



COMMISSION MEETING MINUTES
December 21, 2021

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b. New Employee Introductions

- (1) Mr. Henifin introduced Dwanda Curry, Debt Solutions Customer Care Manager. She is new to public service, recently coming from the management team at Tidewater Finance and specializes in Organizational Development, Client Relations, Performance Enhancements and Quality Assurance. She has a Bachelor of Science degree in Business Management and a Master of Business Management degree from Saint Leo University. Dwanda's proven leadership brings to HRSD a commitment to team building and staff development, and innovative problem-solving solutions. She is happy to be a part of the HRSD team/family.
- (2) Mr. Henifin introduced Angela (Angie) Weatherhead, Project Manager in the North Shore Design and Construction Division. Angie started her position with HRSD on November 29, 2021 managing Capital Improvement and Operational Infrastructure projects. Prior to HRSD, she worked with HDR Engineering for over six years as a Project Engineer and Task Manager on multiple wastewater treatment projects. Prior to her role with HDR, Angie was a high school science teacher in Newport News.

Angie holds a bachelor's degree in Biology from Grand Valley State University and a Master of Engineering in Environmental Engineering from Old Dominion University. She is also a licensed Professional Engineer. Outside of work, Angie serves as a judge and coordinator for the Stockholm Junior Water Prize, a judge in science and engineering fairs across the region and State, and on the Technical Planning and Water for People Committees for WaterJAM.

c. Commending Resolution

Upon approval, the Commission Vice-Chair presented a [resolution](#) commending the service of Dr. Jim Pletl, Director of Water Quality.

Attachment: #1

Public Comment: None



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2. **Consent Agenda**

Action: Approve the items listed in the Consent Agenda.

Moved: Vishnu Lakdawala

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

Brief:

a. Approval of minutes from previous meeting.

b. Contract Awards

1.	Bethel-Poquoson Interceptor Force Main Replacement Phase II	
	Contract	\$2,221,539
	Task Order	\$307,811
2.	Customer Care and Billing System	\$1,554,380
	Oracle Software License and Support	
3.	Droplet Digital Polymerase Chain Reaction (ddPCR™) Consumables	\$955,855
4.	Laboratory Information Management System (LIMS)	\$245,610
	Thermo SampleManager Software Maintenance and Support	
5.	Pelletized Activated Carbon Blanket Purchase Agreement	\$436,800
6.	Wastewater Pump and Haul Services	
	Atlantic Heating and Cooling	\$728,219
	Hepaco, LLC	\$399,983

c. HRSD Use of Existing Competitively Awarded Contract Vehicle

1.	Carahsoft Based Converged Infrastructure Support	\$225,000
2.	CISCO Umbrella Security Annual Subscription and Support Services	\$208,195
3.	CrowdStrike Falcon Complete Antivirus Software Subscription	\$603,780

Item(s) Removed for Discussion: None

Attachment: #2

Public Comment: None



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3. **COVID-19 Wastewater Surveillance Study Update**

Action: No action required.

Following a staff update on the latest regional trends in COVID-19 wastewater loads, the Commission was briefed on the targeted wastewater surveillance occurring in the City of Chesapeake by those utilizing the data to help inform public health management strategies. The Chesapeake surveillance represents a joint collaboration between HRSD, public health, and academic researchers, with the goal of using localized community wastewater SARS-CoV-2 viral loads along with the recently added surveillance for influenza and respiratory syncytial virus (RSV), to better inform public health intervention. This work is funded and facilitated by the Virginia Department of Health's Wastewater Surveillance Program (VDH WWS) and the Centers for Disease Control and Prevention's National Wastewater Surveillance System (CDC NWSS) with HRSD providing in-kind technical and sampling support for the program. David Jurgens, Chesapeake's Public Utilities Director, and VDH representatives from the Chesapeake local health district, Lisa Engle, Epidemiologist, and Cynthia Jackson, Environmental Health Manager, each provided their perspectives on this collaborative effort and the value of wastewater surveillance in their community.

Discussion Summary: HRSD staff said they could not determine why the Williamsburg region is always the first strong detection area when a new variant emerges. Commissioner Rodriguez thanked VDH and City of Chesapeake for their participation in the study. As a resident of the City of Chesapeake, he said he is happy to see the City using the information to provide testing and vaccinations in its communities that are experiencing an increase in cases. The City is using social media, news outlets, and door-to-door flyers and bulletins to communicate outreach activities. He asked VDH to analyze the data to see if a catalyst can be determined.

Attachment: #3

Public Comment: None



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4. **Disposition of Real Property
Commission Adopted Policy**

Action: Adopt policy.

Moved: Vishnu Lakdawala

Seconded: Nancy Stern

Roll call vote:

Ayes: 7

Nays: 0

Brief: HRSD does not currently have a formal policy for disposing of real property to individuals or entities. Periodically, HRSD determines that certain real property it owns in fee simple is no longer needed or useful. In such circumstances, it may be in the best interest of HRSD to dispose of such real property. A formal policy will assure that the public understands HRSD's purpose for disposing of unneeded land and to assure that the effort is fair to all those individuals impacted by a potential sale or conveyance. HRSD's legal counsel has drafted this policy and has confirmed that it meets the Code of Virginia. The draft [Policy](#) was presented at the November 23, 2021 meeting for Commission review and comment.

Attachment: [#4](#)

Public Comment: None



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5. **Disposition of Real Property – 1400 Ashland Circle, Norfolk, Virginia
Ashland Circle Pump Station**

Action: Accept the terms and conditions of the Transfer Agreement and forthcoming Deed with the City of Norfolk for HRSD-owned property in Norfolk, Virginia (1400 Ashland Circle) and authorize the General Manager to execute same and related acquisition documents in accordance with those terms and conditions substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary and as approved by counsel.

Moved: Elizabeth Taraski

Seconded: Willie Levenston

Roll call vote:

Ayes: 7

Nays: 0

Agreement Description: In accordance with the [Disposition of Real Property Commission Adopted Policy](#), if HRSD determines that real property it owns in fee simple is no longer needed or useful, that it may be in the best interest of HRSD to dispose of such real property. This property is the site of the Ashland Circle Pump Station which is a submersible pump station that was constructed in 1955. Besides maintenance issues with the station, it is very difficult to access the pump station during rainy weather due to localized flooding in the Lafayette area of Norfolk. The Lafayette Norview Estabrook Pump Station Replacements project (VP015400) is under design and will extend a gravity sewer to the Luxembourg Avenue Pump Station. The Ashland Circle Pump Station will be demolished, all infrastructure and appurtenances will be removed, the property will be restored, and then HRSD will transfer the site to the City of Norfolk at no charge to the City. The [Transfer Agreement](#) is attached and upon approval, the conveyance Deed will be forthcoming. The agreement has been reviewed by HRSD legal counsel. The final Deed will be reviewed by HRSD staff and legal counsel before execution.

Attachment: #5

Public Comment: None



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6. **Central Environmental Laboratory Expansion and Rehabilitation
New CIP, Initial Appropriation and Task Order (>\$200,000)**

Actions:

- a. **Approve a new CIP project (AD012600) for the Central Environmental Laboratory Expansion and Rehabilitation.**
- b. **Appropriate total project funding in the amount of \$30,000,000.**
- c. **Approve a task order CDM Smith, Inc. in an amount not to exceed \$1,200,000.**

Moved: Vishnu Lakdawala

Seconded: Nancy Stern

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: AD012600

Project Description: This project was initiated under the Central Environmental Laboratory (CEL) Phase II Study (AD012310) which concluded the existing CEL cannot accommodate future space needs. This new project will demolish the existing Water Quality wing, renovate areas of the existing CEL and construct a multi-story expansion adding approximately 18,000 square feet of laboratory and administrative space.

In January 2021, HRSD commissioned CDM Smith, Inc. to perform a needs assessment and feasibility assessment of the CEL under AD012310. The study considered laboratory space, facilities, space utilization, laboratory functions and equipment, current and future analytical needs to consider long-term staffing needs, new laboratory technologies and associated space needs and assess the ability to meet Sustainable Water Initiative for Tomorrow (SWIFT) program goals, future regulatory compliance and research initiatives projected through year 2045.

The study was broken into 13 unique tasks including data collection, facility condition survey, personnel engagement plan, baseline dynamic simulation modeling, needs assessment workshop, feasibility assessment kickoff workshop, sample and testing analysis, lean lab study, lab layout alternatives, cost estimates, sustainability plan, feasibility assessment workshop and a final review workshop. CEL staff were engaged at all levels throughout the life of the study.

The study concluded that the existing CEL cannot accommodate future space needs into the year 2045. Based on increased sample volumes and expanded capabilities, the CEL will see an estimated 54 percent increase in workload by year 2045. A Lean Laboratory study was performed as a way to estimate the amount of additional laboratory equipment and analyst resources required to support CEL operations in the year 2045. When translated to real-world space needs, the study concluded approximately 18,000 square feet of additional space was needed to meet the year 2045 scenario.



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Multiple options to meet the additional space needs were considered in the study. Seven laboratory layout options were presented in the report including five options with a hybrid renovate and expand approach and two that considered constructing new facilities. A qualitative and quantitative assessment was performed on the seven scenarios, with five of the seven meeting future space need requirements. Subsequent meetings were held with Water Quality Department staff and the General Manager concluding the best course of action is to move forward with one of the renovate and expand options. The selected option includes demolition of the existing Water Quality wing, construction of a multi-story expansion adjoining the existing CEL and renovations to the existing CEL.

Task Order Description and Analysis of Cost: The task order with CDM Smith, Inc. will provide Preliminary Engineering phase services (to approximately 30 percent design) including a constructability review of the site prior to moving forward with design.

The cost for this task order is a not to exceed authorization based on hourly rates negotiated in CDM's original agreement. A detailed scope of work is still being developed. The Preliminary Engineering Report (PER), at five percent of the estimated construction cost, is fair and reasonable.

Funding Description: The total cost for the project is estimated to be \$30,000,000. The Opinion of Probable Construction Cost (OPCC) was prepared by CDM Smith, exclusive of engineering services or owner supplied Furniture, Fixtures and Equipment (FFE), the latter estimated by the HRSD Project Manager. The OPCC includes a 30 percent construction contingency.

<u>Schedule:</u>	PER	January 2022
	Design	September 2022
	Bid	September 2023
	Construction	November 2023
	Project Completion	November 2025

Attachment: None

Public Comment: None



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7. **Chesapeake-Elizabeth Treatment Plant (CETP) Closure
Financial Analysis in Hindsight**

Action: No action required.

Brief: In October 2013, HRSD decided to close the Chesapeake-Elizabeth Treatment Plant (CETP) based on a Net Present Value alternatives analysis that showed a savings of \$133 million over 30-years. The CETP flow would be diverted to the Atlantic Treatment Plant (ATP) with additional interceptor infrastructure. The two main drivers were the Regional Wet Weather Management Plan (RWWMP), which is now an Integrated Plan, and compliance with the 2022 Chesapeake Bay Nutrient Waste Load Allocation (WLA) deadline. During this time period, the RWWMP, a series of projects designed to achieve a desired level of service for wet weather capacity, was under development and it was critical to determine whether or not the interceptor system would be designed with CETP in-service. The added benefit of the flow diversion from CETP to ATP was a significant reduction in nutrients to the Chesapeake Bay, which was a cost-effective alternative compared to a plant upgrade.

Staff provided a briefing regarding the decision to divert flow from CETP. The presentation compares the original justification with a backwards looking financial analysis using actual financial data in lieu of assumed inputs. Reviewing this information will provide an opportunity to consider the wisdom of this decision and provide some lessons learned for future analyses.

Additional context including implementation of the Asset Management Plan, WIP III Enhanced Nutrient Removal, treatment plant and other capital project implementation, treated flow and growth, operational considerations, and recent developments including grant funding, was provided to help HRSD capture relevant changes to the organization which have occurred since the inception of this decision.

Discussion Summary: Vice-Chair Rodriguez thanked staff for the detailed presentation. He said it is always good to have an exit result that closely matches what was anticipated at the start of the project. Responding to a Commissioner question, staff explained the Asset Management Division was created in 2014. The Asset Management Plan was finalized and implemented this year. Staff will provide an update on the Asset Management plan at an upcoming meeting.

Attachment: #6

Public Comment: None



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8. **Chesapeake-Elizabeth Treatment Plant Decommissioning
Initial Appropriation and Task Orders (>\$200,000)**

Actions:

- a. **Appropriate total project funding in the amount of \$11,303,826.**
- b. **Approve a task order with Tetra Tech, Inc. in the amount of \$222,418.**
- c. **Approve a task order with HDR Engineering, Inc. in the amount of \$739,553.**

Moved: Willie Levenston

Seconded: Elizabeth Taraski

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: CE011810

Contract Status:	Amount
Original Contract with Tetra Tech, Inc.	\$0
Total Value of Previous Task Orders	\$0
Requested Task Order	\$222,418
Revised Contract Value	\$222,418
Engineering Services as % of Construction	2.6%

Contract Status:	Amount
Original Contract with HDR Engineering, Inc.	\$0
Total Value of Previous Task Orders	\$0
Requested Task Order	\$739,553
Revised Contract Value	\$739,553
Engineering Services as % of Construction	8.7%

Project Description: This project will study and demolish or abandon facilities at the Chesapeake-Elizabeth Treatment Plant (CETP) site and look at other potential uses for this site after the plant has been decommissioned. Demolishment or abandonment needed at CETP may include, but is not limited to, aeration tanks, clarifiers, preliminary treatment facility, incinerator building, thickeners, chlorine contact tanks, pump stations, yard piping, and outfalls.

Funding Description: The total project cost estimate of \$11,303,826 includes approximately \$739,553 in study phase services, \$222,418 in preliminary engineering services, \$1,298,794 in design phase services, and \$9,043,061 in construction phase costs and is based on a Class 5 CIP-prioritization level cost estimate prepared by HRSD.



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Task Order Description and Analysis of Cost: The task order with Tetra Tech will develop a preliminary engineering report for decommissioning CETP. The PER will include an environmental assessment of the CETP which will include underground storage tanks, lead and asbestos. The construction cost estimate will be verified. A survey of the existing underground piping will be conducted, and an inventory of the existing equipment will be developed for salvage, sale or disposal. The hourly rates for Tetra Tech have been established in the Environmental Services annual services contract. The PER, at 2.6% of construction, is fair and reasonable when compared to other PERs; however, HRSD does not have any other large plant decommissioning projects to compare to.

Task Order Description and Analysis of Cost: The task order with HDR will perform a study to document the potential costs HRSD would have to incur to perform nutrient upgrades at CETP. HRSD will apply for a Water Quality Improvement Fund (WQIF) grant for reimbursement of costs associated with transferring the flow from CETP to the Atlantic Treatment Plant. The task order is based on an estimation of hours and rates to complete the work. The hourly rates have been established in the General Engineering Services annual services contract.

<u>Schedule:</u>	PER	January 2022
	Design	July 2022
	Bid	April 2023
	Construction	November 2023
	Project Completion	July 2025

Attachment: None

Public Comment: None



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9. **Chesapeake-Elizabeth Treatment Plant Influent Force Main Modifications
New CIP and Initial Appropriation**

Actions:

- a. **Approve a new CIP project (CE012400) for the Chesapeake-Elizabeth Treatment Plant Influent Force Main Modifications**
- b. **Appropriate total project funding in the amount of \$600,000**

Moved: Vishnu Lakdawala

Seconded: Nancy Stern

Roll call vote: **Ayes:** 7 **Nays:** 0

CIP Project: CE012400

Project Description: The modifications are presently under construction after the emergency declaration on December 6, 2021. Work is accomplished with funds from the Operations Department Fiscal Year (FY) 2022 Operating Budget. This work is appropriately capitalized at year-end but in the interim creates stress on the FY 2022 Operations Department Budget. This proposed Commission action creates and fully funds a new CIP project that will allow all future costs as well as all costs already incurred against the Operations Department Budget to be charged to this CIP project restoring the FY 2022 Operations Department Budget balance for use as planned for the remainder of FY 2022.

Staff discovered with the Chesapeake-Elizabeth Treatment Plant (CETP) closure and the improvements to the HRSD system that will convey the flow to the Atlantic Treatment Plant, the influent pipeline and valving does not allow proper City of Virginia Beach and private pump station operation during wet weather. To avoid higher pressures and potential system issues, additional piping and appurtenances are needed to connect the two converging pipelines which will ensure that HRSD can provide service to Virginia Beach without interruption. Additionally, staff is repairing a nearby valve necessary to optimize system pressure.

The final diversion to close CETP will be the week of December 13-17 with the contractor completing the construction the following week after materials are delivered.

The emergency declaration was to utilize Bridgeman Civil, Inc., to install pipe and appurtenances and restore the area to preconstruction condition and utilize Hazen and Sawyer to provide design, construction administration, and construction inspection while Bridgeman Civil, Inc. completes the modifications.



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Funding Description: The total cost for this project is estimated at \$600,000 based on a Class 5 cost estimate and a 10 percent contingency included in the requested appropriation.

<u>Schedule:</u>	Emergency Declaration	December 2021
	Construction	December 2021
	Project Completion	December 2021

Attachment: None

Public Comment: None



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10. **City of Norfolk Wastewater Pump Station No. 27 (WPS #27)
Cost Sharing Agreement - Revised**

Action: Approve the revised terms and conditions of the Cost Sharing Agreement with the City of Norfolk for the reimbursement of design and construction costs associated with Pump Station No. 27 and authorize the General Manager to execute same, substantially as presented, together with such changes, modifications and deletions as the General Manager may deem necessary.

Moved: Willie Levenston

Seconded: Ann Templeman

Roll call vote:

Ayes: 7

Nays: 0

CIP Project: AB012000

Project Description: In accordance with the HRSD [Facility Transfer Commission Adopted Policy](#), “in certain circumstances, it may be in the best interest of HRSD, localities, private owners, and the Commonwealth to transfer ownership of sanitary sewer facilities.” Norfolk wastewater pump station #27 (WPS #27) is a terminal pump station and receives sewer flow from half a dozen upstream city pump stations. HRSD operation of this terminal pump station will facilitate flow and pressure optimization of the Interceptor System.

In 2019, during the design of a replacement for WPS #27, the City of Norfolk approached HRSD about the possibility of a facility transfer. HRSD staff evaluated the City offer and accepted in principle to take over ownership of this critical infrastructure. The HRSD Facility Transfer Commission Adopted Policy states that “all new sanitary sewer system assets constructed on behalf of a public or private entity to be transferred to HRSD shall be constructed according to HRSD’s Design and Construction Standards and HRSD Sanitary Sewer Guidelines.”

The City’s 60 percent design was not in compliance with HRSD Design and Construction Standards. The City has agreed to administer the remainder of the design for the improvements in coordination with HRSD to ensure it is in conformance with the HRSD Design & Construction Standards under the existing City engineering services contract with Michael Baker International. On August 24, 2021, the Commission approved both a Cost Sharing Agreement and a Facility Transfer Agreement.

Funding to complete the design of the improvements will be provided from the City’s \$1.731 million appropriation. This amount was reduced from the original amount of \$2 million included in the original Cost Share Agreement approved by the Commission on August 24, 2021. Immediately following the authorization to execute the agreements, the City of Norfolk discovered that there was an outstanding Virginia Resources Authority (VRA) loan obligation pertinent to the discharge 20-inch DI force main. As such, the City requested to reduce the Appropriations amount available for reimbursement to HRSD at substantial completion of the project by \$269,000 to retire the VRA loan. HRSD staff has evaluated the request and agreed to honor the City’s proposal. Hence, the Cost Sharing Agreement text was revised accordingly to reflect this change.



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HRSD agreed to administer and manage the pre-construction and construction phases of the improvements. As such, a Capital Improvement Program Project (AB012000, Wards Corner Sanitary Sewer Pumping Station) was created.

Funding Description: No funding required.

Agreement Description: The attached [Cost Sharing Agreement](#) has been reviewed by HRSD legal counsel.

Attachment: [#7](#)

Public Comment: None



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11. **Providence Road Off-line Storage Facility Maintenance Agreement**

Action: Approve the terms and conditions of the Maintenance Agreement with the City of Virginia Beach for the Providence Road Off-line Storage Facility project 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

Seconded: Ann Templeman

Roll call vote: **Ayes:** 7 **Nays:** 0

CIP Project: CE011826

Budget	\$32,009,324
Previous Expenditures and Encumbrances	(\$31,938,796)
Available Balance	\$70,528
Previous Expenditures – HRSD responsibility	\$29,722,030
Previous Expenditures – City responsibility	\$2,216,766
City Credit – Maintenance and Replacement of shrubs, grass, and green roof within HRSD easement	(\$350,000)
City Credit – Maintenance and Replacement of asphalt pavement	(\$75,000)
City Reimbursement to HRSD for Park Improvements	\$1,791,766

Project Description: In June 2021, HRSD’s Design-Build team completed a 5.2 million gallon off-line storage facility in Virginia Beach’s Woodstock Community Park, which is in the vicinity of the existing HRSD Providence Road Pressure Reducing Station (PRS). A skate park and improvements to the existing Woodstock Community Park are also included in this project. HRSD negotiated a 40-year easement with the City of Virginia Beach for use of the park property in exchange for the construction of a skate park on and around the HRSD tank. The City will reimburse HRSD for the other planned park improvements.

Agreement Description: The attached [Agreement](#) between HRSD and the City of Virginia Beach documents the maintenance responsibilities of HRSD and City staff within the HRSD easement on park property. The City will be compensated for some of the maintenance activities addressed in the Agreement over the next forty years, particularly grounds maintenance and asphalt pavement maintenance in HRSD secured areas, maintenance of the green roof on top of the tank and maintenance of the pavement within the park that HRSD vehicles would regularly use for ingress/egress to HRSD facilities. The pavement maintenance cost is shared between HRSD and the City in areas where the use is both for HRSD and the public. HRSD will apply a credit to the balance that is owed to HRSD for the park improvement work to compensate the City for the maintenance items over the next 40 years. The agreement has been reviewed by HRSD legal counsel.

Attachment: #8

Public Comment: None



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12. **Surry Hydraulic Improvements and Interceptor Force Main
Additional Appropriation**

Action: Appropriate additional funding in the amount of \$ 2,657,501.

Moved: Nancy Stern

Seconded: Elizabeth Taraski

Roll call vote: **Ayes:** 7 **Nays:** 0

CIP Project: SU010200

Budget	\$41,856,105
Previous Expenditures and Encumbrances	(\$40,313,020)
Available Balance	\$1,543,085
Change Order No. 5 to MEB	(\$2,002,651)
Proposed Contingency	(\$2,197,935)
Project Shortage/Requested Additional Funding	(\$2,657,501)
Revised Total Project Authorized Funding	\$44,513,606

Contract Status with Change Orders:	Amount	Cumulative % of Contract
Original Contract for MEB	\$8,978,000	
Total Value of Previous Change Orders	\$29,532,837	304%
Requested Change Order	\$2,002,651	
Total Value of All Change Orders	\$31,535,488	285%
Revised Contract Value	\$40,513,488	

Time (Additional Calendar Days)	N/A
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Project Description: The project will include the design and construction of three new pump stations; replacement of three existing pump stations and upgrades of two existing pump stations in addition to electrical, instrumentation and controls, a generator at each new pump station, an equalization tank, approximately 131,200 linear feet of force main ranging from 4-inch to 10-inch in diameter; and the closure of both of the Surry County and Town of Surry Wastewater Treatment Plants (WWTPs). Flow will be conveyed to the existing HRSD infrastructure in the Town of Smithfield and ultimately to the Nansemond Treatment Plant.

Funding Description: The current project contingency will be depleted with Change Order No. 5 for work required for replacing Surry School Complex Pump Station, Pump Station 6 and Pump Station 7. Currently the replacement of Pump Station 6 and 7 are included in SU010300. However, it is operationally necessary to complete the replacement of both stations under the SU010200 to ensure that flow is maintained following the decommission and demolition of both the Surry County and Town of Surry WWTPs. The replacement of the three aforementioned pump stations will also include SCADA. This additional funding request will establish a contingency for the project to accommodate any potential unforeseen conditions.



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Analysis of Cost: The additional appropriation is necessary to complete the replacement of Surry School Complex Pump Station, Pump Station 6 and Pump Station 7. The additional funds will allow for a project contingency of 5 percent of the construction cost which is within the range of other Design/Build construction projects.

Schedule: Project Completion December 2022

Attachment: None

Public Comment: None



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13. **Wilroy Pressure Reducing Station and Off-line Storage Facility
Initial Appropriation and Contract Award (>\$200,000)**

Actions:

- a. **Appropriate total project funding in the amount of \$34,302,000.**
- b. **Award a contract to Brown and Caldwell in the amount of \$604,435.**

Moved: Vishnu Lakdawala

Seconded: Elizabeth Taraski

Roll call vote: **Ayes:** 7 **Nays:** 0

CIP Project: NP014000

Type of Procurement: Competitive Negotiation

Proposers	Technical Points	Recommended Selection Ranking
Brown and Caldwell	82	1
Kimley-Horn and Associates, Inc.	81	2

Contract Description: This contract will provide professional engineering services during the design and construction phases of the project. A Public Notice was issued on August 29, 2021. Two firms submitted proposals on September 28, 2021 and both firms were determined to be responsive and deemed fully qualified, responsible and suitable to the requirements in the Request for Proposals. Two firms were short listed, interviewed and technically ranked. The proposal submitted by Brown and Caldwell was ranked by technical points to be highest qualified.

Project Description: This project will install a new pressure reducing station and a 3-million gallon storage tank in Suffolk along the Wilroy Road corridor. This project is one of the High Priority Regional Wet Weather Management Plan projects that must be constructed by the end of 2030. The project completion date should also coincide closely with the completion of the proposed Suffolk Pump Station project.

Funding Description and Analysis of Cost: The total project cost estimate of \$34,302,000 includes approximately \$3,002,000 in pre-construction phase engineering related services, \$24,468,000 in construction phase costs, and \$6,832,000 of project contingency and is based on a Class 5 CIP-prioritization level estimate prepared by HRSD. Brown and Caldwell will provide professional engineering services. A fee of \$604,435 was negotiated for preliminary engineering services. All other supplemental professional services to be provided by Brown and Caldwell will be negotiated later.



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<u>Schedule:</u>	PER	January 2022
	Design	August 2022
	Bid	February 2024
	Construction	July 2024
	Project Completion	September 2026

Attachment: None

Public Comment: None



COMMISSION MEETING MINUTES
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14. **SWIFT Update**

Action: No action required.

Background: SWIFT is rapidly moving towards full-scale. The SWIFT Research Center has been operational for more than three years and continues to provide valuable data to inform full-scale program design.

The James River Treatment Plant project is in design with our design-build team of Ulliman Shutte – Alberici (US-A) working towards locking in a stipulated price in late Spring 2022. Actual construction will begin shortly thereafter.

The implementation schedule for all SWIFT projects has now been reflected in state legislation and within the Federal Consent Decree. Regular updates will ensure the Commission is able to monitor these critical obligations. Staff briefed the Commission on current status of the James River SWIFT Underground Injection Control (UIC) permit, Potomac Aquifer Recharge Oversight Committee, full-scale program update, and managed aquifer recharge update.

Discussion Summary: There are approximately 40 projects related to SWIFT, including approximately three to five full-scale facilities either in design or under construction. The Joint Permit application for the construction of the underwater force main in the James River has been submitted and is under review. The Water Infrastructure Finance and Innovation Act (WIFIA) environmental assessment and questionnaire is also under review. Once the design-builder is on board, they will be able to finalize the plan on how to proceed with construction.

Attachment: #9

Public Comment: None



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15. **Executive Search Committee Report**

Action: Receive the Committee report.

Report: Committee Chair Levenston said the Committee, along with Commissioners Lakdawala and Templeman met with Anne Lewis of Baker Tilley (recruiter) and Robyn Hansen (HRSD Counsel) to review the next steps in the recruitment process for the next General Manager.

The Commissioners finalized the interview questions and also discussed logistics for the interviews which are scheduled for January 3 with Senior Leadership and January 13 with the Commission. One external candidate withdrew their application. The Committee reviewed the leadership and management benchmark gap report created from Commission and candidate questionnaires. The detailed report will be provided to the Commission prior to the interviews.

Attachment: None

Public Comment: None



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16. **Unfinished Business – None**

17. **New Business – None**

18. **Commissioner Comments**

Commissioner Levenston said it has been a very interesting and challenging year and it has been a pleasure to continue to work with HRSD on various projects and activities. He complimented staff on their work as a team to get the best result for the public. He said it has been a wonderful experience and very rewarding for him.

Vice-Chair Rodriguez said he would like to reiterate Commissioner Levenston's remarks. He said his work on this board has been one of the most rewarding experiences of any board he has worked with, and it has been a pleasure to be a part of it. On behalf of the Commission, he thanked staff for the work they put forward.

19. **Public Comments Not Related To Agenda**

Vice-Chair Rodriguez acknowledged two employees who registered to address the Commission. The Commission Secretary called the name of the first speaker:

(1) **Eric Raines of Hayes, Virginia**

"Thank you for allowing me to speak today. After listening to meeting I can see there is a lot of concern with COVID and you have taken as many steps as you can to try and help out and mitigate these circumstances that a lot of people are dealing with. I wanted to bring up the vaccine mandate that we are having at HRSD right now and the impact that is causing on the work centers and on the employees. We have already had over 40 employees who have lost their jobs right before Christmas. Some of these were people that have been with the company for 20 years and probably would have been with the company for another 10. Originally we understood it all because of the OSHA mandate. We understood there was no way around it because HRSD had to follow OSHA mandate. But once the OSHA mandate was no longer in place, to our surprise, nothing changed for us. There was a process that was put in place where we could apply for religious and medical exemption. This process started back in September. Many of us did that. We thought that would bring about some kind of fair results so we went ahead and did the process. Many of us including myself had our religious exemption approved. We were told it was approved and that was good news. Then it took three weeks before we got a letter being told that even though it was approved we could not be accommodated because we can't work from home 110% of the time. My understanding was only one person in the company has received a religious exemption and that is because they work from home. This could have been told to us and explained to us from the start. We could have been told this in September that you can apply for religious exemption but if you can't work from home it won't be accommodated. For whatever reason, this whole process has dragged out. We had very little support and knowledge. HR refused to come to work centers to talk to anyone. They would only do things by



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emails or one-on-one phone calls but would not actually talk to work centers despite requests. One big issue I brought up that I think the Commission should take into account is that there [is] two different types of Pfizer vaccines. There's the BioNTech one which was approved under emergency use authorization and the is the Comirnaty one which was approved as a fully approved vaccination. The Comirnaty vaccine though is not available in the United States. The FDA acknowledges that these two medications are legally different. Right now the only vaccines available to us are vaccines that are under emergency use authorization. Under the Nuremberg Code as well as Federal Law in the United States which states that authorization for medical products for use in emergencies it is unlawful to deny someone a job or an education because they refuse to be an experimental subject. Another big issue that these EUAs cause is that they are protected under far reaching liability due to the 2005 Prep Act and the only way if you have an issue with the vaccine is to try to claim compensation through the Countermeasures Injury Compensation program which less than four percent of claims are ever compensated. This would be different if it was a fully approved vaccine and if there were injuries, we would have a better opportunity. It seems like some things are being rushed. I understand that it is an emergency and people are worried and they are trying to come up with the best ways to do things are. But at the same time, I think things should be looked at in a broader vision and things like this should be paid attention to that this isn't actually legal to do this. And I'm going to do what I have to do to keep my job because I can't afford to lose my job. But I know there are a lot of employees who are looking into class action lawsuits and I think the Commission has a great opportunity here to succor some of that and to keep that from happening and to protect the company and the people financially. It seems like it is a really bad road to take and we have worked here through all this time. I've been able to do my job just fine. I've never missed any time because of COVID and I've offered to do self-testing, or anything I can do and no accommodation can be made. I just wanted to bring this up to the Commission. I know the Commission is aware of the policy in place, I just wasn't sure if the Commission was aware of one of the legality of this being it an emergency use authorization medication. And two I just wanted the Commission to know the actual effect this is having on the employees. In my work center for instance even the employees who are fully vaccinated, who are fine with it, they are really not happy about the way this is working out for the other people. They don't think it is right. It is bringing morale down. It is affecting the work center. I am not anti-vaxxer or anything like that. I have already had COVID and a lot of the science that is coming out is telling me that my immune system is probably better off at this point being left alone. I know there is a lot of different science from a lot of different places. There's over 135 studies from around the world, large ones, that show that unvaccinated people's natural immunity if they have already had COVID is just as good, if not better than being vaccinated. These are just things that I think should be kept in mind so they don't escalate in the future with class action lawsuits. I know I am over my time. I appreciate your time and thank you very much."



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(2) Robert Brown of Saluda, Virginia

The Commission Secretary read the following statement submitted by Mr. Brown:

“Dear commissioners or to whom this may concern,

My name is Robert Joseph Brown Jr. I’m currently a Small Community Systems Foreman on the Middle Peninsula. I have been employed at HRSD for eleven years now and I’m forty-two years old. I’m a married man with a Wife and a teenage son. I came to HRSD in the summer of 2010. Since then, I graduated from the four-year HRSD Apprenticeship Program, obtained a commercial driver’s license, obtained 4 wastewater operator’s licenses, and currently hold a Class 1 Virginia wastewater operator’s license. Over the past 11 years I have made many sacrifices for HRSD. I have worked nights, weekends, holidays, and long hours on call away from my family. I have worked in adverse weather conditions including extreme heat, hurricanes, winter storms, and now through a pandemic. I did all this because I wanted to build a career here at HRSD and I want to retire from this Company when the time comes hopefully in about 20 years. I must say I have a deep respect for HRSD, as this company has been good for my family and I.

The reason I’m writing this letter for you today is because of the recent changes to the HRSD Covid-19 policies. I can only assume that everyone who is listening has read and know the changes to these policies. The main one that is of concern to me is the mandatory COVID-19 vaccination policy.

As I hope you are aware Ted Henifin the General Manager of HRSD sent out an email stating all employees had to be vaccinated by December. However, you could file for a medical or a religious exemption. If you had a medical reason or deeply held religious belief that would prevent you from being able to take the COVID-19 vaccine.

I do have such religious beliefs and did file for a religious exemption. However, I was denied the religious exemption. At this point I was told I had to file a grievance form as to why my religious beliefs were not valid enough for HRSD, so I did. I received an email from the human resources department setting an appointment for this grievance hearing. On November 12th 2021 I was approved from the HRSD human resources department to receive a religious exemption after validating my religious beliefs. On November 19th 2021 I received an email from the Human resources department of HRSD stating that HRSD could not find a reasonable accommodation for me and my religious beliefs without creating an undue hardship on the company. At this point I was told that I needed to file a grievance as to why it would create an undue hardship on HRSD to grant a reasonable accommodation. So I did. Once again I was emailed from the human resources department here at HRSD with a grievance appointment. At this appointment I met with Steve De Mik and a member of the human resources team. Once again the answer was still no because my job requires me to report to work and I cannot work from home. Currently I’m working with human resources for my last and final grievance meeting with Ted Henifin the general manager of HRSD.

Now that I have put out where I am with this process, I would like to take a step back. When this pandemic first appeared, I was expected to come to work and do my job as I always have, and I did. Was I worried that I might catch Covid and get sick or even worse take it home to my family, after all I do work sewer and we all know what flows through the pipes? No one



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know if covid could be transmitted through wastewater at that time. All I had was faith in God, that he would keep my family and I safe.

During this I did not receive any hazard pay for doing this because the safety department here at HRSD said we were at medium risk. What changed, how did I lose so much clout. I feel as if I went from being a hero to a zero. I feel that I am being discriminated against because of my religious beliefs. Also, I think I should at least be given the opportunity to take weekly COVID tests versus the mandatory vaccination as this goes against my deeply held religious beliefs.

Another question that arises in my mind. Is why did HRSD grant me a religious exemption from the Mandatory COVID 19 vaccination, and then take it away. When they knew that my job description mandates me to report to work in person daily like every other person who works in operations here at HRSD. Also, in my opinion HRSD has not tried to find a reasonable accommodation for me.

For the record: When I do have my last grievance meeting with Ted Henifin the general manager of HRSD and the answer from him is still no that HRSD cannot find a reasonable accommodation for me or some other alternative to taking the mandatory COVID vaccine.

I will be forced to set an appointment and take this mandatory COVID vaccine. I can not afford to lose my job here at HRSD as this would cause my family great economic depression.

However, this is against my will. I feel if forced to this decision, my faith will never be the same.

I respectfully ask that you the commissioners of HRSD please review and revisit these policies. Not just for me but for all employees within HRSD who have sincerely held religious beliefs. I have put my contact information at the top of this letter. If the commissioners have any questions or would like to speak with me personally. Please feel free to email, call, or write me. Thank you for your time. I appreciate the chance for being heard. Sincerely, Robert Joseph Brown Jr."

Vice-Chair Rodriguez thanked Mr. Raines and Mr. Brown for their comments. He said the Commission would take their comments under advisement.



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20. **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 and Air Summaries with Items of Interest](#)
- d. [Emergency Declaration – Chesapeake-Elizabeth Treatment Plant Influent Force Main Modifications](#)

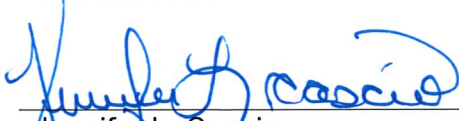
Attachment: #10

Public Comment: None

Next Commission Meeting Date: January 25, 2022 at the HRSD North Shore Operations Center, 2389 G. Avenue, Newport News, VA 23602


Meeting Adjourned: 11:30 a.m.

SUBMITTED:



Jennifer L. Cascio
Secretary

APPROVED:



Frederick N. Elofson, CPA
Chair

HRSD Commission Meeting Minutes
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Attachment #1

Agenda Item 1. Awards and Recognition Resolution



RESOLUTION

Commending the Service of James J. Pletl, PhD.

WHEREAS, James J. Pletl, PhD. was first employed by HRSD as a Biologist/Environmental Scientist in July 1989 and subsequently promoted to Chief of Technical Services in April 2006 and ultimately to Director of Water Quality in December 2011; and

WHEREAS, Dr. Pletl has represented HRSD on numerous committees, (TACs, FACs, RACs, STACs), as well as various panels, and work groups at the local, state, and national level on a wide range of water quality technical and regulatory issues; and

WHEREAS, Dr. Pletl has been a leader on state water quality initiatives ensuring regulatory and legislative initiatives are based on sound science, and appropriately focused on achieving meaningful results for the environment; and

WHEREAS, Dr. Pletl served at the national level as the Chair of the Water Quality Committee for the National Association of Clean Water Agencies helping inform and shape Federal regulations that had a direct impact on HRSD and all wastewater agencies in the country; and


WHEREAS, Dr. Pletl, as a member of the HRSD Senior Leadership worked to ensure HRSD maintained the highest standards for education and credentials in all positions, kept the team focused on the organization's commitment to honesty and integrity, and promoted fairness and equity in all decision making; and

WHEREAS, Dr. Pletl as the Director of Water Quality championed efforts to improve working conditions, modernize equipment, add expertise, and expand the roles and responsibilities of the entire Water Quality Department to more fully integrate into all aspects of HRSD operations; now therefore, be it

RESOLVED by the HRSD Commission that it hereby commend James J. Pletl for his outstanding service to HRSD, to the Hampton Roads Region, the wastewater sector, public health, and the environment; and, be it

RESOLVED FURTHER, that the Secretary of the HRSD Commission prepare a copy of this resolution for presentation to James J. Pletl as an expression of the Commission's deepest appreciation, esteem and best wishes.

Adopted by the HRSD Commission on the twenty-second day of December 2021.


Stephen C. Rodriguez
HRSD Commission Vice-Chair



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Attachment #2

Agenda Item 2. Consent Agenda

CONSENT AGENDA ITEM 2.b.1. – December 21, 2021

Subject: Bethel-Poquoson Interceptor Force Main Replacement Phase II
Contract Award (>\$200,000) and Task Order (>\$200,000)

Recommended Actions:

- a. Award a contract to MEB General Contractors Inc. in the amount of \$2,221,539.
- b. Approve a task order Rummel, Klepper and Kahl, LLP (RK&K) in the amount of \$307,811.

CIP Project: YR014300

Budget	\$3,154,000
Previous Expenditures and Encumbrances	(\$381,485)
Available Balance	\$2,772,515

Contract Status:	Amount
Original Contract with RK&K	\$144,695
Total Value of Previous Task Orders	\$236,610
Requested Task Order	\$307,811
Total Value of All Task Orders	\$544,421
Revised Contract Value	\$689,116
Engineering Services as % of Construction	31%

Type of Procurement: Competitive Bid

Bidder	Bid Amount
MEB General Contractors Inc.	\$2,221,539
Bridgeman Civil Inc.	\$3,136,496
Gaston Brothers Utilities LLC.	\$4,393,200
Shaw Construction Corp	\$4,894,420

Engineer Estimate: \$3,265,935

Project Description: This project will require the replacement of approximately 3,700 linear feet of 20-inch prestressed concrete cylinder pipe (PCCP) along Wythe Creek Road from north of Huntlandia Way to Wythe Creek.

Contract Description and Analysis of Cost: In accordance with HRSD's competitive sealed bidding procedures, the Engineering Department advertised and solicited bids directly from potential bidders. The project was advertised on October 18, 2021, and four bids were received on November 17, 2021. The Engineer's estimate is higher than the lowest responsive and responsible bidder received due to the contractor's unit price for 20-inch High Density Polyethylene which was 45 percent lower than the Engineer's estimate and represents the greatest magnitude of total item cost difference at \$891,081. The design engineer, RK&K, evaluated the bids and recommends award to the lowest responsive and responsible bidder, MEB General Contractors Inc., in the amount of \$2,221,539.

Task Order Description: This task order will provide construction phase engineering services for the project. A fee of \$307,811 was negotiated with RK&K and is comparable to other projects of similar size and complexity. The engineering services as a percent of construction are higher than normal because of the lower-than-expected construction cost of the lowest responsive and responsible bidder.

Schedule: Construction January 2021
 Project Completion March 2023

CONSENT AGENDA ITEM 2.b.2. – December 21, 2021

Subject: Customer Care and Billing System
Oracle Software License and Support
Contract Award (>\$200,000)

Recommended Action: Award a contract to Oracle America, Inc. in the estimated amount of \$310,876 for year one with four annual renewal options and an estimated cumulative value in the amount of \$1,554,380.

Type of Procurement: Sole Source

All services were previously approved as a sole source with Oracle America, Inc. in May, 2014.

HRSD Estimate: \$310,876

Contract Description: This contract is an agreement for license maintenance and support for the Customer Care and Billing System, including any applicable software updates.

Analysis of Cost: All pricing is in accordance with the Oracle Technical Services Agreement with Oracle and proposed annual increases.

CONSENT AGENDA ITEM 2.b.3. – December 21, 2021

Subject: Droplet Digital Polymerase Chain Reaction (ddPCR™) Consumables
Contract Award (>\$200,000)

Recommended Action: Award a contract to Bio-Rad Laboratories, Inc. in the amount of \$191,171 for year one with four annual renewal options and an estimated cumulative value in the amount of \$955,855.

Type of Procurement: Sole Source

All services were previously approved as a sole source with Bio-Rad Laboratories, Inc. in July 2017.

HRSD Estimate: \$191,171

Contract Description: This contract is an agreement for the consumables such as reagents, heat seals and cartridges as needed for different sample analysis. The system provides pathogen data using water-oil emulsion droplet technology required for the Sustainable Water Initiative for Tomorrow (SWIFT), multiple Water Research Foundation (WRF) projects as well as HRSD facility related projects.

Analysis of Cost: Pricing is in line with previous increases compared to the Consumer Price Index for goods.

CONSENT AGENDA ITEM 2.b.4. – December 21, 2021

Subject: Laboratory Information Management System (LIMS)
Thermo SampleManager Software Maintenance and Support
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract to Thermo LabSystems, Inc. DBA Thermo Fisher Scientific, Inc. in the amount of \$49,122 for year one with four annual renewal options and an estimated cumulative value in the amount of \$245,610.

Type of Procurement: Sole Source

All services were previously approved as a sole source with Thermo LabSystems, Inc. DBA Thermo Fisher Scientific, Inc. in November 2016.

HRSD Estimate: \$50,000

Contract Description: This contract is an agreement for maintenance and support services to the Thermo SampleManager Laboratory Information Management System (LIMS) which includes software upgrades and patches. The LIMS system is important for the generation of Monthly Plant Operating Reports and Discharge Monitoring Reports. In addition, it is important for LIMS to transfer data to the Pretreatment Information Management System (PIMS) and Internet-based Publicly Owned Treatment Works Administrative and Compliance Software (iPACS).

Analysis of Cost: Annual pricing is fair and reasonable based on past contract spend compared to the Consumer Price Index.

CONSENT AGENDA ITEM 2.b.5. – December 21, 2021

Subject: Pelletized Activated Carbon Blanket Purchase Agreement
Contract Award (>\$200,000)

Recommended Action: Award a blanket purchase contract for Pelletized Activated Carbon to Cabot Norit Americas Inc. in the estimated amount of \$87,360 for year one with four annual renewal options and an estimated cumulative value in the amount of \$436,800.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Cabot Norit Americas Inc.	\$87,360
Nichem Co	\$153,600

HRSD Estimate: \$70,560

Contract Description: This contract is an agreement for the supply and delivery of pelletized activated carbon on an as needed basis. Orders will be coordinated through the North Shore Operations center for use at various pump stations for odor control.

Analysis of Cost: The successful Bidder has provided past purchases to the North Shore Operations Center since November 2020. The overall costs are higher due to unknown freight costs at each shipment.

CONSENT AGENDA ITEM 2.b.6. – December 21, 2021

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

Recommended Actions:

- a. Award a blanket purchase contract for Wastewater Pump and Haul Services to Atlantic Heating and Cooling, Inc. in the estimated amount of \$145,644 for year one with four annual renewal options and an estimated cumulative value in the amount of \$728,219.
- b. Award a blanket purchase contract for Wastewater Pump and Haul Services to Hepaco, LLC in the estimated amount of \$79,997 for year one with four annual renewal options and an estimated cumulative value in the amount of \$399,983.

Type of Procurement: Competitive Bid

Bidder	Bid Amount
Atlantic Heating and Cooling Service, Inc. (AH&C)	\$185/hour
Hepaco, LLC	\$203/hour
Virginia Pump and Motor	\$250/hour
Julian Companies	\$155/hour*

HRSD Estimate:

\$196,386

Contract Description: These contracts are for agreements for wastewater pump and haul services on an as needed basis for HRSD and/or multiple jurisdiction locations. Services include collection and hauling of liquid waste between HRSD treatment plants to designated wastewater collection systems to assist with system management during normal and emergency conditions. AH&C and Hepaco will provide services to all service area locations based on availability and response time to more efficiently meet HRSD needs.

Analysis of Cost: The contracts are broken down by service areas and varies based on type (emergency, priority or standard) and duration (hourly, daily and weekly) of service. The Solicitation allowed contractors to bid on specific areas and allowed HRSD to select any combination of contractors and service areas that were the most advantageous to HRSD along with the lowest responsive, responsible bidder.

Rates are considered fair and reasonable based on competitive bidding and previous contract rates. The overall annual spend is not anticipated to be an even split between the AHC and Hepaco. The first year estimated costs for each Contractor reflects the anticipated number of services to be used by HRSD and other jurisdictions as well as the previous contract spend.

*Julian Companies submitted for only the Surry service area, and they are not currently located in Virginia or authorized to conduct business in VA. It was not in HRSD's best interest to evaluate their bid for potential award.

CONSENT AGENDA ITEM 2.c.1. – December 21, 2021

Subject: Carahsoft Based Converged Infrastructure Support
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the VASCUPP cooperative contract for purchase of Carahsoft Information Technology Products and Services from Achieve 1, LLC.
- b. Award a contract to Achieve 1, LLC in the estimated amount of \$75,000 for one year with three annual renewal options and an estimated cumulative value in the amount of \$225,000.

HRSD Estimate: \$75,000

Contract Description: This contract is for purchase of Carahsoft hardware, software and services for use by the HRSD Information Technology Department utilizing the cooperative contract competitively solicited by VASCUPP in support of ongoing converged infrastructure. Converged infrastructure bundles hardware components with management software to arrange the resources as a single integrated system. The goal is to reduce complexity in data center management and eliminate issues of hardware incompatibility.

The authorized partners/resellers offer branded and supported products in which all the components reside natively on a qualified hardware appliance. This offers improved management flexibility and lowers costs by consolidating systems and utilizing data management.

The contract allows for Carahsoft related services, sales and support through designated resellers. Upon evaluation of VASCUPP's contract terms and conditions, as a public agency, HRSD is eligible to use the contract awarded to Carahsoft and its authorized resellers.

Analysis of Cost: By utilizing the cooperative contract through VASCUPP, HRSD is receiving 16 percent cost savings.

CONSENT AGENDA ITEM 2.c.2. – December 21, 2021

Subject: CISCO Umbrella Security Annual Subscription and Support Services
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the Virginia Information Technology Agency (VITA) cooperative contract for Network Wireless and Wired Hardware and Services from Electronic Systems, Inc.
- b. Award a contract to Electronic Systems, Inc. in the estimated amount of \$69,398 for one year with two annual renewal options and an estimated cumulative value of \$208,195.

HRSD Estimate: \$70,000

Contract Description: This contract is an agreement for CISCO Umbrella Security annual subscription and support. This solution will be implemented through an upgrade to the AnyConnect Virtual Private Network (VPN), moving HRSD from an unsupported freeware version and delivering a more secure version of VPN. Services will provide security for HRSD application and presentation layer (OSI/7-Layer Model) and provide CISCO security architect support to the Information Technology staff. This support will ensure HRSD cybersecurity risk is mitigated by blocking malware from entry into our systems via internet connections.

Analysis of Cost: By utilizing the cooperative contract through VITA, HRSD is receiving approximately a 60 percent cost savings.

CONSENT AGENDA ITEM 2.c.3. – December 21, 2021

Subject: Crowdstrike Falcon Complete Antivirus Software Subscription
HRSD Use of Existing Competitively Awarded Contract Vehicle and Contract Award
(>\$200,000)

Recommended Actions:

- a. Approve the use of the VASCUPP cooperative contract for Information Technology Products, Services and Solutions from RTT Founders Holdco Inc DBA Roundtower Technologies LLC
- b. Award a contract to RTT Founders Holdco Inc DBA Roundtower Technologies LLC in the estimated amount of \$150,945 for one year with three annual renewal options and an estimated cumulative value of \$603,780.

HRSD Estimate: \$150,945

Contract Description: This contract is an agreement for an annual subscription for Crowdstrike Falcon Complete Antivirus Software. This software provides managed detection and response cybersecurity endpoint protection which was implemented during the November 2020 ransomware incident.

Security services include providing malware detection, containment, and eradication; remotely triaging and remediating incidents as detected; managing day to day alerts to include escalation as needed to HRSD and our Managed Security Services Provider; and providing full incident response services as required without the need for additional retainers for the Business IT infrastructure.

Analysis of Cost: By utilizing the cooperative contract through VASCUPP cooperative contract, HRSD is receiving approximately a 40 percent cost savings.

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Attachment #3

Agenda Item 3. COVID-19 Wastewater Surveillance Study Presentation



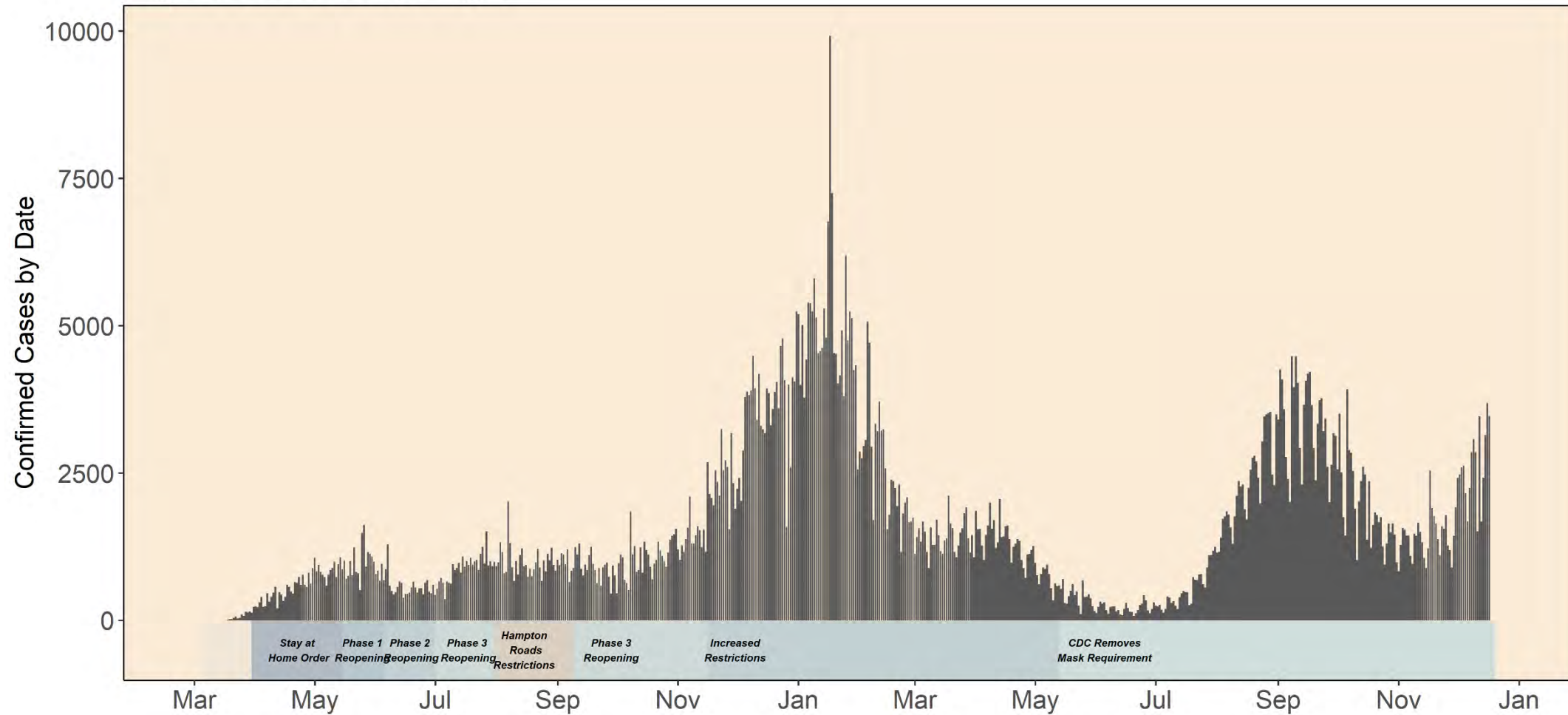
COVID-19 Surveillance Commission Update

December 21, 2021

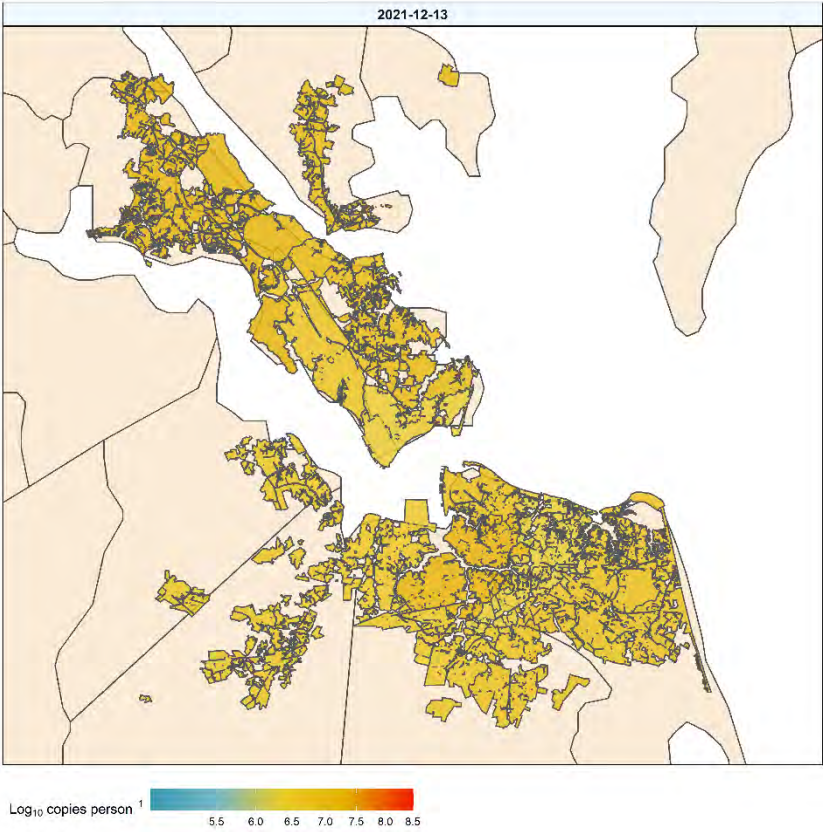
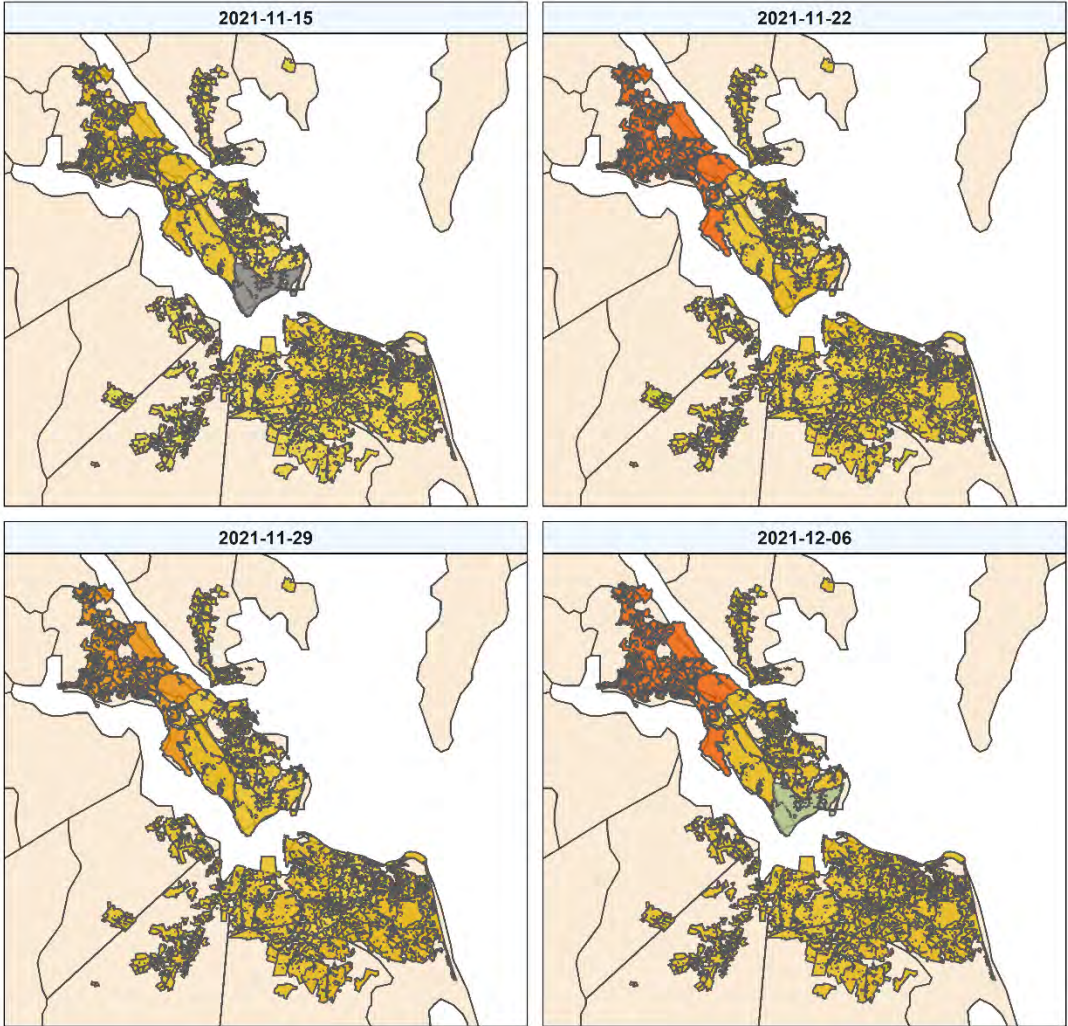
- Weekly sampling of the 9 major facilities
- Data through 12/13 presented here
- General notes;
 - Upward trend for November and early December
 - Decline in 12/13 data

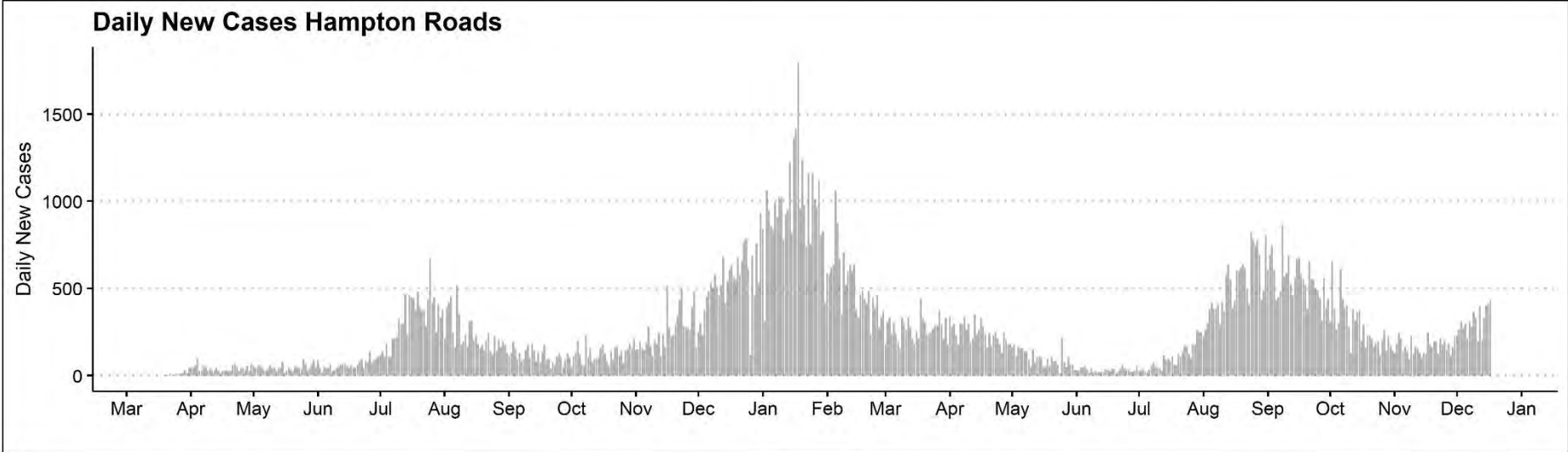
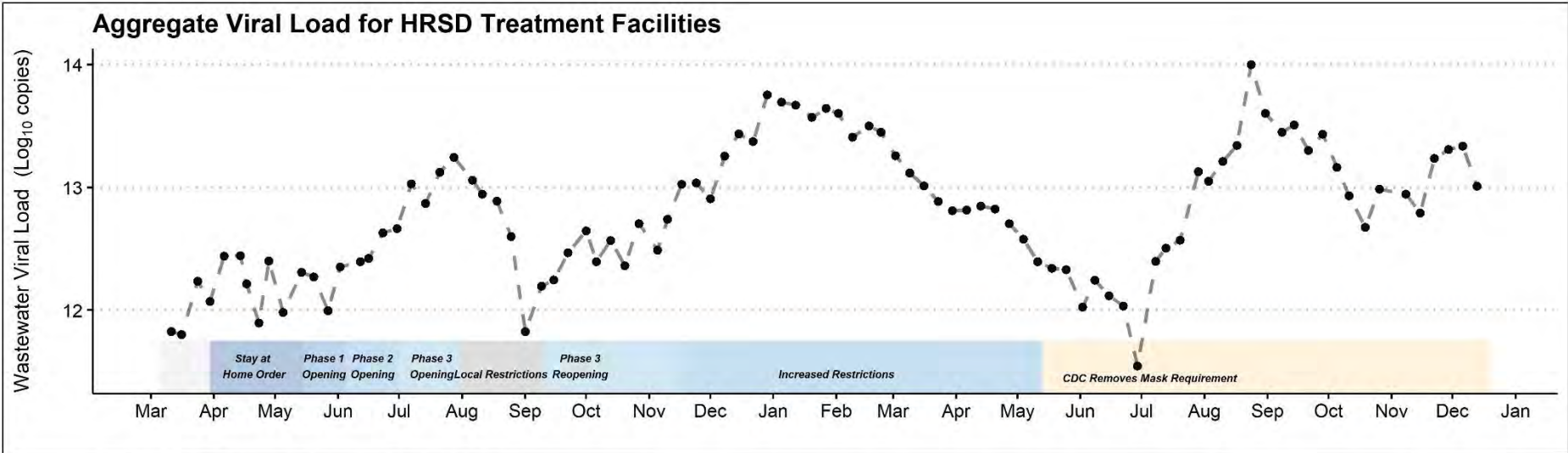
COVID-19 Cases in Hampton Roads

Daily New COVID-19 Cases Virginia



Most Recent 5 Weeks





- Continued weekly monitoring of 9 major facilities
- Preliminary evidence of omicron variant in samples from 12/6
 - Not Currently running a specific test
 - We can use a test for a previous variant to infer if omicron is present
- VDH and City of Chesapeake collaboration



WASTEWATER SURVEILLANCE OF SARS-COV-2 IN PUMPSTATIONS

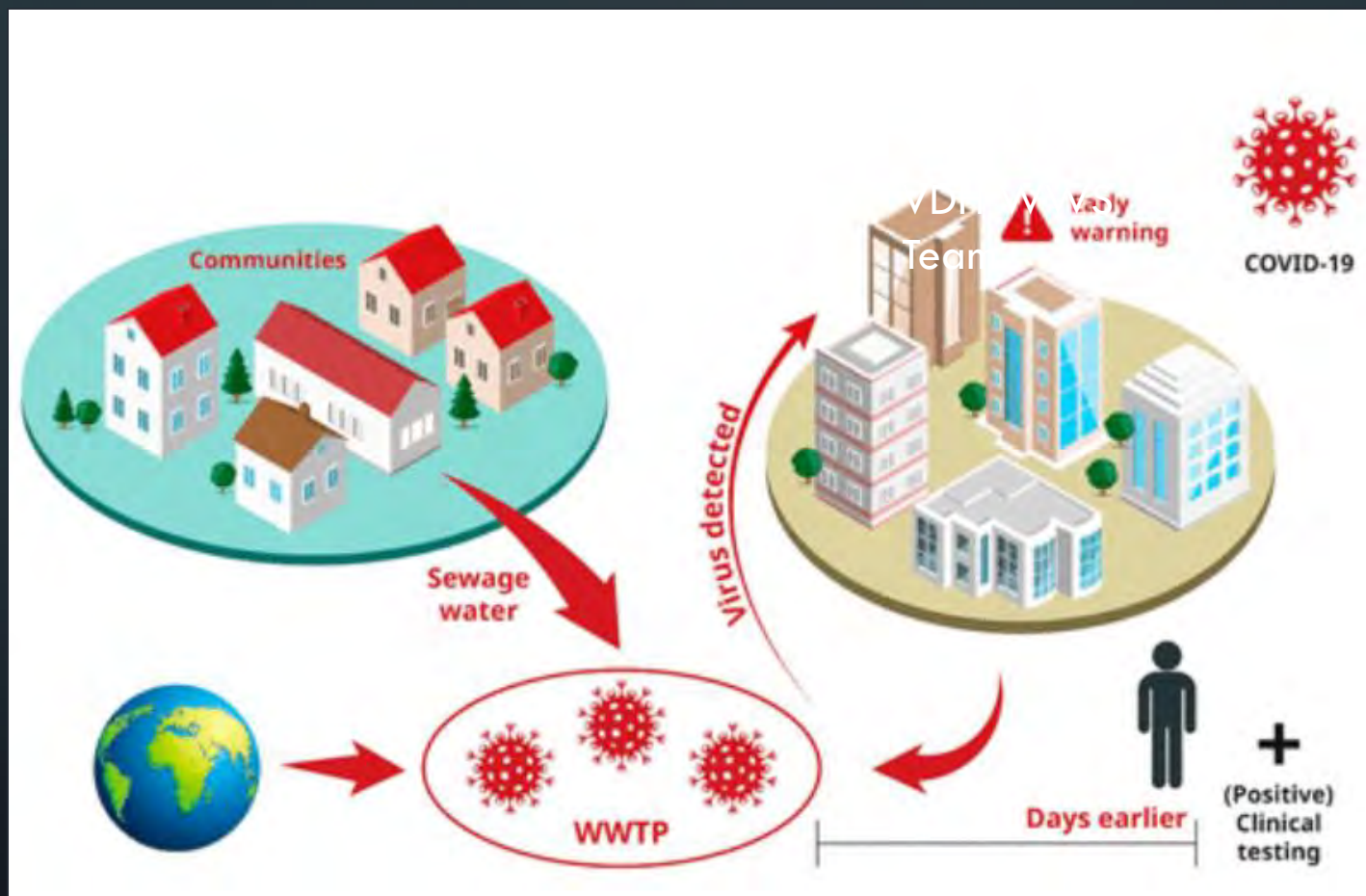
COLLABORATION BETWEEN HRSD, VDH, AND CITY OF CHESAPEAKE

CHESAPEAKE WASTEWATER SURVEILLANCE PROJECT OVERVIEW



Chesapeake Work Group
December 21, 2021

WASTEWATER SURVEILLANCE FOR SARS-COV-2



Caire Fuschi, Haihui Pu, Maria Negri, Rita Colwell, Junhong Chen. Wastewater-Based Epidemiology for Managing the COVID-19 Pandemic *ACS ES&T*

Water (IF), Pub Date : 2021-05-09, DOI: [10.1021/acsestwater.1c00051](https://doi.org/10.1021/acsestwater.1c00051)

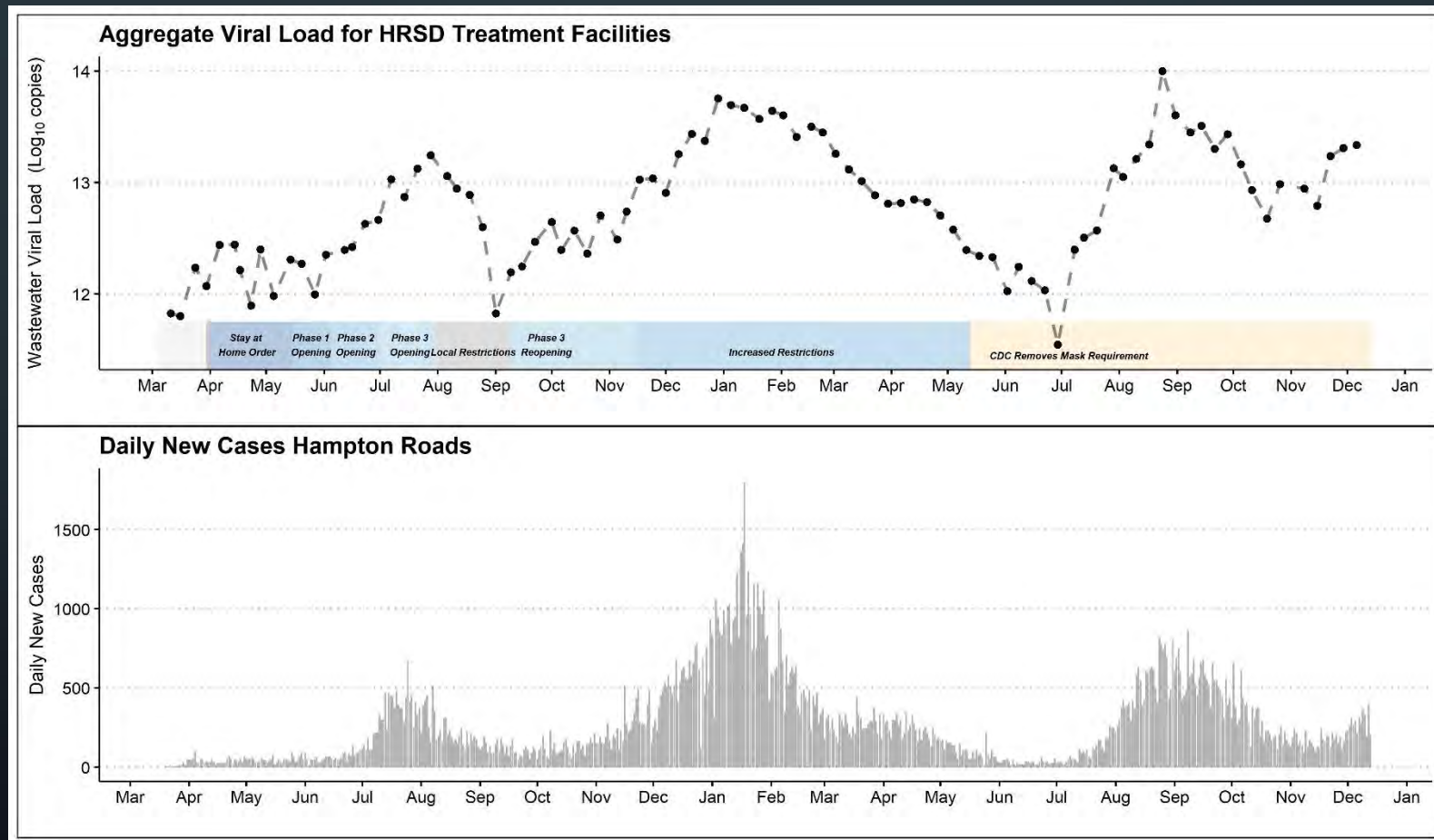
Advantages of SARS-CoV-2 Wastewater Surveillance:

- * **Non-invasive**
- * **Inexpensive**
- * **Scalable**
- * **Unbiased**
- * **Large data pool of individuals**
- * **Inclusive (both asymptomatic and symptomatic individuals)**
- * **Data for communities where individual testing is underutilized or unavailable**
- * **Indicator of changes in community-level infection**
- * **Complements existing COVID-19 surveillance systems**

The workgroup is a collaboration of members:

- ❑ **VDH**- Division of Water and Wastewater Services- program manager, project coordinator
- ❑ **HRSD**- collects, analyze and reports out data
- ❑ **Public Utilities and GIS departments**- provide access to the facilities, coordinate with locality senior management, and create maps
- ❑ **CHD**- provide local community data, create and implement actionable strategies
- ❑ **ODU**- research/reports and create prediction graphs

CONCEPTION: The project formed in the spring of 2021 because of the great work HRSD was already doing in their Wastewater Surveillance Program.



PROGRESSION


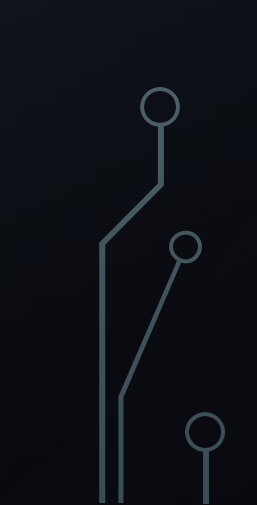
The project is funded by VDH under a localized project category for the Center for Disease and Control and Prevention grant and partially supported by HRSD.

The value of the project is that it is community-driven, research-oriented, and can identify the presence of COVID-19 sooner than any other evaluation technique.

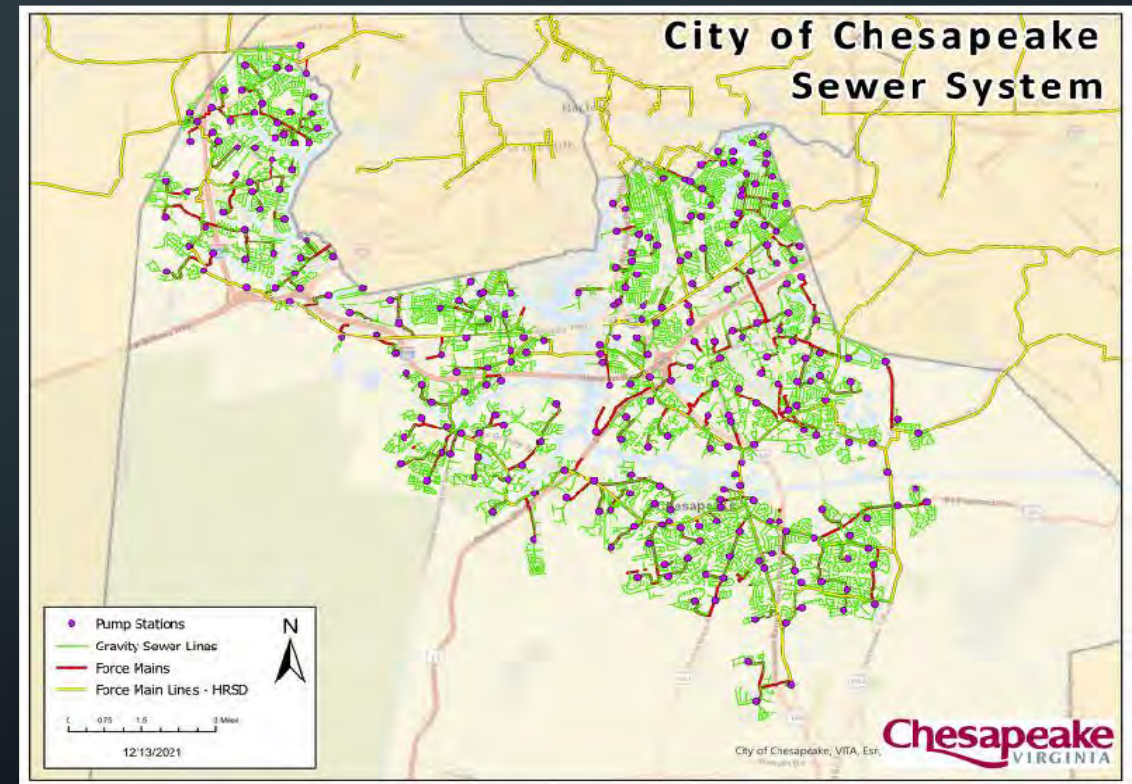
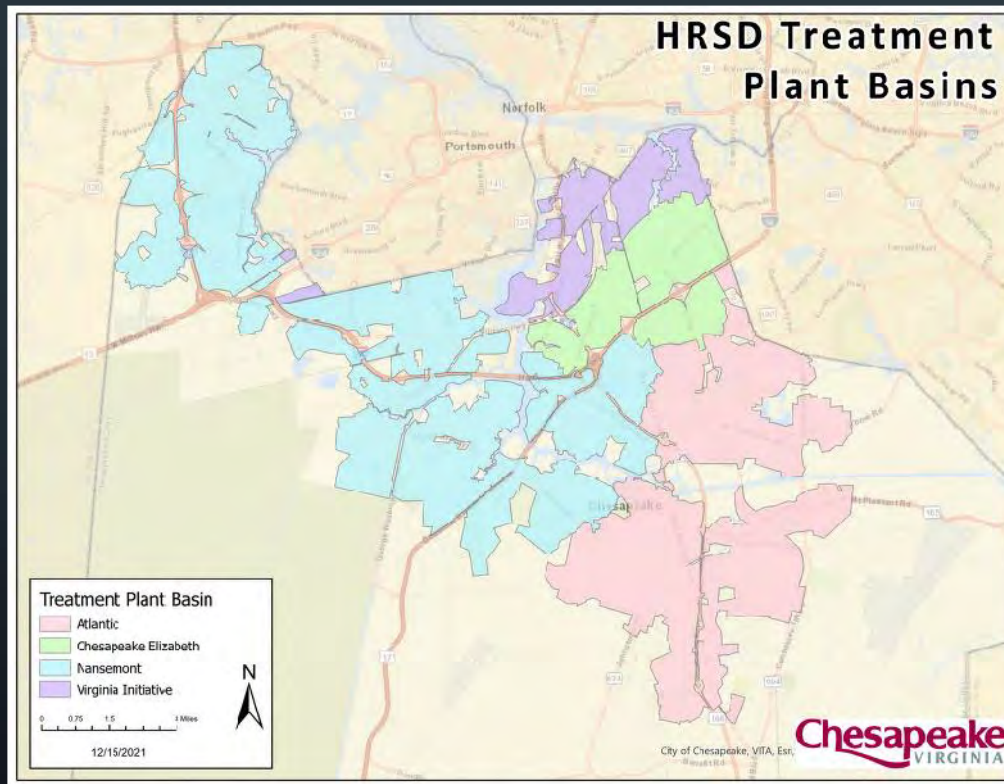




The Public **Health Benefits** include:

- * **Serve as an early warning system**
 - * **Help direct resources**
 - * **Provide information on an entire community**
 - * **Calculate metrics to monitor disease over time**
 - * **Evaluate intervention effectiveness**
 - * **Track known variants**
 - * **Improve disease monitoring of underserved communities**
 - * **Provide an expanded perspective**
- 
- 

One of the goals of the project is to scale down the testing to a neighborhood size by sampling from selected pump stations.



Sampling by HRSD is conducted on a weekly basis from chosen pump stations throughout the city. Currently there are five locations and they were chosen based upon the

- ❖ HRSD historical data,
- ❖ flow rates,
- ❖ population sizes,
- ❖ health opportunity index,
- ❖ vaccination rates.

➤ Utilization of this data allows us to implement targeted public health interventions against the COVID-19 virus and other agents of concern.

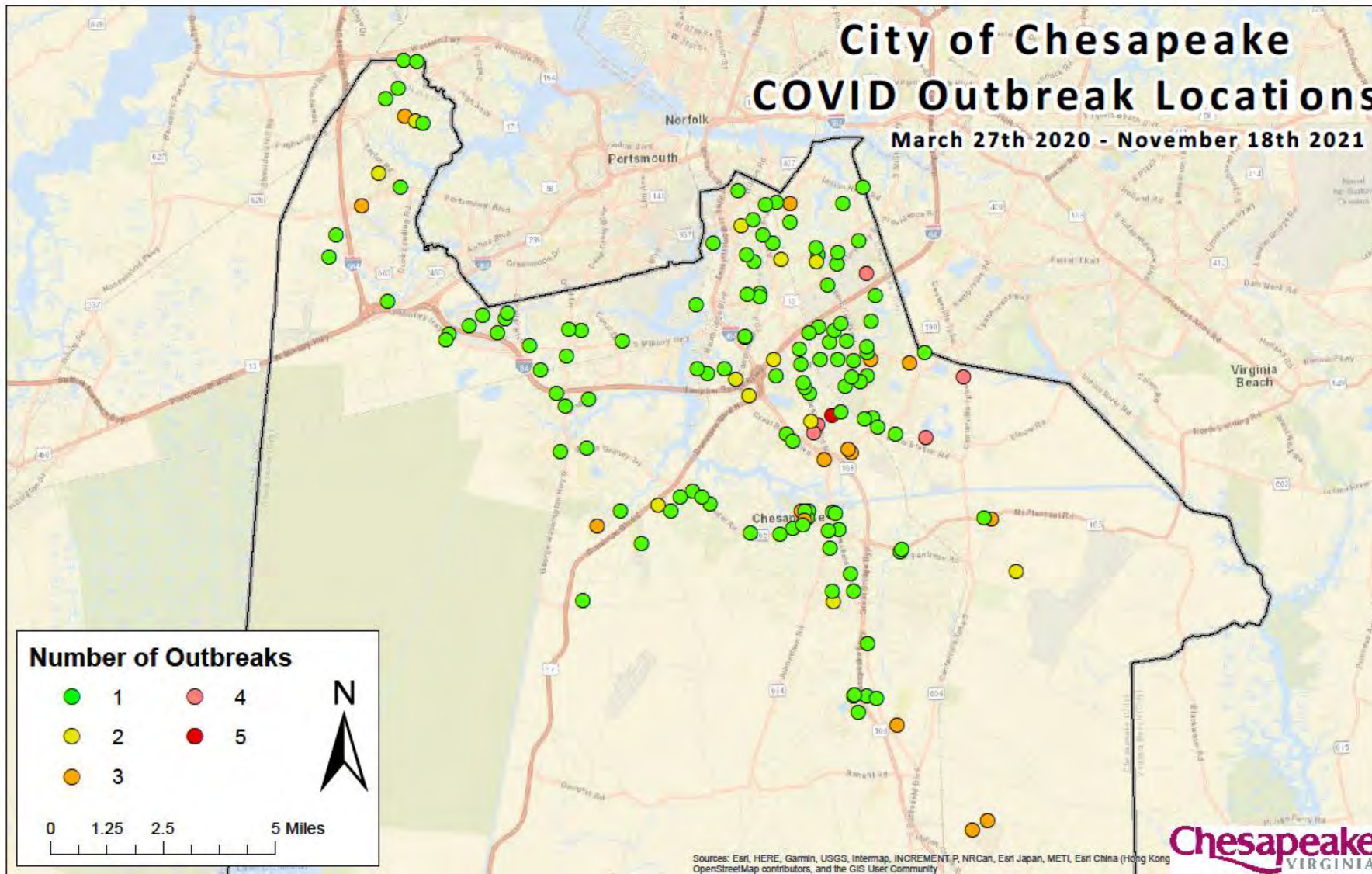
Outcomes

The outcomes from this project have significantly contributed to the **development of actionable strategies to prevent and control COVID-19** at the local level. CHD has been using the neighborhood-level virus data to :

- ❖ Mobilize target clinical testing and offering vaccinations;
- ❖ Develop education campaigns where infection rates are higher;
- ❖ Serve as an early warning sign which directs available resources;
- ❖ Allows for community interaction to discuss the virus in a less rushed atmosphere; and
- ❖ To correlate activities and behaviors conducted by the population by tracking outbreaks and creating prediction graphs.

City of Chesapeake COVID Outbreak Locations

March 27th 2020 - November 18th 2021



Key Takeaways

- ❑ Utilization of this data allows us to implement targeted public health interventions against the COVID-19 virus and other agents of concern.
- ❑ With the HRSD Commissions, continued support we can:
 - ❖ Expand our analysis to include other agents such as influenza and opioids;
 - ❖ Expand our sampling sites based upon the collected data;
 - ❖ Share our results and platform design with other districts across the state;
 - ❖ Most importantly, to protect our citizens



**Thank
You!!!**

HRSD Commission Meeting Minutes
December 21, 2021

Attachment #4

Agenda Item 4. Disposition of Real Property – Commission Adopted Policy

COMMISSION ADOPTED POLICY
***Disposition of Real Property – As Determined
to be no Longer Useful or Needed***



Adopted: December 21, 2021

Revised: N/A

Page 1 of 3

1.0 Purpose and Need

To establish procedures for disposing of real property to individuals or entities. Periodically, HRSD determines that certain real property it owns in fee simple is no longer needed or useful. In such circumstances, it may be in the best interest of HRSD to dispose of such real property.

These procedures do not apply to “*Facility Transfer Commission Adopted Policy*” originally adopted September 30, 2019. This policy is made in furtherance of, and does not supersede, “*Procurement Policy Commission Adopted Policy*” originally adopted December 16, 2014 including *Real Property Approvals* [Section 5.0(11)], as amended.

2.0 Guiding Principles

HRSD is responsible for ensuring adequate sewage treatment and conveyance capacity exists to meet the current and future sanitary sewer needs within the HRSD service area, and for operating and maintaining the sanitary sewer system, to protect public health and the environment.

HRSD is committed to real estate management practices that are accountable to our ratepayers and the public, ethical, impartial, professional, transparent and fully in accordance with applicable law.

In meeting its commitment to sound real estate management practices, it may be in the best interest of HRSD to dispose of real property that it owns in fee simple that it no longer needs or is useful to it.

3.0 Procedures

Identification. HRSD through its Real Estate Manager shall identify real property that is no longer needed or useful to the current and reasonably anticipated future needs of HRSD and may seek to dispose of such real property. Such identification may be made in consideration of requests from third-parties to HRSD regarding the disposition of real property.

Evaluation. HRSD through its Real Estate Manager shall evaluate the real property, which review will include input from members of the Engineering and Operations Departments in determining whether identified real property (or a portion thereof) is no longer needed or useful to the current and reasonably anticipated future needs of HRSD. The evaluation shall include review as to

COMMISSION ADOPTED POLICY
***Disposition of Real Property – As Determined
to be no Longer Useful or Needed***



Adopted: December 21, 2021

Revised: N/A

Page 2 of 3

whether HRSD is to retain any interest in the real property, including, for example, easement or right of way.

Disposition of Real Property. Following an evaluation by the Real Estate Manager resulting in a determination that identified real property (or a portion thereof) is no longer needed or useful to the current and reasonably anticipated future needs of HRSD, HRSD may seek to dispose of such real property.

- a. In connection with the disposition of any real property, HRSD shall confirm its ownership of such real property. Where deemed appropriate, HRSD shall obtain a title report to confirm ownership of the real property.
- b. Generally, fair market value shall be the basis of any disposition of real property. Where deemed appropriate, HRSD may obtain an appraisal of the real property. Acquisition of an appraisal shall be made upon approval of the Director of Engineering. Certain circumstances may warrant a disposition of real property upon terms other than fair market value.
- c. The disposition of real property, including the terms for any such disposition, shall be subject to the approval of the Commission.
- d. The Real Estate Manager shall prepare a recommendation for approval by the Commission of the disposition of real property, which recommendation shall include:
 - (1) confirmation that the real property is no longer needed or useful to the current and reasonably anticipated future needs of HRSD,
 - (2) the proposed terms of any such disposition, and
 - (3) if the terms include a disposition for less than fair market value, a description of the nature of the circumstances warranting such disposition.
- e. Upon approval by the Commission, the instrument disposing of such real property shall be executed in the name of HRSD and shall be in a form approved by HRSD's counsel.

Property Acquired by Eminent Domain. To the extent the real property was acquired, in whole or in part, by the exercise of the power of eminent domain, any disposition of such property shall comply with the applicable statutory requirements governing the disposition of such property to the extent deemed "surplus" as set forth in *Virginia Code § 25.1-108*, as amended.

COMMISSION ADOPTED POLICY
***Disposition of Real Property – As Determined
to be no Longer Useful or Needed***



Adopted: December 21, 2021

Revised: N/A

Page 3 of 3

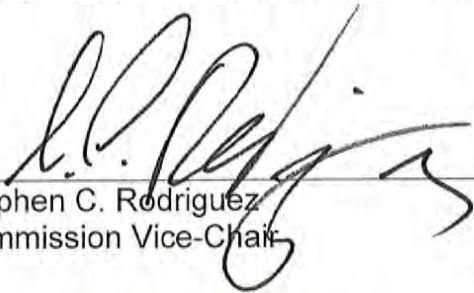
Implementation. The Director of Engineering shall establish procedures consistent with this policy and may designate other HRSD staff to act on their behalf.

4.0 Responsibility and Authority

This policy was developed in accordance with HRSD's Enabling Act. Any changes to this policy shall be made in writing and approved by the Commission.

This policy shall be reviewed as needed by the Director of Engineering and revised as required to conform to current law and regulations.

Approved:



Stephen C. Rodriguez
Commission Vice-Chair

12/21/2021
Date

Attest:



Jennifer L. Cascio
Commission Secretary

12/21/2021
Date

HRSD Commission Meeting Minutes
December 21, 2021

Attachment #5

Agenda Item 5. Disposition of Real Property – 1400 Ashland Circle, Norfolk

**HAMPTON ROADS SANITATION DISTRICT AND CITY OF NORFOLK
TRANSFER AGREEMENT
1400 ASHLAND CIRCLE PROPERTY**

THIS AGREEMENT ("Agreement"), between the CITY OF NORFOLK ("CITY") and the HAMPTON ROADS SANITATION DISTRICT ("HRSD"), entered this _____ day of _____, 2021, collectively referred to as the "Parties".

WHEREAS, it is the desire for the CITY and HRSD to regionalize certain wastewater conveyance systems in an effort to create savings for the CITY's and HRSD's mutual ratepayers and also to create additional benefits to both the CITY and HRSD by the division of certain roles and responsibilities with regard to operation of systems and the transfer of ownership of certain assets; and

WHEREAS, HRSD currently owns certain real property located at 1400 Ashland Circle, (legal description: Account No. 8444-7500, Pts 1 & 2 Blk 1 -82.5 ft x40 ft M/L-Lafayette Winona) Norfolk, VA;

WHEREAS, the said property is hereafter referred to as the PROPERTY and as shown in Exhibit A;

WHEREAS, HRSD owns, operates, and maintains the Ashland Circle Pump Station and appurtenances known as HRSD-SPS-102 facility on PROPERTY, and as shown in Exhibit B;

WHEREAS, HRSD intends to demolish and/or remove all infrastructure and appurtenances within PROPERTY in conformance with the CIP Project VP015400 approved Specifications Document and Demolition Plans and as shown in Exhibit C;

WHEREAS, HRSD will "Restore" the PROPERTY per the VP015400 approved Specifications and as shown in Exhibit D;

WHEREAS, CITY and HRSD have determined that a transfer of ownership of the PROPERTY from HRSD to CITY will serve the needs of the CITY and enhance the aesthetics and well-being of the surrounding Winona Community;

WHEREAS, HRSD is agreeable to convey, and CITY is agreeable to acquire, the PROPERTY;

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

I. OWNERSHIP TRANSFER DESCRIPTION

A. HRSD agrees to the following:

1. HRSD will convey the PROPERTY described herein and shown in Exhibit A to CITY in fee simple by Special Warranty Deed in "Restored" condition and assign all its rights, title, and interest in their entirety in accordance with the terms and conditions of this Agreement.
2. HRSD agrees that on the date of conveyance, the title shall be marketable and free and clear of all liens and encumbrances that would have a materially adverse effect on the future use of the PROPERTY and as envisioned by the CITY.

B. CITY agrees to the following:

1. CITY acknowledges that HRSD has made no representations or warranties whatsoever regarding the PROPERTY, except for Special Warranty of Title.
2. CITY agrees that it has inspected and is thoroughly familiar with the PROPERTY and is acquiring the PROPERTY in its "Restored" condition.
3. CITY understands and agrees that HRSD has not made and makes no representations or warranties of any kind with respect to the condition of the PROPERTY, or its fitness, suitability or acceptability for any particular use or purpose, and HRSD shall not be liable for any latent or patent defects therein.

II. ROLES AND RESPONSIBILITIES

A. HRSD agrees to the following:

1. HRSD will provide CITY gross asset and accumulated depreciation values for PROPERTY.
2. HRSD will demolish and/or remove all infrastructure and appurtenances within PROPERTY in conformance with the CIP Project VP015400 Specifications Document and Demolition Plans and as shown in Exhibit C and approved through the City Site Plan Review Process;
3. HRSD will "Restore" the PROPERTY in accordance with the Specifications Document as described in Section 02 41 00 - Demolition and Section 32 90 00 – Final Grading and Landscaping, and in conformance with the CIP Project No. VP015400 site plans (Luxembourg PS #113 and Ashland Circle PS #102, Vol 2 of 2) and approved through the City Site Plan Review Process.

B. CITY agrees to the following:

1. CITY will perform a title examination to ascertain the condition of the title of the PROPERTY being conveyed and obtain owner's title insurance on the property to be effective on the date of conveyance.
2. CITY will be responsible to maintain the PROPERTY as required by its City Ordinances and Zoning Regulations from the date of conveyance.

C. Both CITY and HRSD agree to the following provisions:

1. It shall be a condition precedent to CITY's acceptance of the PROPERTY, that CITY is able to obtain owner's title insurance on the PROPERTY through a company authorized to do business in the Commonwealth of Virginia at normal and typical rates.
2. Possession of the PROPERTY will be given to CITY at closing.
3. HRSD agrees to pay the expenses of preparing the deed. CITY will pay all other fees and costs charged in connection with the transfer of the PROPERTY and the recordation of the deed.
4. CITY and HRSD agree that the attorney or title insurance company ("Title Company") selected by CITY shall act as the settlement agent ("Settlement Agent") at HRSD's expense. The Settlement Agent shall prepare the settlement statement, update and record the deed, collect and disburse settlement funds in accordance with this Agreement and the settlement statement, and file any required state and federal tax forms or other certifications.
5. FEASIBILITY PERIOD: CITY shall have ninety (90) days from the date this Agreement is executed by all parties in which to complete their assessment of the PROPERTY including title examination and environmental assessment.
6. CONDITIONS: CITY's obligations are expressly conditioned upon receipt of a satisfactory title commitment during Feasibility Period. It being understood that HRSD is under no obligation whatsoever to expend any funds to satisfy this condition. If this condition cannot be met during the Feasibility Period, CITY may unilaterally terminate this Agreement.
7. CLOSING: The Closing will be made at the offices of the Settlement Agent or such other location as the parties may agree, within thirty (30) days after expiration of the Feasibility Period, or as soon thereafter as settlement documents can be prepared and any title issues can be resolved. If, for any reason, CITY fails to effectuate settlement and Closing on the Property before the expiration of one (1) year from the date this Agreement is fully

executed, this Agreement shall immediately terminate unless extended at the sole discretion of HRSD.

8. CITY and HRSD agree to execute all documentation and take all necessary actions to effectuate this Agreement. Upon execution of this Agreement, CITY and its agents, employees, engineers, and surveyors shall have full access to the PROPERTY in perpetuity.
9. The intention is to transact the conveyance of PROPERTY as shown in Exhibit A of this Agreement no later than when demolition and removal of all existing infrastructure and restoration of the PROPERTY is substantially completed. The exact date of conveyance is to be mutually agreeable to both parties.
10. BROKERAGE OR AGENT'S FEES: Neither the CITY nor HRSD are represented by a real estate broker, agent, or finder in this transaction. No fees or commissions are or will be due from or payable by the CITY because of this transaction. CITY shall have no obligation whatsoever to pay any brokerage or agent's fees or commissions, nor shall the CITY have any obligation whatsoever to see that any such fees or commissions are paid. HRSD and CITY agree to indemnify and hold each other harmless from and against any claim for broker, agent or finder fees or commissions.

III. GENERAL PROVISIONS

- A. Right of Entry: CITY shall have the right to enter the PROPERTY during demolition and restoration activities of the PROPERTY and in coordination with HRSD to ensure all work is performed in accordance with the project's approved design and specifications documents and per the terms and conditions of this Agreement. In connection with this right to enter PROPERTY, HRSD agrees to indemnify, defend, and hold CITY harmless from and against all costs, losses, damages, and expenses, including reasonable attorneys' fees, arising out of the activities of HRSD and/or its employees, agents and representatives on the PROPERTY. HRSD has the right to be present during any entry upon the property by CITY staff, employees, and/or its agents and representatives.
- B. Notices: All notices required pursuant to the terms of this Agreement shall be deemed effective when delivered by certified mail, return receipt requested, postage prepaid, to CITY and to HRSD at the respective addresses herein shown, unless this Agreement is modified in writing to reflect other addresses:

CITY of Norfolk	HRSD
c/o Director, Department of Utilities	c/o General Manager
401 Monticello Avenue	PO Box 5911
Norfolk, VA 23510	Virginia Beach, VA 23471

With Copies to:

HRSD Counsel:
Janice Anderson
Kellam, Pickrell, Cox & Anderson PC
403 Boush Street, Suite 300
Norfolk, VA 23510

And

Office of the Norfolk CITY Attorney
810 Union Street, Suite 900
Norfolk, VA 23510

- C. Entire Agreement: This Agreement, and any exhibits or attachments made hereto, represent the full agreement and understanding of the parties hereto, there being no additional agreements written, oral or otherwise. This Agreement may be amended only by a writing signed by both parties.
- D. Authority: CITY and HRSD both warrant that they have permission and authority derived under their respective corporate Charters and Enabling Acts to execute and undertake this Agreement and that all necessary actions of the Norfolk CITY Council to allow execution of this Agreement have been completed, and that all necessary Resolutions and actions of the Commission of HRSD to allow execution of this Agreement have been completed. This Agreement shall apply to, and be binding upon both Parties, their elected officials, officers, agents, employees, successors, and assigns.
- E. Compliance with Law: Each party warrants that it has complied with all aspects of applicable federal, state, and local law in entering this Agreement and further warrants that it shall comply with all applicable federal, state, and local laws in the performance of this Agreement.
- F. No Violation: The execution of this Agreement by the parties will not violate any covenant, condition, or contract to which the parties hereto are subject at the time of execution.
- G. Post-Execution Impact on Title: Upon execution of this Agreement, HRSD shall not take any action with respect to the PROPERTY that would impact or affect the quality of title that will be conveyed to CITY in accordance with Section I of this Agreement, with the exception of exercise of the HRSD's powers of eminent domain.
- H. Governing Law; Venue: 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. Venue shall be in the courts of the City of Norfolk.

- I. Enforcement: The failure of either party to enforce the terms of this Agreement shall not be considered a waiver as to the enforceability of such terms. If any provision of this Agreement is found to be unenforceable, the remainder of this Agreement shall remain in full force and effect.
- J. Survival: This Agreement shall survive settlement and conveyance of title and shall terminate only upon the written agreement of both Parties.
- K. Force Majeure: No Party shall be responsible for its failure to fulfill an obligation pursuant to this Agreement to the extent that such failure is due to acts of God; labor strikes; war or terrorism; epidemics/pandemics; the actions of a third party; the actions of another Party; lockouts; or other events not reasonably within the control of the Party claiming force majeure. A Party experiencing a force majeure event that prevents fulfillment of a material obligation hereunder shall (a) give the other Party prompt written notice describing the particulars of the event; (b) suspend performance only to the extent and for the duration that is reasonably required by the force majeure event; (c) use reasonable efforts to overcome or mitigate the effects of such occurrence; and (d) promptly resume performance of the affected obligation if and when such Party is able to do so.
- L. Counterparts: This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original as against any Party whose signature appears thereon, and all of which shall together constitute one and the same instrument.
- M. Binding Effect: This Agreement shall inure to the benefit of the Parties and shall, to the maximum extent permitted by law, be binding on the Parties and their successors and assigns.
- N. Reservation: Except as expressly provided herein, nothing in this Agreement shall be construed to limit or otherwise affect the authority, rights, or responsibilities of the Parties.

IN WITNESS WHEREOF, the CITY of Norfolk has caused this AGREEMENT to be signed by the CITY Manager pursuant to the Resolution adopted by the CITY Council on _____, 2021

CITY OF NORFOLK

By: _____

Attest: _____

COMMONWEALTH OF VIRGINIA
CITY OF NORFOLK, to-wit:

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by _____, CITY Manager of the CITY of Norfolk and _____, who is CITY Clerk of the CITY of Norfolk.

Notary Public

Notary#: _____

My Commission expires: _____

APPROVED AS TO CONTENT:

APPROVED AS TO FORM AND
CORRECTNESS:

Director, Department of Utilities

CITY Attorney's Office

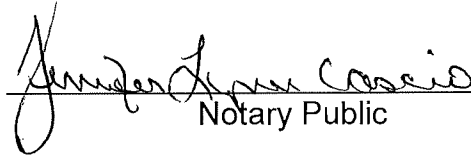
IN WITNESS WHEREOF, the Hampton Roads Sanitation District Commission has caused this AGREEMENT to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on December 21, 2021.

HAMPTON ROADS SANITATION DISTRICT

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

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

The foregoing instrument was acknowledged before me this 21st day of December, 2021, by Edward G. Henifin, P.E., General Manager of Hampton Roads Sanitation District. He is personally known to me ~~or provided~~ _____ as identification. ye


Notary Public

Notary#: 361710
My Commission expires: 8/31/2022

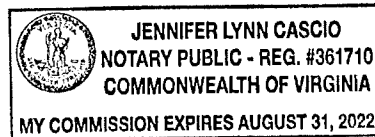


Exhibit A: PROPERTY

1400 Ashland Circle, City of Norfolk, Virginia 23509 Account No. 8444-7500

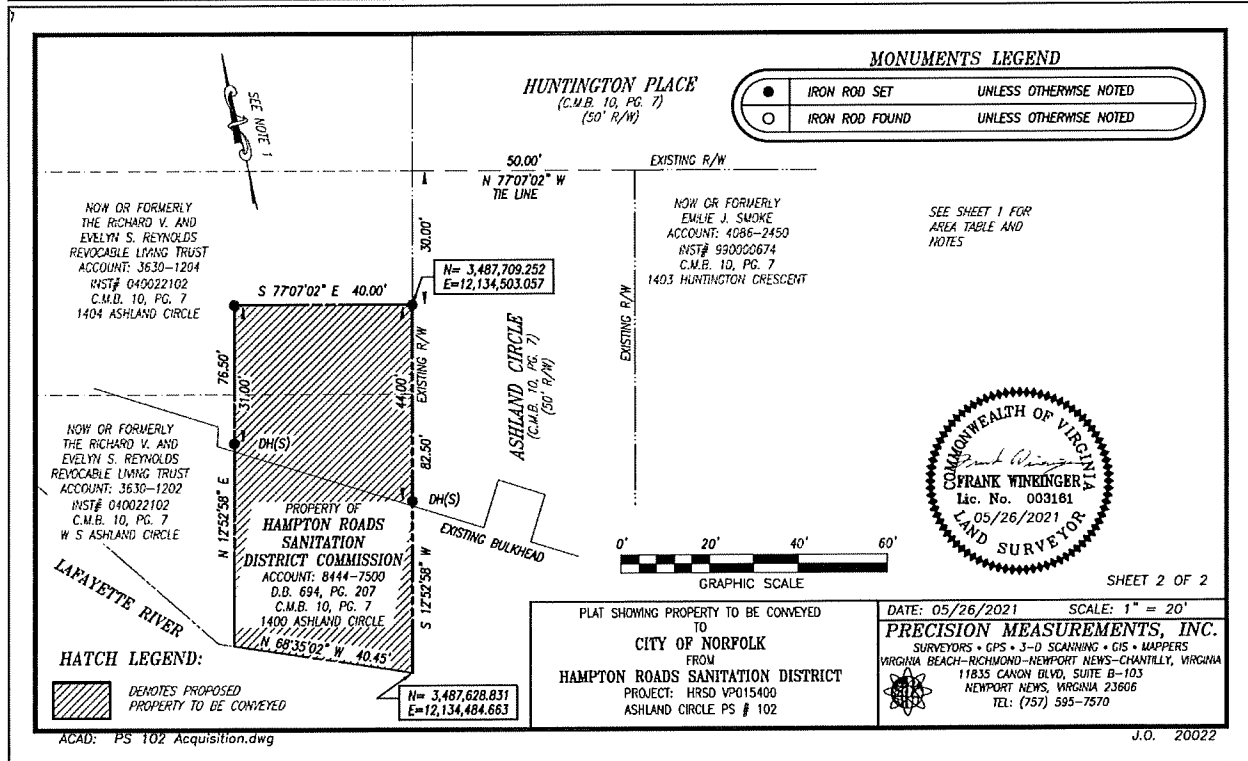
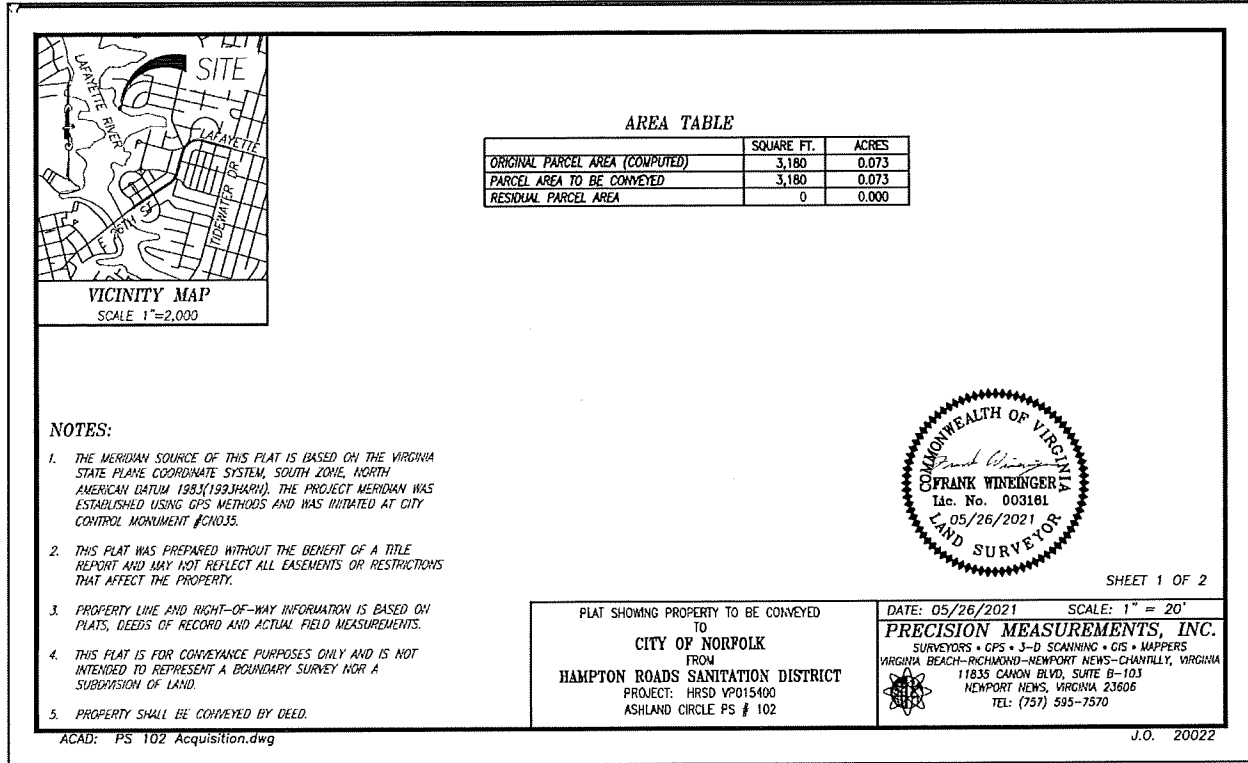
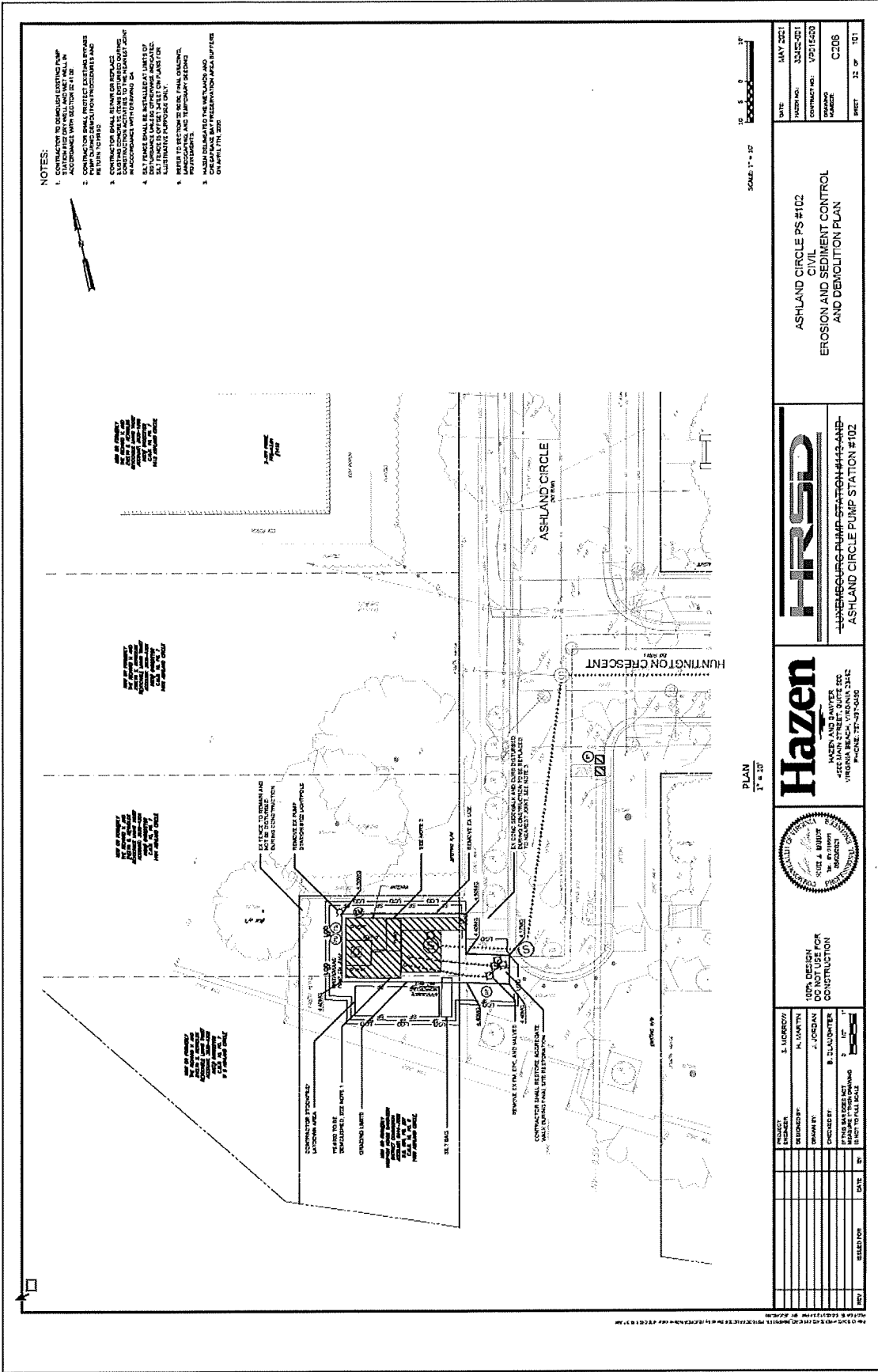


Exhibit B: HRSD-SPS-102 Ashland Circle PS Facility (pre-demolition)



Exhibit C: Demolition Plan



- NOTES:**
1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NORFOLK AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND CONSTRUCTION.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NORFOLK AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND CONSTRUCTION.
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NORFOLK AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND CONSTRUCTION.
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 10. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF NORFOLK AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND CONSTRUCTION.

DATE	MAY 2021
PROJECT NO.	33425-001
CONTRACT NO.	17211540
DRAWING NUMBER	C206
SHEET	11 OF 11

ASHLAND CIRCLE PS #102
 CIVIL
 EROSION AND SEDIMENT CONTROL
 AND DEMOLITION PLAN



Hazen
 AND
 AWARDS
 VIRGINIA BEACH, VIRGINIA 23462
 PHONE 757-477-0400



100% DESIGN
 DO NOT USE FOR
 CONSTRUCTION

DESIGNED BY	E. HUBBARD
CHECKED BY	R. SMITH
DATE	5/1/21
SCALE	AS SHOWN

Exhibit D: Ashland Circle Pump Station Site Restored (post demolition)



HRSD Commission Meeting Minutes
December 21, 2021

Attachment #6

Agenda Item 7. Chesapeake-Elizabeth Treatment Plant (CETP) Closure Presentation



CETP Offline Decision: Is Hindsight 2020?

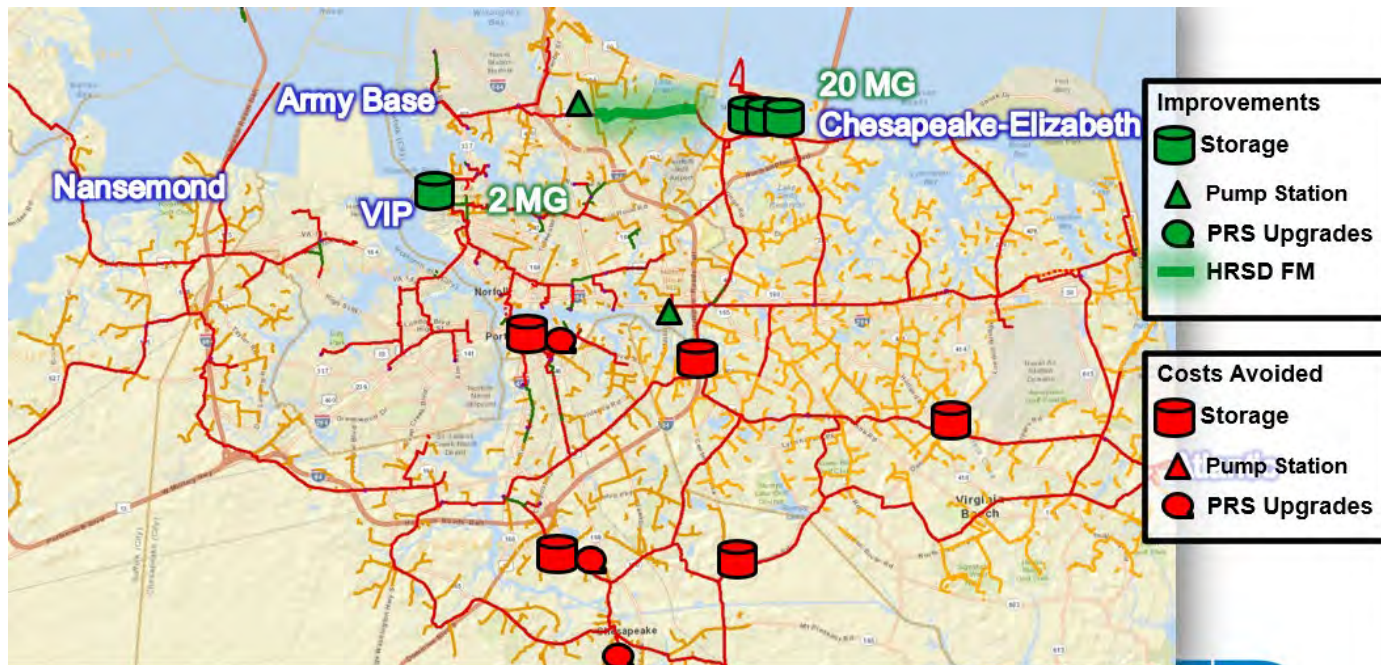
December 21, 2021

- In 2012 HRSD evaluated alternatives to meet WLA reductions required by 2022
 - Plant Upgrade w/ Advanced Nutrient Removal (Baseline)
 - Divert Flow and Close Plant



What's changed for HRSD since 2012?

- Constructed interceptor system projects
 - Nothing at CETP site; significant PRS projects



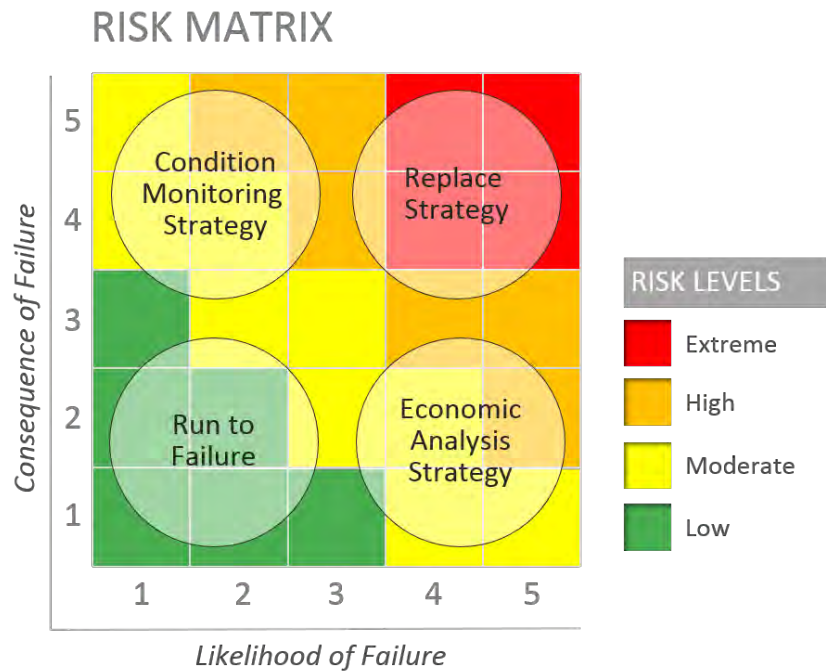
What's changed for HRSD since 2012?

- Impact of SWIFT on RWWMP
 - Wet weather projects limited to high priority areas
 - HRSD has assumed all risk for capacity-weather related SSOs



What's changed for HRSD since 2012?

- Creation of Asset Management Division
 - Formal risk criteria to look at condition; not just age & material



What's changed for HRSD since 2012?

- WIP III Enhanced Nutrient Removal Certainty
 - Individual points of compliance & reduced margins
- Plant Upgrade Costs
- Scale of Related Atlantic TP Projects

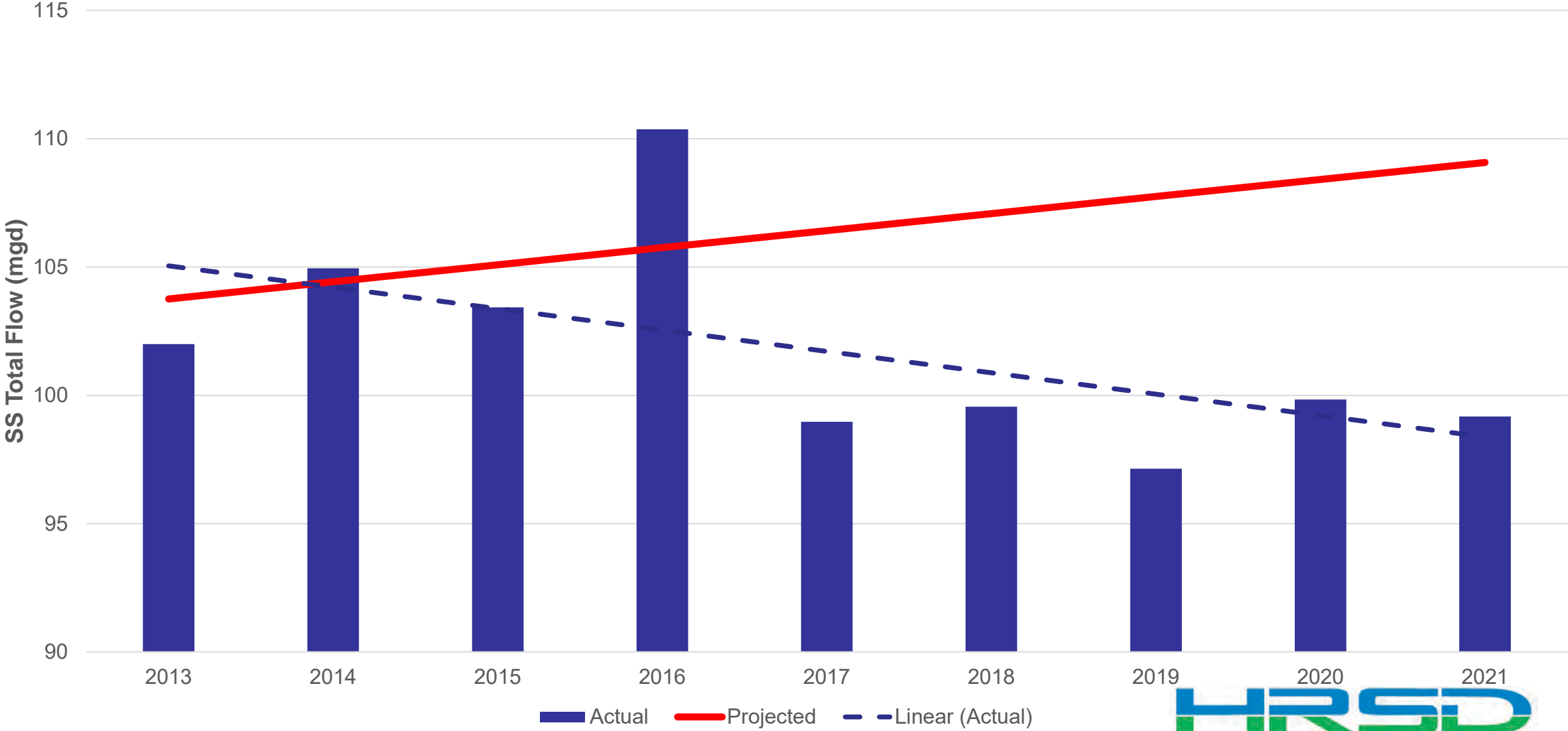


Implemented Capital Projects

- New & Upgraded PRSs
 - Interceptor Upgrade
 - Storage Tank
 - Automated Valves
 - PS Upgrades
- 31-45% Applied to CE Flow
 - CAMBI
 - Influent Screens
 - FOG Receiving
 - Gravity Belt Thickener
 - Polymer
 - Storage Pad



Treated Flow & Growth

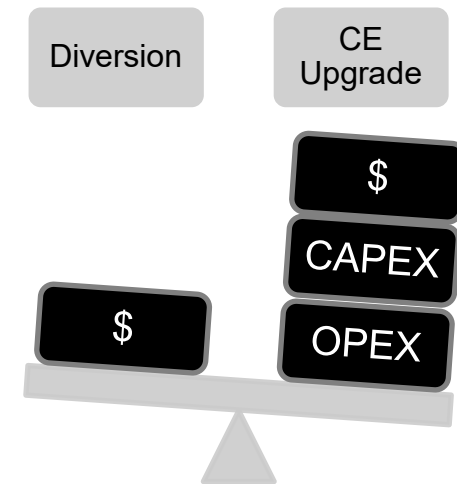


Financial Assumptions vs Actuals

	2013	2021
Discount Rate	2%	2%
O&M Inflation	4-5%	4-5% varies
Debt Financing	5%	3.7%
Debt/Cash	75/25	40/60
Capital to Upgrade CE	\$106.7 M	\$261.5 M
Capital to Divert CE	\$105.3 M	\$107.3 M + \$33.3 M
PV Upgrade CE	\$384 M	\$589 M
PV Divert CE (Chosen)	\$249 M	\$350 M
Net Present Value (30)	\$135 M Cost Avoided	\$239 M Cost Avoided

Breakeven Analysis

- Operating the system in a new way may result in system conditions that could not be foreseen
- The diversion may revive deferred or necessitate new projects
- The cost of **additional** projects would need to approach \$236 M (i.e. breakeven)
- Examples (\$75M):
 - Private Pump Station Upgrades
 - CETP Emergency Valve
 - Locality Upgrades
 - Lynnhaven IFM
 - Oceana Storage (Traded for autovalves)
 - CETP Demolition (No hydraulic requirement)



Operational Considerations

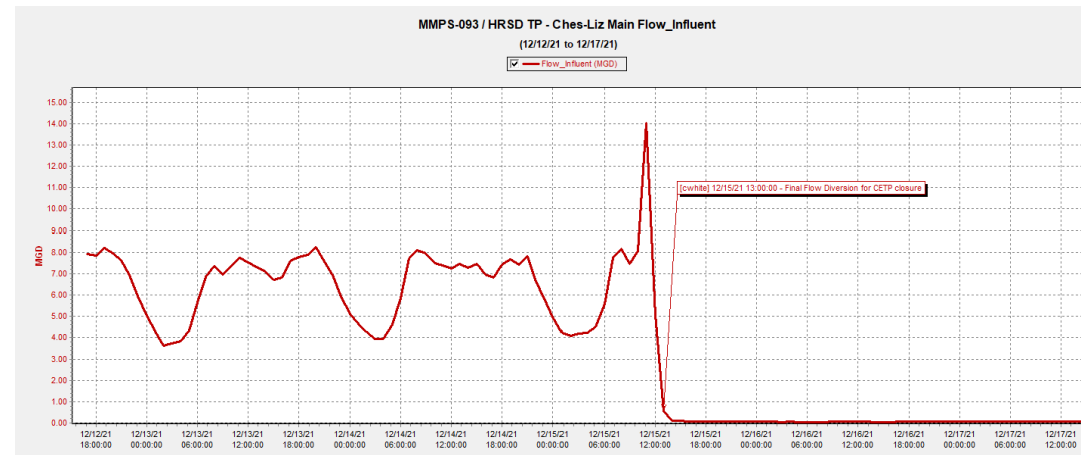
- Reduced flexibility for diversions
- Changed pressure conditions

- Confidence Building (In-House Effort)
 - Leverage investment in RHM
- Increased PRS reliability, safety, operability, and capacity
 - Use of Virtual Reality
- Coordination and Cooperation
 - Locality Buy-in (Providence Tank & Woodstock Park)
 - Operations & Engineering
- Understanding of system limitations & model shortcomings
- First true Smart Sewer Application (Lynn Shores & Hessian Valves)
- Use of New CIP Delivery Method (CMAR)



- Recalibrate Regional Hydraulic Model with new meter data
 - Diversion may alter hydraulics
- Additional automated valving in Interceptor System
- Does reduced flow lead to reduced costs perpetually?
 - i.e. flow is decreasing but population is growing
 - BOD loading still increases

- All CETP flow was successfully diverted on December 15th !



- Remaining projects include Elbow PRS, CE Emergency Valve, Automated Valving, and Private PS work
- Close coordination with impacted localities and federal facilities

- WQIF grant funding for collection system projects that result in nutrient reduction from closing a plant.
- HRSD is updating the value of the relevant CETP nutrient reduction components to apply
 - Anticipate 60-75% reimbursement for the collection system projects

- The many current and former HRSD employees who contributed to ensure the study was based on high-quality and comprehensive inputs

HRSD Commission Meeting Minutes
December 21, 2021

Attachment #7

- Agenda Item 10. City of Norfolk Wastewater Pump Station No. 27 (WPS #27)
Revised Cost Sharing Agreement

**COST SHARING AGREEMENT
BETWEEN
THE CITY OF NORFOLK AND
THE HAMPTON ROADS SANITATION DISTRICT
FOR
WASTEWATER PUMP STATION NO. 27 AND RELATED INFRASTRUCTURE**

THIS COST SHARING AGREEMENT (“Agreement”), between the CITY OF NORFOLK (“CITY”) and the HAMPTON ROADS SANITATION DISTRICT (“HRSD”) is entered into this ____ day of _____, 2021 (“Effective Date”).

RECITALS

- R:1. The City of Norfolk currently owns, operates and maintains the existing Wards Corner Area Wastewater Pump Station No. 27 (WPS #27).
- R:2. CITY has an existing contract, dated June 27, 2009, with Michael Baker International (Engineer), to provide engineering services that includes, among other things, designing improvements and preparing construction documents for the then previously planned new City WPS #27 (the “Contract”). In accordance with said Contract, along with its subsequent seven (7) amendments, City is to pay Engineer a total sum not to exceed amount of **\$1,669,552.56 (“Fees”)**.
- R:3. City and HRSD (together the “Parties”) have recently determined that the existing WPS # 27 needs to be replaced, that a new HRSD Wastewater Pump Station (HRSD-WPS) needs to be designed and constructed to serve the area, which will include the connection of new gravity sewers and force main facilities, identified herein as **“Improvements”** and as illustrated in Exhibits 1 and 2 of this Agreement, and that the existing WPS #27 will be transferred to HRSD (under a separate agreement).
- R:4. Exhibit 1 of this Agreement depicts the proposed new connecting infrastructure (**CITY FACILITIES**) which will be owned by CITY upon project substantial completion per R:3.
- R:5. Exhibit 2 of this Agreement depicts the proposed new connecting infrastructure (**HRSD FACILITIES**) which will be owned by HRSD upon project substantial completion.
- R:6. The Parties have also determined and agreed that their interests are best served by sharing the costs of the needed replacement of WPS #27 and the design and construction of HRSD-WPS and by having the Improvements designed and constructed as one project.
- R:7. CITY has appropriated \$1,731,000 from its approved FY21 budget for its Capital Improvement Program Project - “Improve Wastewater Collection System” (“Appropriation”).

- R:8 The City is agreeable to using its existing contract with Engineer, as will be amended and increased to pay Engineer's costs for design and construction phase services for the replacement of WPS # 27 with HRSD-WPS.
- R:9 The City is also agreeable that in the event that the total costs paid by City for the Engineering services, over and above the Fees (which as of the date of this agreement has a remaining balance amount of \$106,795.30), is less than the Appropriation, then City will pay to HRSD any remaining unspent funds from the Appropriation.

NOW THEREFORE,

In consideration of the recitals stated above and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree to the following terms:

TERMS

I. DESIGN, PRECONSTRUCTION, AND CONSTRUCTION ADMINISTRATION OF IMPROVEMENTS

A. Administration

1. CITY will provide design administration of the Improvements, in coordination with HRSD, under the CITY's engineering contract with Engineer, as amended, in accordance with the terms and conditions of this Agreement.
2. CITY will provide administration of the Engineer's duties during preconstruction phase of the Improvements and in coordination with HRSD.
3. CITY will amend current engineering contract with Engineer to provide additional services on as needed basis to design Improvements in coordination with and approval of HRSD Project Manager.
4. HRSD will administer all aspects of the preconstruction and construction phases of the Improvements.
5. Engineer will prepare construction documents for the Improvements. Engineer will also provide construction-related administration and inspection services at HRSD's request and in coordination with HRSD's Inspector.
6. Engineer will meet with CITY and HRSD staff on as needed basis to coordinate, review, and solicit approval of all aspects of the design and

construction of the Improvements and in accordance to Section I.A.4 of this Agreement.

7. One or more construction contracts may be entered into by HRSD to efficiently complete the Improvements.
8. All design work, specifications, and construction contract documents shall comply with:
 - a. HRSD's *Design and Construction Standards*, latest edition, for HRSD FACILITIES, and
 - b. CITY's Department of Utilities' *Design and Construction Standards*, latest edition, for CITY FACILITIES.

B. Approval of Construction Contract Documents

1. Before any construction work is to begin under this Agreement, HRSD and CITY will jointly review and approve the Construction Contract Documents. This approval shall be in writing.
2. HRSD will review and approve shop drawings and submittals related to HRSD Facilities.
3. CITY will review and approve shop drawings and submittals related to CITY FACILITIES and as part of the Improvements.

C. PAYMENT OF THE DESIGN AND CONSTRUCTION COSTS

1. CITY will pay Engineer for all engineering design costs, construction administration and inspection service costs, and any other additional costs associated with subsequent contract amendments as agreed between the Parties, up to an amount that shall not to exceed its Appropriation (as stated above in R:7).
2. CITY will provide HRSD with Engineer's invoices, along with adequate supporting documentation, and updates as to the balance of the remaining funds available from the Appropriation, as requested by the HRSD Project Manager.
3. In the event that the total Engineer services costs paid by the City from the Appropriation (as evidenced by the paid Engineer invoices), over and above the payment of the Fees (which as of the date of this agreement has a remaining balance amount of \$106,795.30), is less than the Appropriation, then City agrees to pay to HRSD the remaining unspent balance of funds from said Appropriation.

II. CONSTRUCTION OF IMPROVEMENTS

A. Administration:

1. HRSD shall provide construction inspection and administration of the contractor's contract for construction of the Improvements as well as construction related administration for HRSD and in coordination with HRSD's Inspector.
2. CITY shall have a City inspector on site during CITY FACILITIES construction work. All field changes or concerns noted by the City Inspector during construction shall be reviewed and approved by HRSD.
3. CITY shall provide construction administration services for CITY FACILITIES.

B. Payment of Cost of Improvements

1. HRSD shall be responsible to pay in full the cost of the construction of the Improvements and construction administration services provided for HRSD FACILITIES under its CIP Project identified as "Wards Corner Sanitary Sewer Pumping Station (CIPAB01200)".
2. Upon substantial completion of construction of the Improvements, and upon the City's receipt and payment of the Engineer's final invoice, the CITY will pay to HRSD the unused balance of the Appropriation per Sections I.C.3 of this Agreement in a lump sum payment.

C. City Facilities Ownership Transfer

Upon substantial completion of Improvements, HRSD shall transfer ownership of CITY FACILITIES as depicted in Exhibit 1 of this Agreement and identified in the "As-Built" plans to City, with clear title, free and clear of any liens or encumbrances.

III. 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. Venue shall be in the courts of the City of Norfolk.

IV. TERMINATION

Anything to the contrary notwithstanding, this Agreement and the obligations of the parties hereunder may be terminated by 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 City and HRSD.

V. 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:

To HRSD

If by U.S. Postal Service:
General Manager
P. O. Box 5911
Virginia Beach, VA 23471-0911

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

With Copy to:

Janice P. Anderson
Kellam, Pickrell, Cox & Anderson PC
403 Boush Street, Suite 300
Norfolk, VA 23510

To City of Norfolk

Director
City of Norfolk Department of Utilities
401 Monticello Avenue
Norfolk, VA. 23510

With copy to:

City Attorney
9th Floor – City Hall
810 Union Street
Norfolk, VA 23510

VI. ASSIGNMENT

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

VIII. AMENDMENT

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

IX. SEVERABILITY

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

X. 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.

XI. FORCE MAJEURE

In the event of enforced delay in the performance of such obligations due to unforeseeable causes beyond the control of City or HRSD 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.

XII. 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.

XIII. INTEGRATION

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


IN WITNESS WHEREOF, the 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 December 21, 2021.

HAMPTON ROADS SANITATION DISTRICT

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

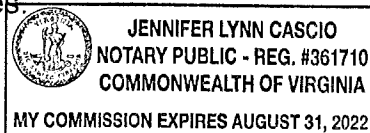
COMMONWEALTH OF VIRGINIA,
CITY OF VIRGINIA BEACH, to-wit:

The foregoing Agreement was acknowledged before me this 21st day of December, 2021, by Edward G. Henifin, HRSD General Manager.


Notary Public

My commission expires:

Registration No.:



IN WITNESS WHEREOF, the City of Norfolk has caused this Agreement to be signed by the City Manager on its behalf pursuant to Ordinance Number _____ adopted by the City Council on _____, 2021,

CITY OF NORFOLK

Dr. Larry H. Filer II, City Manager

ATTEST:

City Clerk

STATE OF VIRGINIA
CITY OF NORFOLK, to-wit:

I, _____, a Notary Public in and for the City of Norfolk, in the State of Virginia, whose term of office expires on the _____ day of _____, 20____, do hereby certify that Dr. Larry H. Filer II, City Manager and R. Allan Bull, City Clerk, respectively, of the City of Norfolk, whose names as such are signed to the foregoing deed dated the _____ day of _____, 20____, have acknowledged the same before me in my City and State aforesaid.

Given under my hand this ____ day of _____, 20__.

Notary Public [SEAL]

Approved as to Content:

Director of Utilities

Approved as to Form and Correctness:

Deputy City Attorney

CERTIFICATE OF FUNDING

I hereby certify that the money required for this Agreement is in the City Treasury to the credit of the fund from which it is to be drawn and not appropriated for any other purpose.

ACCOUNT: _____

AMOUNT: _____

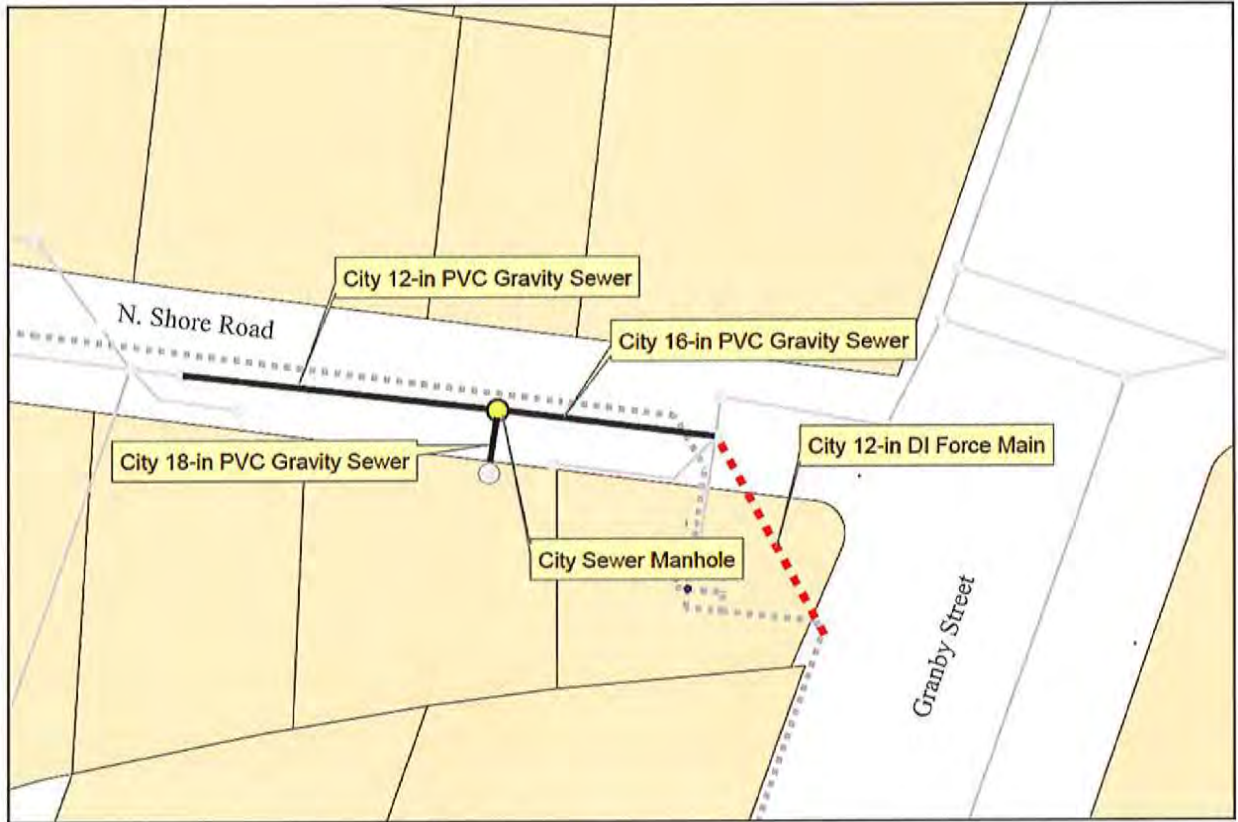
VENDOR CODE: _____

CONTRACT NO.: _____

Director of Finance

Date

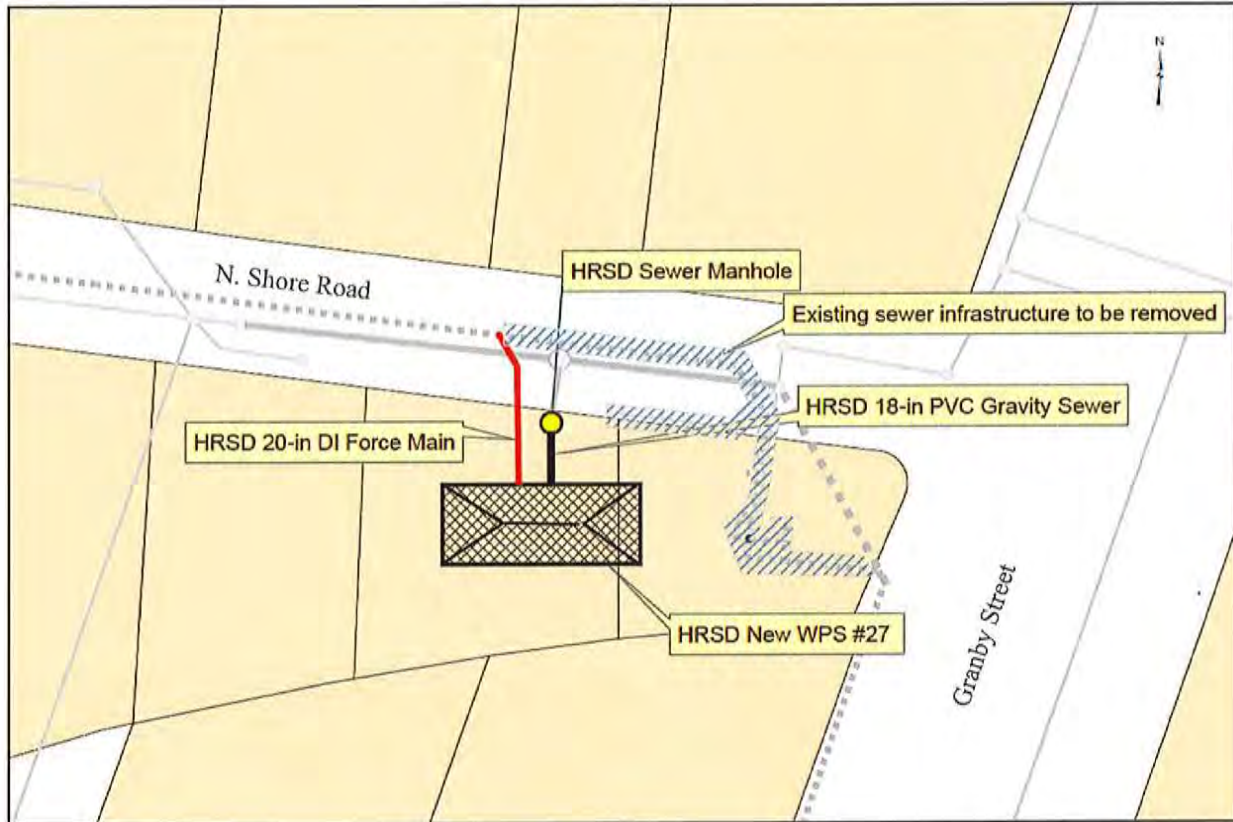
Exhibit 1: Improvements – City Facilities



NOTE:

Actual City Facilities will be noted on the approved "As-Built" plans of the Improvements (ref. CIP AB01200 - Wards Corner Sanitary Sewer Pumping Station)

Exhibit 2: Improvements - HRSD Facilities



NOTE:

Actual HRSD Facilities will be noted on the approved "As-Built" plans of the Improvements (ref. CIP AB01200 - Wards Corner Sanitary Sewer Pumping Station)

HRSD Commission Meeting Minutes
December 21, 2021

Attachment #8

Agenda Item 11. Providence Road Off-Line Storage Facility
Maintenance Agreement

**MEMORANDUM OF AGREEMENT FOR FACILITY USE AND MAINTENANCE
BETWEEN
THE HAMPTON ROADS SANITATION DISTRICT AND THE CITY OF VIRGINIA
BEACH**

THIS MEMORANDUM OF AGREEMENT is made and entered into this 26th day of January, 2022 by and between the **HAMPTON ROADS SANITATION DISTRICT** (hereinafter “HRSD”), political subdivision of the Commonwealth of Virginia, and the **CITY OF VIRGINIA BEACH, VIRGINIA** (hereinafter the “City”), a municipal corporation of the Commonwealth of Virginia.

WHEREAS, HRSD and the City entered into that certain *Intergovernmental Agreement between Hampton Roads Sanitation District and the City of Virginia Beach* dated May 30, 2019 (the “Construction Agreement”) and the parties thereafter entered into a *Deed of Easement* dated June 14, 2019 (the “Deed of Easement”) granting a 40-year easement to HRSD (the “HRSD Easement”), all to facilitate the construction of HRSD’s Providence Road Off-Line Storage Facility to effect HRSD’s plan to shut down the Chesapeake-Elizabeth Treatment Plant and re-route wastewater flow as a cost-effective alternative for addressing multiple regulatory mandates;

WHEREAS, HRSD and the City agree that this Memorandum of Agreement (hereinafter this “Agreement”) will guide HRSD and the City in their coordinated use and maintenance of HRSD and City facilities at Woodstock Park;

WHEREAS, the City is the owner of certain property known as Woodstock Park located at 5709 Providence Road, Virginia Beach, Virginia, GPIN 14568328420000 and 14568332440000 (collectively, the “City Park Parcel”);

WHEREAS, HRSD has constructed the Off-line Storage Facility with a capacity of up to 5.2 million gallons (the “Storage Tank”) on the City Park Parcel pursuant to the Construction Agreement, and the Deed of Easement;

WHEREAS, Other ancillary facilities to the Storage Tank include the following:

- a. 42-inch influent force main and isolation valves (the “Influent FM”)
- b. 12-inch drain force main and isolation valves (the “Tank Drain FM”)
- c. 4-inch water service line to storage tank
- d. 8-inch water service line to fire hydrant
- e. Tank Drain Pump Station
- f. Two cisterns and their respective underground piping and linear roof drains
- g. Odor Control Facilities

- h. Fenced area on the “back” or southwest side of the Storage Tank (the “HRSD Maintenance Area”), as depicted on Exhibit 1, attached hereto, and made a part hereof
- i. Access drive to Pump Station within HRSD Maintenance Area (the “Access Drive”)
- j. Skylights, yard hydrants, electrical receptacles, access hatches, level indicators, and gate valve operators located on the Storage Tank roof

WHEREAS, HRSD has constructed a 30,000 square-foot (sf) skate park, with approximately 14,000 sf located on the roof of the Storage Tank (the “On-Tank Skate Plaza”) and approximately 16,000 sf adjacent to the Storage Tank (the “Off-Tank Skate Plaza”). The On-Tank Skate Plaza and the Off-Tank Skate Plaza are hereinafter referred to collectively, as the “Skate Plaza”;

WHEREAS, HRSD has constructed an open area behind the On-Tank Skate Plaza (the “General Use Plaza”) with a green roof, bench seating and educational signage;

WHEREAS, the City intends to assume all maintenance and management obligations outside of the HRSD Easement;

WHEREAS, HRSD intends to assume all operations and maintenance of the Storage Tank structure and its ancillary facilities; and

WHEREAS, the City and HRSD intend to define the maintenance and management of all other public facilities within the HRSD Easement area in this Agreement.

NOW THEREFORE, in consideration of the premises and the mutual promises herein made, the Parties hereto agree as follows:

ARTICLE 1: SCOPE OF AGREEMENT

This Agreement will govern how HRSD and the City will share usage of the Woodstock Park facilities within the HRSD Easement and address the maintenance, safety, scheduling and use of such facilities.

ARTICLE 2: TERM OF AGREEMENT

This Agreement will be in effect year-to-year from June 16, 2021 through June 16, 2061. The Agreement will automatically renew each year on June 1 unless requested to be amended by either party at least sixty (60) days in advance of such date.

ARTICLE 3: SHARED SPACE COORDINATION TEAM

Proper coordination between HRSD and the City must occur to ensure there is no harm to the functionality or the structural integrity of the Storage Tank and that HRSD-maintained facilities blend in with the park surroundings and minimize impact to park operations. This coordination must occur between the two entities when any work is performed within the HRSD Easement or shared space (defined in Exhibit 1).

The parties will form a Shared Space Coordination Team (the “Coordination Team”), which will meet once each year in March (or a date mutually agreed to by the Coordination Team) to discuss issues of common concern regarding the shared use of the facilities within the HRSD Easement. Meetings may be called at other times as needed. HRSD will arrange the annual meeting, prepare an agenda, and document the proceedings for distribution to the Coordination Team. Any Coordination Team member may coordinate additional meetings if needed. Membership of the Coordination Team will include a minimum of two (2) representatives from HRSD and two (2) representatives from the City. Each party will be responsible for appointing its representatives. City and HRSD representatives on the Coordination Team will be the primary individuals to discuss and direct activities and responsibilities covered in this Agreement. If an activity requires input or approval outside of the Coordination Team, it is the responsibility of the members of the Coordination Team to escalate appropriately.

Topics to be covered are as follows:

- Procedure for notifying either entity of activities that may interfere with the other’s activities (e.g., A City-sponsored event at the park, HRSD preventative maintenance on the Storage Tank or any of its ancillary facilities, etc.)
- Replacement schedules for shared facilities (e.g. roadways, fencing, etc.)
- Other matters identified by the parties

ARTICLE 4: HRSD ACCESS AND USE

HRSD shall use the City Park Parcel’s main entrance and the HRSD Access Drive to access the Storage Tank and its ancillary facilities. The City will grant appropriate HRSD Operations supervisors access to the electronic gate system. HRSD shall have the right to complete planned maintenance on HRSD facilities within the HRSD Easement upon reasonable notice to the City, as determined by the Coordination Team. HRSD shall park all vehicles in the HRSD Maintenance Area. If HRSD requires the use of public parking spaces to perform routine duties (i.e. non-emergency need), HRSD must request use of those spaces through the Coordination Team.

In the event of an emergency relating to the Storage Tank or any of its ancillary facilities, as determined by HRSD, HRSD in its sole and absolute discretion may enter the City Park Parcel and take whatever reasonable steps it deems necessary to meet the emergency. HRSD shall notify the City’s Coordination Team representatives and appropriate emergency responders of

such emergency and entry as soon as practicable and the City will be responsible for communicating any temporary closures to the community and City leadership. Furthermore, HRSD shall have the right to enter the HRSD Easement, in the event that HRSD determines in its sole and absolute discretion that such entry into the HRSD Easement Area is necessary in order to perform maintenance or repair to the Storage Tank or its ancillary facilities. Repairs for any damage to the Storage Tank and its ancillary facilities shall be the sole cost and responsibility of HRSD, except for cost for damages due to the fault or negligence of the City. HRSD shall repair or restore the Storage Tank and its ancillary facilities to the pre-existing condition and the timeframe for such repairs/restoration shall be mutually agreed upon by the City and HRSD.

ARTICLE 5: CITY / CITIZEN USE

The City acknowledges and agrees that the Skate Plaza and General Use Plaza are not to be used for staging or any purpose other than skating or general park recreation without the express written consent of HRSD. Furthermore, the City acknowledges and agrees that the maximum allowable live load should be considered when proposing a different use, such as small maintenance vehicle access, event planning, etc. The original design loading for the Skate Plaza and General Use Plaza on top of the Storage Tank are 150 pounds per square foot (“psf”) and 100 psf, respectively.

The City acknowledges and agrees that any activities that require disturbance of the Storage Tank structure or its ancillary facilities, including but not limited to drilling into the Storage Tank concrete roof or walls, major repair or refurbishment of the Skate Park or affixing any items to the facility fencing, requires written permission from HRSD. Additionally, there shall be no public entry to the HRSD Maintenance Area behind the storage via the HRSD access drive or by any other means, with the exception of the City grounds maintenance crew.

The City will have the ability to attach their own lock to the secure HRSD gate in order to access the HRSD Maintenance Area for regular maintenance activities as discussed in this Agreement.

ARTICLE 6: CITY MAINTENANCE

City maintenance shall specifically include, but will not be limited to, the maintenance, servicing, replacement (including capital replacement unless specifically stated otherwise) of the following within the HRSD Easement:

- a) All turf, shrubs, trees and retaining walls
- b) All on-site vegetated stormwater collection and treatment systems
- c) Green roof plants and containment

- d) All systems connected to the operation of the Skate Park including regular concrete maintenance (Skate Park, sidewalks, ramps, stairs, seating, shades, etc.), painting/staining and any associated electrical or plumbing system work
- e) Regular cleaning and surface maintenance of the Storage Tank roof including litter removal and graffiti removal
- f) Surface cleaning of linear drains (e.g., litter and general debris removal) for the HRSD cisterns (concrete cistern structure maintained by HRSD)
- g) Benches, tables, shade structures or other park amenities
- h) All asphalt parking and roadways, including within the HRSD Maintenance Area
- i) Periodic exterior cleaning of the skylights
- j) General maintenance only, defined as cleaning, painting and adjusting or replacing gates, panels or hardware, of the architectural fence on the Storage Tank roof; except that HRSD is responsible for full replacement of fence at end of fence life and for installing and maintaining all signage posted to secure any areas from public access.
- k) General maintenance of all educational signage, defined as cleaning or hardware replacement, and full replacement of any signage with content pertaining to City Facilities only.
- l) General maintenance (e.g., cleaning and minor crack repair) of all concrete on the storage tank constructed above the hollow core panels (There is a 4-inch topping slab in the General Use Plaza area and a 6-inch topping slab in the On-Tank Skate Plaza area) and replacement of all Skate Park features.

ARTICLE 7: HRSD MAINTENANCE

HRSD maintenance shall specifically include, but will not be limited to, the maintenance, servicing, replacement (including capital replacement) of the following within the HRSD Easement:

- a) The Storage Tank structure and its ancillary facilities, except the asphalt Access Drive.
- b) Replacement of the equipment pads on the Storage Tank roof and topping slab and below will be the responsibility of HRSD
- c) Full replacement of the architectural fence on the Storage Tank roof (general maintenance provided by City as provided in Article 6 above)
- d) Maintenance and full replacement of (i) the fence enclosing the HRSD Access Road and the HRSD Maintenance Area behind the Tank Drain Pump Station, (ii) any other fencing used to secure HRSD facilities and equipment from the public, and (iii) all signage restricting public access to such areas.
- e) The concrete pavement around the Tank Drain Pump Station
- f) Replacement of educational signage pertaining to HRSD facilities and the teaming partnership for the Storage Tank project
- g) Clean-up following any HRSD maintenance activities on the Storage Tank or any of its ancillary facilities

ARTICLE 8: COSTS

Any capital and operating costs associated with the City Maintenance will be the responsibility of the City. Any capital and operating costs associated with the HRSD Maintenance will be the responsibility of HRSD.

ARTICLE 9: LIABILITY

Should claims arise alleging negligence on the part of both HRSD and City employees, officials, agents or volunteers, the parties will work cooperatively in the defense or adjustment of claims. Nothing herein shall affect the indemnification and hold harmless provision set forth in the Deed of Easement, which shall continue in full force and effect. Subject to the foregoing, the parties agree that to the extent permitted by law, and without waiving sovereign immunity and subject to appropriation that the parties agree to be responsible to the other for damages or injuries arising from failure to complete their respective maintenance and other obligations as set forth in this Agreement, after receiving specific written notice of such failures and allowing a reasonable time to address such conditions.

ARTICLE 10: COMPLIANCE WITH APPLICABLE POLICIES CONCERNING USE OF FACILITIES

Both parties shall comply with all federal, state and local statutes, ordinances, regulations and guidelines now in effect or hereafter adopted, in the performance of this Agreement.

ARTICLE 11: GOVERNING LAW

This Agreement shall be governed by the laws of the Commonwealth of Virginia. Any and all suits for any claims or for any and every breach or dispute arising out of this Agreement shall be maintained in the appropriate court of competent jurisdiction in the City of Virginia Beach.

ARTICLE 12: NOTICE

All notices, demands, requests and other communications required or permitted pursuant to this Agreement shall be in writing and shall be delivered in person or shall be sent by registered or certified mail, postage prepaid, return receipt requested, to the persons and at the addresses set forth below or to such other persons or addresses as the party entitled to notice shall specify.

City: Chad Morris, Administrator of Planning, Design & Development
City of Virginia Beach
Department of Parks and Recreation
2154 Landstown Road
Virginia Beach, Virginia 23456

With a copy to:

City Manager
City of Virginia Beach
2401 Courthouse Drive, Suite 234
Virginia Beach, Virginia 23456

City Attorney
City of Virginia Beach
2401 Courthouse Drive, Suite 260
Virginia Beach, VA 23456

HRSD:General Manager
HRSD
1434 Air Rail Avenue
Virginia Beach, Virginia 23455

ARTICLE 13: ENTIRE AGREEMENT, EXECUTION AND SEVERABILITY

During the term of this Agreement, except as otherwise set forth herein, if there is any conflict between the provisions of this Agreement and the HRSD Easement, this Agreement shall control. All other provisions of the HRSD Easement shall remain in full force and effect. This Agreement may be executed in two or more counterparts, each of which shall be an original, all of which together shall constitute but one and the same Agreement. If a provision of this Agreement is found to be invalid or unenforceable, the invalidity of such provision shall not affect the other provisions of this Agreement, and all other provisions of this Agreement shall remain in full force and effect.

ARTICLE 14: INDEPENDENT ENTITIES

Nothing in this Agreement shall be construed as reserving to either party any right to exercise any control over or to direct in any respect the conduct or management of business or operations of the other party. The parties are independent of one another and shall have no other relationship relating to or arising out of this Agreement. Neither party shall have or hold itself out as having the right or authority to bind or create liability for the other by its intentional or negligent act or omission, or to make any contract or otherwise assume any obligation or responsibility in the name of or on behalf of the other party.

ARTICLE 15: INSURANCE

During the term of this Agreement, both parties will maintain insurance or self-insured coverage in amounts adequate to cover the risk associated with the activity. Either party may require evidence of such coverage.

WHEREFORE, THE PARTIES, through their duly authorized agents, do hereby agree to the terms set forth above.

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IN WITNESS WHEREOF, the Hampton Roads Sanitation District (HRSD) Commission has caused this Agreement to be signed on its behalf by its General Manager in accordance with authorization granted at its regular meeting held on December 21, 2021.

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

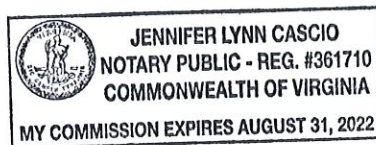
By 
Edward G. Henifin, P.E., General Manager

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

The foregoing Agreement was acknowledged before me this 21st day of December, 2021, by Edward G. Henifin, HRSD General Manager.


Notary Public

My commission expires:



Registration No.:

IN WITNESS WHEREOF, the City of Virginia Beach has caused this Agreement to be signed by the City Manager on its behalf pursuant to Ordinance Number 3580B adopted by the City Council on February 5, 2022.

CITY OF VIRGINIA BEACH, a municipal corporation of the Commonwealth of Virginia

By [Signature]
Patrick A. Duhaney, City Manager or designee

ATTEST:

[Signature]
City Clerk

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

I, Jennifer Anne Grundler, a Notary Public in and for the City of Virginia Beach, in the State of Virginia, do hereby certify that Patrick A. Duhaney, City Manager of the City of Virginia Beach, whose name is signed to the foregoing Agreement dated the 26th day of January, 2022, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this 28th day of January, 2022.

Commonwealth Of Virginia
Jennifer Anne Grundler - Notary Public
Commission No. 7037167
My Commission Expires 5/31/2025

[Signature] [SEAL]
Notary Public

My commission expires: 5/31/2025

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

I, Jennifer Anne Grundler, a Notary Public in and for the City of Virginia Beach, in the State of Virginia, do hereby certify that Amanda Barnes City Clerk of the City of Virginia Beach, whose name is signed to the foregoing Agreement dated the 26th day of January, 2022, has acknowledged the same before me in my City and State aforesaid.

Given under my hand this 28th day of January, 2022.

Commonwealth Of Virginia
Jennifer Anne Grundler - Notary Public
Commission No. 7037167
My Commission Expires 5/31/2025

Jennifer Anne Grundler [SEAL]
Notary Public

My commission expires: 5/31/2025

Approved as to Content:

Dean Bowles

Parks and Recreation

Approved as to Content:

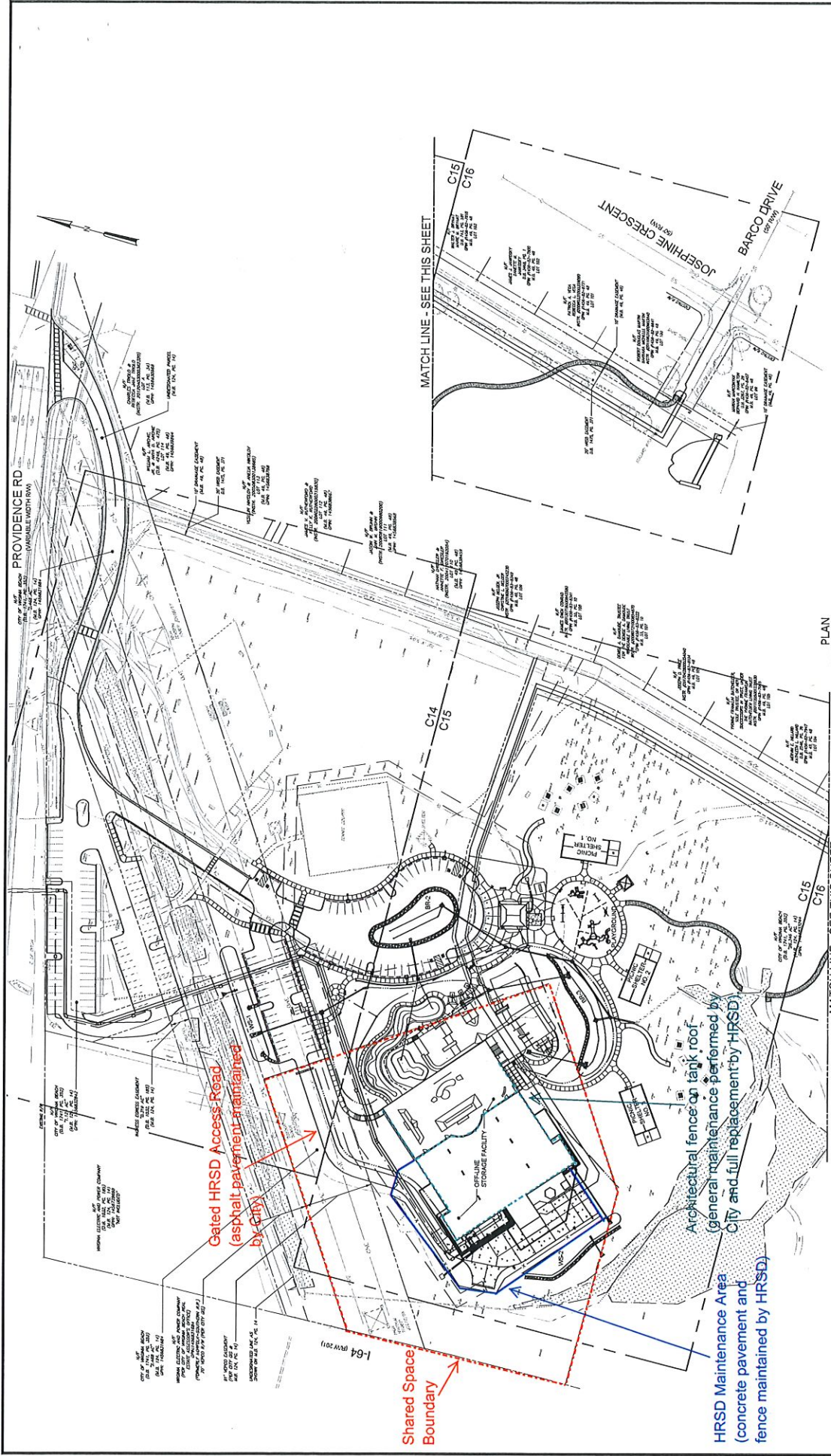
Yan Jung

Risk Management

Approved as to Form:

[Signature]

City Attorney



DATE	JULY 2020
HASBEN NO.	31415-000
CONTRACT NO.	-
DRAWING NUMBER	C13
SHEET	19 OF 170

CIVIL
OVERALL SITE PLAN

HRSD
PROVIDENCE ROAD OFF-LINE STORAGE FACILITY AND WOODSTOCK PARK IMPROVEMENTS

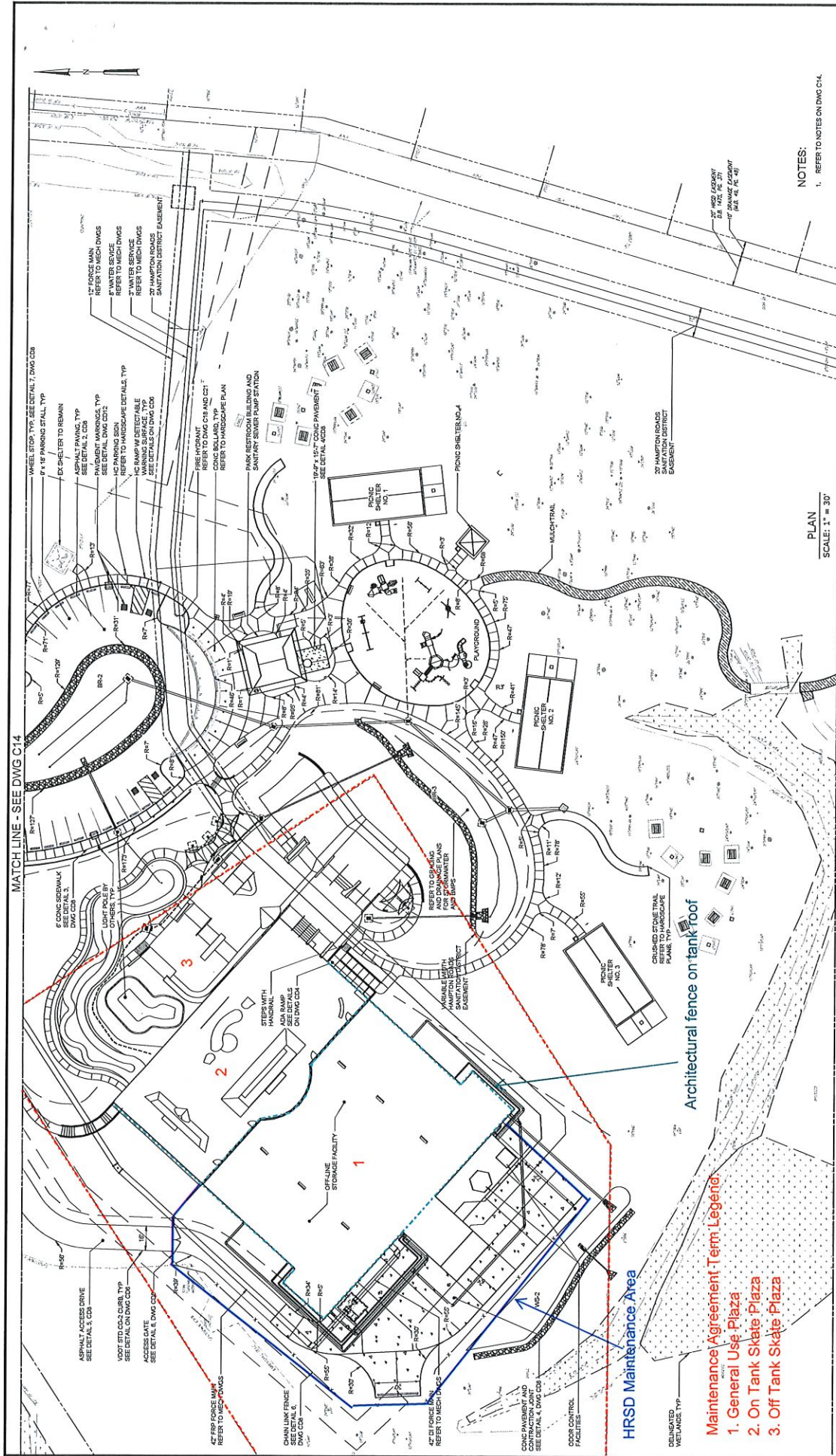
VB
Virginia Beach

Hazen
HAZEN AND SAWYER
4500 WILSON ROAD
VIRGINIA BEACH, VIRGINIA 23462
PHONE 757-497-4500

CROWDER CONSTRUCTION COMPANY
CROWDER CONSTRUCTION COMPANY
APEX, NORTH CAROLINA 27539
PHONE 800-648-5448

NO.	REVISION	DATE	BY
1	ISSUED FOR PERMITS	07/15/20	SM
2	CONSTRUCTION	08/05/20	SM
3	FIELD CORRECTIONS	08/20/20	SM

PROJECT ENGINEER: T. McPHERSON
DESIGNED BY: S. NASH
DRAWN BY: M. BRANDT
CHECKED BY: M. SANTOMASSO
IF THIS BAR DOES NOT SHOW THE DATE OF THE REVISION, IT IS NOT TO FULL SCALE.



NOTES:
1. REFER TO NOTES ON DWG C14.

PLAN
SCALE: 1" = 30'

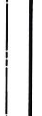
SCALE: 1" = 30'

DATE: JULY 2020
Hazen No.: 31419-000
CONTRACT NO.:
DRAWING NUMBER: C15
SHEET: 21 of 170

CIVIL
SITE PLAN - AREA 2



PROVIDENCE ROAD OFF-LINE STORAGE FACILITY AND WOODSTOCK PARK IMPROVEMENTS



CHOWDER CONSULTING COMPANY
4600 MAIN STREET, SUITE 200
VIRGINIA BEACH, VIRGINIA 23462
PHONE: 757-497-6580

PROJECT	DESIGNED BY	DATE
HRSD PROVIDENCE ROAD OFF-LINE STORAGE FACILITY AND WOODSTOCK PARK IMPROVEMENTS	S. NASH	7/15/20
DESIGNED BY	M. BRANDT	7/15/20
DRAWN BY	M. SANTOVASSO	7/15/20
CHECKED BY	M. SANTOVASSO	7/15/20
CONSTRUCTION		
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- Maintenance Agreement Term Legend:
1. General Use Plaza
 2. On Tank Skate Plaza
 3. Off Tank Skate Plaza

Architectural fence on tank roof

HRSD Maintenance Area

Delimited Wetland, Typ

Chain Link Fence

42" FRP Force Main

Asphalt Access Drive

12" Force Main

8" Water Service

12" Force Main

12" Force Main

12" Force Main

12" Force Main

MATCH LINE - SEE DWG C14

MATCH LINE - SEE DWG C16

PROJECT: HRSD PROVIDENCE ROAD OFF-LINE STORAGE FACILITY AND WOODSTOCK PARK IMPROVEMENTS

DESIGNED BY: S. NASH

DRAWN BY: M. BRANDT

CHECKED BY: M. SANTOVASSO

DATE: 7/15/20

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HRSD Commission Meeting Minutes
December 21, 2021

Attachment #9

Agenda Item 14. SWIFT Program Update



SWIFT Update | HRSD Commission
December 21, 2021



Jamie Mitchell
Regulatory



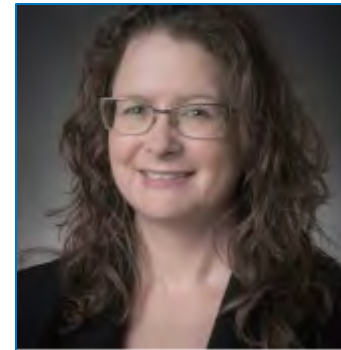
Lauren Zuravnsky
Full-Scale Program



Dan Holloway
Managed Aquifer Recharge



Jamie Mitchell
Regulatory Update



James River SWIFT UIC Permitting

- James River SWIFT Underground Injection Control (UIC) Permit Application submitted in November 2020
 - Opportunity following submission to further refine the groundwater monitoring plan based upon input from DEQ
- Permit discussed in detail with Water Division Management and Regional Counsel and with Headquarters Office of Water and General Counsel
- Public review and comment period for draft permit anticipated in January/February
- HRSD intends to submit application for Nansemond SWIFT in fall 2022

Potomac Aquifer Recharge Oversight Committee

- Ten-member advisory board meeting quarterly since September 2019
- Charged with ensuring independent monitoring of the SWIFT program
 - Subcommittee currently tasked with identifying the elements of a monitoring plan for James River, consistent with the monitoring proposed as part of the permit application package
- Potomac Aquifer Recharge Monitoring Laboratory provides independent monitoring of the SWIFT Program
 - Funded by HRSD annually for three years through the end of FY2022
 - Subcommittee convened to identify alternate funding source

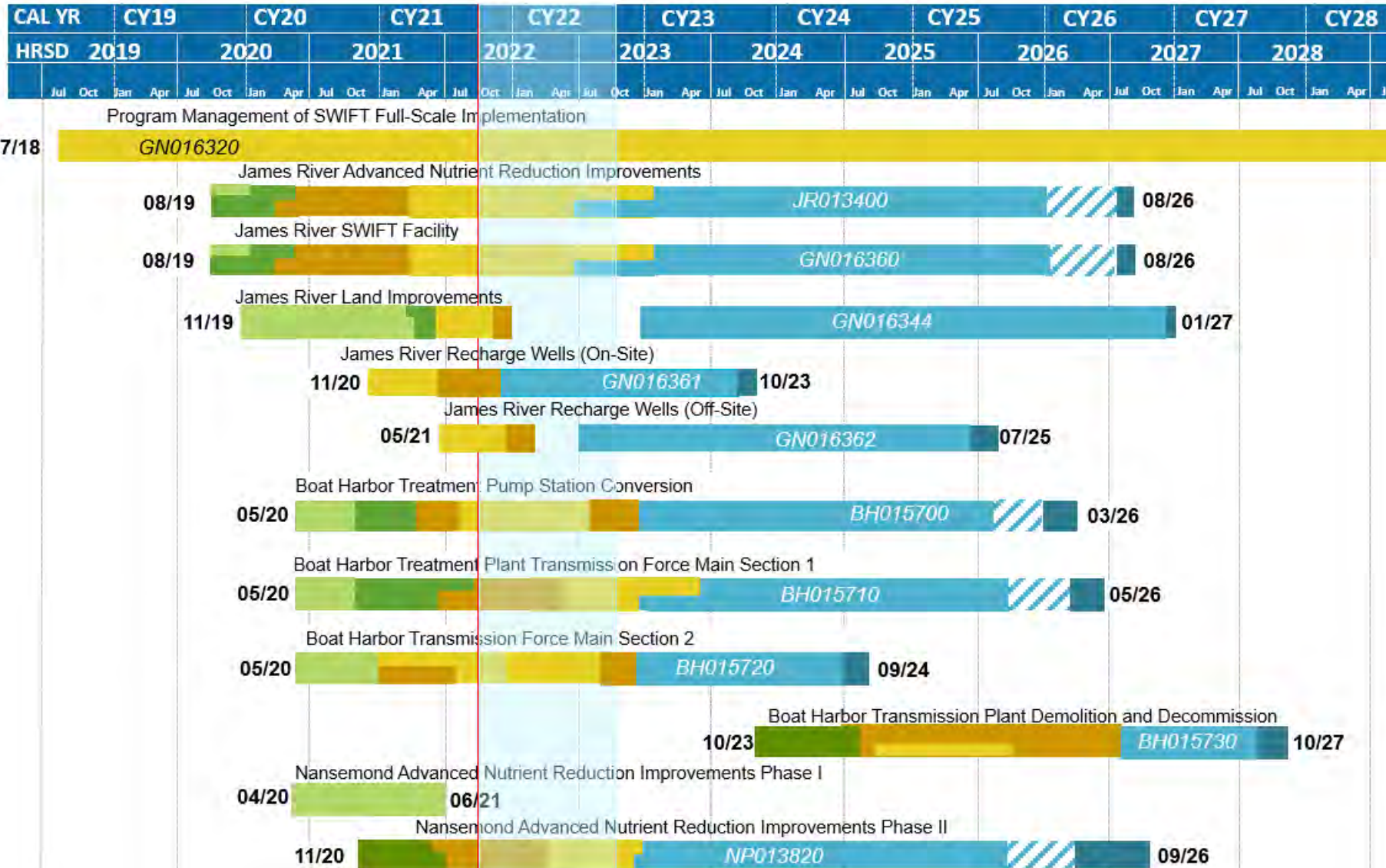


Lauren Zuravnsky
Full-Scale Program Update



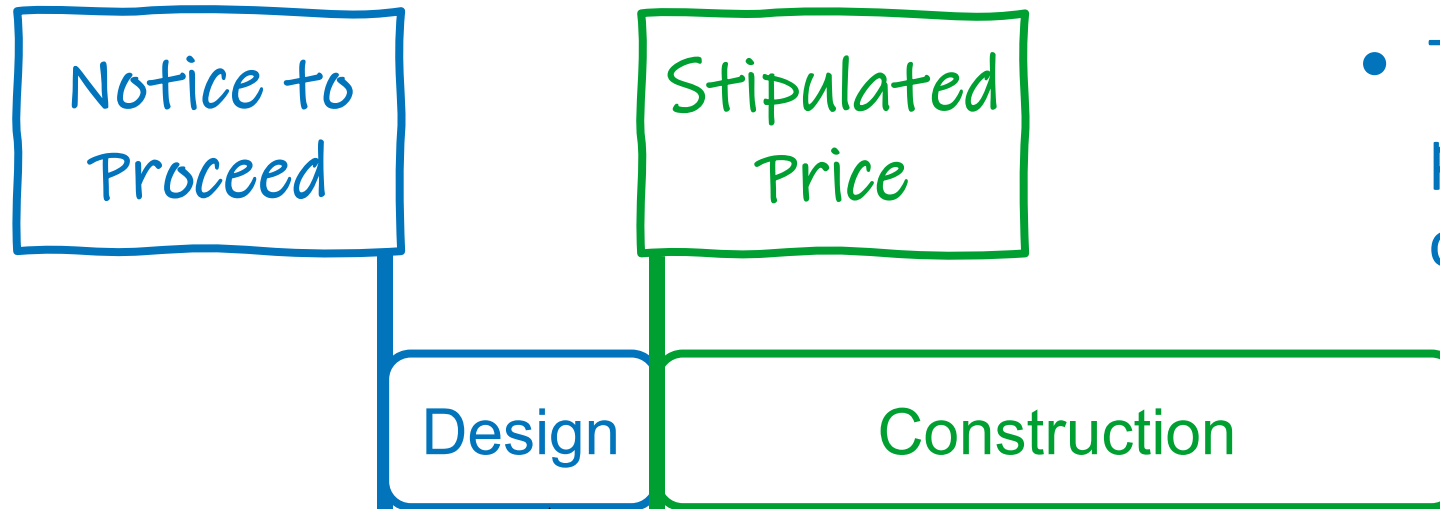
SWIFT Program has multiple active and concurrent Projects

12 Month
Look Ahead



James River Design Build Project Status

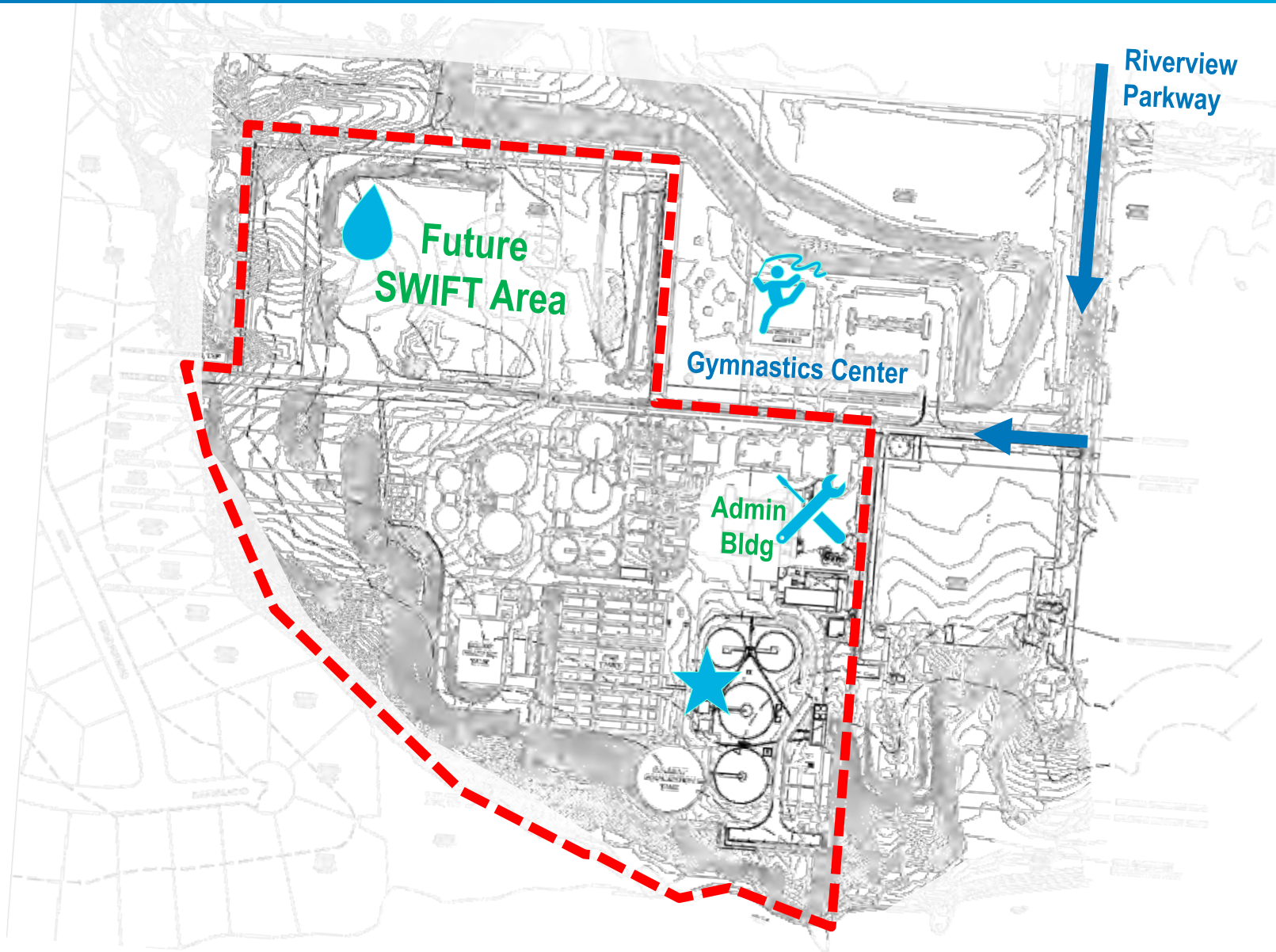
- Design Phase on-going
- Expect Stipulated Price in Spring 2022
- Tracking changes to the project including addition of Methanol Facility



CAL YR	CY19		CY20		CY21		CY22		CY23		CY24		CY25		CY26		CY27		CY28		CY29			
HRSD	2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029			
	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr



Existing Site Plan at James River TP



Proposed Site Plan for James River TP



- Newport News Site Plan review is on-going
- Closing of property purchase is expected in early 2022

View inside 3D BIM Model – Biofilter & GAC Gallery

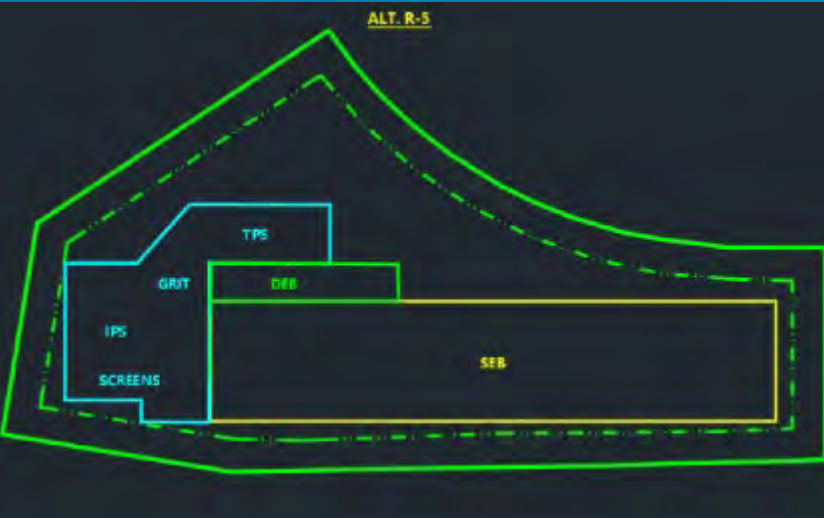


Alignment of HRSD's Nutrient Management Strategy and SWIFT Full Scale Implementation Program

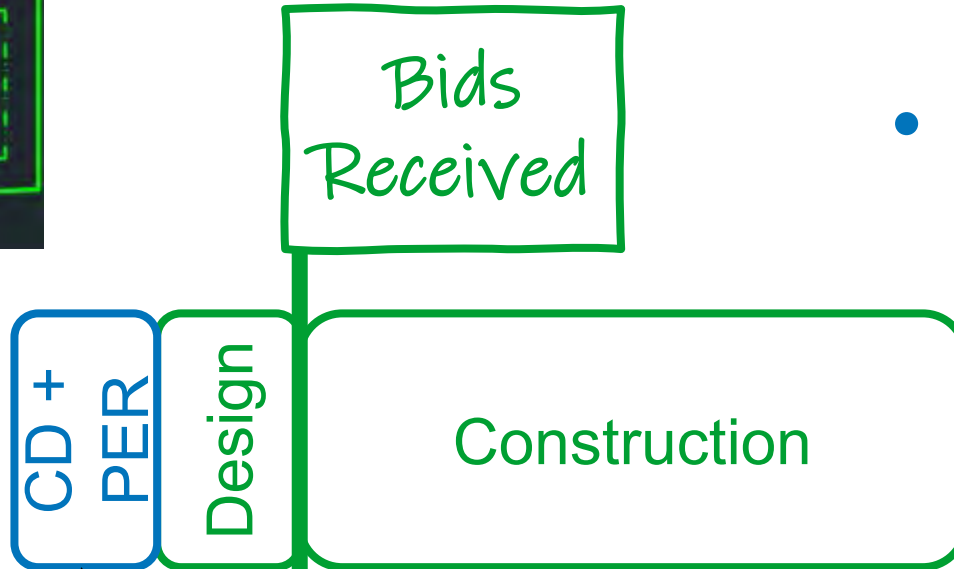
- Construct new equalization and pumping facility
- Convey screened and de-grittled wastewater in a new transmission force main
- Expand hydraulic and treatment capacity at Nansemond
- All 4 projects must be operational by 2025 to meet strategy and program goals



Boat Harbor Pump Station Project Status



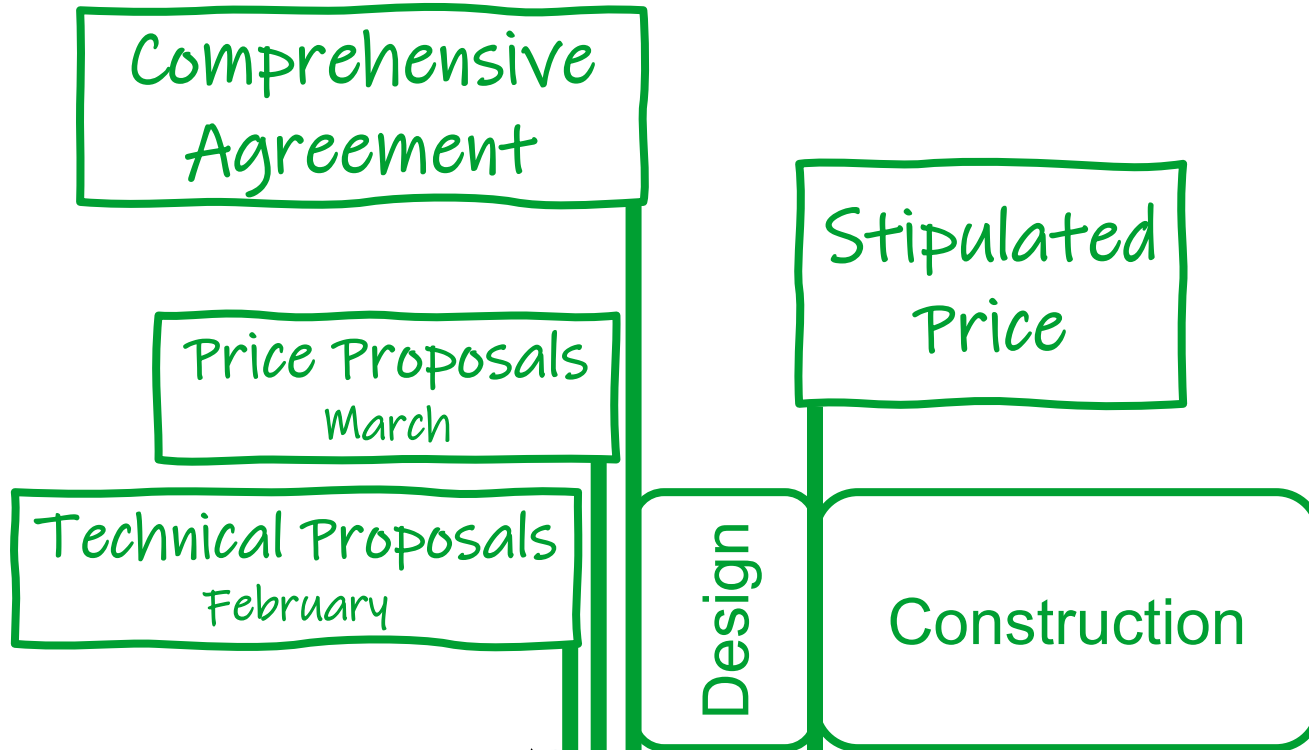
- Design-Bid-Build
- Concept Development then PER by RK&K
- Finalizing Agreement with property owner



CAL YR	CY19		CY20		CY21		CY22		CY23		CY24		CY25		CY26		CY27		CY28		CY29	
HRSD	2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029	
	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct



Boat Harbor Transmission Force Main (Aqueous-1) Design Build Project Status

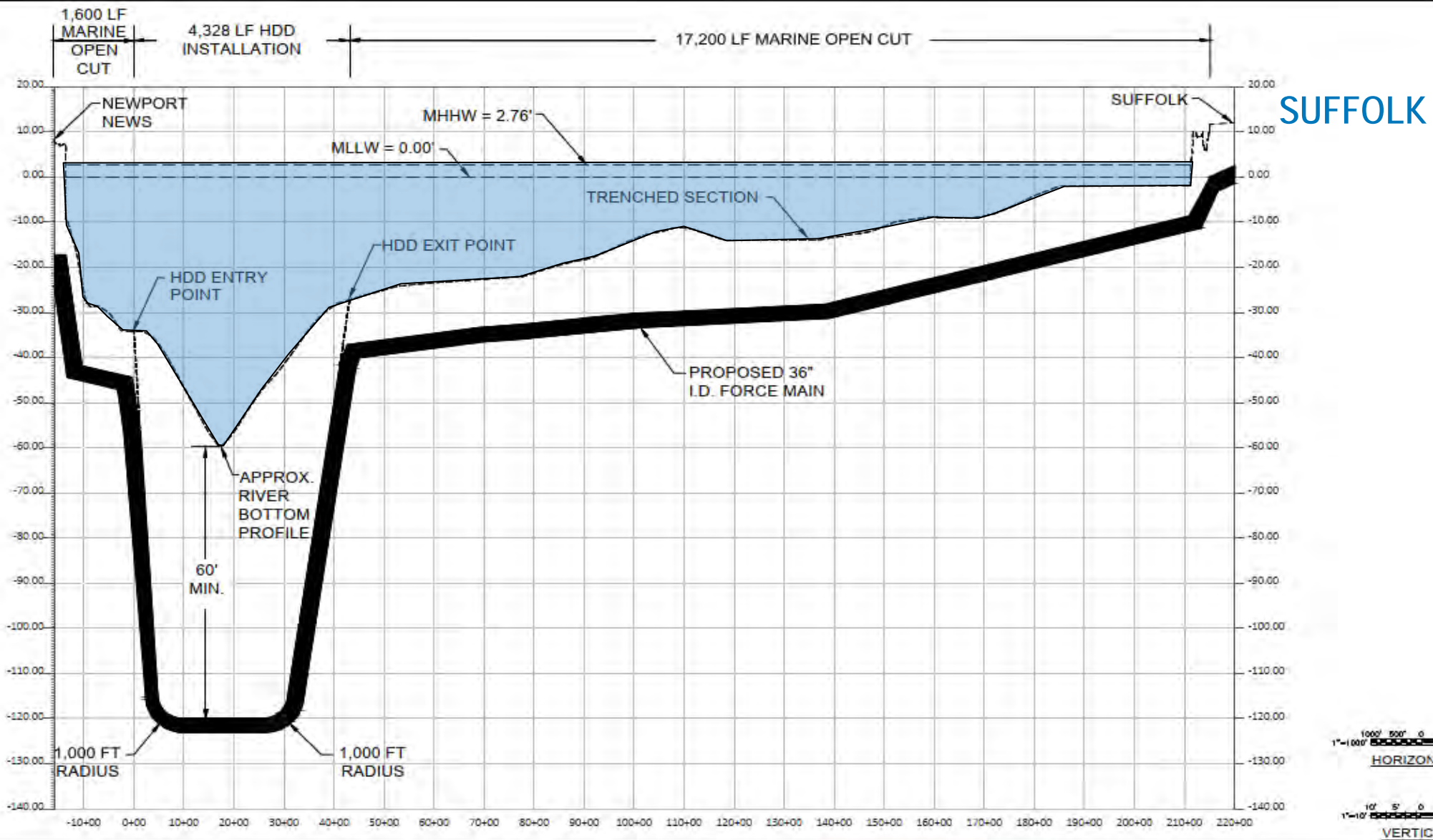


- Procurement is on-going
- Agreement is expected in late Spring 2022
- Multiple agency and permit coordination

CAL YR	CY19		CY20		CY21		CY22		CY23		CY24		CY25		CY26		CY27		CY28		CY29			
HRSD	2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029			
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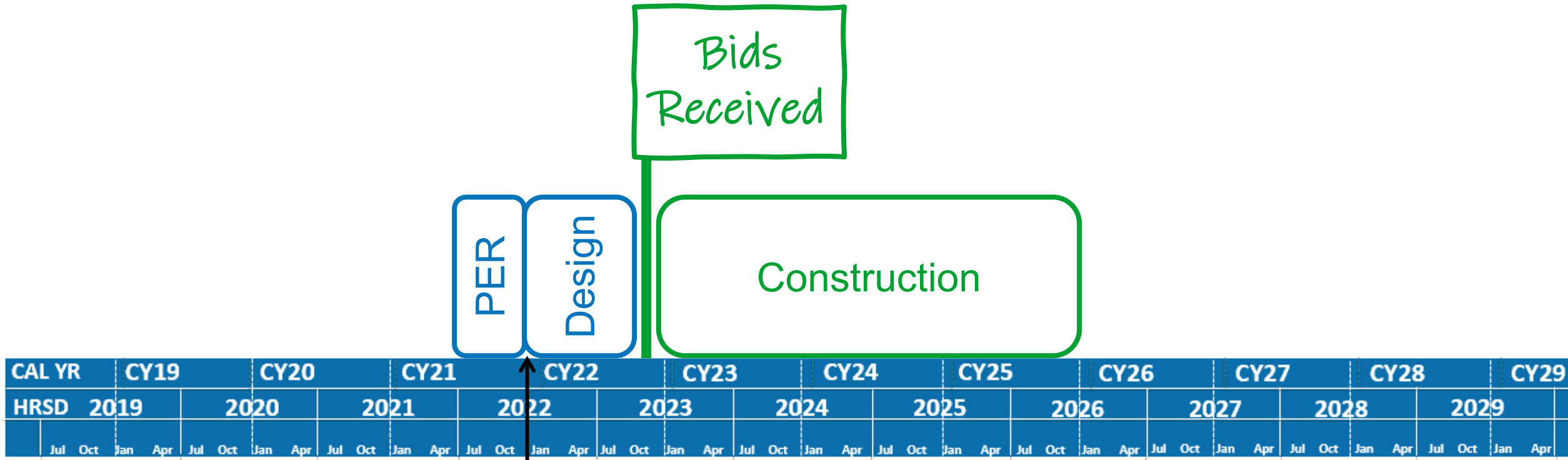


Proposed profile of Force Main under the James River



Boat Harbor Transmission Force Main (Land-2) Design Build Project Status

- Design by CDM Smith



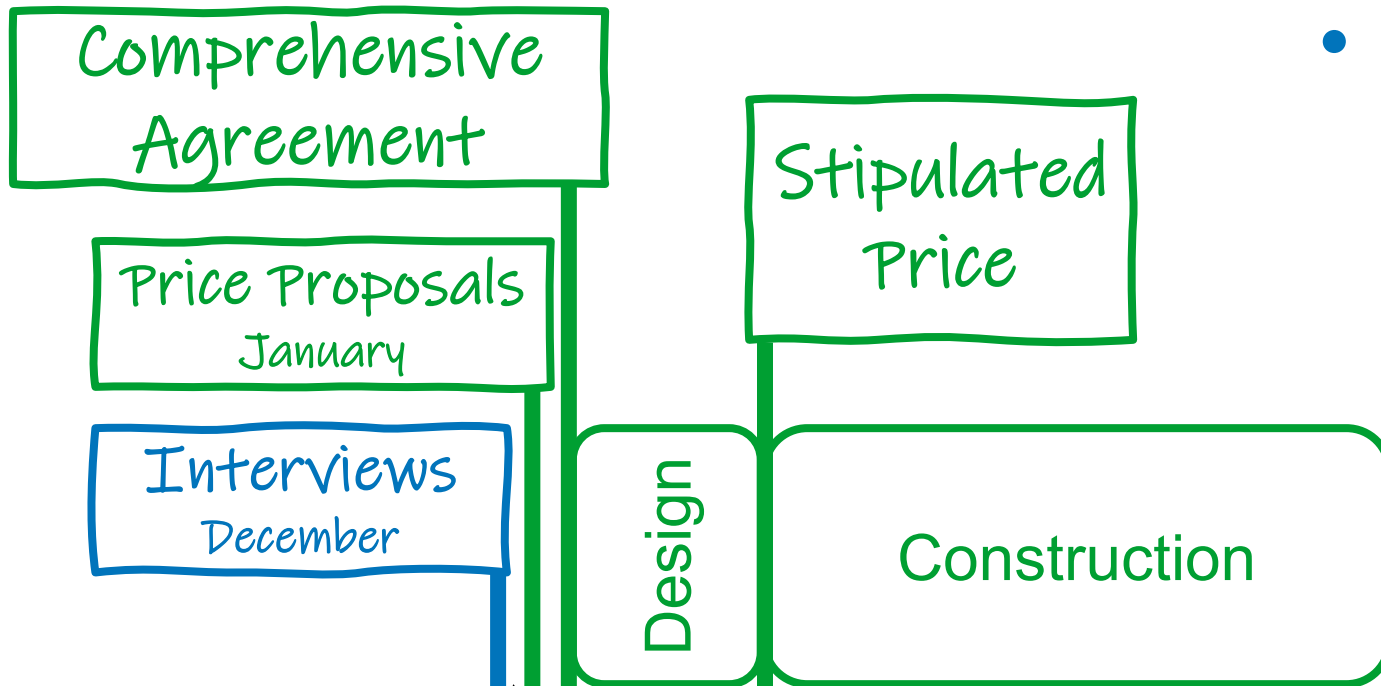
Boat Harbor Transmission Force Main (Land-2) Design Build Project Status



- Coordinate with managed aquifer recharge wells
- Crossing under I-664
- Interface with FM1 and Nansemond TP
- Developing Agreements with multiple property owners

Nansemond Wastewater Upgrade (ANRI) Design Build Project Status

- Procurement is on-going
- Agreement is expected Feb/March 2022



CAL YR	CY19		CY20		CY21		CY22		CY23		CY24		CY25		CY26		CY27		CY28		CY29			
HRSD	2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029			
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Upcoming Projects

- SWIFT at Nansemond
- SWIFT at VIP / AB

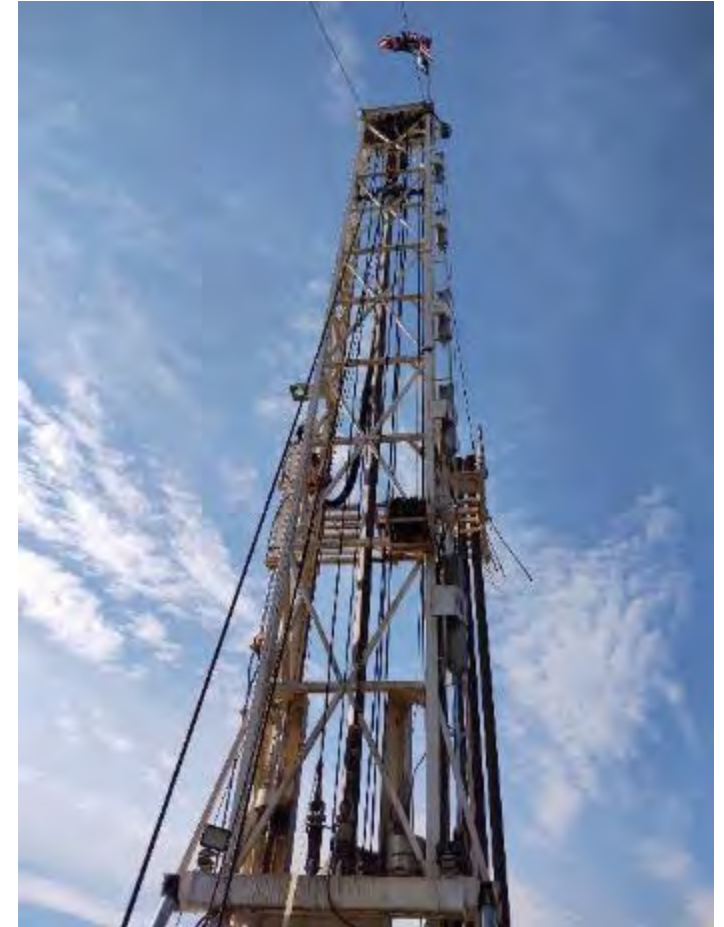


Dan Holloway
Managed Aquifer Recharge Update



Full Scale Well Installation

- SWIFT Well Installation Program Update
- First Full Scale Well Installation Update
- Seismic Monitoring update



SWIFT Well Installation Program Update

- JR On-Site Wells (3 wells)
 - Bids Reviewed, AC Schultes selected
 - Mobilize to site January 2022
- JR Off-Site Wells (7 wells, 8 mws)
 - Procurement package being finalized
 - Advertise for bid February 2022
 - Notice to Proceed May 2022
- Nansemond SWIFT Pre-planning
 - Well siting
 - Property acquisition
 - Drilling logistics pre-planning
- VIP Pre-planning starting 2022



James River SWIFT Well Locations

Nansemond SWIFT Full Scale Well: NP_MAR_01

- Completed installation and testing of the first SWIFT Full Scale Managed Aquifer Recharge well
- Located at Nansemond SWIFT Research Center
- Very good hydraulic response
- 2,800 gpm (4 MGD!) with test pump wide open

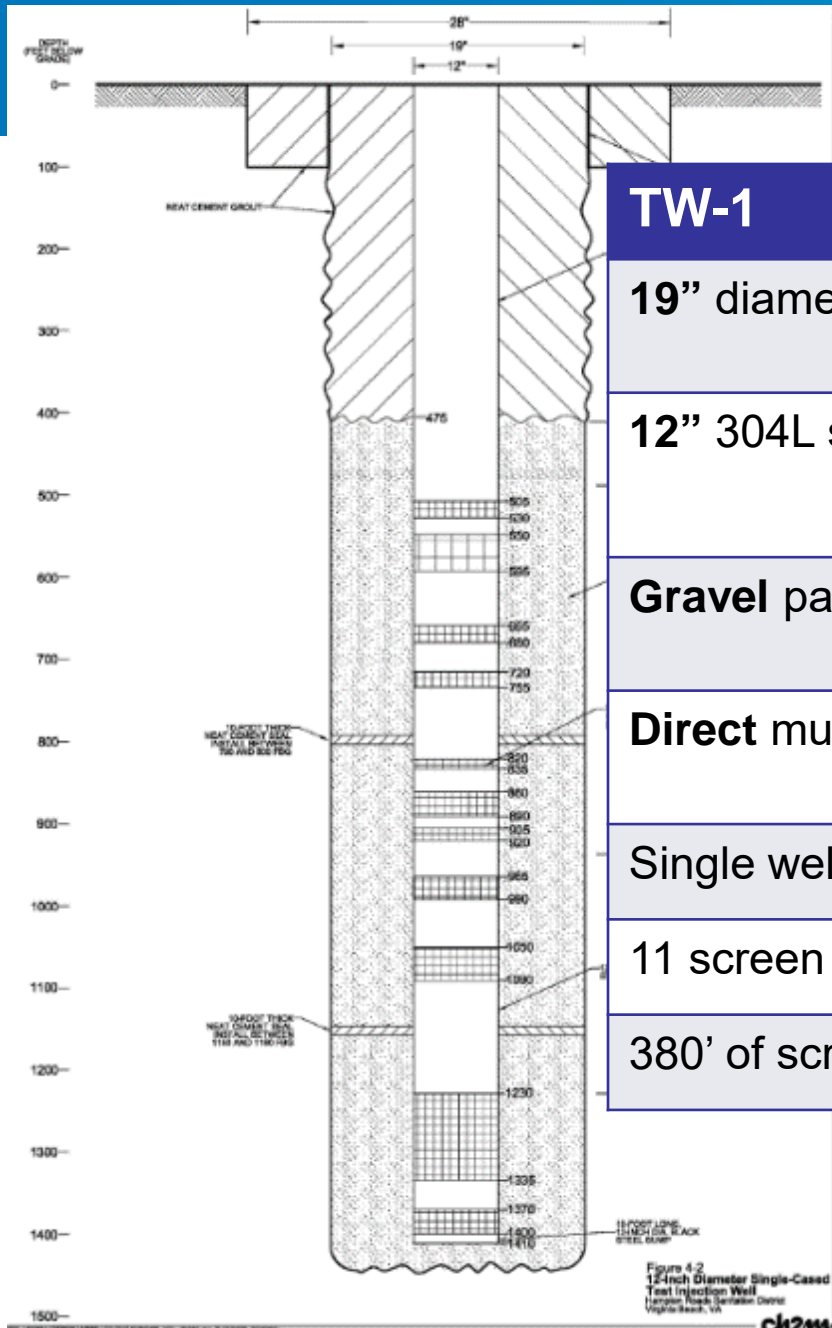


NP_MAR_01 pumping 2,800 gpm during testing

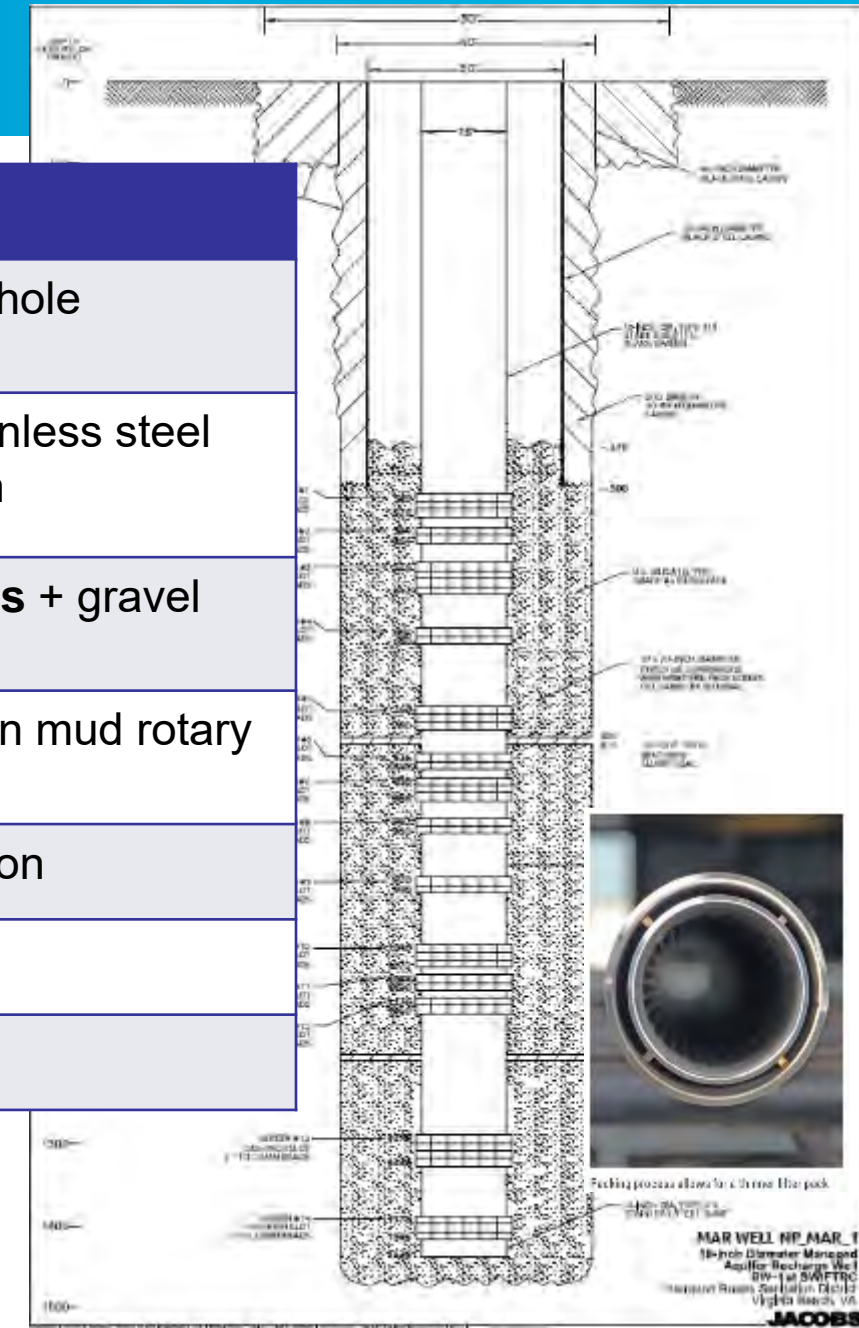


NP_MAR_01 going down the borehole

TW-1 vs NP_MAR_01

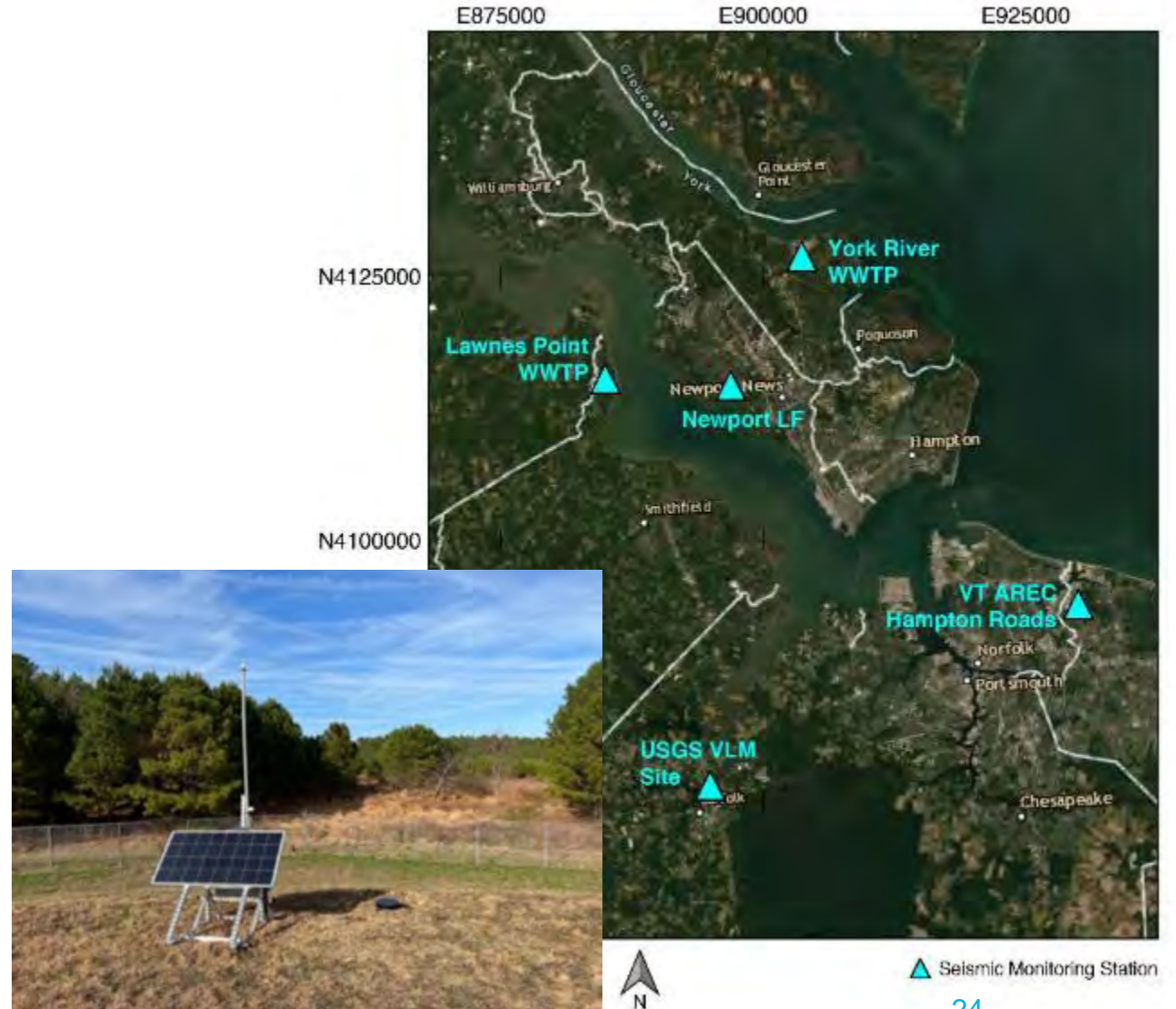


TW-1	NP_MAR_01
19" diameter borehole	30" diameter borehole
12" 304L stainless steel screen	18"x20" 316L stainless steel pre-packed screen
Gravel pack only	Si spherical beads + gravel pack
Direct mud rotary drilling	Reverse circulation mud rotary drilling
Single well casing/screen	Overlap construction
11 screen zones	14 screen zones
380' of screen	342' of screen



Seismic Monitoring Update

- Installed seismic stations
 - Instrument 24" into the ground
 - Battery, data logger/modem, solar charging
- 5 monitoring sites around Hampton Roads
- Collect background data prior to starting JR SWIFT
- Collect data during operation of JR SWIFT



HRSD Commission Meeting Minutes
December 21, 2021

Attachment #10

Agenda Item 20. 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 and Air Summaries with Items of Interest](#)
- d. [Emergency Declaration – Chesapeake-Elizabeth Treatment Plant Influent Force Main Modifications](#)



December 13, 2021

Re: General Manager's Report

Dear Commissioners:

The deadline for meeting the HRSD requirement for COVID vaccination was December 1, 2021, and as a result much of November was consumed by activities related to meeting this challenging requirement. Several people applied for religious or medical exemptions, which were granted in many cases. Unfortunately, accommodating unvaccinated employees in most HRSD positions was very difficult and as a result nearly 40 people had to be separated. We were able to accommodate several people in positions that were fully remote, requiring minimal need to report to an HRSD work center. On the occasions when these people are required to physically report, testing will be required prior to reporting.

Safety of all employees has been a focus of HRSD throughout our history. HRSD has a robust safety program and adding best practices in COVID protection was a natural expansion of our program. Although everyone is fully vaccinated, other COVID protective measures will remain in effect until community transmission rates [as measured by the Virginia Department of Health (VDH)] fall into the **LOW** category for our region. Indoor masking, reduced occupancy of meeting spaces, and physical distancing will remain in effect until that time.

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

- A. **Treatment Compliance and System Operations:** A dry month with very low wastewater flow equates to few issues with treatment or the interceptor system. That was true in November with all plants meeting permit and no spills in the system.
- B. **Internal Communications:** I participated in the following meetings/activities with HRSD personnel:
 - 1. Three new employee orientations
 - 2. A meeting to review progress on the James River Treatment Plant site plan
 - 3. A meeting with the facilitator leadership team in the Organizational Development and Training (OD&T) Division
 - 4. An interview for background with members of the newly formed Diversity, Equity, and Inclusion (DEI) Council
 - 5. A meeting to discuss the disposal of surplus real property
 - 6. The presentation of the Capstone Projects by members of the first cohort of the new HRSD Leadership and Management Academy program
 - 7. The Eastern Shore Program Team monthly meeting
 - 8. Two meetings to discuss future Central Environmental Laboratory (CEL) space needs

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

9. A meeting to discuss re-routing of the pipeline associated with the Suffolk Pump Station replacement project
10. Discussion with CCC regarding schedule for the City of Chesapeake to convert to a Model 3 billing partner community
11. Presented the National Association of Clean Water Agencies (NACWA) Peak Performance Awards to the Atlantic Treatment Plant and the Chesapeake-Elizabeth Treatment Plant (CETP)
12. Attended the CETP closure celebration
13. A meeting of the architectural review committee to review concepts for the new Urbanna pump station

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

1. Recorded a presentation for the US EPA Water Lab Alliance conference
2. A meeting of the strategic planning steering committee for VirginiaForever
3. A meeting of the US EPA Environmental Finance Advisory Board's stormwater workgroup
4. A meeting of the US Water Alliance's Value of Water Coalition
5. The monthly meeting of the SWIFT Community Commitment Team
6. An on-site meeting to review potential locations for the Boat Harbor pump station and equalization tank
7. The Aspen-Nicholas Water Roundtable (two virtual sessions)
8. A meeting with Congressman's Scott's office to discuss impact of SWIFT on EPA Superfund work on-going at the Former Nansemond Ordinance Depot (FNOD)
9. The monthly meeting of the Hampton Roads Planning District Commission (HRPDC) Director of Utilities Committee
10. A meeting with the City of Newport News to coordinate shoreline stabilization work related to James River SWIFT
11. A meeting with York County to review public input on the Tabb Pressure Reducing Station (PRS)/Storage Tank project
12. Multiple meetings related to HRSD's potential agreement to provide service to Chincoteague
13. A meeting of the Elizabeth River Project's Sea Level Rise subcommittee
14. An interview with Engineering New Record on status of SWIFT
15. A meeting of the Water Agency Leaders Alliance

D. **Consent Decree Update:**

- The long awaited Fifth Amendment (approving the final schedule and plan) was signed off by Federal officials and lodged with the court on December 5, 2021. There is a required 30-day public comment period, after which the judge will enter the amended order assuming no substantive comments are received. After

nearly 15-years of negotiations, plan development, interim projects, and frustration we will finally be able to begin implementation, focused on completion of all requirements by 2040!

- Payment was made to satisfy stipulated penalty demands of \$58,350 for the calendar year 2020 spills and \$45,000 for the January 2021 spill.

We will welcome Ann Templeman back to the Commission at the December meeting as she has been appointed by Governor Northam to replace Molly Ward. Molly was a great asset to the Commission during some challenging times [Watershed Implementation Plan (WIP) 3]. We will work on finding an appropriate time to honor her service in the coming months.

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 in person in Virginia Beach on Tuesday, December 22, 2021.**

Respectfully submitted,

Ted Henifin, P.E.
General Manager

TO: General Manager
 FROM: Director of Communications
 SUBJECT: Monthly Report for November 2021
 DATE: December 2, 2021





A. Publicity and Promotion

HRSD and/or SWIFT were mentioned or featured in six news stories or media mentions on topics that included:

1. HRSD partnership with Jefferson Lab
2. Modifications to EPA Consent Decree
3. HRSD expansion on the Eastern Shore
4. Segment on The Hampton Roads Show about proper Fats, Oil, Grease disposal

B. Social Media and Online Engagement

1. Metrics

Social Media Metrics November 2021				
METRIC	 FACEBOOK	 LINKEDIN	 TWITTER	 YOUTUBE
Number of Posts *Number of published posts	22	2	17	2:00 average view duration
Number of Followers/Likes *Total number of fans	1,624	5,347	584	239
Engagement *Sum of reactions comments and shares	190	77	30	508 unique viewers
Traffic *Total clicks on links posted	100	119	106	5.1% click-through

2. Top posts on Facebook, Twitter, and YouTube

a. Top Facebook post

HRSD
November 12 · 🌐

Feature Friday! You'll want to share this post!
Today we are featuring teachers!
What would life be without teachers who went the distance, those who encouraged students to dig into their studies with activities that connected them in meaningful ways to our big blue-and-green world? ... See more

1,185 People Reached
12 Reactions, Comments & Shares

7 Likes
4 On Post
3 On Shares

1 Love
0 On Post
1 On Shares

0 Comments
0 On Post
0 On Shares

4 Shares
4 On Post
0 On Shares

14 Post Clicks
3 Photo views
3 Link clicks
8 Other clicks

NEGATIVE FEEDBACK
0 Hide post
0 Hide all posts
0 Report as spam
0 Unlike Page

Reported stats may be delayed from what appears on posts.

Get More Likes, Comments and Shares
When you boost this post, you'll show it to more people.

1,185 People reached
26 Engagements
Boost post

Heidi Burns, Kasi Daniel and 2 others
4 Shares

b. Top Tweet

Top Tweet earned 1,837 impressions

Have you ever considered working for water? Check out this job opportunity for a TSD Technician: ow.ly/iNxq50GNXV6. Learn more about HRSD water quality careers here: youtu.be/8mn_9wQEfa0 pic.twitter.com/5r0n80o0BN

2 Retweets
1 Like

c. Top YouTube Videos

- (1) [The Wastewater Treatment Process](#) (298 views)
- (2) [What is Asset Management? HRSD Celebrates Infrastructure Week | United for Infrastructure](#) (85 views)

- (3) [HRSD Atlantic Treatment Plant Cambi Tour](#) (23 views)
- (4) [SWIFT Research Center: What is the Potomac Aquifer?](#) (20 views)
- (5) [Let's Talk Water! Water Resources Engineering | Engineers Week Presentation](#) (22 views)

3. Impressions and Visits

- a. Facebook: 8,993 page impressions, 7,349 post impressions reaching 7,148 users and Facebook engagement of 190 (170 reactions, 16 shares and 4 comments)
- b. Twitter: 6,148 tweet impressions; 386 profile visits and 6 mentions
- c. HRSD.com/SWIFTVA.com: 811 page visits
- d. LinkedIn Impressions: 3,868 page impressions and 2,861 post impressions
- e. YouTube: 630 views
- f. Next Door unique impressions: 1,969 post views from three targeted neighborhood posting shared with 11,000 residents
- g. Blog Posts: [What Not To Flush | Toilet Tales with a Toddler](#) (2)
- h. Construction Project Page Visits – 1,216 total visits (not including direct visits from home page, broken down as follows:
 - (1) 868 visits to individual pages
 - (2) 348 to the status page

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

1. News Releases: 0
2. Traffic Advisories: 0
3. Construction Notices and or notices to neighbors: 3
4. Advertisements: 0
5. Project Notices: 3 (via door hangings and/or mailing reaching approximately 274 residents)
6. Project/Community Meetings: 0
7. New Project Web Pages: 1
8. New Project Videos: 0

D. Special Projects and Highlights

1. Director and communications staff attended and provided event support for the Chesapeake-Elizabeth Treatment Plant Decommissioning Celebration.
2. Director coordinated media interviews with subject matter experts to provide Engineering News-Record reporter with an update on SWIFT.
3. Director and staff participated in the Old Dominion University (ODU) Outdoor Learning Network Grant Initiative kickoff meeting. HRSD has agreed to be a supporting partner in this effort by ODU to build a local network comprised of school districts and organizations committed to working collectively to advance environmental literacy. As a partner, HRSD will collaborate with the group to help develop Meaningful Watershed Educational Experiences over the next two-years.

E. Internal Communications

1. Director participated in the following internal meetings and events:
 - a. Meetings with operations to finalize Chesapeake-Elizabeth Treatment Plant decommissioning event
 - b. SWIFT Community Commitment Plan Steering Committee meetings
 - c. SWIFT 2022 Industry Outreach Event planning meetings
 - d. Discharge Monitoring Report (DMR), SWIFT Quality Steering Team (QST) and QST meetings
 - e. Architectural review committee meetings
 - f. Meeting with Water Quality staff to discuss web content updates/additions
 - g. Grant request reviews
 - h. DEI Council debriefing meeting
2. Director conducted biweekly communications department status meetings and weekly team and one-on-one check-in meetings.
3. Staff attended project progress meetings, and outreach development meetings with various project managers.

F. Metrics

1. Educational and Outreach Activities (all virtual unless otherwise noted): 1
 - a. Self-guided SWIFT Virtual Tours – 39 views (analytics specify number of times the “Take a Tour” button was selected)
2. Number of Community Partners: 1
 - a. Virginia Wesleyan University
3. Additional Activities Coordinated by Communications Department: 1
 - a. 11/08/21 Virginia Wesleyan University SWIFT Virtual Tour | 18 attendees

4. Monthly Metrics Summary

Item #	Strategic Planning Measure	Unit	November 2021
M-1.4a	Total Training Hours per Full Time Employee (3) - Current Month	Hours / #FTE	12.25
M-1.4b	Total Training Hours per Full Time Employee (3) - Cumulative Fiscal Year-to-Date	Hours / #FTE	30.75
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Number of Community Partners	Number	1

Respectfully,

Leila Rice, APR
Director of Communications

TO: General Manager
FROM: Director of Engineering
SUBJECT: Engineering Monthly Report for November 2021
DATE: December 9, 2021

A. General

1. Capital Improvement Program (CIP) spending for the fourth month of Fiscal Year (FY) 2022 was below the planned spending target. A meeting is planned with the Finance Department in December to review this CIP spending shortfall and impacts to future short-term borrowing.

CIP Spending (\$ million):

	Current Period	FYTD
Actual	6.29	32.93
Plan	23.10	88.80

2. The Engineering Department added two new staff members in November. Ms. Ashleigh Gagnon will work as the Department's Administrative Coordinator. Ashleigh comes to us from the Talent Management Department where she worked as part of the Organizational Development and Training (OD&T) Division. Ms. Angela Weatherhead was also hired this month to assist the North Shore Design & Construction Division. Angela is an experienced engineer and has worked with a local consulting firm on many HRSD projects. She will assist the North Shore Design & Construction Division as a Project Manager with the growing number of CIP projects planned in the coming years. The On-Boarding process for these new employees is challenging due to the work at home status of many of the Engineering Department staff. We are offsetting this challenge with a detailed Orientation Plan for new employees and regular virtual meetings to review progress and provide guidance.

B. Asset Management Division

1. Implementation of the Asset Management Program is reaching completion. This has been a four-year journey to implement the program across the organization. It has involved several consultants and countless hours by staff. HRSD is in a much stronger position to deliver the CIP and to determine future operations and maintenance needs. The concept of risk-based decision making is firmly engrained into the organization. The mission of the Asset Management Division, "*Making the right investment at the right time,*" is becoming a reality that is needed due to limited funding and numerous infrastructure needs. A presentation will be made at an upcoming Commission Meeting highlighting the results of the program implementation.
2. The Pump Station Condition Assessment Manual was finalized in November. This manual describes the specific condition data to be captured during the annual pump station inspections. A new data collection tool will be used starting July 1, 2022 to standardize this effort. The data captured will be included in the PowerBI dashboard for both risk analysis and repair/replacement decision making.

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

1. Construction of the King William Treatment Plant Improvements Phase I Project began with a project kick-off meeting, shop drawing review and material/equipment purchases. The contractor is working to acquire the required construction-related permits. A proposed change has been made to up-size the UV system and a request for proposal has been provided to the contractor. The contractor plans to mobilize on the site in January 2022 to begin construction.
2. The Larchmont Area Sanitary Sewer Improvements Project design continues. This project is a joint collaboration between HRSD and the City of Norfolk to replace the aging sewer system in the Larchmont Neighborhood. We have now acquired all needed pump station properties and the City of Norfolk has acquired the properties they need to facilitate this work. The 30 percent design submittal is due in December. This project is being delivered using a Construction Manager approach. A Construction Manager has been hired and they have been actively engaged in the design. This delivery method was successfully used on a similar project in the City of Virginia Beach. Coordinating a large and complex project with two clients is a challenge that will benefit from having the contractor engaged early in the project development.
3. The SWIFT Program Team is planning the next SWIFT Industry Outreach Day. This will be the third year of this event and it is planned for January 26th. This event will be held virtually and over 500 individuals are expected to attend. A new virtual platform will be used this year to facilitate the experience for attendees. In addition to formal presentations from the SWIFT Program Team, a virtual lounge will be available for attendees to interact and network. An important goal of the event is to facilitate discussions between the various consultants, contractors, vendors and suppliers interested in this very large series of capital projects. Another focus of the event is to allow groups new to HRSD including DBE/SWaM firms to engage with the larger firms already under contract and/or firms looking to partner for future work.

D. Planning & Analysis Division

1. Staff recently completed a Technical Memorandum for the Boat Harbor Pump Station Conversion project, which addresses future operational needs and the numerous hydraulic conditions that will be considered as part of the final design for the new pump station. This analysis is very challenging due to the impacts of converting a treatment plant into a pump station. Hydraulic capacity for a treatment plant considers the hydraulic grade through the plant and the conveyance through the plant outfall pipe to the receiving waters. This project will include flow equalization that will account for the ability of the existing plant to equalize flows during wet weather events. The sizing of the new pumps, equalization and pipe sizing is a significant and challenging hydraulic balance. This effort is also critical for the design of the downstream force main system that will convey this flow across Hampton Roads to the Nansemond Treatment Plant.
2. The Planning & Analysis Division recently completed an application for a grant from the Commonwealth of Virginia Community Flood Preparedness Fund. This potential grant will help to offset some of the costs HRSD will incur to further develop the Climate Change Planning Study presented to the Commission in October. We expect to receive a response to this grant application in January.

E. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 4
 - a. 11/09/2021 – Participated in Panel Discussion for the National Association of Black Women in Construction (NABWIC) Annual Meeting.
 - b. 11/10/2021 – Made a presentation on Engineering and Surveying related to public works and utilities projects to students of the Hampton Roads Public Works Academy (HRPWA).
 - c. 11/10/2021 – Made a presentation on the Providence Road Offline Storage & Woodstock Park Project to the Hampton Roads Chapter of the Design-Build Institute of America.
 - d. 11/20/2021 – Assisted with a tree re-forestation effort at the Atlantic Treatment Plant.
2. Number of Community Partners: 3
 - a. DBIA Hampton Roads Chapter
 - b. HRPWA
 - c. NABWIC
3. Number of Research Partners: 0
4. Monthly Metrics Summary:

Item #	Strategic Planning Measure	Unit	November 2021
M-1.4a	Total Training Hours per Full Time Employee (45) - Current Month	Hours / #FTE	0.80
M-1.4b	Total Training Hours per Full Time Employee (45) - Cumulative Fiscal Year-to-Date	Hours / #FTE	12.10
M-5.2	Educational and Outreach Events	Number	4
M-5.3	Number of Community Partners	Number	3
M-5.4	Number of Research Partners	Number	0

Bruce W. Husselbee, PhD, P.E.

Bruce W. Husselbee, PhD, P.E.

TO: General Manager
FROM: Director of Finance
SUBJECT: Monthly Report for November 2021
DATE: December 8, 2021

A. General

1. Although wastewater revenues appear to be on track in the financial report, the Wastewater Service Charges – Budget to Actual, which is based on seasonal expectations, is showing that revenues are lower than expected. This ties to the billed consumption report where water consumption is lower than projected fiscal year to date. Municipal Assistance is higher than budget due to ongoing COVID-19 work with the Health Department. Facility Charges continue to be lower than the prior year as supply and labor constraints impact the housing market. Interest Income is at negative 8 percent primarily due to a downward market value adjustment of \$222,000 in October. Personal services and fringe benefit expenses are slightly below budget at 41 percent each, roughly consistent with the prior year. Major repairs and other expenses continue to be significantly lower than budget at this time since many purchases earlier in the fiscal year related to prior year encumbrances. Overall, revenues exceed expenses.
2. HRSD has submitted required documentation to the Commonwealth and eagerly awaits the next round of MURP/ARPA funding, which was approved at approximately \$10.7 million. This disbursement is expected sometime in early January. As required in the legislation, the City of Norfolk will act as HRSD's fiduciary similar to the disbursement of the first round of Municipal Utility Relief. In this round, attestations are not required if the utility can pass one of three prescribed tests, which HRSD passed. As a result, payments can be directly applied to eligible accounts as defined by the Commonwealth. In anticipation of the relief funding, Customer Care is collaborating with IT professionals as we diligently identify eligible recipients of the relief funding and develop the programmatic payment solution, including methods to assist locality partners as well.
3. Staff is actively involved with the Low Income Household Water Assistance Program (LIHWAP). The current plan is to roll the program out in late spring to existing, approved customers that receive assistance from the Low Income Home Energy Assistance Program (LIHEAP). The next phase would be to target other available customers in early summer.
4. Customer Care field services continues to hang door tags warning of impending disconnection of service while call center representatives are helping customers with financial assistance options and pay plans. The amount in newly created pay plans in the last couple of months has almost tripled since tagging started. Call volumes increased during the month of November due to rising payment arrangement inquiries with the recently resumed tagging efforts. Current service levels are below average due to labor shortages causing staffing challenges. Two new team members will join the Call Center this month and vacancies are being re-posted to continue to address resource challenges to meet customer needs.

B. Interim Financial Report

1. Operating Budget for the Period Ended November 30, 2021

	Amended Budget	Current YTD	Current YTD as % of Budget to (42% Budget to Date)	Prior YTD as % of Prior Year Budget
Operating Revenues				
Wastewater	\$ 336,455,000	\$ 147,835,284	44%	44%
Surcharge	1,600,000	627,575	39%	42%
Indirect Discharge	3,200,000	1,283,152	40%	33%
Fees	3,020,000	157,320	5%	26%
Municipal Assistance	700,000	468,051	67%	39%
Miscellaneous	1,285,000	593,388	46%	44%
Total Operating Revenue	346,260,000	150,964,770	44%	44%
Non Operating Revenues				
Facility Charge	7,320,000	2,982,730	41%	48%
Interest Income	1,210,000	(97,429)	-8%	22%
Build America Bond Subsidy	2,095,000	1,064,842	51%	0%
Other	610,000	420,140	69%	38%
Total Non Operating Revenue	11,235,000	4,370,283	39%	33%
Total Revenues	357,495,000	155,335,053	43%	44%
Transfers from Reserves	17,346,624	7,227,760	42%	85%
Total Revenues and Transfers	\$ 374,841,624	\$ 162,562,813	43%	46%
Operating Expenses				
Personal Services	\$ 62,776,055	\$ 25,600,068	41%	41%
Fringe Benefits	25,173,707	10,289,591	41%	40%
Materials & Supplies	9,509,735	3,132,027	33%	33%
Transportation	1,555,282	571,315	37%	21%
Utilities	12,350,061	4,697,240	38%	36%
Chemical Purchases	9,249,441	3,255,546	35%	32%
Contractual Services	55,345,089	15,274,534	28%	30%
Major Repairs	16,056,857	3,257,499	20%	20%
Capital Assets	655,963	309,801	47%	27%
Miscellaneous Expense	3,137,304	1,132,304	36%	40%
Total Operating Expenses	195,809,494	67,519,925	34%	35%
Debt Service and Transfers				
Debt Service	64,308,209	36,633,229	57%	54%
Transfer to CIP	114,463,921	52,693,300	46%	49%
Transfer to Risk management	260,000	108,335	42%	42%
Total Debt Service and Transfers	179,032,130	89,434,864	50%	51%
Total Expenses and Transfers	\$ 374,841,624	\$ 156,954,789	42%	43%

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**, and 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 November 30, 2021

HRSD - RESERVE AND CAPITAL ACTIVITY November 30, 2021

	General Reserve					Capital	
	General	CARES - HRSD	CARES - JCSA	Debt Service	Risk Mgmt Reserve	Paygo	Debt Proceeds
	Unrestricted	Restricted	Restricted	Restricted	Unrestricted	Unrestricted	Restricted
Beginning - July 1, 2021	\$ 182,380,923	\$ 1,373,428	\$ 168,124	\$ 30,454,700	\$ 4,019,543	\$ 6,033,913	\$ -
Current Year Sources of Funds							
Current Receipts	154,493,315	51,789					
Line of Credit							18,422,172
VRA Draws						35,610,837	
CARES Transfer In	1,141,751						
Days Cash on Hand Transfer In							
Transfers In	-				108,335	52,693,300	
Sources of Funds	155,635,066	51,789	-	-	108,335	88,304,137	18,422,172
Total Funds Available	\$ 338,015,989	\$ 1,425,217	\$ 168,124	\$ 30,454,700	\$ 4,127,878	\$ 94,338,050	\$ 18,422,172
Current Year Uses of Funds							
Cash Disbursements	108,391,922					60,457,805	18,422,172
CARES Transfer Out		1,423,070	168,124				
Days Cash on Hand Transfer Out							
Transfers Out	52,801,635						
Uses of Funds	161,193,557	1,423,070	168,124	-	-	60,457,805	18,422,172
End of Period - November 30, 2021	\$ 176,822,432	\$ 2,147	\$ -	\$ 30,454,700	\$ 4,127,878	\$ 33,880,245	\$ -
Unrestricted Funds	\$ 214,830,555						

4. Capital Improvements Budget and Activity Summary for Active Projects for the Period Ended November 30, 2021

HRSD - PROJECT ANALYSIS

November 30, 2021

Classification/ Treatment Service Area	Appropriated Funds	Expenditures prior to 7/1/2021	Expenditures Year to Date FY2022	Total Project Expenditures	Encumbrances	Available Funds
Administration	47,227,240	27,658,581	1,646,818	29,305,399	329,568	17,592,273
Army Base	163,448,800	123,537,916	653,763	124,191,679	1,241,032	38,016,089
Atlantic	143,194,633	82,877,498	2,235,006	85,112,504	4,547,484	53,534,645
Boat Harbor	288,504,388	52,827,281	2,645,607	55,472,888	8,157,831	224,873,669
Ches-Eliz	170,372,403	105,212,456	8,038,769	113,251,225	11,185,667	45,935,511
Eastern Shore	18,093,040	68,570	46,737	115,307	16,191,811	1,785,922
James River	315,605,591	49,601,157	5,852,911	55,454,068	209,772,443	50,379,080
Middle Peninsula	95,697,822	13,511,974	2,438,846	15,950,820	8,596,899	71,150,103
Nansemond	355,543,533	41,212,618	2,897,273	44,109,891	3,883,482	307,550,160
Surry	55,505,027	26,875,712	8,744,385	35,620,097	6,100,994	13,783,936
VIP	310,951,312	183,421,754	2,243,140	185,664,894	8,135,415	117,151,003
Williamsburg	39,061,010	27,900,712	831,543	28,732,255	6,211,450	4,117,305
York River	87,135,847	30,364,487	1,288,888	31,653,375	2,396,939	53,085,533
General	846,115,019	213,776,988	15,461,727	229,238,715	277,274,296	339,602,008
	\$ 2,936,455,665	\$ 978,847,704	\$ 55,025,413	\$ 1,033,873,117	\$ 564,025,311	\$ 1,338,557,237

5. Debt Management Overview

HRSD - Debt Outstanding (\$000's)

November 30, 2021

	Principal Oct 2021	Principal Payments	Principal Draws	Principal Nov 2021	Interest Payments
Fixed Rate					
Senior	189,342	(4,170)	-	185,172	(3,226)
Subordinate	589,845	-	2,089	591,935	-
Variable Rate					
Subordinate	50,000	-	-	50,000	(3)
Line of Credit	33,721	-	-	33,721	(12)
Total	\$ 862,908	\$ (4,170)	\$ 2,089	\$ 860,828	\$ (3,241)

HRSD- Series 2016VR Bond Analysis

December 3, 2021

	SIFMA Index	HRSD	Spread to SIFMA
Maximum	4.71%	4.95%	0.24%
Average	0.34%	0.49%	0.15%
Minimum	0.01%	0.01%	0.00%
As of 12/03/21	0.05%	0.05%	0.00%

* Since October 20, 2011 HRSD has averaged 49 basis points on Variable Rate Debt

6. Financial Performance Metrics for the Period Ended November 30, 2021

HRSD - UNRESTRICTED CASH

November 30, 2021

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

		Days Cash on Hand	Adjusted Days Cash on Hand
Total Unrestricted Cash	\$ 214,830,555		400
Risk Management Reserve	\$ (4,127,878)	(7)	393
Capital (PAYGO only)	\$ (33,880,245)	(63)	330
Adjusted Days Cash on Hand	\$ 176,822,431		330

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

HRSD - SOURCES OF FUNDS

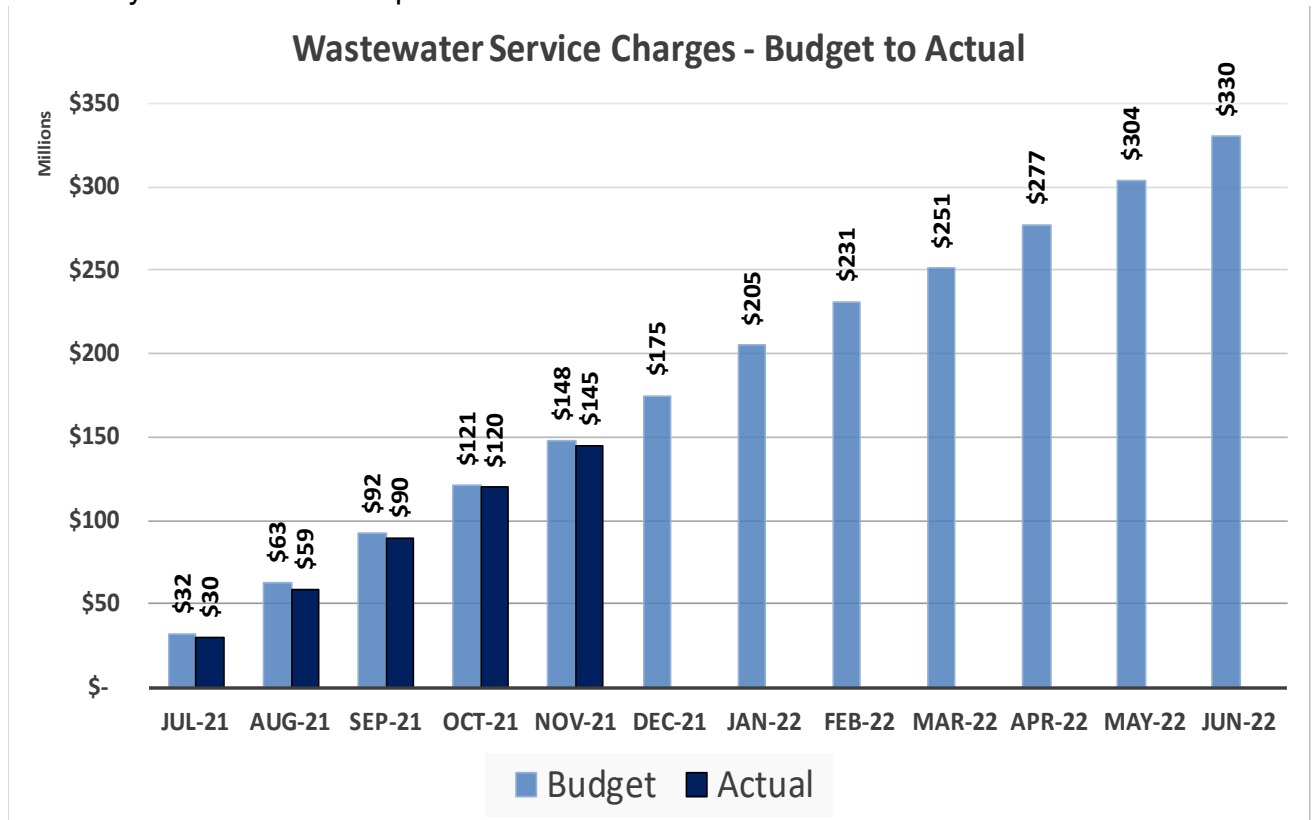
November 30, 2021

Primary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned	Ending Market Value November 30, 2021	Allocation of Funds	Credit Quality	Current Mo Avg Yield
BAML Corp Disbursement Account	30,017,420	220,852,061	228,533,082	15,662	22,352,061	13.4%	N/A	0.55%
VIP Stable NAV Liquidity Pool	108,890,465	50,000,000	15,000,000	37,268	143,927,733	86.6%	AAAm	0.08%
Total Primary Source	\$ 138,907,885	\$ 270,852,061	\$ 243,533,082	\$ 52,930	\$ 166,279,794	100.0%		

Secondary Source	Beginning Market Value July 1, 2021	YTD Contributions	YTD Withdrawals	YTD Income Earned & Realized G/L	Ending Market Value November 30, 2021	Ending Cost	LTD Mkt Adj	Yield to Maturity at Market
VIP 1-3 Year High Quality Bond Fun	65,054,203	-	5,458	126,139	64,888,564	63,520,224	1,368,339	
Total Secondary Source	\$ 65,054,203	\$ -	\$ 5,458	\$ 126,139	\$ 64,888,564	\$ 63,520,224	\$ 1,368,339	

	Total	Fund Alloc
Total Primary Source	\$ 166,279,794	71.9%
Total Secondary Source	\$ 64,888,564	28.1%

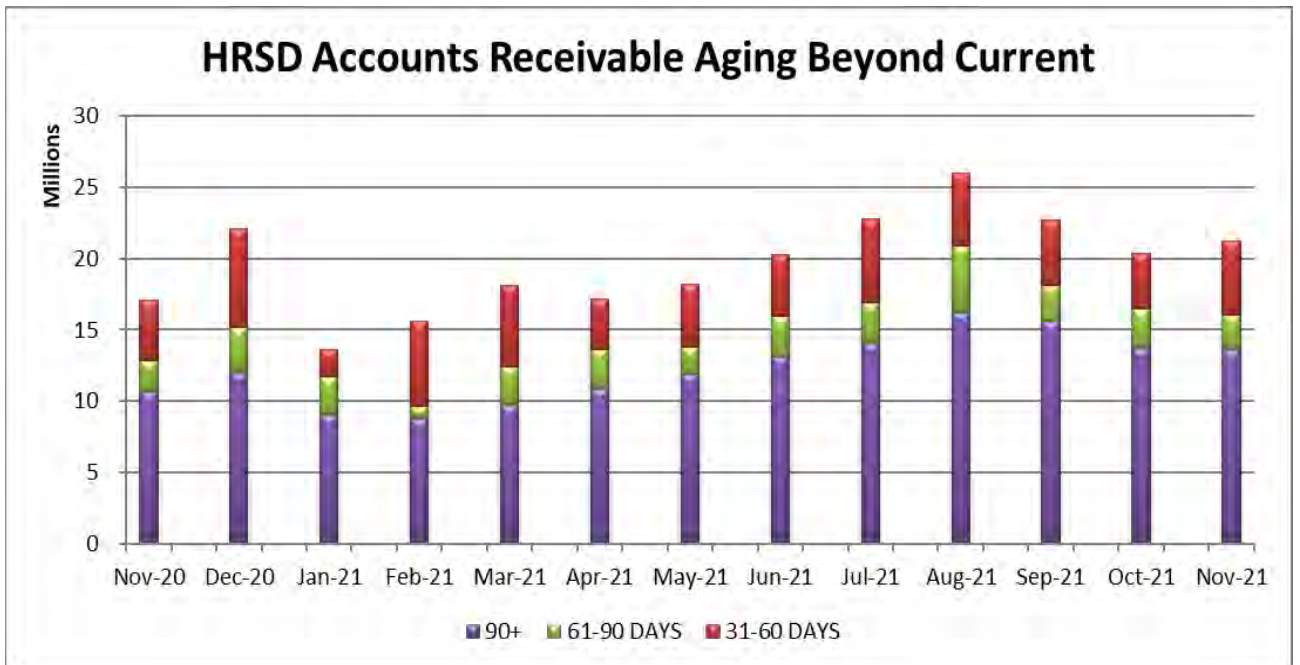
7. Summary of Billed Consumption

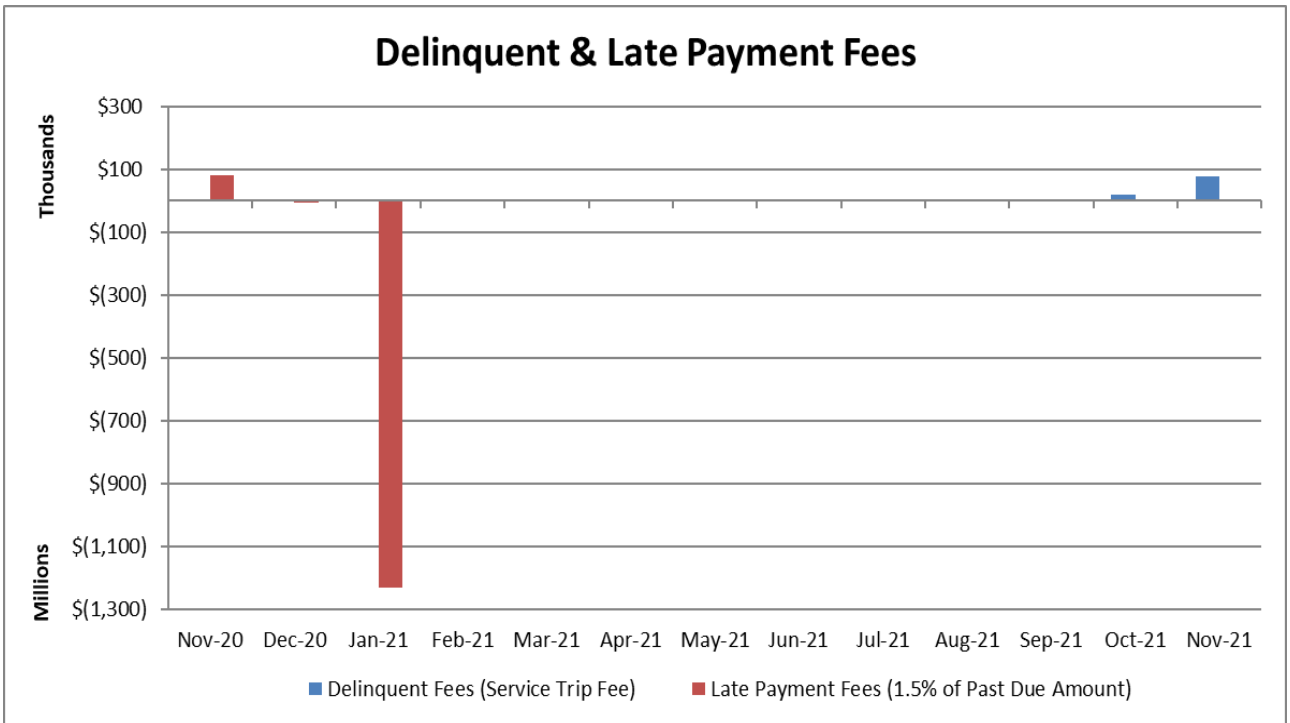


Summary of Billed Consumption (,000s ccf)							
Month	FY2022 Cumulative Budget Estimate	FY2022 Cumulative Actual	% Difference		% Difference		% Difference
			From Budget	Cumulative FY2021 Actual	From FY2021	Cumulative 3 Year Average	From 3 Year Average
July	5,015	4,976	-0.8%	4,751	4.7%	5,006	-0.6%
Aug	9,883	9,517	-3.7%	9,459	0.6%	9,866	-3.5%
Sept	14,413	14,346	-0.5%	14,335	0.1%	14,303	0.3%
Oct	18,892	19,048	0.8%	18,863	1.0%	18,931	0.6%
Nov	23,125	22,952	-0.7%	21,192	8.3%	22,474	2.1%
Dec	27,336	-	N/A	27,614	N/A	27,458	N/A
Jan	32,088	-	N/A	32,478	N/A	32,116	N/A
Feb	36,182	-	N/A	36,068	N/A	36,110	N/A
March	39,309	-	N/A	41,018	N/A	40,340	N/A
Apr	43,360	-	N/A	45,116	N/A	44,540	N/A
May	47,508	-	N/A	49,256	N/A	48,716	N/A
June	51,620	-	N/A	54,195	N/A	53,202	N/A

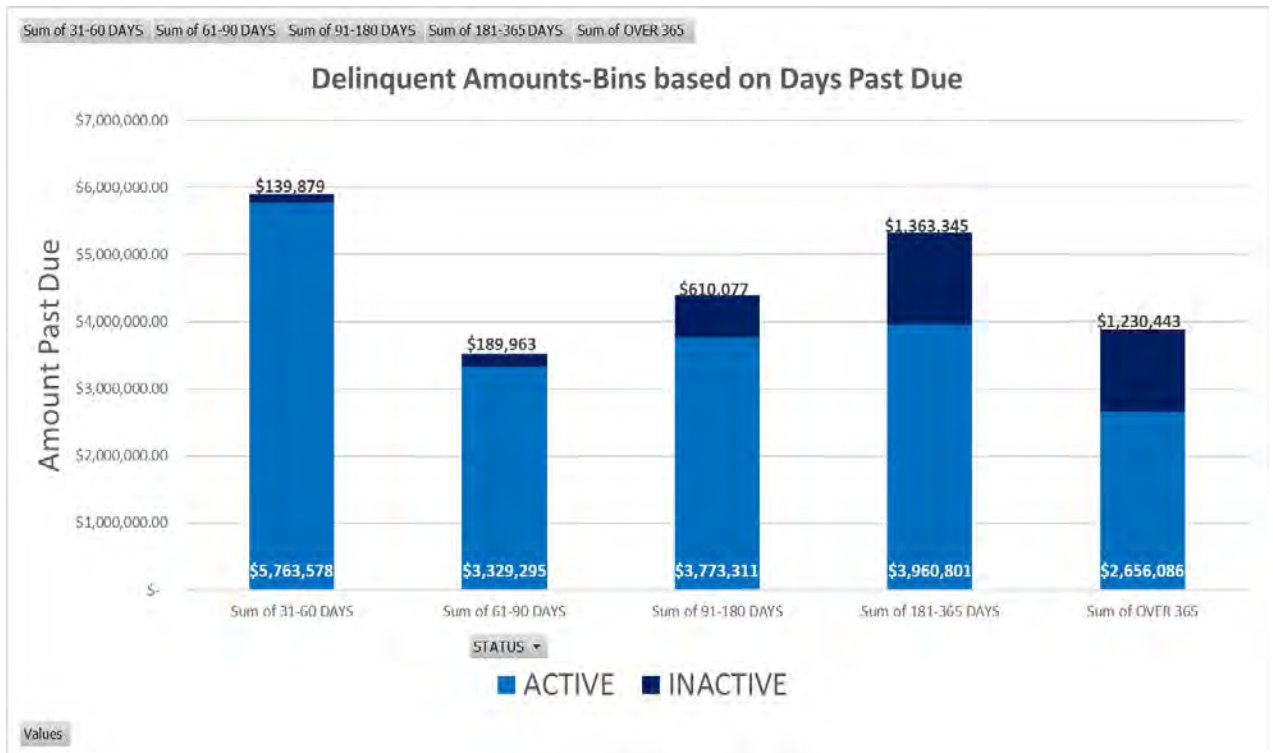
C. Customer Care Center

1. Accounts Receivable Overview

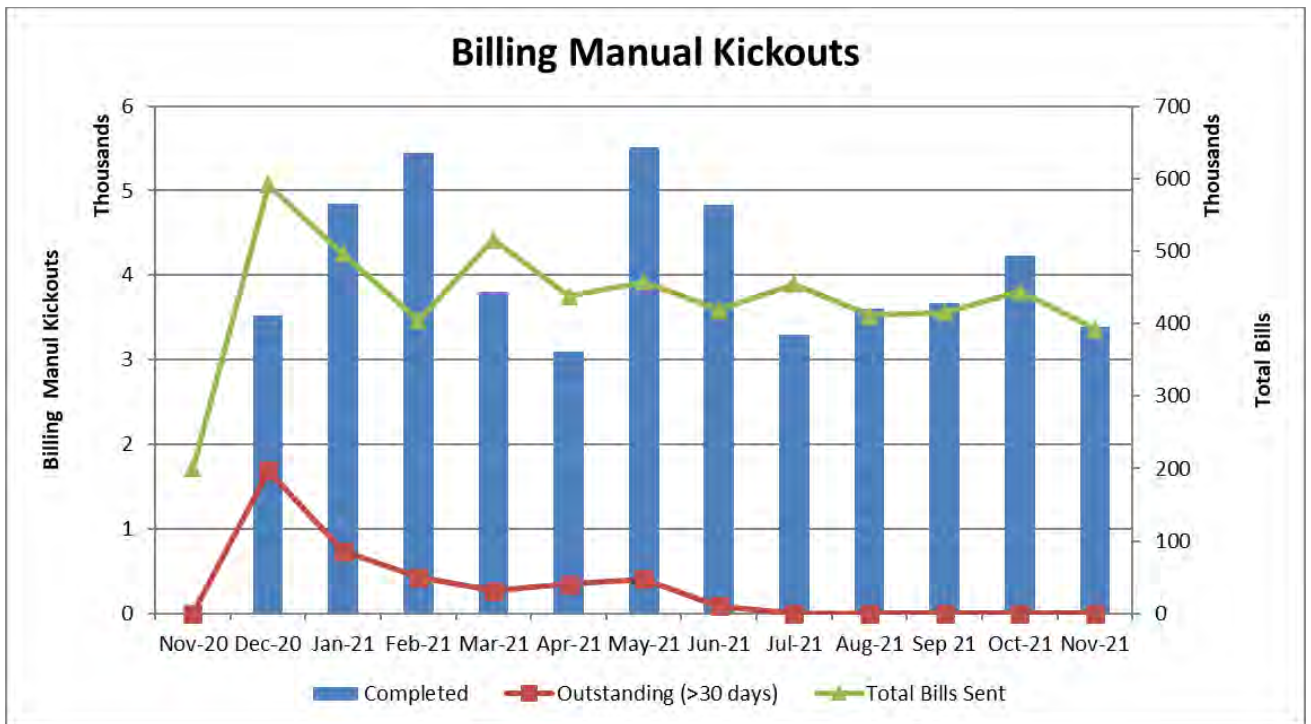




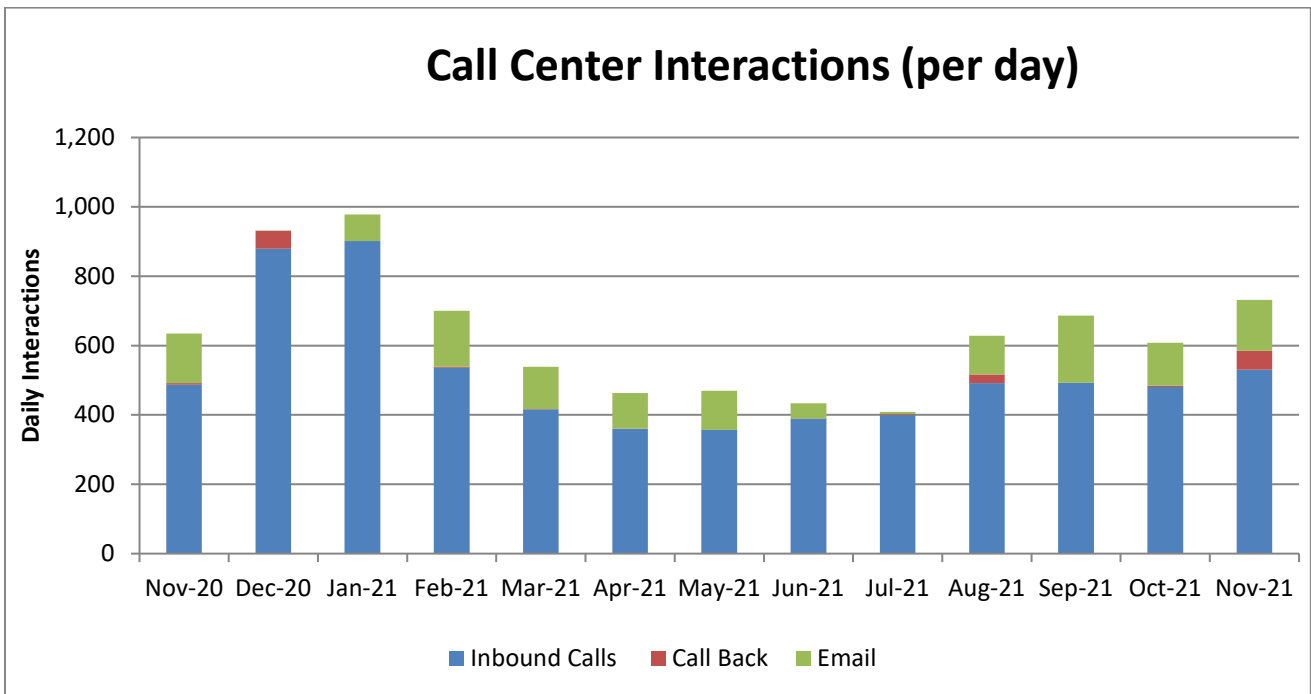
Apr 20-Nov 21 Field Activity was suspended late March 2020 in response to COVID-19.

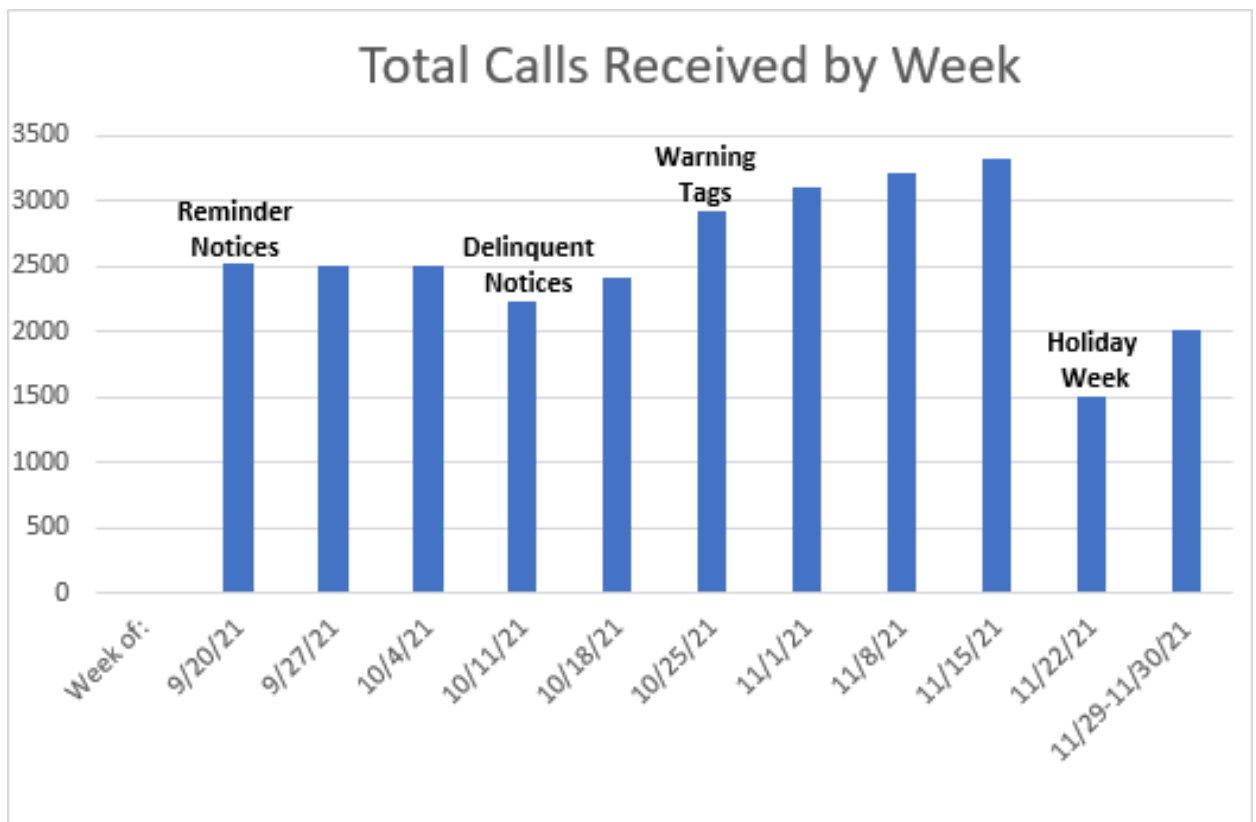


2. Customer Care Center Statistics



November 2020 data not available due to Ransomware attack





Customer Interaction Statistics	Jun	Jul	Aug	Sep	Oct	Nov
Calls Answered within 3 minutes	98%	96%	65%	91%	93%	50%
Average Wait Time (seconds)	16	30	433	57	38	379
Calls Abandoned	3%	4%	23%	6%	4%	22%

D. Procurement Statistics

ProCard Fraud	External Fraud Transactions *	Comments
July	0	
August	0	
September	1	
October	0	
November	1	
Total	2	

***External Fraud:** Fraud from outside HRSD (i.e.: a lost or stolen card, phishing, or identity theft)

E. Strategic Planning Metrics Summary

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

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	November 2021
M-1.4a	Training During Work Hours Per Full Time Employee (102) – Current Month	Hours / #FTE	0.65
M-1.4b	Total Training During Work Hours Per Full Time Employee (102) – Cumulative Fiscal Year-to-Date	Hours / #FTE	15.78
M-5.2	Educational and Outreach Events	Number	0
M-5.3	Number of Community Partners	Number	0
	Wastewater Revenue	Percentage of budgeted	105%
	General Reserves	Percentage of Operating Budget less Depreciation	106%
	Liquidity	Days Cash on Hand	400 Days
	Accounts Receivable (HRSD)	Dollars	\$39,367,413
	Aging Accounts Receivable	Percentage of receivables greater than 90 days	35%

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 November 2021

DATE: December 8, 2021

A. General

1. Upgrade of the existing network servers at each treatment plant began this month. All replacements are scheduled for completion in the first quarter of 2022. HRSD's technology refresh program ensures that network resources remain within the manufacturers' support windows, thus enhancing reliability and further minimizing cybersecurity threat vectors.
2. Staff are in the process of replacing the outward facing network firewalls. This will provide continued protection and management of HRSD's computing environment.
3. The IT Help Desk processed 338 work orders in November, ensuring availability of computing resources to those working locally and remotely.
4. Staff continue implementation of a lifecycle management platform which incorporates hardware, software, vulnerability, and project management for HRSD's IT infrastructure.
5. The Enterprise Resource Planning (ERP) upgrade project is on schedule, with testing environments being configured for quality assurance and performance validation.

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	November 2021
M-1.4a	Training During Work Hours Per Full-Time Employee (51) – Current Month	Total Training Hours / # FTE	1.44
M-1.4b	Total Training During Work Hours Per Full-Time Employee (51) – Cumulative Fiscal Year-to-Date	Total Training Hours / # FTE	6.88
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 November 2021
DATE: December 10, 2021

A. Interceptor Systems

1. North Shore (NS) Interceptor Systems

- a. There were two interceptor complaints, one odor complaint, and 10 system alarms during the month. The complaints and system alarms were resolved by staff.
- b. Staff and contractors continued to cut over new sites to the new Supervisory Control and Data Acquisition (SCADA) system. Significant time was spent cutting over the Langley Circle PS and testing at the Bayshore PS.

2. South Shore (SS) Interceptor Systems

- a. There was one Miss Utility no show reported this month. On November 16, a contractor submitted a mark ticket for a project on Pocahontas Avenue in Chesapeake. Staff inadvertently overlooked the ticket at the end of the day. Once discovered, staff called the contractor to inform them there was not a conflict.
- b. There were six interceptor complaints reported this month. Four issues were with the City of Norfolk Department of Utilities, and one was with the City of Virginia Beach Public Utilities Department. On November 15, a resident living near Providence Road Pressure Reducing Station (PRS) in Virginia Beach called about a loud noise and smoke coming from the station. Staff investigated and discovered the generator had run for about 15 minutes. Staff let the resident know the generator was operating at the time of the issue.
- c. Staff spent significant time on the diversion planning and implementation for the closure of the Chesapeake Elizabeth Treatment Plant (CETP).

B. Major Treatment Plant Operations

1. Army Base Treatment Plant (ABTP)

- a. Staff completed the replacement of two new harmonic filter cabinets.
- b. Staff rebuilt Grit snail #2 and returned it to service.
- c. A contractor completed rehabilitation of primary clarifier #3.

2. Atlantic Treatment Plant (ATP)

- a. On November 12, staff received an email from a nearby neighbor about excessive noise coming from the plant. Staff investigated and tested the decibel noise levels on three different days and times at the fence line of the plant. Most of the readings were well below “comfortable outdoor noise levels” established by the World Health Organization. One reading, however, exceeded the level near the combined heat and power (CHP) odor scrubber. Staff lowered the heavy-duty curtain covers around the CHP blowers and subsequent readings were within tolerances to mitigate the sound. The CHP engines had been out of service for more than a year to accommodate the start-up of the new Thermal Hydrolysis Process (THP). Staff suspects noise from the CHP startup could also have been a contributor. Staff will continue to monitor sound levels to help identify and mitigate off-site noises.
- b. Staff began performance testing of the new final dewatering centrifuge. This new centrifuge is larger and will allow the plant to handle the higher loading associated with the increased flow from the CETP closure.
- c. Staff from all departments volunteered to help plant 85 hardwood trees on the former north progress farmland. This property is located directly across from the plant and is adjacent to the neighborhood. In early 2022, there will be another tree planting in this location of up to 1,000 pine trees.

3. Boat Harbor Treatment Plant (BHTP)

- a. Salinity/conductivity remains an ongoing challenge. Staff continues to test the raw influent for bromine and conductivity to determine what efforts may be necessary to mitigate saltwater infiltration into the Boat Harbor collection system, prior to diverting the flow to Nansemond Treatment Plant (NTP) in 2026.
- b. Staff discovered process flow accumulating on the ground surface outside secondary clarifier #6, as well as in the valve box for the drain. Fortunately, staff found the break in timely manner and were able to capture the spill. Staff excavated the valve box area and found a failed O-ring allowing flow to escape during operation of the valve. Staff made repairs and the drain valve is now operational.
- c. Staff discovered the manual sluice gate missing on aeration tank #1. Several bolts holding the mixer blades in place on their shafts were found loose and were not torqued to specification.

4. Chesapeake-Elizabeth Treatment Plant (CETP)

- a. Staff replaced the clinker breaker motor. The clinker breaker is a coarse screen that captures hardened ash and any other large debris that can damage the ash removal system.

- b. A contractor began cleaning the out-of-service aeration tanks in preparation for plant closure next month. Staff re-routed the aeration odor control systems overflow from aeration tank #10 to the aeration influent channel. This will allow aeration tank #10 to be cleaned before plant closure.
- c. Staff removed equipment stored in the Quonset hut so that it can be relocated to the Onancock Treatment Plant on the Eastern Shore. Staff also cleared out the hurricane shelter so it can be relocated to the Small Communities Division on the Middle Peninsula.
- d. Staff is closely managing fuel and chemical usage so that large amounts of each do not have to be disposed of after closure.

5. James River Treatment Plant (JRTP)

There were three odor scrubber deviations this month. One deviation occurred because of a reduction of sodium hypochlorite to the scrubber from a small leak. Another was due to a low scrubber dilution flow. The last was due to a pH set point too low for influent sulfide conditions

6. Nansemond Treatment Plant (NTP)

- a. On November 16, during a routine data audit, staff discovered that a plant operator who was covering shift for another operator was not told to get an additional sample during the daylight savings time adjustment on November 7. In the future, all staff will be made aware of daylight savings procedures and the on-call lead operator will follow up with the plant operator on shift the day of the additional sample.
- b. On November 22, staff charged a previously broken Non-Potable Water (NPW) line to check for leaks and found that an in-ground valve would not close once opened. Staff adjusted the valve handle and secured the flow, resulting in a spill of approximately 500 gallons on the ground with none of it recovered.
- c. On November 24, staff found an NPW hose that was filling a secondary clarifier had come loose and fallen to the ground; the operator secured the NPW flow. Approximately 9,000 gallons went to the plant drain and back to the headworks of the plant. Approximately, 1,000 gallons went to the storm water holding pond and was not recovered. In the future, staff will ensure any hoses left filling tanks are secured properly, as well as passed down to be checked more frequently.
- d. Contractors completed construction of Phase 1 of the Struvite Recovery Facility (SRF) upgrade, and started functional testing, which will continue into early December. This project consists of a new Programmable Logic Controller (PLC), a new product dryer, new harvest lines, a new and improved operator workspace, as well as other minor upgrades. A larger upgrade is planned to begin in April 2022, which will accommodate additional loadings from the closure of the BHTP.

- e. Sustainable Water Initiative for Tomorrow (SWIFT) Research Center (RC)
 - (1) The total volume of SWIFT recharge into the Potomac aquifer for the month of November was 1.05 million gallons (MG) [4.9% Recharge Time based on 500 gallons per minute (gpm)].
 - (2) The recharge flow rate setpoint remained at 500 gpm. Currently, the recharge water level looks very stable, and no further changes were needed during this month.
 - (3) On November 9 staff were able to successfully collect water for the bottling event.
 - (4) There were two main events that impacted recharge operations at the SRC for November: At the beginning of the month, the contractor installing the new recharge well requested recharge operations stop to make sure they could perform a drawdown test and video survey on the new well. Additionally, staff noticed high ozone demand throughout the month of November. Different parameters were tested, and it appeared that an excess of methanol may have been the issue. More testing is on-going to make sure this is well understood prior making any conclusions
 - (5) The SWIFT RC will not recharge for the whole month of December to make sure the new well is conditioned properly with aluminum chlorohydrate (ACH). Recharging will negatively impact the aquifer conditioning for the new well since the mixing/displacement of the ACH caused by recharging might increase the pH above five and precipitate aluminum hydroxide.

7. Virginia Initiative Plant (VIP)

- a. Staff isolated the band screen influent channel #2 and removed accumulated grit to facilitate repairs to the band screen rotating assemblies and screening plates. Approximately 30 cubic yards of grit were removed from the influent channel. Contractors worked with plant staff to rebuild the band screen and return it to service.
- b. The dewatering centrifuge #5 began vibrating, causing the machine to shut down. Staff replaced a severely worn accelerator and placed it back in service.

8. Williamsburg Treatment Plant (WBTP)

- a. While the incinerators remain offline, dewatered solids continue to be sent to the privately run compost facility in Waverly, Virginia and the BHTP. Staff and contractors continued to focus their repairs on the #2 incinerator.
- b. Discharge of Fats, Oils and Grease (FOG) by haulers to the WBTP, for the most part, remained suspended while the FOG system is out of service for repairs. The contractor fabricating the FOG thickened tank rake arm is waiting for materials.

9. York River Treatment Plant (YRTP)

- a. Staff continued work on air control improvements for enhanced nutrient removal in aeration tanks #1 and #2. Work centered on installing piping, actuators, and air supply equipment.
- b. Staff took the #8 and #9 denitrification filters out-of-service and cleaned them.

10. Incinerator Operations Events Summary

- a. Total Hydrocarbon (THC) monthly averages (not to exceed 100 parts per million) were met by all five treatment plants with incinerators with a THC continuous emissions monitoring (CEM) valid data captured of greater than 97 percent.
- b. There were no deviations from the required 129 SSI rule minimum operating parameters and no minor bypass events (<60 minute).
- c. The WBTP incinerator was not operational for the month of November

C. Small Communities (SC)

1. Middle Peninsula

a. Urbanna Treatment Plant (UBTP) and Collections

Staff completed cold weather preparations, including replacement of all above ground piping insulation and installation of new and reliable heat tracing as needed.

b. West Point Treatment Plant (WPTP) and Collections

The contractor began the rehabilitation of the 7th & Lee PS. Staff assisted the contractor by relocating the emergency pump to allow access to the force main piping.

c. King William Treatment Plant and Collections

Total flow for the month of July was 2.030 MG of which 1.312 MG (88.6%) was pumped to Nestle-Purina as reuse/reclaimed water and 0.72 MG was effluent flow to the outfall

2. Surry Systems

a. Town of Surry

The hydraulic improvement capital improvement project continues to progress well. Factory demonstration testing of the pump station control panels were

completed, and the contractor has almost completed the installation of the entire pipeline to Smithfield. System start is projected in the spring of 2022

3. Eastern Shore – Onancock Treatment Plant (OTP)

- a. Contractors completed installation of fiber communication lines on the plant site.
- b. Staff are fabricating a new effluent flow weir plate to be installed in January 2022.

D. Electrical & Instrumentation (E&I)

1. Staff replaced a broken level transducer on the aeration tank at OTP.
2. Staff worked with contractors to install primary tank scum actuators at ATP.
3. Staff worked with contractors to replace the fire control system in the digester building at ATP. Replacement is due to faulty gas monitoring equipment sending false alarm calls to the Virginia Beach Fire Department.
4. Staff completed hardware and software upgrades for the Emerson Ovation Distributed Control System (DCS) at BHTP.
5. Staff are working on a “wet weather” project that will automatically place additional bar screens and clarifiers in service when the influent flow rate exceeds a defined setpoint at WBTP.

E. Water Technology and Research

HRSD’s development and demonstration of polishing partial denitrification-anammox (PdNA) has been quite promising as applied in the case of the full-scale and pilot-scale York River Treatment Plant (YRTP) deep-bed denitrification filters and the James River Treatment Plant (JRTP) pilot-scale moving bed biofilm reactors (MBBR). The next phase of research broadly involves transitioning to integrated PdNA such as in second anoxic zones of our existing BNR facilities (Nansemond, Army Base, VIP, James River). This is a much larger challenge from a development and control standpoint, but we have initiated projects for both moving and fixed media integrated fixed film activated sludge (IFAS), including both full-scale demonstrations and pilot plant testing. At JRTP, a full-scale moving media IFAS PdNA demonstration in the second anoxic zone of a single tank is currently wrapping up construction and is planned to startup by the end of December. The fixed media demonstration is also under construction with startup scheduled by the end of winter, but progress is being held up by material delays for the treatment modules.

F. 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	3	3	4	2							
2.7	# of PS Annual PMs Performed (SS)	6	6	4	5	5							
2.7	# of Backup Generator PMs Performed (Target is 4.6)	10	13	8	10	8							
2.8	# of FM Air Release Valve PMs Performed (NS)	72	89	184	210	166							
2.8	# of FM Air Release Valve PMs Performed (SS)	124	165	193	269	167							
2.9	# of Linear Feet of Gravity Clean (NS) (Target is 2,417 for HRSD)	5,209	0	9,963	8,696	3,829							
2.9	# of Linear Feet of Gravity Clean (SS) (Target is 2,417 for HRSD)	0	3,531	7,717	10,276	5,272							
2.9	# of Linear Feet of Gravity CCTV Inspection (HRSD Target 3,300 LF)	0	0	11,796	0	11,796							

G. Strategic Measurement Data

1. Education and Outreach Events: 7

- a. 11/05/2021 – Artificial Intelligence (AI) Entrepreneur Science, Technology, Engineering, and Mathematics (STEM) Camp for Middle School students. The camp was sponsored by Cooperating Hampton Roads Organizations for Minorities in Engineering (CHROME) – Sherman Pressey
- b. 11/10/2021 – Staff had a follow-up meeting with City of Virginia Beach Public Utilities Operations staff to discuss the CETP closure and the effects on the locality system – South Shore Interceptors
- c. 11/19/2021 – PdNA Research and Application Workshop at HRSD, Podium Presentations - Stephanie Klaus, Mike Parsons, and Megan Bachmann
- d. 11/20/2021 – SEA Team tree planting event with Lynnhaven River NOW and the Department of Forestry (DOF) – Atlantic Treatment Plant (ATP)

2. Community Partners: 4

- a. Chesapeake Bay Foundation-Oyster Cage Maintenance at BHTP for Oyster Garden Project
- b. Department of Energy (DOE) Jefferson Lab
- c. Old Dominion University (ODU)
- d. United Way Williamsburg House

3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	November 2021
M-1.4a	Training During Work Hours per Full Time Employee (FTE) (533) – Current Month	Hours / FTE	2.24
M-1.4b	Total Training During Work Hours per FTE (533) – Cumulative Year-to-Date	Hours / FTE	13.78
M-2.3a	Planned Maintenance Total Maintenance Hours	Total Recorded Maintenance Labor Hours	24,491.48
M-2.3b	Planned Maintenance – Preventive and Condition Based	percent of Total Maintenance Hours	63.08%
M-2.3c	Planned Maintenance - Corrective Maintenance	percent of Total Maintenance Hours	11.57%
M-2.3d	Planned Maintenance - Projects	percent of Total Maintenance Hours	25.35%
M- 4.1a	Energy Use: Treatment *Reported for November 2021	kWh/MG	2,803
M-4.1b	Energy Use: Pump Stations *Reported for November 2021	kWh/MG	204
M-4.1c	Energy Use: Office Building *Reported for November 2021	kWh/MG	126
M-5.2	Educational and Outreach Events	Number	7
M-5.3	Number of Community Partners	Number	4

Respectfully submitted,
Steve de Mik
 Director of Operations

TO: General Manager

FROM: Director of Talent Management (TM)

SUBJECT: Monthly Report for November 2021

DATE: December 8, 2021

A. Talent Management Executive Summary

1. Recruitment Summary

New Recruitment Campaigns	9
Job Offers Accepted – Internal Selections	4
Job Offers Accepted – External Selections	7
Average Days to Fill Position	90

2. The following were performed in response to the COVID-19 pandemic:

- a. Continued addressing and monitoring suspected COVID-19 cases and potential exposures based on Virginia Department of Health (VDH) guidelines:

Description	November 2021	Total (March 2020 – November 2021)
Quarantines due to illness or direct exposure (household or external)	5	367
Work Related Quarantines	0	54
Personal Travel Quarantines	0	58
Confirmed Employee COVID-19 Cases	8	106
Work Related COVID-19 Cases	0	2
Contractor COVID-19 Cases on Work Sites*	0	12
Vaccine Acknowledgements	83	814

*No direct exposure to HRSD employees

- b. The Human Resources (HR) Business Analyst continued generating weekly Employee Vaccine Acknowledgement reports for Data Analysts to update the Vaccine Status Dashboard. HRSD's current vaccination rate is 96%.
- c. HR staff clarified Vaccination Policy requirements including medical and religious exemption request procedures for several employees. Staff continued evaluating multiple religious and medical exception requests.
- d. Staff completed review of Virginia Occupational Safety and Health Administration (VOSHA) Final Permanent Standard for COVID-19 amendments and continued incorporating most recent changes into *HRSD's Infectious Disease Preparedness and Response Plan* revisions.
- e. Engineering, Procurement and TM staff finalized updates to *COVID-19 Supplier and Contractor Guidelines*.

3. Business Analysts, HR, Organizational Development and Training (OD&T) and Information Technology (IT) staff began testing for the upcoming system-wide upgrade.
4. An HR/Operations workgroup finalized a plan to implement several recruitment initiatives to improve efficiency, time to fill, and recruitment of hard to fill positions.
5. Compensation and Benefits:
 - a. The HRSD Compensation study was initiated. HR and consultant staff met to outline the project and discuss timelines, procedures and deliverables.
 - b. HR, Finance and Communication staff worked to develop an implementation and employee communication plan for providing a mid-year inflationary adjustment.
 - c. Salary and benefit information was provided for a City of Virginia Beach compensation study.

7. Wellness Program

a. Participation

Year Nine Participation Activities	Unit	November 2021	Year to Date (March 2021–February 2022)
Biometric Screenings	Number	26	242
Preventive Health Exams	Number	29	224
Preventive Health Assessments	Number	32	190
Online Health Improvement Programs	Number	35	200
Web-MD Online Health Tracking	Number	40	347
Challenges: <i>Meatless Monday</i>	Number	54	340
Fit-Bit Promotion	Number	2	43

- b. The *Holiday Maintain Don't Gain* challenge began.
- c. The following programs were promoted:
 - (1) *The Great American Smoke out*
 - (2) *Optima Health webinar, Sugar Alternatives: Good or Bad*
 - (3) *Optima Employee Assistance Program webinar, Wrapping Up 2021: Reflections, Realities and Resilience for the Holiday Season*
- d. Two virtual Wellness presentations were provided:
 - (1) *Mindful Meditation on Gratitude* with 34 participants
 - (2) *Healthy Snacks that Don't Require Cooking* with 68 participants
8. Staff attended the Chesapeake Elizabeth Treatment Plant Closure Celebration.

9. Worked with Hicks Carter Hicks, the OD&T consultant on the following:
 - a. The Supervisory Knowledge and Information Program (SKIP) continued.
 - b. Conducted a Division Leaders Forum.
 - c. Completed development of a Virtual Coaching program with 8 participants enrolling in the new program.
 - d. Worked with the HRSD sponsor on several DE&I strategies. The second DE&I Council meeting was held.
 - e. Facilitated an Emotional Intelligence 2.0 Workshop for the Women in Leadership Program.
 - f. Continued work with the Customer Care Division to curate online learning paths and integration of available Corporate Training courses.
 - g. Continued work with Electrical & Instrumentation (E&I) staff on team building. A Strengths Finder workshop was held and coaching sessions with the leadership team to review individual results were conducted.
10. Twelve employees graduated from the Leadership and Management Program (LAMA). Over the course of LAMA, the class was divided into three teams to develop their capstone project to address Employee Burnout. The teams, *Team Feel De Burn*, *Team Match* and *The Analyzing Kuzcos* presented different perspectives and provided the QST with recommendations. The presentations were excellent, and the Quality Leadership Facilitator Team and graduates were asked to reconvene and develop a consolidated “best of the best” proposal to be considered for future implementation.
11. Apprenticeship Program
 - a. National Apprenticeship Week was celebrated November 15th through 19th. HRSD commemorated this annual celebration, holding the last graduation event for the Class of 2020 and 2021 at the Virginia Initiative Plant (VIP). Additionally, apprentice appreciation luncheons were hosted at the North Shore Operations Center and the Air Rail Main Office. All apprentices and apprenticeship instructors also received appreciation gifts to honor their hard work and dedication to making the program successful.
 - b. HRSD submitted one nomination for the Department of Labor’s Outstanding Apprentice Awards for the graduating Class of 2021.
 - c. OD&T staff visited work centers to provide Apprenticeship Program information to apprentices and supervisors.

12. Mishaps and Work-Related Injuries Status to Date (OSHA Recordable)

	<u>2020</u>	<u>2021</u>
Mishaps	32	32
Lost Time Mishaps	8	11
<i>Numbers subject to change pending HR review of each case.</i>		

13. The following were performed for development of the Onancock and Nassawadox Treatment Plant (TP) Safety Programs:

- (1) Completed lock out/tag out procedures for processes and equipment.
- (2) Completed space-specific confined space entry permits for the Onancock Treatment Plant (TP).
- (3) Continued development of Onancock and Nassawadox TP Emergency Response Procedures.

14. Safety Division Monthly Activities

Safety Training Classes	13
Work Center Safety Inspections	7
Reported Accident Investigations	2
Construction Site Safety Evaluations	8
Contractor Safety Briefings	4
Hot Work Permits Issued	5
Confined Space Permits Issued/Reviewed	200
Industrial Hygiene Monitoring Events	3

15. Staff participated in the following external activities:

- a. Hampton Roads Society of Human Resources Management (HR-SHRM) Board of Directors meeting
- b. Virginia Water Environment Association Leadership Academy meeting
- c. A meeting with a Virginia Department of Labor Registered Apprentice representative on development of a pre-apprenticeship program
- d. City of Suffolk Local Emergency Planning Committee meeting
- e. HRSD Philanthropic Bronze Event, The HRSD Pink Plungers participated in the American Cancer Society Making Strides Breast Cancer Walk held virtually and onsite at Norfolk Botanical Gardens and Newport News Park in October. Twenty-one employees participated and raised \$2,682.

B. Monthly Strategic Planning Metrics Summary

1. Education and Outreach Events: (1)
 - a. 11/3/21-Hampton Roads Workforce Council-Construction Trades Career Event-Chesapeake Conference Center
2. Community Partners: (1)
 - a. Hampton Roads Workforce Council
3. Monthly Metrics

Item #	Strategic Planning Measure	Unit	November 2021
M-1.1a	Employee Turnover Rate (Total)	Percentage	1.62
M-1.1b	Employee Turnover - Service Retirements	Percentage	0.62
M-1.4a	Total Training Hours Per Full Time Employee (17)	Total Training Hours/ FTE	1.94
M-1.4b	Total Training During Work Hours Per Full Time Employee (17) – Cumulative Fiscal Year-to-Date	Hours / FTE	17.06
M-5.2	Educational and Outreach Events	Number	1
M-5.3	Community Partners	Number	1

Respectfully submitted,
Paula A. Hogg
Director of Talent Management

TO: General Manager
FROM: Director of Water Quality (WQ)
SUBJECT: Monthly Report for November 2021
DATE: December 10, 2021

A. General

Pretreatment and Pollution Prevention (P3) division staff assessed no civil penalties this month.

B. Quality Improvement and Strategic Activities

1. The Sustainability Environment Advocacy (SEA) Group reported the following activity for the month of October:
 - The SEA team held a tree planting event at the HRSD property across from Atlantic Treatment Plant. Nearly 40 volunteers, comprised of HRSD employees and family members, planted 88 native trees. Photos can be found on the [SEA SharePoint page](#).
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 Prince William County, the City of Franklin, the City of Hopewell, and the South Central Wastewater Authority (SCWWA) to support monitoring required for their respective Virginia Pollution Discharge Elimination System (VPDES) permits.

D. Strategic Planning Metrics Summary

1. Educational and Outreach Events: 3
 - 11/05/2021 - Central Environmental Laboratory employees participated in an Old Dominion University career fair
 - 11/20/2021 - P3 staff provided boater education in Topping, VA
 - 11/22/2021 - Mike Martin, Chief of P3, appeared on the Hampton Roads Show (WAVY-TV) to discuss proper disposal of kitchen wastes
2. Community Partners: 7
 - American Red Cross
 - City of Chesapeake – service area special study
 - City of Chesapeake + Virginia Health Department + Chesapeake local health department – wastewater COVID surveillance
 - City of Suffolk

- Elizabeth River Project – River Star effort and State of the River report
- Hampton Roads Planning District Commission
- Lynnhaven River Now

3. Odor Complaints: 3

- On November 8th, the City of Newport News contacted North Shore Operations (NS Ops) about odors inside Hornsby Tire on Jefferson Avenue. NS Ops assisted the city with a site visit that evaluated the Hornsby Tire plumbing that is tied into the city gravity line. Hornsby Tire staff removed their sewer cleanout cap outside the building to relieve potential gas pressure and tightened up the seal on an oil-water separator. This may have provided the relief from indoor odors they were experiencing as no further contact by Hornsby Tire has been received. No offsite odors or other complaints have been received.
- On November 9, Communications received a complaint of odors in the Lake Placid neighborhood of Virginia Beach. South Shore Operations and Technical Services investigated and found no significant odors in or around the subdivision nor any odors associated with an HSRD asset. One city pump station had some minor odor onsite, but no offsite odors were observed. No further complaints have been received.
- On November 30, Communications was contacted by WAVY TV 10's Assignment Manager with the message: "We have been getting lots of calls and messages about a foul smell in the Chesapeake, Norfolk, and Portsmouth areas. Is something that could be related to HRSD is doing?". Communications requested additional details, including specific locations and time of day the odors were detected, but no specific or detailed information was provided. Hence, no field odor investigation was performed. HRSD's assets can be a potential source of odors along with many other sources. Determining a source in response to this inquiry is almost impossible without more detailed information. No additional contact and/or complaints have been received to date.

4. Monthly Metrics

Item #	Strategic Planning Measure	Unit	November 2021
M-1.4a	Training During Work Hours Per Full Time Employee (119) (Current Month)	Total Hours / # FTE	6.1
M-1.4b	Total Training During Work Hours Per Full Time Employee (119) (Cumulative Fiscal Year-to-Date)	Total Hours / # FTE	21.5
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	3:25,366
M-3.2	Odor Complaints	#	3
M-3.4	Pollutant Removal	Total Pounds Removed	78,799,583
M-3.5	Pollutant Discharge	% Pounds Discharged/ Pounds Permitted	14%
M-5.2	Educational and Outreach Events	#	3
M-5.3	Community Partners	#	7
	Average Daily Flow	Total MGD for all Treatment Plants	117.94
	Pretreatment Related System Issues	#	0

Respectfully submitted,
James Platt, Ph.D
 Director of Water Quality



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

I. Projects in Process

Emergency Repairs

- **Tasks Completed (November 2021)**
 - Finalized testing
 - Updated and refined report
- **Upcoming Tasks (December 2021)**
 - Submit report to obtain management action plans
 - Finalize report

Model 3 Billing

- **Tasks Completed (November 2021)**
 - Continued documentation review
 - Began fieldwork tests
- **Upcoming Tasks (December 2021)**
 - Communicate findings as they are discovered
 - Complete fieldwork testing
 - Submit report

Unifier/ERP Integration

- **Tasks Completed (November 2021)**
 - Finalized planning phase
 - Began fieldwork tests
- **Upcoming Tasks (December 2021)**
 - Continue testing
 - Conduct follow-up meeting discussions
 - Conduct findings validation meeting

Grant Management

- **Tasks Completed (November 2021)**
 - Discussed internal audit preliminary approach with HRSD
 - Prepared entrance meeting documentation
- **Upcoming Tasks (December 2021)**
 - Complete grants scoping activity
 - Begin planning phase

Risk Assessment Refresh

- **Upcoming Tasks (December 2021)**
 - Commence risk assessment activities



II. Management Action Plan Monitoring

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

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

The following describes the current project monitoring status. This listing does not include audits which were determined by HRSD Management and the Commission to include confidential or sensitive information.

Audit	Report Date	Next Follow-up	Recommendations		
			Closed	Open	Total
D&C: CIP Project Management	5/11/16	Closed	13	0	13
Biosolids Recycling	10/8/16	Spring 2022	7	1	8
HR Benefits	11/22/16	Closed	15	0	15
Inventory	4/20/17	Closed	5	0	5
Procurement/ProCard	8/23/17	Closed	11	0	11
Engineering Procurement	4/20/18	Closed	8	0	8
Corporate Governance: Ethics Function	3/21/18	Closed	5	0	5
Treatment Plant Operations	10/15/18	July 2022	8	1	9
Customer Care Division	7/26/19	December 2021	2	2	4
Safety Division	9/12/19	February 2022	0	3	3
Permitting	2/4/20	Closed	2	0	2
Payroll	3/27/20	Closed	3	0	3
Pollution Source Control	6/2/20	January 2022	3	5	8
SWIFT Program	2/24/2021	February 2022	0	12	12
Fleet Services	2/24/2021	February 2022	0	17	17
Succession Planning	6/4/2021	July 2022	0	4	4
Totals			82	45	127

Annual Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21
M-1.1a	Employee Turnover Rate (Total)	Percentage	< 8%	5.63%	4.09%	6.64%	7.62%	8.22%	9.97%	6.75%	6.66%	9.99%	6.63%	6.78%	6.31%
M-1.1b	Employee Turnover Rate within Probationary Period		0%		2.22%	8.16%	14.58%	9.68%	0.66%	0.13%	0.90%	1.01%	2.10%	3.08%	5.44%
M-1.2	Internal Employee Promotion Eligible	Percentage	100%		59%	80%	70%	71%	64%	69%	68%	85%	85%	63%	78%
M-1.3	Average Time to Fill a Position	Calendar Days	< 30		70	60	52	43.76	51	56	67	67	66	60	95
M-1.4	Training Hours per Employee - cumulative fiscal year-to-date	Hours	> 40		30.0	43.8	37.5	35.9	42.8	49.0	48.4	41.1	40.9	39.3	28.2
M-1.5a	Safety OSHA 300 Incidence Rate Total Cases	# per 100 Employees	< 3.5	6.57	6.15	5.8	11.2	5.07	3.87	7	5.5	5.7	4.1	4.8	4.1
M-1.5b	Safety OSHA 300 Incidence Rate Cases with Days Away	# per 100 Employees	< 1.1	0.74	1.13	1.33	0.96	1.4	0.82	1.9	1	1.1	0.8	1.34	1.3
M-1.5c	Safety OSHA 300 Incidence Rate Cases with Restriction, etc.	# per 100 Employees	< 0.8	3.72	4.27	2.55	4.5	2	1.76	3.6	2.8	2.8	1.8	1.6	4.1
M-2.1	CIP Delivery - Budget	Percentage			113%	96%	124%	149%	160%	151%	156%	160%	170%	170%	123%
M-2.2	CIP Delivery - Schedule	Percentage			169%	169%	161%	150%	190%	172%	173%	167%	159%	159%	155%
M-2.3a	Total Maintenance Hours	Total Available Mtc Labor Hours Monthly Avg			16,495	22,347	27,615	30,863	35,431	34,168	28,786	28,372	31,887	29,596	28,722
M-2.3b	Planned Maintenance	Percentage of Total Mtc Hours Monthly Avg			20%	27%	70%	73%	48%	41%	43%	44%	59%	59%	62%
M-2.3c	Corrective Maintenance	Percentage of Total Mtc Hours Monthly Avg			63%	51%	12%	10%	18%	25%	25%	24%	18%	19%	16%
M-2.3d	Projects	Percentage of Total Mtc Hours Monthly Avg			18%	22%	20%	18%	32%	34%	32%	27%	27%	25%	22%
M-2.4	Infrastructure Investment	Percentage of Total Cost of Infrastructure	2%		8.18%	6%	6%	4%	7%	7%	5%	5%	4	5%	7%
M-3.3	Carbon Footprint	Tons per MG Annual Total			1.61	1.57	1.47	1.46	1.44	1.45	1.58	1.66	1.58	1.7	1.75
M-3.6	Alternate Energy (Incl. Green Energy as of FY19)	Total KWH			0	0	0	5,911,289	6,123,399	6,555,096	6,052,142	5,862,256	47,375,940	56,473,800	58,044,110
M-4.1a	Energy Use: Treatment	kWh/MG Monthly Avg			2,473	2,571	2,229	2,189	2,176	2,205	2,294	2,395	2,277	2,408	2,459
M-4.1b	Energy Use: Pump Stations	kWh/MG Monthly Avg			197	173	152	159	168	163	173	170	181	174	170
M-4.1c	Energy Use: Office Buildings	kWh/MG Monthly Avg			84	77	102	96	104	97	104	104	95	102	82
M-4.2	R&D Budget	Percentage of Total Revenue	> 0.5%		1.0%	1.4%	1.0%	1.3%	1.0%	0.8%	1.3%	1.4%	1.8%	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	\$1,348	\$1,487	\$1,545
M-4.4	Affordability	8 CCF Monthly Charge/ Median Household Income	< 0.5%		0.48%	0.48%	0.41%	0.43%	0.53%	0.55%	0.59%	0.60%	0.64%	0.71%	0.67%
M-4.5	Total Operating Cost/MGD	Total Operating Expense/ 365/5-Year Average Daily Flow		\$2,741	\$2,970	\$3,262	\$3,316	\$3,305	\$3,526	\$3,434	\$3,592	\$3,959	\$3,823	\$4,048	\$4,311
M-5.1	Name Recognition	Percentage (Survey Result)	100%	67%	71%	N/A	62%	N/A	60%	N/A	N/A	53%	N/A	53%	N/A
M-5.4	Value of Research	Percentage - Total Value/HRSD Investment			129%	235%	177%	149%	181%	178%	143%	114%	117%	143%	138%
M-5.5	Number of Research Partners	Annual Total Number			42	36	31	33	28	35	15	20	26	32	27
	Rolling 5 Year Average Daily Flow	MGD		157.8	155.3	152	154.36	155.2	151.51	153.09	154.24	152.8	152.23	149.84	149.72
	Rainfall	Annual Total Inches		66.9	44.21	56.21	46.65	46.52	51.95	54.14	66.66	49.24	53.1	48.49	54.04
	Billed Flow	Annual Percentage of Total Treated		71.9%	82.6%	78%	71%	73%	74%	72%	73%	76%	72%	78%	72%
	Senior Debt Coverage	Net Revenue/Senior Annual Debt Service	> 1.5	2.51%	2.30%	2.07%	1.88%	1.72%	1.90%	2.56%	3.10%	3.59%	4.84%	5.80%	6.03%
	Total Debt Coverage	Net Revenue/Total Annual Debt	> 1.4	1.67%	1.67%	1.46%	1.45%	1.32%	1.46%	1.77%	1.93%	2.03%	2.62%	2.81%	2.66%

*to be reported

Monthly Updated Metrics

Item	Strategic Planning Measure	Unit	Target	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18	FY-19	FY-20	FY-21	FY-22	FY-22
	Average Daily Flow	MGD at the Plants	< 249		136	146.5	158.7	156.3	153.5	155.8	153.5	145.8	152.7	141.5	155.3	120.8	117.9
	Industrial Waste Related System Issues	Number	0		3	6	6	6	2	4	7	4	7	1	2	0	0
	Wastewater Revenue	Percentage of budgeted	100%		97%	96%	98%	107%	102%	104%	103%	103%	104%	104%	106%	109%	105%
	General Reserves	Percentage of Operating and Improvement Budget	75% - 100%		72%	82%	84%	92%	94%	95%	104%	112%	117%	119%	108%	105%	106%
	Accounts Receivable (HRSD)	Dollars (Monthly Avg)			\$17,013,784	\$17,359,488	\$18,795,475	\$20,524,316	\$20,758,439	\$22,444,273	\$22,572,788	\$22,243,447	\$23,900,803	\$27,335,100	\$34,060,154	\$42,131,607	\$39,367,413
	Aging Accounts Receivable	Percentage of receivables greater than 90 days			21%	20%	18%	19%	21%	20%	18%	18%	17%	18%	29%	33%	35%
M-2.5	Capacity Related Overflows	Number within Level of Service	0		25	1	30	5	11	16	6	10	5	2	25	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	2:60879	9:60879	3:20879	3:20293	3:25366
M-3.2	Odor Complaints	Number	0		6	2	7	11	5	9	7	6	9	15	31	4	3
M-3.4	Pollutant Removal (total)	Total Pounds Removed			178,163,629	171,247,526	176,102,248	185,677,185	180,168,546	193,247,790	189,765,922	190,536,910	187,612,572	182,759,003	183,123,855	65,398,523	78,799,583
M-3.5	Pollutant Discharge (% of permitted)	Pounds Discharged/Pounds Removed	< 40%		25%	22%	25%	22%	22%	20%	22%	17%	17%	18%	13%	14%	
M-5.2	Educational and Outreach Events	Number			302	184	238	322	334	443	502	432	367	256	145	57	51
M-5.3	Number of Community Partners	Number			280	289	286	297	321	354	345	381	293	230	128	12	15

EFFLUENT SUMMARY FOR NOVEMBER 2021

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	CONTACT TANK EX
ARMY BASE	6.82	38%	3	3.9	9	3	0.52	0.60	4.3	4.1	7
ATLANTIC	26.99	50%	12	12	2	2	NA	NA	NA	NA	14
BOAT HARBOR	10.13	41%	9	7.7	5	2	1.1	0.59	29	21	4
CENT. MIDDLESEX	0.005	21%	<2	<1.0	<1	<1	NA	NA	NA	NA	NA
CHES-ELIZ	9.99	42%	14	11	5	5	0.71	0.82	26	27	4
JAMES RIVER	11.85	59%	8	3.0	2	<1	0.57	0.37	8.5	6.2	2
KING WILLIAM	0.068	68%	<2	<1.0	NA	1	0.40	0.12	1.2	1.8	NA
NANSEMOND	13.75	46%	4	4.5	8	1	0.85	0.75	4.7	4.2	1
NASSAWADOX	0.007	7%	2	11	1	1	0.58	NA	8.1	NA	NA
SURRY, COUNTY	0.036	55%	3	<1.0	NA	NA	NA	NA	NA	NA	0
SURRY, TOWN	0.023	39%	7	18	NA	80	NA	NA	NA	NA	NA
URBANNA	0.046	46%	6	14	4	6	5.6	2.3	14	11	NA
VIP	20.45	51%	4	1.9	1	1	1.4	0.71	5.4	3.7	4
WEST POINT	0.297	50%	26	5.2	1	3	3.8	3.0	23	16	0
WILLIAMSBURG	7.52	33%	5	3.0	3	5	1.1	0.79	2.6	3.3	3
YORK RIVER	9.97	66%	0	<1.0	<1	2	0.20	0.25	5.5	5.2	3
	<u>117.94</u>										

	Tributary Summary						
	% of Capacity	<u>Annual Total Nitrogen</u>			<u>Annual Total Phosphorus</u>		
		Discharged	Operational		Discharged	Operational	
		YTD	Projection	CY21	YTD	Projection	CY21
Tributaries	%	Lbs	%	%	Lbs	%	
James River	58%	2,987,619	66%	60%	224,895	71%	
York River	70%	226,250	78%	63%	14,279	74%	
Rappahannock	54%	NA	NA	39%	NA	NA	

Permit Exceedances: Total Possible Exceedances, FY22 to Date: 3:25,366
Pounds of Pollutants Removed in FY22 to Date: 78,799,583
Pollutant Lbs Discharged/Permitted Discharge FY22 to Date: 14%

	Rainfall (inch)		
	<u>North Shore (PHF)</u>	<u>South Shore (ORF)</u>	<u>Small Communities (FYJ)</u>
Month	0.81"	1.21"	0.88"
Normal for Month	3.12"	3.09"	3.05"
Year to Date Total	50.41"	37.11"	46.13"
Normal for YTD	48.35"	46.48"	45.87"

*Small Communities includes Eastern Shore

AIR EMISSIONS SUMMARY FOR NOVEMBER 2021

MHI PLANT	No. of Permit Deviations below 129 SSI Rule Minimum Operating Parameters								Part 503e Limits		
	Temp 12 hr ave (F)	Venturi(s) PD 12 hr ave (in. WC)	Precooler Flow 12 hr ave (GPM)	Spray Flow 12 hr ave (GPM)	Venturi Flow 12 hr ave (GPM)	Tray/PBs Flow 12 hr ave (GPM)	Scrubber pH 3 hr ave	Any Bypass Stack Use	THC Mo. Ave (PPM)	THC DC (%)	BZ Temp Daily Ave Days >Max
ARMY BASE	0	0	0	0	0	0	0	0	34	100	0
BOAT HARBOR	0	0	0	n/a	0	0	0	0	9	97	0
CHES-ELIZ	0	0	0	0	0	0	0	0	10	95	0
VIP	0	0	0	n/a	0	0	0	0	21	95	0
WILLIAMSBURG	*	*	*	n/a	*	*	*	*	*	*	*

* WTP MHIs did not operate in November.

ALL OPERATIONS

DEQ Reportable Air Incidents:	0
DEQ Request for Corrective Action:	0
DEQ Warning Letter:	0
DEQ Notice of Violation:	0
Other Air Permit Deviations:	0
Odor Complaints Received:	3
HRSD Odor Scrubber H2S Exceptions:	7

Items of Interest – November 2021

MULTIPLE HEARTH INCINERATION (MHI)

Total Hydrocarbon (THC) monthly averages (not to exceed 100 ppm) were met by all five MHI plants (Army Base, Boat Harbor, Chesapeake-Elizabeth, Virginia Initiative, and Williamsburg) with a THC continuous emissions monitoring (CEM) valid data captured of greater than 97%.

The MHIs had no deviations from the required 129 SSI rule minimum operating parameters and no minor bypass events (<60 minute).

Williamsburg's MHIs did not operate during the month of November.

AIR PERMITS and ODOR CONTROL

HRSD received three odor complaints and seven hydrogen sulfide (H₂S) plant odor wet scrubber exceptions in November.

November 8, North Shore Operations (NS Ops) was contacted by the City of Newport News about odors inside Hornsby Tire on Jefferson Avenue. NS Ops assisted the city with a site visit that evaluated the Hornsby's plumbing that is tied into the city gravity line. Hornsby removed their sewer cleanout cap outside the building to relieve potential gas pressure and tightened up the seal on an oil-water separator. This may have provided the relief from indoor odors they were experiencing as no further contact has been received. No offsite odors or other complaints received.

November 9, Communications received a complaint of odors in the Lake Placid neighborhood in Virginia Beach. South Shore Operations and Technical Services investigated and found no significant odors in or around the subdivision nor any associated with an HSRD asset. One city pump station had some minor odor right onsite, but no offsite odors were observed. No further complaints have been received.

November 30, Communications was contacted by WAVY TV 10's Assignment Manager with the message: "We have been getting lots of calls and messages about a foul smell in the Chesapeake, Norfolk, and Portsmouth areas. Is something that could be related to HRSD is doing?" Communications requested additional details, including specific locations and time of day the odors were detected, but no specific or detailed information was provided. Hence, no field odor investigation was performed. Obviously HRSD's assets can be a potential source of odors along with many other sources. Determining a source in response to this inquiry is almost impossible without more detailed information. No additional contact and/or complaints received to date.

TREATMENT

DEQ was notified of the following reportable events:

Nansemond

On November 16 during a routine data audit it was discovered that the Plant Operator (PO) did not grab an additional chlorine residual sample during daylight savings time on 11/07/2021. A Lead Operator spoke with PO that was scheduled to be on shift during daylight savings time, however, the PO that was scheduled was unable to work and a different PO covered for them unexpectedly. The PO that covered is a recent transfer from Maintenance to Operations and did not receive the same instruction on when to grab residuals during daylight savings time. In the future, all plant staff will be made aware of daylight savings procedures and the on-call lead operator will follow up with the plant operator on shift the day of the additional sample.

On November 22, a Non-Potable Water (NPW) line was charged to check for leaks. A leak was found during the line test. The in-ground valve would not close and NPW soaked into the ground until the valve could be adjusted and closed. The line was repaired and the valve will be replaced. Less than 500 gallons of NPW soaked into the ground and could not be recovered.

On November 24 a NPW hose filling a tank came out of the tank and NPW was released. The valve to the NPW hose was secured. Approximately 10,000 gallons of NPW were released to the building sump, ground, and drainage pond. Approximately 9,000 gallons of NPW were recovered with the remaining 1,000 gallons soaking into the ground.

SYSTEM

There were no system reportable events during the month of November.

SYSTEM/TREATMENT, SMALL COMMUNITIES, SURRY, AND EASTERN SHORE

There were no reportable events during the month of November.

HRSD received a warning letter on December 9 for the October ammonia weekly permit exceedance reported at Urbanna.

2021 Metals, Ammonia, and TKN

		Limit	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Central Middlesex	Ammonia	0.56							0.03	NA	NA	<0.02	NA	
	TKN	3.0							0.60	NA	NA	<0.50	NA	
King William	Zinc	*							39	NA	NA	7.1	NA	
	TKN	3.0							<0.50	0.09	<0.50	<0.50	<0.50	
	Cadmium	2.0							<0.50	<0.50	<0.50	<0.50	<0.50	
Nassawadox	Copper	23							9.1	9.8	9.5	6.05	<5.0	
Riverside	Nickel	38							<10	<10	<10	<10	<10	
	Zinc	150							<50	<50	<50	<50	<50	
	Ammonia	1.7							<0.10	<0.10	<0.10	<0.10	0.19	
	Copper	5.9							4.0	4.0	4.0	5.0^	5.0	
Surry County	Zinc	56							19	21	30	38	48	
	Ammonia	0.77	NA	NA	NA	NA	NA		<0.10	<0.10	<0.10	<0.10	NA	NA
	TKN	3.0							<0.50	NA	<0.50	NA	<0.50	NA
	Copper	12							4.0	4.0	3.0	3.0	3.0	
Town of Surry	Zinc	39							13	22	13	11	14	
	Ammonia	4.5							0.16	<0.10	<0.10	<0.10	1.6	
	TKN	6.7							1.6	2.0	1.9	3.3	3.5	
Urbanna	Ammonia	3.83, 9.08							0.13	0.13	0.19	2.4^	0.07	

*No limit. Treatment objective 53 ug/L

^Weekly permit exceedance reported

2021 MONTHLY FLOW AVERAGES

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	YR AVG	FY AVG
Army Base	12.50	16.33	9.51	8.30	7.50	8.51	9.06	8.92	8.36	7.07	6.82		9.35	8.05
Atlantic	26.17	30.15	26.78	30.65	28.66	32.11	29.08	30.34	28.62	27.35	26.99		28.81	28.47
Boat Harbor	15.39	24.61	15.55	13.06	10.70	11.40	10.62	11.27	11.20	10.26	10.13		13.11	10.70
C.Middlesex	0.009	0.010	0.008	0.010	0.010	0.013	0.010	0.009	0.005	0.004	0.005		0.008	0.007
Ches-Eliz	19.57	24.32	16.75	10.79	9.75	11.00	12.93	13.35	10.43	10.10	9.99		13.54	11.36
James River	15.72	20.76	15.42	14.14	11.60	12.19	12.34	14.37	12.58	11.60	11.85		13.87	12.55
King William	0.067	0.070	0.071	0.077	0.070	0.068	0.069	0.070	0.072	0.071	0.068		0.070	0.070
Lawnes Point	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
Nansemond	18.99	22.52	17.66	16.64	14.62	17.31	16.49	18.40	15.46	13.88	13.75		16.88	15.60
Nassawadox							0.015	0.012	0.010	0.009	0.007		0.011	0.011
Surry, County	0.054	0.073	0.051	0.046	0.038	0.046	0.046	0.048	0.040	0.036	0.036		0.047	0.041
Surry, Town	0.080	0.106	0.072	0.078	0.044	0.052	0.047	0.038	0.030	0.026	0.023		0.054	0.033
Urbanna	0.064	0.058	0.049	0.050	0.054	0.060	0.064	0.058	0.050	0.053	0.046		0.055	0.054
VIP	31.75	44.41	29.39	26.90	22.34	26.20	23.04	26.60	23.45	21.89	20.45		26.95	23.09
West Point	0.710	0.958	0.737	0.536	0.351	0.416	0.469	0.440	0.313	0.307	0.297		0.503	0.365
Williamsburg	8.65	10.73	9.16	8.49	7.54	8.84	9.00	9.13	7.95	8.14	7.52		8.65	8.35
York River	15.60	19.40	14.75	13.30	10.68	10.89	10.61	11.44	10.42	10.03	9.97		12.46	10.49
North Shore	55.36	75.50	54.88	48.98	40.53	43.32	42.56	46.21	42.15	40.04	39.47		48.09	42.08
South Shore	108.98	137.72	100.10	93.28	82.86	95.14	90.60	97.61	86.33	80.29	77.99		95.54	86.56
Small Communities	0.98	1.28	0.99	0.80	0.57	0.65	0.72	0.68	0.52	0.51	0.48		0.74	0.58
TOTAL	165.32	214.50	155.96	143.06	123.96	139.11	133.88	144.50	128.99	120.83	117.94		144.37	129.23

Bold values indicate monthly plant flow average >95% of permitted design flow

AGENDA ITEM 20.d. – December 21, 2021

Subject: Chesapeake-Elizabeth Treatment Plant Influent Force Main Modifications
Emergency Declaration

Recommended Actions: No action is required. Information Only

CIP Project: CE012400

Brief: Staff discovered with the Chesapeake-Elizabeth Treatment Plant (CETP) closure and the improvements to the HRSD system that will convey the flow to the Atlantic Treatment Plant, the influent pipeline and valving does not allow proper City of Virginia Beach and private pump station operation during wet weather. To avoid higher pressures and potential system issues, additional piping and appurtenances are needed to connect the two converging pipelines which will ensure that HRSD can provide service to Virginia Beach without interruption. Additionally, staff is repairing a nearby valve necessary to optimize system pressure.

The final diversion to close CETP will be the week of December 13-17 with the contractor completing the construction the following week after materials are delivered.

An emergency declaration was authorized on December 6, 2021

This emergency declaration was to utilize Bridgeman Civil, Inc., to install pipe and appurtenances and restore the area to preconstruction condition and utilize Hazen and Sawyer to provide design, construction administration, and construction inspection while Bridgeman Civil, Inc. completes the modifications.

The cost of the work is estimated to be \$600,000.