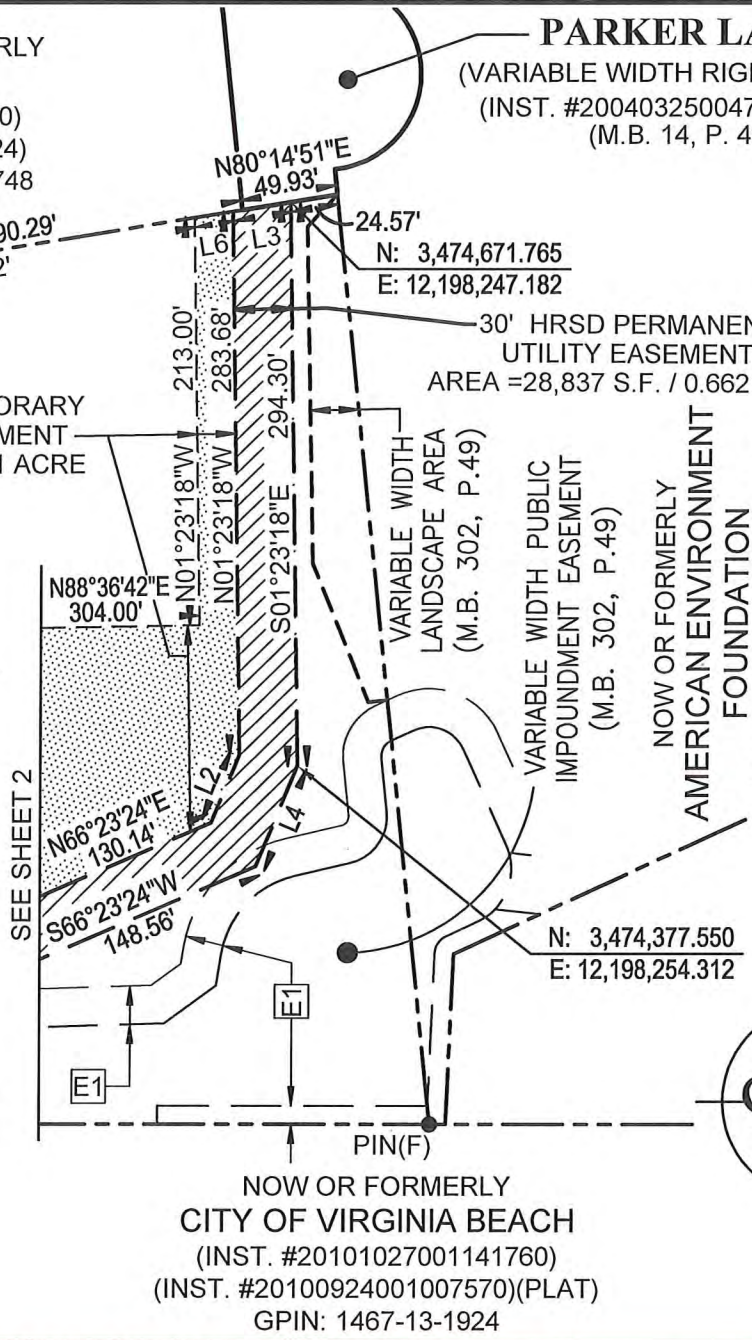


SHEET 3 OF 3

LEGEND

-  30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED
-  VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED
-  VARIABLE WIDTH PUBLIC MAINTENANCE EASEMENT (M.B. 302, P.49)

REVISED EASEMENT LOCATION 01/29/2019	
1	2



NOW OR FORMERLY
CITY OF VIRGINIA BEACH
(INST. #20101027001141760)
(INST. #20100924001007570)(PLAT)
GPIN: 1467-13-1924

PROJECT PARCEL NO. 006

PROPERTY OF: LOWE'S HOME CENTERS, INC.
 PROPERTY ADDRESS: 2403 VIRGINIA BEACH BOULEVARD
 OWNER ADDRESS: 1000 LOWES BLVD. MOORESVILLE, NC 28117-8502
 GPIN #: 1497-84-7719 & 1497-85-7195

NOTES:

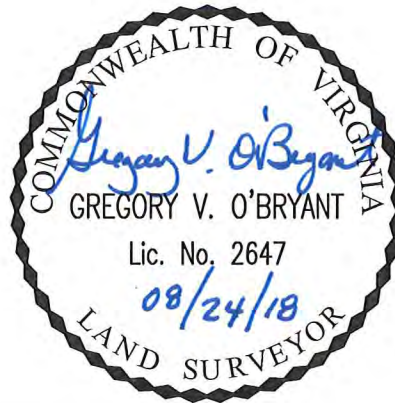
1. MERIDIAN SOURCE WAS BASED ON VIRGINIA STATE PLANE COORDINATES SYSTEM, SOUTH ZONE (NAD83(HARN)). COORDINATE VALUES ARE SHOWN IN U.S. SURVEY FEET.
2. THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND THEREFORE MAY NOT SHOW ALL EASEMENTS OR PROPERTY REFERENCES THAT AFFECT THIS PROPERTY.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

AREA TABLE								
GPIN	TOTAL PARCEL AREA		30' HRSD PERMANENT UTILITY EASEMENT		20' & VARIABLE WIDTH TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
1497-84-7719	490,242±	11.254 ±	"A" 20,700 "B" 5,550	0.475 0.127	"D" 13,804 "E" 10,920	0.317 0.251	439,268±	10.084±
1497-85-1795	543±	0.012 ±	"C" 153	0.004	"F" 102	0.002	288±	0.006±
TOTALS	490,785±	11.266 ±	26,403	0.606	24,826	0.570	439,556±	10.091±

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
 AND
20' & VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
LOWE'S HOME CENTERS, INC.

BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA
 DATE : AUGUST 22, 2018

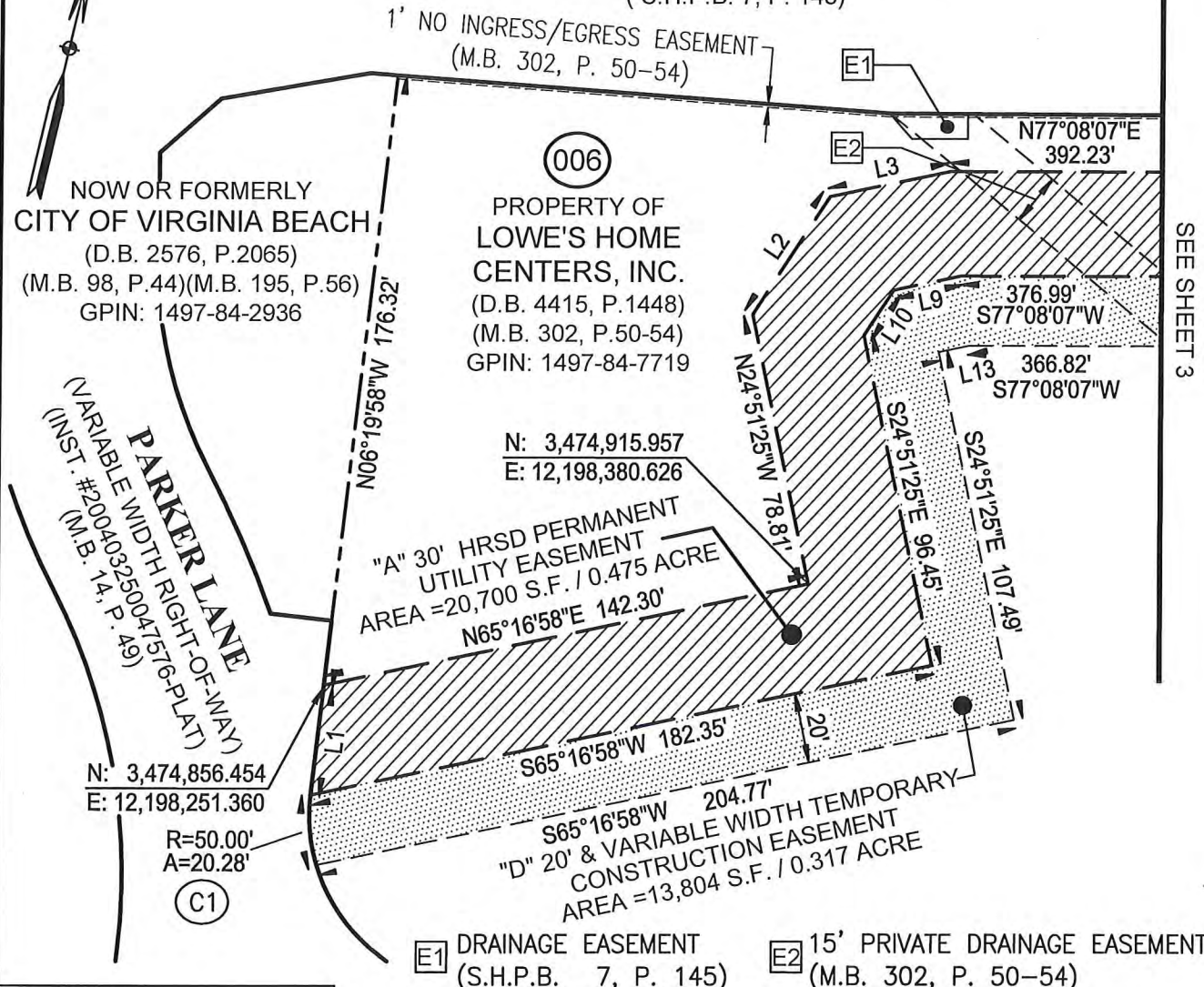
ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
 www.rouse-sirine.com
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 VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695



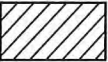
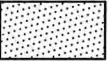
1	2
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VIRGINIA BEACH BOULEVARD

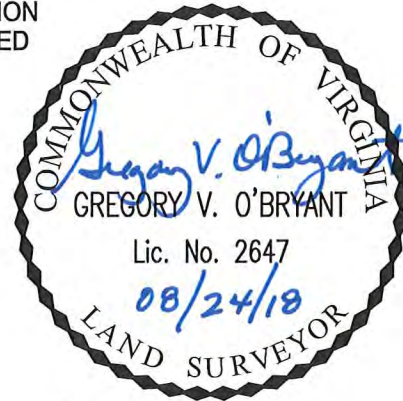
(VARIABLE WIDTH RIGHT-OF-WAY)
(S.H.P.B. 7, P. 145)



LEGEND

-  30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED
-  20' & VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED

LINE TABLE		
L1	N06°19'58"W	31.61'
L2	N20°08'35"E	40.40'
L3	N65°08'35"E	35.25'
L9	S65°08'35"W	19.67'
L10	S20°08'35"W	15.54'
L13	S65°08'35"W	8.56'



PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
 AND
20' & VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
LOWE'S HOME CENTERS, INC.

BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

SCALE: 1"=50' DATE: AUGUST 22, 2018

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

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



CURVE TABLE						
CURVE NO.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
C1	50.00'	23°14'17"	20.28'	10.28'	20.14'	N17°57'06"W

1	2
---	---



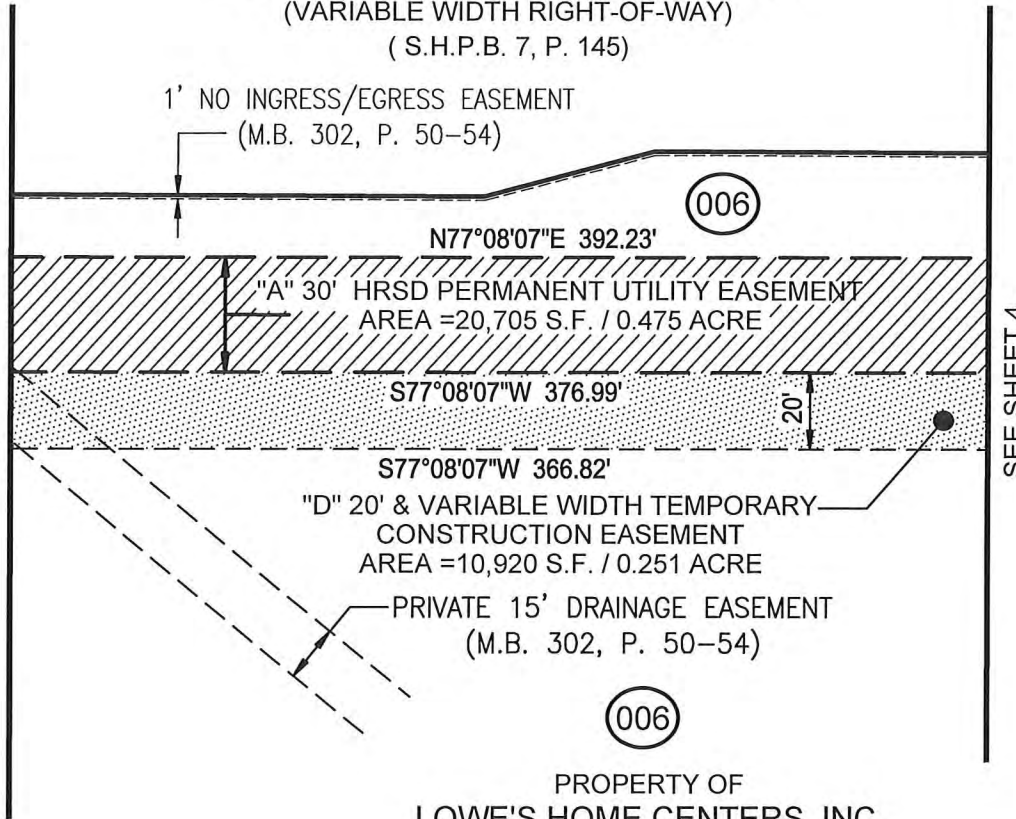
VIRGINIA BEACH BOULEVARD

(VARIABLE WIDTH RIGHT-OF-WAY)

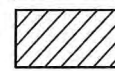
(S.H.P.B. 7, P. 145)

1' NO INGRESS/EGRESS EASEMENT
(M.B. 302, P. 50-54)

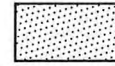
SEE SHEET 2



LEGEND



30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED



20' & VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED



PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
AND
20' & VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT
TO BE ACQUIRED FROM

LOWE'S HOME CENTERS, INC.

BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

SCALE: 1"=50'

DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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

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VIRGINIA BEACH, VIRGINIA 23462

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

1311 JAMESTOWN ROAD
SUITE 103

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



GRAPHIC SCALE

1	2
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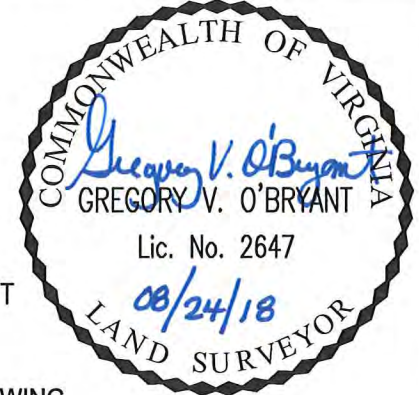
VIRGINIA BEACH BOULEVARD

(VARIABLE WIDTH RIGHT-OF-WAY)

(S.H.P.B. 7, P. 145)

CURVE TABLE

CURVE NO.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
C2	2,017.48'	00°51'07"	30.00'	15.00'	30.00'	N80°59'39"E
C3	2,017.48'	02°06'10"	74.05'	37.03'	74.04'	N82°28'18"E
C4	35.00'	105°42'24"	64.57'	46.20'	55.80'	S43°37'24"E



1' NO INGRESS/EGRESS EASEMENT
(M.B. 302, P. 50-54)

DETAIL
SEE SHEET 5

"B" 30' HRSD PERMANENT UTILITY EASEMENT
AREA = 5,550 S.F. / 0.127 ACRE

E1 DRAINAGE EASEMENT
(S.H.P.B. 7, P. 145)

E4 9' VEPCO EASEMENT
(D.B. 2990, P. 870)

E3 TRAFFIC CONTROL EASEMENT
(M.B. 302, P. 50-54)

PLAT SHOWING

30' HRSD PERMANENT UTILITY EASEMENT

AND

20' & VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT

TO BE ACQUIRED FROM

LOWE'S HOME CENTERS, INC.

BY

HAMPTON ROADS SANITATION DISTRICT

VIRGINIA BEACH, VIRGINIA

SCALE: 1"=50'

DATE: AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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

www.rouse-sirine.com

333 OFFICE SQUARE LANE VIRGINIA BEACH, VIRGINIA 23462

1311 JAMESTOWN ROAD SUITE 103

TEL:(757)490-2300

WILLIAMSBURG, VIRGINIA 23185

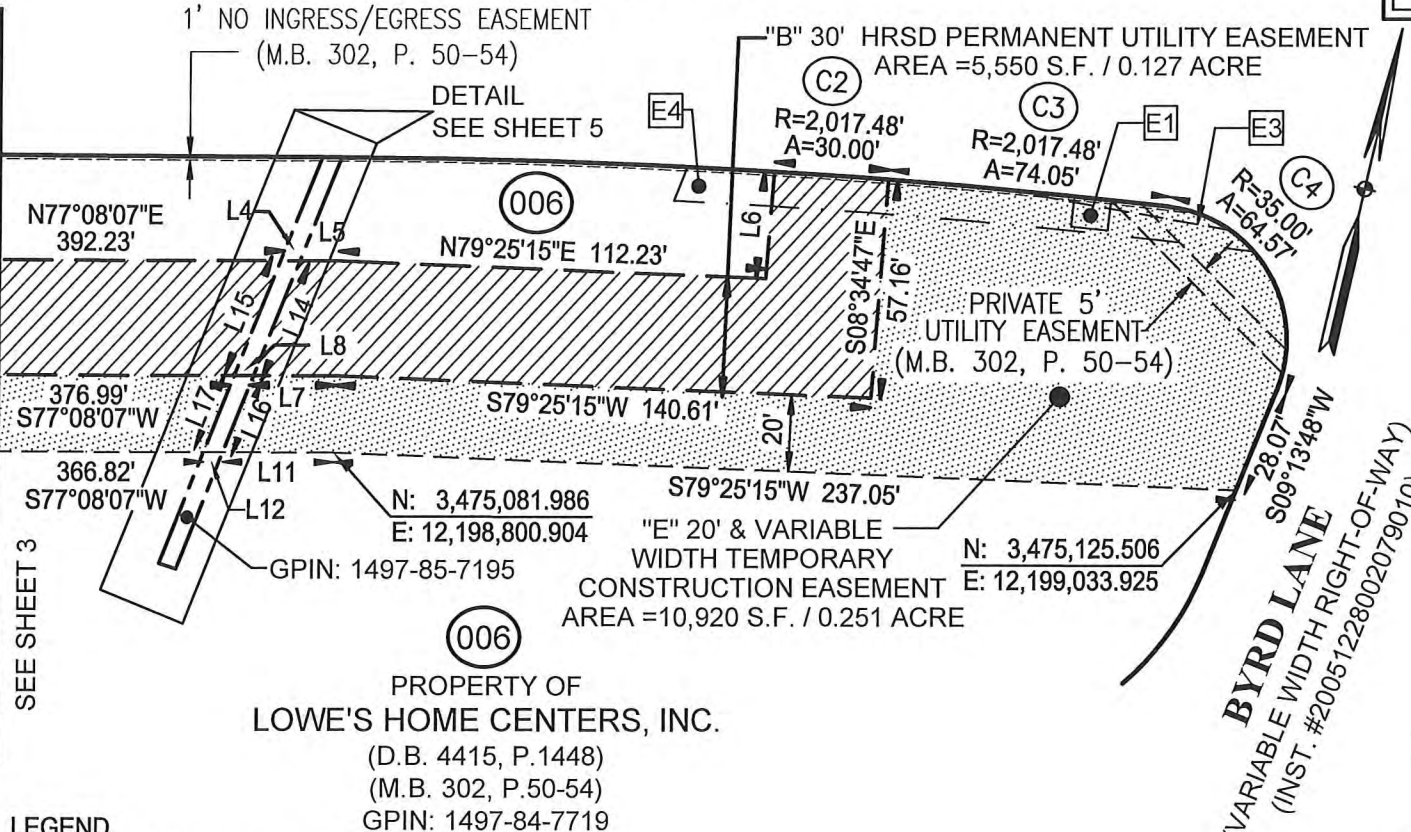
FAX:(757)499-9136

TEL:(757)903-4695



GRAPHIC SCALE

SHEET 4 OF 5



SEE SHEET 3

LEGEND



30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED



20' & VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED

006

PROPERTY OF
LOWE'S HOME CENTERS, INC.

(D.B. 4415, P.1448)

(M.B. 302, P.50-54)

GPIN: 1497-84-7719

LINE TABLE

L4	N77°08'07"E	5.10'	L12	S77°08'07"W	5.10'
L5	N77°08'07"E	10.25'	L14	N09°05'38"E	32.35'
L6	N08°34'47"W	27.96'	L15	S09°05'38"W	32.35'
L7	S77°08'07"W	21.74'	L16	S09°05'38"W	21.56'
L8	S77°08'07"W	5.10'	L17	N09°05'38"E	21.56'
L11	S77°08'07"W	29.41'			

VIRGINIA BEACH BOULEVARD

(VARIABLE WIDTH RIGHT-OF-WAY)
(S.H.P.B. 7, P. 145)

N: 3,475,156.321
E: 12,198,780.391

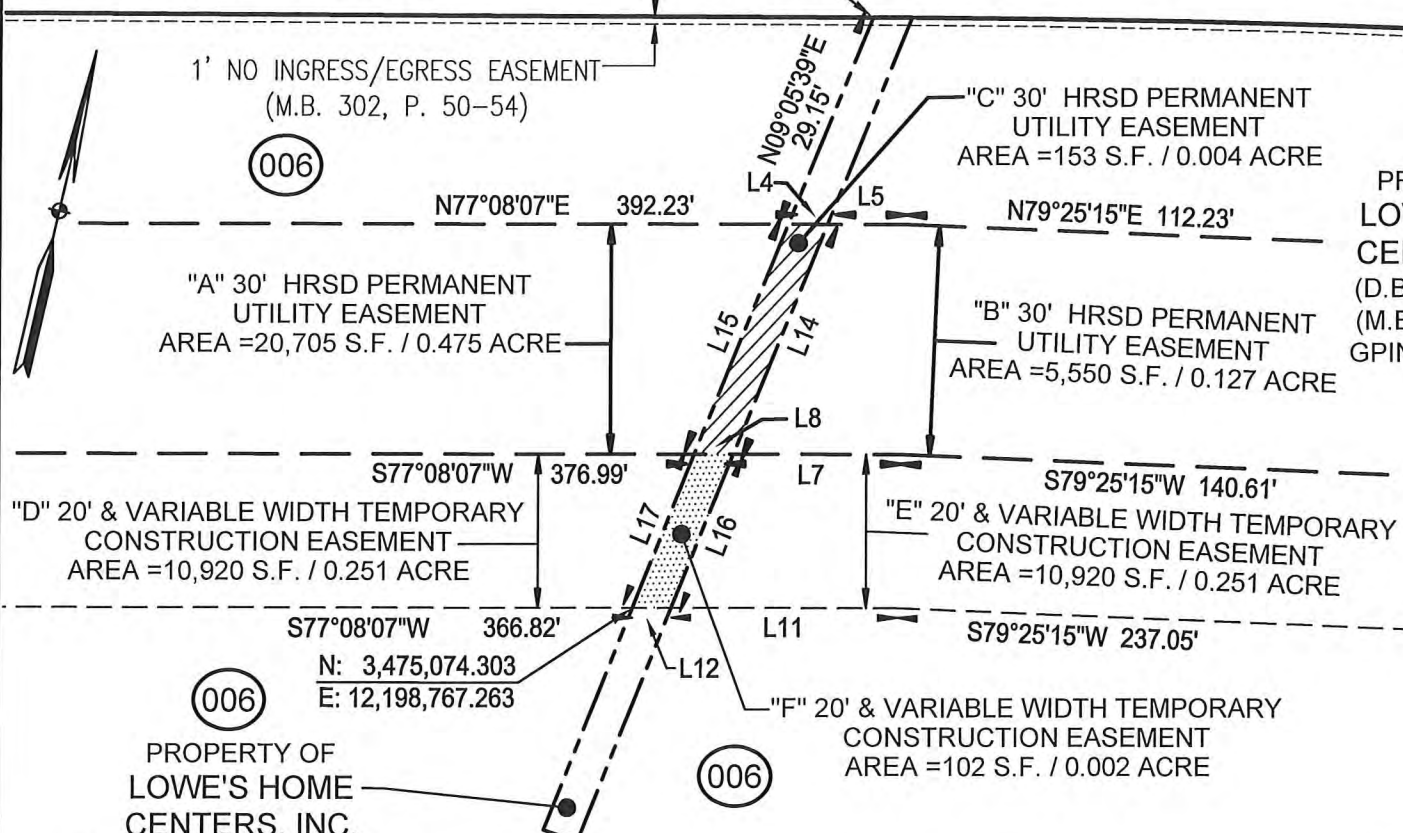
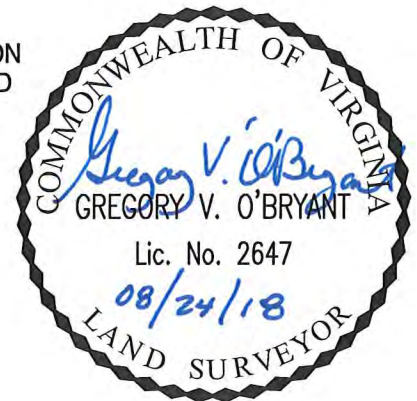
LEGEND



30' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED



20' & VARIABLE WIDTH TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED



006
PROPERTY OF
LOWE'S HOME
CENTERS, INC.
(D.B. 4415, P.1448)
(M.B. 302, P.50-54)
GPIN: 1497-84-7719

006
PROPERTY OF
LOWE'S HOME
CENTERS, INC.
(INST. #200506240095978)
(M.B. 302, P.50-54)
GPIN: 1497-85-7195

PLAT SHOWING
30' HRSD PERMANENT UTILITY EASEMENT
AND
20' & VARIABLE WIDTH
TEMPORARY CONSTRUCTION EASEMENT
TO BE ACQUIRED FROM
LOWE'S HOME CENTERS, INC.

BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

SCALE: 1"=25' DATE : AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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

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



GRAPHIC SCALE

LINE TABLE					
L4	N77°08'07"E	5.10'	L12	S77°08'07"W	5.10'
L5	N77°08'07"E	10.25'	L14	N09°05'38"E	32.35'
L6	N08°34'47"W	27.96'	L15	S09°05'38"W	32.35'
L7	S77°08'07"W	21.74'	L16	S09°05'38"W	21.56'
L8	S77°08'07"W	5.10'	L17	N09°05'38"E	21.56'
L11	S77°08'07"W	29.41'			

1	2
---	---

PROJECT PARCEL NO. 007

PROPERTY OF: 315 N. GREAT NECK ROAD, LLC
 PROPERTY ADDRESS: 2312 VIRGINIA BEACH BOULEVARD
 OWNER ADDRESS: 315 N. GREAT ROAD, SUITE 116,
 VIRGINIA BEACH, VA. 23454-4073
 GPIN #: 2407-05-0493

GPIN	TOTAL PARCEL AREA		20' HRSD PERMANENT UTILITY EASEMENT		10' TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
2407-05-0493	42,558 ±	0.977 ±	1,116	0.026	568	0.013	40,874 ±	0.938 ±

CURVE TABLE						
CURVE NO.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
C1	1,843.86'	01°42'29"	55.15'	27.58'	55.15'	S89°03'48"W
C2	1,823.86'	01°46'26"	56.47'	28.24'	56.46'	N89°01'59"E
C3	1,813.86'	01°48'16"	57.12'	28.56'	57.12'	N89°01'04"E



- E1 INGRESS/EGRESS EASEMENT (D.B. 999 P. 287)
- E2 15' VEPCO UTILITY EASEMENT (M.B. 111, P. 38)

NOTES:

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

PLAT SHOWING
 20' HRSD PERMANENT UTILITY EASEMENT
 AND
 10' TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
315 N. GREAT NECK ROAD, LLC
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA

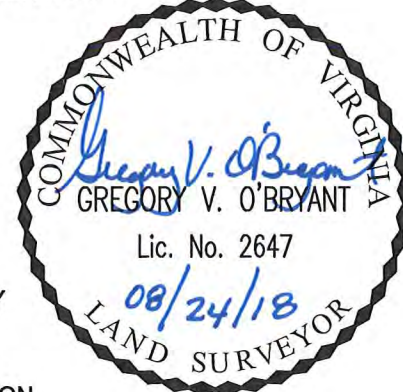
SCALE: 1"=25' DATE: AUGUST 22, 2018
ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
 www.rouse-sirine.com

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



VIRGINIA BEACH BOULEVARD
 (VARIABLE WIDTH RIGHT-OF-WAY)
 (M.B. 111, P. 39)(S.H.P.B. 7, P. 132)

LEGEND	
	20' HRSD PERMANENT UTILITY EASEMENT TO BE ACQUIRED
	10' TEMPORARY CONSTRUCTION EASEMENT TO BE ACQUIRED



1	2
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PROJECT PARCEL NO. 008

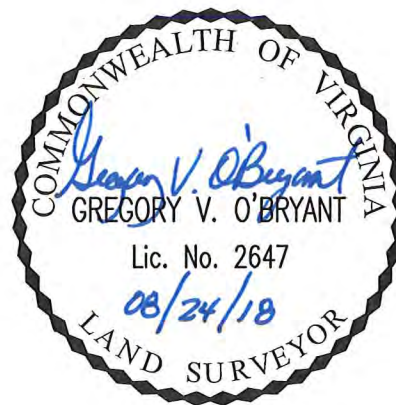
PROPERTY OF: 2300 VIRGINIA BEACH BOULEVARD, LLC
 PROPERTY ADDRESS: 2300 VIRGINIA BEACH BOULEVARD
 OWNER ADDRESS: 2300 BENDIX ROAD, SUITE 300, VIRGINIA BEACH, VA. 23452
 GPIN #: 2407-05-2316

NOTES:

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

AREA TABLE								
GPIN	TOTAL PARCEL AREA		VARIABLE WIDTH HRSD PERMANENT UTILITY EASEMENT		10' TEMPORARY HRSD CONSTRUCTION EASEMENT		RESIDUAL PARCEL AREA	
	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES
2407-05-2316	15,920±	0.365±	778	0.018	567	0.013	14,575±	0.334±

PLAT SHOWING
**VARIABLE WIDTH HRSD PERMANENT
 UTILITY EASEMENT**
 AND
10' TEMPORARY CONSTRUCTION EASEMENT
 TO BE ACQUIRED FROM
2300 VIRGINIA BEACH BOULEVARD, LLC
 BY
HAMPTON ROADS SANITATION DISTRICT
 VIRGINIA BEACH, VIRGINIA
 DATE : AUGUST 22, 2018



ROUSE-SIRINE ASSOCIATES, LTD.
 LAND SURVEYORS, MAPPING CONSULTANTS & S.U.E. QUALITY LEVELS "A-D"
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 VIRGINIA BEACH, VIRGINIA 23462 SUITE 103
 TEL.(757)490-2300 WILLIAMSBURG, VIRGINIA 23185
 FAX:(757)499-9136 TEL.(757)903-4695

1		2	
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007

NOW OR FORMERLY
315 N. GREAT NECK ROAD, LLC
(M.B. 94, P.37)(M.B. 111, P.39)
(INST. #20151026001047410)
GPIN: 2407-05-0493

008

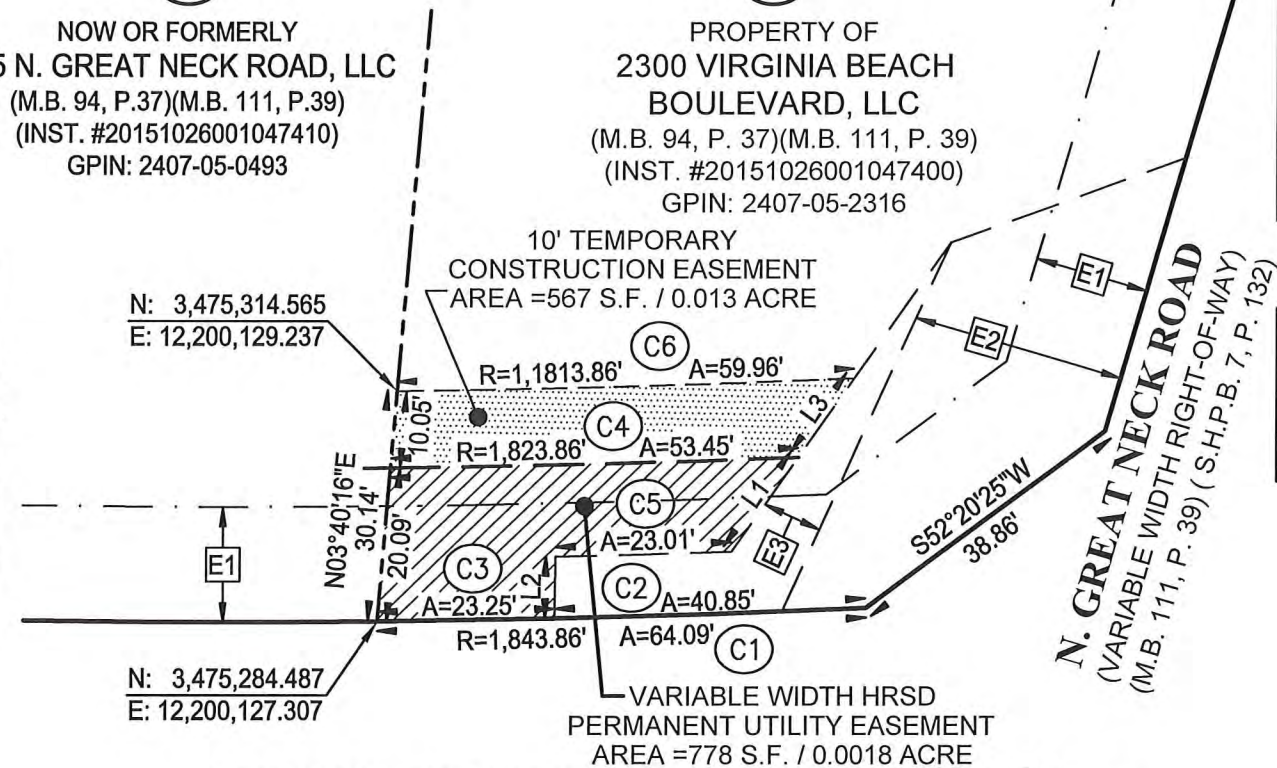
PROPERTY OF
2300 VIRGINIA BEACH
BOULEVARD, LLC
(M.B. 94, P. 37)(M.B. 111, P. 39)
(INST. #20151026001047400)
GPIN: 2407-05-2316

CURVE TABLE						
CURVE NO.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
C1	1,843.86'	01°59'29"	64.09'	32.05'	64.09'	S87°12'38"W
C2	1,843.86'	01°16'09"	40.84'	20.42'	40.84'	S86°50'58"W
C3	1,843.86'	00°43'20"	23.25'	11.62'	23.25'	S87°50'43"W
C4	1,823.86'	01°40'45"	53.45'	26.73'	53.45'	N87°18'24"E
C5	1,835.86'	00°43'05"	23.01'	11.51'	23.01'	S87°07'31"W
C6	1,813.86'	01°53'38"	59.96'	29.98'	59.95'	N87°10'08"E



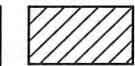
N: 3,475,314.565
E: 12,200,129.237

N: 3,475,284.487
E: 12,200,127.307



LINE TABLE		
L1	S34°14'23"W	15.10'
L2	S00°10'10"E	8.05'
L3	S34°14'23"W	12.67'

LEGEND



VARIABLE WIDTH HRSD
PERMANENT UTILITY EASEMENT
TO BE ACQUIRED



10' TEMPORARY CONSTRUCTION
EASEMENT TO BE ACQUIRED

PLAT SHOWING
VARIABLE WIDTH HRSD PERMANENT
UTILITY EASEMENT
AND

10' TEMPORARY CONSTRUCTION EASEMENT
TO BE ACQUIRED FROM
2300 VIRGINIA BEACH BOULEVARD, LLC
BY
HAMPTON ROADS SANITATION DISTRICT
VIRGINIA BEACH, VIRGINIA

SCALE: 1"=25'

DATE: AUGUST 22, 2018

ROUSE-SIRINE ASSOCIATES, LTD.

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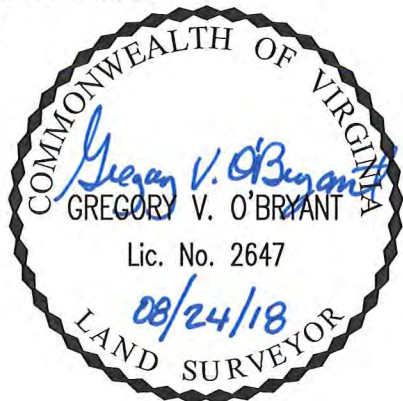
GRAPHIC SCALE

SHEET 2 OF 2

VIRGINIA BEACH BOULEVARD

(VARIABLE WIDTH RIGHT-OF-WAY)
(M.B. 111, P. 39)(S.H.P.B. 7, P. 132)

- 15' VEPCO UTILITY EASEMENT
(M.B. 111, P. 38)
- H.R.S.D. UTILITY EASEMENT
(INST. #20090422000429480)
- H.R.S.D. UTILITY EASEMENT
(INST. #20110803000782220)



1	2
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HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #3

AGENDA ITEM 8. – Hampton Trunk A and B Replacement – Jefferson Avenue
to Walnut Avenue

* [Original Agreement](#)

* [Addendum #1](#)

ADDENDUM # 1 to the
AGREEMENT FOR COST SHARING
OF THE
HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue
BH015600
AND
CITY OF Newport News
Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

THIS ADDENDUM is to the AGREEMENT FOR COST SHARING (the “Agreement”), dated April 29, 2019, between the CITY OF Newport News (“CITY”) and the HAMPTON ROADS SANITATION DISTRICT (“HRSD”), is entered into this 25th day of June, 2019 (the "Effective Date").

RECITALS

R:1. HRSD is constructing its Hampton Trunk A and B Replacement - Jefferson Avenue to Walnut Avenue project (the “HRSD Facilities”); and

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

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

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

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

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

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

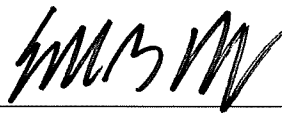
TERMS

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

1. This addendum modifies the estimated construction cost for construction of the HRSD facilities.
2. No provision of this Agreement shall be modified except as expressly herein provided, otherwise, the original Agreement remains in full force and effect.
3. In Section II of the Agreement the estimated construction cost of the HRSD facilities is \$825,000. The current estimated construction cost should be changed from \$825,000 to \$1,508,000. Refer to attached Exhibit 1 attached hereto for a schedule of the construction cost. Basic Construction Company provided a price of \$1,343,716 to complete construction of the HRSD facilities. HRSD is including a construction contingency of \$164,284 for a total estimated construction cost of \$1,508,000. The construction contingency provided is to account for unforeseen changes or conditions that occur during the construction phase.

IN WITNESS WHEREOF, the parties have executed this Addendum to the Agreement as of the date first above written.

HAMPTON ROADS SANITATION DISTRICT



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

Addendum #1 to the Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

IN WITNESS WHEREOF, the parties have executed this Addendum to the Agreement as of the date first above written.

CITY OF Newport News




Cynthia D. Rohlf, City Manager

ATTEST:



City Clerk

APPROVED AS TO FORM:



City Attorney

Addendum #1 to the Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
 Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
 CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

Exhibit 1
 Hampton Trunk A and B Along Jefferson Avenue
 Pricing Schedule

Item	Description	Unit	Estimat	Unit Price	Extended Price
1	36-inch Restrained Joint Ductile Iron Force Main Piping	LF	872	\$ 923.00	\$ 804,856.00
2	FORCE MAIN FITTINGS				
2A	36-inch x 36-inch Tee	EA	1	\$ 15,300.00	\$ 15,300.00
2B	36-inch, 90 ° Bend	EA	2	\$ 12,400.00	\$ 24,800.00
2C	36-inch, 45 ° Bend	EA	10	\$ 9,080.00	\$ 90,800.00
2D	36-inch, 22.5 ° Bend	EA	4	\$ 8,510.00	\$ 34,040.00
2E	36-inch Long Body Sleeve	EA	2	\$ 15,000.00	\$ 30,000.00
3	VALVES				
3A	36-inch Plug Valve	EA	2	\$ 58,400.00	\$ 116,800.00
3B	Air Valve Assemblies	EA	4	\$ 3,950.00	\$ 15,800.00
4	Temporary Piping to Support Force Main Installation & Connections (30-inch HDPE)	LS	1	\$ 85,000.00	\$ 85,000.00
5	Connection to Existing Force Mains	EA	2	\$ 5,110.00	\$ 10,220.00
6	Casing Pipe / Leak Detection (Ridley Circle Storm Drain Crossing)	LS	1	\$ 21,700.00	\$ 21,700.00
7	Extra Excavation and Backfill	CY	50	\$ 134.00	\$ 6,700.00
8	Corrosion Protection	LS	1	\$ 87,700.00	\$ 87,700.00
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$ 1,343,716.00

AGREEMENT FOR COST SHARING

OF THE

HAMPTON ROADS SANITATION DISTRICT

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

AND

CITY OF Newport News

Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

RECITALS

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

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

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

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

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

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

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

TERMS

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

I. DESIGN OF IMPROVEMENTS

A. Plans and Specifications

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

B. Payment of the Design Costs

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

C. Compliance

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

II. CONSTRUCTION OF IMPROVEMENTS

A. Cost of Construction

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

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

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

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

C. Payment of Improvement Costs

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

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

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

III. SCHEDULE

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

IV. OBLIGATIONS OF HRSD AND THE CITY

A. Public Hearing or Meeting

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

B. Change Request for the HRSD Facilities

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

C. Administration

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

D. Inspection

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

E. Deeds and Easements

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

F. Correction of Construction Defects in the Improvements

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

G. Construction Record Drawings

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

V. GOVERNING LAW

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

VI. TERMINATION

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

VII. NOTICE

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

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

For: HRSD

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

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

With Copy to:

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

For: City of Newport News

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

With Copy to:

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

VIII. ASSIGNMENT

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

IX. AMENDMENT

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

X. SEVERABILITY

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

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

XI. DAMAGES

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

XII. INSURANCE

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

XIII. TERM OF AGREEMENT

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

XIV. FORCE MAJEURE

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

XV. INDEPENDENT CONTRACTOR

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

XVI. SUBCONTRACTOR

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

XVII. WAIVER

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

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

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

XVIII. INTEGRATION

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

Signature pages follow

Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

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

HAMPTON ROADS SANITATION DISTRICT

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

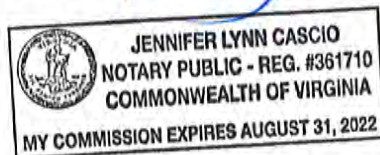
COMMONWEALTH OF VIRGINIA,
CITY OF VIRGINIA BEACH, to-wit:

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


Notary Public

My commission expires:


Registration No.:



Agreement for Cost Sharing of the HRSD HAMPTON ROADS SANITATION DISTRICT
Hampton Trunk A and B Replacement – Jefferson Avenue to Walnut Avenue BH015600 and
CITY OF Newport News Jefferson Avenue Phase II Utilities Relocation and Streetscape Improvements

IN WITNESS WHEREOF, the City of Newport News has caused this Agreement to be signed by the City Manager on its behalf pursuant to Resolution adopted by the City Council on April 9, 2019.

CITY OF NEWPORT NEWS

By: 
Cynthia D. Rohlf, City Manager

ATTEST:


City Clerk

APPROVED AS TO FORM:

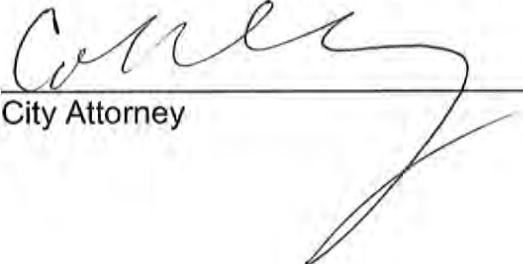

City Attorney

Exhibit 1 - HRSD Facilities Location Map



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



Figure 1-1: Hampton A & B Force Main Replacement – Project Overview Map

HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #4

AGENDA ITEM 9. – James River SWIFT Facility and James River Treatment Plant
Advanced Nutrient Reduction Improvements Alternative Project Delivery Presentation



SWIFT Program - Project Delivery
James River Treatment Plant
Commission Briefing

June 25, 2019

Chief of Design &
Construction - SWIFT

Owner's Technical Advisor

Program Manager

Conceptual Design
Groundwater Modeling
Recharge Well Design &
Construction

Program Controls
Preliminary Engineering
Project Management
Construction Admin/Inspection

SWIFT Program Implementation





SWIFT CIP Program Summary

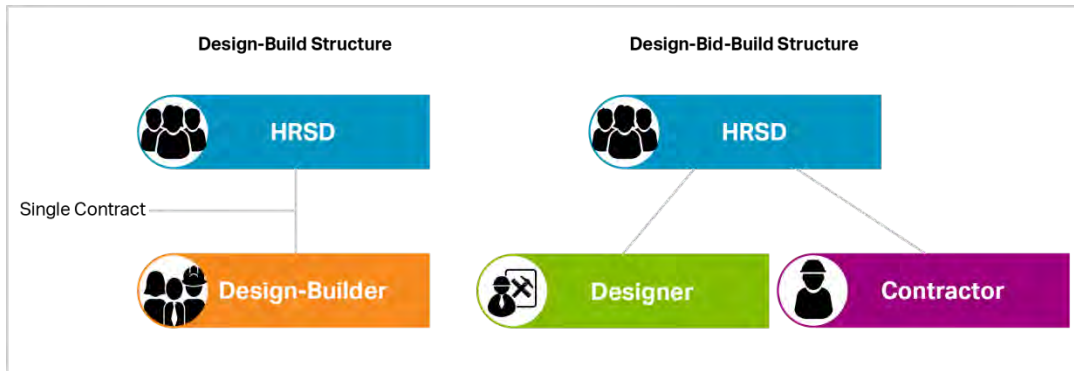
Projects: 26

Total Cost: \$1,826,292,700

Funding: HRSD, VRLF, WQIF, WIFIA

Collaborative Project Delivery for James River SWIFT

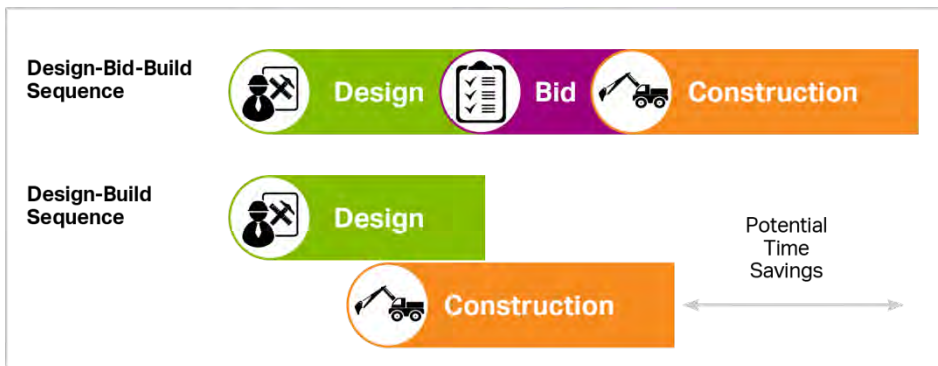
Contract structure:



Benefits:

1. Reduce schedule by overlapping design & construction
2. Single point of accountability
3. Best value selection of D-B Team
4. Apply lessons learned from Research Center (flexibility)

Sequencing of work:



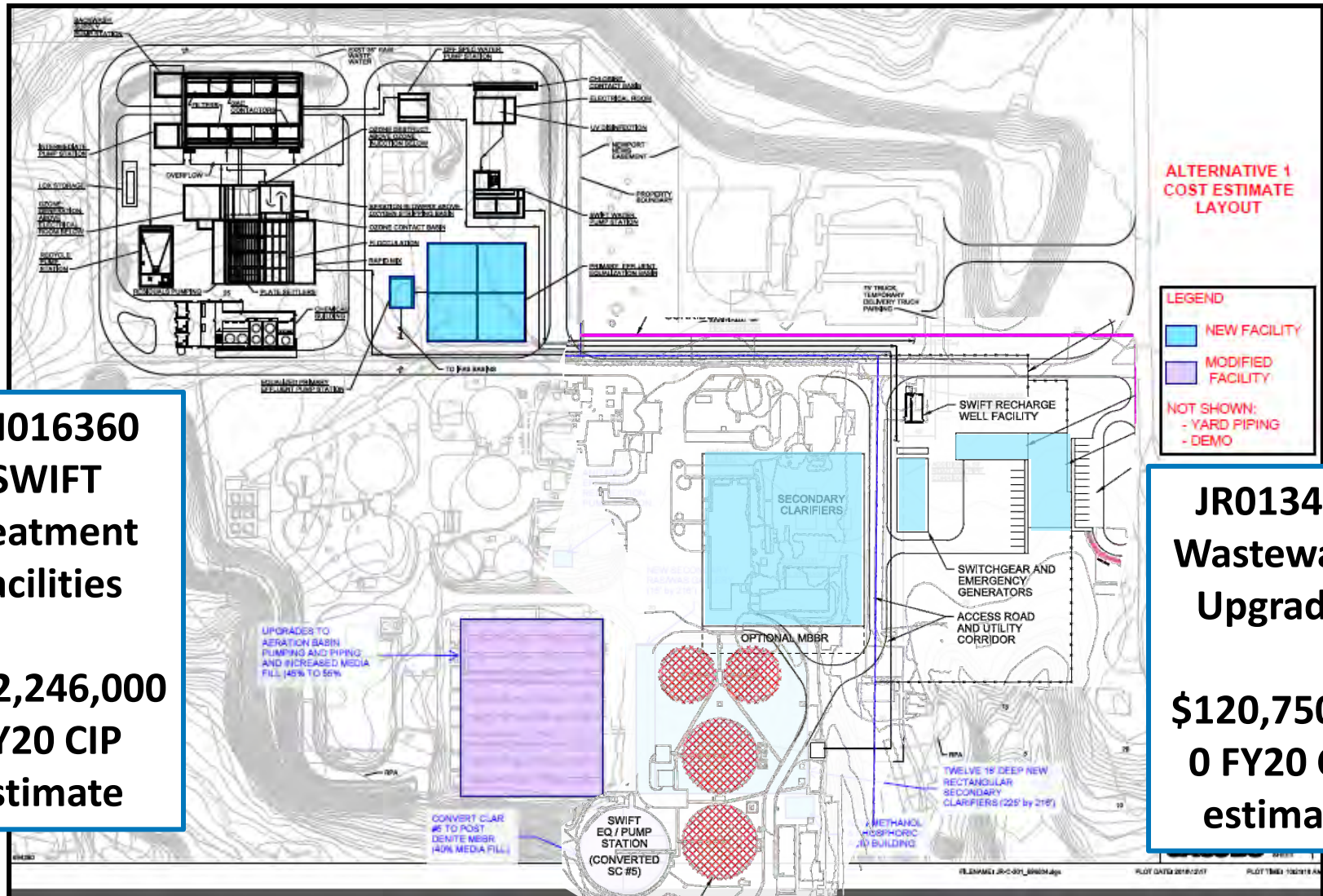
Permitting:

1. 100% design not completed prior to beginning permitting process
2. Multiple packages (site, SWPPP, foundation, etc.)

Combined Collaborative Project Delivery at JRTP



Combined Collaborative Project Delivery at JRTP



**GN016360
SWIFT
Treatment
Facilities**

**\$182,246,000
FY20 CIP
estimate**

**JR013400
Wastewater
Upgrades**

**\$120,750,000
FY20 CIP
estimate**

HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #5

AGENDA ITEM 10. – SWIFT Update Presentation

Operations, Research and Regulatory Update



June 25, 2019
Commission Meeting

Operational and Regulatory items for update to the Commission as of June, 2019:

- Research Center Operations
- Research and Development Activities
- Regulatory Update

Operational and Regulatory items for update to the Commission as of June, 2019:

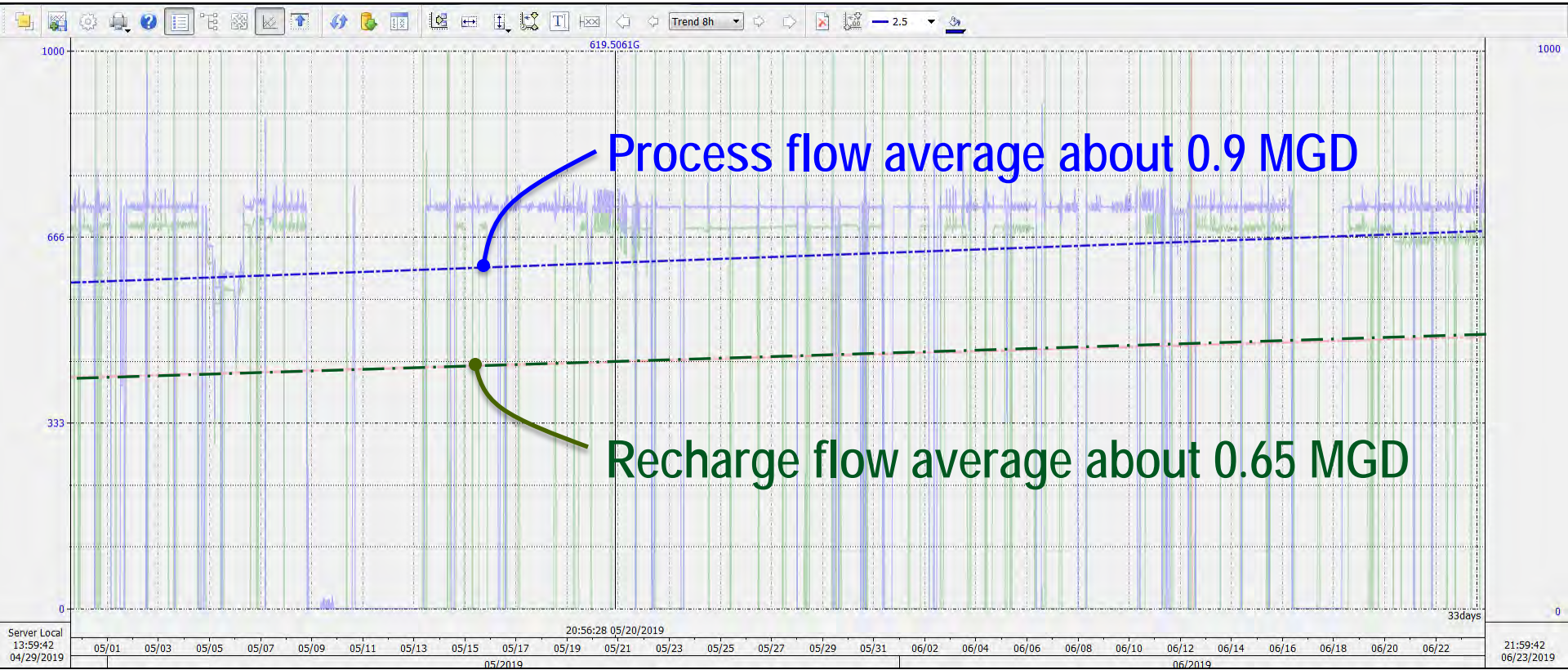
- Research Center Operations
- Research and Development Activities
- Regulatory Update



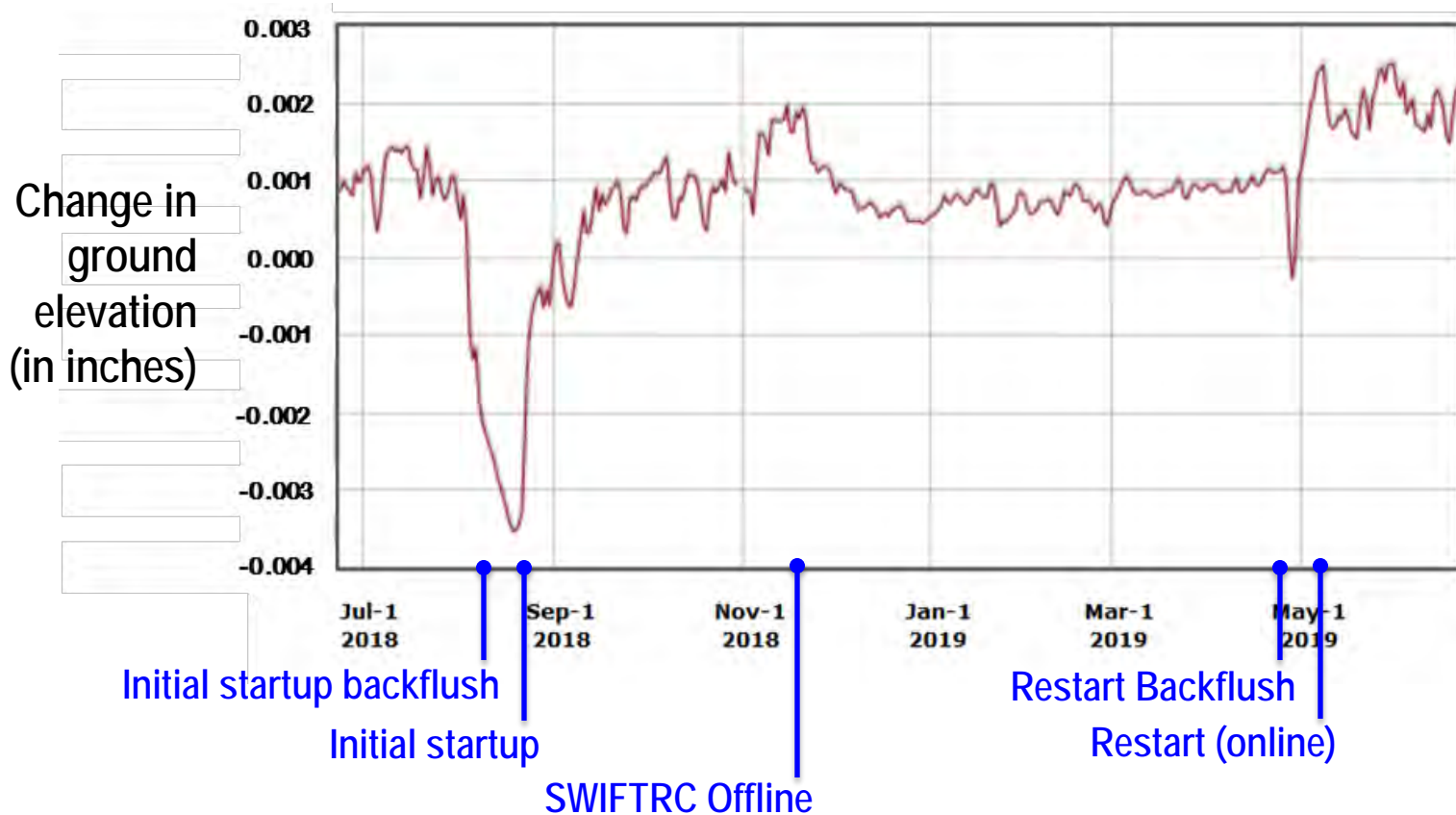
General overview of SWIFT Research Center and Recharge Operations post-warranty repairs

- Partial startup commenced week of April 8th
- Full startup (to well-head) commenced week of April 15th
- Recommenced well recharge on April 29th
- 100 million gallons of cumulative recharge on May 22nd

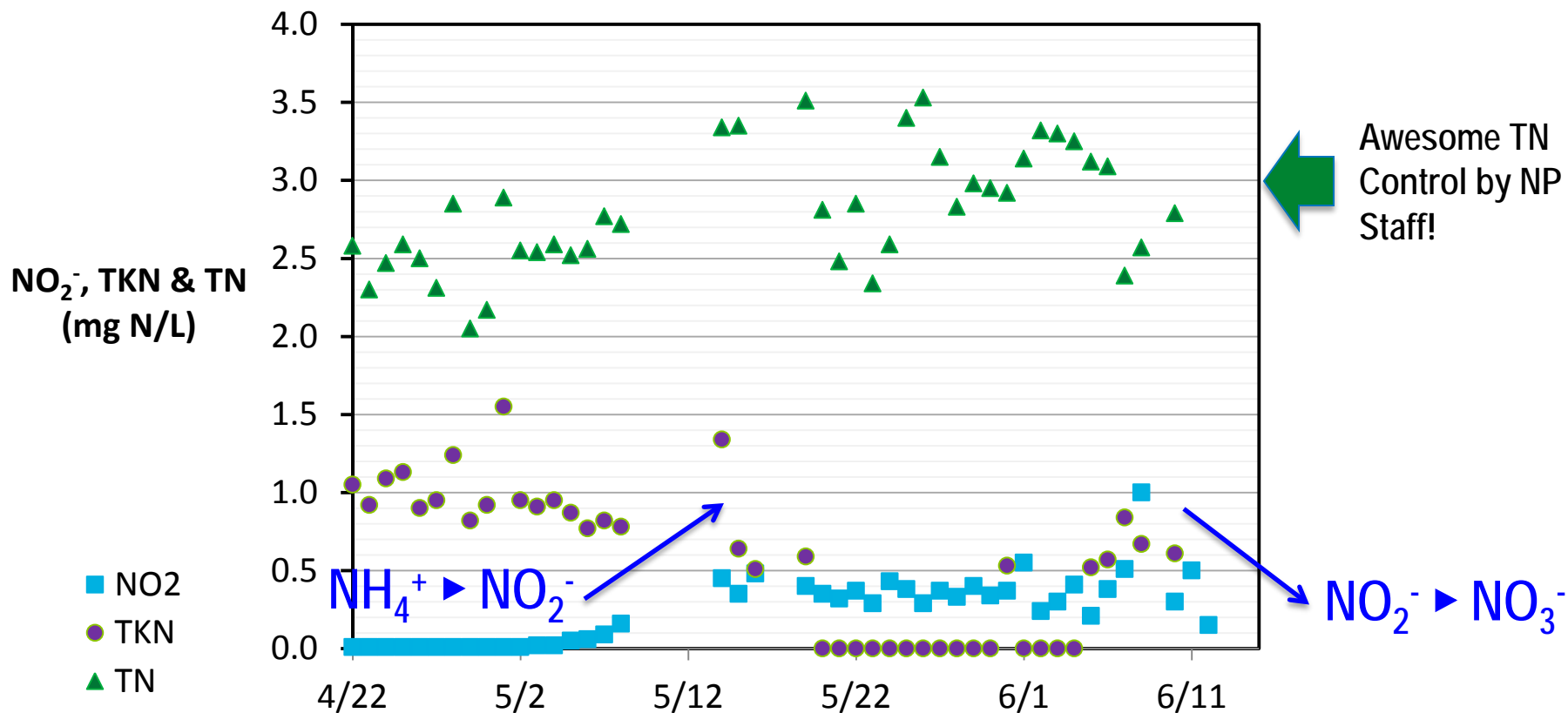
EDS Trends of SWIFTRC Process and Recharge Flows since restart:



Data from the Nansmond Extensometer shows effect of SWIFTRC back online



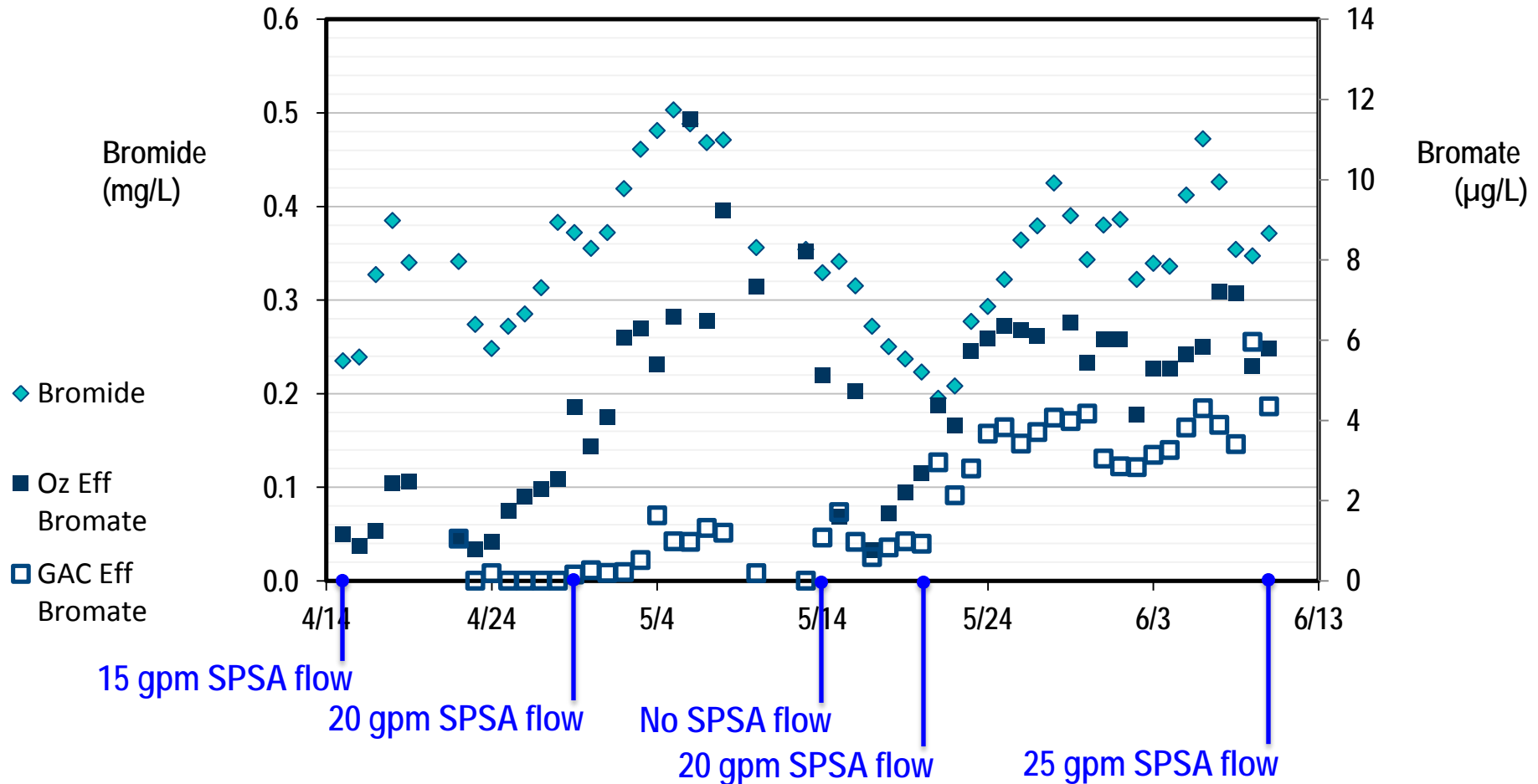
Trend of Nitrite in SWIFT Water since restart shows acclimation of biofilters:



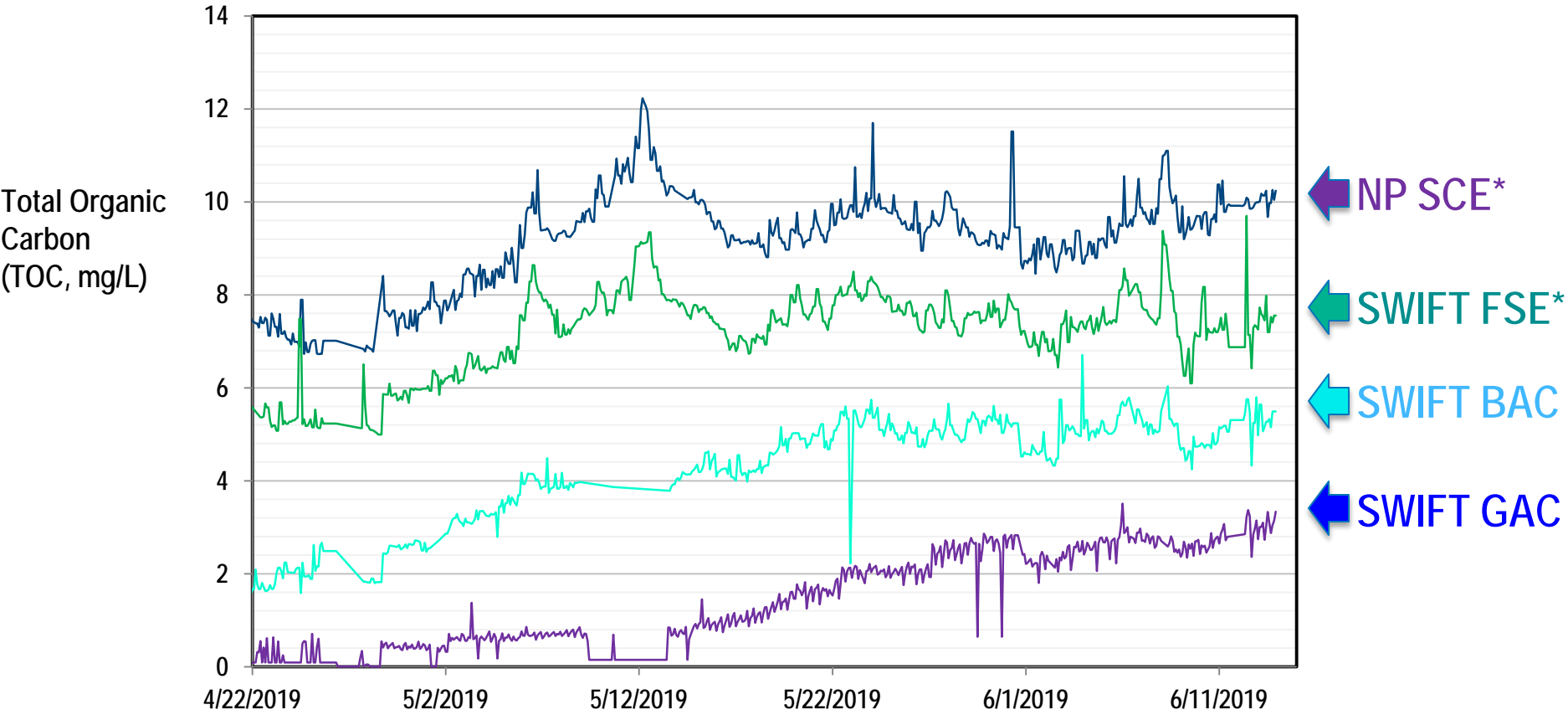
Trend of Nitrite in SWIFT Water since restart shows acclimation of biofilters:

- Maintain Critical Control Point – $\text{NO}_2^- < 0.5 \text{ mg N/L}$
- Managing NO_2^- with free chlorination when necessary
- No observed exceedance of MCL (1 mg N/L) in MW-SAT
- Gaining understanding of blips in BAC nitrogen removal performance after BAC off-line events and what else may be affected

Bromate has been well-controlled since startup; SPSA has accommodated testing at various flows:



Nansemond Secondary Effluent TOC has been generally high, and that is driving GAC usage:



* TOC online analyzer is calibrated to low range SWIFT water and *under-reports* TOC in SCE and FSE

Operational and Regulatory items for update to the Commission as of June, 2019:

- Research Center Operations
- Research and Development Activities
 - Improving 1,4-dioxane removal
 - Direct filtration (potential for YR SWIFT)
 - SAT Column Testing
 - Aquifer monitoring/research
 - PFAS Testing
 - NP, JR, WB Ozone Testing
 - NP, JR, WB Residuals Testing
- Regulatory Update

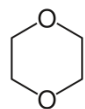
1,4-dioxane is a minor concern at current CA notification level of 1 ppb - much more so at lower potential future regulatory or non-regulatory levels

- Source control continues to be 1st line of defense, but challenging when a little bit comes from everywhere.
- Future “limits” as low as 0.3 ppb are a big challenge without enhancing our current treatment approach.
- We want to stay ahead this so that we can plan accordingly within Full-scale Implementation of SWIFT facilities.
- Advanced oxidation (H_2O_2 -UV) is effective for 1,4-dioxane removal, but expensive to build and operate.
- So...we’re training bacteria.

In general, there are two ways to trick biofilter bacteria into eating more 1,4-dioxane than they otherwise would.

Ramola Vaidya,
Virginia Tech
Ph.D. Candidate

Tetrahydrofuran



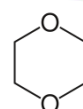
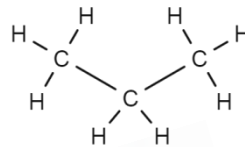
1,4-dioxane



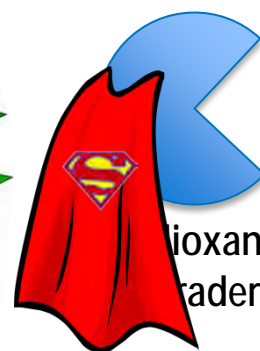
Grow
additional
capable
bacteria

Growth Substrate Approach

Propane



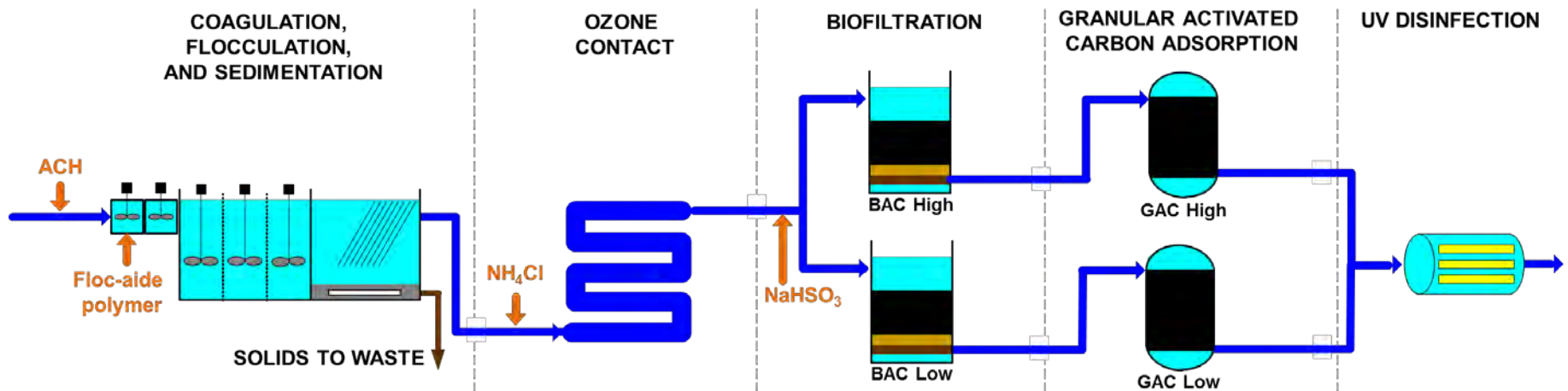
1,4-dioxane



Up-regulate
existing
bacteria

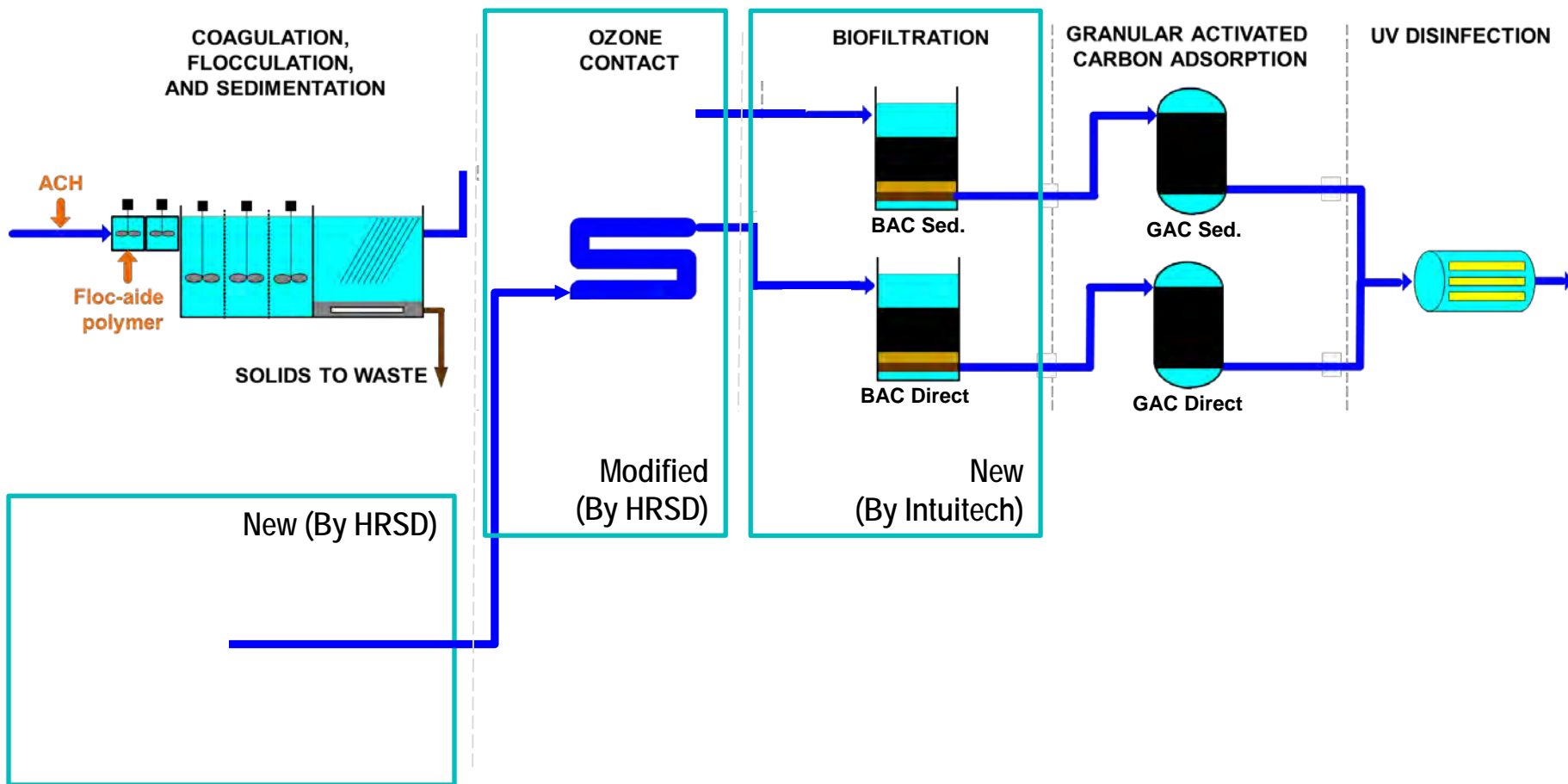
Promoter Approach

Removing particle removal from the flow SWIFT flow sheet for YRTP makes sense and reduces capital cost – but requires pilot demonstration



Current Pilot Design

Modification of pilot system to test parallel Direct Filtration:



Removing particle removal from the flow SWIFT flow sheet for YRTP makes sense and reduces capital cost – but requires pilot demonstration

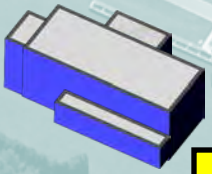
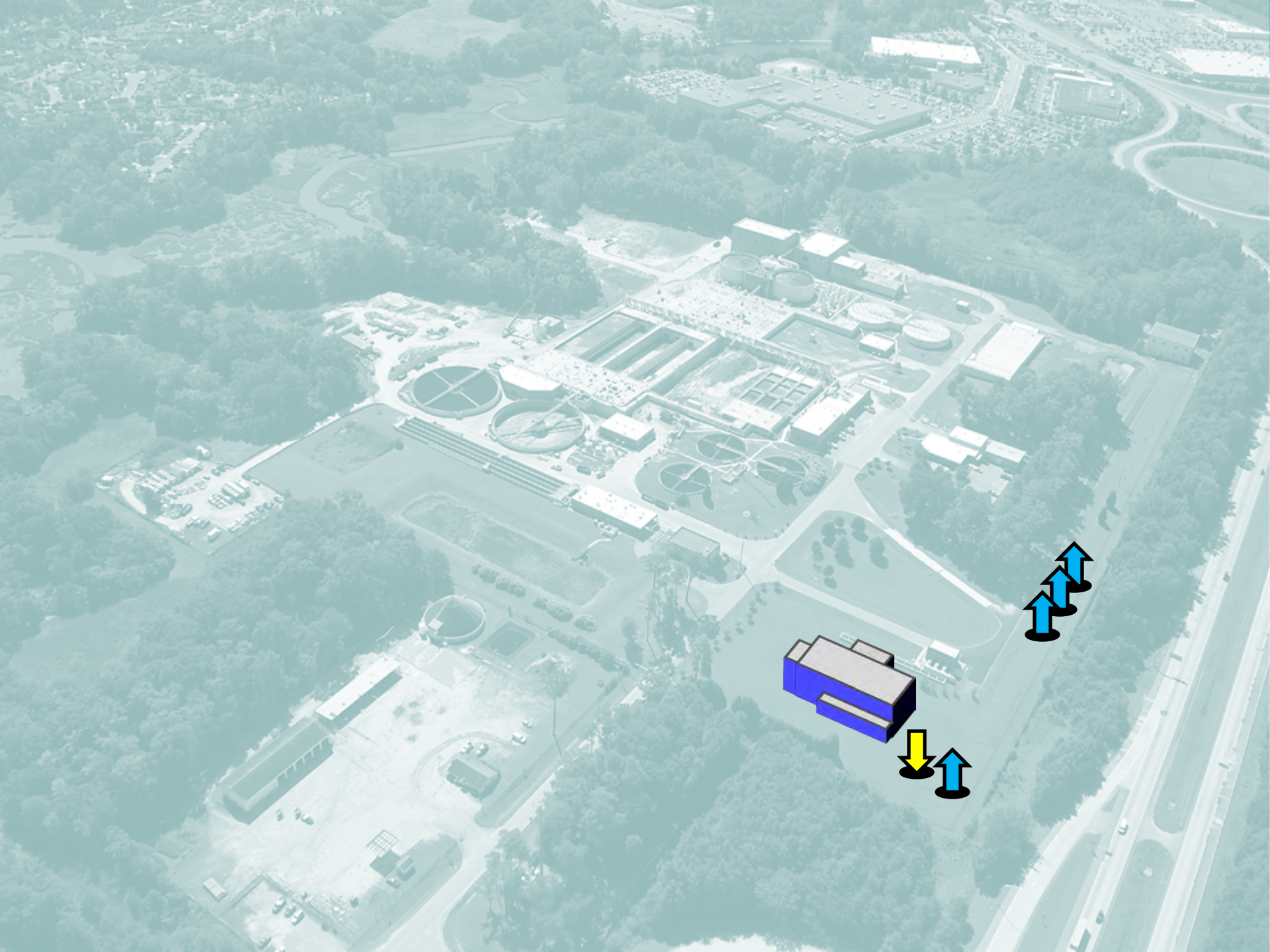
- Extended flocculation and sedimentation accounts for about 10% of capital cost of a full-scale SWIFT facility.
- Approximate \$190k (including internal modifications to existing ozone skid) for pilot equipment.
- Pilot to be operated at SWIFT RC in late 2019-early 2020 in time to inform design development for SWIFT YR FSIP.
- Potential to apply approach in future plants if sufficiently low and stable secondary effluent turbidity can be achieved.

Operational and Regulatory items for update to the Commission as of June, 2019:

- Research Center Operations
- Research and Development Activities
- Regulatory Update

Quarterly Reporting Resumes for April – June 2019

- Includes data demonstrating compliance with drinking water standards and performance relative to indicator list
- Highlights any adjustments made to critical control points
- Documents recharge volume and days of recharge
- Includes discussion on any specific items of interest
 - Nitrite concentrations in 50ft monitoring well (MW-SAT) and outer lying conventional wells (MW-LPA, -MPA and –UPA)
 - Arsenic concentrations in MW-SAT and MW-LPA, -MPA and -UPA





SWIFT RC Monitoring wells

MW-LPA

500'

MW-MPA

450'

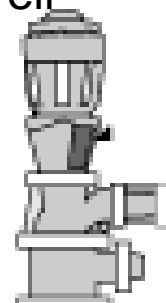
MW-UPA

400'

MW-SAT

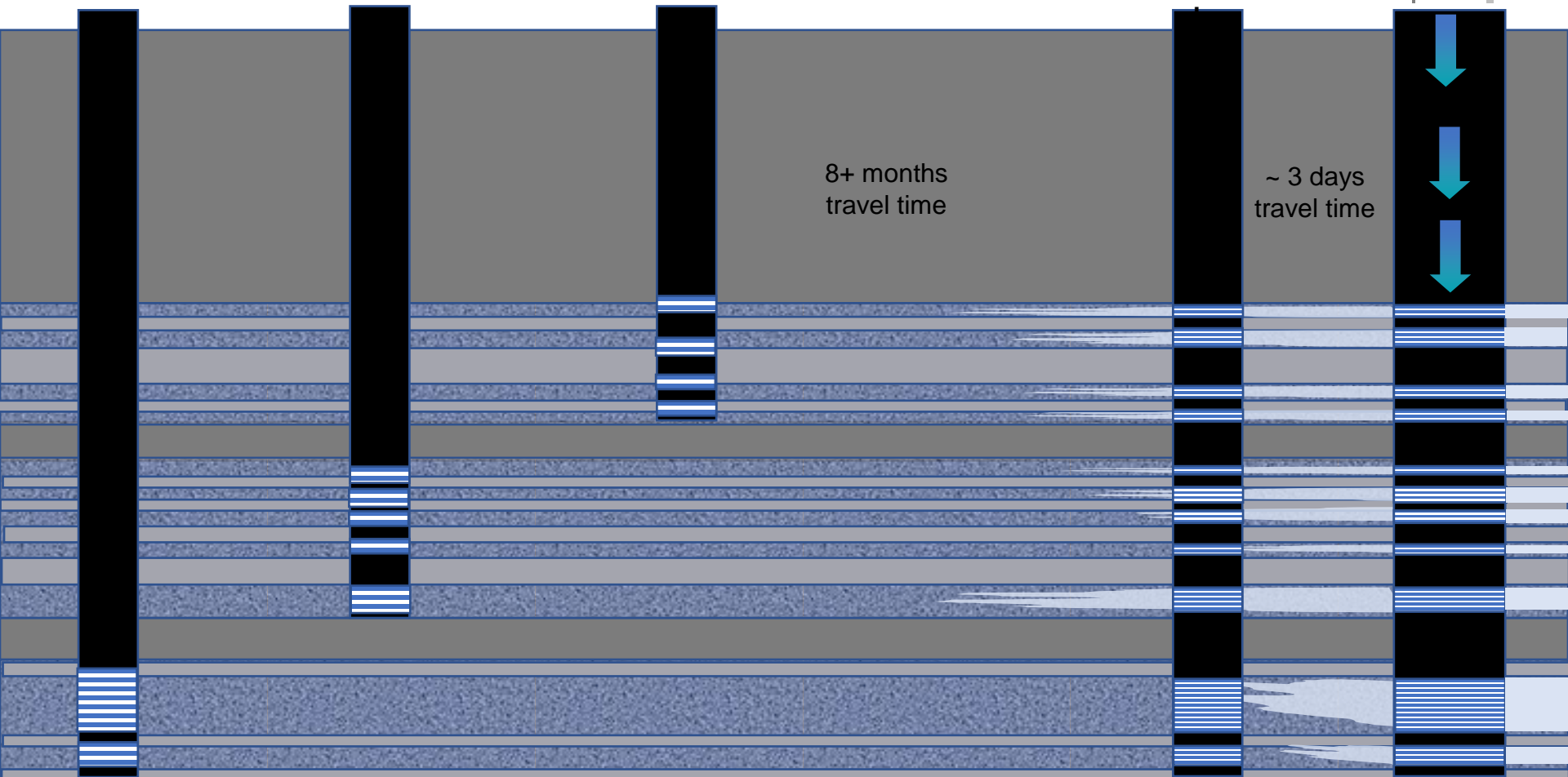
50'

MAR Well
TW-1



8+ months
travel time

~ 3 days
travel time

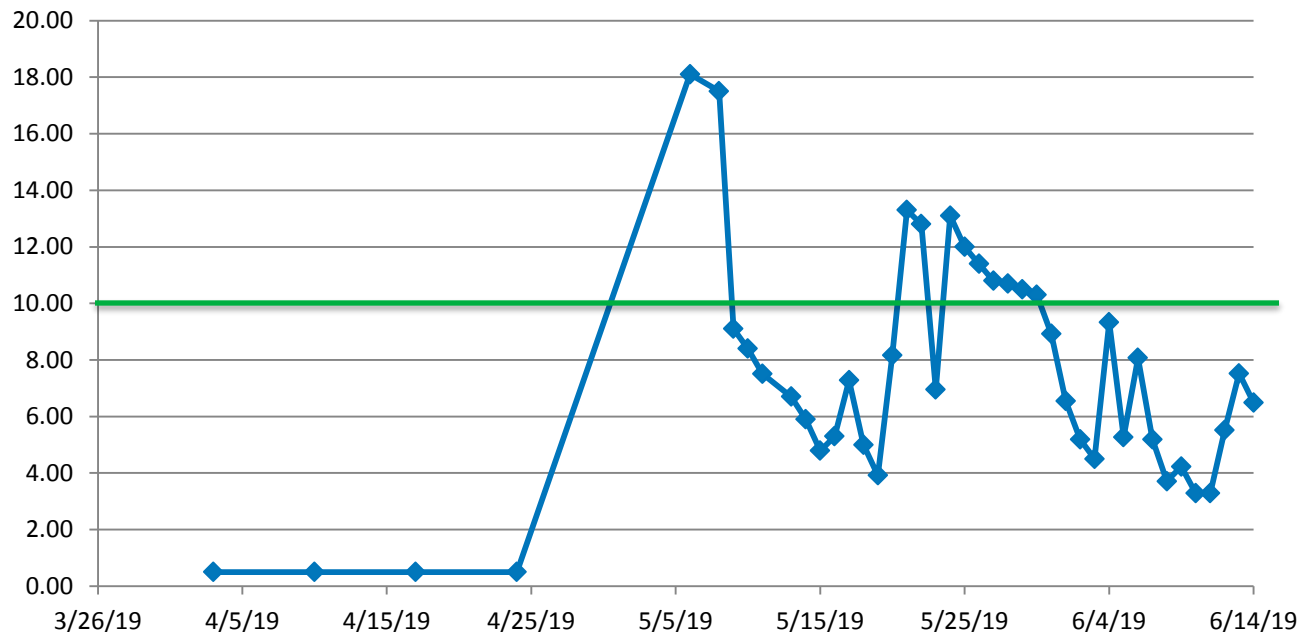


Nitrite levels in all groundwater monitoring have remained below levels of concern

- In fall 2018, nitrite concentration in intervals 1 and 2 of MW-SAT were elevated above the standard
 - No recurrence since November 2018
 - Likely result of partial denitrification of recharge water nitrate to nitrite
 - Expected to be short-term issue
- Continued monitoring of all intervals and outer lying conventional wells
 - Nitrite not seen elevated in conventional wells
 - Nitrite not elevated more than ½ standard in MW-SAT
 - Will reduce daily monitoring in MW-SAT intervals 1 – 3 to once weekly, in intervals 4 – 11 to once every two weeks
 - Will increase frequency if nitrite begins to trend upward

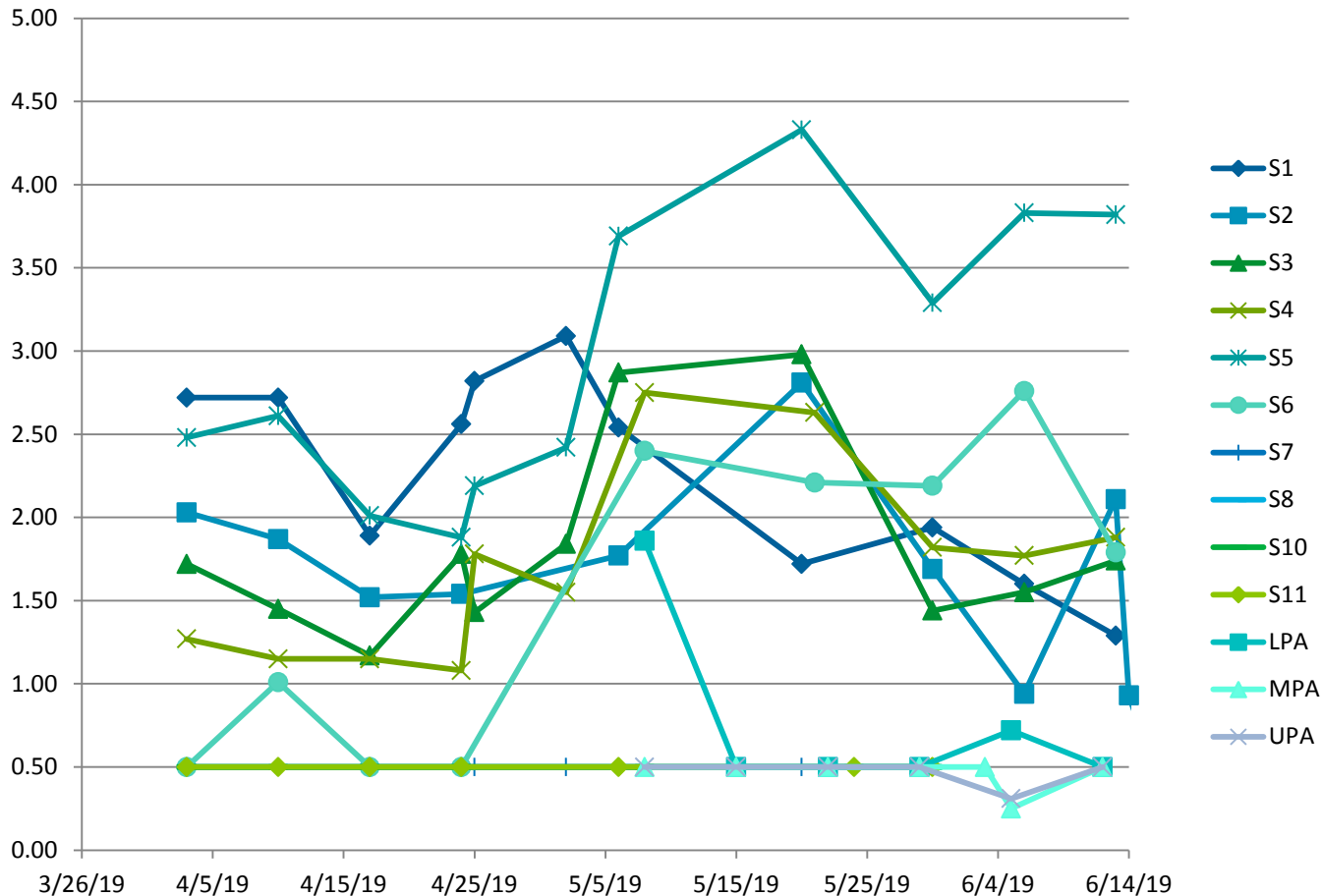
May 2019: Interval 9 of MW-SAT had arsenic concentrations above drinking water standard

- Total arsenic concentration of 18.1 $\mu\text{g}/\text{L}$ in screen interval 9 (drinking water MCL: 10 $\mu\text{g}/\text{L}$)





Remaining Intervals of MW-SAT and outer lying wells remain $< \frac{1}{2}$ MCL



Arsenic monitoring will continue to better understand the potential for migration

- Result of arsenic speciation suggests that chemical addition during rehabilitation of the well may have caused arsenic release
 - Should be short-term concern but will continue to monitor to better understand the cause and potential for migration through the aquifer
- Close proximity of MW-SAT to the recharge well has proven invaluable to understanding these types of geochemical reactions at a highly granular level of detail
- Continued weekly monitoring at outer lying wells as the recharge front approaches will be useful in understanding the potential for arsenic mobilization further afield

SWIFT Oversight Committee and Potomac Aquifer Recharge Monitoring Laboratory are moving ahead

- DEQ's Director Paylor is currently identifying potential committee members
- VDH late June-early July posting for a Water Resources Engineer position intended to provide VDH oversight of SWIFT and support to Virginia's water reuse program
- Potomac Aquifer Recharge Monitoring Laboratory
 - Co-executive Directors are planning Year 1 activities and renovation of laboratory space in Hampton (National Institute of Aerospace)

SWIFT James River UIC Permit will be modeled after SWIFT RC authorization

- Regulatory parameters in Underground Injection Control (UIC) permit will be similar with some adjustments
 - Adjustments to Critical Control Points and Critical Operating Parameters as needed based on James River operations and learning from SWIFT RC
- A second set of indicator compounds will be proposed to better reflect HRSD source waters
- All proposals will be provided to the VDH and DEQ as well as an independent advisory panel for review and input before submission to EPA
- Will apply for permit late summer/early fall
- Permit will be subject to public hearing

HRSD COMMISSION MEETING MINUTES
JUNE 25, 2019

ATTACHMENT #6

AGENDA ITEM 19. – Informational Items

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



June 18, 2019

Re: General Manager's Report

Dear Commissioners:

The Virginia Beach shooting resonated deeply here at HRSD. Much like the rest of the country, I was experiencing weariness toward mass shootings; they have become far too common, leaving no place safe. However when one happens within 15 miles of your office, and the victims include colleagues you have worked with for decades, including two former HRSD employees - one of whom was the father of a current employee, it is startling the difference in perspective one quickly gains. It was much harder on the many HRSD employees who previously worked for the City of Virginia Beach Department of Utilities before coming to HRSD and the HRSD employees with strong personal relationships with several of the victims.

As an organization, we offered the City any assistance they needed. Internally, we have been focused for several years on making HRSD an oasis of civility. I remain unwavering in the commitment to create a work place where everyone feels a sense of belonging; where everyone is treated with dignity and respect and where everyone is seen and heard. I believe we are already far along that path but need to remain focused and thoughtful as there is always room for improvement. I believe that if we show more compassion and humanity to each other, we may just reduce the odds of a future tragedy.

While we are committed to increasing our compassion for each other, we are also taking this opportunity to review our physical security. Balancing the need to conduct business with the public with maintaining the security of our employees is always a challenge. We have already modified some procedures (hours during which gates and interior doors are locked) and are evaluating the hardening of some of our other spaces. There is no perfect solution but we will continue to try and strike the appropriate balance to keep our staff comfortable and our business accessible.

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

- A. **Treatment Compliance and System Operations:** All treatment plants met permit with no reportable issues in the system. The highlights for the month are included in the attached monthly reports.

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

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

B. Internal Communications: I participated in the following meetings/activities with HRSD personnel:

1. Two new employee orientation sessions
2. A meeting to discuss SCADA and the path forward
3. A meeting with the City of Virginia Beach to review draft agreements related to maintenance and operation of the storage tank at Providence Park
4. A meeting with the Navy to discuss next steps on the new access road to the Atlantic Treatment Plant and related issues
5. A meeting to look at the potential of developing a student loan refinancing plan as an employee benefit
6. Several calls with EPA/DEQ discussing a potential meeting regarding their comments on the Integrated Plan submitted in September 2017

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

1. Provided a SWIFT briefing at the Mariners Museum during the Garden Week tour event
2. The monthly meeting of the HRPDC's Director of Utilities Committee
3. Hosted senior staff from the American Water Works Association's DC office at SWIFT RC for a tour and briefing
4. Hosted the chair of the US EPA Environmental Financial Advisory Board (Joanne Throwe) for a tour and briefing of SWIFT RC
5. Participated in the SWIFT briefing for the City of Roseville, California at the SWIFT RC
6. Several conference call meetings of the NACWA Awards Committee
7. Provided a SWIFT briefing for the Nansemond River Preservation Alliance
8. A conference call with WEF staff planning the Public Official's Forum for WEFTEC
9. Hosted the LEAD Williamsburg 2019 class at the Williamsburg Treatment Plant
10. Participated on a panel for the Chesapeake Environmental Protection Association at Anne Arundel Community College
11. Participated on a panel for the US Water Alliance at the National League of Cities during Infrastructure Week
12. Met with the Executive Director of the Water Reuse Association to discuss future support in the mid-Atlantic region
13. A conference call with the US EPA Environmental Financial Advisory Board (EFAB)

14. A meeting with representatives from the Eastern Shore to discuss path forward
15. A planning call with the facilitator for the Aquaculture Repurposing Visioning Session set for July 29th
16. A call with the water Fellow working for the Congressional Black Caucus
17. The annual VAMWA Board of Directors planning meeting
18. The Aspen-Nicholas Water Forum, an invitation only annual convening of national stakeholders in the water sector

D. Consent Decree Update:

1. A meeting has been scheduled with EPA/DOJ/DEQ to discuss status of the Integrated Plan for June 27th at EPA Region III offices in Philadelphia.

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, June 25, 2019 in Virginia Beach** where we will be welcoming our newest Commissioner, Molly Ward.

Respectfully submitted,

Ted Henifin

Ted Henifin, P.E.
General Manager

TO: General Manager
FROM: Director of Communications
SUBJECT: Monthly Report for May 2019
DATE: June 12, 2019

A. Publicity and Promotion

1. **SWIFT solutions at next week's River Talk** | May 2, 2019 | Suffolk News Herald <https://www.suffolknewsherald.com/2019/05/02/swift-solutions-at-next-weeks-river-talk/>
2. **Rep. Elaine Luria spotlights Virginia Shore in call to improve US infrastructure** | May 3, 2019 | Delmarva Daily Times <https://www.delmarvanow.com/story/news/2019/05/03/luria-spotlights-virginia-shore-call-improve-us-infrastructure/366126002/>
3. **Hampton Roads wastewater-to-aquifer recharge project showing results** | May 8, 2019 | The Chesapeake Bay Journal https://www.bayjournal.com/article/hampton_roads_wastewater_to_a_quifer_recharge_project_showing_results
4. **Construction to begin on new HRSD pumping station** | May 8, 2019 Gloucester-Mathews Gazette-Journal https://www.gazettejournal.net/index.php/news/news_article/construction_to_begin_on_new_hrsd_pumping_station
5. **Happy Infrastructure Week (Op/Ed)** | May 15, 2019 | Suffolk News Herald <https://www.suffolknewsherald.com/2019/05/15/happy-infrastructure-week/>
6. **This park will be closed. Here's what's going on** | May 28, 2019 | Southside Daily <https://southsidedaily.com/local-news/2019/05/28/this-park-will-be-closed-heres-whats-going-on/>
7. **Landmark for groundwater replenishment** | May 28, 2019 | Suffolk News-Herald <https://www.suffolknewsherald.com/2019/05/28/landmark-for-groundwater-replenishment/>

8. **Report on Chesapeake Bay clean-up effort: States not on track | May 28, 2019 | WVEC TV**
<https://www.13newsnow.com/article/news/local/virginia/report-on-chesapeake-bay-clean-up-effort-states-not-on-track/291-08977a1c-9948-4bd3-aedf-7f121460f526>
9. **Luria Addresses Christian Businessmen and Holds Town Hall at Onancock | May 30, 2019 | ShoreDailyNews.com**
<https://shoredailynews.com/headlines/luria-addresses-christian-businessmen-and-holds-town-hall-at-onancock/>

B. Social Media and Online Engagement

1. Facebook: 25,267 post impressions and Facebook Engagement of 953
2. Twitter: 23,000 impressions
3. SWIFT website visits: 633
4. LinkedIn Impressions: 2,115
5. Blog posts: [It's Infrastructure Week!](#)
6. Construction Project Page Visits: 1043 total (this number does not include direct visits from home page), broken down as follows:
 - a. 359 visits to construction status page
 - b. 684 visits to individual project pages
7. Next Door unique impressions: 251 (two posts targeted to communities near Woodstock Park and Rt. 134/Big Bethel Road)

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

1. News Releases/Traffic Advisories/Construction Notices: 3 (one of each)
2. Advertisements: 0
3. Project Notices: 13 (via door hanging/door knocking, targeted NextDoor, mail and email messaging and phone reaching approximately 4,698 residents)
4. Project/Community Meetings: 0

5. New Project Web Pages/Blogs/Videos: 1 – [Huxley Place Sewer Extension](#)

C. Special Projects and Highlights

1. Director, along with Director of Talent Management, attended the Public Relations Society of America's Employee Communications Conference in Phoenix, Arizona. The conference was well-planned and shared numerous ideas, strategies, best practices and emerging technologies that can be used to better communicate with our internal audience – especially those who work in the field and in remote locations. Communications and Talent Management will evaluate the ideas and look to implement some of the strategies in the coming months.
2. Director participated in the monthly NACWA Communications and Public Affairs Committee conference call. This month's theme featured PFAS (Per- and polyfluoroalkyl substances) crisis communications.
3. Staff participated in an Earth Action Day debrief meeting with Ocean Lakes High School and Atlantic Treatment Plant staff.
4. Staff attended the askHRgreen FOG (Fats Oils Grease) and Water Awareness monthly meetings.
5. Staff attended Project meetings for the following projects:
 - a. Kempsville PRS to address a citizen privacy concern
 - b. PRS Reliability Mid-Project Partnering Session
 - c. Norchester pump Station kickoff meeting
 - d. Communication planning for Virginia Beach Boulevard/Pinetree

D. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. Virginia Beach Boulevard/Pinetree Project communications plans
 - b. Social media planning for Providence Road Offline Storage Facility
 - c. SWIFT James River Treatment Plant full-scale scoping meeting
 - d. New Employee Orientation
 - e. Teacher Open House planning for SWIFT Research Center
 - f. Senior Leadership meeting
 - g. Website improvement planning for SWIFTVA.com
2. Director conducted bi-weekly communications department status meetings.

E. Metrics

1. Educational and Outreach Activities: 4
 - a. 05/03/19 – SWIFT Tour for staff with Harvey Lindsay Commercial Real Estate (2 attendees)
 - b. 05/07/19 – Outreach at Morgan Library, Suffolk (10 attendees)
 - c. 05/08/19 – Outreach at North Suffolk Library, Suffolk (16 attendees)
 - d. 05/10/19 – Career Fair at Ghent Middle School, Norfolk (120 attendees)

2. Number of Community Partners: 2
 - a. City of Norfolk Public Schools
 - b. City of Suffolk Public Libraries

3. Additional Activities Coordinated by Communications Department: 2
 - a. 05/28/19 – SWIFT Process Tour for Association of Boards Certification employee
 - b. 05/31/19 – James River Treatment Plant Tour

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	10.5
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	113.01
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	2

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager

FROM: Director of Engineering

SUBJECT: Engineering Monthly Report for May 2019

DATE: June 11, 2019

A. General

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

CIP Spending (\$M):

	Current Period	FYTD
Actual	7.91	72.11
Plan	11.80	109.10

2. The Engineering Department held a meeting on May 21 to discuss ways to “Navigate the Future.” Staff reviewed past technological advances and how emerging technologies will change how we do business at HRSD. Some of the topics discussed include virtual reality, data analytics, artificial intelligence, smart devices and advancements in water treatment technologies. We will be using a digital time capsule to capture the discussions and return these ideas to staff in the future. This event provided staff an opportunity to meet as a group, share thoughts and views about some of the latest technologies in use within our department, and to consider new ways to provide value to the organization in the future.

B. Asset Management Division

1. Staff established a list of Key Performance Indicators (KPIs) that will be used with each Asset Management Plan to support the decision making process. The KPIs include metrics in four areas: cost, asset reliability/performance, asset maintenance and staffing.
2. One critical component to the Hurricane Readiness and Recovery Plan is the Damage Assessment Plan. This plan was created to assist with documenting damages after a significant storm or other natural disaster. The plan includes teams to assist with this assessment while Operations Department Staff focus on maintenance and repairs to critical infrastructure. This plan is under review and changes to protocols and team configurations are expected with the improved telemetry systems now in place. This plan will be reviewed in the coming year with changes proposed for the next hurricane season.

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

1. The construction of the Mathews Main Vacuum Pump Station Replacement project is now underway. The contractor has acquired the needed local building permits and has begun excavation for the new pump station foundation. Construction will take about a year with final completion by October 2020.
2. The design of the Water Quality Services Building Phase II project continued in May. Multiple full-day workshops were held to further define office and lab space. Initial discussions have also begun with possible furniture providers. The Design-Build Team plans to have a final cost proposal to HRSD in July, with a target of beginning construction in September once all permits are received.
3. Installation of test wells, gathering of field data and further defining of the full-scale needs of the SWIFT recharge well program continue. Recent efforts include:
 - Completion of test wells at the Nansemond, Williamsburg and York River Treatment Plants
 - Data analysis of the York River Treatment Plant test well
 - James River and VIP Treatment Plant test well installations are underway.

The work to understand local groundwater constraints and overall aquifer recharge capabilities will continue thru the remainder of the year.

D. Planning & Analysis Division

1. A Request for Proposals has been drafted and advertised for consultant support for the Climate Change Planning Study. This study will analyze the impacts of climate change (which includes sea level rise and recurrent flooding) on all of HRSD infrastructure including treatment plants, pump stations, and gravity sewers. The Hampton Roads Planning District Commission (HRPDC) has adopted a range of 3 to 4.5 feet as the planning range for sea level rise by 2100 in the region. This rise in sea level will further compound recurrent flooding and extreme storm impacts. An important outcome of this effort will be to recommend future projects to mitigate and/or replace infrastructure that will be impacted by changes caused by expected climate change.

2. Staff has been working closely with the City of Norfolk to address needed sewer improvements in the Larchmont Section of the City. This effort was undertaken since both the City and HRSD have large projects planned for this area to address concerns with sewer overflows and impacts to infrastructure caused by flooding. A number of options were considered including a full replacement of the existing gravity collection sewer system with a vacuum sewer system. A decision has been to focus on improving the existing system instead of a full replacement. Coordination efforts will continue in the coming months to define the scope of improvements, costs and schedules to make the needed improvements to the sewer system. The work must be closely coordinated and sequenced to minimize impacts to local neighborhoods.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 5
 - a. Staff discussed the regional GIS Data Sharing Platform (HRGeo) at the Central Virginia GIS Users Group Meeting held on May 15.
 - b. Staff participated in a Panel Discussion on the use of Design-Build at the Design-Build Institute of America (DBIA) Southeast Chapter Dinner Meeting held on May 16.
 - c. Staff participated in a Panel Discussion on “Infrastructure Investment and Challenges” at the American Society of Highway Engineers (ASHE) Hampton Roads Chapter Dinner Meeting held on May 21.
 - d. Staff presented HRSD’s upcoming Capital Improvement Program at the Old Dominion University Civil and Environmental Engineering Visiting Council (CEEVC) meeting entitled, “What Does the Future Hold” on May 23.
 - e. Staff taught a class at the Hampton Roads Public Works Academy (HRPWA) entitled, “Engineering & Surveying Principles” on May 24.
2. Number of Community Partners: 5
 - a. Central Virginia GIS Users Group
 - b. DBIA – Southeast Chapter
 - c. ASHE – Hampton Roads Chapter

d. Old Dominion University CEEVC

e. HRPWA

3. Number of Research Partners: 0

4. Metrics Summary

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Total Training Hours per Full Time Employee (43) - Current Month	Hours / #FTE	1.77
M-1.4b	Total Training Hours per Full Time Employee (43) - Cumulative Fiscal Year-to-Date	Hours / #FTE	31.25
M-5.2	Educational and Outreach Events	Number	5
M-5.3	Number of Community Partners	Number	5
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, P.E.

Bruce W. Husselbee, P.E.

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for May 2019
DATE: June 12, 2019

A. General

1. As expected, the interest rate on our \$50 million in Variable Rate Demand Bonds (VRDB) that reset weekly has come down in May from a peak of 2.25 percent in April to 1.40 percent. This volatility is typical during tax season as entities liquidate these securities to pay taxes, but this only lasts a few weeks. The current rate of 1.4 percent is great compared to the 2.5 percent we are earning in the Virginia Investment Pool Liquidity fund.
2. On May 6, staff met with the EPA Water Infrastructure Finance and Innovation Act (WIFIA) team to discuss HRSD's proposed WIFIA application for our SWIFT program. This meeting was very insightful and will help staff prepare a strong Letter of Interest (LOI) that is due July 5th. WIFIA financing is projected to save over \$300 million in lower interest expense and provide significant financing flexibility.
3. Overall, revenues are slightly higher than budget and the previous year. Facility Charges, the second largest revenue component, are projected to end the year higher than budget. This is likely due to the strong economy with low unemployment and declining long-term interest rates making new development more attractive. Interest Income continues to be strong and fortunately, staff used a conservative estimate for FY20 as the Federal Reserve has signaled that they may lower rates in the next year. Personal Services and Fringe are generally in-line with budget and prior year. The other expenses may not reflect encumbrances underway, but they should remain under budget for the fiscal year.

B. Interim Financial Report

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

	Amended Budget	Current YTD	Current YTD as % of Budget (92% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 289,967,000	\$ 266,465,207	92%	93%
Surcharge	1,425,000	1,394,754	98%	70%
Indirect Discharge	2,750,000	2,746,800	100%	97%
Fees	2,855,000	2,657,505	93%	88%
Municipal Assistance	875,000	567,989	65%	97%
Miscellaneous	595,000	1,026,783	173%	112%
Total Operating Revenue	298,467,000	274,859,038	92%	92%
Non Operating Revenues				
Facility Charge	6,075,000	6,013,225	99%	100%
Interest Income	2,500,000	7,767,230	311%	173%
Build America Bond Subsidy	2,400,000	2,266,416	94%	96%
Other	820,000	1,493,783	182%	125%
Total Non Operating Revenue	11,795,000	17,540,654	149%	113%
Total Revenues	310,262,000	292,399,692	94%	93%
Transfers from Reserves	8,847,824	8,110,505	92%	92%
Total Revenues and Transfers	\$ 319,109,824	\$ 300,510,197	94%	93%
Operating Expenses				
Personal Services	\$ 55,355,886	\$ 52,069,714	94%	94%
Fringe Benefits	24,321,670	22,267,938	92%	94%
Materials & Supplies	7,762,154	6,996,600	90%	91%
Transportation	1,446,906	1,233,205	85%	77%
Utilities	12,306,952	11,379,647	92%	89%
Chemical Purchases	10,894,183	7,717,499	71%	83%
Contractual Services	42,104,030	25,752,178	61%	69%
Major Repairs	10,315,534	6,208,177	60%	43%
Capital Assets	1,232,144	509,139	41%	86%
Miscellaneous Expense	2,945,304	2,377,396	81%	93%
Total Operating Expenses	168,684,763	136,511,493	81%	83%
Debt Service and Transfers				
Debt Service	62,711,000	60,514,708	96%	94%
Transfer to CIP	87,475,061	80,185,468	92%	92%
Transfer to General Reserve	-	-	0%	92%
Transfer to Risk management	239,000	219,087	92%	92%
Total Debt Service and Transfers	150,425,061	140,919,263	94%	93%
Total Expenses and Transfers	\$ 319,109,824	\$ 277,430,756	87%	88%

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 May 31, 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	295,734,753			-
Capital Grants				2,444,140
VRA Draws				26,562,894
Bond Proceeds (includes interest)				904,688
Transfers In	-	219,087		80,185,468
Sources of Funds	<u>295,734,753</u>	<u>219,087</u>	<u>-</u>	<u>110,097,190</u>
Total Funds Available	<u>\$ 489,358,146</u>	<u>\$ 3,479,618</u>	<u>\$ 15,266,324</u>	<u>\$ 185,971,219</u>
Deduct: Current Year Uses of Funds				
Cash Disbursements	200,528,234			93,108,949
Transfers Out	80,404,555			-
Uses of Funds	<u>280,932,789</u>	<u>-</u>	<u>-</u>	<u>93,108,949</u>
End of Period - May 31, 2019	<u>\$ 208,425,357</u>	<u>\$ 3,479,618</u>	<u>\$ 15,266,324</u>	<u>\$ 92,862,270</u>

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

Classification/ Treatment Service Area	Expenditures		Year to Date		Total Expenditures	Outstanding Encumbrances	Available Balance
	Budget	prior to June 30, 2018	FY 2019 Expenditures	Total			
Administration	\$ 74,586,023	\$ 40,373,105	\$ 1,929,620	\$ 42,302,725	\$ 3,442,357	\$ 28,840,941	
Army Base	158,584,000	124,056,440	773,655	124,830,095	1,843,190	31,910,715	
Atlantic	127,815,138	56,021,559	27,458,275	83,479,834	24,514,809	19,820,495	
Boat Harbor	136,653,850	55,186,498	3,886,318	59,072,816	17,568,051	60,012,983	
Ches-Eliz	175,032,583	10,416,092	8,534,442	18,950,534	69,395,753	86,686,296	
James River	91,837,687	55,333,203	2,920,102	58,253,305	2,361,793	31,222,589	
Middle Peninsula	86,379,891	7,951,942	2,244,657	10,196,599	6,834,853	69,348,439	
Nansemond	86,801,179	39,238,100	1,784,554	41,022,654	6,675,741	39,102,784	
Surry	13,236,000	101,724	1,075,194	1,176,918	8,773,688	3,285,394	
VIP	292,547,711	250,845,561	7,991,322	258,836,883	2,794,300	30,916,528	
Williamsburg	19,338,971	10,079,626	1,026,212	11,105,838	2,369,751	5,863,382	
York River	51,754,404	40,864,038	2,581,234	43,445,272	817,258	7,491,874	
General	484,385,283	216,595,238	9,903,075	226,498,313	24,719,885	233,167,085	
	<u>\$ 1,798,952,720</u>	<u>\$ 907,063,126</u>	<u>\$ 72,108,660</u>	<u>\$ 979,171,786</u>	<u>\$ 172,111,429</u>	<u>\$ 647,669,505</u>	

5. Debt Management Overview

Debt Outstanding (\$000's)					
	Principal Apr 2019	Principal Payments	Principal Draws	Principal May 2019	Interest Payments
Fixed Rate					
Senior	\$ 308,095	\$ -	\$ -	\$ 308,095	\$ (3,446)
Subordinate	455,705	-	4,341	460,046	-
Variable Rate					
Subordinate	50,000	-	-	50,000	(73)
Line of Credit					
Total	<u>\$ 813,800</u>	<u>\$ -</u>	<u>\$ 4,341</u>	<u>\$ 818,141</u>	<u>\$ (3,519)</u>

Series 2016 Variable Rate Interest Summary - Variable Rate Debt Benchmark (SIFMA) as of 5/31/19

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	2.30%	2.25%	-0.05%
Average	0.49%	0.48%	-0.01%
Minimum	0.01%	0.01%	0.00%
As of 5/31/19	1.42%	1.40%	-0.02%

* Since October 20, 2011 HRSD has averaged 48 basis points on Variable Rate Debt

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

HRSD - UNRESTRICTED CASH

May 31, 2019

Can be used for any purpose since it is not earmarked for a specific use and is extremely liquid

		Days Cash on Hand	Days Cash on Hand
Total Unrestricted Cash	\$ 269,257,059		583
Risk Management Reserve	\$ (3,479,618)	(8)	575
Reserve	\$ (15,266,324)	(33)	542
Capital (PAYGO only)	\$ (73,609,291)	(159)	383
Net Unassigned Cash	\$ 176,901,826		383

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

May 31, 2019

Primary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value May 31, 2019	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	10,669,597	473,628,997	472,731,781	52,988	11,619,801	7.0%	N/A	0.70%
VIP Stable NAV Liquidity Pool	-	187,000,000	36,000,000	2,332,981	153,332,981	93.0%	AAAm	2.55%
Va Local Government Investment Pool	68,984,048	5,000,000	74,115,221	131,173	-	0.0%	AAAm	2.55%
Total Primary Source	\$ 79,653,645	\$ 665,628,997	\$ 582,847,002	\$ 2,517,141	\$ 164,952,782	100.0%		

VIP Stable NAV Liquidity Pool performance equaled Va Local Government Investment Pool (the market benchmark) in the month of May.

Secondary Source	Beginning Market Value July 1, 2018	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value May 31, 2019	Ending Cost	YTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fund	-	124,728,039	1,020,014	2,533,273	127,958,465	126,241,298	1,717,167	2.09%
Total Secondary Source	\$ -	\$ 124,728,039	\$ 1,020,014	\$ 2,533,273	\$ 127,958,465	\$ 126,241,298	\$ 1,717,167	

VIP 1-3 Year High Quality Bond Fund out performed ICE BofA ML 1-3 yr AAA-AA Corp/Gov Index (the market benchmark) by 0.04% in the month of May.

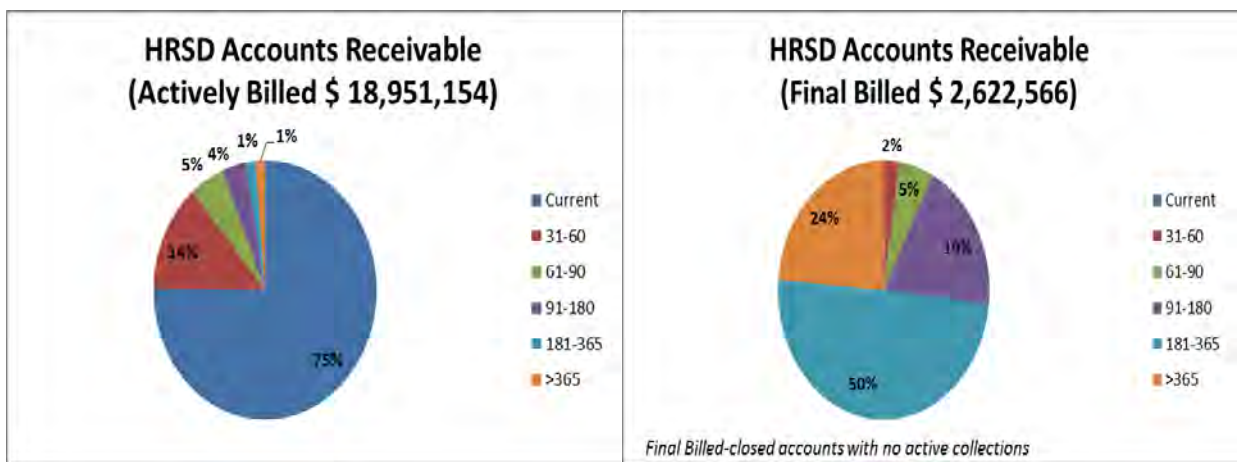
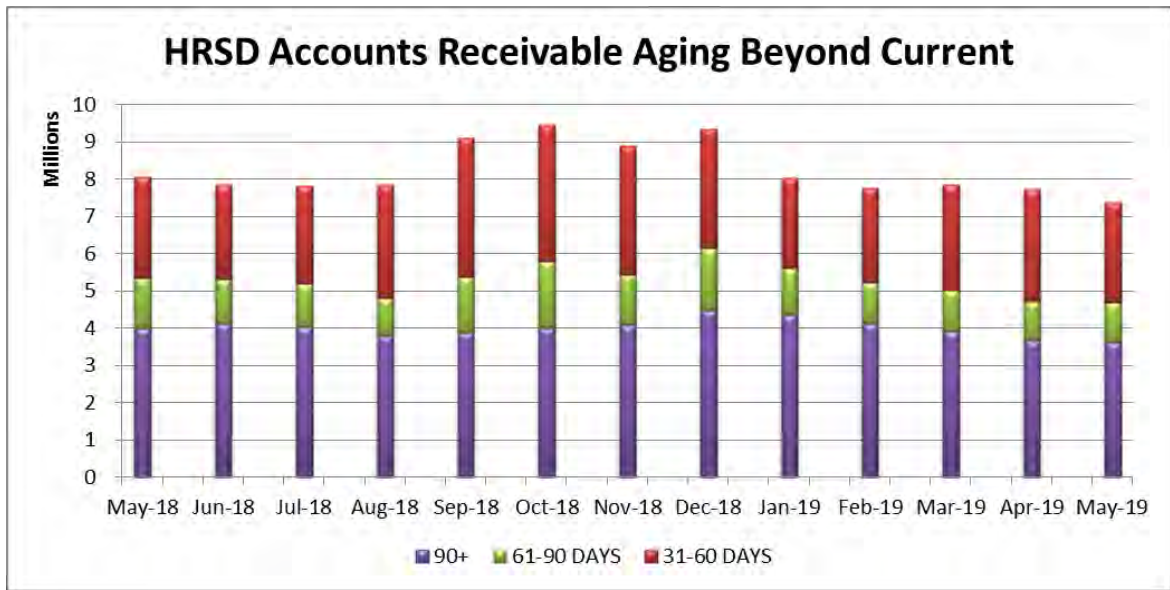
Total Primary Source	\$ 164,952,782	56.3%
Total Secondary Source	\$ 127,958,465	43.7%
TOTAL SOURCES	\$ 292,911,247	100.0%

7. Summary of Billed Consumption

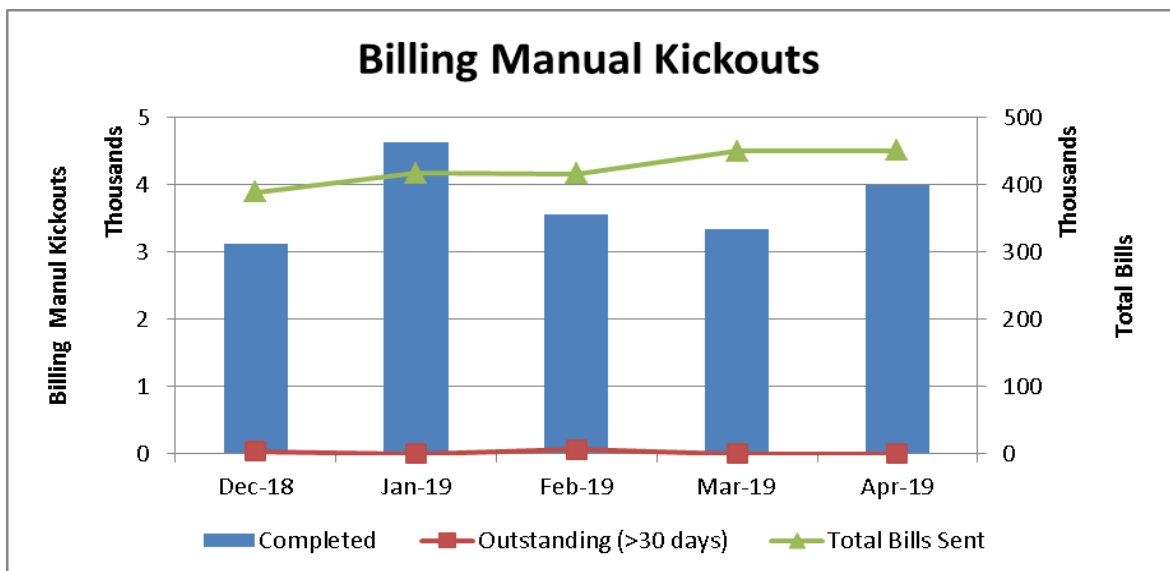
Summary of Billed Consumption (,000s ccf)							
Month	FY2019 Cumulative Budget Estimate	FY2019 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2018 Actual	From FY2018	Cumulative 3 Year Average	From 3 Year Average
July	4,737	5,175	9.3%	4,869	6.3%	4,821	7.3%
Aug	9,595	10,233	6.6%	9,939	3.0%	9,666	5.9%
Sept	14,442	14,294	-1.0%	14,632	-2.3%	14,383	-0.6%
Oct	18,768	19,087	1.7%	19,006	0.4%	18,999	0.5%
Nov	22,834	23,249	1.8%	23,305	-0.2%	23,358	-0.5%
Dec	27,166	27,376	0.8%	27,462	-0.3%	27,616	-0.9%
Jan	31,486	32,010	1.7%	31,965	0.1%	31,948	0.2%
Feb	36,154	36,551	1.1%	36,519	0.1%	36,247	0.8%
March	40,096	40,187	0.2%	40,741	-1.4%	40,654	-1.1%
Apr	43,612	44,551	2.2%	44,732	-0.4%	44,649	-0.2%
May	47,887	48,790	1.9%	49,018	-0.5%	48,864	-0.2%
June	52,927	-	N/A	53,298	N/A	53,391	N/A

C. Customer Care Center

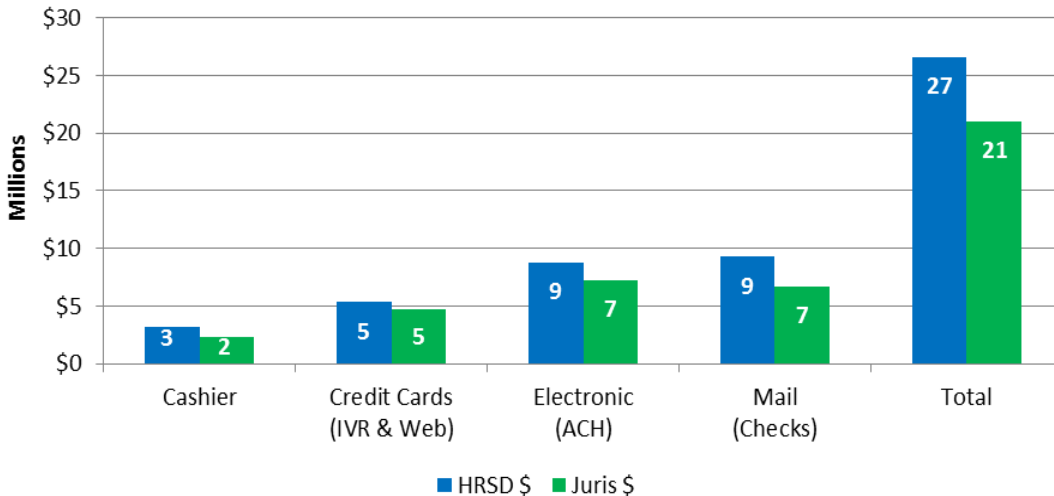
1. Accounts Receivable Overview



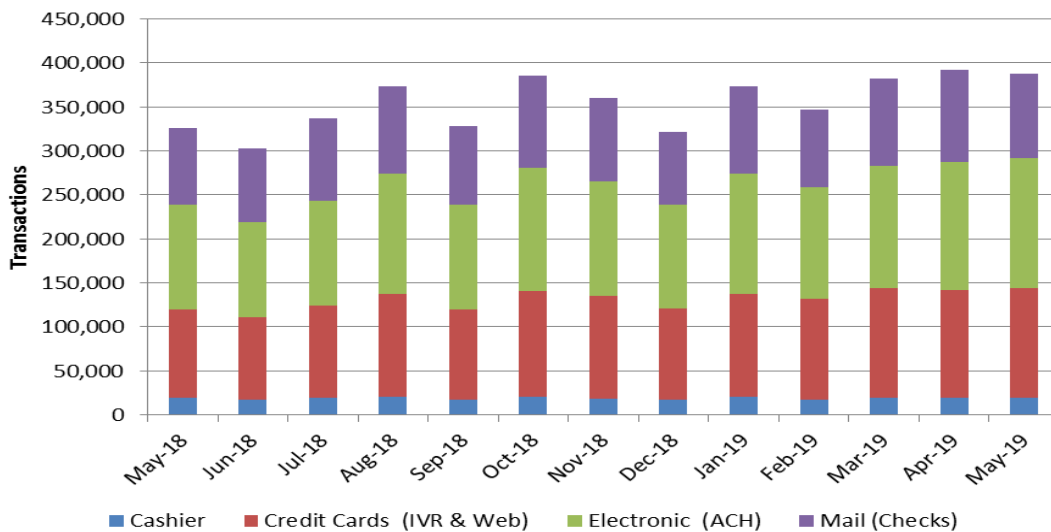
2. Customer Care Center Statistics



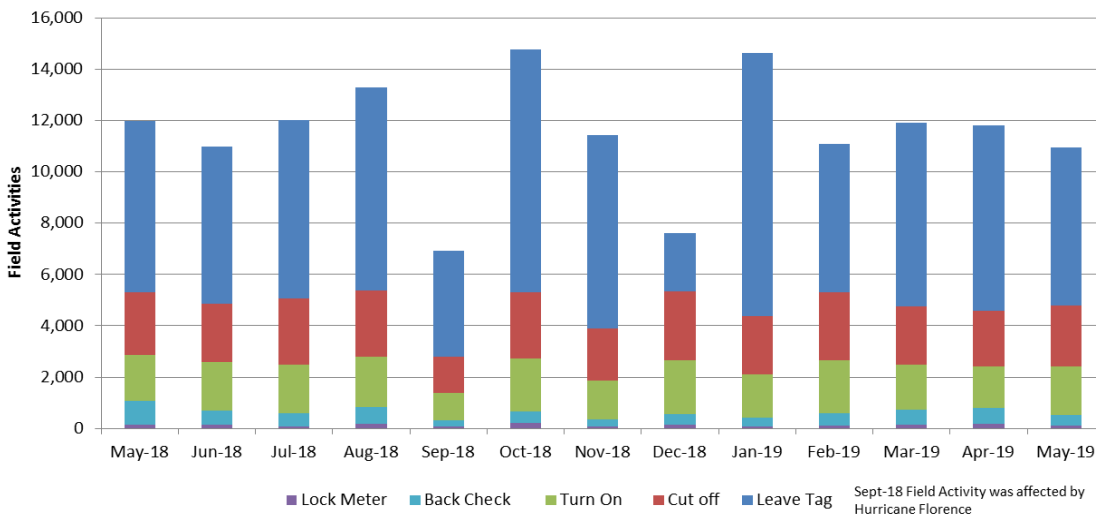
Payments Processed May 2019

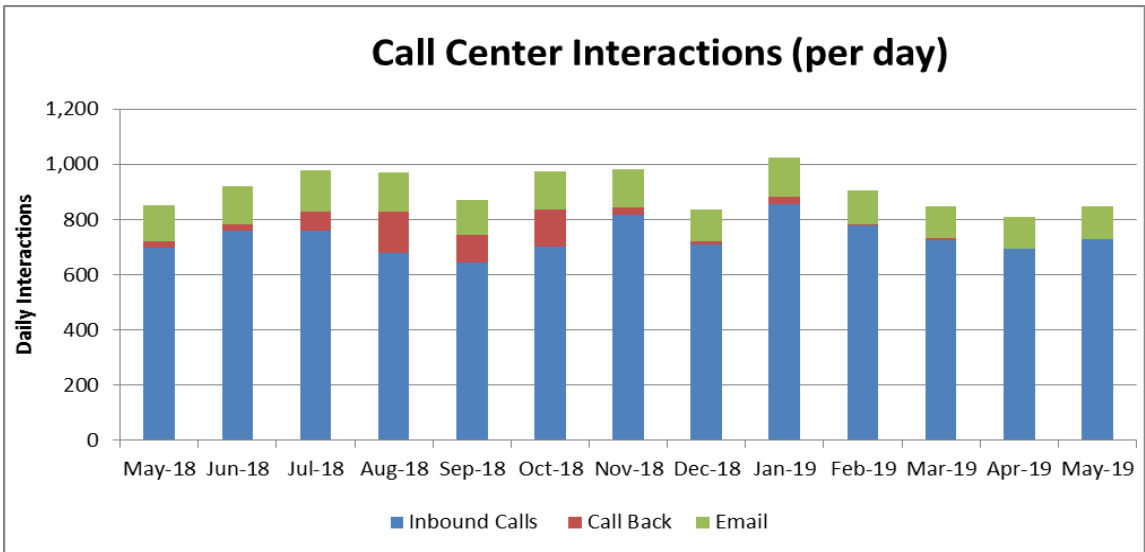
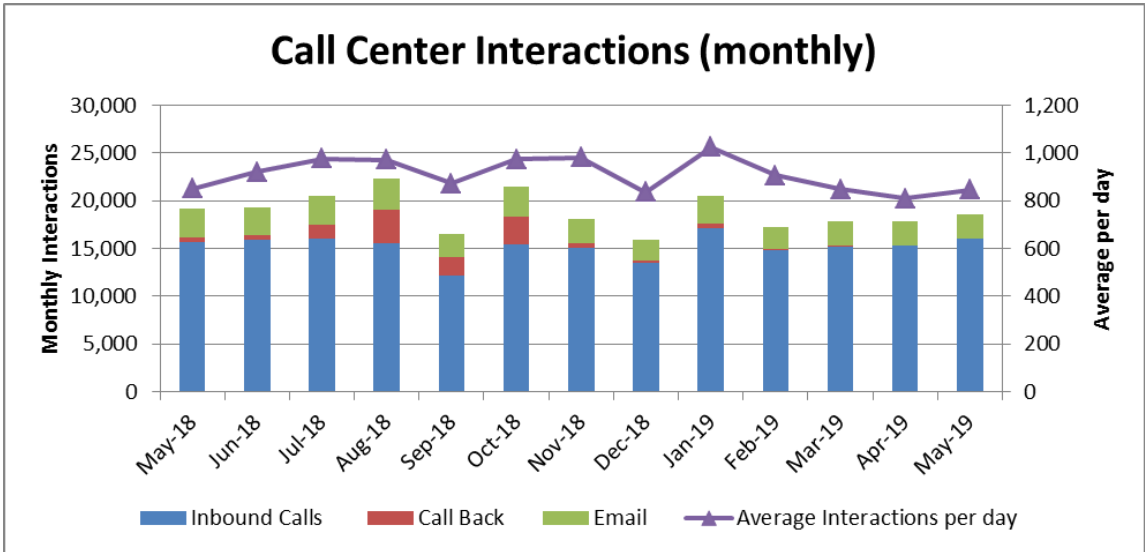
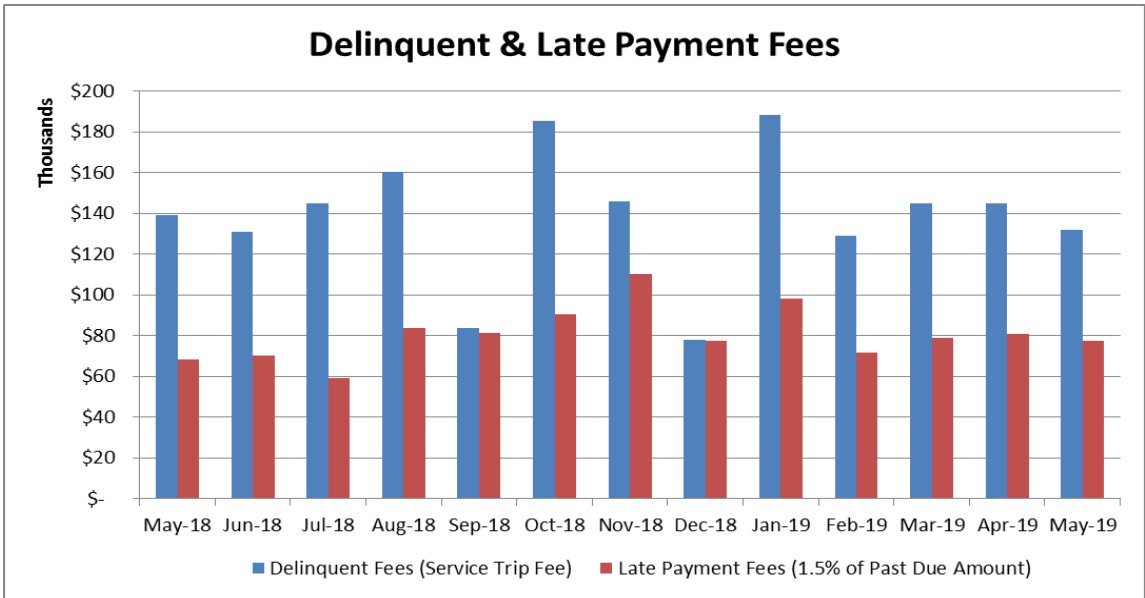


Payment Transactions



Field Activity



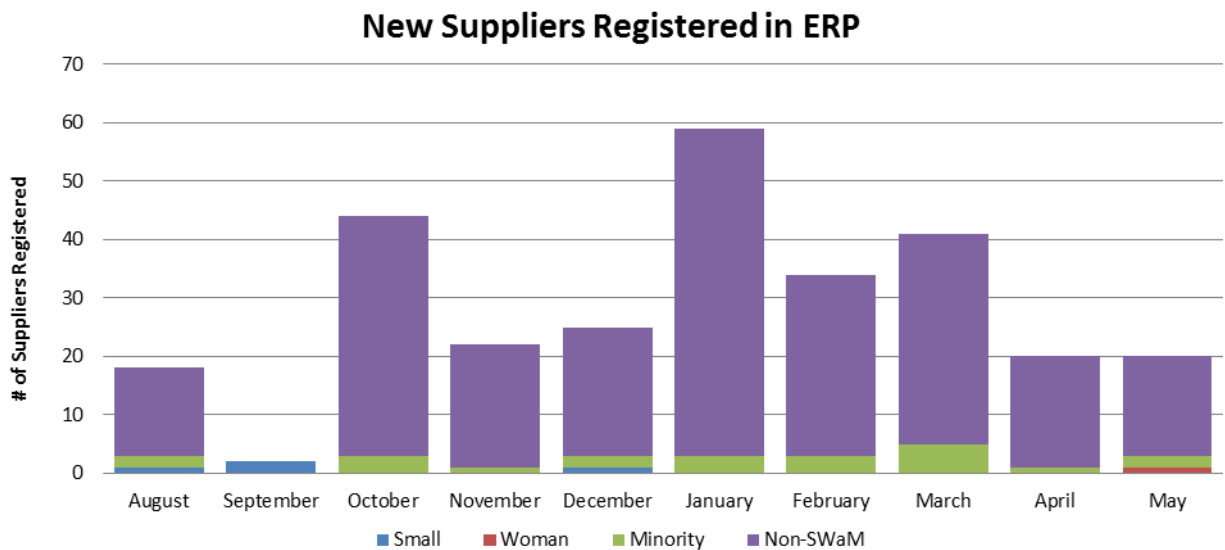


Customer Interaction Statistics	Dec	Jan	Feb	Mar	Apr	May
Calls Answered within 3 minutes	93%	85%	94%	94%	96%	96%
Average Wait Time (minutes)	0:38	1:20	0:37	0:39	0:26	0:29
Calls Abandoned	4%	6%	4%	4%	3%	3%

D. Procurement Statistics

Savings	Current Period	FYTD
Competitive Savings ¹	\$101,654	\$1,449,999
Negotiated Savings ²	\$206,620	\$529,675
Salvage Revenues	\$640	\$140,896
Corporate VISA Card - Estimated Rebate	\$20,896	\$201,026

*Savings figures corrected to include additional metrics added for April.

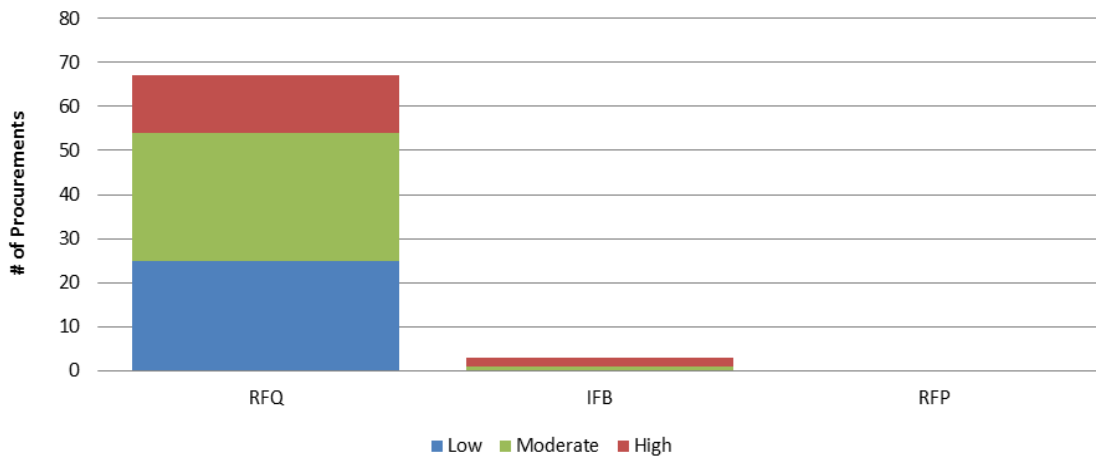


*Increased supplier registration due to supplier outreach at NIGP Forum 8/21/18, Water Jam 9/12/18, WEFTEC 10/2/18, VASCUPP® SWaMFest 10/4/18, DGS Public Procurement Forum 10/23/18, CNU SWaM Fair 11/7/18, Virginia Beach Minority Business Council Conference and Expo 11/8/18

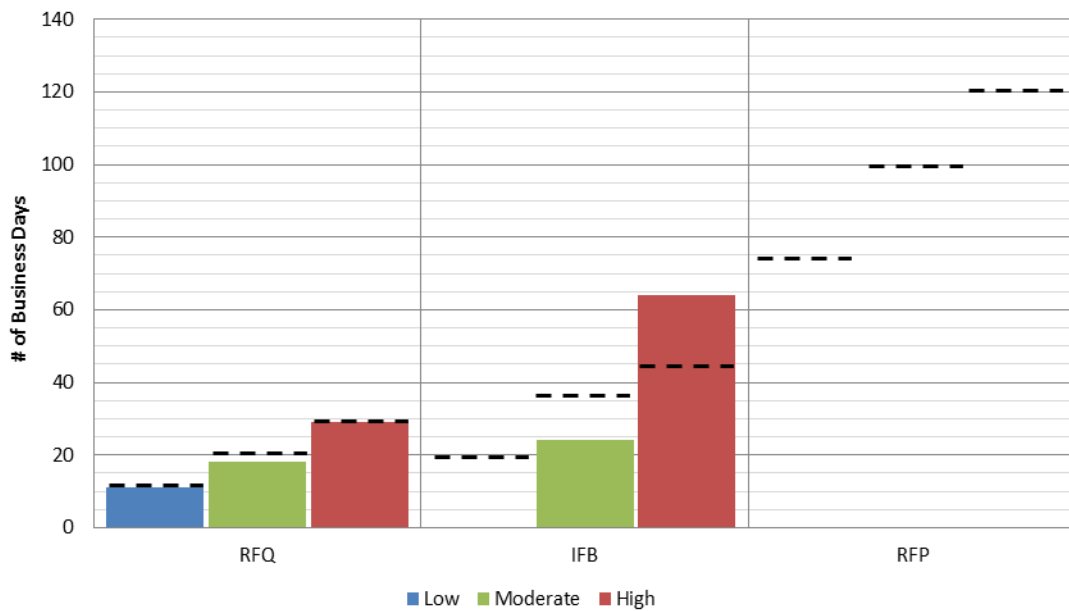
¹ Competitive savings are those savings obtained through the informal/formal bidding process. All bids received (except for the lowest responsive/responsible bid) added together and averaged. The average cost is subtracted from the apparent low responsive/responsible bidder.

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

Procurements Completed Based on Complexity



Cycle Time per Method of Procurement and Complexity

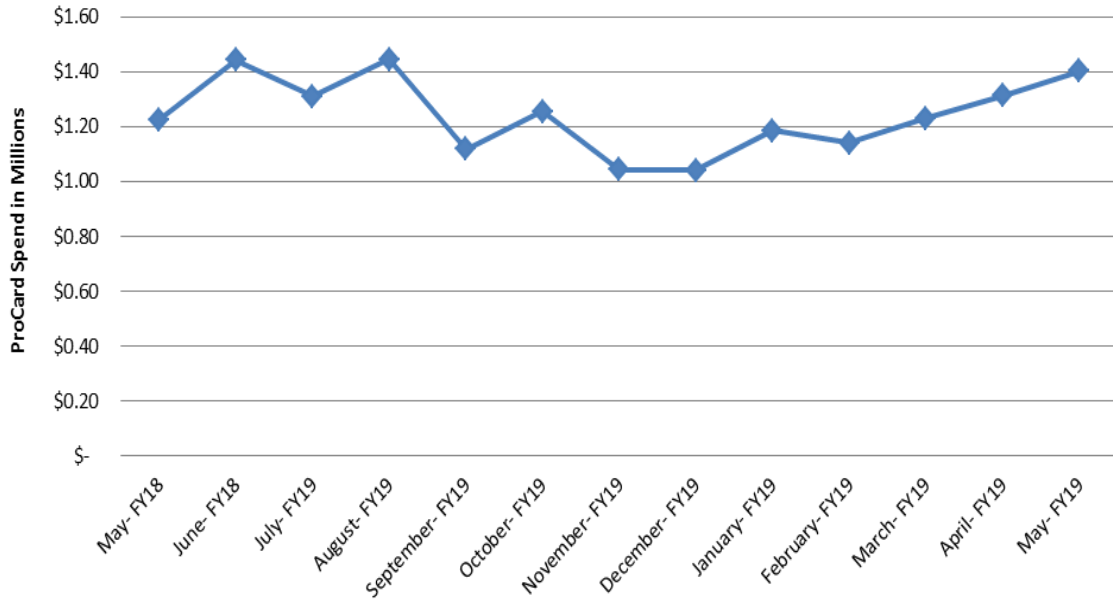


Dashed Line: Target Service Level Cycle Time

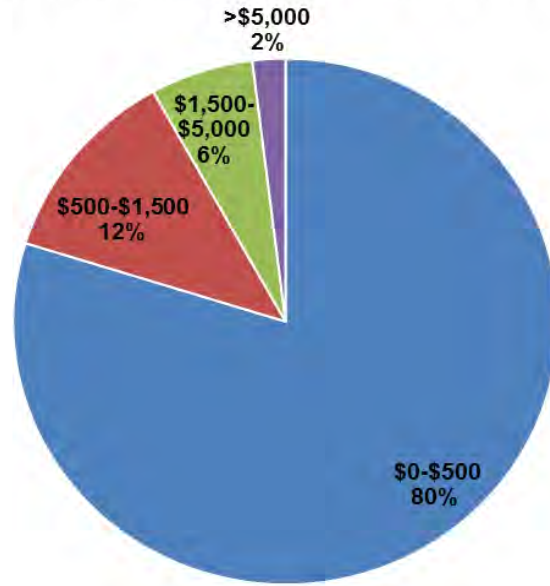
	Low	Moderate	High
RFQ	12	20	30
IFB	20	35	45
RFP	75	100	120

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

ProCard Spend



ProCard Transaction Dollar Amounts



ProCard Fraud	External Fraud Transactions *	Comments
July	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
August	0	n/a
September	3	1 Caught by Cardholder; 2 Caught by Bank Immediately
October	1	Caught by Cardholder
November	2	1 Caught by bank immediately; 1 caught by cardholder
December	0	n/a
January	1	Caught by bank immediately
February	4	3 Caught by bank immediately; 1 caught by cardholder.
March	1	Caught by bank immediately
April	1	Caught by bank immediately
May	4	Caught by bank immediately
Total	20	

***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 2 transactions (0.07%) out of the 2,814 May ProCard transactions, with a combined total of \$107.04.

Procurement Client Training		
	Current Period	YTD
ProCard Policy and Process	4	38
Procurement Cycle	1	35
Procurement 101- Sole Source	0	32
Procurement 101- Request for Proposal	0	37
Total	5	142

*Totals updated due to corrections made to training February through April

E. Business Intelligence – Enterprise Resource Planning (ERP)

- ERP Helpdesk currently has 167 open work orders in the following statuses:

Escalated	2
In progress	64
On Hold	19
Open	79
Waiting on User	3

- ERP Helpdesk received 284 work orders in May. In May, 240 work orders were closed and 103 were closed within one hour.

3. Projects

a. Unifier Administrative (Admin) Support

Unifier Admin received 25 work requests with 96 percent resolved.

b. Comprehensive Annual Financial Report (CAFR)/Reporting Software

User and Administrator Training began in May. IGM is working with our uploaded files to re-create the Fiscal Year-2018 CAFR as part of the testing process.

c. ERP Security Patching

Oracle released a security patch that required installation and testing in two environments before being placed in Production. The risk assessment from Oracle was 9.8 out of 10. The patch was successfully installed in Production over the Memorial Day weekend.

d. ERP Reporting Software

Staff began work on a Request for Proposal for Ad Hoc reporting software for the ERP system. Oracle's BI tool meets most of our analytical needs, but we have a need for transactional reporting. This solution will fill that need.

e. ERP Enhancements

Work continues with Emtec on enhancements to information passed to the Projects and GL modules.

f. Project EVO Initiative - Unifier improvement project

This project will improve HRSD's project management system, Unifier, to provide real-time visibility into budgets and schedules and empower data-driven decisions.

- (1) Oracle Primavera P6 has been configured and projects have been imported. Training has been scheduled for June.
- (2) EBS/Unifier high level design complete. There will be one final review in June before moving into detailed design.
- (3) The Data warehouse (Panoptra) has been configured. Testing and roll out will occur in June.
- (4) Change management and stakeholder communication continues.

F. Strategic Planning Metrics Summary

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

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Training During Work Hours Per Full Time Employee (101) – Current Month	Hours / #FTE	2.58
M-1.4b	Total Training During Work Hours Per Full Time Employee (101) – Cumulative Fiscal Year-to-Date	Hours / #FTE	30.51
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	100%
	General Reserves	Percentage of Operating Budget less Depreciation	124%
	Liquidity	Days Cash on Hand	583 Days
	Accounts Receivable (HRSD)	Dollars	\$21,573,720
	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 May 2019

DATE: June 12, 2019

A. General

1. The Microsoft Surface computing platform will soon become the computing standard for most HRSD employees. Marine, industrial field, and a limited number of processor intensive applications will continue to be addressed with platforms appropriate to their unique requirements. This further consolidation and standardization of hardware and software will contribute substantially to ongoing maintenance, support, and cybersecurity initiatives.
2. The development, test, and pre-production environments for the scheduled upgrade of the Customer Care & Billing system, from version 2.5 to version 2.7, are up and running.
3. IT continues working with Customer Care to archive outdated customer account records, in preparation for the billing system upgrade.
4. Staff is working with Engineering and Finance to expand and improve the processes associated with application integration and enterprise data management.
5. StackVision air quality emission monitoring systems were upgraded at the Chesapeake Elizabeth and Army Base treatment plants.

B. Strategic Planning Metrics Summary

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

3. Metrics Summary

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Training During Work Hours Per Full-Time Employee (45) – Current Month	Total Training Hours / # FTE	3.57
M-1.4b	Total Training During Work Hours Per Full-Time Employee (45) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	32.68
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0

Respectfully,
Don Corrado

TO: General Manager
FROM: Director of Operations
SUBJECT: Operations Report for May 2019
DATE: June 10, 2019

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. There was one odor complaint, one interceptor complaint and six system alarms during the month. All issues and alarms were promptly resolved.
- b. Draft functional description and programming efforts commenced at the Coliseum Pressure Reducing Station (PRS) and the Offline Storage tank. This effort will utilize the 2.5 million gallon (MG) tank on a daily basis to balance or “flat line” average daily flows going to York River Treatment Plant (YRTP). Normalizing flow at the YRTP is expected to improve the treatment process and minimize disruptions and cost. Traditionally, this tank has only been utilized in wet weather conditions. The utilization of the tank in dry weather is HRSD’s first step toward Smart Sewer concepts. Potential benefits could be far reaching and may offset some of the needed onsite storage volume at a full-scale Sustainable Water Initiative for Tomorrow (SWIFT) facility.
- c. Staff repaired a failed branch valve at the intersection of Route 134 and Big Bethel Road. The repairs required a significant flow diversion.

2. South Shore (SS) Interceptor Systems

- a. On May 30, Virginia Maritime Association (VMA) reported sewage odors in their building. The VMA’s commercial building houses our Plume Street pump station (PS). Staff discovered and replaced a broken exhaust fan belt.
- b. There were five interceptor complaints reported this month: three for City of Virginia Beach Public Utilities and two City of Norfolk Utilities-related issues.

- c. Staff responded and resolved 20 system alarms this month.
- d. Staff assisted the Chesapeake-Elizabeth Treatment Plant (CETP) by removing approximately five yards of grease from the septic well.
- e. Staff assisted the Virginia Initiative Plant (VIP) by removing a quarter of a yard of grit from the Norfolk Water Storage (NWS) tank.
- f. Staff operated system valves to assist the City of Virginia Beach in repairing their Chesopeian Colony pump station.

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. A contractor completed the installation of #4 intermediate PS pump.
- b. Staff replaced non-potable water (NPW) supply lines on the new intermediate pump.
- c. Staff retrofitted LED lights on the second high mast light pole, completed the installation of a new polymer mixing system and installed a new drive on centrifuge #2.

2. Atlantic Treatment Plant (ATP)

- a. Construction of the Thermal Hydrolysis Process (THP) and Fats, Oils and Grease (FOG) facility continues.
- b. A contractor replaced part of a corroded Combined Heat and Power (CHP) engine digester gas line. The engine was placed back in service toward the end of the month. The CHP engine operated seven days this month and has been offline since April awaiting repair parts.
- c. Staff replaced the Return Activated Solids (RAS) building 1 Motor Control Center this month.
- d. A contractor replaced approximately 50 feet of damaged perimeter chain link fence on the south west corner of the property. The damage was caused by fallen trees.
- e. Contractors and staff replaced the scale house and septic receiving cameras with new high definition cameras.

3. Boat Harbor Treatment Plant (BHTP)

- a. Staff cleaned the #3 aeration tank and conducted annual preventive inspections. The need to nitrify prevented staff from cleaning and inspecting the aeration tanks for the last several years. This year, however, staff was also able to clean and inspect five of the six aeration tanks. Staff will reestablish nitrification in July.
- b. Staff cleaned and inspected secondary clarifier # 3. The tank will remain out of service for the next few months until work is completed.
- c. Staff tested the remote shutdown system designed to allow shut down of the emergency generator power from the Nansemond Treatment Plant (NTP) in the event BHTP is abandoned due to projected extreme weather and/or high tides. The remote test failed to shut down power even after several attempts. However, the backup float system functioned as designed and shut the emergency generator down. Staff ordered repair parts for the remote shutdown system.

4. CETP

- a. Staff installed the recently overhauled #2 centrifuge.
- b. Staff reattached the baffles in the #7 and #8 secondary clarifiers.
- c. Staff completed multiple projects for the ongoing pilot study to assist with their process work.

5. James River Treatment Plant (JRTP)

- a. Staff completed several repairs, which included re-piping the #3 and #4 secondary clarifier spray water lines; installing a centrate pump and new odor control scrubber recirculation piping; replacing a check valve on the digester transfer pump #1; and a coupling on the thickened waste activated solids pump #2.
- b. NS Interceptor staff assisted in removing a significant amount of scum trapped between the weirs and the scum raceway on the primary clarifiers #3 and #4.
- c. Staff installed a back-up air compressor in the thickening building boiler room.

- d. Staff completed work on the magnesium hydroxide feed system designed to form struvite for phosphorus removal through centrifuge cake solids.
- e. A contractor completed removing the old #2 centrifuge concrete pad in preparation for constructing a concrete pad to support a new centrifuge.

6. NTP

- a. Staff continues to explore automated operations during day shift hours to determine further automation needs to support minimizing staffing needs during off hours.
- b. Staff attended a factory acceptance test at the Centrisys CNP Centrifuge manufacturing facility.
- c. In preparation of “stressing” the primary clarifiers, staff installed a new mixing system to primary clarifiers #3 and #4 scum wells. Stressing the primary clarifiers occurs when the number of primary clarifiers in service is just enough to allow for minimal solids and Biochemical Oxygen Demand (BOD) removal. The purpose of stressing the clarifiers is to allow for more BOD (a food source for microorganisms) to stay in the wastewater stream to the aeration tanks. The intent is that the microorganisms will consume the additional BOD and reduce the demand for methanol.
- d. Staff identified significant wear in the #2 induced draft (ID) fan impeller which will require replacement. Another odor scrubber will run in its place during the repairs.
- e. Contractors began demolition of the #3 centrifuge pad in preparation for installation of the new centrifuge.
- f. Staff began operation of the new polymer skid for the dewatering process. Due to new equipment programming issues, there were multiple dewatering polymer spills into the containment area. Staff is working to resolve the programming issues. Until then, the Plant Operators will continue to keep a close watch on the system.
- g. A high ozone demand was observed at the SWIFT RC during the second week of May and aquifer recharge operations were

inconsistent for a few days. Staff from the Water Quality Department are investigating.

- h. Staff at the SWIFT RC started daily monitoring of arsenic levels at one of the monitoring wells since it was detected at elevated concentrations (higher than drinking water MCL of 10 ug/L). VDH, DEQ and EPA were immediately notified. It was clear from testing that the SWIFT RC was not the source of the elevated MCL. One hypothesis is that high concentrations of arsenic might be due to the disruption of the hydrous ferrous oxide (HFO) and passivating surfaces that may have occurred during well rehabilitation.
- i. The Biological Activated Filters at the SWIFT RC started to acclimate, therefore partial nitrification is occurring. Free chlorine is being used instead of monochloramine to keep nitrite at half of the MCL (1 mg/L).
- j. The Granulated Activated Carbon (GAC) vessel #1 was backwashed twice due to high head loss. This was expected since only one GAC vessel is currently in service.

7. VIP

- a. Staff replaced primary clarifier and biosolids transfer pump process valves, replaced grit separator drain lines and repaired one secondary clarifier sweep arm assembly.
- b. Staff completed the rehabilitation project on the scrubber fan for the main odor control system and returned the fan to service.
- c. Staff assisted contractors with replacement of the incinerator solids conveyor belt, replaced ash and solids conveyor bearings and completed the annual inspection of the primary clarifier solids tanks.

8. Williamsburg Treatment Plant (WBTP)

- a. There was one reportable wastewater event and one odor deviation. The wastewater event occurred when staff used the short outfall to accommodate a contractor performing repair work on the main plant outfall and diffuser. The odor deviation was caused by a malfunctioning pH probe. The probe was repaired.
- b. Staff cleaned aeration tank #2 and replaced corroded aluminum walls separating different zones of the nutrient removal process. Walls

were replaced with materials made of fiberglass and polyvinyl chloride.

- c. Staff repaired the scum baffle on primary clarifier #3. The baffle was loose due to wear and caused the primary clarifier rake arm to stop turning.
- d. Staff cleaned the incinerator #2 and repaired refractory materials.

9. YRTP

- a. One odor deviation occurred when a scrubber recirculation pump failed. The pump was repaired.
- b. Staff completed the nutrient removal improvements for aeration tank #1. Work in May included air piping modifications and installation of air diffusers, reactor walls and bubble generating devices.
- c. Digester #2, with its new cover, was placed in service.
- d. Staff installed an actuator on the inlet valve of aeration blower #1 with a connection to the Distributive Control System (DCS). The blower can now be controlled by air piping pressure, blower amps or aeration tank dissolved oxygen with the goal of reducing power usage while meeting operational needs.
- e. The well drilling contractor completed soil conditioning of the test well.

10. Minor Incinerator Operations Events Summary

There were two deviations from the required 129 Sewage Sludge Incineration (SSI) rule minimum operating parameters and six minor (<60 minute) non-reportable bypass events.

The CETP used the medium hearth incinerator (MHI) emergency bypass damper/stack on May 1 for one hour and 36 minutes. Staff was changing out the batteries in the generator switch gear room and while putting a bus bar back in, an electrical breaker tripped causing the whole plant to lose power. Staff reset the breaker and the ID fan. DEQ was notified.

On May 24, the DEQ consent order was completed at the ABTP for the October 30, 2018 failed the hydrochloric (HCl) emission test and subsequent successful MHI unit #1 retest on March 6, 2019.

C. Small Communities Division (SCD)

1. Middle Peninsula Small Communities Treatment and Collections

- a. The required frequency of carbonaceous biochemical oxygen demand (cBOD) sample analysis for the King William Treatment Plant (KWTP) reuse outfall 650 was not met during the week of April 28 – May 4, 2019. The permit requires one cBOD sample per week when the reuse outfall is utilized. Staff routinely collects weekly reuse cBOD composite samples on Tuesdays and Wednesdays to ensure an extra sample is available if the first sample and/or its analysis are deemed unacceptable. The samples were collected on April 30 and May 1 but both of these cBOD analytical results were flagged with the designation IA1 (quality control data outside of acceptance limits, during the data review) making them invalid. These two analytical results were not included in the monthly average calculations.
- b. During the calendar week of April 28 one cBOD sample was collected and analyzed for the KWTP effluent outfall 001 in compliance with the permit. Given there is likely little discernible difference in quality between water discharged through Outfall 001 and Outfall 650, at this time the analytical result for the Outfall 001 sample can be used to estimate the quality of water discharged through Outfall 650. This result, <2 mg/l, suggests that effluent quality remained acceptable and constant throughout the calendar week of April 28 – May 4, 2019. In total, three cBOD effluent samples were collected and analyzed for the facility. One of the analyses corresponding to one of the three samples was valid and the analytical results for all three samples were <2 mg/l. This information suggests that effluent quality required for Outfall 650 discharge was likely acceptable as defined by the permit concentration limit.
- c. Staff participated in the semi-annual clean-up of their adopt-a-highway this month. Approximately five 55-gallon garbage bags of trash were collected.
- d. Staff continues to work on various projects at the Urbanna Treatment Plant (UBTP). The new structural steel supports and coatings are all complete. The new dissolved oxygen and total suspended solids probes came online this month. Remaining work to be done includes the construction and installation of several mixers (similar to the work

at the WBTP and the YRTP) in the equalization basin and final aeration basins.

2. Small Communities – Surry Systems

- a. The Sussex Service Authority (SSA) continued contract operations of the Town of Surry TP and the Surry County TP.
- b. Plant flows at both the County and Town treatment plants fell below their hydraulic capacity for the first time in several months.
- c. The chain on the rotating biological contactor (RBC) at the Town of Surry TP failed and was repaired within 48 hours.

3. Small Communities - Lawnes Point

There were four pump and haul operations at the Lawnes Point Treatment Plant.

D. Support Systems

1. Automotive

Staff performed load bank tests at Hilton School PS, Washington Street PS, Quail Avenue PS, and Terminal Boulevard Pressure Reducing Station (PRS). Staff performed monthly generator tests at the NS and SS Main Operations Complexes. All generators operated as designed and were returned to service.

2. Condition Assessment

- a. Staff attended Factory Acceptance Testing (FAT) of two new centrifuges at Centrisys Centrifuge Systems in Kenosha, Wisconsin.
- b. Staff started the restoration of the BHTP clarifier #4 and NTP aeration tank #5 ductile iron pipe. Struvite secondary containment tank rehabilitation at NTP is completed.

3. Facilities Maintenance

- a. Renovation of the NTP solids handling locker room is nearly complete.

- b. Preparation of the warehouse at 1460 Air Rail Avenue is 95 percent complete for its demolition.
- c. Staff rebuilt four pumps at the Newmarket PS #3 and two pumps at Chesapeake Boulevard PS and Cedar Lane #3.

E. Energy Management

1. Installation of the diesel oxidation catalysts on the BHTP and NTP generators is complete. These catalysts will reduce carbon monoxide (CO) emissions and allow the generators greater operational flexibility. The installations are scheduled for testing in July and final permit approvals in the September/October time frame.
2. Staff is studying power alternatives at the JRTP and for upcoming SWIFT projects.

F. Electrical and Instrumentation

1. Staff worked with a generator switchgear contractor to test and inspect the emergency generator control systems at the ABTP and the ATP. Inspection report results are pending.
2. Staff worked to increase the performance of the dissolved oxygen (DO) control at ATP and to improve Nitrified Recycle Clarified Recycle (NRCY) flow balance to the anoxic tanks control and to improve the header pressure control at VIP.
3. Staff installed lightning arrestors on all communication cables and added a managed switch in the scale inbound/outbound pedestals and old scale cabinet in pilot motor control center room at the CETP.
4. A contractor installed new lighting in the screening room, grit dumpster room, and scum building at CETP.
5. Staff removed existing equipment in order to add six new Hach probes and an additional sensor to the influent end of the aeration tanks for the DO project at CETP.
6. A contractor tested and inspected the medium voltage switchgear, circuit breakers and motor starters at VIP. Inspection report results are pending.
7. Staff replaced a lighting panel and two transformers in the recycle building at WBTP. The project required two electrical outages to setup a temporary

power panel for recycle pumps and associated controls. Staff inspected the de-energized lighting panel and identified two corroded circuit breakers that required replacement. Staff replaced the two circuit breakers and returned the lighting panel to service.

8. Staff installed temporary SCADA bypass alarms for the wet well upgrade project at Luxembourg Pump Station (PS).
9. Staff is developing a dissolved iron analyzer for SWIFT operations. The instruments will allow us to monitor influent and effluent iron levels to enhance process monitoring. Testing has started and the team is working to attain the desired detection level for SWIFT water.
10. Staff responded to 16 SCADA communication failures and 4 Telog communication failures. A communication failure is defined as a total loss of communication at a site that requires staff to respond to the site.
11. Staff completed the configuration for web-based access to the current SCADA system for the SCD. This solution creates web-based visual access to the system for alarm and system monitoring, with the ability to acknowledge alarms.

G. Water Technology and Research

The process engineering group has been focusing on blower control this month, with testing, optimization, and control system improvements occurring at several plants including York River, James River, Nansemond, VIP, and Atlantic. This work is focused on maximizing blower turndown safely without undue risk of blower damage, enhancing blower control to allow for more effective dissolved oxygen, and allowing for new blower control modes that have the potential for significant energy savings.

H. MOM reporting numbers

MOM Reporting #	Measure Name	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
2.7	# of PS Annual PMs Performed (NS)	2	2	3	3	2	1	7	4	1	5	4	
2.7	# of PS Annual PMs Performed (SS)	6	3	5	4	6	3	5	6	6	6	0	
2.7	# of Backup Generator PMs Performed (Target is 4.6)	6	19	7	8	10	6*	11	11	12	8	11	
2.8	# of FM Air Release Valve PMs Performed (NS)	128	33	124	268	213	191	181	42	176	130	228	
2.8	# of FM Air Release Valve PMs Performed (SS)	193	221	222	275	161	230	225	326	265	304	284	
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	1,270	2,334	1,361	
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	10,728	8,525	6,432	
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	329	0	0	

*Adjusted monthly total

I. Strategic Measurement Data

1. Education and Outreach Events: 12

- a. 05/03/19 – A tour of SWIFT was conducted by Charles B. for city of Roseville, CA
- b. 05/09/19 - A presentation and tour of the Williamsburg Treatment Plant was provided for approximately 30 people from the Williamsburg LEAD Group.
- c. 05/10/19 – A tour of NTP and SWIFT was conducted by Kelly L. for Virginia Beach VoTech Public Works Academy
- d. 05/15/19 – A tour of NTP and SWIFT was conducted by Seth L. for six people from Environmental Insurance Carriers
- e. 05/16/19 – Charles Bott participated in a Water Research Foundation Expert Panel Workshop for a reuse project being considered by Miami-Dade County and Florida Power and Light
- f. 05/17/19 – A tour of NTP and SWIFT was conducted by Charles B. for the Secretary of Natural Resources of Vermont
- g. 05/28/19 – A tour of SWIFT was conducted by Stacie C. for Michael Bolt with the Association of Boards of Certification (ABC)
- h. 05/31/19 - A JRTP tour was conducted for five members of the Fort Eustis Department of Health.
- i. 05/31/19 - Presentation on SWIFT was provided by Germano S. at the ACODAL 2019 in Cartagena, Colombia

2. Community Partners: 9

- a. Aberdeen Elementary School
- b. Cape Henry Collegiate
- c. Chesapeake Bay Foundation – oyster cage maintenance at BHTP for oyster gardening program
- d. City of Virginia Beach Public Utilities
- e. Hampton Roads Public Works Academy (HRPWA)
- f. Old Dominion University (ODU)
- g. Pruden Center
- h. Tidewater Community College
- i. Virginia Institute of Marine Science (VIMS)

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (516) – Current Month	Hours / FTE	6.39
M-1.4b	Total Training During Work Hours per FTE (516) – Cumulative Year-to-Date	Hours / FTE	31.40
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	28,242.25
M-2.3b	Planned Maintenance – Preventive and Condition Based	% of Total Maintenance Hours	59.20%
M-2.3c	Planned Maintenance - Corrective Maintenance	% of Total Maintenance Hours	15.77%
M-2.3d	Planned Maintenance - Projects	% of Total Maintenance Hours	25.03%
M- 4.1a	Energy Use: Treatment *reported for April 2019	kWh/MG	2,429
M-4.1b	Energy Use: Pump Stations *reported for April 2019	kWh/MG	159
M-4.1c	Energy Use: Office Building *reported for April 2019	kWh/MG	86
M-5.2	Educational and Outreach Events	Number	12
M-5.3	Number of Community Partners	Number	9

Respectfully submitted,
Steve de Mik
 Director of Operations

TO: General Manager
FROM: Director of Talent Management (TM)
SUBJECT: Monthly Report for May 2019
DATE: June 12, 2019

A. Human Resources (HR)

1. Recruitment Summary

New Recruitment Campaigns	12
Job Offers Accepted – Internal Selections	5
Job Offers Accepted – External Selections	11
Internal Applications	24
External Applications	149
Average Days to Fill Position	62

Work center outreach and interviews began for Hampton Roads Public Works Academy (HRPWA) intern recruitment.

2. Enterprise Resource Planning (ERP)

- a. HRSD hosted and coordinated the Collaborative Oracle Roundtable for E-Business Suite (CORE) annual meeting. Several Business Analysts presented at the meeting.
- b. ERP setup was completed for Ethics Policy employee acknowledgement and disclosure forms. Several reports were generated to track required information.
- c. HRSD worked with the Managed Services consultant on updates to system setup for Short Term Disability and the COBRA interface.
- d. The Business Analyst worked with Information Technology staff on benefit interface updates.
- e. Staff worked with Oracle Support on rehire functionality and iRecruitment notifications.

3. Benefits and Compensation

- a. Staff worked with the benefit consultant on the following:
 - (1) Open enrollment meetings at all work centers
 - (2) Stop Loss evaluation with Finance staff
- b. Staff continued regular conference calls with Wellness, Omada and Cigna staff for implementation of Omada's online diabetes and heart disease prevention program.
- c. The Compensation and Classification team evaluated positions based on Department requests, Compensation Study results and budget proposals.

4. Wellness

- a. Participation Activities

Year Six Participation Activities	Unit	May 2019	Year to Date (March 2019–February 2020)
Biometric Screenings	Number	2	4
Preventive Health Exams	Number	5	14
Preventive Health Assessments	Number	8	36
Coaching Calls	Number	0	0
Online Health Improvement Programs	Number	15	59
Web-MD Online Health Tracking	Number	114	256
Challenges Completed	Number	0	0
Fit-Bit Promotion	Number	8	31

- b. The Wellness Specialist presented information at work center Open Enrollment meetings.
- c. A plant-based nutrition presentation was developed for Learning Week.
- d. The quarterly Wellness Committee meeting was held to brainstorm ideas for the new Wellness year.

- e. Wellness began distributing Employee Assistance Program's *Mindful Monday Tips*.

5. Workers Compensation

Two new cases were opened with five cases remaining active.

6. Employee Relations

Staff partnered with work center supervisors and employees to support employee relations and address HR issues:

- a. Participated on interview panels and assisted with job descriptions for Finance
- b. Continued work with Operations Quality Steering Team (QST) to evaluate shift scheduling options
- c. Worked on several HR policies for QST review.

7. General

- a. HR and Accounting staff met to streamline and improve HR and payroll processes.
- b. The HR Manager continued to implement changes affecting ERP position set-up and control associated with the Fiscal Year 20 budget.
- c. Staff participated in the following HRSD activities:
 - (1) Leadership Forum
 - (2) Senior Leadership Meeting
 - (3) HRSD Safety Team
 - (4) Facilitated *Your Role in Quality*
- d. Staff participated in the following training:
 - (1) HRSD's Emotional Intelligence
 - (2) Public Relations Society of America (PRSA) Employee Communications Conference
 - (3) *Myers Briggs Type Indicator Experiencing Stress Workshop*

B. Organization Development and Training (OD&T)

1. Training

- a. The Leadership facilitator team worked to review and finalize the new Leadership and Management Program (LAMP).
- b. The Project Management 101 Workshop was successfully piloted and received positive feedback.
- c. Staff compiled 2018 Work Center Planning Day results, creating a Parking Board listing for QST review. Coordination began for 2019 annual planning meetings.
- d. The Organizational Professional Services Request for Proposal (RFP) team continued reviewing and scoring proposals.
- e. The following programs were held:
 - (1) Your Role in Quality
 - (2) Collaborative and Effective Meetings workshop
 - (3) Learning Styles
 - (4) Emotional Intelligence
 - (5) Beginning and Advanced Coaching
 - (6) Leadership Forum
- f. OD&T and Procurement staff finalized services for training current facilitators and instructors on facilitation skills.
- g. Staff worked on developing the upcoming Learning Week Program, *Alert, Aware and Always Ready* scheduled in June.
- h. The Administrative Work Center planning team met and received coaching on conducting effective meetings and gaining buy-in.

2. Apprenticeship Program

- a. OD&T hosted DC Water staff to share detailed information about the Apprenticeship Program including the Apprenticeship Manual, On-the-Job Skills, and the Pipe and Pipefitting class. Resources and assistance was also provided to NapaSan, Napa Valley Water and Wastewater Authority.

- b. The Learning Management System (LMS) team worked with Procurement staff to finalize procurement of software, implementation services and schedules.
- c. Staff worked with subject matter experts on developing a *Wastewater Analysis* e-Learning course.
- d. Staff continued planning the Apprenticeship Program graduation and 40th Anniversary celebration.
- e. The Apprenticeship Committee met to address issues related to Apprenticeship Math policies, curriculum and testing requirements.

3. General

- a. Recruitment for the OD&T Administrative Coordinator and internal recruitment for Quality Facilitators continued.
- b. Staff participated in the following training:
 - (1) Mentor Coach's *Individual Intensive Coaching*
 - (2) Association for Training and Development International Conference and Exhibition

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	10
Lost Time Mishaps	6	2
<i>Numbers subject to change pending HR review of each case.</i>		

b. MOM Program Year Performance Measure Work-Related Injuries

May 2019 Injuries For Operations	May 2019 Injuries for Other HRSD Departments	Total Lost Time Injuries Since July 2018	Total HRSD Injuries Since July 2018
2	0	4	37

c. Follow-up investigations were performed on two reported work-related injuries and two auto/property incidents.

2. HRSD Safety Training

Strategic Planning Measure	Unit	May 2019
Total Safety Training Hours per Full Time Employee (836) All HRSD – May 2019	521.5 Hours / 836 FTE	0.62
Total Safety Training Hours Per Full Time Employee (836) – Cumulative July 2018	4272.11 Hours / 836 FTE	5.11

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

- a. Nine external briefings for contractors working at treatment plants and pump stations
- b. Annual pulmonary function and respirator fit testing for North Shore and South Shore Operations
- c. Additional Lock Out/Tag Out training for South Shore Interceptor employees
- d. Multiple Chemical Hygiene Plan training sessions for Central Environmental Laboratory (CEL) employees
- e. Safety Orientation training for Boater Pump Out Program interns

- f. Cardio Pulmonary Resuscitation (CPR)/First Aid/ Automated External Defibrillator (AED) and Fire Safety Training for Pretreatment and Pollution Prevention (P3) employees
 - g. Confined Space and Virginia Department of transportation (VDOT) Flagging training for P3 employees
4. Safety Inspections, Testing and Monitoring
- a. Weekly onsite inspections of the following construction sites:
 - (1) Army Base Treatment Plant (TP)
 - (2) Atlantic TP
 - (3) Dover Court Pump Station
 - (4) Lucas Creek Pump Station
 - (5) Luxemburg Avenue Pump Station
 - (6) Pine Tree Pump Station
 - (7) Providence Road Pump Station
 - (8) Shipps Corner Pump Station
 - (9) Virginia Beach Boulevard Pump Station
 - (10) Virginia Initiative Plant (VIP)
 - (11) Washington Pump Station
 - b. Quarterly safety inspections of the following work centers:
 - (1) Central Environmental Laboratory (CEL)
 - (2) James River TP
 - (3) Main Office Complex
 - (4) Nansemond TP
 - (5) North Shore Pump Station
 - (6) South Shore P3
 - (7) South Shore Pump Stations
 - (8) SWIFT Research Center
 - (9) Technical Services Division (TSD)
 - (10) VIP
 - (11) York River TP
 - c. Monitoring and testing for the following:
 - (1) Monthly velocity tests on CEL, TSD, SWIFT Research Center and VIP lab hoods
 - (2) Conducted a sound level survey at VIP
 - (3) Inspected Main Office AEDs

- d. Safety walk-throughs and evaluations:
- (1) Escorted Virginia Occupational Health and Safety Administration (VOSHA) staff and contractors on inspection of Atlantic TP construction site.
 - (2) Escorted an insurance risk control specialist on walk-throughs of North Shore Operations Center and the York River and Lawnes Point TPs
 - (3) Escorted HRSD's insurance broker and an insurance representative on a Nansemond TP tour
 - (4) Evaluated a Nansemond TP emergency eyewash installation
 - (5) Conducted asbestos inspection and sampling at the Willard Avenue property
 - (6) Conducted a ventilation survey of pump station dry wells following repairs of ventilation fans
 - (7) Escorted Marine Chemist staff to collect exterior paint samples for lead analysis at the Big Bethel pump station

5. Safety Programs

- a. A required response was submitted to VOSHA for a citation received for temporary power installation to a construction trailer at York River TP. The temporary power was removed immediately during the VOSHA inspection. Corrective and preventive measures were taken to ensure future installations meet all requirements.
- b. The following was performed for the Confined Space Entry Program:
- (1) Reviewed completed confined space entry permits for North and South Shore Interceptors
 - (2) Reviewed completed confined space permits for Water Quality
- c. The following safety notices were prepared and distributed:
- (1) Procedures and inspection requirements for proper installation of temporary power
 - (2) Prevention of vehicle accidents involving stationary objects
- d. Multiple hot work permits were issued for contractors working at Pine Tree, Laskin Road, Lucas Creek, Shipps Corner and Providence Road pump stations.

- e. The Safety Coordinator prepared and distributed pulmonary function and respirator fit testing results for HRSD employees.
- f. The following was performed for the online Material Safety Data Sheet (MSDS) program:
 - (1) Updated information and added tiers for James River TP and CEL
 - (2) Performed system back-up of Material Safety Data Sheets (MSDS) information
- g. The Electrical Safety Program was updated based on 2018 National Fire Protection Association 70E requirements.
- h. A meeting was held with a vendor to review American Heart Association's CPR Training requirement changes.
- i. Industrial Hygienist reviewed simulator software for Aerial Lift training.
- j. Safety Technician began developing a training program for Bobcat and Skid Loaders.
- k. Industrial Hygienist met with Nansemond TP supervisors to discuss use and develop a safe work practice for a new chemical.
- j. Prescription Safety Glasses order forms were distributed to employees.

6. General

- a. The Safety Program internal audit continued. Several meetings were held with SC&H staff to address questions during the fieldwork phase. An Industrial Hygienist escorted SC&H staff on a quarterly inspection of James River TP. Staff also responded to several documentation requests.
- b. Staff provided the following to support Design and Construction:
 - (1) Attended a Woodstock Park pre-construction meeting
 - (2) Attended a SWIFT Design Review meeting on installation and use for a design software program
- c. Safety and HR staff met on the Request for Proposal for selection of an employee physicals and testing medical provider.

- d. Staff met to discuss work processes and roles.
- e. Staff attended the following training:
 - (1) Completed American Heart Association CPR/First Aid AED Instructor certification
 - (2) Microsoft Word 2016 training

D. Monthly Strategic Planning Metrics Summary

- 1. Education and Outreach Events: (3)
 - a. 05/01/19 - Granby High School Evening School Job Fair
 - b. 05/06/19 - A meeting with Army Corps of Engineers staff on Nansemond adjacent property clean up
 - c. 05/16/19 - Hampton Roads Public Works Academy Cadet interviews
- 2. Community Partners: (3)
 - a. Army Corps of Engineers
 - b. City of Norfolk Public Schools, Granby High School
 - c. HRPWA

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	May 2019
M-1.1a	Employee Turnover Rate (Total)	Percentage	0.62
M-1.1b	Employee Turnover due to Service Retirements	Percentage	0
M-1.4a	Total Training Hours Per Full Time Employee (17) – Current Month	Total Training Hours/ FTE	4.85
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	44.93
M-5.2	Educational and Outreach Events	Number	3
M-5.3	Community Partners	Number	3

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

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

A. General

1. Pretreatment and Pollution Prevention (P3) division staff assessed no civil penalties this month.
2. The Director attended a meeting organized by the Water Research Foundation (WRF) in Denver, Colorado, to discuss concepts used to derive WRF subscriber rates. The rate structure proposed by the WRF Board is designed to return funds sufficient to support current levels of research and administration. The Director provided comments emphasizing the need to first assess the value of services provided by WRF, and to then develop subscriber rates based on that value. Value should drive the rate structure.
3. The Director attended the Water Microbiology Conference at the University of North Carolina in Chapel Hill, NC. A workshop addressing antimicrobial resistance issues was offered prior to the beginning of the conference. This workshop was informative and outlined the implications of wastewater treatment and effluent discharged to surface waters to human and aquatic life health. The conference was also attended by EPA which provided the opportunity for HRSD to meet with Agency staff regarding development of recreational water quality criteria for coliphage. Currently, EPA promotes the use of pathogen indicators to assess the safety of surface waters for recreational uses. EPA is pursuing the development of coliphage water quality criteria to provide a presumably better indicator of pathogen exposure. HRSD's Water Quality Department has been following this work closely, as it has significant potential to result in permit limits for HRSD that would require further capital and operational investment beyond current requirements. This effort will best prepare HRSD for future requirements associated with these new criteria and position HRSD to provide meaningful comment if the state of Virginia consider adopting the new criteria as water quality standards.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy Group (SEA) reported the following activities for the month of May:
 - a. Oyster Restoration Program – Created and distributed a flyer on Oyster Gardening
 - b. Ash/Biosolids Recycling – Met with a brick maker in Colonial Williamsburg to discuss producing bricks using HRSD ash and biosolids. They were open to making bricks for HRSD with ash; however, they were not comfortable using biosolids.
 - c. R³ (Reduce, reuse, recycle) Support – Continued the Recycle Right campaign with a tour of the TFC Recycling Facility to learn about the recycling process and challenges.
 - d. HRSD Interactive Challenge – Trash Collector Design: Both teams who submitted designs for the Trash Collector Challenge presented their designs to SEA. A winner will be selected at the June 10 QST meeting. Next steps for the winning design will also be discussed at the meeting.
2. The WQ Communication Team continues monitoring and measuring inter-divisional communication issues within the WQ Department.

C. Municipal Assistance

HRSD provided sampling and analytical services to Spotsylvania County, Hanover County, and Chesterfield County to support monitoring required for their Virginia Pollution Discharge Elimination System (VPDES) permits.

D. Strategic Planning Metrics Summary: 4

1. Educational and Outreach Events:
 - a. 05/04/19 - P3 staff participated in the Great American Clean Up
 - b. 05/08/19 - P3 staff participated in the North Suffolk Library Outreach Event
 - c. 05/08/19 - P3 staff participated in the Chesapeake Bay Foundation – Clean the Bay Day at Brock Environmental Center
 - d. 05/10/19 - P3 staff participated in Hampton Roads Public Works Academy – Virginia Beach Vocational Technical Educational Event
2. Community Partners: 7

- a. City of Chesapeake
- b. City of Hampton
- c. City of Suffolk
- d. City of Virginia Beach
- e. Hampton Roads Planning District Commission Fats Oils and Grease
- f. Virginia Department of Environmental Quality
- g. Virginia Department of Health Division of Shellfish Sanitation

3. Odor Complaints: 1

On May 14, a resident contacted HRSD about odors from Washington Street pump station. North Shore Operations responded and, although noticing no odors, turned on the carbon scrubber at the station. The carbon scrubber was installed in 2018 to control seasonal summer hydrogen sulfide and odors at the station. No further complaints have been received.

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	May 2019
M-1.4a	Training During Work Hours Per Full Time Employee (109) (Current Month)	Total Hours / # FTE	9.45
M-1.4b	Total Training During Work Hours Per Full Time Employee (109) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	61.5
M-2.5	North Shore/South Shore Capacity Related Overflows	# within Level of Service	0
M-3.1	Permit Compliance	# of Exceedances: # of Permitted Parameters	1:55,806
M-3.2	Odor Complaints	#	1
M-3.4	Pollutant Removal	Total Pounds Removed	172,507,713
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	20%
M-5.2	Educational and Outreach Events	#	4

Item #	Strategic Planning Measure	Unit	May 2019
M-5.3	Community Partners	#	7
	Average Daily Flow	Total MGD for all Treatment Plants	140.20
	Industrial Waste Related System Issues	#	0

Respectfully submitted,
James Plett, PhD
Director of Water Quality



The following Internal Audit Status document has been prepared by SC&H for the HRSD Commission. Below is a summary of projects in process, upcoming projects, and the status of current management action plan (MAP) monitoring.

I. Projects in Process

Business Continuity and Disaster Recovery

- **Upcoming Tasks (Q2 2019)**
 - HRSD management has communicated its continued progress to develop a plan to address the recommendations included in the BC/DR report. SC&H will continue to work with HRSD process owners and management to finalize the audit report, incorporating management action plans. A specific completion date has not been identified at this time.

Customer Care

- **Tasks Completed (May 2019)**
 - Completed final fieldwork steps
 - Communicated final audit report draft to Customer Care for review and response
- **Upcoming Tasks (June 2019)**
 - Obtain management action plan responses
 - Work with process owners to finalize report

Safety

- **Tasks Completed (May 2019)**
 - Conducted fieldwork testing procedures
 - Shadowed performance of a quarterly treatment plant safety inspection
 - Began draft of final report
- **Upcoming Tasks (June 2019)**
 - Complete fieldwork procedures
 - Conduct exit discussion with process owners
 - Draft and communicate final audit report for review and response

Permitting

- **Tasks Completed (May 2019)**
 - Reviewed documentation provided by process owners
 - Scheduled process walkthrough with Operations staff
- **Upcoming Tasks (June 2019)**
 - Conduct walkthroughs with Operations, Water Quality, and Lab process owners
 - Prepare process understanding documentation
 - Identify fieldwork objectives and prepare audit plan

II. Upcoming Projects (FY2019)

SC&H's next audit will pertain to the Payroll and Timekeeping functions at HRSD and is scheduled to begin in Q3 (July) of calendar year 2019.



III. Management Action Plan (MAP) Monitoring

SC&H is performing on-going MAP monitoring for internal audits previously conducted for HRSD. SC&H begins MAP follow-up approximately one year following the completion of each audit and will assess bi-annually.

For each recommendation noted in an audit report, SC&H gains an understanding of the steps performed to address the action plan and obtains evidence to confirm implementation, when available.

The following describes the current project monitoring status.

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/2016	July-19	11	2	13
Biosolids Recycling	10/8/2016	July-19 Pending Permit	7	1	8
HR Benefits	11/22/2016	Closed	15	0	15
Inventory	4/20/2017	June-19	1	4	5
Procurement/ ProCard	8/23/2017	October-19	8	3	11

Annual Metrics												
Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	69.57%	71.43%	64.00%	69.00%	68.00%	85.00%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	32%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66
M-3.6	Alternate Energy	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%
M-4.3	Total Labor Cost/MGD	Personal Services + Fringe Benefits/365/5-Year Average Daily Flow		\$1,028	\$1,095	\$1,174	\$1,232	\$1,249	\$1,279	\$1,246	\$1,285	\$1,423
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%
M-4.5	Total Operating Cost/MGD	Total Operating Expense/ 365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	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	Apr-19	May-19
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	155.7	140.2
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	101%	100%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	122%	124%
	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	\$21,811,759	\$21,573,720
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	17%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	0	0
M-3.1	Permit Compliance	# of Exceedances to # of Permitted Parameters	0		12:55,045	1:51995	2:52491	1:52491	2:52491	2:52,491	9:53236	9:58338	1:50,733	1:55,806
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	0	1
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	156,842,029	172,507,713
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	20%	20%
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	38	24
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	27	23

EFFLUENT SUMMARY FOR MAY 2019

PLANT	FLOW mgd	% of Design	BOD mg/l	TSS mg/l	FC #/UBI	ENTERO #/UBI	TP mg/l	TP CY Avg	TN mg/l	TN CY Avg	TKN mg/l	NH3 mg/l	CONTACT TANK EX
ARMY BASE	9.80	54%	3	4.6	5	1	0.72	0.38	2.7	3.4	NA	NA	19
ATLANTIC	26.59	49%	15	4.2	4	1	NA	NA	NA	NA	NA	NA	10
BOAT HARBOR	13.10	52%	7	5.9	1	2	0.53	0.62	27	22	NA	NA	16
CENT. MIDDLESEX	0.011	45%	<2	2.5	1	1	NA	NA	NA	NA	NA	NA	NA
CHES-ELIZ	17.54	73%	14	11	19	6	1.2	1.2	33	31	NA	NA	14
JAMES RIVER	12.10	60%	3	3.9	2	1	0.44	0.37	6.3	7.6	NA	NA	3
KING WILLIAM	0.059	59%	<2	<1.0	NA	<1	0.20	0.06	0.53	1.4	0.42	NA	NA
NANSEMOND	15.24	51%	4	4.1	4	6	1.2	1.0	3.7	4.9	NA	NA	1
SURRY, COUNTY	0.056	86%	2	4.0	NA	NA	NA	NA	NA	NA	<0.50	NA	0
SURRY, TOWN	0.058	97%	4	11	NA	14	NA	NA	NA	NA	0.82	0.12	NA
URBANNA	0.051	51%	2	13	3	4	7.1	3.6	18	11	NA	0.05	NA
VIP	25.80	65%	0	2.1	2	<1	1.1	0.57	3.0	3.6	NA	NA	2
WEST POINT	0.376	63%	22	15	3	7	2.9	2.0	16	14	NA	NA	1
WILLIAMSBURG	8.01	36%	1	1.0	3	2	0.72	0.40	1.8	2.7	NA	NA	10
YORK RIVER	11.42	76%	6	1.6	1	1	0.22	0.26	5.5	5.7	NA	NA	4
	<u>140.20</u>												

	% of Capacity
North Shore	54%
South Shore	57%
Small Communities	61%

Tributaries	Tributary Summary					
	Annual Total Nitrogen			Annual Total Phosphorus		
	Discharged	Operational		Discharged	Operational	
	YTD	Projection CY19		YTD	Projection CY19	
	%	Lbs	%	%	Lbs	%
James River	36%	3,795,581	83%	31%	283,127	89%
York River	39%	256,915	89%	31%	16,603	86%
Rappahannock	49%	NA	NA	228%	NA	NA

Permit Exceedances: Total Possible Exceedances, FY19 to Date: 1:55,806
Pounds of Pollutants Removed in FY19 to Date: 172,507,713
Pollutant Lbs Discharged/Permitted Discharge FY19 to Date: 20%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	2.62"	3.57"	2.55"
Normal for Month	4.07"	4.23"	4.41"
Year to Date Total	19.45"	17.74"	17.50"
Normal for YTD	18.25"	16.53"	18.05"

AIR EMISSIONS SUMMARY FOR MAY 2019

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	BZ Temp	Venturi(s) PD	Precooler Flow	Spray Flow	Venturi Flow	Tray/PBs Flow	Scrubber	Any	THC	THC	BZ Temp
	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	12 hr ave	pH	Bypass	Mo. Ave	DC	Daily Ave
(F)	(in. WC)	(GPM)	(GPM)	(GPM)	(GPM)	(GPM)	3 hr ave	Stack Use	(PPM)	(%)	Days >Max
ARMY BASE	0	0	0	0	0	0	0	2	28	99	0
BOAT HARBOR	0	0	0	n/a	1	0	0	2	13	100	0
CHES-ELIZ	0	0	0	0	0	0	0	2	28	100	0
VIP	0	0	0	n/a	0	0	1	0	63	97	0
WILLIAMSBURG	0	0	0	n/a	0	0	0	0	17	98	0

ALL OPERATIONS

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